A collaboration between UNESCO UNITWIN Cooperation Programme on Media and Information Literacy and Intercultural Dialogue, UNESCO Chair on Media and Information Literacy for Quality Journalism, the Autonomous University of Barcelona (UAB) and the Arab Academy for Science, Technology and Maritime Transport, Egypt.

Media and information literacy in critical times: Re-imagining learning and information environments

Edited by José Manuel Pérez Tornero, Guillermo Orozco and Esther Hamburger

Autonomous University of Barcelona, University of São Paulo, Tsinghua University, Cairo University, Temple University, University of the West Indies, Queensland University of Technology, Sidi Mohamed Ben Abdellah University









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Introductory note

We all make plans, of which many can be interrupted. Sometimes this happens because of lack of resources, sometimes because of individual problems, and others because of pandemics.

This book was planned to be published some time ago as part of a UNESCO collection. We were faced with lack of resources and some individual problems. Then came the pandemic.

But finally, everything has been resolved. We managed to allocate resources from UNESCO UNITWIN Cooperation Programme on Media and Information Literacy and Intercultural Dialogue, the Autonomous University of Barcelona (UAB) and the Arab Academy for Science, Technology and Maritime Transport to publish our Yearbook. We will also be able to publish the next one.

Let's hope that neither the pandemic nor any other complication stands in the way of making this happen.

Perseverance and constancy always lead to success. Media and Information Literacy is about perseverance and constancy. At this moment, it is also about opportunity.

We will overcome the future obstacles. We will most certainly do.

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PART I

MIL Augmenting Information Freedom and Knowledge Status

Introduction

José Manuel Pérez Tornero (ed.)

During the second decade of the twenty-first century, humanity has experienced a remarkable change in the cognitive paradigm. The status of information and knowledge has varied. Until now, information and knowledge were individual, personal issues. They depended on personal abilities, on individual possibilities of accessing information, and abilities to criticize it, process it and memorize it. It is true that the so-called institutions of knowledge (schools, universities, publishing systems and media, etc.) contributed to providing a concrete environment to individuals, improving conditions of information and knowledge. But today, the status of information and knowledge remains unequal but is also social, collective, and global. It depends more and more on computers, robots and complex systems of knowledge production; increasingly automated and autonomous.

This is why, in this new paradigm, the current task of media and information literacy is to boost freedom of expression and enhance the status of knowledge, taking into account the emergence of what Pierre Levy has called collective intelligence and UNESCO's concept of Knowledge Societies. It is not just about empowering individuals with skills; MIL has to enrich collective capabilities. It is not about being individually critical; collective intelligence must be critical. It is not about enhancing individual memory; collective memories must be stimulated.

We are therefore facing significant changes in the functions and missions of MIL. Hence, quality and verity of information in the face of disinformation is decisive. For this reason, S. Tejedor, S. S. Tayie and C. Pulido speak of a "Responsible News Experience". For the same reason, J. Sakamoto defends the same responsibility not only to counteract against "fake news", but also hate speech. Further, D. Franco Migues defends new strategies for critical decoding of social network's "fake news".

It is important however to problematise the words "fake news" – as does UNES-CO's 2018 publication *Journalism, Fake News, and Disinformation*. It is also important to problematise the notion of "responsible", which has been abused to constrain independent journalism, and to consider the use of the term "accountable", which points towards ethics and standards, as well as systems and stakeholders. From now on changes are no longer exclusively individual if indeed they ever were. How the individual and the community are transformed at the same time is the issue at stake. This is MIL's new challenge in critical times.

News Literacy and "Fake News": Towards a responsible news experience

Santiago Tejedor, Sally Tayie and Cristina Pulido Autonomous University of Barcelona, Spain

The new media environment we are presently witnessing creates a conceivable possibility of reinforcing "fake news" and propaganda consequent to social media, blogs, forums and wikis that massively altered the traditional mediation process. The rapidly changing reality of news and journalism, which includes citizens as content creators thanks to platforms and technological evolution empowerment, has led to transformation in news experience especially online.

Unfortunate consequences of such alterations include public misinformation, deterioration of the public sphere and hence potential destruction of democracy. This is reflected through the current social concern related to the credibility of information as well as citizens' ability to acquire critical reflection on their news use and consumption. Historically, news has been a unique genre of media content, because of its role in maintaining one of the main pillars of democracy; free flow of information and hence informed citizenry that can act and engage accordingly.

The responsible news experience is shaped by professional media as well as critical citizens able to discern fake information and appreciate verification. How can we reinforce this and counteract the negative effects of today's irresponsibly ubiquitous "fake news" in the information environment? What role can news, media and information literacy play in facing the present challenges?

This article analytically reviews the latest contributions of news literacy and discusses its possibilities of equipping citizens pedagogically and being embraced by journalists.

Keywords: news literacy, "fake news", news media, citizens, critical thinking, media literacy

At the present time, with what is going on worldwide with several electoral processes shaped and surrounded by doubts and scandals, and with the spread of populist rhetoric and extremist (religious or national) ideologies against universal values of human rights and democracy, the issue of "fake news" has become a journalistic, social and intellectual subject of debate. This is especially evident with the ubiquity and reproduction of false information through social networks resulting in detrimental consequences and impact on public opinion and hence on the public spaces of debate. Fake news is a concept that has relation with post-truth politics (Kucharski, 2016; Suiter, 2016; Tsipursky, 2017). It is also one eschewed by UNES-CO, which prefers the term disinformation (Ireton and Posetti, 2018). Some experts have viewed the year 2016 as one that is characterized by populism where citizens connect more with emotional discourses than arguable ones; examples include the election of Donald Trump and Brexit.

From the side of citizens, this is acknowledged with statistics showing the rise of social media as main sources of news to youth, raising a red flag with regard to differentiating between fake and real news. According to Pew Research Center (2016), 62% of the US population get their news from social media; 44% of the 67% Facebook users report that they use the social networking site for news. This leaves Facebook leading social media as a source of news. Additionally, a recent BuzzFeed News Analysis (2016) report that focuses on Facebook as a news source states that "fake news" about the U.S. elections generated far more activity ("shares, reactions and comments") than real news from professional sources.

Interestingly, 79% of the world's Internet users recognize themselves as proactive when it comes to concern about the veracity of content on the Internet, according to a Global Scan produced by the BBC. In line with this, the study adds that 60% of the respondents reject any type of future governmental regulation of content (See Figure 01).

Nonetheless, in accordance with the previous statistics, a study by Gentzkow and Allcott (2017) related to the impact of "fake news" on US elections points out that an average American citizen saw and recalled 0.92 pro-Trump false news and 0.23 pro-Clinton. The study adds a claim that to conclude that false news can change the election results, a single false article would need to have the same persuasive effect of 36 television commercials (See Figure 02).

These statistics point out the essentiality of empowering citizens with necessary knowledge and skills to be able to differentiate between fake and real news and to understand the significance of such differentiation and its implications.

On the other hand, speaking of professional news media, Jane Suiter (2016) explains how the BBC's coverage of Brexit includes discourses on both sides of the argument, without assessing the evidence. She attempts to highlight how journalism is competing with content shared on social media using emotional connection as a factor that promotes the audience engagement with the news produced. The question hence remains: Does this create a responsible news experience? Responsibility here refers to citizens' awareness of and reflection on their news use as well as professional journalists sticking to journalistic norms and values while competing with online content.





I Worry About What Is Real and What Is Fake on the Internet

"Agree" vs "Disagree," Internet Users,* by Country, 2017

*Asked of those who said they used the Internet in the past six months The white space in this chart represents "Don't know / no answer."

Source: BBC World Service



Figure 2 Percentage of U.S adult population that heard or believed election news

Such issues have preoccupied scholars and have accelerated academic and essayistic production, and the emergence of new fields of research giving rise to the development of new approaches and methodologies. The main attempt is encouraging the design of new strategies and initiatives aimed at solving some of the most urgent problems.

Within this general framework, a newly independent paradigm, News Literacy (NL), is acquiring an indisputable centrality. Accordingly, this article questions the origin and circumstances of the constitution of this new subfield – under the field of Media and Information Literacy (MIL) – and its future potential. To do this, we will describe the essential concepts of this new paradigm and its basic lines of research. We will also deal with the consequences that this approach can have for the professional practice of journalists with the aim of promoting what we call responsible news experience.

Towards responsible news experience

Responsible news experience points towards professional news media as well as citizens. We argue from this position considering the role that citizens can play

Source: Gentzkow and Allcott (2017)

through their news use, and how professional journalists can have a role in facing the problem. First, it is important to distinguish between "fake news" and "alternative facts". According to Himma-Kadakas (2017), we need to understand the difference between fact and fake. From a journalistic perspective, fact is an evidence of truth, always proven and verified, "anything alternative to this cannot be treated as fact" (Himma-Kadakas, 2017, p. 26). Thus, "fake news" refers to content that contains false information that mimics journalistic facts in form and mainly spreads through social media (Himma-Kadakas, 2017). On the other side, "alternative facts" are linked to the interpretation of the fact construction and can be intentional or unintentional (Himma-Kadakas, 2017).

Frederiksen (2017) reflects on how citizens prefer receiving news through social media, interpersonal communication apps (such as WhatsApp), and how they are rapidly consuming many bytes of information. Considering our polarized environment, Frederiksen (2017) urges us to attend to how the challenge of distinguishing real news from "fake news" is a pressing issue, thus media and information literacy skills are needed more than ever to equip citizens (Frederiksen, 2017). On the other hand, journalists also have a crucial role to maintain this distinction in their daily task and hence, as will be further explained below, news literacy is essential to embrace.

Accordingly, there are different initiatives that are promoting news literacy programmes such as The American Library Association (ALA) and the Center for News Literacy at the Stony Brook School of Journalism in the USA, addressed to citizens in order to become well-informed, based on the studies that highlight the need to learn how to use diverse sources and critical thinking, related to the news consumption beyond individual bubbles (ALA Center, 2017). But what exactly is News Literacy and how can it counteract against today's misinformation?

Explicating News Literacy

News literacy is a construct that many scholars have reflected on over the past years and which has the potential for facing the omnipresence of "fake news". It is considered a recently emergent field that started developing in the middle of the past decade (Powers, 2014; Ashley et al., 2013). News Literacy has been indirectly addressed through media literacy long ago, through the focus on news as one genre of media content. However, the emergence of news literacy as an independent subfield only goes back to 2006 (Fleming, 2016). It is a field that attracted the attention of many journalists and has actually been led as an independent field by professional experienced journalists who turned into educators (Beyerstein, 2014; Powers, 2014). There are different approaches that have sought to define news literacy, however, much like media literacy, there is not a universally agreed on definition of how to gauge, explain or teach news literacy so far. Being the recent field it is, researchers and academics are "only beginning to formalize goals and applications of news media literacy" (Ashley et al., 2013; Fleming, 2014; Press, 2015; Fleming, 2016). Many scholars agree that News Literacy is a field that emerges with the main purpose of teaching people the application of media literacy skills such as "critical thinking" and "deconstructing arguments" to "news consumption" while accentuating the "democratic value" of news (Hobbs, 2010; Ashley et al., 2013; Vraga & Tully, 2015). From a pedagogical perspective, news literacy education should put emphasis on spreading knowledge to news consumers about the obstacles and constraints news producers face, how news contributes to "democratic" societies and the "role of individuals to critically consume journalism" (Ashley et al., 2013; Potter, 2013; Vraga & Tully, 2015).

Hence, News Literacy cannot be addressed as a separate field because of the common tenets it shares with Media and Information Literacy. As stated by Maksl, Craft, Ashley and Miller (2017), "if a definition of news literacy is the destination, then the journey to reach it passes through several other literacy neighbourhoods, media, information, digital and civic literacy all share conceptual terrain with news literacy" (Maksl, Craft, Ashley, & Miller, 2017, p.229). According to the Center for News Literacy, News Literacy can be defined as "the ability to use critical thinking skills to judge the reliability and credibility of news reports from all media: print, TV, radio or the web" (Center for News Literacy, n.d.). They have further emphasized the importance of free press and the responsibilities of news users in this course on news literacy; for instance through focusing on the evaluation of evidence, credibility and reliability of news accounts as well as distinguishing news from "fake news" (Maksl et al., 2017).

Critical thinking and humanism guiding News Literacy to counteract "fake news"

There are different paradigms that guide News Literacy. Most relevant to News Literacy is the critical media literacy paradigm, which takes different aspects into consideration with a focus on the cognitive-relevant dimension of critical thinking skills. Under this paradigm, audiences are encouraged to question the ideal values of journalism and understand that real practices are different. For example, values of objectivity, transparency, independence and accountability do not always apply to news journalism because of many factors. Consequently, learning about news media industry, the conditions that shape the environment in which journalists work, the pressures on news media (political and economic), etc. are all core areas of knowledge (Kellner & Share, 2007; Potter, 2013). Here, the link between media literacy and news literacy is established; these knowledge areas besides others are considered essential for news literacy as well. This falls under the umbrella of the protectionist approach by seeking to protect audiences from becoming misinformed or deceived by the disseminated news content.

It is suggested by some academics (Macedo & Steinberg, 2007) that a dialogic pedagogical approach best applies to media literacy and consequently to news literacy as well. This approach integrates students' personal experiences with the media (such as their consumption habits) to the learning process as well as crucial interactions that influence their competences acquisition. From a pragmatic perspective and based on scholars' contributions, knowledge, motivation and skills are three essential constituents of news literacy (Fleming, 2016; Fleming, 2014; Maksl et al., 2015); knowledge essential to identify news and discern it from other information genres, motivation to intentionally engage with news by recognizing its significance, and skills to consume and use news content effectively. News literacy provides the potential of counteracting "automaticity" in which audiences process media messages many times unconsciously; selecting and filtering information without consciously and critically considering the reliability, accuracy and the true genre of this information (fact or fiction, news or promotion, fresh reports or recycled news, etc.) (Potter, 2013). This resonates with Dyer's (2017) opinion about teaching News Literacy as a solution to "fake news". It is essential to ensure that teaching news literacy affects students in their daily environments and is not merely about acquiring skills but further using them to create a positive impact in the common environment (Dyer, 2017).

This leads to the emergence of other questions beyond the acquisition of skills. Mihailidis & Viotty (2017) emphasize the need to connect news literacy with "common good" (Mihailidis & Viotty, 2017). This goes in accordance with Pérez-Tornero and Varis (2010) in their contribution of how Media Literacy makes better sense if it is connected to humanism. If the learning process that we offer is only focused on skills acquisition, it is not likely to be effective on the ground. Citizens need to reconnect with feelings linked to universal values such as solidarity, justice, respect, freedom and equality, which potentially reinforces the sense of responsibility. The individual news experience needs to be reflected on through awareness of how personal experience (news behaviour, commenting, sharing, etc.) affects others and the values that individual actions promote.

Mihailidis & Viotty (2017), in the context of the era of "spreadable spectacle", propose four recommendations for repositioning news literacy or media literacy to

support common good; such literacies should focus on connecting humans (promoting universal values), should be mechanisms for caring, media literacies should be facilitators of "everyday" engagement (more participation in local issues and considering the community than the individual experience only), and should be intentionally civic (to focus on civic impact, overcoming harmful messages and promoting democratic values).

Good journalism facing "fake news" through adopting News Literacy

With all its negative consequences, an optimistic approach emerged to address "fake news" by regarding it as a positive opportunity for professional journalists, providing evident reasons to why good journalism is a need in our societies (Beckett, 2017; Himma-Kadakas, 2017; Richardson, 2017). Beckett (2017) states that "fake news" is the best thing that has happened to journalism in decades as it makes the significance of quality journalism more prominent than ever. "It has value based on expertise, ethics, engagement and experience. It is a wakeup call to be more transparent, relevant, and to add value to people's lives" (Beckett, 2017, p.1). But what is quality journalism? This question has been historically raised ever since the creation of the profession, and efforts by scholars and professionals are always underway to respond. A reliable reference is always the international professional and ethical codes¹, which are useful to draw attention to how quality journalism is a requirement for democracies in the present time more than ever before. But there is also a need to reflect on the barriers that hinder practicing these codes in journalists' daily work.

Hence, Himma-Kadakas (2017) reflects on the need to pay attention to the information processing cycle in online journalism, the pressures that journalists face and how they can overcome them while maintaining their professionalism; for instance, quality versus immediacy of news. Other challenges, as highlighted by Richardson (2017) are present in attempts by mainstream media to survive with its commercial model, which comes at the expense of credibility in many instances leading to decreased audience trust in the media and consequently resorting to other sources. As stated by Richardson (2017), "This determination to ensure information is trustworthy is more vital now with social media so firmly within the media's focus as sources for news".

This comes at the core of News Literacy, especially initiatives led by journalists such as Howard Schneider's Center for News Literacy at Stony Brook University and the News Literacy Project by Alan Miller who are both originally professional journalists.

Scholars stress the essentiality of a collaboration between journalism educators/ academics and journalists (Masterman, 2001; Hobbs and Jensen, 2009; Press, 2015) to reach and enhance the goals of news literacy. The role of educators adds depth to journalistic perspectives on the different facets of news literacy through knowledge of the media landscapes, systems, etc. It is also essential that journalists embrace the field, with the aspiration that it results in better appreciation of professional journalism and better understanding of its essentiality for preserving the quality of public debate and decision-making.

Notes

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Possibility of addressing "fake news", hate speech in Media and Information Literacy education in Japan

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The aim of this study is to examine Japanese students' MIL (media and information literacy) competency by looking at their understanding of "fake news" and hate speech, as well as anti-hate speech. Although the Diet of Japan enacted the Anti-Hate Speech Law in 2016, the implementation methodology and effectiveness of this law seems to be questionable. Thus, this paper poses a question for examination: How do Japanese students perceive "fake news" and hate speech?

This study discusses the possibilities of MIL-related activities to promote inter/cross-cultural understanding and to help understand the concept of human rights. The study also explores student implications in the empowerment processes of the Video Letter Exchange Project, which is part of the Global MIL education program.

Keywords: media and information literacy, hate speech, "fake news", video letter exchange

Some of the most difficult and frustrating issues in the world of Media and Information Literacy have to do with the idea of "fake news" and hate speech. UNESCO put forward a question at the Global MIL Week 2016 conference in Sao Paulo prior to the U.S. presidential election in 2016 (UNESCO, Global MIL Week 2016 Concept Note, 2016): "How can MIL work to address such issues as poverty, countering hate speech and preventing violent extremism within societies?" In Japan, where hate speech exists against resident Koreans, there has been widespread hate on both social media and in the streets, creating an atmosphere of intolerance and racism. People who feel empathy towards the Far Right agenda are harassing not only foreign residents but also the socially vulnerable, such as welfare recipients, persons with disabilities, as well as Okinawans. On their programme "News Joshi" ("News Girl"), Tokyo MXTV, a local television station in Tokyo, reported that protesters were trying to stop the construction of helipads for the U.S. military in Okinawa. A reporter on the program said this about the protesters "it's no exaggeration to call them terrorists", and that they were being paid by "a radical group" in Tokyo, headed by someone with a Korean name. Newspapers, including local publications in Okinawa, criticized the program and some citizens condemned it as "hate news". The Japan Times pointed out, "the posttruth age has come to Japan", "the collapse of the media is just around the corner" and "what needs to be stressed in this situation is that fake news is less of a problem than the fact that the protests in Okinawa get short shrift in the mass media anyway" (The Japan Times, February 2, 2017).

These cases suggest that some media companies deliberately seem to fan the flames of hate speech by making up false rumors and spreading "fake news". It is one of the major challenges facing Japan these days, and it appears to be connected to the discrimination of resident foreigners, Okinawans and evacuees from the nuclear accident in Fukushima, on which false rumors and hate speech are having a significant negative impact.

Can Japanese students judge the credibility of information?

Researchers at Stanford Graduate School of Education published a report on the news literacy of middle school, high school and college students in 2016. They assessed how students evaluate Facebook and Twitter feeds, comments left in readers' forums on news sites, blog posts, photographs and other digital messages that shape public opinion". They found that students have difficulty analysing online information, and assessing its validity. (Stanford EDUCATION, Stanford researchers find students have trouble judging the credibility of information online, November 22, 2016).

In 2014, Izawa surveyed the opinions on hate speech among 1,014 Japanese university students. The findings of this paper are that three-quarters of students cannot explain what hate speech is and only 20% of students who answered "know" considered hate speech to be a bad thing or that it "should stop" (Izawa, 2014). In other words, in that sample, most university students do not know or feel concerned about the problem of hate speech.

Given the current context of domestic and international discourse, an action research project was conducted in early 2017. It assessed the ability of students to judge the credibility of information and their general opinions about hate speech through an ongoing process of reflection and experimentation. The participants were university and high school students that the author of this paper taught or supported.

In this action research, there were four steps. For the first step, a new question was added to a survey on April 17th and 19th, which was given to his 48 college students for the past two years. The second step was a workshop, on May 1st and 3rd, where we looked at the questionnaire results and two questions; one about the Fukushima disaster, and the other about hate speech. The third step was a forum with two journalists involved in hate speech problems, on May 6th. In the last step, I had a follow-up workshop and facilitated the students' completion of a new questionnaire on May 8th and 10th.

The author of this study has also been conducting a survey in the first term of each year checking whether, and to what degree, students use ICT to study. A question was added from the Stanford History Education Group. In the question, students saw a post from a photo-sharing website featuring a picture of daisies along with the claim that the flowers have "nuclear birth defects" from Japan's Fukushima Daiichi nuclear disaster. The question asked them whether the post provides strong evidence about the conditions near the Fukushima Daiichi Power Plant. They had to respond with "agreement", "disagreement" or "don't know" and write their reason. This question was chosen because it is so similar to a lot of "information" and rumors floating around Japan.

The Stanford History Education Group wrote that less than 20% of their students questioned the source of the post or the source of the photo. Nearly 40% of students argued that the post provided strong evidence because it presented pictorial evidence about conditions near the power plant. A quarter of the students argued that the post did not provide strong evidence, but only because it showed flowers, and not other plants or animals that may have been affected by the nuclear radiation (Stanford History Education Group, Evaluating Information: The Cornerstone of Civic Online Reasoning, 2016, p.17). They made a rubric for evaluating the students' reasoning (Rubric 1). According to the results, the level of mastery requires the students to question the source of the post.

Rubric 1

MASTERY	Student argues the post does not provide strong evidence and questions the source of the post (e.g., we don't know anything about the author of the post) and/or the source of the photograph (e.g., we don't know where the photo was taken).
EMERGING	Student argues that the post does not provide strong evidence, but the explanation does not consider the source of the post or the source of the photograph, or the explanation is incomplete.
BEGINNING	Student argues that the post provides strong evidence or uses incorrect or incoherent reasoning.

Source: Stanford History Education Group, 2016, p.18

In my exercise, four classes (a total of 48 students) including: (a) a Basic Academic Skills class for freshman (18 students); (b) a Practice of Media Literacy class (15 students); (c) a Library Seminar class (10 students); and (d) a Seminar of the Career Studies and Lifelong Learning (5 students) answered the questionnaire. Three quarters of the classes are second year and above. Twenty-nine per cent of the students answered "yes" (agree). Although this was a predictable result, 56% of (a) answered yes because they had just begun University and their level was about the same as high school students (Table 1). Furthermore, only one student mentioned the information's source and therefore achieved the level of mastery. In other words, even at college level, their critical thinking skills with respect to information sources are very low. This is readily apparent when comparing with high school students in the U.S. (less than 20%) and seems to suggest that they have not learned the importance of identifying the information's source at all.

Table 1Q. Does this post provide strong evidence about the conditions near theFukushima Daiichi Power Plant?

	(a)	(b)	(c)	(d)	Total
Yes	10	2	0	2	14 (29%)
No	4	5	7	0	16 (33%)
N/A	4	8	3	3	18 (38%)

(n=48)

Students' Awareness of Hate speech

For the second step, on May 3rd, 2017 (World Press Freedom Day and Constitution Day), the author held classes on the importance of checking information resources via Internet access. Students were asked to discuss the topic from the questionnaire as well as from another case involving a rumor about Fukushima. For their discussion, each class was divided into small groups. A recent article from Yahoo! News (sourced by Buzz Feed Japan) about a hate speech case in Kyoto was also added. A Korean actor was subjected to hateful words: "Fucking Korean, Get out!" from a customer of a ramen restaurant. He was making a video about the restaurant for YouTube. There were some comments about the article in the Yahoo! News comment section, some of which expressed doubts about his behaviour and denied that it was hate speech.

The author showed the video and some follow-up articles that reported on interviews with the Korean and the owner of the restaurant. It reported that the owner apologized for the customer's behaviour. The students then examined the Internet sources and discussed whether or not this case could be considered "hate speech". The result was surprising: eight of the nine groups concluded that it was not a case of hate speech. The reasons they gave were that it was fake and his background was suspicious. Students searched for this case on the Internet and found many dismissive comments about it. However, most of these comments were from personal blogs or Twitter. As they did not have explicit analytical criteria, they seemed to become confused by this disinformation, and as a result they were too affected by personal opinions on social media, many of which are not grounded in fact.

For the third step, students attended a forum titled "Hate Speech, the Responsibility of the Media, and the Possibilities of Media Literacy". The author invited two journalists who are involved in this problem, and supported by the Japan Congress of Journalists (JCJ), and the AMILEC, to visit on May 6th. Other journalists, teachers, librarians and general citizens also joined the forum. The two journalists reported on the reality of hate speech against resident Koreans, and anti-hate speech movements in Kanagawa and Saitama. After that, they discussed anti-hate speech education with the class. Afterwards, one of the journalists reported on the forum and the consensus of its members in the JCJ Newspaper, stating, "We need to develop MIL education that empowers students to analyse information critically in various media" … "hate speech problems are a human rights problem. We should share that it is a question that has bearings on the very basics of education." (Suzuki. K, May 25, 2017).

For the fourth step, on May 10th, 2017, the author followed up on the forum in class. The author explained the concept of hate speech and discrimination and had students discuss the Kyoto case again. All nine groups agreed that the case should be considered as hate speech. In the Basic Academic Skill class, one student from Korea said that "if I were him, I would feel so sad". After that discussion, students answered a second questionnaire. Some of the results are shown below:

Q1 Did you think the Kyoto case was hate speech when you first heard it?				
Yes 38%	No 62% (n=47)			
Q2 Did you understand the concept of hate speech?				
Yes 23%	No 77% (n=47)			
Q3 Did Yahoo News comments color your opinion?				
Yes 68%	No 32% (n=47)			
Q4 Did the forum color your opinion?				
Yes 79%	No 21% (n=47)			
Q5 Do you now think the Kyoto case was hate speech?				
Yes 94%	No 6% (n=47)			

Table 2

Before the forum, 62% of the students did not consider the Kyoto case hate speech, and almost 70% of the students were affected by prejudiced comments online while almost 80% of them did not understand the concept of hate speech. After the forum and follow up class discussions, 94% of them considered the Kyoto case hate speech (Table 2). In all steps of the process, the author found that the ability to critically examine information and confirm its source is essential, especially when using the Internet. Furthermore, it was evident that the students' skills were insufficient to effectively evaluate political or human rights problems. It is imperative that they learn the basic concepts of human rights and discuss them with various people around the world. The methods used in this study may not be perfect, but the author can say that they have acquired better tools for dealing with hate speech.

Following the discussion, students answered a question on which information source was the most influential and gave their reasons. On the one hand, the students who did not think the Kyoto case was hate speech wrote the following: "a curation site that exposed that the Korean was not an actor but a troll"; "Facebook: Many people pointed out the artificiality of the guest who shouted abusive language in English"; "Comments on Yahoo! News: Many people wrote about the possibility of faking". Obviously, disinformation suggesting faking swayed most of the students in this group. On the other hand, the students who thought the case was hate speech pointed to the definition of hate speech and the discussion in the forum. One student wrote that the voice of a real student from Korea had changed their opinion. These results show us the importance of the human rights approach in Media and Information Literacy Education.

Does the Video Letter Exchange Project have an effect on hate speech problems?

Culture Quest Japan has been engaged in the Video Letter Exchange Project since 2009. The author has been coordinating with Japanese, Chinese, Cambodian, Nepali, Indonesian and American schools for the project. The author asked three high school teachers that work with the author to take a small questionnaire on the daisy photo and the Kyoto hate speech case. The first (a) is a sophomore media production class from one of the female high schools attached to Hosei University; this questionnaire was taken on May 19th. The school has global education programmes and policies. The media production class is engaged in many international programmes. The second (b) is a freshman English language class at a private high school in Tokyo; their questionnaire was taken around May 20th, when the project had just begun. The third (c) is a Chinese language class from a public composite

middle school in Saitama. Their questionnaire was taken on June 2nd. They are currently exchanging video letters with a high school in China.

The questions were slightly simplified to fit into a high school class period. The answer for each question was only "Yes" or "No". The author also added the word "discriminatory abuse" to the phrase "hate speech" to help them understand. The student count of School (a) is 7, (b) is 30 and (c) is 13, the total being 50 students. Some of the results are shown below.

Table 3

Q1 Does this post provide strong evidence about the conditions near the Fukushima Daiichi Power Plant?

	(a)	(b)	(c)	Total
Yes	4	10	8	22 (44%)
No	3	20	5	28 (56%)

(n=50)

Q2 Do you think the Kyoto case was hate speech?

	(a)	(b)	(c)	Total
Yes	6	19	10	35 (71%)
No	1	10	3	14 (29%)

(n=49)

* One of the students from school (b) did not answer.

The results of Q1 mean that the ability of students to question the source of information in high school is lower than at university level. It should be noted that nobody mentioned the source of the post. Even students who harbored doubts about the post only focused on the possibility that the picture was fake. In other words, they had not learned any information literacy skills at all. These findings were anticipated because the results of the university freshmen class showed the same tendency.

The results of Q2 however show the possibility that they are not typical highschool students. Even though only got a short, written explanation of "hate speech", the percentage of students who answered "yes" was almost double that of the university students. The percentage of school students who answered "yes" was about 71% (Table 3). The students have some peculiarities as has already been mentioned.

The students of school (a) wrote that the reason for their answer was "Even if the serial behavior was made-up, it must hurt people." "As there is no difference between

Koreans and us, I can't understand not being allowed to enter the restaurant", and "If a person feels hurt from a word, it must be discrimination." School (c) wrote that "It criticizes all Koreans", "It is unreasonable to direct abusive language at Koreans", and "I don't know if it's fake or not. But if I was shouted at with abusive language in a foreign country, I would feel uncomfortable." Relatively, the students of School (a) students thought more deeply about the hate speech problems. As a comparable survey of general high schools has not yet been conducted, the author could not conclude definitively that the Video Letter Exchange Project increases the ability of students to recognize hate speech. That said, these results obviously show the possible benefits of the Video Letter Exchange Project in the area of Global Media and Information Literacy Education.

As M. Andrade & M. Pischetola wrote, "learning to respect and value differences is also a fundamental skill to avoid the expressions of hate speech" (2016, p.125). K. Murakami and I already wrote about the practices between a Japanese high school and a Chinese middle school (K. Murakami 2016 and J. Sakamoto 2015). In Fukushima, three UNESCO-associated schools have already started the Video Letter Exchange Project as a part of Education for Sustainable Development (ESD). The Ministry of Education, Culture, Sports, Science and Technology will introduce ESD elements and the concept of critical thinking in the next course of study which will start in 2020. The ESD programme and the Anti-Hate Speech Law are expected to be brought to public attention by introducing the Global MIL program to public schools, especially UNESCO-associated schools and social movements. It is a key to opening new stages of MIL education and anti-hate speech education in Japan.

Conclusion

As discussed above, a forum was held inviting journalists on May 6th, 2017 to discuss Media and Information Literacy and civic activities for countering hate speech. To coincide with the forum the author carried out some active research on fake news and hate speech in his classes: questionnaires were given to students at Hosei University and three high schools around Tokyo and Saitama.

Firstly, as expected, their critical thinking skills dealing with the news and rumors were shown to be substantially low when compared with the sample of high school students in the US; almost all students had not learned the importance of identifying the source of their information.

Secondly, this is linked to the larger problem of students not thinking critically about hate speech. As they lack basic information literacy skills, they easily become
confused by disinformation on social media. Furthermore, most college students surveyed were easily swayed by online hate speech, which suggests a lack of human rights education in Japan.

Thirdly, despite their lack of skills, discussions with different people (including journalists, teachers, foreign and local students), concerning the concepts related to hate speech and discrimination (namely, human rights) improved their abilities in this area. If human rights are to be a fundamental part of MIL education, students must be empowered to identify, analyse and fight hate speech.

Fourthly, the Video Letter Exchange Project, which is a part of the Global MIL education programme, has the potential to become an effective way of improving Media and Information Literacy. However, this requires more comparative surveys to establish corroboration.

In conclusion, we will conduct a follow-up research project which will focus on identifying "fake news" and hate speech. This research will include journalists, librarians and teachers to help solve the first and second points referred to above. The Librarian Training Course of Hosei University, in conjunction with the Japan Congress of Journalists and AMILEC, aimed to host the MIL conference on December 9, 2017 in order to discuss fact checking of online news and thus kick off MIL education and research in schools. The first "fake news" education project was planned to be launched in April 2018.

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Literacy strategies for a critical decoding of social network's "fake news"

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Abstract. What is it that gives credibility to "fake news"? Where does their verisimilitude come from? What is it that pushes Internet users to share them? These are the main questions from which this article develops a MIL proposal directed to a critical analysis of "Fake News" among young users of social networks. The MIL analytical proposal is supported by a theoretical discussion around the concept of Post-Truth itself. The axis of this analysis is centred on the differentiation between the objective fact of reference contained in "Fake News", and the elements of production and media visibility that seek to make such news plausible. This should make the difference between "Fake News" objective components and other attributes directed towards users' emotional and personal beliefs visible; so that they would be able to understand the difference between the "Fake News" genuine facts, and its cosmetic facts which attempts to make "Fake News" appear to be true, especially when dealt with uncritically.

Under these principles, the MIL proposal is directed to develop specific skills for a critical decoding of "Fake News" through identification of the journalist coding through which the news piece is written. It is assumed that participants would be able to understand and differentiate a "journalistic fact" from their emotional and personal beliefs about the news topic. Most importantly, the aim of this proposal is to make evident the great responsibility that social networks users have when dealing with news.

Keywords: "Fake News", Post-Truth, Internet, Media Literacy and News decoding.

"Guadalajara Zoo is closed down after the discovery that dead bodies of kidnapped children are used to feed crocodiles¹" was a false news piece that was shared 105,400 times among Facebook users in this Mexican city, generating about 15, 500 comments and 57,790 reactions to the post². Some comments did not acknowledge the verisimilitude of the fact ("is it possible that something like this would actually happen?"); however, the impact was evident through the emotions generated ("How

cruel!" "how could this happen?"), and through personal beliefs which were reaffirmed about a story that appeared on the website *El mundo es negro*³ ("I had heard that this happened to kidnapped children").

Questions about the site or the information structure that was presented by it were relegated because the impact of the story on Facebook users did not make them question the "truth" of the site's version. On the contrary, as a result of the intense emotional reactions, users reinforced the credibility of the story making the "fake news" presenting a horrible fact plausible. Further, the piece acquired credibility as the news spread rapidly through a network of users who shared their own opinions and feelings, rather than sharing the "fact" itself, besides their assumptions and claims about the causes behind the disaster. Based on that, it could be said that "fake news" is an element of a post-truth age. It is recognised that UNESCO eschews the terminology of "fake news" in favour of disinformation (see Ireton and Posetti, 2018).

The Oxford Dictionary chose the term *post-truth* in 2016 as the word of the year; and defines it as "... an adjective that relates to, or denotes circumstances in which objective facts are less influential in shaping public opinion that appeals to emotion and personal belief" (Oxford, 2016). As witnessed, post-truth politics has been used in the presidential elections of the United States and in the British referendum known as Brexit. In Latin America, the term also became relevant after the spread of false news about the plebiscite on peace agreements between the government and the Revolutionary Armed Forces of Colombia.⁴

In the following pages, I will discuss a theoretical-conceptual framework about the post-truth era and its correlation with Fake News, which uses, as a main vehicle of digital diffusion, social networks like Facebook and Twitter. Subsequently, I will propose a media literacy strategy to decode Fake News in a critical manner, focused on learning the identification of the basic criteria of a journalistic fact and on discerning the emotional capital that comes into play at the time of reading and sharing Fake News. The objective is to call attention to the responsibility of spreading false information, which may generate a shock on digital platforms, just like what happened in Guadalajara (Mexico) with the false news about the zoo.

From truth to post-truth

Truth is a word used to mean the co-occurrence of an affirmation and the facts that support it; that is, an assertion about what happened and what could potentially occur should be backed with verified facts.

Around truth, many theories and philosophical currents have been constructed, in which the objective is the main identification of true (and false) and the establishment of propositions that allow us to know what truth is, how it is formed, in what ways it is expressed and under what parameters something can be considered as true. This text does not intend to go through the vast philosophical debates but to explain the two types of truth: objective and subjective.

The objective truth is the one that is fully independent of our own beliefs, likes and subjective feelings. In other words, the objective truth is given by the world of things in which truthfulness is independent of the subject. Positivism and its quantitative expression are based on this thought, which built both the method and the scientific truth which, to the present day, dominates the scientific thinking and task.

On the other hand, the subjective truth is the one that recognizes the experience of the subject as a determinant for the definition and interpretation of what is true. In the subjective truth, the things become true as long as the subject defines them. Phenomenology and hermeneutics, both qualitative, have established a method (equally scientific) through these precepts, which consider that the truth is subjective because it always depends on the subject who knows it.

In light of this, Søren Kierkegaard (2001) established a clear difference between these two sides of the truth, by placing at the center the relationship between the subject (the one who knows or wishes to know) and the intentional object (the one which is known or is wished to be known). This relationship between both elements always goes through the level of consciousness (the subject is aware of the intentional object) which generates a cognitive process if it is an objective relationship, or an experimental one if it is subjective.

This means that when the relationship is objective the truths that we build are uncertain, and consequently, we require new data to assert their truthfulness. On the other hand, if the relationship is totally subjective, the comprehension does not go through the reason but through beliefs; if a truth matches with our cultural framework we tend to provide it with veracity even if we are not certain that the intentional object is true.

What is the relationship of these statements with "post-truth" and "fake news"? The post-truth description precisely refers to the supremacy of the subjective truth over the objective truth in the context of mediation of social contemporary networks. That is, the relationship with the intentional objects (digital content) does not always go through cognitive criteria but mostly through existential relationships where the important thing is not even the experience, but rather lies in the belief and the emotional capital that rises.

In the process of spreading "fake news", using the notions of Kierkegaard, the existential relationship that is established with such news ends up being more relevant that knowledge of the intentional object (the news fact contained in "fake news"). Such relationship is reinforced through reading and diffusing "fake news" content through social networks. Post-truth, from my perspective, emerges when that diffusion matches with a system of beliefs that is socially shared by particular users, who provide veracity and verisimilitude to "fake news" not just because their content is related to their beliefs and feelings around the fact/object but because it takes advan-tage of the technological algorithms to be, by the strength of the "sharing", among the most referenced contents in sites like Facebook or Google. This, to users, means more credibility of the news because the same piece appears constantly in the time-lines of the peer users in his/her network.

The digital bubble, which exists through the semantic structure of web 2.0, not only creates spheres of content but also of contacts. We are constantly advised to consume those things that the technological algorithms (PageRank) know we like and, at the same time, invite us to relate to those who, even without knowing them personally, could have an affinity with us by sharing the same interests.

Pariser (2011) in *The Filter Bubble* pointed out that behind the costless, friendly and free services, there are powerful information extraction devices that allow you to personalize both content and contacts, which are embedded in huge bases of data from which an extraction/profile/customization dynamic that is used by most Internet sites emerges.

Under the same conditions, post-truth content and "fake news" are positioned under the same digital bubbles that we create ourselves. And at the same time, these are spread through the technological algorithms that place them into the main search references. An example is what happened in the past elections of the United States, where four out of the ten of the most shared "fake news" came from a Facebook community called *Ending the Fed*.

This Facebook community was created by a 24-year-old Romanian who was dedicated to creating different "fake news" pieces against Donald Trump. Such "fake news" generated such activity and interaction to the extent that in a few weeks, using Google AdSense, the young man earned 10, 000 dollars. Users who shared the false information got to his site through Facebook leading to the result of his page becoming one of the most trafficked pages, and hence, better marketed.

Nowadays, the subjective truth, a main element of post-truth content and "fake news", is relevant on social networks because it often represents the entry point of informational consumerism. Reuters Foundation states that: "Facebook is playing an increasingly significant role in the distribution of online news, with 44% of people using it as their source of news, followed by 19% of people using YouTube and 10% using Twitter..." (Reuters, 2016).

In accordance, "36% of people preferred news to be selected for them by algorithms compared with 30% who relied on editors or journalists, although some feared missing key information or challenging viewpoints (...) for the first time social media has overtaken television as the main source of news for 18- to 24-yearolds, with 28% of them citing social media as their main source of news compared with 24% who said they watched news on television" (*idem*).

If the new generations in same parts of the world are using social networks to be informed and at the same time, these are the main vehicles for the distribution of "fake news", it is understandable why post-truth as a term has been included in our language to represent a frequent issue. The dispute about truth, what is certain and what is real, exists through the subjective criteria of the users and the technological algorithms which generate digital filters. Hence, the objective fact no longer becomes what matters the most, but is rather replaced by the emotions generated after exposure to false information disguised as true.

The need to teach how to read "fake news" becomes urgent not only to create critical users but also to understand the impact that this type of information has on the process of decision making for a vote or a plebiscite and further around horrible stories like the one of Guadalajara Zoo. In this case, subjective truth was established when a digital bubble found a group of users who took the intentional object contained in the "fake news". Not only has this occurred because the information resonated with their fears and feelings regarding the disappearance of minors⁵ but also because it provided an answer to a popular question about the possible whereabouts of all these missing kids. This is where the possibility of a scenario became visible and induced the massive spread of the "fake news" piece. Learning to critically decode this type of content will make a difference in a social scenario where it seems that post-truth content has been established in the face of the weakening of traditional media.

MIL proposal for a critical analysis of Fake News

What does it mean that in the past US elections social networks users have interacted much more with "fake news" than with the news published by other media such as *The New York Times*⁶? How can the generated interaction among Mexican users who believed what happened in the zoo be understood? What is it that drives the widespread of "fake news"? And how can a media literacy strategy that faces post-truth content be created?

To respond to such challenging questions, the presented media literacy proposal seeks to have an influence on four basic digital competences: *cognitive-intellectual, socio-communicational, axiological and emotional* (Area & Person, 2012).

Cognitive-intellectual skills refers to acquiring specific abilities for and knowledge about selection, analysis and interpretation of information; socio-communicational is the dimension related to the development of skills for the creation and distribution of multimedia texts; the axiological aspect is the awareness that information and communication technologies are neither aseptic nor neutral; and finally, the emotional dimension focuses on the feelings and emotions produced by the experience of being in digital environments.

One of the first skills that needs to be developed is the news cognitive-understanding. The selection, hierarchization and analysis of information must always pass through a cognitive plane which should guide individuals to what is true. With regard to that, learning to identify objective truths will help distinguish false content from verified content.

In the information field, this distinction is fundamental because every journalistic fact is demonstrated through the objective expression of the fact delivered, which does count on the subjective criteria of the journalist. However, journalists must know that only relevant facts should be included nothing more nothing less. The ethical obligation is to offer a detailed description of the fact, an adequate contextualization that includes the past, present and future of the fact, an account of all people involved in it, and finally a correlation between the fact and the daily life of the reader/news user.

Kierkegaard's principles about objective and subjective truth and the elements that form a journalistic fact are among the first recommendations and actions that we must consider dealing with "fake news", that is, to ask ourselves:

- What is the fact (intentional object) that is being reported in the news?
- What is the date of the news?
- Is the drafting of the news clear and does it respond to the what, who, how, when and why⁷ of the event reported?
- Is the fact accurately detailed without the use of adjectives?
- How many people or institutions were questioned to verify the fact?
- Is the context of the event given and its possible consequences explained?

These questions will help to question the journalistic objectivity and so the veracity of the information that is to be considered true. The answer to these questions will also help separate the emotional impact that is generated after "fake news" first impression about the objective truth that is actually contained in the news. In order to carry on with critical decoding of "fake news", it is also worth asking:

• Does the information appear on other news sites?

- Do the media communicating the fact have recent publications?
- Does the note have the signature of a journalist and is it possible to read other works published by the author?
- What other content does this site present? Does the content demonstrate serious issues?

When the news is false, it is necessary to continue with the literacy strategy, and to emphasize the socio-communicational and emotional competences that encourage the distribution of news and, hence, the potential creation/spread of post-truth content. Here we are referring to a second level of literacy that appeals to the user's emotions and responsibilities when they are spreading or sharing "fake news":

- What emotions were aroused when the news was read for the first time?
- What kind of feelings did the news generate for the users and what made them believe it is true?
- Did they think about sharing it on social networks? Why did they want to do it?
- Has anyone in their network shared it? Why do they think he/she did?
- Does the real part of the "fake news" come from the fact referred to, or just from your beliefs?

At this point of the strategy, it is necessary to consider how we relate emotionally and sentimentally with the information that is spread on social networks. This is because only by identifying the mentioned competences it will be possible to measure the axiological component that is behind post-truth content and "fake news", since this has an impact on: 1) The responsibility to share information that may violate human rights, especially gender and cultural diversity; and 2) the non-neutrality of social networks promoting the distribution of "fake news" and the establishment of post-truth through their algorithms.

- Did you know that "fake news" is a very lucrative business?
- Do you know why "fake news" tends to go viral in a faster manner?
- Do you know that what you write and share on your social network accounts makes you potentially responsible for the consequences "fake news" can have?
- Have you started to think that the digital bubble of social networks feed on what we write ourselves and on everything where we click "like"?
- What is the real impact that "fake news" can have?

Thinking and debating about answers to these questions will open up the spectrum of axiological competences, which is inevitably necessary in times where not only

lots of "fake news" can be found on social networks but also hate and discrimination rhetoric, which are felt more strongly against sexual diversity, women and diverse cultural manifestations.

Conclusion

Although platforms and technological applications for the identification of "fake news" already exist, this proposal of media literacy considers that if the teaching-learning process does not go through the differentiation of objective from subjective truth, the objective journalistic fact from the subjective component of the "fake news" and finally, the responsibility of the user in spreading news in an environment where the technological algorithms massively diffuse content, the growing phenomenon of post-truth will continue to grow.

This is where the realm of the false acquires notoriety; not only because of the lack of media literacy in all educational levels, but also because of the questionable technological strategies that exist behind the free use of social networks. Such strategies hide not only bubbles but also digital consumption prisons which sarcastically Andrew Louise has commented upon saying: "If you're not paying for something, you're not the customer: you're the product being sold"; and to what I would add: "If you are not sharing truth, you are most likely contributing to viralize a lie."

Notes

- 1. "Fake news" link: http://www.elmundoesnegro.com/2017/05/35.html Consulting date: 20/05/2017.
- 2. To get the statistics of the "fake news" the following app was used: https://www. sharedcount.com/ Consulting date: 04/06/2017.
- 3. http://www.elmundoesnegro.com
- 4. A guerrilla group formed in 1964 has been responsible for many different terrorist acts. In 2016, the group announced a temporary cessation of their military activities.
- 5. In Mexico at least until June 6, 2017 there were 4,031 missing children. Source: https://rnped.segob.gob.mx/
- 6. BuzzFeed analysed the interactions that US Facebook users had with fake and real news during the presidential campaign. Their main discovery was that "fake news" generated 8.7 million of reactions, that means 1.4 million more than the real news.

7. These are the five basic questions that all journalistic work should do in the elaboration of a news story.

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Resources and Initiatives against "fake news":

CheckDesk: https://meedan.com/en/check/ . Crowd Voice: https://crowdvoice.by/ . First Draft News: https://firstdraftnews.com/ . Hoaxy: http://hoaxy.iuni.iu.edu/ . This is Fake: https://www.thisisfake.org/ . WikiTribune: https://www.wikitribune.com/ .

E-governance or e-government platforms: Learning spaces for Media and Information Literacy

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The relation between e-governance and media and information literacy is explored in this chapter. Several of the contributions reviewed here highlighted that some of the expected benefits from e-government failed (Sanexa, 2005; Basu. 2004). The reasons for failures and successes have been the subject of much research. One reason for the failure of e-governance initiatives is a "techno-centric" focus rather than a "governance-centric" focus (Saxena, 2005). With the aim to overcome these difficulties, we explore how the promotion of MIL competencies could increase the participation of citizens' (metaphors of citizenship) in these e-governance platforms. For this reason, one of the questions suggested is the following, how could MIL and e-governance be related to each other? Facing this question, our suggestion is to re-imagine ways of learning, in the context of media and information literacy, on e-governance platforms as information and learning environments. Recommendations for a turn or return to civic engagement through media and information literacy to renew e-governance are proposed.

Keywords: media and information literacy, e-governance, platforms, learning, civic engagement

Electronic-governance or e-governance for short was born out of the intersection of two global developments: the information revolution and the changes in expectations about governance. Both developments have changed the way society works and the way that society is governed (Sardi and Mlikota, 2002; Horrocks, 2010). E-government, a term sometimes used interchangeably with e-governance, though, as we shall show later, many authors make a distinction between the two through a definitional approach – increase in scope and speed in many countries starting in the 1990s into the 2000s. Countries such as the United States, Australia, the United Kingdom, Singapore and China were among the leaders (Horrocks, 2010, pp.15-17). Saxena (2005), pointed to the common existence of e-governance initiatives in most industrialized and developing countries given the promise of a more citizen-centric government and lower operational cost. He noted the World Market Research Centre's Global E-Government Survey (2001) which lists 196 countries having e-government initiatives and the United Nation's Benchmarking E-Government Survey (UNPAN, 2001) which lists 133 countries. Despite these developments, there seems to be consensus among many researchers that most e-governance initiatives fail to deliver the promised value added or benefits expected (Saxena, 2005; Basu, 2004). In the late 1990s and early 2000s, studies estimated that e-government projects were failing at a rate of between 60 to 85 percent (Symonds, 2000; UNDE-SA, 2003 as cited by Horrocks, 2010, p.26). The reasons for failures and successes have been the subject of much research. The reasons for failure of e-governance initiatives vary from; 'techno-centric' focus rather than a "governance-centric" focus (Saxena, 2005) in the initiative; "homogenized" e-government models which ignore appropriateness to local context; lack of local expertise and thus a dependency on external consultants (Horrocks, 2010); ineffective legal and regulatory frameworks (Basu, 2004); other issues relating to political stability (elections, democracy or dictatorial regimes), and level of trust in government as perceived at the service levels (Backus, 2001).

With a definition from the UNESCO website as a basis (see below), this chapter will take a cursory look at the benefits and challenges of "e-governance" and its aims, while highlighting opportunities to transform e-government spaces into learning environments for MIL. The chapter will first consider a definition associated with UNESCO and explore what aspects of e-governance are missing from this definition by drawing on definitions proffered by other experts and international development agencies. A description of MIL and its relations to e-governance is proposed. Could e-government or e-governance platforms or programmes serve as information environments for learning about media and information literacy (MIL) and engaging in governance processes through MIL? Could this stir citizens' engagement and empowerment as well as stimulate e-government or e-governance? Are there similarities between MIL and e-governance? It suggests steps that could be taken to re-imagine ways of learning, in the context of media and information literacy, on e-governance platforms as information and learning environments.

Defining E-Governance or E-Government and Drawing Parallels to Media and Information Literacy

UNESCO defined e-governance as "the public sector's use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective. E-governance involves new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services. E-governance is generally considered as a wider concept than e-government, since it can bring about a change in the way citizens relate to governments and to each other. E-governance can bring forth new concepts of citizenship, both in terms of citizens' needs and responsibilities. Its objective is to engage, enable and empower the citizen² (UNESCO, 2010)"

Clearly, from this perspective, there is a focus on government service to citizens and citizens' involvement or participation in the governance process. Consider, however the much shorter definition below of e-government as taken by the OECD e-Government Project: "the use of information and communication technologies and particularly the Internet, as a tool to achieve better government". This gives rise to the question as to what exactly better government is and whether it is synonymous to good governance or should result in good governance. If it is either of the two, then this conceptualization could be interpreted to have some resemblance, though much more abbreviated to the one drawn from UNESCO's website. Basu (2004) states, "the objectives of e-governance are similar to the objectives of good governance. Good governance can be an exercise of economic, political, and administrative authority to better manage affairs of a country at all levels" (p.109). "Better manage affairs of a country" has implications for citizens understanding as to what better is compared. An immediate question is how is better measured and from whose or what objective perspectives and based on what international standard or consensus. Sardi and Mlikota (2002), in a paper on ICTs as a tool for local governance, described eight major characteristics of good governance: Participation, transparency, effectiveness and efficiency, responsiveness, consensus `orientedness`, equity and inclusiveness, and rule of law (pp. 3-4; see also Bakus, 2001). At least one of these elements (usually several) can be found in most definitions proposed for e-government or e-governance.

Another definition of e-government from the World Bank: "E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/ or cost reductions". This definition has similarities with that of the one associated with UNESCO, but the former uses the term e-governance and the later e-government.

What is evident is that based on the epistemological position taken by various scholars and development organizations, the characteristics of e-government or e-governance can be wide ranging and often have overlapping attributes. In a comprehensive paper, Palvia and Sharma (2007) tried to demystify the definitional confusion between e-government and e-governance by citing a wide range of definitions from various sources. They note that many authors contend that e-governance is the larger field of study and e-government constitutes a major subset of e-governance (See also Bakus, 2001). Here the primary goal of e-governance is to promote greater participation of citizens in the governance of political institutions (Howard, 2001; Bannister and Walsh, 2002 as cited in Palvia and Sharma, 2007).

Palvia and Sharma (2007) argue on the premise that "e-government's focus is on constituencies and stakeholders outside the organization, whether it is the government or public sector ... On the other hand, e-governance focuses on administration and management within an organization, be it public or private ..." (ibid, p.3). Saxena (2005) offers a slightly more nuanced approach in the examination of the two concepts. The author proposes a central distinction between "e-governance" and "e-government" where government refers to the institution itself and governance is a broader term which denotes different types or ways of governing (pp.2-3). The latter could be led by the formal government or otherwise could implicate the private sector. There is a clear contradiction between the conceptual frameworks put forward by these authors. For Palvia and Sharma, e-government is concerned with parties or actors outside of the organization or institution and for Saxena, e-government refers to the institution itself. This scenario points to the perennial challenges in defining complex concepts. More that, our view is that while the internal affairs of an organization or government carry with it processes, rules, and regulations that are distinct from that of the organizations external affairs, it is not intuitive or practical to completely separate the two. The principles by which an organization governs its internal processes and resources influences its management of its processes and resources that concerns it external clients or stakeholders, and vice versa. The argument here is that the two are inextricably interwoven. We therefore choose not to come down on one side of the debate or another.

Considering the discussions above, in this paper, we will use the term e-government and e-governance interchangeably with the proviso that whichever the term used, it takes on an expanded rather than a narrow definition. For as, Horrocks (2012, p. 7) points out, it is important to avoid a narrow definition of e-government where the concentration is solely on the technological dimensions while ignoring the social and contextual variables. Therefore, like the 2010 definition of e-governance from the UNESCO website, e-governance is not just about online electronic services. It also concerns a whole range of government functions from policy making to policy implementation, including engaging citizens in a democratic process (which as we shall explain more later has direct relations to media and information literacy) and spans internal operations within and among individual administrative bodies (Kunstej and Vintar, 2004 as cited by Horrocks, 2012).

Like e-governance or e-government, Media and Information Literacy (MIL) has many definitions. MIL is a composite concept used by UNESCO to cover several interrelated terms such as media literacy, information literacy, digital literacy, news literacy etc. If information, technology and media are indispensable to governance and development, then enabling peoples' information and media competencies is a governance imperative (UNESCO, 2011). MIL includes a set of competencies to search, critically evaluate, use and contribute information and media content wisely; knowledge of one's rights online; understanding how to combat online hate speech and cyberbullying; understanding of the ethical issues surrounding the access and use of information; and engaging with media and ICTs to promote equality, free expression, open and transparent governance, intercultural/interreligious dialogue, peace, etc. (Pérez Tornero and Varis, 2010).

The Internet brought with it significant hope for peoples' participation in public debate and democracy (Dutton, Reisdorf et al, 2017). Yet, there is mounting evidence about the paradox of the Internet in relation to inclusive and democratic societies. The very plurality of information and metadata that the Internet brings can serve to disrupt people's political opinions, the rights and safety of all people and obscure justice and accountability (Dutton, Reisdorf et al, 2017). Promoting critical thinking for all citizens is one way to address this disconnect. However, for too long actors have framed MIL as a protectionist critical distrust of the media and fear mongering about the inherent challenges of the Internet, as a part of "deficit models" (McDougall, 2017, p.22). There is also the on-going trend to place an overemphasis on digital literacy for economic purposes, "neoliberal economic modalities" (ibid) but such models are often void of critical thinking, self-empowerment, civic engagement and action. Furthermore, such models often marginalize an understanding of how MIL enables the benefits of access to information, freedom of expression, gender equality, peace, intercultural dialogue, interreligious dialogue, and rights for all. UNESCO has been instrumental in countering this trend through the framing of MIL promoted by the organization globally. Drivers of MIL related interventions are recognizing the need for a new approach and thus changing their strategy. More and more state partners are calling for MIL to develop critical thinking and civic engagement to achieve the sustainable development goals.

MIL then becomes a bridging tool between the application of technological apparatuses to government or governance processes, the critical engagement of citizens in this process, and measurable achievement of the desired transformations. Figure 1 below illustrates these relations. Here again we equate the terms e-government and e-governance. The purposes of e-government/e-governance and MIL are drawn from various sources, some of which are described in this chapter. The two lists are not exhaustive, we simply select ones that are intuitive and relates to the arguments proffered in this chapter. Thus, there might exist some biases. Readers are invited to visual other purposes of e-government/e-governance and MIL, ones that complements of contradicts the propositions given here. We do not suggest a symmetry between government/e-governance and MIL, rather we theorize the relationships and one, MIL, could serve to enhance the other, government/e-governance. A primary purpose is how can MIL empower people for greater civic engagement in and through e-government/e-governance.



Figure 1 MIL Competencies in E-government/E-governance Learning Spaces

The World Bank has shared this vision since 2009 when as part of its innovative solutions for governance it commissioned a discussion paper titled, The Role of Media Literacy in the Governance Reform Agenda. (Martinsson, 2009). Martinsson, who prepared the policy brief for the World Bank, cited Carlsson et. al. (2008), when he noted that many advocates of media literacy see it as crucial to participatory development or active citizenship and lifelong learning. The policy brief notes, "lack of media literacy and access to the news media and/or alternative news sources... threatens the development of competent citizenry" (p. 4). It further notes that a key factor to ensure free, independent and pluralistic media is the character of the citizens and their capabilities to use relevant aspects of the press that are available (ibid, citing Price and Krug 2006. See also similar arguments from Livingstone, 2010 on the importance of positioning children's interest with debates over Internet governance). On the other hand, Frau-Meigs (2008) examined media literacy and human rights. She pointed out that "the position of the Council of Europe regarding media literacy is that it is a powerful tool to empower citizens, which can offer safe ground and real possibilities for progress, especially in fostering trust in media content and promoting human rights, with the help of all stakeholders..." (p. 53). Grizzle, Moore et. al. (2013) propose a human rights approach to developing national MIL policies and strategies, articulating the dynamic interaction between citizens, governments, and media and other information providers as rights holders and duty bearers in the process of developing informed citizens. It is this renewed critical engagement of citizens in governance processes and sustainable development that MIL can stir in e-government/e-governance.

Many authors have included e-democracy as part of e-governance (see Saxena, 2005; p.3). There are many definitions proffered for e-democracy. The UK Parliamentary Office of Science and Technology broadly describes it as, "the use of new information and communication technologies (ICT) to increase and enhance citizens' engagement in democratic process" (2009; p.1; see also Pickerill, 2009, Chadwick, 2003 and Horrocks, 2010 for other definitions and debates about e-democracy).

One of the key players in classifying and operationalizing e-democracy in the United Kingdom is the UK Hansard Society. They define it as such: "The concept of e-democracy is associated with efforts to broaden political participation by enabling citizens to connect with one another and with their representatives via new information and communication technologies' (Hansard Society, 2003 as cited by Chadwick, 2003; p.13). Implied here are a combination of "horizontal linkages" between citizens in civil society and the "vertical linkages" between civil societal debates and policy-makers. If we go further, then e-democracy is not simply about connecting, but competencies to critically assess and engage with information transmitted through these connections. As Martinsson (2009, p. 3) notes, while media

and information literacy "is deemed crucial for the development and sustainability of a healthy democratic public sphere, it is often forgotten as a precondition when discussing democracy and development."

Drawing on certain aspects of the definition on UNESCO's website such as: "... encouraging citizen participation in the decision-making process...; change in the way citizens relate to governments and to each other; e-governance can bring forth new concepts of citizenship, both in terms of citizens' needs and responsibilities; and its objective is to engage, enable and empower the citizen," there is an evident relationship between e-governance, the objectives of MIL, and of e-democracy as delineated above. Chadwick (2003) in a paper on e-government and e-democracy analysed the case for convergence between the two on the basis that, "... democratization is one facet of e-government, and is, of course, at the root of e-democracy itself" (p.15). He recognized that e-democracy as an approach to democratic participation existed before e-government methods came to be and offered four theoretical and practical bases for the convergence between the two. Three are of direct relevance to the discussions here. Firstly, he argues that if a central vision of e-government is a restructured public sector workforce, empowered to work more efficiently by information sharing across the boundaries of departments or ministries, and using complex knowledge management systems and techniques, then operatively and conceptually, this is e-democracy at work insofar as there is a shift from "centralization" to decentralization which could lead to more and better information at governments' disposal and hence more effective and legitimate public policies (p.15). We suggest that the reader should observe carefully here that decentralized administration is not intrinsically democratic. There are other inalienable principles that most be at work. For instance, decentralized administration becomes for democratic when it comes with a decentralization of power, control, and decision-making as well. Secondly, the operation of e-democracy and e-government are based on similar, and in many cases the same, technological platforms having similar designs and maintenance requirements. More democratic decentralized administration embraces open and inclusive participation of the masses and not only a few; it assures transparency, and accountability to the people. As Chadwick notes, an important point is the "spirit" of openness and decentralization in which they run. The final point of convergence of e-democracy and e-government concerns "the integration of e-democratic activities in civil society with policy-making processes at local and national levels" (ibid; p. 17). The central point here is how executive branches of government undergo changes as a result of e-governance and e-democratic activities which could, in-turn, impact on the legislatures. An example given is the attempts of the government to integrate deliberative forums and consultation exercises directly into pre-legislative policy discussions. But whether such initiatives should be

attributed to executives or of legislatures, matters a great deal to how e-government and e-democracy might converge (ibid; See Horrocks, 2010; pp.7-8 for similar arguments). We propose that realising democratic e-government can be strengthened with a turn to critical civic engagement through MIL. This is the missing side of the triangle. MIL is the new form of citizens' engagement and can contribute to better experiences and outcomes of how people connect with each other and their political representatives or policymakers.

Coming back to the definition of e-governance used as a key basis for this paper, in using it as a point of analysis, it is necessary to look beyond its service orientation and take into greater account concerns such as social and cultural issues influencing Internet access, and use, Internet governance, access to information and freedom of expression in different countries. These are the offerings of MIL if it is properly integrated into e-governance platforms for training and learning users of these spaces. Some of the referent documents from UNESCO and the United Nations needed for a comprehensive review are the following:

- UNESCO (2003) ICTs and Good Governance: The Contribution of Information and Communication Technologies to Local Governance in Latin America. Universidade de Brasilia, Brazil, January 2003
- UNESCO (2000) Global Survey on on-line governance. Final Report by The Commonwealth Network of Information Technology for Development Foundation (COMNET-IT)
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Recommendations for a turn or return to civic engagement through media and information literacy to renew e-governance

The challenge of civic or citizen's engagement is not new. It started has evolved over centuries information, media, and technological development. There have been several waves of access to information and technologically driven civic engagement tools. Circa 2012 the World Bank launched Phase I of the World Bank's Open Development initiative. The platform is intended to aggregate key examples of the Bank's work in promoting openness and transparency in development, from tools and knowledge resources to Bank-wide initiatives. The Bank plans a second phase that will focus on creating a more interactive space to engage and empower citizens. This second phase is a notable addition given that openness and transparency are necessary but not sufficient steps to guarantee democratic processes.

In connection with discussion about e-participation in the previous section and in relation to MIL and civic engagement, it is important that e-participation is still an evolving concept (UN E-Gov. Report 2016). The report indicated that there is "vast evidence that e-participation technologies expand opportunities for civic engagement, including increased possibilities for people to participate in decision-making processes and service delivery to make societies more inclusive" (p. 49). Yet the provision of opportunity does not necessarily suggest real change in the behavior of citizens and other stakeholder groups in relation to e-governance and critical engagement. E-participation can be defined "as the process of engaging citizens through ICTs in policy, decision-making, and service design and delivery in order to make it (the process – authors` insertion) participatory, inclusive, and deliberative" (ibid, p. 49).

In 2011, eight founding governments (Brazil, Indonesia, Mexico, Norway, the Philippines, South Africa, the United Kingdom, and United States) launched the Open Government Partnership (OGP). A stated aim of OGP is to "secure concrete commitments from governments to promote transparency, empower citizens, fight corruption, and harness new technologies to strengthen governance." Since 2011, 75 countries and 15 subnational governments have made over 2,500 commitments to pursue more open and accountable governments. To become OGP members, countries must endorse the OGP Declaration. Civic participation or citizens' engagement is a binding tenet of the OGP Declaration. There is a new wave of technologically driven civic engagement tools that come with these necessary and groundbreaking initiatives. The issue is that these tools could become virtual graveyards if people are not trained, motivated, and if they do not understand the necessity of using them. One hypothesis on why people are not engaging with or through technologically driven civic engagement tools at the desired level or with maximum effectiveness

is that they lack the required competencies and more so the MIL competencies to understand, activate and use their agency. Gregorio-Medel (2011), suggest that open development, and by extension, civic engagement must go beyond technology propriety solution.

We are proposing the first national, regional and global wave of MIL integration in platforms, as well as institutions managing these platforms, to stir citizens' engagement and empowerment in e-government or e-governance platforms. The time is ripe for this innovation, with more people online than any other period in history. More so, 70% of youth (15-24) worldwide are online (ITU, ICTS Facts and Figures 2017). The fierce resurgence of "fake news", misinformation and radicalization online intensifies the call for MIL for everyone and by everyone.

Some actions to take to re-imagining ways of learning, in the context of media and information literacy, on e-governance platforms:

- Mobilization of stakeholders in the e-governance and MIL communities to recognize and take steps to activate the interlacing of both fields as tools for development;
- Further research to identify, document, and categorize other social challenges faced by different groups at the community level across countries in connection with e-governance and how MIL can bridge some of these gaps;
- Formulate theoretical and practical models;
- Networking of stakeholders across e-government and MIL. One example is to develop synergies between the UNESCO-initiated Global Alliance for Partnerships on MIL (GAPMIL), the Open Government Partnership and the World Bank Open Development initiative;
- Develop innovative partnerships between libraries, media, the private sector as well as MIL and e-governance stakeholders. One example is to adapt the Gates Foundation Global Libraries initiative, which positions the world's 320,000 public libraries as critical community assets and providers of information through relevant technologies;
- Identify and adapt existing MIL learning tools and resources as well as design and develop new initial ones to innovatively integrate MIL in e-government platforms. One example is the Vote Compass tool developed and deployed by France 24 in the 2017 France Presidential Election;
- Pilot these MIL learning tools on e-government platforms;
- Roll-out of tools and projects.

Conclusion

Drawing on many scholarly works, we have argued in this paper that from a definitional approach the distinguish between e-government and e-governance is blurred, although this may serve useful pedagogical purposes and some scholars suggest distinction between them. The concept of e-democracy relates to e-government or e-governance. These concepts have points of intersection to MIL and are dependent on people's media and information competencies to enhance efficacy. In reality or practice the three have intersections and differences but are converging and are intertwined. As the UN E-Gov 2008 report notes, there is a need to move from e-government to connected governance with the key message being that "the promise and the excitement of connected government should not obscure a key principle, namely, that: the end-goal of all e-government and connected governance efforts must remain better public service delivery. Improvements in the quality of governance and the responsiveness and effectiveness of government should still serve to empower the citizen. In that sense, citizens must be given the chance to play a role in influencing these e-government solutions" (p.10).

Further research is required particularly on the correlation and cause and effect relationship between advanced take-up of e-governance, linking this to citizens' 'e-readiness3' - and increase in citizens' participation and engagement in the democratic and/or governance process. A comparison between any one of these models with the five stages of e-government evolution⁴ proposed by the UN E-Gov reports and the e-participation features in UN E-Gov 2016 report (p. 54) could also prove useful to elucidate further research as well as divergence in analysis and outcomes. This is no easy feat. Do we focus on evaluating the technologies? Is it all about counting, measuring and ranking? Or should more breadth and depth be added to ensure that more interactive democracy, good governance and development are fully accounted for? We would stress the latter hence a broad-based definition for e-governance or e-democracy and integration with people centered MIL training is of absolute necessity. As Horrocks (2010) posits, "... how to define e-government ... is clearly a fundamental issue as it defines, in turn, what lies inside and outside the boundaries of an evaluation and thus how a study will be designed, the methods that will be used for data collections and the scope and utility of the findings" (p.35). The sustainable development goal, and particularly Goal 16: Peace, justice, and strong institutions, is viable guiding prism for future research into e-government or e-governance platforms as learning spaces for media and information literacy.

Notes

- 1. Grizzle, A. 2017. By "citizens", it means metaphors of citizenship, rather than a strictly legal category. The argument here is that citizenship has different meanings to different persons, regions and countries.
- 2. This definition may be proposed in the context of projects and programme the organization was implementing on e-governance at the time. It may be considered old. It has not been updated on the organization's website. One supposition is that this thematic area has not continued as a significant area of work in the organization.
- 3. "E-readiness is a measure of the quality of a country's ICT infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit. The Economist. E-readiness rankings 2009: A report from the Economist Intelligence Unit. http://graphics.eiu.com/pdf/E-readiness%20rankings.pdf. Accessed on 20 April 2020.
- 4. See UN E-Gov Report, 2008; p. 16.

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Media and Information Literacy: World Press Freedom Index of Asia-Pacific in Context

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Media and Information Literacy (MIL) is a concept of the 21st century. It involves various competencies that develop critical thinking and skills to become active citizens to promote freedom of expression and media. One of the indicators to reflect the wholesome performance of countries with regard to media freedom is the "World Press Freedom Index", which in 2017 portrays a dismal picture of different nations, especially in the Asia-Pacific region. It reveals that the Asia-Pacific region includes many countries categorized as red (bad) and black (very bad) zones and holds "many of the worst kinds of records" for media freedom such as the world's biggest prisons for journalists and bloggers (China and Vietnam); most dangerous countries for journalists (Pakistan, the Philippines and Bangladesh); and the second biggest number of "press freedom predators" at the head of the world's worst dictatorships (Laos, China and North Korea) (Wang, 2017). Given this, the current study attempted to depict the position of the Asia-Pacific region with regard to literary output on the MIL, which is one of the media and information promoting indicators mirroring the concern of nations towards the freedom of information and expression. The study also spotlights the growth pattern of scholarly publications and collaboration ties for the region along with the leading funding sources in the respective countries supporting MIL research and leading institutions publishing on the theme.

Keywords: Media and Information literacy, press freedom, journalists, research

Introduction

Information literacy is a dynamic concept, which extends to basic reading, writing, and calculating skills that could be applied in information and tech savvy environments (Kuhlthau, 2001). It revolves around the problem solving and critical thinking approach leading eventually to comprehensive understanding of information systems and functions (Moore, 2002). In the present information overloaded era, information literacy is an indispensable skill, which is useful in every aspect of life. Even the then US President, Barack Obama, expressed its importance by declaring October 2009 as the month of *"National Information Literacy Awareness"* (Aharony, 2010). The term *"information literacy"* was first used by Paul Zurkowski in 1974 and mentions information literate people as those who are well aware of how to use information resources for their work (Zurkowski, 1974).

Information literacy is the amalgam of various concepts like library literacy, information seeking, computer literacy, technology literacy, information ethics, communication skills, critical thinking, and media literacy (Bawden, 2001; Parang, Raine & Stevenson, 2000). Information literacy lays emphasis on the importance of information access, its evaluation and its ethical use; media literacy, however, lays emphasis on the ability of understanding media related functions, their performance evaluation, and to involve oneself with media for self-expression. According to the Universal Declaration of Human Rights, everyone has the right to freedom of expression and opinion without any interference, and to collect and disseminate information with the help of any media. Media and Information Literacy (MIL) prepares citizens with various proficiencies required to seek and relish all the benefits of this basic human right (Wilson, Grizzle, Tuazon, Akyempong & Cheung, 2011). MIL is believed to be an integral part of present-day ICT enabled learning dominions. Its essence in facilitating information handling and interaction procedures can never be unacknowledged. The basic aim of MIL is to address all the issues leading to the indiscriminate use of media. It is not only concerned with the know-how of practical skills, but also involves critical information and strategic skills, media awareness from practice, and sensible and benign use of media (Mahajan, Rather, Shafiq & Qadri, 2016). People ought to be media literates to fortify public interest, thereby refining socio-political conditions. MIL encourages people to actively take part in open debates so as to bring change in society and to fulfil their rights and duties (Martinsson, 2009).

In a free and independent nation, it is important to be free not just in the sense of roaming freely, but freedom of expression, freedom of speech, freedom of disseminating information, etc. should be given due importance as well. Bringing forth the correct information is the job of journalists. If they are not free to provide facts to the people, how would people come to know what actually happens in their surroundings, in particular, and the world, in general? This freedom of expression helps in stopping barbarism, atrocities, corruption, etc. as people having such aims fear of being exposed in front of the world. Democracy gives a fundamental right of freedom to information to its people. However, half of the total population of the world remains in the dark since they do not have access to free news reports and information (Reporters without Borders, 2017).

Reporters without Borders (RSF) is a Paris-based independent and one of the leading NGOs which works in collaboration with various organizations like the United Nations, UNESCO, the International Organization of the Francophonie (OIF), and the Council of Europe with the aim of promoting freedom of information. It has various foreign sections and bureaux in 10 cities, and a network of correspondents in 130 countries all over the globe. These countries extend their support to RSF in challenging and influencing governments at both ground, as well as at ministerial level. RSF was established in 1985 by four journalists in Montpellier, France. It performs a number of activities to promote freedom of information, e.g. informing about the media freedom situation worldwide; press releases reporting about human rights violations against journalists; training journalists in physical and digital security; financial assistance to threatened independent media; etc. (Reporters without Borders, 2017).

In addition to the above-mentioned activities, RSF evaluates the impact of the works based on various indicators that have been already developed by it such as the World Press Freedom Index. Governments have reacted to the publications of the Index in large numbers. Besides, the Index is used as an evaluation and advocacy tool by various well-known bodies such as the World Bank, the UN Refugee Agency (UNHCR), and the Millennium Challenge Corporation. The World Press Freedom Index which is published annually since 2002 measures the level of freedom available to the media throughout the globe. The Index enables RSF to deliver information about developments and falloffs in media freedom in 180 countries. Besides the Index, RSF measures global and regional indicators that depict the wholesome performance of countries with regard to media freedom. It is a real measure that supplements the index's comparative rankings. The global indicator is the average of the regional indicators, which in turn are gauged by averaging scores of all countries in a particular region, weighted in accordance to the country's population as per the World Bank. This qualitative analysis combines with quantitative data on abuses and acts of violence against journalists. The information is extracted by pooling responses of experts to a questionnaire devised by RSF. The criteria used in the questionnaire to deduct the freedom of journalists are pluralism, media independence, media environment, self-censorship, legislative framework, transparency and quality of infrastructure that supports the production of news and information. This questionnaire has been expanded since 2012, and the number of respondents has also tripled since then. The index is also visualized in the form of a map in both print and digital versions, giving an overview of the situation in each country (Reporters without Borders, 2017).

The World Press Freedom Index ranks countries as per their media freedom in different categories as white zone, yellow zone, red zone or black zone (ranging from "very good" through "very bad") depending on the level of freedom of media. The ranking is based on the Organization's self-compiled assessment of the world countries press freedom records in the earlier year. It is intended to bring into light the degree of freedom that journalists, news organizations and netizens have in every country, and the role of authorities in respecting this freedom. The report is drafted in a manner that only deals with freedom of the press, the quality of journalism and human rights violations, which are overlooked by the organizations. The Index acts as a point of reference by media throughout the world.

In the case of the South Asian region, most of the countries fall under the red zone category. South-East Asian nations although differing in histories, cultures, political systems, etc., their media environment are among the most restricted throughout the globe. Most of the South-East Asian nations rank at the bottom of RSF's 2016 *World Press Freedom Index*. The media here faces lots of issues including violence against journalists, lack of political support to free media, government censorship, etc. (Lublinski, 2016). There is a decline in the media and press freedom among South Asian countries over the years (RSF, 2016). There are similar opinions and news reports like media restrictions, violence, curbs, etc. regarding the freedom of media in South Asian nations (IFEX, 2015; Lang, 2015; "Nepal ranks second", 2016; "South Asia", 2005). Given these backgrounds, the present study makes an endeavour to understand the position of the Asia-Pacific region with respect to their research output in the field of MIL using RSF's *World Press Freedom Index* and Clarivate Analytics's *Web of Science* as data gathering tools.

Press freedom in the Asia-Pacific Region

With 34 countries and more than half the world's population, the Asia-Pacific region holds all the records, where countries like China and Vietnam keep journalists and bloggers suppressed by barring their press freedom, and other countries like Pakistan, Philippines and Bangladesh act as suicidal fields for journalists to work. The Asia-Pacific region also has the biggest number of *"Predators of Press Freedom"*, who run some of the worst dictatorships and information *"black holes"* such as North Korea and Laos (Reporters without Borders, 2017).

The World Press Freedom Index 2017 denotes that media and press freedom in democracies is declining globally, and the Asia-Pacific region is recognized as the home to some of the world's most oppressive governments. RSF highlights China (ranked 176), North Korea (180) and Laos (170) as "press freedom predators" where "the world's worst dictatorships" oversee "news and information black holes". In the Asia-Pacific region, only New Zealand (13) and Australia (19) make the top 20. The report says along with Turkey, China (176) and Vietnam (175) are the world's biggest prisons for journalists. Taiwan ranks top in East Asia at 45, while Hong Kong is listed at 73rd position despite declining press freedom due to the growing influence of Beijing. Southeast Asia is particularly repressive of the press, with the tiny democracy, East Timor ranking highest at 98, Malaysia at 144th rank, the Islamic Kingdom of Brunei at 156th place and the strongest democracy in the region Indonesia at 124th position. Military junta-ruled Thailand is at 142nd rank, less free than Burma (131) currently undergoing democratic transition. Meanwhile, the Philippines (127), Pakistan (139) and Bangladesh (146) are some of the world's most dangerous countries to work as a journalist. South Asia also fares poorly, with Maldives at 117th rank following Nepal (100) and the world's largest democracy India way down the list at 136th position (Asian Correspondent Staff, 2017).

Information Literacy

Information literacy is a basic human right in the digital world (IFLA, 2005). American Library Association (1989) defines "*information literacy*" as the ability to find, explore, evaluate and make use of information or facts and develop useful knowledge from it. Bawden (2001) comments on information literacy as a broad concept often related to library literacy, technological literacy or information seeking. Information literacy is considered as a compulsory skill for every aspect of life mainly in today's world flooded with information (Aharony, 2010). With the advent of new media technologies, it is anticipated that consumers will not only use, but produce, share and evaluate digital content. In addition to being new media literates, they are also required to know socio-cultural and emotional aspects of news media apart from its technical characteristics (Koc & Barut, 2016). The sole concept of "*literacies*" has been a universal term to organize the concepts "*information literacy*" (Lau, 2006), "*digital literacy*" (Lankshear & Knobel, 2015), and "*new literacies*" (Lankshear & Knobel, 2007). "*Information literacy*" also finds its association with the business sector and makes an important component of the knowledge management field (Mokhtar, Majid & Foo, 2008; O'Sullivan, 2002).

An information literate society increases civic participation by engaging in a citizen developing process, which enables the ability to ascertain or contest information spread from authoritative sources. This new literacy programme can have a deep influence on voting decisions by giving citizens the tools to make informed decisions while they cast votes (Coiro, 2009). The growth of research studies in the field of information literacy started from the year 2000 onwards and depicts its varied characteristics in different contexts (Lloyd & Williamson, 2008). As per Lupton (2004), information literacy is primarily focused on learning. Earlier literature on information literacy was mainly driven by the interests of librarians. Bruce (1999) deliberates on the fact that the literature on information literacy is mainly in line with the professional aspect rather than scholarly content. Rockman (2003) identifies information literacy not just as a library issue, but a trivial issue for the 21st century. The universe of information created and dispersed through media has made it mandatory to study information literacy and its supporting practices (Martin, 2011).

Media Information Literacy (MIL)

MIL increases the capacity of people to enjoy their fundamental human rights. It describes the primary role of information and media in the daily lives of people. It is rooted in the freedom of expression and information as it empowers citizens to know the functions of media and other information providers, to critically evaluate their content and to make informed decisions as users and producers of information and media content. Information and media literacies have, in the past, been considered as distinct fields. UNESCO tries to bring these two fields together as a combined set of competencies including knowledge, skills and attitude that are important for life and work using varied strategies. MIL takes into account all forms of media and other information providers such as libraries, archives, museums and the Internet irrespective of technology used (UNESCO, 2017). MIL enables citizens to:

- Understand the role and functions of media and other information providers in democratic societies
- Recognize and articulate a need for information
- Locate and access relevant information

- Critically evaluate information and the content of media and other information providers including those on the Internet in terms of authority, credibility and current purpose.
- Extract and organize information and media content
- · Synthesize or operate on the ideas abstracted from content
- Ethically and responsibly communicate one's understanding of created knowledge to an audience or readership in an appropriate form and medium
- Be able to apply ICT skills in order to process information and produce user generated content
- Engage with media and other information providers, including those on the Internet, for self-expression, freedom of expression, intercultural dialogue and democratic participation (Grizzle et al., 2013)

Mainly there are two schools of understanding rising from the relationship between converging fields of media literacy and information literacy. Some consider information literacy as a broader field of study, with media literacy fused into it, while others say information literacy is only a part of media literacy, which is considered as a broader field.

An overview of bibliometric studies in Information Literacy & Media Information Literacy (MIL)

Starting in the 1980s with Kuhlthau's research as most noteworthy focusing on user studies, the second phase starts from the 1990s till the mid-90s as the experimental phase when the *"information literacy"* term got attached with research specifically with Doyle's Delphi studies giving definitions and descriptions that became standards in the field. The third phase is named as an exploratory phase beginning from 1995, whereby scientists enlarged the horizon of research from education to other domains such as information technology, community and workplace. Last is the evolving phase starting from 2000 and onwards, based on growth in research outside the educational sector, workplace and community to several aspects.

Bibliometric methods study the pattern of scholarly output and identify the changing trends in the scholarly world (Jacobs & Ingwersen, 2000). A bibliometric study can also prove helpful in identifying gaps in the existing literature thus, nudging scholars to select areas having potential for future research (Lowry et. al 2013). Some of the studies have researched publishing patterns in different types of literacy as Bankson (2009) studied literature trends related to health literacy brought out from 1997-2007 and found a steady growth of articles in the discipline.

The available literature on information literacy analyses the bibliometric aspects of information literacy (Abrizah, Zainab, Kiran & Raj, 2013; Kolle, 2017; Majid, Yun-Ke, Aye, Khine & Wai, 2015; Nazim & Ahmad, 2007; Tsay & Fang, 2006). Kondili, Kiriaze, Athanasoulia and Falagas (2008) while examining the research productivity in health literacy from the current members of the European Union (EU). The study came up with the findings that 25 European countries produce less than one-third of the health literacy research in comparison to the USA. Countries like Netherlands, Sweden, Germany, Italy and France are the only ones with highest publication count in the fields related to health literacy from the EU. Johnson, Sproles, Detmering and English (2012) studied 3,527 articles from the annual bibliography published from 2001 to 2010. The location of the primary author was also determined besides gauging the discipline and type of article. Panda, Maharana and Durllav (2013) analysed publication and citation patterns in an open access journal, the Journal of Information Literacy (JIL). The study shows the United Kingdom as the major contributor in the research publication and citation analysis and brought to light that individual research is preferred to collaborative research. Aharony (2010) studies about 1970 documents published in 1999 and 2009 on "information literacy" as a topic in the Web of Science database.

The conclusion of the study expressed English as the major language in documents and USA being top grosser in researching the field. Furthermore, the study depicts a gradual increase in the publication scenario of information literacy. Kumari, Madhusudhan and Hydar (2015) attempted to identify the bibliometric characteristics of articles published in various journals from the Web of Knowledge during the study period 1999-2013. Pinto, Escalona-Fernández and Pulgarín (2013) throw light on the international scientific productivity in the field of information literacy from the time of its birth in 1974 till ending 2011, by performing bibliometric analysis of scientific articles in the *Web of Science* and *Scopus* databases. No studies however, were undertaken to gauge the funding patterns in media information literacy and the growth of literature in the field. Therefore, a need was felt to study the research trends, with funding patterns in media information literacy throughout countries in the Asia-Pacific region of the world.

Various studies show the impact and proliferation of Media Information Literacy (MIL) in today's dynamic society and its need for information generation.

Meyrowitz, (1993) strongly supports the view that media literacy is a complex concept and students should be able to perform varied analyses of the literacies embedded in it so that they can be considered literate. Messaris (1994) deliberates on the visual component of media literacy and defines it as its important component.
A huge quantity and easy availability of information breathed out by new media is considered the biggest change in people's lives; it is also predicted with perspective to have intense effects on higher education as well. As proliferation of media into the lives of common people has increased due to the low cost of technology and super-fast Internet connectivity, a question regarding the use of information is prevailing among almost all classes of society. Several recent studies have also highlighted the need for information literacy skills among the workforce in different industries (Crawford & Irving 2009). Zettl (1995) argues about education in media literacy to be content driven rather than art based and defends the importance of media aesthetics as a foundation stone for the model of media literacy.

Methodology

The study is based on data over a period of 17 years (2000-2016) retrieved from the *Web of Science (WoS)*, citation indexing service originally produced by the Institute for Scientific Information (ISI), now maintained by Clarivate Analytics (previously the Intellectual Property and Science business of Thomson Reuters) (Web of Science, 2017). According to "UNESCO's Media and Information Literacy Curriculum for Teachers, multiple and related literacies are included in the concept of MIL" which include:

Computer Literacy, Digital Literacy, Freedom of Expression – Freedom of Information Literacy, Information Literacy, Internet Literacy, Library Literacy, Media Literacy and News Literacy.

In view of this, the string used to retrieve the data on MIL was framed as follows:

TS=("Computer Literacy" OR "Digital Literacy" OR "Freedom of Expression" OR "Freedom of Information Literacy" OR "Information Literacy" OR "Internet Literacy" OR "Library Literacy" OR "Media Literacy" OR "News Literacy")

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI Timespan=2000-2016

The string involves multiple literacies as such and is an exhaustive and perfect reflection of MIL research. A total of *6,050* records were extracted at a global level. As our study focuses on Asia-Pacific countries reflected in the *"2017 World Press Freedom Index"* (48 Countries), the search string was accordingly modified as:

TS=("Computer Literacy" OR "Digital Literacy" OR "Freedom of Expression" OR "Freedom of Information Literacy" OR "Information Literacy" OR "Internet Literacy" OR "Library Literacy" OR "Media Literacy" OR "News Literacy") AND CU=(Afghanistan OR Bahrain OR Bangladesh OR Bhutan OR Brunei OR Cambodia OR China OR Cyprus OR North Korea OR Fiji OR India OR Indonesia OR Iran OR Iraq OR Japan OR Jordan OR Kazakhstan OR Kuwait OR Kyrgyzstan OR Laos OR Lebanon OR Malaysia OR Maldives OR Mongolia OR Burma OR Nepal OR Oman OR Pakistan OR Papua New Guinea OR Philippines OR Qatar OR South Korea OR Samoa OR Saudi Arabia OR Singapore OR Sri Lanka OR Syria OR Tajikistan OR Thailand OR East Timor OR Tonga OR Turkey OR Turkmenistan OR United Arab Emirates OR Uzbekistan OR Vanuatu OR Vietnam OR Yemen)

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI Timespan=2000-2016

The above string retrieved a total of 783 results which were further analysed in Microsoft excel. An additional data set in the tab-delimited format was also downloaded and subjected to analysis of the collaboration behaviour of the Asia-Pacific countries in MIL using bibliometric software "VOSViewer".

Analysis

2017 World Press Freedom Index and Research Performance of Asia-Pacific on MIL

The Asia-Pacific region contributes 783 publications, which is about 12.94% of the global output. The majority of the publications are in the form of *conference proceedings* (48.6%) and *articles* (46.4%) with the remaining 5% attributed to *book chapters, reviews, letters, editorial material, book reviews*, and *meeting abstract*. Among the Asia-Pacific region, *China* contributes the highest number of documents (275; 35.12%), indicating its leadership in the field, followed by *Turkey* (111; 14.18%), *Singapore* (66; 8.43%), *Malaysia* (60; 7.66%) and *India* (53; 6.77%), representing 565 (72.16%) of the total region's productivity (Table 1). *Pakistan, Indonesia, Saudi Arabia, Kuwait, Cyprus* and *Qatar* contribute 1-2% with 18 countries contributing less than 1% each. However, the remaining 17 countries have no score of research output related to MIL.

On comparing the *average number of citations per item (ACPI)*, *Singapore* (4.17) is quite close to the global average (4.52), followed by *South Korea* (3.82), *United Arab Emirates* (3.67) and *Turkey* (3.36), although none of the countries cross the global mark (4.52).

In context of the ranking of countries by the "2017 World Press Freedom Index" and their position vis-a-vis research output on MIL, the countries ranking high on the publication production are either in *bad (red)* or *very bad (black)* position on the *Index*. E.g., *China* being the leading country in the total publication count on MIL, however, is reflected as the world's biggest prison for journalists with the rank of 176 on the 2017 World Press Freedom Index, positioning very bad (black) state.

Moreover, none of the top 15 countries is figured out in *good (white)* state in the 2017 World Press Freedom Index. Maldives (117), Nepal (100) and the world's largest democracy India way down the list at 136 at the press freedom ranking have also fared poorly for research in MIL by contributing a single publication each except India, which shares 53 (6.77%) publications, thereby holding 5th rank with respect to the publication performance. However, countries like Japan, Kuwait and Lebanon not only belong to the most productive countries, but are also positioned in the fairly good (yellow) zone.

Rank (Publication performance)	Country	TP	%	ACPI	Press Freedom Index Rank	Colour Category*
1	China	275	35.12	1.44	176	
2	Turkey	111	14.18	3.36	155	
3	Singapore	66	8.43	4.17	151	
4	Malaysia	60	7.66	0.95	144	
5	India	53	6.77	1.13	136	
6	South Korea	49	6.26	3.82	63	
7	Japan	45	5.75	0.67	72	
8	Iran	29	3.70	2.52	165	
9	Thailand	24	3.06	0.67	142	
10	Pakistan	15	1.92	3.2	139	
11	Indonesia	11	1.40	0	124	
12	Saudi Arabia	10	1.28	1.5	168	
12	Kuwait	10	1.28	1.7	104	

Table 1 Publication performance and Press Freedom Index ranking of Asia-Pacific

Rank (Publication performance)	Country	TP	%	ACPI	Press Freedom Index Rank	Colour Category*
12	Cyprus	10	1.28	0.80	30	
13	Qatar	8	1.02	0	123	
14	Jordan	4	0.51	0.5	138	
14	Lebanon	4	0.51	0.5	99	
14	Philippines	4	0.51	0	127	
15	United Arab Emirates	3	0.38	3.67	119	
	World	6050		4.52		

*Colour category w.r.t 2017 Press Freedom Map; TP = Total Publications; ACPI = Average Citations Per Item

Growth Trend in Asia-Pacific

The Asia-Pacific region's cumulative research output consists of 783 publications with an average annual productivity of 46.06 papers. The annual average publications growth rate for the region is 58.71% in comparison to 19.65% of the global level.

Figure 1 depicts the growth pattern of the Asia-Pacific region (Secondary axis) compared to the global values (Primary axis). The amount of MIL research has shown a significant growth with improved progress in the recent past. A substantial growth is witnessed in the region with remarkable growth in 2015 and follows almost a similar growth pattern in comparison to the global output, although with very small values.

However, *Asia-Pacific* shows a negative growth rate over the previous years in 2001, 2004 and 2010 with almost constant values in 2015 and 2016; while for the world a constant growth pattern is witnessed in 2001 and 2014 with an increasing growth rate in 2016.



Figure 1 Growth trend of total MIL publications in the Asia-Pacific region

Top institutions, publication sources, authors and funding agencies

Among the leading contributors, 10 authors have contributed 8 or more papers. These 10 authors together contribute to 100 publications with an average of 10 publications per author and account for 12.77% share in the region. The most productive author is *Majid*, *S. of Nanyang Technological University, Singapore* followed by *Foo*, *S.* of the same institution with 15 and 14 publications respectively. *Mokhtar*, *I. A. and Zhang*, *X.* ranking 3rd and 4th with 10 publications each (Table 2).

The content on MIL produced by the Asia-Pacific region has appeared in different publication types with the majority as conference proceedings and articles. The 10 most productive sources publishing research on MIL together contribute to 187 publications, which accounts for 23.88% of the total output (Table 2). The most productive journal is *Procedia Social and Behavioral Sciences* with 46 papers (5.88%), succeeded by *Communications in Computer and Information Science* with 29 publications (3.70%). Moreover, a number of journals pertaining to Library and Information Science figure in the list of most productive journals for MIL.

In the Asia-Pacific region, the top 10 most productive institutions together contributed 164 (20.94%) publications, with an average of 16.4 publications per institution. Only four institutions contribute over 2%, led by *Nanyang Technological University* with 42 papers (5.36%), followed by the *University of Hong Kong (21 papers;* 2.68%) and *Hacettepe University* and *Universiti Malaya* with 19 publications each (2.43%) (Table 3).

111 (14.18%) records are funded by various agencies, of which, *National Natural Science Foundation of China* leads with 0.51 per cent of papers, followed by *John Campbell Trust, Ministry of Education of the Republic of Korea, National Research Foundation of Korea* and others funding 0.26 per cent each (Table 3). However, the maximum share (90.42%) of publications does not contain funding data and as such are considered as unfunded ones.

Top Authors	Record Count	%	Top Source Titles	Record Count	%
Majid, S	15	1.91	Procedia Social and Behavioral Sciences	46	5.88
Foo, S	14	1.79	Communications in Computer and Infor- mation Science	29	3.70
Mokhtar, IA	10	1.28	Advances in Social Science Education and Humanities Research	26	3.32
Zhang, X	10	1.28	Lecture Notes in Computer Science	17	2.17
Goh, DHL	9	1.15	Electronic Library	13	1.66
Guo, YR	9	1.15	Malaysian Journal of Library Information Science	13	1.66
Theng, YL	9	1.15	Advances in Education Research	12	1.53
Chang, YK	8	1.02	Advances in Intelligent Systems Research	12	1.53
Luyt, B	8	1.02	Information Literacy Lifelong Learning and Digital Citizenship in the 21st Cen- tury	10	1.28
Sin, SCJ	8	1.02	Journal of Academic Librarianship	9	1.15

 Table 2
 Top contributing authors and publication sources

Source: Own elaboration.

Table 3Top contributing institutions and funding agencies

Top Organizations	Record Count	%	Top Funding Agencies	Record Count	%
Nanyang Technologi- cal University	42	5.36	National Natural Science Foun- dation of China	4	0.51
University of Hong Kong	21	2.6	John Campbell Trust	2	0.26
Hacettepe University	19	2.43	Ministry of Education of the Republic of Korea	2	0.26

Top Organizations	Record Count	%	Top Funding Agencies	Record Count	%
Universiti Malaya	19	2.43	National Research Foundation of Korea	2	0.26
Universiti Teknologi Mara	13	1.66	National Research Foundation of Korea Korean Government	2	0.26
Chinese University of Hong Kong	12	1.53	University of Malaya	2	0.26
KUWAIT University	10	1.28	Worldwide Universities Network Wun	2	0.26
University of Punjab	10	1.28	Japan Society for the promotion of Science JSPS	2	0.26
National Institute of Education	9	1.15			
Universiti Kebang- saan Malaysia	9	1.15			

Source: Own elaboration.

Research collaboration ties within and outside the Asia-Pacific region

Research collaboration among the nations is shaped by the geopolitical location, cultural relation and language, which in turn plays an important role in improving the quality and quantity of research output, thereby fostering mutual development. The influence of factors which include cultural, linguistics, economic, geographical and political elements on collaboration behaviour is also reported by Gazni, Sugimoto and Didegah (2012); Zitt, Bassecoulard and Okubo (2000).

In this context, the collaboration pattern for the countries in and outside the Asia-Pacific region was analysed.

To capture information about collaboration, 19 countries with no less than 5 publications were chosen and mapped using "*VOSViewer*". In this figure, each circle represents a country. The size of the circle is proportional to the total number of documents produced by a country and line weight is proportional to the magnitude of cooperation in terms of documents produced by authors from the two countries.

Figure 2 shows 4 countries outside the Asia-Pacific are collaborating, which includes USA, England, Australia and Taiwan. Among it, South Korea-USA collaboration ranks first with 15 cooperative documents followed by China-USA (8), Singapore-USA (6), India-USA (5) and Turkey-USA (4), indicating the dominant role of USA as a collaborating partner for the Asia-Pacific region in MIL research. Besides, *Singapore-Taiwan; China-Australia; Saudi Arabia-England and Iran-England* collaborated in 6, 4, 3 and 2 publications respectively.

Among the Asia-Pacific region, *Malaysia* shares 3 documents each with *Singapore and Iran* while *China-Singapore* collaborated in 2 documents, demonstrating that Asia-Pacific region exhibits greater scientific relationship with countries outside the Asia-Pacific region compared to among themselves.





Source: VOSViewer

Conclusion

Over the past few decades there has been a paradigm shift in the information landscape and media culture across the globe. Modern information and communication technology has given rise to new products for the creation and dissemination of information including "media text", and has also given a glossy touch to literacy, making it more plural and dynamic, which traditionally was limited to the binary conception – read and write. Today information literacy brings to fore the value of information-access, evaluation and use, while media literacy underscores the importance of understanding, evaluating and using media as a leading source and processor of information. Together they are essential to develop among the masses the critical acquaintance about media functions, information systems and the shared content.

The goal of MIL is to empower the people to use freedom of expression as a right and participate in the governing process, and if free from the political gag can lead to a vibrant democratic culture. Realizing the importance, United Nations in its Article 19 declares "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers" (United Nations, 1948), and nations across the globe are working to empower people through MIL to foster equitable access to information and knowledge and promote free, independent and pluralistic media and information systems.

MIL has tremendous implications for safeguarding the democratic values of a nation. It ensures the right to freedom of expression and makes citizens aware of the basic human rights and also serves as a pedestal on which the entire structure of universal declaration of freedom is based. Over a decade MIL has been actively discussed in the academic arena and has become an important component of today's education sector. MIL courses are taught across Europe, Asia and America not only at primary and secondary level, but also are deeply ingrained in the higher education system. Although MIL is fostered by the ICT enabled learning environment, there are countries that show abysmal performance. One of the potential tools to reflect the degree of freedom that journalists, news organizations, and netizens have in each country, and the efforts made by authorities to respect this freedom underlining the importance of nations for the MIL, albeit inexplicitly is the *World Press Freedom Index*.

2017 World Press Freedom Index notices that media and press freedom in democracies is declining globally, and the Asia-Pacific region is attributed as the home to some of the world's most oppressive governments. In this study, the bibliometric method was employed to MIL research output and its allied aspects contributed by the Asia-Pacific region covered in the 2017 World Press Freedom Index. The Asia-Pacific region shares less than one-quarter of the research output compared to global research with the maximum share from world's biggest prison for journalists "China" and "Turkey". The leading role of China is also marked by its highest funding in MIL. The research from the region is gradually increasing with higher annual average productivity compared to the global regions and marked progress in the recent years with 14.18% of publications sponsored by various agencies. The authors of "Nanyang Technological University, Singapore" are active researchers in the field of MIL with "Procedia social and behavioral Sciences" as the leading communication source. Asia-Pacific reveals greater scientific collaborative efforts with countries outside the region with the highest bonhomie for South Korea and the USA. The study concludes that the Asia-Pacific region needs to repaint its performance by the shades of good (white) and fairly good (yellow) not only at the press freedom index but also on the research front with respect to MIL.

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Part II MIL and the Different Actors and Situations of Learning

Introduction

Guillermo Orozco (ed.)

True learning processes always need imagination, compromise and respect among the involved actors, motivation and shared interest on the object to be learned, pedagogical strategies, curiosity, communication, and analysis, among other things. But learning also needs a situation in which to be developed and signified; a situation in which dialogue among learners thrives and facilitates understanding among each other's ideas, positions, expectations and judgements. How to develop productive MIL learning situations in different educational settings is the central purpose of the MIL experiences collected in this section.

The first article: "Building Critical Awareness: A Faculty-Librarian Collaborative Approach to MIL in the Classroom" recounts a learning experience at a liberal arts college in the U.S. which was nurtured by several MIL approaches, both media and information-centered, with the aim of inviting students to reflect and develop a position about the topics discussed. The right to be informed and the understanding of how news is constructed in the media were examples of the learning outcomes.

"MIL for social integration of Portuguese youth", the second article in this section, develops a learning proposal to promote intercultural dialogue and conflict resolution in the classroom. The proposal is based on a series of exercises thought to reinforce students' awareness about being Mediterranean. The intervention was part of the general effort of ECFOLI – ERASMUS MIL project aiming to reinforce the ownership of a common-ground culture among Mediterranean countries, as a means for a better understanding of their particularities.

The third article in this section, "Evidence-based frameworks: Key to learning and scaling globally", is based on a longitudinal study conducted by the Center for Media Literacy: CML and the UCLA in 20 schools with 2000 students in the U.S. The aim of this study is to introduce a reflective list of questions with which students could slowly become aware of different aspects involving violence in the media. By deconstructing the violence portrait, students go through what is called the Empowerment Spiral of Awareness. "Intercultural competencies and multicultural education in Nigeria": The MIL Option, the fourth article in this section, develops a proposal for universities' MIL education within a country such as Nigeria today, composed of several cultures in need of mutual understanding. The MIL effort is directed to students in order to develop a context in which cultural and power differences can be studied and set in dialogues so they be better understood by the participating students-citizens.

The next article in this section: "Towards the transcultural media competencies of migrant young people" focuses on a MIL effort to develop student agency through a multi-literacy approach. It is recognized that migrants in a country, culture, and customs different from their own, need a broad perspective to situate where they are. The article reinforces the idea that for a successful learning, an explicit understanding of the goals and means of transcultural education is first needed among teachers.

"Hydro-citizenship and media education: using multimodal content production to engage young people in water management", the last article in this section, is the report of a specific action research, pedagogical intervention which was supported by a "make and connect methodology" in a secondary school. The strategy was to involve students in a series of workshops supported with digital materials in order to be discussed and reworked attending different angles: cognitive, aesthetic, real, fictional, among others.

As one of the editors of this Yearbook, I am pleased to invite you to read, enjoy and reflect upon the learning experiences and MIL situated creative proposals developed in this section.

Building critical awareness: A faculty-librarian collaborative approach to MIL in the classroom

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We piloted an interdisciplinary media and information literacy (MIL) undergraduate course at a small liberal arts college in the U.S. Midwest in spring 2016, and taught it again the following semester (fall 2016). Our pedagogical approach is informed by the work of Marcus Leaning, Renee Hobbs, and also includes components from UNESCO's MIL curriculum.

A survey was distributed in conjunction with the course. In the pre-test, students were measured on their familiarity with MIL concepts; asked to rate a series of statements concerning their level of understanding about the role of media and information in society, and asked to answer two broad questions assessing various course concepts including bias in media and information. In the post-test, students were again asked to define media literacy and information literacy, answer the same series of statements about the role of media and information in society, and write briefly about what they learned. The results of the pre and post-test were then compiled and analysed for significant changes in level of understanding, learning and perceived importance of media and information literacy.

This chapter discusses findings from the study, and situates our reflective media and information production approach within the wider media and information literacy education landscape. We also provide a brief overview of modules from our MIL course and appeal for increased collaboration between media literacy and information literacy, especially in U.S. tertiary education.

Keywords: MIL study, UNESCO, interdisciplinary, librarian, innovative, collaboration

MIL: Collaborative Opportunities

Although UNESCO has promoted media education as a fundamental human right for several decades, it has championed the composite concept of media and information literacy (MIL) for less than ten years. In that time, the organization has developed curricula, including online classes, assessment tools and fostered international alliances, such as the Global Alliance for Partnerships on Media and Information Literacy (GAPMIL). While recognizing that they emanate from different traditions, many influential theorists have also called for a media and information literacy fusion, including Sonia Livingstone (2005) and Renee Hobbs (2010). Beyond UN-ESCO, perhaps the most consistent advocate of a media and information literacy alliance is Marcus Leaning. His two-part "Issues in Information and Media Literacy" series (2009), along with a chapter in the influential edited volume, "Media Literacy in Action: Theoretical and Pedagogical Perspectives" (2014) and most recently "Media and Information Literacy: An Integrated Approach for the 21st Century" (2017) established his place as a MIL pioneer. Despite these appeals for convergence, many academics, both in the US and Europe, have been slow to formally or explicitly integrate the two disciplines. One reason for this is the persistence of institutional silos, but there is also a lack of awareness in communications, and media studies areas in particular, to new critical subfields of information literacy. On the face of it, this lack of understanding is surprising given the convergence of media and information over the past several decades. In his latest work, Leaning (2017) proposes,

...... rather than making small adaptations and continually adding new components to both fields, there is a strong case for a reconsideration of the disciplines; to combine them and set a 'strategic direction' for where media and information literacy education should go in the next few years. This assertion takes place in the light of arguments made by a number of previous authors (Cheung, Wilson, Grizzle, Tuazon, & Akyempong, 2011; Moeller, Joseph, Lau, & Carbo, 2011) and in statements from various organizations (UNESCO, 2014) (p. 4).

And while theoretical rationales for combining media and information literacy such as Leaning's are scarce, there are even fewer examples of practical models detailing how to teach it. The UNESCO curriculum (2011) is one of only two models we have found.¹ The MIL class discussed in this chapter utilizes some of the open source UNESCO authored MIL resources, including curricula materials. Indeed, we also use that organization's rationale for teaching MIL together to help orient our own students, who often are not familiar with either field. UNESCO (2015) acknowledges the differences between the two disciplines but asserts, Media literacy (ML) and information literacy (IL) are part of one another. They have differences and similarities, but they overlap in many areas. Together, they include all the skills, knowledge and abilities that we think of when we think of library literacy, news literacy, digital literacy, computer literacy, Internet literacy, freedom of expression and freedom of information literacy, television literacy, advertising literacy, cinema literacy, and games literacy.

More recent writing by De Abreu, Mihailidis, Lee, Melki, and McDougall (2017) identified five global approaches to media literacy education - inoculation, critical analytical, media arts, social participatory, and the reflective media production approach. They note,

the approach of inoculation aims for protecting the youth against negative media messages. While the critical analytical approach teaches young people to deconstruct the hidden ideology and values of media messages, the media arts approach encourages teaching media literacy through media production. The media arts approach emphasizes enjoyment of the media. Media production and consumption are regarded as interesting, creative, participatory, and related to young people's lifestyles. Some educators advocate the social participatory approach, which focuses on letting active citizens play a constructive role in media democracy. The fifth approach is the reflective media production approach. This approach is the combination of critical analysis and production (p. 2).

While all five traditions can be found in U.S. institutions, the inoculation or protectionist approach remains a strong one, especially in k-12 classrooms. There is also evidence to suggest that this is the case at the collegiate level,² however this is shifting as the reflective media production approach challenges older pedagogical models. Although using different language from De Abreu et al. (2017), the "Framework and Plan of Action for GAPMIL" concludes:

There is growing evidence that empowerment, through media and information literacy (MIL), rather than protectionism and regulation, provides critical skills needed to enable citizens to critically consider their media use and make appropriate decisions for themselves given the ubiquity of media, information, and the Internet. Empowerment through MIL also leads to enhanced opportunities for citizens. These opportunities can be situated in information (accessing, providing, looking for, critically assessing and sharing ethically), communication (direct, relational, promotional), animation (reading, watching, playing, and entertaining), creation (technical, content, interaction) and participation (social, educational, professional, economical, and political) (2013, p.1-2). The pedagogical framework used in our MIL class corresponds loosely to the "reflective media production approach" as defined by De Abreu et al. (2017) "This approach is the combination of critical analysis and production. It stresses the importance of respecting young students' subjective media experiences and social backgrounds. It lets students produce media from their everyday life perspective" (p.1). Our MIL class, which emphasizes critical engagement and empowerment (as defined by UNESCO above), also challenges protectionist, as well as media arts only traditions.

Reflective Approaches in the Classroom

Producing information is critical to MIL education in our perspective. Students must learn to produce if they are to both deconstruct messages and assess reliability in a digital environment. As De Abreu et al. (2017) note, "In particular, combining critical questioning and production expertise is well supported. This new trend signifies the blurred boundary between high culture and popular culture; critical analysis and production; and politics and poetics" (p.3). And although there is little emphasis in our class on the notion of "expertise", creating screencasts (using free online software) is one way we encourage students to think critically about their role as producers of information and media in general. This hands-on, in-class activity (adapted from an assignment learned at Renee Hobbs' Summer Institute in Digital Literacy)³ helps students choose to deconstruct, a wide range of topics are typically analysed, including the "real world" versus mainstream mediated representations of body image, and gender equity.

Another way we situate the class in the reflective media production approach is by including a module on news literacy. Although so-called "fake news" has become commonplace in the aftermath of the 2016 U.S. presidential election, many of the pedagogical approaches are purely skills based, i.e. verifying information with formulaic and prescriptive sets of questions. However, the news literacy approach in our class uses materials from the Illinois Press Association (Porter, 2013) to complicate taken for granted ideas about news, truth and facts by contextualizing the economic and practical realities and pressures (including news drivers⁴ and the use of sources) on journalists. Following this, students work in small groups to analyse newspaper headlines curated on the Newseum's "Today's Front Pages" website.⁵ Students learn how the same information or news story is presented differently, or in some cases not considered newsworthy at all, when discussing what they found. Students also critically analyse regional and international perspectives on news to foster intercultural dialogue.

Intercultural dialogue is a process based on an open and respectful exchange of views between individuals, groups and organizations with different cultural backgrounds or mindsets. Among its aims are: to develop a deeper understanding of diverse perspectives and practices; to increase participation; to ensure freedom of expression and the ability to make choices; to foster equality; and to enhance creative processes. (Cliche & Wiesand, 2009, p.9).

Intercultural dialogue is further facilitated in our classroom by the presence of an international instructor.

In addition, students write about their own experiences with online news by researching and reflecting on the following questions: Are the public comments sections of news websites a good idea? Do they democratize the media? Do they generally add more heat than light or vice versa? Should a news site have the option to remove comments?⁶ One student comment from this written assignment focuses on media and democracy:

If news sites are able to remove comments then it would mean that it does not democratize the media. People have a right to free speech and should be allowed to speak their mind when they are being encouraged and asked to. Therefore, taking this right away suggests that it does not democratize the media but instead helps it to be dictatorial (2016, spring).

The objective of this assignment is to meet students in online spaces where they get their news and form opinions about contemporary issues. It also allows students to be reflective about how they represent themselves and engage in these online environments, as well as what types of information they are sharing with others.

The last example from the course that situates our approach in the reflective media production school deals with the digital divide. As a class, we watch the documentary "Web" which "follows Peruvian families living in remote villages in the Amazon Jungle and Andes Mountains as their children experience the One Laptop per Child (OLPC) program, gaining access to the Internet for the first time. WEB considers both the benefits and complications that arise from digital connections".⁷ This topic fostered dialogue around students' own experiences, largely US-based, but with some global perspectives from internationals studying abroad at our institution (including Pakistan, Chile, Northern Ireland, Uganda). Most of our U.S. students have not traveled abroad and lack global perspectives on the digital divide. International students proved invaluable in providing non-U.S. viewpoints and facilitating intercultural dialogue on this issue. Student reactions to the film included reflecting on their own "privileged" access to Internet and technology in general, often something they had not considered prior to taking this MIL course.

On the other hand, many also assume that all U.S. students have always had ubiquitous and easy access to technology, and high-speed Internet in particular. In our experience this is not the case, as some students enrolled in this MIL course grew up in rural areas with very limited, and in some cases, no Internet access. Prior to college, they often had to stay after school or go to their local public library to complete assignments. Further, a small number of our students, from both rural and urban environments, do not own smartphones, laptops or tablets and instead borrow college owned computers.

In a related assignment, students reviewed a set of resources curated by the instructors. In addition to their own research, they also reflected on whether digital access should be a basic human right, and they explained their position. One student wrote:

The equal access of digital and information technology is key to promoting democracy and equality. Information should be a basic human right and should be easily accessible by all Americans regardless of their age, social standing, or race. Those who already are able to connect to the Internet in America have the responsibility to support this human right by raising awareness of the digital divide by curating information on this issue and by helping those in their family and community bridge the divide (2016, Spring).

MIL Case Study

We piloted our MIL course in spring 2016 (33 students enrolled) and taught it again the following semester in fall 2016 (14 students). It is now in regular course rotation and is offered every fall to coincide with U.S. national media literacy week. Housed in a merged English and communications department, the course is required for communications majors and minors, professional writing majors and minors, and secondary English education majors. It is also an elective for students pursuing a minor in marketing communications. Although a "media literacy only" version of this course was taught at the same institution for four years prior to this collaboration, the newer course combined traditionally siloed areas of media literacy and information literacy using UNESCO's MIL curriculum, resources from Renee Hobbs "Media Education Lab", and work by various other media and information literacy scholars, combined with a collaborative pedagogical approach. The class is co-taught by two instructors, one with a grounding in media studies/communications and the other, with a library and information science background (librarian). The class covers a wide range of topics including propaganda, participatory culture, media ownership, reality television, issues of representation, advertising, copyright, fair use, open access, Wikipedia and the value of Twitter/social media. In addition, we foster MIL initiatives throughout the course in several ways. For example, the instructors coordinated campus wide events during national and international media literacy week in 2016 including a panel discussion featuring MIL educators and practitioners, supported activities coordinated by other GAPMIL "key partners" including the Gateway Media Literacy Partners (a regional non-profit), and participated in the Center for Media Literacy's "Commit2MediaLit!" campaign, where students were filmed discussing the ways in which they believe MIL is important in their lives.⁸

Results

A survey was distributed in conjunction with the course.⁹ Student participation was anonymous and voluntary, but strongly encouraged. In the pre-test (distributed on the first day of class), students were measured on their familiarity with MIL concepts; rated a series of statements concerning their level of understanding about the role of media and information in society, and answered two broad questions assessing various course concepts including bias in media and information. In the post-test (distributed on the last day of class), students were again asked to define media literacy and information literacy, answer the same series of statements about the role of media and information in society, and write briefly about what they learned. The results of the pre- and post-test were then compiled and analysed for significant changes in level of understanding, learning, and perceived importance of media and information literacy.

In order to analyse changes from the beginning of the term to the end, a series of ten questions posed to the students in the pre- and post-test were used to construct a media and information literacy index. The questions focused on the purpose and influence of media and information consumption, its creation and ownership. Student responses were scored and then compiled into an additive index, which was scaled to a 100-point scale (see Appendix A for more information about the construction of the index). The index allows us to compare the average student score from the beginning of the semester to the end and ranges from 58 to 100, with a mean of 80 and a standard deviation of 10. There were 50 students across two sections of the course who took the pre-test and 45 who took the post-test, totaling 95 responses to the survey. Generally,

the average media and information literacy index score increases from the beginning of the semester to the end of the term. *Figure 1* shows a slopegraph of the change in average MIL score from beginning of the semester to end of semester for all students who were enrolled across two sections. A one-way repeated measures ANOVA shows that overall students' average literacy score is statistically significant, F(1, 44) = 9.96, p = 0.003, with average scores increasing from beginning of semester (M =78, SD =10.36) to the end of semester (M =83.13, SD =9.64). These results are indicated in the plot by the orange line whose positive slope shows that the typical student grew in their average media and information literacy score over the semester.

Figure 1 also shows that when students are broken out by gender it is evident that there is a difference between students identifying as females and males.¹⁰ A one-way repeated measures ANOVA was run for female and male students across two sections of the course to see if their MIL index scores would be significantly different from the beginning of the semester to the end. The results show that for female students, average MIL index scores were significantly different over time, F(1, 23) = 9.69, p = 0.005. Females in the two sections of the course started the semester with higher average MIL scores (M =79.36, SD =9) and ended the semester with the highest average gains in index scores (M =86.29, SD =8.02) compared to males. The results for male students was not significant, F(1, 19) = 0.75, p = 0.40, indicating their MIL scores did not significantly change from the beginning to the end of the term.

Future Implications for MIL

As far as our own MIL course is concerned, it is scheduled again for fall 2018 and we will continue to revise and improve content with new assignments, readings, etc.¹¹ It is also anticipated that changes will be made in terms of how we assess student learning. Although the survey provided valuable data, final projects, students' weekly "takeaway" Tweets, and course reflection papers also offer valuable qualitative data.

Ultimately, MIL can be successfully implemented in many more U.S. colleges and universities provided researchers and instructors are willing to abandon traditional disciplinary silos. Collaborative, interdisciplinary work is critical, as is a willingness to understand new developments in both major fields – communications, and library and information science. One obvious way to facilitate this is for librarians to attend and present at media literacy/communications conferences and vice versa. Furthermore, researchers and instructors must be willing to work openly in terms of sharing course resources. The challenge of creating and implementing our course would have been much greater were it not for the generosity of those working openly in media literacy, information literacy, and other related areas.¹²

Notes

- One example (and one of the only we have found that is remotely similar to our model in U.S. higher education) is a media and information literacy course at Southern Illinois University-Carbondale. This online course is taught by three educators - a librarian, one faculty member in film and one in journalism. Each week, they take turns to teach a media and information literacy concept from the perspective of their own disciplines. http://mcma.siu.edu/cp/_common/documents/syllabi_spring15/mcma200.pdf.
- 2. Evidence for this can be found in the most widely used media literacy textbooks.
- 3. https://mediaeducationlab.com/screencasting-critical-analysis
- 4. Porter lists these as relevance, importance, proximity, timeliness, magnitude, conflict, human interest, prominence, change, unusualness, competition and profit.
- 5. http://www.newseum.org/todaysfrontpages/
- 6. This assignment was taken from SIUC's media and information literacy syllabus - thanks to Christina Heady for sharing with us https://docplayer. net/7178472-Mcma-200-media-and-information-literacy.html
- 7. http://webthefilm.com/
- 8. https://www.youtube.com/user/medialitkit
- 9. Thanks to Amy Saxton at the University of Hawaii at Hilo for allowing use and modification of her survey.
- 10. One student identified as non-binary and is not shown. Future iterations of the surveys will incorporate broader, more inclusive, gender definitions.
- 11. We are happy to share MIL lesson plans, syllabi, resources etc.
- 12. Thanks to Blackburn College students Shelby Rainford and Jenin Kimber for their help with data collection.

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Appendix A

Composite Media and Information Literacy Score

A key component of the pretest posttest survey analysis is the media and information literacy index. This additive index was constructed using ten questions from the survey. The following questions are each on a Likert scale where 1 = Strongly Agree to 10 = Strongly Disagree:

- 1. I only encounter media messages when I'm watching TV, reading a magazine, or surfing the Internet.
- 2. It is important to know who creates information and media messages.
- 3. Techniques used to create information and media messages don't matter as long as the end result is attention-grabbing.
- 4. Most information and media messages are constructed to gain profit and/or power.
- 5. When I watch a TV show, movie, or YouTube video with my family or friends, we are sharing the same experience.
- 6. I only need to worry about being influenced by media when I am watching advertising.
- 7. The purpose of the media is to educate, entertain and inform society.
- 8. It doesn't really matter who owns information and the media.
- 9. The media affect and influence people.
- 10. The media affect and influence me.

For question 1, 3, 5, 6, and 8 disagreement was generally in line with expectations for media and information literacy. For questions 2, 4, 7, 9, and 10 agreement was more aligned with expectations for media and information literacy and so were rescored. For example, if a student responded with a 1 for question #7 (The purpose of the media is to educate, entertain and inform society) that would be changed to a value of 10. The purpose of rescoring was to make higher index scores correspond to what we might expect from a more media and information literate student. It is important to recognize that there is no broadly recognized or standardized scale or measure for media and information literacy. We believe that achieving literacy in this area is not a fixed point but a process that can always improve. True media and information literacy is an evolving and nuanced concept and so this index represents a general approximation of what we might hope to see.

The Media and Information Index ranges from 58-100 with an overall mean score of 80.43, and a standard deviation 10.3. The pretest group had an average index score of 78 with a standard deviation of 10.36. The posttest group had an average index score of 83.13 with a standard deviation of 9.64.

Figure 1





Source: Own elaboration.

Overall, the index shows that students' media and information literacy scores increase from the beginning of the semester to the end of the term. The total number of students who took the pre and posttest are shown in parentheses. The results for females and all students are statistically significant. Female students across multiple sections of the course showed the highest average score both pre and posttest and the largest gains across the semester.

Media and Information Literacy (MIL) for social integration of Portuguese youth

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Currently, school dropout rates and the subsequent social integration of those youth are prominent issues within the Portuguese educational system framing the development of an alternative curriculum in public schools.

In the present study, the development of Media and Information Literacy (MIL) skills is proposed as an intervention to empower youth in social integration, to promote intercultural dialogue and conflict resolution through the study and ownership of the common Mediterranean culture. This research is part of the ECFOLI – ERASMUS+ (March 2015-February 2017), a European Media and Information Literacy (MIL) project.

Findings from this study support the need to test new approaches in schools for solving failure within the regular school curriculum by presenting a more personalized education to meet students' specific needs, which are not taken into account in the current conventional curriculum. A discussion on how this change in education could happen with a multi-stakeholder approach will also be promoted. Lessons from the field will be presented and discussed on how learning in schools could be more rewarding for students if their interests, and imagined future employment, could be taken into account.

Keywords: Media and Information Literacy; Youth; Education; Engagement; Intercultural Dialogue.

The way we communicate and give meaning to life in a mediatized, increasingly digitized world demands multiple literacies, referred to by several authors as Media Literacy, Information Literacy, Visual Literacy, Multimodal Literacy, Computer literacy/ICT Literacy, Media and Information Literacy (MIL) (Drotner & Erstad, 2014; Frau-Meigs, Flores, Tort, & Velez, 2014; Livingstone, S., Wijnen, C. W., Papaioannou, T., Costa, C., & del Mar Grandío, M., 2013; Gutiérrez & Tyner, 2012). Frau-Meigs has come up with a clear definition for practitioners: the 7Cs: "Comprehension, Critical thinking, Creativity, Consumption, Citizenship, Cross-cultural communication and Conflict resolution" (Frau-Meigs, 2011).

Contemporary forms of MIL build on multiple forms of literacy to support media production and critical analysis, seen as being central to learning (Costa, Tyner, Henriques, & Sousa, 2016). Policy makers envision the so-called "21st century skills" as including MIL competencies, stating that citizens must be able to create, evaluate, and effectively use information, media, and technology, consisting in higher levels of media and information literacy and ICT literacy, in order to be effective in the 21st century (Partnership for 21st Century Learning, 2015). In the "Student profile for the 21st century", a report published by DGE (Directorate for General Education) in Portugal, it is stated that a student who completes mandatory schooling should be a citizen who "has the cultural, scientific and technological literacy that allows him/her to critically analyse and question reality, evaluate and select information, formulate hypotheses and make informed decisions in his/her daily life" (Ministério da Educação, 2017). This premise opens up a dialogue on the training teachers need as the main agents in educational change since teachers have been generally educated in the essentialist educational practice (Costa, Tyner, Henriques, & Sousa, 2016). Therefore, in formal or informal learning spaces, pedagogical strategies must balance direct instruction with project-oriented teaching methods, illustrating how a deeper understanding of subject matter can enhance problem-solving, critical thinking, and other 21st century skills (Rotherham & Willingham, 2010).

In the Portuguese context, school dropout rates have exponentially decreased in the last 25 years. In 1992, half of the population between 18 and 24 years of age had less than twelve years of complete formal education. In 2016, this percentage was around 14%. Even though these data can configure a good indicator for Portuguese education, the European Union average for premature school dropout in 2016 was around 10.7%, showing that there is still a lot of work to do to engage youth in the national school system (National Statistics Institute, 2016).

Intercultural dialogue in Portugal assumes a crucial role mainly in urban life, which nowadays is characterized by the multinational, multi-ethnic and multi-religious structures of urban populations, as a result of decolonization and several other waves of immigration (European Foundation for the Improvement of Living and Working Conditions, 2010).

The study presented herewith is part of the ECFOLI – ERASMUS+, a European MIL project aimed at fostering sustainable conflict resolution strategies through the study and ownership of the common Mediterranean culture.

The ECFOLI Project

The ECFOLI Project's main goal is the promotion of intercultural dialogue among youth from Mediterranean countries, through media creation about cultural heritage. The project was coordinated by the Cyprus Community Media Centre, a non-profit organization based in Nicosia and overall involved in five different countries: Cyprus, France, Morocco, Palestine and Portugal, with youth aged around 16 years participating, residing in Karpaz, Famagusta, Nicosia and Paphos in Cyprus; Casablanca, Morocco, Nablus, Ramallah in Palestine and in Lisbon, Portugal. The ECFOLI Project's aims, partners and results are well-documented on the project website. However, before the Portuguese case study is addressed it is important to stress how the ECFOLI practice was directed and organized to fulfill a common, shared goal among partners, promoting MIL and fostering sustainable conflict resolution strategies to youth through the appropriation of the common Mediterranean culture. Since practices are people in action, it is worth noting that one of the ECFOLI Project's strengths was the Cyprus team's previous experience in media education strategies for conflict resolution, intercultural dialogue, respect for human rights and peace. The CAT - Cyprus Artifact Treasure in Action, which has created sustainable links between two cities, Paphos in the south and Famagusta in the north is just one example (Papaioannou, Christophorou & Blondeau, 2014).

In the present study, the development of MIL skills is proposed as a practice to empower Portuguese youth in social and cultural integration and to promote a reflection on their (human) rights as citizens of an increasingly digital environment.

The Portuguese Case Study

The ECFOLI project worked with local youth groups from each region of the country. In Portugal, the project's specific objective was to explore the potential of MIL in supporting conflict resolution among youth; particularly conflict stemming from their socio-economic background, including such factors as belonging to marginalized multicultural communities with fewer opportunities and with school under-achievement issues. The school the subjects attended was in a middle-class neighbourhood, which was a significant contrast to where the students live. These areas have good public transport near the school but in most cases, the students do not have the economic resources to leave their own neighbourhoods.

In this study, the focus is on the educational process, bringing to the discussion what did not work and what produced good results (at least during the lifetime of the project).

Research Design

A mixed methods approach was adopted in order to transcend the quantitative-qualitative debate, as mutually exclusive approaches, and alone insufficient for the study of a reality as complex as the educational context (Salomon, 1991; Coutinho, 2015). Therefore, this research relies on ethnographic methods that encourage interaction and trust between researchers and subjects. This dynamic and analytical approach in media ethnography incorporates subjects and media perspectives, interpretation and engagement with the material and symbolic resources in the changing contexts of education (Shroder, Drotner, Kline, & Murray, 2003). The research design for the Portuguese case study is presented in Figure 1.

Figure 1 Portuguese case study research design



Source: Own elaboration.

Participants

13 vocational education students (8 males and 5 females), from 8th and 9th grade, aged between 15 and 18 years of age (M = 15.85), with an average of 8.31 years

of completed formal education, participated in the study. Vocational education was created by the Portuguese Ministry of Education to integrate students aged at least 13 years and who failed twice or more in the basic cycle of studies (1st to 9th grades). The curriculum is adapted to each specific group of students, focusing mainly on basic vocational activities, namely arts, sports and computing (Direção-Geral dos Estabelecimentos Escolares [DGEstE], 2014). As an educational solution, vocational education courses are now being abandoned and deemed recognized as promoters of premature segregation, thus conditioning the youth's future academic options and reporting failure rates substantially above the national average (Costa, 2016).

The students were from a public school located in a disadvantaged area of Lisbon classified by the Ministry of Education as an educational area of priority intervention. This area is characterized by households with low socio-economic status, employment precariousness, or outright unemployment, food shortages, fragile health and hygiene conditions, problems of social exclusion and a high rate of ethnic diversity. The students' main problems were disinterest, lack of discipline, weak engagement in the learning process, low attendance and frequent failures in each cycle of studies (AEO, 2013). To fully describe the participants, measurements of youth school engagement and disposition for engaging in citizenship-driven initiatives were included in the instruments: "Active and Engaged Citizenship" (AEC; Zaff et al., 2010) and "Psychological Sense of School Membership" (PSSM; Goodenow, 1993). The AEC and PSSM results are expressed in Table 1.

	Highest Possible Score	М	SD
PSSM Total	90	55,61	10,24
AEC Total	163	113,61	23,30
Civic Duty	60	45,30	8.02
Civic Skills	30	19,53	6,77
Neighborhood Social Connection	30	20,92	5,61
Civic Participation	33	27,84	7,04

Table 1 AEC and PSSM result	S
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Source: Own elaboration.

For both the total AEC scale and the different dimensions, we can denote values significantly below the maximum possible value, which would represent full involvement in active and engaged citizenship. The situation is repeated for the PSSM scores, where the mean value of the participants is more than three standard deviations below the maximum value, representative of an adaptive psychological sense of school membership.

The use of social networks was also assessed during a focus group on digital security. All participants reported its usage (mainly Facebook, Instagram, Snapchat and WhatsApp) and it was observed that the main device for accessing the Internet was the smartphone via Wi-Fi networks at school, university and other public areas. Considering the feedback from school teachers' and researchers' participant observation notes, the subjects also showed low levels of literacy in several areas, including media literacy and all the involved skills when working with ICT (Information and Communication Technologies).

Working with youth

Portuguese youth received more than 80 hours of training at Lusófona University. They also participated in two face-to-face meetings with youth from other countries at the Lisbon (September 2016) and Paris (November 2016) meetings. These were the most important events regarding the perception of Portuguese youth towards cultural differences that stem from their ethnicity and/or religion, as well as differences rooted in their socio-economic status.

The concepts of operational, organizational, editorial (Frau-Meigs, 2014) and socio-cultural MIL skills (Livingstone et al, 2013), as a wide range of media competencies that allow citizens to make full use of their rights (UNESCO, 2011), constituted the framework for the training experience, organized with two different, but complementary, types of activities (Figure 2). The learning activities aimed to develop MIL skills, cultural heritage and intercultural dialogue and included video game creation (game design and game engine), digital storytelling and blog creation. The subjects were invited to create media with a purpose of communicating what they had learned about Portugal, Morocco, Cyprus, France and Palestine, comparing and contrasting the differences and common cultural heritage between these countries. Skills in digital identity management (emphasizing e-presence, digital footprints and basic notions of security) were also added to the list above due to the growing relevance of "living a real life" in a digital environment. All the activities were accompanied by permanent group dynamics, reflections and discussions, framed in intercultural dialogue, human rights vs. digital rights and critical media analysis. At the beginning, and since the youth were integrated into the project as a school internship at Lusófona university, their engagement seemed to be affected by the similarities they found between the project and the school format.


Figure 2 Framework for Portuguese youth activities

Source: Own elaboration.

The learning activities were supported by an online collaborative platform, and the subjects were also encouraged to interact through the platform with the other countries' participants. Two meetings with all the subjects were promoted and were decisive for the Portuguese youth in perceiving the other as different but with a lot of common interests. It was during these two meetings that the process of the Portuguese girl claimed that some of the girls from the other countries were making jokes about her clothes (she was dressed in Western-style fashion). Some of the Portuguese youth made comments about how the other youth spoke English much better than them, feeling uncomfortable with their inferior language skills. However, in the next academic year, when preparing for the Paris meeting, probably as a result of their efforts to communicate with other youth.

The debate on human rights vs digital rights was structured and presented to the subjects in a gamified form, framed in the premise that the promotion of critical thinking skills, even if not directed at digital rights, is key in the education of youth. It promotes their ability to engage and understand the importance of technological processes in the management of their online identities (Costa, Sousa, Rogado & Henriques, 2017). In this context, the strong dichotomy perceived by young people between the online and offline worlds was also explored. Youth came with the idea that online participation is part of real life. They also believe they have more rights and freedom online and that the social norms prevailing in the so-called "real world" do not necessarily apply to their online presence.

Media Content Production

The process of media content production was oriented towards the transformation of reality as a vehicle for cultural appropriation, better acceptance of "otherness" and of oneself. First, the subjects received training in Wordpress, enabling them to create personal blogs/e-portfolios. The participant group created a total of 13 personal blogs/e-portfolios, where they described their experiences. The subjects were also encouraged to post specific contributions such as research work about the other participant countries' cultures or about their visit to an urban art gallery in Lisbon. This aimed to reduce their prejudiced views and to promote their cultural acceptance and appropriation. As a result of the training in game design, youth also produced in groups of two simple digital games (puzzles) using basic encryption principles they have learned, and by introducing common cultural elements to the other participating countries. These productions conjugated images and game design principles and highlighted both their ability to embed the subject they learnt in their creation and their ability to produce in several and complementary media platforms.

The project culminated in the production of a digital story, where participants selected two themes of Portuguese culture, *Fado* and Tiles, remixing them to tell their own story. In this process, storyboards were an important reflexive tool, supporting them in the selection of the cultural information (online and offline) they wanted to portray to others.

During the entire process, some difficulties were observed in the subjects coming to terms with their sense of identity in relation to their "neighbourhood of belonging". This was mainly due to the stark contrast between the place where the school was located and the area where the subjects lived, despite the geographic proximity between the two. Therefore, another element remixed in the constructed story was the image of the referred neighbourhoods, facilitating and harmonizing the process of critical and cultural appropriation by the subjects.

Figure 3 The lyrics remix process



Source: Own elaboration.

All the elements in the digital story were remixed by the subjects including all the photos (taken by them on a visit to downtown Lisbon and their own neighbourhood). The *fado* was also remixed. Its lyrics were modified and sung by two subjects from the project who want to be *fado* singers in real life.

Figure 4 Frame from the Digital Story created by the subjects illustrating their feelings when meeting youth from other countries.



Source: Own elaboration.

While media content created by the subjects in the remix reinforces relevance in the appropriation of Portuguese cultural heritage, the result was the animated video "We Love to Meet You" where the lyrics of a traditional *fado* were transformed and the *new fado* became a tribute to their new friends.

Conclusion

The present study aims to document a media education practice that emphasizes the production of content and the appropriation and transformation of cultural elements as strategies for fighting underachievement of youth in school. As a research team, we were able to reflect on certain issues, mainly related to the format of the training. The excessive similarity with the school's format, and the fact that the subjects participated on the project while they were completing a course, proved to be, at the beginning, factors that reduced the youth's engagement with the project. As the media production and format of the training were being tailored to the interests of the participants, their youth culture and motivations made them engage in previously neglected tasks, such as learning English to speak online and offline with young people from the other countries.

An important aspect for these young people was their awareness of their own abilities, which seems to have somehow influenced their prospects for the future. In an interview, a participant from the project when asked: "What did you find out about yourself in this adventure?" responded: "I found that if I commit, I'm able to achieve my goals", revealing a clear sense of self-confidence. Another participant, representing the Portuguese group in the Lisbon meeting stated:

First, I think it is an added-value experience for all of us, giving us several opportunities. We learned how to do a blog/portfolio, we created games and we learned a little more about ourselves. If it wasn't for ECFOLI, we would never have learned anything about the other countries' cultures, particularities and problems. Before this experience, I didn't give any relevance to what's going on across the world. Sometimes, small actions can generate great movements and if we contribute now, the world will reward us. We can't think only about ourselves; we have to help each other.

The educational practice was perceived by the subjects as being valuable for their future considering the acquired skills but also the acquired awareness and the better sense of "otherness" that comes from intercultural dialogue. The results from the observation also emphasize improvement in engagement, MIL skills acquisition, and development of citizenship and digital rights. Particularly, the subjects displayed important skills when interpreting and selecting media, considering the way each media source portrays other countries, revealing that they are now more alert to situations involving prejudice (for example, Islamophobia). They also acquired more skills in identifying and perceiving media risks while gaining a new perspective on media opportunities; for instance, they continued developing their relationships with the participants from the other countries through social networks, after the end of the project.

Our perspective of media education is that it should support the overall education of young people, be more in tune with their imagined futures, promoting beliefs in engagement and self-efficacy, based on practices tailored to their interests and on the transmission of skills perceived by them as meaningful and valuable.

With the decrease of investment in education, particularly in teacher training, and the increase in student-teacher ratios, a multi-stakeholder approach could be a solution. In the particular case of the project presented in this study, school directors, teachers and parents were involved, not merely for informed consensual procedures, but also with constant feedback on the implemented activities. A parent of one of the participants stated, "I will put the ECFOLI certificate on the wall of our living room", illustrating the observed support from all the community to this student, seen as a role model by her school community.

Media education strategies should promote better citizenship and support social integration, while being an ally for fighting school dropout rates. Its implementation in schools is facilitated if there is cooperation between institutions and the community. In addition, the organization of students, resources, and curricula should consider the specific interests and skills that young people perceive as being valuable, thus promoting engagement in the learning process of youth.

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Evidence-based frameworks: Key to learning and scaling globally

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Inquiry-based learning encourages the critical thinking and process skills needed to cope and conquer in an age where media is ubiquitous. To promote understanding in places where smart phones reign, educators must ensure that the process skills they encourage are consistent, replicable, measurable and scalable – and capable of being applied to any subject globally – so that anywhere, anytime learning is supported. Evidence-based frameworks provide a methodology that can be flexible, yet applied with fidelity, so that consistency and measurability are possible. This methodology provides immediacy in accessing, analysing, evaluating and creating content, so that learners are empowered to decide and to act in accordance with their own values, lifestyles and points of view.

The Center for Media Literacy (CML), along with UCLA, conducted a major longitudinal study to evaluate CML's two primary frameworks: the Questions/TIPS deconstruction framework for media analysis; and the Empowerment Spiral of Awareness, Analysis, Reflection and Action. In the study, these frameworks were employed to address violence prevention, in a curriculum called Beyond Blame: Challenging Violence in the Media. This paper explores how such evidence-based frameworks can be applied to a specific topic (in this case, media and violence) so that activities and lessons can be easily and consistently designed while impacting student knowledge, attitudes and behaviors.

This approach transcends geographic boundaries, gender identities, cultural differences, and even time – lessons can be employed immediately, as news or events or stories unfold, once students internalize the foundational understanding of the frameworks in a heuristic manner. Classroom walls are no longer pertinent with a methodology that provides a mindset to go with the handset or the headset.

Keywords: Media literacy evidence frameworks, learning,

Evidence-based media literacy frameworks and practices are scarce. A small body of literature suggests media literacy interventions are associated with decreases in youth violence, for example, yet few curricula have used a consistent pedagogy

and/or framework, and many have been implemented by researchers rather than teachers. It is largely unknown how the underlying approaches and frameworks for media literacy curricula impact youth violence or whether curricula can effectively be implemented under real-world circumstances (Potter, 2004; Bergsma 2008).

A better understanding of how interventions "work" is not only needed for media literacy curricula and frameworks, but of youth violence prevention programmes more broadly. Many school-based violence prevention programmes have had a high degree of researcher involvement. One review of over 200 programs reported that less than 15% of interventions were implemented under real-world circumstances (Wilson and Lipsey, 2005). Furthermore, even when organizations translate a tested, effective prevention approach into a school-based environment, they may not implement it as originally intended (Fagan, Hanson and Hawkins, 2009). Understanding how an intervention leads to behaviour change may better enable teachers to implement the programme with fidelity and integrate the approach more seamlessly into classrooms on a routine basis.

The Center for Media Literacy (CML), along with the University of California-Los Angeles (UCLA), undertook a longitudinal implementation study (Fingar and Jolls, 2013) to demonstrate how consistent frameworks for media literacy education, systematically labelled and applied in teaching and learning, can be employed with positive, evidence-based results to *any* subject. The study was conducted in Southern California with a highly diverse population with 20 schools, 31 teachers and more than 2,000 students, to evaluate CML's two primary frameworks: the Questions/TIPS framework for Deconstruction and the Empowerment Spiral of Awareness, Analysis, Reflection and Action. (See Table 1: Baseline characteristics of students who participated in the study.)

These frameworks were employed in the study to address violence prevention in a CML-developed curriculum called *Beyond Blame: Challenging Violence in the Media.* This paper demonstrates the efficacy of the CML Empowerment Spiral of Awareness, Analysis, Reflection and Action – a framework which can be applied to any topic, so that activities and lessons can be easily and consistently designed while connecting student work to action and positively impacting student knowledge, attitudes and behaviours. The Empowerment Spiral is driven by a process of inquiry, exemplified through CML's 5 Key Questions for media deconstruction: Who created this message?/What creative techniques are used to attract my attention?/How might different people understand this message differently?/What values, lifestyles and points of view are represented in or omitted from this message?/Why is this message being sent?

	Intervention (N=1,197)		Co (N =	p- - value*	
	N	%	N	%	value
Gender	10	2	15	3	2
Male	588	(49.3)	181	(47.5)	0.5356
Female	604	(50.7)	200	(52.5)	
Race/ethnicity					
African					
American	34	(2.9)	81	(21.4)	<.0001
Asian	157	(13.2)	104	(27.5)	
Hispanic/Latino	801	(67.5)	169	(44.7)	
Other	33	(2.8)	13	(3.4)	
White	161	(13.6)	11	(2.9)	
Grade level					
6th	266	(22.3)	64	(16.8)	<.0001
7th	791	(66.3)	301	(78.8)	
8th	137	(11.5)	17	(4.5)	

Table 1 Baseline characteristics of students who participated in the study

*p-value from chi-square test for difference between intervention groups.

Source: Own elaboration.

Summary of Findings

Through validating the effectiveness of the Empowerment Spiral and the CML 5 Key Questions/Core Concepts of media literacy, our results suggest it is possible to provide media users with a reliable way to engage with and deconstruct any media message, in any medium. Although media messages are infinitely variable, the process skills needed to construct and deconstruct media messages have common elements that can be systematically analyzed and applied. Doing so is important to replicate, measure and scale timely and relevant media literacy programmes that address important health and citizenship issues globally, including youth violence. The implementation steps and highlighted results for the study include:

• CML developed a curriculum called *Beyond Blame: Challenging Violence in the Media* based on The Empowerment Spiral framework with four short-term learning steps of Awareness, Analysis, Reflection and Action. Analysis was taught through CML's set of Five Core Concepts and Key Questions of media literacy that are widely used in the United States. The purpose of Beyond Blame: Challenging Violence in the Media, a violence prevention curriculum, was to use media literacy as an educational intervention strategy to improve middle school students' knowledge, beliefs and behaviors related to violent media content and to reduce aggression.

With a total of ten lessons, the first three lessons that comprise Beyond Blame give students a background on violence and media, and provides information on four effects of media violence: increased fear of the world, increased aggression, lessened willingness to help others in trouble, and an increased desire to engage with more media violence. Five lessons then provide students with methods and practice for critical analysis of media and violence, with CML's Five Core Concepts/Key Questions providing the underpinning for this methodology. The last two lessons give students a chance to practice using all five Key Questions and to analyse their own personal media usage, including the use of violent media, and to construct their own messages about media violence. Classroom teachers delivered these lessons, and instructional techniques included a workbook with blank pages for journaling with every lesson; a KWL Chart, where students shared with their peers what they Know, what they Want to Know, and what they Learned after each lesson. When watching video clips, students were asked to fill out a PMI Chart to describe their Positive, Negative and Interesting ideas after watching the video clip. Small group discussions and paired discussions are combined in every lesson. A DVD accompanied the curriculum, containing 20 media clips as well as photographs, and excerpts from videogames and website, employing a wide range of media (Webb and Martin, 2012).

Researchers recruited 31 teachers from 20 California middle schools with 1,580 students in 2007-2008 to participate in a trained, untrained or control group. The learning model embedded in the curriculum incorporated the four short-term learning steps of the Empowerment Spiral: Awareness of media violence, Analysis through Core Concepts and Key Questions of media literacy, Reflection, and Action. Evaluators assessed each of these steps through written assessment directly before and after the curriculum was implemented, comparing students in the intervention with the control group using fixed effects models.

Results: There were increases in Awareness (β =0.32, p<0.0001), Analysis (β =0.27, p<0.0001), and Reflection (β =3.79, p=0.0002) in the intervention group as a whole relative to the control group, but not in aggression (p=0.1994). Given that, as adolescents aged 1-14 advance in age they advance in aggression as well, the fact that aggression did not increase in the intervention group is a positive finding. (Jaffee , K., Foshee,V, Ennett, S. and Suchindran, C., 2009) (See Table 2: Changes in the awareness, analysis, and reflection components of the Empower-

ment Spiral in the intervention and control groups.) Aggression was measured using the Center for Disease Control's (CDC) Aggression Scale taken from the Compendium of Assessment Tools. (Fingar and Jolls, 2013)

Table 2Changes in the awareness, analysis, and reflection components of theEmpowerment Spiral in the intervention and control groups

	Intervention (N=1,1,97)			Control (N=383)				Regression		
	Pre	-Test	Post-Test		Pre-Test		Post-Test		Results	
Outcome**	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Bintervention*Post	p-value*
Awareness	- 10 - 0				1071 E		2	56 - 31	64	
Media violence affects viewers	3.25	(0.54)	3.61	(0.60)	3.27	(0.50)	3.32	(0.49)	0.32	<.0001
Analysis										
Knowledge of the CC/KQ	3.38	(0.60)	3.72	(0.65)	3.32	(0.66)	3.39	(0.65)	0.27	<.0001
Reflection										
Media violence is problematic and you can protect yourself by watching less	2.44	(0.68)	2.53	(0.70)	2.40	(0.68)	2.36	(0.73)	3.79	0.0002
Action										
Aggression	11.98	(12.80)	13.43	(13.93)	13.61	(12.99)	14.49	(13.62)	0.57	0.1994

difference in change in awareness, analysis, reflection, and action, from the pre- to the post-test between the intervention and control groups. **All outcomes were modeled as continuous variables; awareness and analysis were measured on a scale of 1 to 5; reflection measured on a scale of 1 to 3; agression measured on a scale of 0 to 66.

Source: Own elaboration.

- Although on each individual scale we observed improvements in Awareness, Analysis and Reflection in both the trained and untrained groups compared with controls, students in the trained group were more likely than those in the untrained group to master all three of these learning steps by the post-test (37.6% of trained vs. 28.5% of untrained students). (See Table 2: Changes in the awareness, analysis, and reflection components of the Empowerment Spiral in the intervention and control groups.) Among students who received the intervention from a trained or untrained teacher, mastery of these learning steps was associated with reduced aggression, relative to mastery of no steps (p<0.05).
- We observed increases in Awareness, Analysis and Reflection among students who received the curriculum from a trained or untrained teacher, compared with controls. However, students in the trained group were more likely to master all three of these learning steps than controls. (See Table 3: Mastery of the awareness, analysis, and reflection components of the Empowerment Spiral in the intervention and control groups from the pre- to the post-test.)
- Improvements in Awareness, Analysis and Reflection from the pre- to the posttest were associated with reduced aggression (i.e., Action) among students in the intervention group. (See Table 4: Changes in aggression from the pre- to

the post-test associated with mastery of the awareness, analysis and reflection components of the Empowerment Spiral in the intervention and control groups, from fixed effects regression models.)

Table 3Mastery of the awareness, analysis, and reflection components of the Empow-erment Spiral in the intervention and control groups from the pre- to the post-test

	Intervention (N=1,197)							Control		
	Tota (N=1,1		Trained Untrained (N=840) (N=357)		0		(N=38	3)	p- value**	
	N	%	N	%	N	%	value -	N	%	3
Mastery, by number and type of c	omponent				9					
No component	61	(5.5)	28	(3.6)	33	(10.1)	<.0001	39	(11.4)	0.0002
1 component	226	(20.4)	153	(19.6)	73	(22.4)	0.2963	131	(38.4)	<.0001
Awareness	62	(5.6)	38	(4.9)	24	(7.4)	0.1007	30	(8.8)	0.0347
Analysis	91	(8.2)	65	(8.3)	26	(8.0)	0.8435	47	(13.8)	0.0023
Reflection	73	(6.6)	50	(6.4)	23	(7.1)	0.6937	54	(15.8)	<.0001
2 components	433	(39.2)	306	(39.2)	127	(39.0)	0.9322	113	(33.1)	0.0452
Awareness, Analysis	155	(14.0)	106	(13.6)	49	(15.0)	0.5291	29	(8.5)	0.0076
Awareness, Reflection	125	(11.3)	81	(10.4)	44	(13.5)	0.1361	35	(10.3)	0.5931
Analysis, Reflection	153	(13.8)	119	(15.3)	34	(10.4)	0.0340	49	(14.4)	0.8029
3 components	386	(34.9)	293	(37.6)	93	(28.5)	0.004	58	(17.0)	<.0001

*p-value from chi-square test for difference between trained and untrained group.

**p-value from chi-square test for difference between total intervention and control group.

Note: For awareness and analysis, mastery defined as an increase from pre-to-post or a value greater than 4 (out of 5) at both the pre- and post-test. For reflection, mastery defined as an increase from pre-to-post or a value of 3 (out of 3) at both the pre- and post-tests.

Source: Own elaboration.

• The results from this study may be used to identify the critical elements of the intervention so that, through their teachers, students can master each step of a learning process – the Empowerment Spiral – culminating in Action that may lead to reductions in aggressive behaviours. (See Table 4: Changes in aggression from the pre- to the post-test associated with mastery of the awareness, analysis, and reflection components of the Empowerment Spiral in the intervention and control groups, from fixed effects regression models.)

Although some learning is intuitive, our results highlight the importance of teaching and learning through clear labelling (Awareness building) and a conscious methodology for Analysis (the Core Concepts and Key Questions) – a heuristic – for attacking a learning goal. The curricular content drew upon many media sources – video, news articles, videogame exerpts, photos, and the participating students represented a highly diverse group, reflecting the racial and ethnic diversity of Southern California, with African American, Asian, Hispanic/Latino and white students. (Fingar and Jolls, 2013)

Table 4Changes in aggression from the pre- to the post-test associated with masteryof the awareness, analysis, and reflection components of the Empowerment Spiral in theintervention and control groups, from fixed effects regression models

	Interver	ntion	Control		
Independent variable	β _{Component*Post}	p-value	β _{Component*Post}	p-value	
Model 1					
Mastery, by number of components					
No component	[ref]		[ref]		
1 component	-4.42	<.0001	3.37	0.0082	
2 components	-3.65	0.0003	2.94	0.0236	
3 components	-2.27	0.0256	0.31	0.8312	
Model 2					
Mastery, by type of component					
No component	[ref]		[ref]		
1 component					
Awareness	-4.66	0.0005	2.33	0.1657	
Analysis	-3.69	0.0026	3.23	0.0319	
	-5.15				
Reflection		<.0001	4.10	0.0054	
2 components					
Awareness, Analysis	-3.56	0.0014	3.52	0.0383	
Awareness, Reflection	-4.43	0.0001	2.45	0.1351	
Analysis, Reflection	-3.12	0.0053	2.92	0.0496	
3 components	-2.27	0.0255	0.31	0.8309	

Note: We ran separate models for the intervention and control groups. Models included fixed effects for student ID. The interaction term between the component and the post-test can be interpretated as the difference in change in aggression from the pre- to the post-test between students who mastered the component(s) and students who did not master any components of the curriculum.

Source: Own elaboration.

Among other media, 20 videoclips were analysed during the course of the curriculum. For example, the Super Bowl XLI Coca Cola advertisement "Give a Little Love" was used to introduce CML's Five Key Questions in Lesson 4. Teachers and students were encouraged to ask exploratory questions, "Do you recognize the videogame that this ad talks about?" "Who is the sponsor of this message?" "What role does violence play in the video game?" "What role does violence play in the ad?" "How are they different? "How does this ad make you feel about Coca Cola?" "How much money do you think an ad like this costs to play during a Super Bowl game?" "Clean up New York" was another ad, a New York City Public Service Announcement, that was used to explore points of view, conflict resolution and CML's Key Question, "How Might different people understand this message differently?" A violent explosion was represented in a video clip from Monster House; exploring violence without a weapon was illustrated in a clip from Team Ninja – Dead or Alive 4. Clips from South Park and The Unit illustrated violence with a weapon. Clips from WWE's Smack Down were used to explore branding and points of view, and omissions (Key Question #4), and the Japanese anime Naruto was viewed to do a close analysis with all 5 Key Questions. The media content was highly variable, but the Five Key Questions remained constants for deconstruction and exploration.

But the consistency that allowed for measurable, positive results rested in the fact that all teachers participating in the study – whether trained or untrained – used the same methodology for deconstructing media messages with their students. These lessons in Beyond Blame were designed to teach and reinforce this Analysis/deconstruction process through repeated practice.

It may not be enough to assume that children will understand media messages if they simply read or view enough media. In fact, because media is "naturalized" through increased exposure, it is all the more important to challenge it consciously and deliberately, having a methodology and vocabulary to process it both individually and collectively. Lessons in Beyond Blame reinforced self reflection as well as group discussion, so that students learned to articulate and share their thinking and their feelings. In a successful intervention, the media literacy components become internalized and a positive heuristic to combat other negative heuristics.

Methods

Study Design

During the 2007-2008 academic year researchers at the Southern California Injury Prevention Research Center at the University of California Los Angeles (UCLA) recruited public mainstream and charter middle schools from seven southern California districts to administer Beyond Blame, which was developed by the Center for Media Literacy (CML). Using a quasi-experimental design, schools were assigned to either a trained, untrained or control group.

Health, social studies, and language arts teachers and students in their classrooms were eligible to participate. Teachers at schools within the trained group administered the curriculum after attending a one-day workshop. This study was approved by the Office for the Protection of Research Subjects at UCLA. Additional methods can be found in prior publications (Fingar and Jolls, 2013; Webb and Martin, 2012).

Curriculum

At the time of this study, *Beyond Blame* met California English/Language Arts and Health Education standards and National Education Technology standards for middle school. Since then the curriculum has been updated to reflect the Common Core standards, which have been adopted by 42 states, including California. The curriculum consists of ten 45-50-minute lessons administered throughout one semester and has two main theoretical underpinnings: The Empowerment Spiral and CML's Key Questions and Core Concepts of media literacy.

The Empowerment Spiral, based on the work of Brazilian educator Paulo Freire, outlines a way to organize media literacy learning (Thoman and Jolls, 2005). It includes four short-term learning steps that allow students to break down complex concepts that dominate media culture. These steps are Awareness, Analysis, Reflection and Action. The first three steps promote critical inquiry and exploration culminating in an active learning exercise that may lead to a change in behaviour. The curriculum is designed to give students the tools to analyse media messages through a set of Key Questions and Core Concepts developed by the CML. The basic premise is that, by increasing these analytic skills students will be able to query and evaluate media messages, critique those supporting violent behaviour, and ultimately make wiser choices in terms of engaging with both violent content in media and real-world violence. The Five Key Questions include (1) Who created this message, (2) What creative techniques are used to attract my attention, (3) How might different people understand this message differently, (4) What values, lifestyles and points of view are represented in, or omitted from, this message, and (5) Why is this message being sent? Each Key Question holds an underlying Concept, that (1) All media messages are constructed, (2) Media messages are constructed using a creative language with its own rules, (3) Different people experience the same media message differently, (4) Media have embedded values and points of view, and that (5) Most media messages are organized to gain profit and/or power (Bergsma and Carney, 2008; Thoman and Jolls, 2005).

Measurement

Intervention classes were tested one week prior to the start of the intervention and immediately afterwards. Controls received the pre- and post-test at the beginning and end of the semester.

Below we describe how students' mastery of the four components of the Empowerment Spiral was operationalized.

Awareness

In the Awareness step, students participate in activities that lead to observations and personal connections. One of these insights is that violent content in media affects viewers. To gauge students' understanding of these effects, students were asked whether they agreed, on a five-point scale, that such content affects aggression, fear, desensitization, and the desire to watch more violent content in media. The four questions were averaged to create a composite score ranging from one to five, where five represents a greater belief that media violence has harmful effects.

Analysis

Analysis allows students to understand "how" an issue came to be. The Key Questions and Core Concepts help students understand how the construction of any media product influences the meaning we make of it. To measure knowledge of the Key Questions and Core Concepts, students were asked, on a five-point scale, how much they agree that people react to violent content in media differently and how much they agree that media is based on a desire for influence, profit, and power. Then they were asked to identify the Key Questions and Core Concepts in a list of response options with both correct and incorrect answers. This question was also scored from one to five, where students were given a point for each option they checked (or did not check) correctly. The questions, worth five points each, were averaged to create a continuous score where five represents greater analytic skills.

Reflection

Through Reflection, students ask 'What ought we do or think?' Depending on the group, they may also consider philosophical or religious traditions, ethical values, social justice or democratic principles that are accepted as guides for individual and collective decision-making.

We used a 3-point scale to measure reflection, asking students if violent content in media is problematic (3=yes, 2=not sure, 1=no).

Action

Finally, to measure Action, we used the 11-item Aggression Scale published in a compendium compiled by the Center for Disease Control and Prevention (Dahlberg, Toal, Swahn, et al. 2002). The scale asks students to self-report on aggressive behaviours in the past week (Orpinas, Parcel, McAlister, et al., 1995). The final score ranges from zero to 66, where 66 represents more frequent aggressive behaviours.

Mastery

We examined pre-post change in the Awareness, Analysis, and Reflection components of the Empowerment Spiral. Students who increased their score or who maintained a high score at both the pre-and post-test (of 4 or more on the Awareness and Analysis components and of 3 on the Reflection component) were categorized as 'mastering' the component. We categorized students as having mastered one, two, or three components and examined levels of aggression across these categories.

Analysis

Using a hierarchical difference-in-differences approach that accounted for the clustering of student responses within classrooms, first we examined pre-post change in the Awareness, Analysis, Reflection and Action components of the Empowerment Spiral in the intervention group, compared with the control group. Each outcome was continuous. The models included indicators for intervention group, post-test, and the interaction between intervention and post-test, as well as a vector of student IDs. These fixed effects control for time-fixed observed and unobserved student-, class– and school-level differences between the intervention and control groups. The parameter estimate for the interaction term between intervention and post-test can be interpreted as the difference in pre-post change in the outcome between the intervention and control groups.

Second, we used the same regression approach to examine whether the prepost change in aggression differed within the intervention group, according to mastery of one, two or all three steps leading to action (Awareness, Analysis, Reflection). The model included indicators for level of mastery, the post-test, and the interaction between mastery and post-test. This parameter estimate can be interpreted as the difference in pre-post change in the outcome between students who mastered one, two or three components and students who mastered no components. Finally, we ran this same model among controls, among which improvements in Awareness, Analysis, and Reflection are unrelated to the intervention. This can be thought of a falsification test in which we expect null results.

Discussion

Translational research into how evidence-based youth violence prevention approaches can be effectively administered in real-world situations is needed (Wilson and Lipsey, 2005; Fagan, Hanson, Hawkins and Arthur, 2009). The results of this study lend insight into incorporating violence prevention-based media literacy curricula into middle school classrooms. Several findings have implications for translating the curriculum into practice.

First, compared with students in the control group, students who received the curriculum from their own teacher increased Awareness, Analysis, and Reflection. Not only did we observe increases on each of these scales individually, the intervention group was more likely than the control group to increase multiple components of the Empowerment Spiral, including the CML's Core Concepts and Key Questions of media literacy as the Analysis component. This suggests that teachers in the intervention group did in fact use a structured methodology that built upon the short-term learning steps of Awareness, Analysis, and Reflection.

Second, there was a decrease in aggression among students who received the intervention and whose learning process followed the model laid out in the curriculum. When intervention students mastered the Awareness, Analysis, or Reflection components of the Empowerment Spiral, we found a decrease in aggressive behaviours, compared with intervention students who mastered no concepts. These results suggest that this structured methodology for teaching and learning is correlated with Action, the last component of the Empowerment Spiral.

However, these improvements in Awareness, Analysis, Reflection and Action were not large enough to result in decreased aggression in the intervention group as a whole compared with controls when students were tested immediately after the curriculum was implemented. In a prior study, we found the intervention was associated with improvements in certain aggressive behaviours relative to controls among a sub-set of students who completed a second post-test one academic year later (Fingar and Jolls, 2013). Unfortunately, this sample was too small to further breakdown mastery of the Empowerment Spiral and therefore the second post-test

was not included in this analysis. However, the fact that we did not find an association between the intervention overall and aggression at the first post-test highlights the importance of equipping students with each building block of Awareness, Analysis, and Reflection in this learning process. Ongoing, sustained teaching and learning using media and information literacy methodologies beg to be instituted and measured as ways to address the education needs of global youth today.

We strongly suspect teacher training is important for enabling students to move through each critical learning step of the Empowerment Spiral. As with any intervention, there may have been differences in implementation across teachers, and across the trained and untrained groups. Although we observed improvements on each of the individual scales measuring Awareness, Analysis and Reflection in both the trained and untrained groups, relative to controls, we suspect teacher training may be important for students to grasp all three of these concepts.

Indeed, students in the trained group were more likely than those in the untrained group to master all of the first three components of the Empowerment Spiral.

One caution in interpreting our results is that our operationalization of Awareness, Analysis and Reflection was based on written assessment. A students' knowledge of the Core Concepts and Key Questions of media literacy, for instance, serves only as a proxy for analytic skills.

The curriculum did include hands-on exercises in which students evaluated media clips; however, we were not able to measure this analytic process.

One contribution of our research, however, is that teachers implemented the curriculum under real-world circumstances with little interference by outside researchers, while students were encouraged to connect their own learning with real-world action.

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Intercultural competencies and multicultural education in Nigeria: The MIL option

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This paper calls for multicultural education and intercultural literacy as a panacea to the culturally diverse, conflict-prone Nigerian population. Hence, meeting this challenge requires that the education system in Nigeria adopt a Media and Information Literacy (MIL) curriculum. To help achieve this objective, this study examines the extent to which a MIL curriculum can engage culturally dissimilar students in maintaining and forging connections with one another while maintaining their identity in a convivial, democratic so-ciety. It also examines the skills in intercultural dialogue that today's educators must have in order to deliver an effective MIL curriculum. The study adopted survey-research-design involving statistically reliable questionnaires distributed to 250 respondents (undergraduates and lecturers) in three public universities in Nigeria. Employing Statistical Package for Social Sciences (SPSS), six hypotheses were tested. The findings showed that intercultural literacy and multicultural education, if adopted, have great potential in fostering peaceful co-existence and in maintaining a tolerant, democratic society among culturally dissimilar and diverse ethnic groups within Nigeria. The findings equally revealed that while most sampled teachers do not have the literacy skills in intercultural dialogue required to implement the proposed MIL curriculum, they also indicated a non-significant gender difference to Media and Information Literacy.

Keywords: Intercultural competencies, Multicultural Education, Media and Information Literacy, Nigeria, Universities

Nigeria, judging by its population of about 178 million with over 250 ethnic groups and cultures, could be described as a multicultural society. Hence, providing educational policy with curriculum initiatives that reflect this diversity is a challenge. As noted by the Council of Europe (2007:13), we can no longer neglect diversity as a central issue for education since we have to "educate new generations of children for a future in which they will increasingly have to appreciate variety

and deal with differences". Therefore, there is a need for intercultural literacy and competence which is the essence of multicultural education. It is on this basis that this study (with a gender perspective) examines the extent to which Nigerian universities, through a Media and Information Literacy (MIL) curriculum, could: engage culturally dissimilar students in maintaining a peaceful democratic society; provide the knowledge and skills for the redistribution of power and income among the diverse ethnic groups; provide a context for students with different experiences to forge connections with one another while maintaining their identity and to evaluate educators' intercultural dialogue skills needed in facilitating a MIL curriculum.

Multicultural Education and MIL Curriculum

Culturally responsive teaching and promoting intercultural competence in schools has been advanced by many scholars as antidotes to persistently poor academic performance (Gay, 2000). As noted by Banks (1994a), multicultural education will empower students to acquire basic skills in becoming effective agents for social change. This is because education within a pluralistic, democratic society can help students gain the content, attitudes and skills needed to be reflective and to act thoughtfully. To this end, Banks (1993c, 1994b) has postulated five dimensional conceptualizations of multicultural education: content integration (integrating ethnic and multicultural content across subjects), knowledge construction (helping students understand how knowledge is created and influenced by the racial, ethnic, and social class positions of individuals and groups), prejudice reduction (helping students avoid negative attitudes towards different racial and ethnic groups), equity pedagogy (facilitating the achievement of students of low status through cooperative learning) and an empowering school and socialstructure. In bridging the pedagogical intervention, Freire (1970) suggested critical multiculturalism pedagogy, which viewed pedagogy as a dialogical process in which the teacher and student are partners in information seeking and knowledge construction.

Within academic and educational circles there are concerns that the terms "media literacy", "media education" and "educating through the media" do not provide sufficient scope for developing the critical media literacy skills expected in the 21st century since they lack the components of developmental critical thinking skills and cultural literacy expected of today's media education curriculum. Hence, there is the need for a curriculum that emphasizes positive engagement with media's potential and its ability to facilitate digital citizenship.

Cultural literacy, Intercultural Competence and Gender

Notwithstanding the different conceptualization and perception of the term 'intercultural competence', some scholars (such as Deardorff, 2006), agree that intercultural competence consists of the following attributes: knowledge (cultural knowledge, self-awareness), attitudes (openness, respect) and skills (listening, analytical and language).

Cultural literacy, on the other hand, refers to the basic knowledge required in interacting meaningfully in a large social group. Hence, to be considered culturally literate, one must be interculturally competent, i.e. translating the cultural knowledge into culturally appropriate and effective behaviours. Therefore, in emphasizing the need for intercultural competence, Davies (2001) argues that 'difference' needs be recognized and inequality challenged. Thus, intercultural gender competence entails that the diversity of men and women is acknowledged and appreciated. Davies (2001) and Allen (2004) have observed how some school systems reinforce rather than challenge stereotypes. Therefore, in a classroom where critical literacy is practiced, it is possible to interpret and challenge such representations.

Curriculum and pedagogical intervention

UNESCO (2013), in one of its Global Education Initiatives, acknowledges the fact that while the social and cultural experiences of young people have been dramatically transformed over the past fifty years, schools have not kept apace. The European Commission's *New Skills Agenda for Europe* (2016) equally stressed that the 21st century requires cross-cultural skills and key competences such as digital competencies, entrepreneurship, critical thinking, problem-solving and financial literacy that transcend basic literacy. Hence, Tyner (1998) had observed that a broader vision for the accommodation of new literacy skills will require significant restructuring in the education sector.

Therefore, in our curriculum review of media education, there is the need to review approaches to collaborative learning among culturally diverse students, as well as approaches for challenging gender biases and cultural stereotypes.

Methodology

The study adopted a survey method using statistically validated questionnaires. Cronbach's alpha scores were used to evaluate the reliability of the measures as suggested by Churchill (1979). The results showed that the instrument is sufficiently reliable judging by the overall alpha values of 0.919 and each respective construct (containing itemized variables in the tables) of alpha value of 0.908, 0.860, 0.867 and 0.892 considered appropriate since they were found to be greater than 0.7 as suggested by Nunally (1978).

The questionnaire was made up of four sections, reflecting the four objectives of the paper of which respective questionnaire items (variables) were derived from relevant literatures. Cronbach alpha test were carried out to ensure item reliability of the variables within each respective objectives (construct). The sampled population comprised undergraduates and lecturers of three public universities in Nigeria: Lagos State University (LASU), the University of Lagos (UNILAG) and the University of Jos (UNIJOS) of which 250 respondents were conveniently sampled. The choice of these three universities was based on the fact that they are government owned universities located in northern and southern part of the country considered as mega cities in Nigeria. Hence, it is not uncommon to find students with almost every ethnic representation and of different religions and languages studying in these Universities. In fact, their respective registered local government students' association which virtually covers all ethnic tribes in Nigeria testifies to this fact. A total of 230 (90%) of the 250 questionnaires were successfully completed and returned. The analysis of the returned questionnaire shows gender as well as religious and discipline diversification.

Analysis and Discussion of Findings

Version 22 of the Statistical Package for Social Sciences (SPSS) was used to analyse the data. The data analysed were presented in the form of frequencies and percentages. The percentage distribution of the respondents showed: LASU (49.3%,), UNI-LAG (38.1%), UNIJOS (10.8%); 57.1% male, 42.9% female; 16-25 years (71.1%), 26 years and above (28.9%); lecturers (12.7%), undergraduates (87.3%); Christians (67.4%), Muslims (31.7%); Students from Mass Communication (22.8%), Social Sciences (21.9%), Arts (17.4%), Law (10.7%), Sciences (18.3%), Education (3.6%), Management Sciences (2.7%) and Engineering (2.7%).

Furthermore, data were analysed along the research objectives with findings presented in respective tables below. Hence, the summary of findings in each table addresses the respective research objectives. Cronbach's alpha overall scores of 0.919, and alpha value of 0.908, 0.860, 0.867 and 0.892 for each construct (objective) as represented by the tables were considered appropriate in evaluating the reliability of the instrument as suggested by Churchill (1979).

Friedman and Chi-square tests were used to evaluate the study's findings as expressed in the stated hypotheses. The essence of the use of Chi-square is to validate the significance of the results in the tables. Hence, as a means of determining the significance of results, a p-value of less than 0.05 is considered significant and it thus means the results and findings being examined is significant and hold true.

Variable	Categ				
	SA	А	U	D	SD
Understand why media and other information providers are important to societal peaceful co-existence	44.3	50.0	4.8	0.9	-
Know what media and other information providers should do to support promotion of different cultures	27.9	59.0	8.3	4.4	0.4
Use and share information based on moral principles or accepted standards of social behavior	36.6	49.8	10.1	3.1	0.4
Recognise a need for right information about other peo- ple's cultures and way of life	38.6	50.0	8.3	2.6	0.4
Use media and other information providers to freely express oneself	31.3	52.2	11.3	4.8	0.4
Use media and other information providers to share your culture and learn about other people's cultures	36.1	46.3	10.6	6.2	0.9
Understand that media and other information providers often highlight different aspects of reality	30.8	47.6	13.7	5.3	2.6
Understand that media often write story about an event rather than the news itself	26.6	44.1	19.2	8.3	1.7
Understand that people interpret meaning in the media based on their educational and personal experience	31.7	48.9	12.3	7.0	-
Understand that all media are driven by economic, social and political factors	34.6	40.4	18.4	4.8	1.8
Understand media and information content are usually carefully planned to achieve certain agenda	27.5	50.2	15.3	5.2	1.7

Table1	MIL curriculum intervention for culturally dissimilar students

Source: Own elaboration.

The majority (86.4%) of respondents believed that MIL will help students understand what media and other information providers can do to: promote different cultures, understand how to use and share information based on accepted standards of social behavior (86.4%), recognize the need for accurate information about other people's cultures (88.6%), freely express oneself (83.5%), construct reality (78.4%), and achieve certain agenda (75.5%) that has economic, social and political undertones (77.7%). Hypothesis One

• H₀₁: MIL Curriculum cannot engage culturally dissimilar students in maintaining a peaceful democratic society.

Table 2	Friedman Chi-Square test on MIL	. curriculum for culturall	v dissimilar students

Test Statistics ^a					
Ν	214				
Chi-Square	82.072				
Df	11				
Asymp. Sig. (P-value)	.000				

Where F = Friedman Test, DF = Degree of freedom, n = sample size, P – value = probability value, α = significance level.

Source: Own elaboration.

The test revealed that the p – value is 0.000. It thus means that p-value is less than 0.05. Hence, null hypothesis (H_0) is rejected meaning that a MIL Curriculum can significantly engage culturally dissimilar students in maintaining a friendly democratic society.

• H₀₂: There is no significant difference between opinions of men and women on how MIL Curriculum can engage culturally dissimilar students in maintaining a friendly democratic society.

Table 3	Gender differences on how MIL curriculum can engage culturally dissimilar
students	

	Group Statistics							
	Sex	Ν	Mean	Std. Deviation	DF	T – Value	P – value	Re- mark
с	Male	125	4.1346	.47972	217	1.768	.078	Accept H₀
	Female	94	4.0078	.58020				

Source: Own elaboration.

The p - value (0.078) is greater than the level of significance (0.05). Hence, null hypothesis (H0) is accepted. We conclude that there is no significant difference between gender's opinions on how MIL Curriculum can engage culturally dis-

similar students in maintaining a friendly democratic society. Hoi, Teo and Zhou (2015) equally observed that gender created no differences in terms of participants' self-perceived media and information literacy.

Variable	Categories (%)				
	SA	А	U	D	SD
Introduction of such curriculum will empower citizens in curtailing threat of dominant culture	39.7	50.0	7.6	1.8	0.9
Will protect other culture from extinct by strengthening local languages	31.7	51.1	12.8	3.5	0.9
Will encourage citizen's role as producers of media con- tent	28.4	48.6	18.0	5.0	-
Will encourage mass participation in governance	25.7	51.8	15.5	6.2	0.9
Will empower citizens to freely express themselves	33.3	48.4	12.0	4.9	1.3
Will ensure ethical responsibility and promoting other's right	33.2	45.7	15.7	3.6	1.8
Will ensure respect for fundamental human rights and consideration	31.6	55.6	10.2	1.8	0.9
Will ensure gender balance and minority rights to hold opinions	29.8	48.2	14.5	6.6	0.9
Will bridge gender inequalities in respect to access to information, media and technological platform	27.4	48.7	13.3	8.8	1.8
Will address the issue of women cultural stereotype	27.8	47.1	17.0	6.3	1.8
Will empower citizens to dialogue media on cultural representation	22.3	58.5	10.0	7.4	1.7
Will address issues relating to cultural imperialism	23.0	55.7	12.6	3.0	5.7

 Table 4
 Prospect of Multicultural Education among Nigerian diverse ethnic groups

Source: Own elaboration.

This table shows perception of respondents on the likely impact of multicultural education in Nigeria if introduced through curriculum initiative.

The majority of participants (89.7%) respectively believed that the introduction of multicultural education will empower citizens in: curtailing the threat of the dominant culture by strengthening local languages, encouraging the citizens' role as producers of media content (82.8%), empowering citizens to freely express themselves (81.7%), ensuring respect for fundamental human rights (78.9%), bridging gender inequalities with respect to access to information (78.9%), media and technological platforms (76.1%), addressing gender-cultural stereotypes (74.9%) and empowering citizens in dialoguing cultural representation (80.8%).

• H₀₃: Adoption of multicultural education will not provide the knowledge and skills for the redistribution of power (economic, political, etc.) among Nigerian diverse ethnic groups.

 Table 5
 Friedman Chi-Square test on practice of Multicultural Education in Nigeria

Test Statistics ^a					
Ν	193				
Chi-Square	52.576				
Df	12				
Asymp. Sig. (p-value)	.000				

Source: Own elaboration.

The p – value is 0.000. Hence, null hypothesis (H_0) is rejected. It is concluded that the adoption of multicultural education will significantly provide the knowledge and skills for the redistribution of power (economic, political, etc.) among Nigerian diverse ethnic groups.

Table 6Desired elements of MIL curriculum in engaging culturally dissimilar studentsin forging connection with one another

Variable	Categories (%)				
	SA	А	U	D	SD
How to conform to accepted behavioural norms when on social media	30.4	52.5	8.8	4.6	3.7
How to persuade others in following societal acceptable line of action	27.0	47.7	15.3	8.1	1.8
How to reflect media messages from diverse communica- tion platform	28.8	46.5	17.3	5.3	2.2
How to accept and respect other people's belief	33.9	49.8	6.2	6.2	4.0
How to understand media portrayal of culture		50.7	12.4	8.0	0.9
How to identify unethical use of information	23.7	51.3	14.9	7.0	3.1

Source: Own elaboration.

This table shows the respondents' responses to of MIL curriculum if introduced into Nigeria educational system.

The majority (82.9%) of respondents believed that a MIL curriculum should involve courses that: teach accepted behavioural norms, reflect media messages from diverse communication platforms (75.3%), respect other people's beliefs (83.7%), understand media cultural portrayal (78.7%) and identify unethical use of information (75.0%).

• H₀₄: MIL curriculum will not significantly engage culturally dissimilar students to forge connections with one another.

Table 7 Friedman Chi-Square test on MIL and cultural dissimilar students in forging connection

Test Statistics				
Ν	195			
Chi-Square	21.366			
Df	7			
Asymp. Sig. (p-value)	.003			

Source: Own elaboration.

The p –value is 0.003. Hence, null hypothesis (H_0) is rejected at 95.0% confidence level. We conclude that a MIL curriculum will significantly engage culturally dissimilar students to forge connections with one another while maintaining identity.

• H₀₅: There is no significant gender difference towards the extent to which MIL curriculum can engage culturally dissimilar students to forge connections with one another

	Sex	N	Mean	Std. Deviation	DF	T – Value	P – value	Remark
B2	Male	125	4.0083	.63872	217	0.611	.542	Accept H0
	Female	94	3.9569	.58547				

Table 8 Gender and MIL curriculum

Source: Own elaboration.

The p – value is greater than the level of significance (0.05). Hence, null hypothesis (H_0) is accepted at 95.0% confidence level. Therefore, we conclude that there is no significant difference in the gender's opinion towards the extent to which a

MIL curriculum can engage culturally dissimilar students. However, contrary to the findings of this study, Usluel (2007) and Volman (1997) found significant gender difference regarding ICT attitudes and competence.

Table 9	Perceived estim	nation of Lecturers' intercultural dialogue skills needed in deliv-
ering an e	ffective culturally	/ enriched curriculum

Variable	Categories (%)				
	SA	А	U	D	SD
Most lecturers hardly provide an avenue for questions and answers in classroom	24.8	35.6	10.4	21.6	7.7
Most times, lecturers discourage students from having alternative views	26.5	40.8	9.0	18.4	5.4
Most times, lecturers' domineering attitude often discour- age freedom of expression and student self confidence	35.4	40.4	12.1	9.0	3.1
Platforms to debate critical issues in classroom are hardly encouraged and moderated by lecturers		35.0	14.1	18.2	4.5
Lecturers identification with a particular tribe/religion in classroom often promote ethic/religious dispute	21.6	36.9	17.1	15.8	8.6

Source: Own elaboration.

The majority of respondents (67.3%) indicated that often, lecturers discourage students from having alternative views on a particular topic, hardly provide an avenue for questions and answers in the classroom (65.6%), often dominate discussions (75.8%), not providing platforms to debate critical issues in classroom (63.2%) and identifying with a particular tribe and religion (58.5%).

• H₀₆: Intercultural dialogue skills needed by today's educators will not have significant impact on the implementation of a multicultural education

Table 10	Friedman Chi-square test on	n intercultural dialogue skill for educators
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Test Statistics				
Ν	182			
Chi-Square	187.604			
Df	14			
Asymp. Sig. (P-value)	.000			

Source: Own elaboration.

The p – value is 0.000. Hence, null hypothesis (H_0) is rejected at 95.0% confidence level. We therefore conclude that the intercultural dialogue skills needed by today's educators have a significant impact on the implementation of a multicultural curriculum. In line with this study, Banks (1993c) and Brooks & Brooks (1993) observed that most educators lack the knowledge and skills needed to teach culturally diverse students.

Discussion and Conclusion

The respondents in this study were of the opinion that Nigerian Universities through media and information literacy curriculum intervention can help cultural dissimilar students to maintain a friendly democratic society. These findings tend to support similar findings by Kubey (2004) and Potter (2012) and Bank (2015) who believed that Media and information literacy (MIL) curriculum in form of multicultural education can provide an important framework for managing diversity in classrooms. As affirmed by Council of Europe (2007:13) there is need to "educate new generations of children for a future in which they will increasingly have to appreciate variety and deal with differences". Therefore, in a country such as Nigeria where ethnic and religious factors are taken very seriously, there is need for a sense of urgency in developing intercultural understanding and competence which is the essence of multicultural education. Moreover, the study observed that many of the sampled educators do not possess the intercultural dialogue skills needed for implementing a multicultural based MIL curriculum. In conformity to the findings of this study, Davis (2001) had observed in a related study that most teachers lack the knowledge, skills, dispositions, and experiences needed to teach ethnically and linguistically diverse students. While we observed that teaching is a multicultural encounter, we are of the opinion that teachers must be intercultural literate in order to be able to use diversity to en-rich instructions in classrooms. Educators must be aware of the role schools play in maintaining the cultural dissonance and hegemonic practices that prevail in the classroom. Hence, in classrooms where critical multicultural education is practiced, teachers must employ multicultural education curricula that recognize identities of differences, freedom of expression, and build cooperative communities where students can begin to understand, respect, care for, and take responsibility on behalf of one another.

Limitation and Recommendation for further studies

The convenient sampling techniques used in this study limit the generalization of its findings. Thus, better sampling techniques with a larger sample size are hereby recommended. Moreover, studies are also recommended that compare students' and teachers' attitudes towards multicultural education in Nigeria.

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Towards the transcultural media competencies of migrant young people

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Today, global immigration links cultural diversity and discourses to local practices. Therefore, identities are complex, while misunderstandings are common, and there is a need for more intercultural dialogue. How can media education take into account these transcultural negotiations, which are largely taking place in and through media? How can we support young people in particular?

This article reflects upon the kinds of pedagogical interventions that can promote the development of migrant youth transcultural media competencies, drawing upon the action research found in "Young people in the limelight: Towards agency through multiliteracies" (2015-2017). This study is based on seven media workshops organized around Finland in youth organizations and schools.

Adopting the pedagogy of multiliteracies as a starting point (e.g. Cazden et al., 1996), this article explores teachers' opportunities and challenges in three approaches to pedagogical intervention in transcultural media competencies: 1) considering the living worlds of young people in media pedagogy, 2) utilizing existing media capabilities and 3) supporting young people's transcultural identifications.

The results show that hands-on media education, particularly community-based media participation, offers various opportunities for pedagogical intervention. However, the successful adoption of transcultural perspectives in educational settings depends upon an explicit understanding of the goals and means of transcultural education. Thus, there seems to be an urgent need to improve teacher education regarding transcultural media competencies for enhancing the intercultural dialogue globally and supporting gender identity.

Keywords: media education, multiliteracies, young people, transcultural media competencies, intercultural dialogue

Today, talk about multiculturalism is common, as even the northernmost parts of Europe, such as Finland, are facing the arrival of migrants. People's everyday life, for

instance, at school and the workplace, is ever more a mixture of diverse discourses, practices, and cultures. This is true both locally and globally due to information and communication technologies. Our cultural arena is on the move, so the focus in education should be on media culture and its need for intercultural dialogue to support peaceful societal development.

Broadly speaking, "culture" is understood as people's shared practices and discourses within specific communities (Hylland Eriksen, 2014). Within media, "culture" refers to shared conceptions and practices of representations and communication in and through media (Fornäs, 1995). "Multiculturalism" usually refers to different cultures recognizing each other as different yet equal. "Interculturalism", in turn, means interaction between cultures, side by side in diversity (Liebkind 2000, 14). However, these may not be accurate descriptions of today's world. There are ongoing transcultural negotiations in cross-cultural relations and networks, especially in media culture. Not only borders, but also interstices between different cultures are transcended, and it appears that a new cultural arena is being born that extends beyond its sources (Guilherme & Dietz, 2015). Yet in our pedagogical work, we have both witnessed the conflicts and unfortunate misunderstandings that plague the emergence of this new cultural arena.

In this article, our aim is to identify pedagogical interventions that can support young people's transcultural competencies and identity processes in media culture, as the diversity of values and information opens new perspectives in formal and informal educational environments. This text is based on data from the Finnish action research "Young people in the limelight: Towards agency through multiliteracies" (YPAM).

The Transcultural Approach to Media Pedagogy

The cornerstones of transcultural studies in media pedagogy are still unclear. However, in our view, the constitutive notions behind transcultural media pedagogy reside in the pedagogy of multiliteracies launched by the New London Group in the 1990s. The group propagated a pedagogy based on learning conditions that ensure that all students benefit from learning, regardless of their gender, language, or culture (Cazden et al., 1996). The pedagogy of multiliteracies has been adopted in the curriculum of Finnish comprehensive schools, and it served as a starting point for the YPAM study, which situates it mainly in youth work.

To make education equal, it should provide learners with diverse ways of learning and expressing themselves. The pedagogy of multiliteracies acknowledges learners' different worldviews, living worlds, and previous knowledge as points of departure in education. It also notes that some cultural practices and discourses may be favored more than others, and tries to incorporate students' agency and identity as motivations for learning (Cazden et al., 1996; see also Cope & Kalantzis, 2010; Nohl, 2007). It offers two important factors for transcultural pedagogy. First, it emphasizes changes in social participation and the increasing cultural, linguistic, and social diversity resulting from the globalization and medialization of societies. Second, the concept of multiliteracies provides a framework from which to approach the challenges of teaching in a fast-paced world driven by the need to communicate across multinational boundaries and through multiple modes, including media (Jacobs, 2012). However, the pedagogy of multiliteracies, to the extent that it is based on the idea of multiculturalism, does not fully take into account the need to reconcile and transcend cultural differences, that is, to find a common ground.

The notion of "transcultural competence" refers to the ability to notice and understand an individual's specific situation within one's living world, as formed in various social and cultural contexts, as well as to interpret the individual's actions within this diversified context (Domenig, 2007). When, instead of differences, an individual discovers similarities in others' life experiences, transcultural competencies develop, enabling the individual to see him or herself in others. Self-reflection serves as a resource for encountering and identifying prejudices and stereotypes, and it contributes to the perception of cultural diversity. Correspondingly, transcultural competence within media culture and pedagogy means realizing the multidimensionality of human life: from the global sphere to local communities, in both offline and online living worlds in which the dynamic identifications of individuals in society appear (Frau-Meigs, 2012). This notion highlights the fact that individual lifestyles cannot be defined fully by cultures, as they go beyond them. Therefore, to understand the everyday actions of an individual, it is necessary to adopt a situational perspective, including recognizing the individual's biography, interests, and strategies of living (e.g. Domenig, 2007; Koehn & Rosenau, 2016).

"Media competence" refers, then, to the ability to recognize and comprehend the ever-changing lives of individuals within media cultures and media relations (e.g. Kotilainen, 2009), which can also be seen as transcultural forms of action. When the transcultural living worlds of an individual are linked with cultural practices and participation in a self-reflective manner, this may be referred to as "transcultural media competence" (Koponen & Kotilainen, 2017). For example, transcultural media competent youth are able to adopt unique lifestyles and agencies from diverse cultures as a part of their own cultural heritage. The focus in transcultural media pedagogy is, then, on the overlaps and combinations of these cultural encounters and in intersubjectivity. In media studies, not much attention has been paid to the relationship between media competence and transculturality. Because education is a significant forum for promoting the empowerment of transcultural negotiations, this relationship should also be examined within the pedagogical perspective through empirical cases like the YPAM study. In this text, we ask: how can pedagogies of multiliteracies support the transcultural media competencies of migrant youth?

Data from Five Media Workshops

This article draws on the data from the action research YPAM conducted at the University of Tampere. Here, "action research" means developing media pedagogy directly within the everyday practices of youth work with the intention of supporting the social and media participation and multiliteracies of youth. The study contains several sub-studies that refer to media workshops organized around Finland in co-operation with youth institutions operated by Finnish people. The researchers were also Finns, except one master's student doing her thesis in the study. As worsening youth marginalization is today of concern in Finland, the YPAM study focused on youth centers that are known to be attended by youth at risk of dropping out of society. In addition, as increasing cultural diversity is a fact in Finland, the study involved youth with diverse ethnic backgrounds and local youth to study the challenges and opportunities of their media participation, including intercultural interaction in, through and with media. All the YPAM participants were at risk of dropping out of society for diverse reasons, such as learning or social difficulties. Here we focus on migrant youth who are at risk due to their divergent cultural background and possible other difficulties, such as limited language skills.

The current text uses the data of five photography workshops with multicultural groups, attended by 40 mainly 15- to 22-year-old people. One of the workshops was for 16 asylum-seeking Afghan boys, three workshops were only for girls, and one included both genders. In addition to those born in Finland (15), the workshops included participants from Afghanistan (1), Iran (2), Spain (1), Turkey (1), Congo (2), Mexico (1), and China (1). Almost all the youth were pupils or students, excluding the recently-arrived asylum seekers. They were all accustomed to using media, particularly their mobile phones, and diverse social media software in their daily lives.

In the media workshops, youth were encouraged to create media content (e.g. photographs, writings) and to publish it on social media (e.g. Instagram) and mainstream media (e.g. a youth magazine, an art exhibition). In action research, understanding is built through a flexible cycle of planning, acting, observing, and reflecting. In YPAM, this took place within each sub-study one or more times, depending on the context and duration of the sub-study. Moreover, the workshops can be understood as parts of one spiral of action research, as the understanding that emerged in the first workshop was passed on to the actors in the second workshop and so forth.

Pedagogies That Support Transcultural Media Competencies

From the perspective of transcultural media competences, the most fruitful YPAM data consist of observation diaries (n=6) written by researchers and shared among them based on a data sharing contract. The overall collected data included diaries, interviews, background questionnaires about the young participants (e.g., age, country of birth, media usage), and photographs taken by them. The young people and minors' legal guardians signed informed consent forms, promising to participate in the YPAM research and giving right to use and archive the data collected of them.

The five YPAM workshops consisted of separate photography assignments (n=35) founded on the pedagogy of multiliteracies. As the YPAM study is contextualized chiefly in youth work, with no demanding curriculum objectives, the four instructional phases of the pedagogy of multiliteracies – situated practice, overt instruction, critical framing, and transformed practice – were not always rigorously followed. The diaries were analyzed via qualitative content analysis. Similarities and differences within the diaries were noted, and the data were compared with the pedagogical literature. The data were categorized and abstracted by using key words; observational notes of workshops were extracted to describe different aspects of the text, divided into meaning units, and then further grouped to identify underlying meanings. The data are here marked by using D for diaries and W for workshops, and running numbers are used to separate the participants and the assignments.

Next, we briefly discuss the results based on three findings regarding supporting transcultural media competencies, especially among young migrants: 1) considering the living worlds of young people; 2) utilizing existing media capabilities; and 3) supporting young people's transcultural identity.

Considering the Living Worlds of Young People

The photography assignments, which considered the young people's living worlds within, appeared to contribute to the development of transcultural media competencies in two ways in particular. First, through sharing their experiences of their individual living worlds with peers, they had a chance to utilize their transcultural approaches with the appropriate practices. Secondly, the assignment linked the personal transcultural living world and the public socio-cultural context to their unique and contextual interpretations.

For instance, a photography assignment called "city treasure", in which young people were instructed to observe details of the urban environment, helped them to see a familiar place in new ways and to produce something personal for self-expression: "Was a nice job when you had to come up with something that others do not see" (D2-W2/1). In the workshop with asylum-seekers as well, the boys photographed their everyday life. The focused observing of local culture opened spaces for transcultural navigation, so for cultural comparisons, following reflection and insights into the commonalities and differences of Finnish and their own identity and culture. For example, one refugee boy took a photo of an old Finnish couple walking on street hand in hand, very much in love. This gave him an insight about the relativeness of cultural habits and practices, as in his birth country, this kind of behavior would have been considered as ridiculous. This assignment situated their unique interpretations of their own transcultural experiences into the broader so-ciocultural context and enabled them to narrate with self-reflection something from their own culture and learn something from Finnish culture.

This assignment, for example, considered the living worlds of young migrants and enabled them to share their own transcultural self-expression. The feedback received from their peers enabled interpretation through another transcultural perspective. Thus, the assignment may have served as empowering inspiration for them to utilize their transcultural approaches in the appropriate practices. The participants' final feedback also indicates that the assignments opened their minds to the diversity of audience receptions. For instance, some participants were surprised "that people can see different things in photographs" (D5-W5/2).

Utilizing Existing Media Capabilities

The assignments, which utilized the young people's existing media capabilities, were shared in Instagram which they already used as a social media platform in their spare time. The joint assignments not only allowed self-expression but also exposed the overlapping of young people's diverse individual transcultural lifeworlds, such as media cultures and networks. The assignments liberated self-expression and acknowledged their agency as transcultural media users. They also encouraged them to add some communicative elements from their own socio-cultural context and to engage in some media practices as authentic transcultural media users. For example, in media assignments called "miniature picture," they worked with their peers or in small groups to create miniatures from chosen characters. This creative activity itself enabled to express and compare diverse transcultural perspectives, and seemed to encourage the young people's self-expression and acknowledgment of their potentials.

The results show conflicts as well. For instance, the young people had difficulty choosing what they wanted to do: "Too much freedom is a problem and paralyzes in malfunction" (D3-W3/13). They also had technical difficulties when using smartphones. Language barriers created communication failures, so having the resources, motivation, and courage to participate was challenging. Such young people did not realize their potential due to their background, but not because of a lack of abilities or desire: "For many multicultural youth, social media is a tool for building their own networks and maintaining old relationships, not an instrument of influence" (D6-W5/26).

In these assignments, harnessing the transcultural into media practices and agency was difficult. There are two important elements to consider. First, the young migrants' capabilities in interpreting: what the provided information means and how it relates to what is important to them in that situation. Second, their capabilities in responding to their own agency; what actions they will take because of the information provided. In these cases, the provided guidance should enable proper action towards transcultural identity.

Supporting Young People's Transcultural Identity

The assignments, which supported young people's transcultural identity, were based on shared self-expression. By asking them to share these transcultural experiences, the assignments aimed to create a space for interpretation of transcultural self-presentation, reflection, and dialog. This encouraged them to show different sides of themselves and their personality and to open a space for broader understanding that could support their transcultural identity (self-presentation).

For example, in one workshop, assignments called "portraits" and "visual symbols – visual metaphors" were given. In the former, they worked with their peers by photographing one another. In the latter, the pictures were shown on a laptop, one at a time, and they were encouraged to describe their thoughts and feelings. They were also asked if the pictures represented something else beyond the common meaning that they had. In these assignments, the dialogue and the young people's agency were supposed to act as a tool between the teachers and the young people, as well

as among the young people, to bridge transcultural areas of expertise. The results show that the first assignment encouraged the young people's self-expression: "Even those who were normally shy showed a more daring and cordial side of themselves" (D4-W4/22). The latter assignment accidentally evoked sentiments of nostalgia or memories especially among the asylum-seeking youth, even though their agency was supposed to be empowered while reflecting upon transculturality in the media: "We were asked not to tap into their memories from back home or not to ask about the events that are linked to those memories. I expected different results when I planned the content" (D4-W4/21).

These assignments evoked the young migrants' transcultural dialogic reflection process, despite the misunderstanding. First, shared expressions gave them the opportunity to allow their transcultural voice to emerge. Specifically, they may have brought in information to help interpret their viewpoint that the teachers would not have been aware of on their own. Second, it gave the teachers the opportunity to support their "interpretations in transcultural identifications". Finally, in some cases, they may have identified their own agency based on their views, but not known how to make progress on them; thus, a dialogic space gave them the opportunity to ask for help and the teacher the chance to provide suggestions or strategies. In addition, the pedagogical interventions themselves supported dialogue by acting as a third "voice" in the transcultural conversation.

Discussion

This study indicated the importance of transcultural media competencies while considering the living worlds of migrant youth, utilizing their existing media capabilities, and supporting their transcultural identity. The assignments encouraged them to express their living world and engaged them in media culture. Hands-on media education, in this case community-based media participation, offered various opportunities for pedagogical intervention, as well as challenges.

The data show that media pedagogies that supported self-expression and dialogue with others enabled a space for other transcultural perspectives of interpretations. Photography assignments shared on Instagram were especially successful in liberating their self-expression and acknowledging their agency as transcultural media users. These shared assignments afforded them the opportunity to "oscillate" between performances of individual and community identities (Doerr-Stevens, 2011, p. 3), meaning that the transition within individual and collaborative production online and offline offered opportunities for self-reflection, while producing diverse photography assignments. The results show challenges as well: there were moments in which the young migrants' transcultural potential needed support but did not receive it because of the educator's insufficient knowledge on how to support them. This is even more important when we have migrant youth as the focus, as was the case here; there is an urgent need to improve pedagogies for developing transcultural media competencies.

The results of this study reflect the results of a previous study done with international Master's students (Koponen & Kotilainen, 2017): shared expressions, which give young people an opportunity to allow their transcultural voice to emerge, are important. Even though these results were not based on the narratives of young people, the pedagogy and its interventions can still be seen as an opportunity in future youth work, especially among migrants. In developing pedagogical interventions, attention should be paid to intercultural dialogue, but even more attention should be paid to gender perspectives, identities, stereotypes, gender ideals, and self-reflection, all of which appear more often both offline and online (Leurs, 2015).

UNESCO's Universal Declaration on Cultural Diversity (2001) sees the reform of curricula and teacher education as a barrier to equality in digitizing societies. The results here emphasize the importance of the broader steps that educational institutions and educators need to take towards transcultural media competencies. To conclude, this paper has taken an initial step towards examining transcultural media competencies among young people. Attention to media pedagogical interventions in a transcultural perspective can impact how we teach and learn via intercultural dialogue, offering us better understandings of each other.

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Hydro-citizenship and media education: using multimodal content production to engage young people in water management

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One way of driving environmental education towards supporting youth in engaging with participatory environmental management is the enhancement of symbolic exchanges through digital communication within teaching and learning activities. This paper presents the results of an intervention at a secondary school consisting of the development of multimodal digital content and action research to creatively engage young people in water management issues. The experiment was developed as research funded by the National Water Agency and Capes / Ministry of Education in Brazil, and integrated media education practices and curricular components of environmental education, especially on narratives of water management, governance and the concept of hydro-citizenship. The results suggest that the opportunity to enrich media education with links to hydro-citizenship was particularly welcomed by the students and point to the need of sustaining connections to encourage them to engage with the theme in the long term.

Keywords: media education practices; curricular components; secondary schools; environmental education; digital hydro-citizenship.

Environmental justice and media education

Seeking environmental justice requires creating democratic, participatory mechanisms of public management to equalize political decision-making and reduce the costs of managing impacts generated by the exploitation of resources for economic expansion. Obviously this endeavour requires preparation of social actors, and in a democratic society it becomes difficult to ignore the role of formal educational institutions to share responsibilities for such a duty.

Among the diverse strands of environmental thinking, political ecology seems implicit in the content of the Brazilian curriculum (Dobson, 2007; Brazil, 2002). According to this perspective, the focus on sustainability should be built in order to integrate political, economic and environmental spheres, so that socio-environmental conflicts are addressed in the light of inequalities among actors.

Engagement in social and political processes that influence water governance can be characterized as the exercise of hydro-citizenship (Garde-Hansen, McEwen & Jones, 2015). The digital interface with hydro-citizenship involves the dissemination of means to access and produce information on the management and use of water, which also requires awareness of the impact of consumption in terms of water used through the whole supply chain. Taken together, those concepts are related to aspects such as the availability of digital communication flows capable of encouraging and sustaining reflection on demand, controversies and conflicts regarding experiences of living with and without water in its natural, political and cultural spheres, taking into account community habits, experiences and daily lives.

One way of integrating the capacity-building of youth to engage in participatory spheres of environmental management with school education is the improvement of symbolic exchanges on the subject in teaching and learning activities. This is the proposal of the pedagogical materials developed in the project described here, which combined media education and curricular components of secondary school regarding environmental education.

Media education, since its inception, has been associated with demands for plurality, diversity, balance and democratization of access to information, which are expected to be achieved by means which include the expansion of public participation – which in turn would take place to the extent in which people would have been educated for that purpose (UNESCO, 1980). This claim has been renewed and expanded with the popularization of the Internet and the emergence of Web 2.0, mainly due to the ease of receiving, producing and transmitting content, generated in many languages and platforms (Buckingham, 2003).

Yet to enjoy the benefits of this media landscape one needs to learn how to navigate through different and often conflicting modes of representation, making conscious choices about the most appropriate ways of expressing ideas in each context. Media education should prepare youth to exercise their own control over the myriad of tools and languages available, preferably by creating activities that simultaneously teach about media and promote access to socially relevant information. Media education and education for sustainability became interconnected from this point on in our project.

We used key concepts and pedagogical practices for the critical and creative use of digital media to access, evaluate and produce multimodal content on water management issues, drawing from information from a variety of relevant sources, including the Brazilian National Water Agency, river basin committees, environmental movements and the media.

From this perspective, hydro-citizenship can be achieved as a practice rather than a status. That means that being identified with a cause of collective interest and developing skills to access and use relevant information can be decisive in a pedagogical process comprising activities to foster the reflection on subjects such as sustainability, human rights, equality, democracy and governance. So the construction of digital hydro-citizenship benefits from the circulation and sharing of views and memories on historical experiences about mechanisms of social, economic and political inclusion in a democratic society. We considered this as a productive way forward, given the particular Brazilian political setting, where the creation of river basin management committees has become a fundamental step in the articulation between public authorities and society in the environmental field (Brasil, 1997; Jacobi & Monteiro, 2006).

The project investigated new ways to create multimodal teaching materials, mixing art and media languages as a starting point to sensitize and engage young people in the debate around decision-making on water management.

The specific objectives were to integrate the perspective of political ecology into curricular contents about environment through the concept of hydro-citizenship; to foster creativity and the free expression of ideas, with art language as part of a strategy to create links between different pieces of relevant information needed to raise awareness and articulate informed opinions; to present opportunities for civic engagement around decision-making on environmental policies and water management at the local level.

Make-and-connect methodology

Our research included the creation of teaching materials to provide a step by step road map for the production of cultural artefacts in a digital context, establishing a

dialogue between scientific concepts, political controversies and citizenship rights around the theme of water management and use.

This "make-and-connect" pedagogical approach was concerned with how youth make use of technology as an extension of their thinking. Teaching practices should not allow a situation where the students let platforms and devices determine the direction of use. On the contrary: it is up to the teacher to decide what to do with technological artefacts, and how to behave in order to achieve what is then considered relevant as a pedagogical goal. Without proper guidance, online participation is likely to be limited to the tools and resources made available by the most popular social network on that day. More significant to education purposes is to enable the students to wisely search for applications, detect and master those which can help media production on matters which are meaningful to people's lives as citizens, and make proper use of various resources to express beliefs and values in a variety of creative ways (Gauntlett, 2011). Furthermore, developing such skills facilitates engaging with others in a democratic dialogue, both in ordinary relations and spaces such as deliberative arenas.

So the study was carried out through a qualitative approach of action research and was based on key concepts and pedagogical techniques from the field of education for the critical use of media (Kellner & Share, 2008), in combination with the concepts of virtual water and digital hydro-citizenship.

In our case, such dissemination occurred through an intervention in a public school comprising teaching and learning activities that explored artistic and media languages to foster a dialogue with biological, geographic, sociological and legal aspects of the framework of the participatory structures of water governance currently existing in Brazil (e.g. water councils designed to enable shared decision-making).

The intervention included the design, production and testing of pedagogical materials in a Brazilian secondary school class of 16 students aged 14-16 years of age in a series of five, two-hour long workshops carried out from September to October 2016 which encouraged activities consisting of the production of digital content and land art that can be replicated in future, similar interventions. The material consisted of a video documentary presenting the proposal, a teacher's guide in a brochure, both printed and in PDF format, tutorial videos and activity sheets for students, complemented by a blog that offers the content of all these sources used in the activities, adapted to a user-friendly format ready to use by secondary-school teachers.

Field observations, student self-interviews and a cultural probe generated data that allowed us to evaluate the experiment.

Workshops

The first workshop presented the concept of virtual water and the method of its calculation in the form of the water footprint. A realistic picture of the availability of water on the planet, and regional and social differences as regards access, was drawn, and the concept of the water footprint was clarified: it comprises the total volume of fresh water used to produce goods and services consumed by individuals, communities or produced by companies (Hoekstra, 2013). The teacher showed data on the regional river catchment system. Problems were highlighted, such as tank trucks illegally storing fresh water and the accumulation of waste materials from construction sites and urban expansion. The workshop was concluded with a simulated jury in the style of a meeting of a river basin management committee, in which the students were divided into groups representing the main social actors: government, agriculture/beef cattle production, industry and civil society. The students watched an educational video produced by the Brazilian National Water Agency on how committees work and were encouraged to think about management proposals.

The second workshop explored the aesthetics of Surrealism, its historical context and the criticism it made about the consumer society. The idea that we drink an amount of water similar to what is needed for filling ten baths a day was exploited as surreal. The teacher discussed the creation of surreal objects, such as the iconic "Lobster Telephone" by Salvador Dali. The students were introduced to the main artists of the movement. They were offered three tasks: to create poetic phrases, to produce a collective collage and a sculpture with objects that represented the consumption of virtual water, in the expectation that the reflection on aspects usually not perceived in daily life could contribute to raise critical awareness.

The third workshop focused on the basics of producing digital narratives with free access Internet applications and was divided into three phases. First, we asked the students to briefly recall recent stories of their lives about living with and without water. The teacher indicated how those stories, despite having different contents, maintain a common minimum structure, presenting a problem and a solution, besides introducing some kind of enigma that captivates the listener. Second, we briefly presented the ingredients of good stories, from categories discerned by Barthes & Duisit (1975). Four aspects – enigma, chain of facts, paradigmatic signs, time, space and characters – were then identified in visual narratives consisting of advertising and video clips. The students were introduced to the concept of narrative structure and were led to identify the process of change in each story, that is, what was presented as normal, which aspect broke normality and what had to happen so that a new normality was re-established. Third, the students watched a video about the

language of comics, accompanied by a summary table of these three phases. From then on, activities of production of media content began, using free access online software to create strip stories.

The fourth workshop navigated through information about the water cycle on planetary, continental and local scales, using infographics and satellite imagery. The strategy was to establish a contrast between the picture of the earth taken from outer space, which is often recalled to form the stereotype of the planet's water, suggesting an abundance of that resource, and a more realistic notion of the fresh water actually available for human use. We showed an infographic comparing the proportion of water not available for consumption (oceans and glaciers) to the fresh water available on the planet (aquifers, lakes, rivers, etc.). Next, we explored the idea of the "irrigation cycle". Three images were compared: the venal flow of a human arm, the sap system of a plant and a satellite image of a river basin. The representation of capillarity underpinning those three domains may suggest abundance sustained by intelligent distribution systems, but the teacher argued how and why it can be considered as a misrepresentation. Using satellite images, the teacher showed how the dynamics of water flows on the planet obviously do not respect political and territorial boundaries; therefore, concerns over access and preservation of water should not ignore the calls for global citizenship and intercultural dialogue (UNESCO, 2016).

The fifth workshop deployed a cultural probe to encourage once more the reflection on water use and habits (Oehner, Gaver & Boucher, 2012). The probe was a personal notebook, divided into three parts covering these dimensions: daily life (students should write about their own consumption habits in a given period and then calculate their water footprint using web-based free access applications); personal stories (students should seek out and write stories about living with and without water within their families and communities); water biographies (based on the previous dimensions, students should answer: what is the value of water to you?). Participants should give a name to their personal probes, honoring mythological characters connected to water, such as Neptune/Poseidon or the Brazilian Candomblé deity, Iemanjá, often depicted as a mermaid. They were given two weeks to fill in and return the cultural probes. Next, we explored the cultural value of water. This exercise unfolded in three activities. First, the students commented on their choices about naming their probe. The choice of a female deity by some students elicited questions of gender equality. Second, an excerpt of a documentary film on the anthropological formation of Brazil was screened. Third, a poem was displayed and the students were invited to reflect on questions about memory and identity.

The debate arising from these questions was characterized by a diversity of answers that helped us to introduce the practice of writing about oneself as a way of knowing more about the social reality that shapes us. The discussion was enriched with a series of images showing possible genres for self-writing: photos, diaries, letters, collections, blogs, profiles on social networks, and even professional curricula.

Conclusions

The pedagogical activities employed in the experiment benefited from the knowledge of social sciences and humanities for the production of teaching materials with creative strategies designed to motivate learning about sustainability. One of the positive outcomes of this pedagogical strategy is that it successfully challenged the students' common sense regarding the most crucial aspects of the complex water management systems in place nowadays. This was inferred from many of the students' accounts, and worked as the starting point for acknowledging the seriousness of the challenges that sustainability poses to society and the democratic values underpinning citizenship.

Students were encouraged to abandon their indifference towards the environment, epitomized by the sense that "this has nothing to do with me", and encouraged to shift towards the feeling of "I must do something about it". This suggests that the proposal had its merits, despite the fact that its effectiveness in the long-term would depend on further pedagogical approaches focusing on sustainability concerns underlying daily habits related to actual/virtual water consumption.

The results suggest that the opportunity to enrich secondary education with links to hydro-citizenship was particularly welcomed by the students, who nevertheless showed difficulty in sustaining a connection that could encourage them to engage with the idea in the long-term. The observations indicate that environmental sustainability, despite existing in Brazil under the domain of public governance, still has a long way to go before it takes root in society and affects the public psyche and citizenship. This change needs to occur if environmental issues are to penetrate deeper into the contents of the secondary school curriculum.

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Part III MIL Providing New Opportunities

Introduction

Esther Hamburger (ed.)

This third part of the book highlights cases involving formal, and informal education, public policy-oriented training projects, independent or informal platforms, television contents, and other potent MIL studies or projects. The first sub-section brings three papers focused on **Incorporating MIL in Education Policies**.

The first work brings in an impressive account about public MIL policies in Jamaica and the ways in which these policies use an encompassing notion of literacy that promotes access to information, transparency and accountability. "Media and Information Literacy and intercultural dialogue for rural and urban development in Jamaica" suggests that public education policy can empower women in rural situations and in so doing might help to overcome gender and rural/urban inequalities.

The next chapter, "Media and Information Literacy among children on three continents: Insights into the measurement and mediation of well-being", discusses children literacies in the plural, as it aims to understand children's abilities to learn, create, express, and participate, and their different levels of operational and/or creative skills, in higher and lower income countries, also taking gender into account. Part of a larger global comparative study on children and MIL, this paper suggests that gender difference is small among children of Bulgaria, Chile, Montenegro and South Africa. The research is designed to feed public policy.

"Audiovisual projects in schools – Video production as a learning tool for any subject" discusses the potential of audiovisual media to enhance trans-disciplinary experiences of learning in Brazilian schools. The paper describes examples of the ways in which integrating video making in the classroom facilitated teaching other subjects, even if teachers do not master the art of video making. By sharing abilities they learned out of school in class, students open themselves to learning formal subjects such as mathematics.

The next sub-session, **Enlisting MIL as a tool for gender equality and advocacy in information environments** includes four chapters.

"An experience on informal learning, girlhood and collective collaboration: A case about young women in an online forum dedicated to translating books" is a

fascinating piece about a case in Mexico of MIL as a privileged tool to track, accumulate, and share knowledge from an amateur, not-for-profit women's digital environment.

From India comes "Empowering women and ensuring gender equality in India through Media and Information Literacy approach", reporting on the ways in which public MIL policies empower women in rural India. This piece mentions film and community radio as media used to educate women farmers. The recent use of social media in MIL programmes is also approached.

Successful evaluation of the case of a MIL 15-class video course to enhance sensibility about gender difference among teachers in Japan is the subject of "Media and Information Literacy development to nurture resilience to teaching staff gender differences in Japan".

The last chapter in this sub-section stresses the importance of audiovisual regulations to promote gender equality. "New solutions to the old stereotyped women's image in the media" brings information about international declarations on the subject. The chapter highlights the work of different international advocacy institutions, as well as the experience of Local Spanish Audiovisual Committees in order to claim for international regulatory policy.

Finally, the last sub-session in this part, MIL and lifelong learning, gathers four articles which explore the potential of MIL.

"Trans-media learning as an opportunity for MIL education to foster participation through the experience of creative communities" discusses an ongoing empirical study within a creative community of makers in Mexico. The study is based upon a constructivist approach, and develops a *Trans-media learning proposal* which reveals that mediatized subjects learn, even without being aware, through their experiences with communication technologies.

"An Analysis of media literacy messages in popular children's television" explores the ways in which the most watched cable television children's cartoons in the United States portray the relations their characters establish with the media. In other words, this coding study analyses MIL messages that are embedded in television contents.

Coming from India, "Enhancing learning on peace and non-violence through Media Literacy: The case for a non-violent media literacy programme" elaborates on Gandhi's theory of non-violent communication and the ways in which this theory has worked in India in the experience of the Peace Gong platform for children.

In a contribution from Spain, "Media literacy as a key component in new learning environments: e-learning, u-learning a social learning" problematizes digital participation of citizens. Beyond basic access to the Internet, the paper approaches the effective use of a range of media and learning experiences.

Media and Information Literacy for national development: The contribution of the Jamaican public and private sector

Marlene D. Hines, DTL Ministry of Education, Youth and Information (Jamaica)

This paper provides a description of agencies and programmes of the Government of Jamaica including the Ministry of Education, Youth and Information (MoEYI), the Ministry of Culture, Gender, Entertainment and Sport (MCGES), the ICT infrastructure and Mass Media products and services. Such agencies and programmes have the potential to support or have been designed and implemented to support the strategies of Media and Information Literacy for Intercultural Dialogue for the processes of sharing and interpreting information and also for the delivery of training programmes to foster the empowerment of its citizens at all strata and sectors of the Jamaican society.

The agencies and programmes of the MoEYI, MCGES, the Jamaica Information Service (JIS), the Broadcasting Commission and the Access to Information Act all support the MILID strategies for nation building. The Vision 2030 National Development Plan clearly indicates that the Government of Jamaica is committed to adhere to the national governance strategy that supports the UN Sustainable Development Goals. The paper therefore provides a concise overview of the extent to which this governmental support has influenced the integration of MIL for the promotion and fostering of the democratic rights and freedom of the people of Jamaica.

Keywords: 1. Agencies, 2. national development, 3. Millenium goals, 4. government, 5. empowerment, 6. literacy, 7. Private Sector, 8. MILID, 9. Intercultural dialogue, 10. empowerment, 11. Civil Society, 12. Media

Introduction

The focus of this paper is the application of the strategy of Media and Information Literacy (MIL) in the promotion of the use of information and communication technology (ICT) as channels and instruments to effect access and use of information to foster intercultural dialogue and gender equality as drivers of change. The long-term objective of such intervention would be that MILID will break down cultural barriers among the racial/ethnic, social and religious groups and empower women of both rural and urban communities to effect the required developmental change in the Jamaican society.

The four Sustainable Development Goals that will be the focus of this paper are to:

- 1. Ensure inclusive and equitable quality education and promote lifelong learning opportunities
- 2. Achieve gender equality and empower all women and girls
- 3. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- 4. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

The sub-topics of the paper are:

- 1. Public Sector Agencies Promoting MIL
- 2. MIL the Private Sector and Civil Society
- 3. Public and Private Sector Promoting Intercultural Dialogue
- 4. MILID and the National 2030 Development Plan of Jamaica

The presentation of each section of the paper will be guided by the UNESCO MIL Strategy Guidelines which includes the implementation and fostering of the interaction of five policy directives in the field of ICT, Media, Education, Information and MIL (Grizzle, 2016, p.30).

Agency/Programme/Policy/Law	Portfolio Responsibilities
	1. Provides Library and Information Services to the Jamaican public, Primary and High Schools
	2. Drafting of a National School Library Policy
Jamaica Library Service (JLS)	3. Parish/public libraries in all 14 parishes of Jamaica and Branch Libraries in some towns and communities
	4. Manages an annual National Reading Competition
	5. Manages the Global Library ICT Initiative
National Comprehensive Literacy Programme	GoJ response to the global thrust of literacy for all regardless of race, gender, religion and socio-economic realities
Jamaica Foundation for Lifelong Learning	Adult education and lifelong learning
Bureau of Gender Studies	Promotion of gender equality
National Library of Jamaica	Collection, maintenance and preservation of the intellectual, innovative, literary and cultural heritage of the nation through the National Library Act
Institute of Jamaica	Conservation and preservation of the historical heri- tage of Jamaica
Jamaica Cultural Development Com- mission	Promotion and preservation of the culture of Jamaica mainly through the arts
Social Development Commission	Community development programmes and initia- tives
	New ICT in Education Policy is being drafted
Information and Communication Tech- nology (ICT) in Education Policy	Two previous ICT in Education Policies existed since the 1990's
	Agency of the Ministry of Science, Energy and Tech- nology (MSET)
eLearning Jamaica Limited	Promotes teaching through the use of information technology
	Implemented the Tablet in Schools Project in collabo- ration with the MoEYI
	Provides a wide range of ICT government and private sector companies in Jamaica
eGov Jamaica Limited (eGovJa)	Develop and support a wide range of GoJ and private sector systems e.g. National Identification System (NIDS)
Jamaica Open Data Initiative	Establish a government owned open data service to drive public/private sector partnerships for innova- tion and growth

 Table 1
 Government Agencies, Legislation and Programmes

Source: Own elaboration.

Public Sector Agencies Promoting MIL

The general UNESCO Media and Information Literacy strategies as clearly outlined in the 2015 MIL Yearbook are, "MIL empowers citizens, including children and youth with competences related to media, information, ICT and other aspects of literacy which are needed for the 21st century. These competences include the ability to: access, find, evaluate, use the information they need in ethical and effective ways; understand the role and function of media and other information providers such as libraries, museums and archives ... engage with media and information providers for self-expression, life-long learning, democratic participation, and good governance and updated skills (including ICT skills) needed to promote content." (Singh. et. al. 2015, p.21).

This section will be focused on the Government agencies and programmes which are available to the Jamaican citizens and which foster the achievement of the four Sustainable Development Goals of focus of the paper, through the application of the developmental strategy of MILID with concentration on how they may address the issues identified by the United Nations Secretary-General and the development of information literacy skills in our students and general citizenry. According to the United Nations Secretary-General, BAN Ki Moon, "The Sustainable Development Goals set time-bound targets,... while promoting gender equality, health, education and environmental sustainability..." (United Nations, 2017).

These agencies and programmes directly and indirectly facilitate the application of the UNESCO MIL strategy to foster the empowerment of the Jamaican people from childhood to adulthood for the empowerment of these people to be able to make a positive contribution to the social, cultural, political and economic development of the country. Manual Castells presents the following argument which can be interpreted as supporting the principles of MILID as the driving force of individual and social-economic transformation. "… when in the 1970s a new technological paradigm, organized around information technology, came to be constituted, … it was a specific segment of the American society, … that materialized into a new way of producing, communicating, managing and living." (Castell, 1996, p.5).

The Jamaica Library Service

The Jamaica Library Service (JLS) is the agency of the MoEYI, established in 1948, with responsibility for the management of the Public Library and School Libraries services of the country. Presently the JLS is responsible for the libraries of 900 of the over 1,000 schools in Jamaica. Table 2 provides details on the number of active school libraries.

School Type	No. of School Libraries	Total # of Schools
Infant	29	35
Primary	583	594
All Age	94	111
Primary & Jnr. High	83	86
High	98	150
Tech. High	07	14
Special Schools	04	17 ()

 Table 2
 Number of Libraries in Jamaican Schools

Source: Jamaica Library Service Annual Report.

The JLS has implemented the Global Libraries ICT Project in 2016 with major funding of US \$2M from the Bill and Belinda Gates Foundation, Global Libraries Initiative and US \$1M from the Ministry of Education, Youth and Information. Two of the 'Overall Objectives of the Project' which support the strategy of MIL are:

- 1. to provide Jamaicans with increased access to state-of-the-art ICT resources (desktop computers, laptops and tablets);
- 2. to create awareness about public libraries and its positive impact on communities (JLS, 2017).

The JLS 2010-2011 Annual Report indicate that it has the responsibility for 926 School Libraries, 829 of which are active. Table 3 provides data on the ICT technology available in Jamaican schools in support of the achievement of the JLS goal of building an information literate society as recorded in the JLS 2012-2013 Annual Report.

Region	Computers in Libraries	Use of Com- puters in Peda- gogy	Remedial Teaching	Resource for Primary, CSEC/CAPE	ICT (includ- ing Internet Access
Region 1	Majority of high schools	9 infant school libraries	Use of online books and educational activities for children at non-mastery literacy skills		Majority of primary schools All high schools

 Table 3
 ICT in School Libraries 2010-2013

Region	Computers in Libraries	Use of Com- puters in Peda- gogy	Remedial Teaching	Resource for Primary, CSEC/CAPE	ICT (includ- ing Internet Access
		Research and recreational purposes in primary and high schools			
Region 2					Majority of primary schools with Internet & cable services
Region 3	53 school libraries				28 school libraries
Region 4	All high schools	Lessons of- fered through Powerpoint learning software and teaching of literacy		Research, school-based assessment projects	Most primary schools in the rural areas lacked Inter- net access
Region 5	38 school libraries				
Region 6	34 school libraries or 23% of the schools				
	All high schools had computers in libraries				

Source: Jamaica Library Service Annual Report, 2013

The Jamaica Library Service Public Library Network constitutes 13 Parish Libraries and over 100 Branch Libraries. "The service is based on local government areas known as parishes". (World Encyclopedia, p.405). Therefore, there is a Parish Library in each major town in Jamaica with the Kingston and St. Andrew Parish Library servicing the parishes of Kingston and St. Andrew. These libraries are available to the general public and offer library and information services to children of school age, youth, adults and the elderly. "[The JLS] also provides services to hospitals and correctional institutions and a free postal service to the elderly, handicapped and homebound." (World Encyclopedia, p.405).

National Comprehensive Literacy Programme

The contextual framework of the MoEYI National Comprehensive Literacy Programme, is encompassed in this statement, from the World Declaration on Education for All, (EFA) Article 1, "Every person – child, youth and adult – shall be able to benefit from educational opportunities designed to meet their basic learning needs. These needs comprise both essential learning tools … and the basic learning content … required by human beings … to participate fully in development, to improve the quality of their lives, to make informed decisions, and to continue learning …" (Morris, 2010, p. ii).

The National Comprehensive Literacy Programme therefore provides an inclusive definition of the concept of literacy which is relevant to the conceptual framework of MIL as stated, "...there is now talk in professional circles of multi-literacies. Some of these include adult literacy, computer literacy, economic literacy, family literacy, media literacy [and] workplace literacy." (Morris, 2010, p.2).

The Jamaica Foundation for Lifelong Learning

The Jamaica Foundation for Lifelong Learning (JFLL) is the agency of the Ministry of Education, Youth and Information which is charged with the portfolio responsibility of "Adult Education" including the provision of lifelong learning opportunities for adults and youth. "[JFLL] has developed a reputation for successfully educating adults beginning with the [Jamaica Adult Literacy] JAMAL programme in the 1970s." (JFLL, 2015, p.1). The JFLL is also the agency of the Jamaican government which is responsible for the promotion of the UNESCO Education for All (EFA) initiative. The Vision of JFLL reflects its EFA mandate, as stated "… an educated, knowledge-based adult population empowered through lifelong learning opportunities to take responsibility for their lives and contribute positively to the social moral and economic development of the country." (JFLL, 2015). "Lifelong learning recognizes education as a continuing aspect of everyday life. As such, individuals should be provided with different routes to educational opportunities and allowed to progress from one level to another depending on the needs, aspirations and circumstances of their lives." (Ferguson, 2007, p.9).

Bureau of Gender Affairs Promoting Gender Equality

The Bureau of Gender Affairs (BGA) is an agency of the Ministry of Culture, Gender, Entertainment and Sports (MCGES). The Jamaican *National Policy for Gen*- *der Equality* was implemented in 2011. "The [National Policy for Gender equality] NPGE aims to shift national policy-making and implementation from a gender neutral position which presumes gender equality and equity, to a gender aware position which acknowledged that barriers exist which prevent equal access and thus create inequality." (BGA, 2011, p.6). The Government of Jamaica (GoJ) has made a commitment to the principle of gender equality … Implicit in this commitment is the need to redress the negative imbalances that women have suffered and continue to suffer. (BGA, 2011, p.8). The 2009 Economic and Social Survey of Jamaica (ESSJ), states that women make up 50.7% of the population, "however, they are woefully under-represented in the public and private decision-making spheres of the country." (BGA, 2011, p.9).

The National Library of Jamaica and the Institute of Jamaica

The National Library of Jamaica (NLJ) and the Institute of Jamaica (IoJ) are two of the four agencies of the Ministry of Culture, Gender, Entertainment and Sports (MCGES) which have the portfolio responsibility of the preservation of the heritage of the Jamaican society and ensuring that mechanisms are in place for access to such information by the general public. "The National Library of Jamaica was established in 1979 ... Its primary responsibility is to collect, preserve and make available all materials published in Jamaica, by Jamaicans and about Jamaica ... The Library's collection of Caribbeana is extensive with material dating back to the 16th century." (World Encyclopedia, p.405). The National Library of Jamaica (NLJ) fosters and promotes the nation's knowledge of its history, heritage and information sources through varied media and channels which support the MILID concept of Intercultural Dialogue for social inclusion to effect the breaking down of the barriers of digital divide and the promotion of social inclusion, in an effort to promote the knowledge and understanding of each citizen of Jamaica of his/her historical heritage.

The Institute of Jamaica Act was passed in 1979. The Mission of the IoJ is,

To enhance the awareness of our Jamaican cultural heritage; develop policies and manage programmes for the collection, research, preservation, protection, documentation, analysis, display and dissemination of our literature, science, history and material culture.

This mission is achieved through its 7 divisions which include; African Caribbean Institute of Jamaica, Jamaica Music Museum, Junior Centres, National Gallery of Jamaica, National History Museum of Jamaica and the National Museum Jamaica.

Jamaica Cultural Development Commission

The Jamaica Cultural Development Commission (JCDC) is an agency of the Ministry of Culture, Gender, Entertainment and Sport which was established in 1963 with focus on the management of the annual Jamaican Independence celebrations. However, the scope of the work of the JCDC was expanded in 1968 and 1980 through two Acts of Parliament to include the promotion of cultural awareness in all citizens of Jamaica for national development as clearly stated in its Mission Statement:

To influence national development positively by creating opportunities that unearth, develop, preserve and promote the creative talents and cultural expressions of the Jamaican people, through a professional and dynamic team, thereby advancing brand Jamaica worldwide.

The roles and responsibilities of the JCDC are to:

- 1. promote cultural programmes throughout the islands;
- 2. encourage and organize each year the annual independence anniversary celebrations and other events marking occasions of national interest;
- 3. stimulate the development of local talents through training, competitions, exhibitions, pageants, parades and other activities as the Commission may from time to time determine;
- 4. Support the work of other agencies engaged in the implementation of community development programmes.

Social Development Commission

The Social Development Commission is an agency of the Ministry of Local Government and Community Development which is mandated under a 1965 Act to:

promote and control schemes for, and to do any act or thing which may directly or indirectly serve the advancement of – sport, social, cultural and economic development – for the people of Jamaica and workers in particular".

The SDC is the principal community organization agency working with Jamaica's 775 communities. Its approach to community development is guided by the Government of Jamaica's sustainable development initiative which is data driven. Therefore, data forms the core of the Commission's programme for sustainable development within communities and pertinent data is gathered to inform planning. A community development officer is assigned to each community under the responsibility of the SDC and this officer works closely with community leaders for the empowerment of the residents through networking, partnerships and collaboration in an effort to address major issues affecting the welfare of each community member and the social and economic stability and environmental health of the community.

Community Assets are seen to include, "Seven forms of assets; physical, human, social, financial, environmental, political and cultural ... community development efforts typically try to mobilize these resources to better meet the needs of residents" (Green and Haines, 2008). There are a number of government agencies in Jamaica which are responsible for both rural and urban development such as the Social Development Commission (SDC), Jamaica Agricultural Society (JSA), 4-H Clubs, Rural Agricultural Development Authority (RADA) and the Social Investment Fund (JSIF).

eGov Jamaica and e-Learning Jamaica

The eGov Jamaica (eGovJa) and e-learning Jamaica Limited are two major publicly owned entities which provide a wide range of ICT products and services to the Government including educational institutions and the private sector. "A well-developed national strategy is necessary to the introduction of ICT at different levels of society and business, promoting transparency and accountability within the government and opening additional pathways for diffusion, particularly regionally and internationally" (Belanger, 2009). All Ministries of Government of Jamaica along with many agencies and departments have an official website for the sharing of information to the general public.

The building of a "Technology-enabled Society" is one of the National Outcomes of the National 2030 Development Plan of Jamaica. Table 4 provides a profile of the entities and policies discussed.

The Access to Information Act, Jamaica (2002)

The Access to Information Act, Jamaica (2002) is managed by the Access to Information Unit of the Office of the Prime Minister. The ATI Act was implemented in 2004 to foster the international democratic principles of transparency and accountability in the governance of Jamaica. According to past US President Jimmy Carter, "Public access to government-held information allows individuals to better understand the role of government and the decisions being made on their behalf. With an informed citizenry, governments can be held accountable for their policies, and citizens can more effectively choose their representatives. Equally important, access to information laws can be used to improve the lives of people as they request information relating to health care ... (Newman, 2002, p. 3). The Carter Centre has assisted Jamaica in the implementation of the ATI Act to ensure that the universal objective of the UN Freedom of Information Declaration is embraced by the Jamaican legislation. "If citizens are not assured that they have an effective mechanism to carry out their requests, they will not use the opportunity provided by the Act." (Anderson, 2006, p. 95).

The Jamaica Information Service (JIS)

The Jamaica Information Service was established in 1956 with the mandate to produce and disseminate information relating to the government and the governance of the country. The Mission of the Jamaica Information Service is to, "Disseminate information that will enhance public awareness and increase knowledge of the policies and programmes of the Government of Jamaica and provide cutting edge media services to our clients, maximizing the skills of highly trained professionals in a technologically driven environment" (JIS, 2017). Therefore, the JIS fosters community involvement in decision making in Government and this is only possible if the majority of the citizens of Jamaica are equipped with the necessary MILID skills which will enable them to identify, locate and evaluate relevant information.

The Broadcasting Commission

The Broadcasting Commission is mandated "to enable the orderly development of the electronic communications sector in order to serve the interest of the Jamaican public by regulating and monitoring licensees and by advising government in a manner that is transparent, fair, efficient, effective, facilitative and consultative." (Broadcasting Commission, 2016, p.4). The work of the Broadcasting Commission has wide reaching effect on the content that is released to the citizenry of Jamaica as entertainment, news and general education.

"In our new media-saturated world, it is becoming increasingly important to be aware of the media environment that surrounds every corner of our lives." (Ahmed, 2015, p.291). Radio and television are two media of communication that are in the majority of households in Jamaica. These communication channels therefore are critical tools in addressing the issues of media literacy for public education purposes and to foster intercultural dialogue. An outline of the activities of the Jamaica Information Service (JIS), the Broadcasting Commission and the ATI Act is presented in Table 4.

Table 4 Public Information and Communication Agencies

Agency	Profile
Access to Infor- mation Unit	Oversight responsibility of the implementation and administration of the ATI Act which was passed in the Jamaican Parliament in 2002 and implemented on a phased basis between 2004 -2005
	Wide-scale public education campaign which includes educational institu- tions (secondary and tertiary) and community groups, Media appearances, radio time jingles,
	Secretariat for the ATI Appeals Tribunal
	Initiated the National ATI Essay Competition
	Work closely with ATI Stakeholder group which includes representatives of the public advocacy group Jamaicans For Justice (JFJ)
	Celebrate 'Right to Know' Week annually with the participation of all MDA's
	Governed by the National Library Act
National Li-	Repository of the creative work of Jamaicans and about Jamaica; print, music, photographs, films, microfilm etc.
	Collect catalogue and preserve the nation's publications and to make these accessible to users
brary of Jamai- ca (NLJ)	Legal Deposit Act
	Focal Point of the network of public & private sector libraries through the Jamaica Library and Information Network (JAMLIN)
	Conduct public lectures, seminars and workshops of topics of interest to professional, skilled, social and cultural groups
	Executive Agency of the Office of the Prime Minister
Jamaica Infor- mation Service (JIS)	Responsible for the dissemination of public information of the GoJ in a timely manner
	Produces a full range of radio and television programmes that are aired on all radio and TV stations in Jamaica and a set time for Government broadcast
	Provide Library and research services to the general public locally & overseas
	Produces public service announcements, news items, news features, doc- umentaries and magazine programmes related to the governance of the country
Broadcasting Commission	Governed by a Broadcasting Law and related laws and policy guidelines such as "Children's Code for Programming" and "Guidelines for Political Broadcast"
	 Mission includes: To make and administer television and sound broadcasting regulations Receive and investigate complaints

Source: Own elaboration.

Jamaica Open Data Initiative

The Government of Jamaica through funding and technical assistance from the World Bank has established the Jamaica Open Data Initiative in 2014. The Open Data initiative includes creating the framework for the supply and reuse of data generated by government in a form that is interactive and manipulative by the general public and more so the business sector for the support of skills development, partnerships and collaboration between the Government and the Private Sector for the improvement of public services and to promote innovation. Two main objectives of Open Data are:

- 1. Economic and social growth and innovation
- 2. Improving public services by making citizens more informed consumers

MIL the Private Sector and Civil Society

There are a number of Civil Society groups and agencies in Jamaica including faith-based organizations, Non-Government Organizations (NGOs) and advocacy groups which provide information to the public through varied means including public education forums, seminars and training workshops. They offer services to protect and maintain the rights of mainly those who are vulnerable in the society such as children, youth, the elderly, the disabled and the poor. This section of the paper will provide an overview of one civil society group along with two associations concerned with press freedom and also briefly discuss the impact of cellular technology on the Jamaican society.

Freedom of the Press

Jamaica has been ranked 8th on the 2017 *World Press Freedom Index*. The Government of Jamaica's support of *Freedom of the Press* is expressed in a press release from the Ministry of Foreign Affairs and Foreign Trade as being "... given Jamaica's commitment to freedom of the press ... you can rely on the commitment of the Government of Jamaica, through our permanent mission to the UN in New York to advance this initiative" (Jamaica Observer, 2017). The two media associations of focus are;

- 1. The Media Association of Jamaica (MAJ);
- 2. Press Association of Jamaica (PAJ).

In support of press freedom, Article 19 states "In September 2015, 193 Member States of the United Nations agreed on the 2030 Agenda for Sustainable Development highlighting that Access to Information and free and quality journalism are not only targets to sustainable development but also means to promote the rule of law and peaceful and inclusive societies" (Article 19, 2017).

Table 5 provides some details on the activities of the MAJ and the PAJ and also the two main training programmes for Information and Communication professionals including Journalists.

Association/Corpora- tions/Institutions	Profile	
Media Association of Jamaica(MAJ)	Goal – to strengthen the Jamaican society & democracy through the fostering of a vibrant, independent and responsible media	
	Seeks to develop advertising and media industry by promoting, encouraging and fostering practices that are current, forward looking and professional	
	Work in association with the PAJ to produce a Code of Ethics for Journalists to create a higher basic standard of journalism across the industry and to improve transparency and redress by media houses in the public interest	
Press Association of Jamaica (PAJ)	Dedicated to the best interest of democracy and press freedom in Jamaica	
	Organised and operated exclusively for the furtherance of the educa- tion and professional status of its members	
	Serves as a watchdog of the public governance of Jamaica through systems of accountability and transparency such as the ATI Act	
	Advocate of Press Freedom and the necessary amendments to the ATI Act for improved openness of the Jamaican government	
	Advocate for the repeal of the Official Secrets Act	
	2 major television stations (Television Jamaica (TVJ) and CVM	
TV & Radio Stations and the Print Media	30 radio stations	
	A number of small-scale television stations, including CARIMAC's Community television and church owned TV stations	
	Two major newspapers; the Gleaner and Jamaica Observer, and other small-scale newspaper companies	
Caribbean Institute of Media and Communica- tions (CARIMAC), UWI	Offers B.A., Masters & PhD courses in journalism, communication studies and media production	
Department of Library and Information Stud- ies (DLIS), UWI	Offers courses in "Information Literacy" in its B.A. and Masters pro- grammes	
	Offers Masters course "Information & Society" which focuses on the role of information in national development	

 Table 5
 The Mass Media & Related Training Institutions

Source: Own elaboration.
Cellular Phone Technology

Cellular phone technology provides an example of the mobile explosion that has taken place in the Caribbean [since 2001] (Dunn and Dunn, 2007). The network of mobile telephone subscribers had grown from about 300,000 to 2 million with the introduction of competition in the mobile sector. Table 6 provides details on two of the service providers.

Company	Profile
	Communications provider, offering mobile service, enterprise solutions and cloud computing
Digicel	Provide appr. 100% coverage to urban & rural residents as well as business operations
	WiMAX technology covers 64% of the Jamaican population and provides wire- less Internet
	The result of a merger between Lime formerly Cable and Wireless and Columbus Communications Jamaica Limited
Flow	Provides information technology related services e.g. Internet access, email packages, World Wide Web Hosting arrangements
	High speed broadband to homes and workplaces
	Partnership with the GoJ e-Learning programme by providing 300 Primary schools with Internet access

 Table 6
 Cellular Technology Products and Services Providers

Source: Own elaboration.

The cellular phone technology and the smartphone in particular, is presently one of the most widely available channels for the dissemination of information relating to Media and Information Literacy and Intercultural Dialogue.

Jamaicans for Justice

The Jamaicans for Justice (JFJ) is a civil society group which engages in advocacy services for the vulnerable and those citizens who do not have a "voice". The JFJ is one of the main stakeholders of the Access to Information Act, Jamaica and has provided major funding for the public education campaign of the ATI Act in its initial implementation phase in 2002. The JFJ offers assistance to citizens to access and interpret government documents through the ATI Act for their empowerment to seek justice against discrimination and abuse and to keep the government accountable.

The approach of the JFJ is therefore in keeping with the principles of MIL and also intercultural dialogue to effect peaceful relationships in volatile communities and between marginalized citizens and those with political or material power.

Public and Private Sector Promoting Intercultural Dialogue

The UNESCO definition of the term Intercultural Dialogue in the context of the MILID Strategy is focused on building bridges through MIL between peoples of varied ethnic, social, economic, educational, political, geographical and religious backgrounds for the promotion of peaceful relationships within a country and globally for national and regional development. The MILID strategy therefore may include partnerships between all the major stakeholders in an economy which include the government, private sector, the church and civil society to foster the implementation of public policies, projects and programmes. In the case of Jamaica, such partnership will facilitate intercultural dialogue between the Jamaican citizens and migrants of different ethnic, cultural and racial background and citizens of different social, education and religious context to foster the breaking down of social and cultural barriers that may exist and which may be negatively affecting the social and economic stability of the country. This strategy should be able to address two of the Sustainable Development Goals which are to:

- 1. Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all;
- 2. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Intercultural Dialogue is of significance to the social and economic stability of the Jamaican economy in terms of the creation of a healthy environment for investments, trade relations, bilateral arrangements and international funding. The population of the country which is approximately 2.7 is over 90% of African descent. The other racial/ethnic groups of significant numbers in Jamaica are the Chinese and the East Indians.

The country as a member of the Caribbean region also maintains close ties with other Caribbean islands through the main regional governing body, Caribbean Community (CARICOM). Therefore "Intercultural Dialogue" is of significant importance in any effort to bridge the social and cultural divide among peoples of different nationality within the country and between Jamaica and its regional and international neighbours and partners.

MILID and the Vision 2030 National Development Plan of Jamaica: Analytical Overview of the Effectiveness of the MILID Infrastructure of Jamaica and the level of Achievement of the Millennium Goals

One of the goals of the Vision 2030 Development plan of Jamaica is to develop a "Knowledge-based Society" which is driven by developments in the information and communication technology (ICT) sector of the economy. The public and private sector agencies highlighted in this paper are directly or indirectly contributing to the achievement of this national goal. "Increasingly, social media tools allow individuals to mobilize their fellow citizens in a way that grabs the attention of government and service elites ..." (Goldsmith, 2010, p.149).

It is therefore evident that the Government of Jamaica has made a deliberate effort to establish agencies, programmes, policies and laws; Open Data Initiative, for example, to ensure that the country's developmental strategies meet the United Nations standards. Jamaica therefore has relevant legislation, agencies and programmes in place that can affect the achievement of the stated Sustainable Development Goals through the MILID Strategy. However, "[the principles of] 'information literacy' is more present and more known than 'media literacy," (Nuseibeh and Abu Arqoub, 2016, p.56). Therefore it is incumbent on the Media Association and the Press Association of Jamaica to engage the Government, the private sector, the church and civil society to address the need for the formulation of appropriate media literacy policies to foster the engagement of all the major stakeholders of the Jamaican economy including policy makers, educators and information professionals, to ensure that each citizen of the country is equipped with the skill of media literacy from as early as primary-level education.

The key elements of Information Literacy includes the definition and articulation of information needs, the location and access to information the ability to make ethical use of information and the application of ICT skills for the processing and communication of such information. On the other hand, Media Literacy promotes the fostering of an understanding of the role and functions of media in a democratic society, the conditions under which media can fulfil its functions, the ability to critically evaluate media content as it relates to its functions and to engage with media for self-expression and democratic participation (Saleem, 2016, p.126). Hence the GoJ promotes programmes which supports its citizens efforts to, "engage with media and information providers for [education and training], self-expression, life-long learning, democratic participation, and good governance ..." (Media and Information Literacy for the Sustainable Development Goals, 21). The Parish Libraries, and the NLJ, for example, are public facilities in Jamaica which have the capacity to foster "Inter-cultural Dialogue" since "libraries ... have the capacity to "bridge – bring together different types of people ..." (Milam, 2005, p. 2).

The National Vision Statement (PIOJ, 2010, p.vi) that "Jamaica, the place of choice to live, work, raise families, and do business" is indicative of the Government's commitment to the achievement of the United Nations Millennium Goals as outlined in the introduction with focus on Gender Equality and Intercultural Dialogue. This Vision Statement supports the MILID focus of this paper; which is the promotion of MIL through the agencies, policies and programmes of the Government of Jamaica which fosters a system of collaboration and partnerships between government, private sector and civil society for nation building and international relations. "The Vision2030 Jamaica National Development Plan makes a national commitment to redress long-term systemic discrimination against women, ... and ultimately creating a society that values gender balance, equality and equity." (BGA, 2011, p.6). The issue of gender equality is directly related to raising healthy families while intercultural dialogue supports the building of a heathy work environment, healthy and caring communities and peaceful and productive business and foreign trade relationships with other nations on a global scale.

The Vision of "Taking our Culture to the World" as stated in the Vision 2030 Plan is also indicative of the support of the Jamaican Government of the promotion of the strategy of intercultural dialogue to effect peaceful and symbiotic relations with other nations. The agencies of the Ministry of Culture, Gender, Entertainment and Sports (MCGES) have the responsibility to promote this focus of the National Vision. The core values of the Vision 2030 National Development Plan as outlined in Table 7 below provides the framework through which the Government will be able to integrate the MILID strategies as a tool to effect the achievement of Jamaica's national development goals and the four UN Sustainable Development Goals of focus of this paper. Therefore, the successful application of the MILID strategies for the Sustainable Development of the Millennium Goals in Jamaica is dependent on the level of support of the Jamaican Government.

Identify and pursue entrepreneurial talents and creativity
Relate to each other with respect and dignity
Full access to efficient and reliable resources
Premiere destination to visit and do business
Shared decision-making in the affairs of the country

Committed to and build on core values
Create a safe and secure society
Prosperity through sustainable development and management of natural resources
Resolution of conflicts through dialogue and mediation
Create a safe and secure society
Citizens knowledge of rights and responsibilities
All citizens equal before the law

Source: Vision 2030 National Development Plan.

Conclusion

The paper explored the public and private sector agencies, infrastructure and programmes available in Jamaica that will support the application of the strategies of Media and Information Literacy and Intercultural Dialogue as a change strategy directed towards the achievement of the Sustainable Development Goals which foster economic growth and innovation, Gender Equality and social inclusiveness through Intercultural Dialogue. Evidence has therefore been presented to substantiate the view that the infrastructure, governance strategies and private sector support are in place to facilitate the sustained implementation of the strategies and principles of MILID to support the Government of Jamaica national plans for social, economic and national development. Therefore the programmes and strategies of the Government of Jamaica as discussed in this paper are in keeping with the MILID strategies by fostering of the interaction of five policy directives in the field of ICT, Media, Education, Information and MIL and the United Nations Millennium Goals. The GoJ however may need to examine direct application of the MILID strategies along with a more inclusive and participatory national development approach to effect the desired change in Jamaica and the achievement of the UN Millennium Goals. Table 8 presents the major assets of the city of Kingston which may provide the infrastructural framework for the achievement of the Millennium Goals through the application of the MILID strategy for the empowerment and involvement of the citizens of Jamaica in the development of the country.

Sector	Public	Private	Public/Private Sector Partnerships
Education	2 internationally rec- ognized universities 3 Teachers' Colleges (one of which has recently received university status) High and primary schools I Community College 1 Maritime training institution at the tertiary level I visual and perform- ing arts college	A number of universities & other higher education institutions, including sem- inaries and some offering teacher training High and preparatory schools Small business academies which offer classes in the evenings	Rehabilitation pro- grammes for prison inmates Community-Based Organizations Lifelong Learning/ adult education
Religious		Churches Advocacy groups	Faith-based organi- zations
Civil Society	Community Devel- opment agencies, funding agencies, social development agencies, advocacy units	Advocacy and lobby groups	NGO's and voluntary organizations
Health	2 Major hospitals and community health centres Renal Dialysis Ser- vices	3 major hospitals and a wide range of healthcare facilities	Community health services including counselling services and drug rehabilita- tion services
Safety & Security	Jamaica Constabulary Force (JCF) Office of the Commis- sioner of Police Jamaica Defence Force (JDF)	Two major security com- panies and a significant number of small based companies	Community based policing initiative

 Table 8
 Asset Map of the City of Kingston & St. Andrew

Sector	Public	Private	Public/Private Sector Partnerships
Governance	All Ministries, Agen- cies and Departments of Government (some		Professional Associ- ations
	branches of the agen- cies and departments		Business & manufac- turing organizations
	are located in Mon- tego Bay and some towns		Advocacy /watchdog groups
	House of Parliament		
	Jamaica House		
	Office of the Cabinet		
Media	Jamaica Information Service (JIS)	2 major television stations	Education Broadcast- ing Network (EBN)
	Broadcasting Com- mission	30 radio stations including 3 major church owned radio stations 2 of which also have TV stations	
		2 major newspapers and a number of small-scaled radio stations	
Information Technology	Ministry of Science Technology and Mining (MSTEM)	Wide range of companies offering ICT products and services including cellular	Partnerships arrange- ments mainly in education, training,
	eGov (a government agency)	phone and landline in- frastructure, and Internet providers	community devel- opment and crime fighting
	e-learning Jamaica		
	websites for all Min- istries, agencies and departments		
	Transport and road safety systems		
Manufactur- ing/Industrial	Scientific Research Council	Major, medium size and small manufacturers for	Government incen- tives for production
	Coconut Industry	both local consumption and export	local consumption and export
	Banana Board		
Music/Enter-	The Little Theatre	Bob Marley Museum, the-	The historical Ward
tainment/ Fine Arts	Ranny Williams Enter- tainment Centre	atre houses, night clubs, restaurants, hotels, etc.	Theatre (presently being restored)
	National Gallery		

Sector	Public	Private	Public/Private Sector Partnerships
Sport	National Stadium National Arena In sports Jamaica	A wide range of sporting events are organized and managed by private enter- prises such as banks etc.	Jamaica Cricket Ass. Jamaica Football Ass. Jamaica Netball Ass. Jamaica Athletics Administration Ass. Jamaica Olympics Ass.
Financial Institutions	Bank of Jamaica The Development Bank of Jamaica Limited National Housing Trust Student Loan Bureau Housing Agency of Jamaica	Two major banks, a number of medium size and small-scale banking establis hments, credit unions, cooperatives, etc.	

Source: Own elaboration.

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Media and Information Literacy among Children on Three Continents: Insights into the Measurement and Mediation of Well-being

Sonia Livingstone, Patrick Burton, Patricio Cabello, Ellen Helsper, Petar Kanchev, Daniel Kardefelt-Winther, Jelena Perovic, Mariya Stoilova, and Ssu-Han Yu

In understanding and promoting positive outcomes for children's internet use, media and information literacies play a crucial mediating role, by enabling opportunities to learn, create, express oneself and participate, and by facilitating coping and building resilience. This chapter explains the approach taken by Global Kids Online (GKO), a multinational research partnership seeking to generate robust evidence that can inform policy and practice regarding children's internet use in diverse cities and countries internationally. The chapter presents the rationale for GKO's multidimensional approach to media and information literacy, and issues of measurement, social desirability and cross-national comparison. It shows recent findings showing cross-national similarities in higher levels of operational than creative skills as well as differences between higher and lower income countries; it is noteworthy that gender differences in children's digital skills are found to be small. Having shown that the GKO quantitative research toolkit successfully operationalises the range of media and information literacies also addressed by comparable international frameworks, we commend it to future researchers, concluding with evidence that the results of the GKO research are now being used to inform national policy and practice regarding children's learning in a digital age.

Keywords: Global Kids Online; online risk and opportunities; digital skills measurement; cross-national comparisons; policy implications

Introduction

As internet access grows around the world, with societies increasingly relying on digital connectivity for their daily functioning, it is crucial to understand whether people are able to act within digital environments, and what skills and literacies they require. It is already known that inequalities in well-being stem from inequalities in digital skills and engagement. Geo-mapping research shows that these inequalities in turn are pronounced in cities, differentiating among otherwise-similar families living in different neighbourhoods with different characteristics. In other words, part of what drives differences in literacy and well-being is the local context of the cities and neighbourhoods in which people live (Helsper, 2019; Mossberger, Tolbert, & Lacombe, 2021).

Little, however, is yet known regarding children in this regard, beyond the fact that both family and country or cultural factors shape children's opportunities and outcomes in crucial ways. Noting that UNESCO's "MIL Cities" initiative strives to connect cities around the world by providing a common understanding of MIL and empowering citizens with the MIL competences, this chapter seeks to rectify the evidence gap regarding children, themselves an estimated one in three of the world's internet users (Livingstone, Carr & Byrne, 2015). We draw on research conducted by the Global Kids Online network which, like "MIL Cities," strives for a cross-national approach for measuring digital skills and to empowering children by treating them as active contributors to their online experiences.

The driving rationale for many societies to provide children with internet access internet is positive - to support their well-being, especially as regards education and learning. However, many studies have shown that access alone is insufficient to guarantee positive outcomes: education is needed to develop media and information literacies. They also show that support for access and literacies must attend to pre-existing inequalities (in gender, socio-economic status, ethnicity, disability and other factors) if those who are already-disadvantaged are not to lose out further (Banaji, Livingstone, Nandi, & Stoilova, 2018; Van Dijk, 2020). Moreover, the challenges posed by online risk of harm are often highest on the agenda of policy makers, raising questions as to whether digital skills can increase children's resilience and safety online.

Until recently, most research has examined the global North, with uncertain application or relevance to the global South, where most expansion of internet use is occurring. Focusing on children aged 9-17, the Global Kids Online network asks, first, when and how does use of the internet (and associated online, digital and networked technologies) contribute positively to children's lives, providing opportunities to benefit in diverse ways that contribute to their well-being? And second, when and how is use of the internet problematic in children's lives – amplifying the risk of harms that may undermine their well-being? (Livingstone, Kardefelt Winther, & Hussein, 2019). The network takes a holistic, child-rights approach to understanding how use of the internet has consequences for children's rights to participation, information, freedom of expression, education, and play, and to protection from harm (UN, 1989). It positions children's online skills and practices at the heart of its research framework, recognizing that children's digital skills mediate their opportunities to learn, create, express themselves and participate in digital environments, and their capacity to build resilience against online risk of harm (Livingstone, 2016).

In building its research framework, Global Kids Online began with the work of EU Kids Online, putting this into dialogue with insights from its country partners in Argentina, Brazil, Philippines, South Africa and elsewhere (Stoilova, et al., 2016). For digital skills, however, a fresh approach was required since the original EU Kids Online project focused on safety skills (Livingstone, Ólafsson, Helsper, Lupianez-Villanueva, Veltri, & Volkford, 2017). Thus, Global Kids Online collaborates with the DiSTO project (*From digital skills to tangible outcomes*) which has developed a multidimensional measure of digital skills, tested cross-nationally and linked to measures of inequalities, online activities and offline outcomes (Helsper, et al., 2015). While recognizing the history of debates over definitions and measurement that have sometimes undermined the promotion of media and information literacies (e.g. Litt, 2013; Van Dijk, 2020), our concern is to present a practical approach to measuring children's digital skills across diverse countries as a step towards the larger aim of informing policy makers and practitioners seeking to develop the digital skills that mediate children's well-being and rights.

Measuring Digital Skills: The Approach of Global Kids Online

Early research and policy focused on operational or technical skills. Recognizing the expansion of digital technologies into different areas of everyday life, subsequent work has encompassed critical information literacy skills, socio-emotional capabilities, creative skills and digital participation. However, measuring digital skills has proved difficult, suffering problems of incompleteness, over-simplification or conceptual ambiguity. Particularly problematic is asking people if they can use particular tools or platforms, since the skills involved remain unclear (as in the ITU and PISA measures); also, people may use digital media without skills or, conversely, have critical skills which precisely lead them not to use certain media. In surveys, doubts arise regarding social desirability, with individuals over- or under-rating their skills depending on prevailing social norms. This poses particular difficulties in judging evidence of gender differences, since boys tend to claim better skills than girls, as revealed when self-report data are compared with direct observation (Hargittai & Shaffer, 2006).

The DiSTO project distils the digital skills required to achieve tangible beneficial outcomes in societies that rely on digital technologies (Van Deursen, Helsper & Eynon, 2014; Van Deursen, Helsper, & Eynon, 2016; Van Deursen & Helsper, 2017). It emphasises transferrable skills that are platform and application independent, thus measuring skills adaptable to rapidly changing digital environments. The measures have been refined through cognitive interviews, performance tests and internationally comparative scale validation with adult and youth populations (Livingstone, 2016; Van Deursen, Helsper & Eynon, 2016). They are assessed using a 5-point Likert scale that focuses on truth claims (Spitzberg, 2006) - 'Not at all true of me,' to 'Very true of me' – which invites a neutral and relatively objective response from participants, especially compared with scales that use evaluative or comparative terms (such as 'poor' or 'good' or 'expert') or dichotomous responses that ask respondents if they have a skill or not (Van Deursen, Helsper & Eynon, 2016).

To further reduce social desirability biases, each question can be answered by choosing the option, "I don't know what you mean by that" and, if prompted, the interviewer guides the respondent to ask themselves if these are skills they could demonstrate now, without help. It is encouraging that, when performance testing was undertaken following survey administration in the GKO Montenegro study, most children (between 82% and 97%, depending on the item) could demonstrate the skill they claimed in the survey, with few age or, importantly, gender differences (Logar et al., 2016). The approach described here has been developed for inclusion in population surveys but if greater accuracy in skills assessment is required, direct performance tests may be preferred.

Table 1 shows the items developed in discussion between the DiSTO and GKO projects, with items phrased for the benefit of child respondents. The measure includes 24 items in the full version, 10 in the shorter, grouped according to the categories of operational, informational, social, creative and skills. This grouping, as well as the suggested choice of core items for the short version of the scale, is based on factor analyses conducted by the DiSTO project.

We are aware that other approaches exist, albeit focused on adults not children. Although the populations addressed are different, it is notable that prominent international approaches for measuring digital literacy focus on similar areas and dimensions, raising the possibility of common concepts and measurement. UNESCO's MIL framework strives for a holistic approach to media and information literacies to enable knowledge societies better to formulate policies, design professional standards and training programs, and empower the active participation of citizens (UNESCO, 2013).

In Table 2 we briefly compare the GKO approach with three current population-focused approaches for measuring media and information literacy in an effort to find common ground: MIL (UNESCO, 2013), and two frameworks promoted by the European Commission - DigComp (Vuorikari et al., 2016, see also Carretero, et al. 2017) and EAVI (European Commission, 2011). The comparison is inexact insofar as the GKO column documents the actual items used while the others summarize main topics, with many items behind them as part of lengthy questionnaires. The classifications also vary; for example, the European Association for Viewers' Interests (EAVI) distinguishes technical, cognitive, communicative and participatory skills (European Commission, 2011). The DigComp model, which is primarily concerned with labour market skills, identifies safety as an additional, cross-cutting competence, while the GKO model sees safety as dependent on all five skill areas and so not an independent skill, although a measure of safety can be constructed by combining particular items. Most striking, however, is the level of agreement across the different approaches regarding the areas of digital skills that should be measured. Since GKO is designed for children as young as nine, requiring that we attend to both the comprehensibility of the item and the overall length of the questionnaire (which has many objectives beyond skill measurement), single questions must stand in for an area of skills; hence the scale development and testing procedures were crucial.

Children's Digital Skills: Cross-national Findings

The Global Kids Online survey had, by late 2019, been conducted with 15,000 internet-using children in 11 countries across Europe, Africa, Southeast Asia and Latin America (Livingstone, Kardefelt Winther, & Hussein, 2019). For the most part, countries selected the core items plus some optional items from Table 1 (see www. globalkidsonline.net/survey for the full questionnaire). Here we report data for Chile (Cabello, et al., 2017), Bulgaria (Kanchev et al., 2017), Montenegro (Logar et al., 2016) and South Africa (Phyfer et al, 2016); see Table 2. For further detail, we refer the reader to the national reports, which include the crucial finding that digital skills are higher for older than young people, age being the main factor differentiating among child internet users in each country.

Children report moderate to high levels of digital skill across the five categories but importantly levels vary by type. Social skills (which include a strong safety dimension) rank top in all countries, while creative skills are generally lowest This might be because online social activities are key to children's everyday lives, they develop social skills at an early age. Information skills, on which children in most GKO countries score slightly lower, requires a broader understanding of the world (to know which information is true) in addition to understanding the practical usage of technology (which keywords to use for online searches), and so may develop later. Gender differences are not pronounced and they do not always favour boys. In Montenegro, boys report higher levels of competence in almost all skills but the differences are small, except as regards creating and posting their own music or video. In contrast, girls in Bulgaria report slightly higher levels of competence on most skills but the gender differences are again small. In Chile, girls also perform better in most skill areas, the exception being mobile skills. In South Africa the gender differences are also small and often mixed.

Country differences are hard to interpret without thorough contextualization but it is thought-provoking to find that South African children score highly on skills important for online safety – being able to change their privacy settings on social networking sites and to remove people from their contact lists. Skills linked to privacy and sharing personal information are somewhat lower in Chile, suggesting the need for e-safety training there. It is noteworthy that 45-60%, of children are confident they can check if information they find online is true, although informational skills are generally lower in South Africa, and they could be improved everywhere. The ability to track costs of mobile use is lowest in Chile and South Africa, possibly because although mobile use is prominent in both countries it is often via a pre-paid plan, itself limiting in terms of online activities.

Implications for Research and Practice

Digital skills are a prerequisite for children to participate fairly in digital environments and enjoy the many opportunities the internet offers. We urge recognition of children as active citizens who deserve provision of educational and other resources that can enable them to develop the full range of skills needed. This is particularly important for younger children as they become internet users, often with fewer skills and lesser provision at school. While vulnerable children and marginalized groups also need support, our findings do not suggest that gender poses a particular problem as regards digital skills; indeed, it appears that, once girls and boys have gained access, their digital skills are fairly similar. This may be because access in lower income countries is concentrated among more educated parents who have more gender-equal attitudes. However, attention to gender inequalities in relation to access and outcomes should remain a priority (Banaji, et al, 2918). GKO data reveal the parts of each country where access to internet is lower and digital skills are weaker. This could be useful for piloting MIL Cities (UNESCO (2019). For example, in Montenegro, 15 percent of children living in the poorest northern region do not use internet compared to 6 percent in the central and 7 percent in the southern regions. Therefore, working on MIL cities with the local authorities in the central and southern regions would be less challenging, while cooperation on the same initiative in the north would contribute to decreasing poverty.

The multidimensionality of our digital skills measure suggests that even when children develop the operational skills necessary for functional internet use, challenges remain in ensuring they have the critical, informational and creative skills for uses that bring tangible outcomes of value in their everyday lives (Helsper, 2017). Thus, structured support and guidance from their families and schools is vital. Crucially, now that children are faced with a constant flow of information from multiple sources, it is critical that their ability to distinguish high quality information from low quality information is strengthened. The finding that creative skills are least developed is a concern since it is children's right to express themselves and participate in the digital age, beyond receiving information provided by others, and these are skills children are less likely to develop independently. Finding ways to support children's creative skills and activities – especially using the mobile technologies that are often the main means of access for children in the global South – is a priority for policy and practice.

The approach and findings presented in this chapter are already stimulating initial interventions in the realm of policy and practice. For example, in Montenegro, research found that children are using the internet from a younger age, especially via smartphones, but that they lack strong digital skills and, as a result, many feel unsafe and unsupported as they go online. In response, UNICEF and Montenegro's Ministry of Education developed an educational role-play game, NetFriends (NetPrijatelji), to build resilience against online violence. Available as a free smartphone app, the game has been widely promoted by celebrities and now a PC version is being developed for the primary school curriculum, with teaching resources to strengthen teachers', parents' and children's digital skills. As another example, GKO Argentina worked closely with their government to collect new data on children's digital skills; findings and insights from GKO played a role in drafting the government's first policy document and discussions are underway to include digital skills education in the school curriculum. In South Africa, data collected on inequalities in and barriers to access are informing the government's future research agenda on ICTs and children. In Chile, UNESCO and the Ministry of Education have supported the research from the outset, and are now exploring how to use the findings to benefit children's education.

While GKO offers a comprehensive battery of questions, it is unlikely to cover all possible skills that children need. Thus GKO will collaborate with relevant actors periodically to review and update the questionnaire to encompass new skills as they become relevant to children's well-being and future prospects. Future research should also examine how digital skills can translate – through government policy, educational curricula and parental knowledge - into positive and measurable outcomes for education, health, participation and other crucial dimensions of children's well-being.

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Table 1 Global Kids Online measures for digital skills

Preamble: Some people are good at doing things on the internet; other people find it a bit harder. I am going to ask you some questions about what you know how to do online. If you don't know what something is, don't worry, just say you don't know. If you don't know or don't want to answer any of the questions, just say so.

Scale: Think about how you use the internet. How true are these things for you? Choose one answer: Not true for me; A bit true for me; Fairly true for me; Very true for me; I don't know what you mean by that.

Operational skills	 I know how to save a photo that I find online I know how to change my privacy settings (e.g., on a social networking site) I know how to use a programming language (e.g., Python, C+ etc. [add local examples] I know how to open downloaded files I know how to use shortcut keys (e.g., CTRL-C for copy, CTRL-S for save) I know how to open a new tab in a browser
Information skills	 7. I find it easy to check if the information I find online is true 8. I find it easy to choose the best keywords for online searches 9. I find it easy to find a website I have visited before 10. I find it easy to decide if a website can be trusted 11. Sometimes I end up on websites without knowing how I got there
Social skills	 12. I know which information I should and shouldn't share online 13. I know how to remove people from my contact lists 14. I know when I should and shouldn't share information online 15. I know how to behave according to the situation online 16. I know how to change who I share content with (e.g., friends, friends of friends, everyone)
Creative skills	 17. I know how to post online video or music that I have created myself 18. I know how to edit or make basic changes to online content that others have created 19. I know which different types of licences apply to online content 20. I know how to create something new from video or music that I found online 21. I know how to design a website
Mobile skills	 22. I know how to install apps on a mobile device (e.g., phone or tablet) 23. I know how to keep track of the costs of mobile app use 24. I know how to make an in-app purchase

Source: Adapted from Van Deursen et al. (2014), for use with children and/or parents. Bold items are proposed as core, others are optional.

Compe- tence area	GKO	MIL	DigComp	EAVI
		Access		Access
	Save a photo	Store and retrieve	Manage data	Organize
	Use a programming language		Use program- ming languages	
Operational	Open downloaded files			
skills	Use shortcut keys		Manage data	
	Open new tabs			
			Solve technical problems	Critical awareness of technical issues
	Change privacy settings		Personal data and privacy; Solve problems	
		Understand	Information and data literacy	
		Articulate information needs	Articulate information needs	
	Check if information is true	Analyze, compare, and apply	Evaluate data and content	Compare and contrast
Information skills	Choose best keywords for search	Search	Browse, search and filter data and content	Search
	Find a website visited before		Manage data and content	
	Decide which infor- mation to trust	Assess and evaluate	Evaluate data and content	Evaluate
	[Avoid] unexpected visits to websites		ldentify personal competence gaps	

 Table 2
 Comparison of approaches to media and information literacy and digital skills

Compe- tence area	GKO	MIL	DigComp	EAVI
		Communi- cate	Communicate and collaborate	Maintain contact
	Manage who to share with		Share; Personal data and privacy	
	Know when to share/ not share		Netiquette	Participate in groups
Social skills	Remove contacts		Solve problems	Manage contacts
			Collaborate	Collaborate
	Know to behave appropriately	Engage in citizenship	Netiquette	Engage in citizenship
	Know which information to share/ not share	Appropriate identity presentation	Share; Netiquette	
	Post video or music that the user has created her/himself	Create in an ethical manner	Create content; share informa- tion	Create
	Edit online content that others have created		Re-elaborate content	
Creative skills	Create something new from video or music found online		Re-elaborate content	
	Design a website		Content creation	
	Understand content licences		Copyright and licences	Understand media regulation
		Synthesize		Synthesize
		Monitor		
	Install apps		Identify needs; Solve problems	
Mobile skills	Track app costs			
	Make in-app purchase			

Compe- tence area	GKO	MIL	DigComp	EAVI
In addition: Safety	Items above on operational, information, social, creative and mobile skills are concerned with safety		Protect devices	
			Protect personal data and privacy	
			Protect health and well-being	
			Protect the environment	

Source: Own elaboration.

	טוטטפו אומג טווווויופ וווומוווטג וטו מוטונמו גאוווג טו כוווומופוו, טץ טפוומפו מוומ כטמוונו א		יוווחובווי	ny gen	מבו מוומ								
Percentage who si	Percentage who said "fairly" or "very true" of me		Bulgaria			Chile		We	Montenegro	ro	٥S	South Africa	ca
(unat 1 kilow 1000 to) in Table 1)		All (%)	Girls (%)	Boys (%)	All (%)	Girls (%)	Boys (%)	All (%)	Girls (%)	Boys (%)	AII (%)	Girls (%)	Boys (%)
Operational	Save a photo (1)	86	89	84	67	72	61	79	78	80	81	83	78
skills	Change privacy (2)	73	74	72	51	55	48	66	64	67	73	74	71
Information	Check information (7)	52	52	53	57	59	56	60	56	62	45	47	44
SKIIIS	Choose keywords (8)	76	80	77	67	69	66	84	83	84	47	44	50
	Know what to share (12)	82	84	80	67	68	67	86	85	86	73	74	72
Social skills	Remove contacts (13)	83	84	87	٧Z	08	60	Ug	Ug	08 U	84	8	8
		8		1 0		1 0					-		
Creative skills	Create + post content (17)	80	72	17	36	37	36	48	42	54	41	37	45
	Design a website (21)	44	45	43	n/a	n/a	n/a	34	32	36	24	n/a	n/a
	Install apps (22)	77	<i>LL</i>	77	84	81	86	80	78	81	09	54	66
Mobile skills													
	Track costs (23)	67	66	67	33	30	35	64	62	67	40	34	46
Bases (of internet us	Bases (of internet users aged 9-17 years old)		N=1000			N=1000			N=1002			N=643	

 Table 3
 Global Kids Online findings for digital skills of children, by gender and country

Source: Own elaboration.

Audiovisual projects in schools – Video production as a learning tool for any subject

Moira Toledo Cirello Brazil

Extensive research and my personal experience in audiovisual teaching through 20 years have shown me that: producing videos can facilitate the learning of other subjects; a teacher doesn't need to master audiovisual production to encourage it; the collective processes of video making are challenging and overcoming them is really transformative. Those ideas were collected and developed through years of successful audiovisual workshop experiences in Brazil and rely on the technological natural aptitude of younger generations. Using this approach, schools may be able to overcome some of the most persistent challenges of formal education: the inclusion of children with cognitive profiles that are not favorable to (and typically not valued by) curricular themes; and healthy emotional and intellectual development. These approaches are now gaining popularity and some examples that intend to qualify and expand these experiences will be presented herein.

Keywords: audiovisual education; teacher education; video in the classroom; MILs

Introduction

Rubem Alves, an important Brazilian educator, believed that only by turning the college acceptance process into a lottery could schools truly be "free to teach. They would not have to adjust to the imperative of 'preparing for entrance exams'". Other educators, especially those aligned with what is known as "democratic education", have been questioning the encyclopedic ambitions of our schools, and fighting to reinvent them, for more than a century.

It is not difficult to imagine that this paradox is at the root of some of Brazil's greatest societal problems. How can we hope for our adults to understand certain

complexities – such as how the media functions, the "fake news" and dissemination of misinformation, the political system, partisanship – if as youths they are submitted to an encyclopedic education, which gives little space for reflection or for learning how to learn?

Ivan Illitch believed that we acquire the majority of our understanding from outside of the classroom. Because of this, he proposed a "de-schooled" society, in which learning would be based on common interests and realized in informal instances of exchange (Illitch, 1982). But, sadly, we still cannot do without schools. Thus, it is up to us – mothers, fathers, educators – to fight for meaningful learning to take place in the classroom, especially with the importance of the new technologies among youngsters.

The Brazilian Experience – Audiovisual and Youth

In 2010 I conducted a broad survey, as part of my doctorate research. According to my findings, since 1995 at least 113 NGO and government projects have been offering audiovisual workshops for more than 26.000 students in 18 different Brazilian states. A 198 teachers and former students from different workshops were surveyed and 90% of the students affirmed that the experience radically and positively changed their lives. The results also suggest that these workshops stimulated and revealed different potential forms of development (emotional, intellectual and social) that otherwise often remain hidden during formal education. In this way, no one would be "left out" during audiovisual activities – practically the opposite of the traditional school environment, in which so many are excluded. (Cirello, 2010).

According to another study, 80% of Brazilian students (and 90% of Portuguese students) who were interviewed reported that the first movie they ever saw was made in the USA (Cunha, 2015). North-American movies have been omnipresent in Brazilian classrooms for decades, as has the practice of showing films which illustrate course themes. And, still, the promotion and encouragement of video production is a poorly explored possibility. There seems to be an antiquated notion that a teacher would need to master the audiovisual language before being able to promote it in the classroom. This ignores the fact that the current generation consumes and produces audiovisual material constantly on their smartphones, without the need for any type of mediation or formal education. Schools have just started to take advantage of this paradigm shift, which can place teaching through audiovisual means as a central part of learning. In this scenario, it is possible to imagine a whole plethora of new audiovisual activities and exercises, without the need for the teacher

to master or teach the tools of production. And they would meet a genuine interest of our children and youth.

The simplest (and most common) approach, especially in the past five years, has been to encourage the making of videos about the subjects one wants to teach/learn. But the greater challenge seems to lie in creating effective meta-educational strategies in which the very form of the activity promotes the learning of the cognitive content; and the audiovisual practice promotes non-cognitive learning.

Ideas for a Meta Educational Approach of Video into the Classrooms

In a fiction film, the characters always have problems to resolve. One can propose that the students create characters affected by the type of conflict on study — historical, social, geographical, geological, political, etc. This is the case in two of the exercises that we will present next, which encourage the production of: a fiction – short film – made by a protagonist who suffers the loss of a loved one during a war or conflict, which inspires study of the era, its customs, etc.; and a Youtube-style video on the consequences of deforestation for a certain community, which also requires intense research to create.

Narrative conflicts can also greatly resemble scientific problems. And the technical process of audiovisual work involves several physical and chemical procedures. Thus, it is possible to consider analogous questions in the actual creation of the films, once again making it so that process and content are integrated and emotional development occurs. This is the case in two other exercises we will present: a stop-motion animation done in a way that stimulates the understanding of mathematical scale and a short horror movie whose realization requires understanding of certain mathematical and physical concepts.

The activity on deforestation is interdisciplinary (Geography and Biology). The objective is the realization of a video presented by a fictitious "YouTuber", bringing factual information about a city with a strong history of deforestation amidst fictional information about its impact on the character's life.

The students begin with intensive research on the theme of the activity and the chosen city, making the curricular learning a means and not an end. The teacher offers the students some options for cities with real histories of deforestation – in this particular case São Félix do Xingu in Pará; Nova Ubiratã in Mato Grosso; and Bertioga in São Paulo. Students research information (population, major industries, environmental liabilities, origins of deforestation in the region, consequences, etc.)

and images (photos and videos, including satellite footage). And the teacher introduces the students to a number of trusted websites (and specifically NASA's fascinating timelapse global map).

In the second step, the students invent a young character whose life has been affected by deforestation. She has a channel on YouTube and because of what she's underwent, she has become a kind of activist and specialist on the subject. In this way, the content researched by the group becomes the character's knowledge about the theme.

The students then write a critical and articulate text as if they were the young YouTuber, using real, researched facts interspersed with fictitious events. Finally, one of the students embellishes the text, plays the character, and is recorded by her peers, mimicking the language of YouTube that is so familiar to them.

The activity on scale is focused on mathematics, but may also involve the arts and/or computer science. The goal is to make a short stop-motion video that, in its conception, requires students to understand basic aspects of mathematical scale.

The first step involves creativity and inventiveness. Students must create a story based on a few initial inputs: a child must be in conflict with either a very large (a giant) or very small creature (gnome, ant, etc.). The scene should be short, and must take place in a room in a house. It can have dialogue and magical elements.

After writing the story in text, the teacher teaches the students how to transpose those ideas into images, based on ideas of storyboarding easily associated with comics. Once they have drawn the storyboard, the students will plan the setting: usually a bedroom, living room, or kitchen. They will then calculate the real size of the elements they want the environment to have, in centimeters. For example, if the scene takes place in a bedroom, the bed could be 40 cm. high, the dresser 200 cm., the ceiling 250 cm., etc. They do the same with their characters. Next, they define what size they want their model to have. Here is where they are impelled to calculate the ratio between the real size and the model. That is, they learn mathematical scale. Once they have defined their scale, they then calculate the size of the various elements and characters in the model.

In the next step, the students build the setting and their miniature characters according to their blueprint. They record their dialogue and perform the stop-motion animation. Finally, they edit the images, synchronize the audio, and finalize their shorts.

The activity on World War I can also be done in an interdisciplinary manner (History, Geography, Literature). The objective is to make a video, narrated by a character who lost his or her loved one in the midst of the war. The video should include factual information presented within a fictional narrative. It is important to note that this exercise can be adapted for studies of any conflict that may drive

people apart. It can also be used to address social issues related to urban violence / immigration / refugees / civil war, etc. And differing nationalities can bring added drama to the assignment – for example, if the two loved ones were on opposite sides of the conflict.

Once again, the project begins with textual and iconographic research (about the time, the conflict, the characteristics of the cities, professions, family compositions, and especially the conflict's impact on people). Based on their research, the students will invent a world for their characters: where were they when the conflict erupted? How did they react? What was the impact on their lives and their families? Where were they? How were they when the conflict ended? The students will then write a first-person letter, in which their character addresses the loved one, and enrich the narrative with the information they have researched.

The final step consists of the making of the video itself. One of the students will perform the role of their character and read their letter. The other students will record the audio and video. Then, together, the group will edit the footage, and insert some images from their research and create dialogue between the images and the recorded audio.

The horror short film activity involves primarily Math and Physics, with potential for the Portuguese Language as well. The objective is to create a short horror movie that requires students to understand the operation of a camera, and the physical and mathematical principles involved.

The activity requires that the story includes a chase scene involving two characters, and will be filmed using varying lenses, apertures, and distances between the camera and the subjects. It is therefore an especially appealing activity for teachers who have an interest in photography. It will also require the availability of a video camera that has manual aperture controls (which controls light input) and a zoom lens.

In the first step, the students develop a script for a short horror film. Next, they decide how they want to film each scene – what emotions they want to elicit, and where they will put the camera to get those results. The central challenge of the activity is to make a correlation between emotion and visual effects. To overcome this challenge, students will need to reflect on a number of different questions, such as: In which scenes would it be best to have the whole image in focus? And when would it be better to only keep the character in focus (and have the background blurred)? When would it be interesting to see things naturally (with normal vision) and when would it be more effective to incorporate some distortion, with objects/people seeming closer than they are? After they have made these decisions, they make a first draft of their storyboard.

The next step is the scientific experimentation: the students try to obtain the specific visual results that they had imagined. To do so, they will record the same scene a number of times, each time changing just one of the parameters (object distance, aperture, lens) and always notating the results. In this way, they are encouraged to try, as homework, to understand the results they have obtained, researching the mechanics of cameras and the differences between f-stop, shutter, focal distance, etc.

In the following class, the students present their footage and try to explain the results. The professor can use the students' uncertainties as an opportunity to give a brief lecture on the mathematical and physical principles involved in photography (Optics, Refraction, Fractions, Square Roots). Finally, along with the students, the teacher will establish the relationship between the desired effects (focused or unfocused, normal or distorted space) and the technical configurations of the camera.

In the next step, the students will use their findings from class to configure their camera and realize the recording and editing of their short horror film.

It is important to highlight here that, if the videos are shown to the whole school, and/or at an event including families, the transformative effect of the activity is significantly amplified.

Conclusion

One of the main ontological characteristics of audiovisual work is its essence as a collective process with constant interaction between the crew – in this case, the students: decisions are made in groups, ideas must be and are criticized and many conflicts take place. The experience and eventual overcoming of those conflicts promotes significant transformation in those involved. Often, the "worst" students radically transform themselves after an audiovisual activity, becoming more secure in their capabilities; or, through the lens of classical criteria, "better students".

The goal of the exercises presented by this paper is that, through the research required to produce the movies, the students will move from naïve curiosity to epistemological curiosity – as Paulo Freire describes it. This transition is fundamental for the students to learn to systematize perceptions and reach critical conclusions on their own. That is, in addition to encouraging the learning of the content itself (by stimulating research, the systematization of learning and creativity) the activity will also teach fundamental strategies so that one can continue learning and creating after the end of one's formal studies.

Therefore, producing the video can itself facilitate the learning of other subjects. And, especially, stimulate transformations that occur beyond this sphere; the collective processes of video making are challenging, and overcoming them is transformative. With this new approach, we may be able to overcome some of the most persistent challenges of formal education: the inclusion of children with cognitive profiles that are not favorable to (and typically not valued by) curricular themes; and healthy emotional and intellectual development.

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Implementation of Media and Information Literacy Training Program for Women's University Students in Teacher Training Course in Japan

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In Japan, female teacher-training students are confronted with two challenges which are possibly related to Japan's male-dominated society. First, female senior teachers are far less than male ones. Second, female teachers struggle with poor educational skills in information and communication technology (ICT). This paper presents a solution in the form of a media and information literacy (MIL) training program created by the researcher and incorporated into an elementary education teacher-training course for women's university students in 2015.

Specifically, in Step 1, 49 female sophomore students completed a MIL pre-questionnaire based on the MEXT Information Utilization Capability Survey¹. In Step 2, these students studied the key MIL concepts and risks associated with ICT, and in Step 3, they learned ways of using ICT for educational purposes. In Step 4, the students developed simulation lessons in small groups and discussed target audiences, content, methods, and outcomes. In Step 5, they rehearsed their lessons via video-recording, and in Step 6, they conducted these lessons and received evaluations from other groups and media makers. Finally, in Step 7, they objectively reflected on their performance, took the end-of-term examination, completed the MIL post-questionnaire, and answered the university official course questionnaire. After the completion of the course, they voluntarily made lesson digest videos and posted them on the NHK for School² website.

Quantitatively, the results of the university's official course evaluation and the MIL preliminary post-questionnaire revealed significant improvement in student motivation, attitude, and understanding. Qualitatively, the results of the end-of-term examination and students' reflection sheets indicated significant progress from the initial characteristics of anxiety, conflict, and reflection to the post-course qualities of ingenuity, improvement, achievement, and self-confidence, and suggested significant developments in students' ICT utilization and guidance abilities. This paper, thus, suggests that the MIL training program could support women's university students in becoming confident and effective teachers.

Keywords: Media and information literacy, Women's university students, Teacher-training program

Background

Gender gap in Japanese teaching staff's employment positions

Though it has been 18 years since the 1999 enactment of the Japanese Basic Law for a Gender-Equal Society, there is a still gender gap for social progress. The World Economic Forum's Global Gender Gap Report 2016 ranked Japan's Gender Gap Index (GGI) as 111th out of the 144 nations, the lowest level ever (Gender Equality Bureau Cabinet Office, 2017).

Japan's gender gap elucidated by the GGI results is also obvious in the official male and female teaching staff positions in formal educational settings. The 2016 Basic Study of Schools by MEXT (2016) revealed that the ratio of female teachers in high school (31.7%) is lower than that in primary school (62.3%). Further, the percentages of female and male teaching staff members who become managers vary greatly (see Figure 1).

Figure 1 The male-female ratio of teaching staff in terms of official titles (elementary, middle, and senior high school)



Note 1. Management positions for principals, vice principals, and deputy head teachers Note 2. Created by this researcher from the 2016 Basic Study of Schools by MEXT. *Source: Own elaboration.*
Gender gap in ICT education for Japanese teaching staff

The Japanese teaching staff's gender gap is not limited to professional positions as there is also a significant gender gap in ICT educational awareness. Part of the Japanese Government's national strategy for 2020 (Prime minister's official residence, 2015) is to ensure the utilization of ICT for education. However, there exists a gender gap among the teaching staff using the latest media in educational settings. The 2016 NHK study on the use and awareness of media of elementary school teachers found that male teachers tended to use electronic blackboards, tablets, and *NHK for School* (programing and digital teaching materials) more often than their female counterparts (Ujihashi and Kodaira, 2017). In other words, teachers are being required to make the best use of the latest media as a part of the ICT utilization for education; however, many female teachers thought that they had poor knowledge of technology and it should be entrusted to male counterparts.

Research Perspective—Media and Information Literacy Training Program

Even though Japanese female university students are aware of the current gender gap in the teaching profession, it is essential that they have to learn not only ICT for education but also Media and Information Literacy. As shown on Figure 2, this study built a framework for a Media and Information Literacy (MIL) Training Program based on UNESCO's main MIL concepts (Wilson et al., 2011), the EU media literacy assessment criteria (Tornero & Pi, 2013), information literacy guidelines (Japan Universities Association for Computer Education, 2012), 21st century skills (Partnership for 21st Century Learning, 2015), and OECD's key competencies (DeSeCo Project, 2005). In step 1, the basics of MIL focuses on the personal competencies involved in MIL, to boost immune strength against bad influences of media; participants master the skills needed to use information and strengthen their critical thinking by understanding the characteristics of media, the media society, and information morals. In step 2, the application of MIL focuses on developing social skills involved in this program and the social competencies needed as a future citizen; participants begin to have their own thoughts as independent ICT users rather than being ruled by ICT. They also start developing empathy for others and the ability to express themselves in social groups. The high ranking item, communication, is built on a foundation of lower ranking items; utilization of information, understanding media, information morals, and critical thinking. Communication, utilization of information, understanding media, information morals, and critical thinking are both the achievement of goals for this development program and the assessment criteria. It was anticipated that a balanced MIL would be acquired from Steps 1 and 2.





Source: © 2015 Mami KOMAYA.

Research Objectives

The purpose of this study is to strengthen female teacher-training students' resilience using a MIL training program to reignite their teaching aspirations and improve their confidence in using ICT in education. Bourdieu's concept of habitus (the structure of structuring and being structured) asserts that "while people are responsible for recreating, they can potentially improve what they are recreating" (Bourdieu, 1998; translation by Sakamoto, 2017). Therefore, the MIL training program would have the possibility of providing new opportunities for the grassroots training of generally undervalued female teacher-training students, which could have a significant flow-on effect when they become teachers.

Research Methods

The MIL training program was introduced in the *Teaching Methods and Skills* course by the present researcher for female sophomore university students who were aspiring elementary school teachers between 2015 and 2016 at Showa Women's University.

Course summary

Teaching Methods and Skills is a required course for second year elementary education students who were aspiring elementary school teachers, and was taught by the present researcher. The three educational goals of the course were as follows: 1) to understand the significance of ICT use in education and the current state-of-play, 2) to understand MIL instructional methods (specialized to information morals), and 3) to learn how to apply educational media in the classroom.

Course Content

Prior to 2015, this course content focused on teaching history, method, and materials. An ICT education environment, such as an electronic blackboard and 25 tablets, has been gradually established.

In 2015, the MIL training program, which was unique for teacher training courses, was incorporated into *Teaching Methods and Skills* and the course content improved (see Table 1 and Photograph 1–3); in 2016, the MIL training program was continued.

Topic Main content Evaluation method			
Introduction			
<u>A MIL pre-questionnaire</u> designed on the basis of the MEXT Information Utilization Capability Survey was administered to understand the media awareness of the 49 female sophomore students.			
Media and Information Literacy			
Participating students studied an overview of the history of educational media and became aware of key MIL concepts. The convenience and risks of selecting study material from ICT sources were discussed.			
Educational Media and the Learning Environment			
The students learned ways in which they could utilize ICT (electronic blackboards, tablets, digital textbooks, educational applications, and NHK's educational programs) for academic purposes.			
Lesson Plans for Educational Media			
Participants worked in small groups to discuss target audiences, content, methods, and outcomes an subsequently developed teaching plans and worksheets.			
Utilization of Educational Media			
The students prepared for a mock class by rehearsing their own lessons and recording them through a video camera or smartphone.			
Implementation of Educational Media			
Each group was required to conduct a 10-minute mock class. Before the mock class was delivered, the created <u>materials (teaching plans and worksheets</u>) were uploaded to a Dropbox folder for the lecture and <u>the video and images</u> were uploaded to Google Drive. Post the mock class, the other groups recorded their impressions and opinions on <u>reflection sheets</u> . The present researcher, NHK producers, and digital application creators provided <u>feedback</u> .			
Summary			
The students reviewed their videos and objectively reflected on their performances. They also took the end-of-term examination, completed the MIL post-questionnaire, and answered the university official course questionnaire. After the completion of the course, students voluntarily make their lesson digest videos and posted them on the NHK for School Award 2015 website (2016).			

Table 1 Teaching Methods and Skills: Instructional content of the MIL training program

Source: © 2015 Mami KOMAYA.

Photograph 1 Preparation for the mock class (Checking the operation of the tablets and electronic blackboard)



Source: Own elaboration.

Photograph 2 Conducting the mock class (Sending the images that were given as responses on the tablets to the electronic blackboard and listing them)



Source: Own elaboration.

Photograph 3 Mock class (watching an NHK educational program, summarizing on the blackboard, and completing the worksheet)



Source: Own elaboration.

Results

This study mainly describes the results of the 2015 MIL training program.

Quantitative analysis

• (1) University official course questionnaire

The results of the course questionnaires completed from 2012 through 2016 were compared. The participants were women's university sophomore students

who were aspiring elementary school teachers and taking *Teaching Methods and Skills* course. They answered bubble answer sheets of the university official course questionnaire at the end of the course. The numbers of respondents were 52 students in 2012, 39 students in 2013, 39 students in 2014, 49 students in 2015, and 58 students in 2016.

The three basic items that were consistent; students' class attitudes, understanding of class content, and level of academic development; were compared (see Figure 3). In 2015, when the MIL training program was introduced, the percentage of respondents who responded "strongly agree or somewhat agree" in four-point Likert scale³ for all three items reached 100%. When the program continued in 2016, the 100% rating for these items was maintained.

The results of the test concerning the ratio differences compared the responses by chi-square test before the program was implemented in 2014 with that of the significant improvements in student class attitudes (p = 0.007548, p <.01), understanding class content (p = 0.000842, p <.001), and level of academic development (p = 0.015394, p <.05) in 2015.





Source: Own elaboration.

• (2) MIL pre and post-questionnaire

A questionnaire using a 4-point Likert scale was developed for this course based on MEXT's information literacy survey (2015) and was given to the 45 students in the first and last course sessions. There were 39 questionnaire items, with 10 of them focusing on ICT proficiency level and the MIL training level. A paired *t*-test was conducted on these 10 items, from which it was found that there were significant improvements in student ICT mastery and MIL training levels after the MIL training program (see Table 2).

Table 2Average values for the pre and post-Web questionnaires and the statistical testresults

		Mean (SD) for each item ranked on a four-point Likert scale			n=45
	Item	Pre	Post	Variation	Test results (p) ^{nale}
	proficiency level al from 1-5 / five items with a perfect score of 20 points)	11.55 (2.880)	13.24 (3.001)	1.68	0.000
1	I am good at entering words using a computer keyboard.	2.44 (0.813)	2.73 (0.809)	0.28	0.008
2	I am good at looking up and researching for the necessary information on the Internet.	2.82 (0.716)	3.18 (0.576)	0.35	0.000
3	I am good at using a computer to create charts and graphs,	2.13 (0.757)	2.38 (0.860)	0.24	0.026*
4	I am good at using a computer to create charts and slides for presentations.	2.27 (0.688)	2.64 (0.802)	0.37	0.002"
5	I am good at using a computer to develop presentations on an electronic blackboard or screen.	1.89 (0.745)	2.31 (0.633)	0.42	0.003"
	. training level Il from 6-10 / five items with a perfect score of 20 points)	13.911 (2.264)	15.400 (2.339)	1.49	0.001"
6	When I am investigating something, I collect as many materials as possible to make sure I find what I am looking for .	2.51 (0.661)	2.96 (0.638)	0.44	0.001"
7	I compare the materials I collect to find the commonalities and differences.	2.73 (0.618)	3.09 (0.701)	0.36	0.022"
8	I try to think in my own way or from different perspectives.	2.91 (0.733)	3.13 (0.661)	0.22	0.049
9	When I have two different opinions before me, after thoroughly assessing both, I try and decide on the opinion that is correct .	3.04 (0.638)	3.27 (0.539)	0.22	0.049
10	Based on what I investigate, I try to develop new ideas that reveal my own thinking.	2.71 (0.589)	2.96 (0.638)	0.24	0.047*

Note 1. The f test significance level for the differences between the questionnaire (* p <.05, ** p <.01, *** p <.001)

Source: Own elaboration.

Qualitative analysis

• (1) End-of-term examination

The end-of-term examination asked the students to freely describe (in 200 characters or less) the features and significant points in their mock class regarding the use of ICT. A textual analysis was conducted on 47 student responses, from which the high frequency keywords were extracted; these were then classified into three categories (see Table 3). The student descriptions suggested that the mock class had raised their ICT effectiveness; in other words, their awareness of the effects that ICT has on children's learning increased, and they had discovered the significance of ICT as an advantageous teaching method.

Categories (Number extracted)	Keywords (number extracted) Main descriptions
Effects on children (34)	Opinions (19)/ interests (11)/ understanding (9) /independent (4) mutual understanding (4)/ conveying (3)/ ambition (2)/ active (1)/ confidence (1)/ improvement (1)/ development (1)/ concentration (1) Children can learn independently when each individual has their own thoughts or opinions, and this is quite different from the learning they get through training. Developing classes that use multimedia makes it easier for children to be interested and increases their desire to learn and their ability to concentrate. It is possible for the teachers and children to come to a mutual understanding. It is tied to the children's self-confidence. It also has the effect of promoting active learning in the children.
ICT (31)	Electronic blackboard (29)/ tablet (14)/ multi-media (4)/ mixture (1) The electronic blackboard lines up the children's opinions quickly and gives them immediate feedback. The tablets allow them to directly complete the pictures and figures and instantly share the pictures they have taken with the entire class. The learning effects are increased from the combination of multimedia.
Advantages of instructional methods (36)	Comparison (9)/ sharing (8)/ image (4)/ smooth (3)/ experiences (3)/ visualization (2)/ impact (2)/ simulations (1)/ presence (1) The children's thoughts sent from the tablets can be compared by splitting the electronic blackboard screen, and it is possible for them to share and compile their opinions. The moving images are effective because they capture the children's interest, and there are a wide range of applications to teaching methods. ICT has an impact, and it helps the children have a better understanding of the less as it is easier for them to create a mental image.

Table 3 The significant points and features of the ICT embedded mock classes

Source: Own elaboration.

• (2) Reflection sheet

During the final course session, using the free description box on the reflection sheet, students were asked to comment on what they had learned. The results from the keyword analysis were then classified into four categories (see Table 4). The initial anxiety, conflict, and reflection through a trial and error process was found to have gradually morphed into more active, independent thoughts and actions that reflected ingenious attempts, efforts, improvements, achievements, and self-confidence. Further, there were also comments about hopes and proposals that were written from a future teacher's perspective. Based on these descriptions, the students' ICT teaching abilities were assessed as being firmly established.

Table 4	"The things learned by students taking the training through these practices":				
List of categories of the freely given descriptions					

Categories (Number extracted)	Main descriptions
Ingenious attempt/ effort/ improvement/ achievement/ self- confidence (41)	I realized the joy of planning to use ICT in classes. I was able to be effective in the class without just following the textbook. I was able to think about the teaching materials and rough plans from the children's perspective. I was able to have all of the members of the class share using the electronic blackboard and tablets. The children enjoyed it far more than a class that only used a normal blackboard, I really felt like they were interested, and it increased their desire to learn. The children put in efforts until the end, and I was satisfied. It was a great practice. We cooperated as a team, and it was connected with teaching.self-confidence.
Anxiety/ conflict/ reflection (32)	It was the first time I had come into contact with the latest media, and I was perplexed. I got lost when I was trying to decide the theme. I truly felt the importance of practice and class preparation. I learned how difficult it is to finish a class. Because I was nervous, I spoke quickly even though I intended to speak slowly. My mind went totally blank when I got behind the podium. Classes that use ICT cost money, and teachers face a few difficulties like finding images and footage and properly using the electronic blackboard. I realized the importance of the question of how to use and combine analog teaching materials with ICT teaching materials to increase the children's understanding.
Hope (8)	I want us to use ICT in the future without forgetting the classes we have conducted. I want to have some fun classes that take full advantage of ICT. Going forward, I want to use ICT so that the children can learn independently and I can develop classes from a unique perspective.
Proposals (5)	Society is changing into a more advanced information society; therefore, educational settings also need to change. I can imagine veteran teachers who are accustomed to analog teaching materials having a hard time; however, I think that ICT is a convenient tool, so I think the questions of how it should be used and handled are future issues for teachers to consider. I feel it was necessary for teaching staff to be flexible so they can handle the changes caused by ICT.

Source: Own elaboration.

Conclusion

The results of the quantitative and qualitative analyses highlighted the effectiveness and educational effects of the MIL training program. The women's university students taking the teacher training course in Japan overcame their anxieties and experienced an increased sense of self-efficacy. The program also cultivated resilience and strengthened their teaching aspirations. As their readiness to enter the teaching profession increases, they become more skilled and confident in using ICT. Further, the students came to realize its value as a teaching support tool. The MIL training program was an opportunity for the students to acknowledge the current education and social realities. In other words, while the teacher selection has often been subject to gender bias, it is also possible to overcome this bias through confidence and application. Additionally, the teaching methodology and learning methods provided as part of the MIL training program proved to be highly suitable for inclusion in the teacher training curriculum.

The limitation of this research is a small case study in Japan. Therefore, the MIL training program should be continued and improved to suit the students' MIL developmental stage in the future. In the developmental theory of lifelong MIL structured by this researcher (Komaya, 2019), students belong to the transitional period from adolescence to youth. During this stage, identity plays an important role, according to Erikson's psychosocial theory of development (1982). This is the time when an individual experiences psychological weaning from his/her caregivers. Commitment to social networks develops, and individuals become socialized, according to the so-cial and emotional skill theory (OECD, 2015). Positive expectations from significant others become a motivating factor. Individuals choose and share beneficial information about the self, the group, and society. Hence, the criterion for this stage of MIL is the ability to commit to social media communication and development of closer relationships by sharing information. The MIL training program may have significant potential based on the developmental theory of lifelong MIL to make female teachers media and information literate.

This study was based on data from the "Practice of using sustainable ICT for the 'utilization of ICT in education' by students undergoing teacher training" that was presented by the researcher at the Japan Universities Association for Computer Education's "2016 Education Conference for Presenting Educational Improvements through the use of ICT." The researcher got permission from the students to use data and photos for research purposes.

Notes

- 1. MEXT Information Utilization Capability Survey: The ministry of education, culture, sports, science and technology (MEXT) conducted an information utilization ability survey from December 2015 to March 2016 on a national scale for high school students.
- 2. NHK for School: NHK (Nippon hoso kyokai) is a Japan's only public broadcaster. NHK for School is a generic web content provided by NHK for elementary, junior high and high schools since fiscal 2011.

3. Four-point Likert scale: strongly agree, somewhat agree, somewhat disagree, and strongly disagree.

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Empowering women and ensuring gender equality in India through Media and Information Literacy approach

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Informing, educating, and empowering women through access to information is an essential pathway for progress in the United Nations' fifth Sustainable Development Goal (SDG) to "achieve gender equality". Access to information is helping women to realize their potential to do better and to stand up for their rights and freedoms. This new awareness facilitates social change in the patriarchal, conventional, and orthodox mindset of society. The current study presents some cases, particularly from the field of agriculture, which demonstrates how access to information and the use of knowledge helps to empower women and improve their economic situation. It also describes how their growing presence on social media is making Indian women more communicative, helping them to overcome the social taboos and unleash their power. It portrays how media and information literacy (MIL), and its different stakeholders, can change the information environment ubiquitously providing new opportunities to women to access relevant information, education, as well as acquire skills, interact, collaborate, network, and have their voices heard; in turn, this leads to their educational, social, economic, health, and political empowerment. MIL competency helps in self-awareness and lifelong learning and in increasing the informational level of women. It thus facilitates their empowerment, promotes gender equality and helps women to realize and stand up for their rights. This paper thus makes a plea for integrating MIL training in women's education. However, factors such as illiteracy, poverty, poor technical skills due to limited access to technology, inadeguate infrastructure, lack of appropriate content in local languages, the high cost of connectivity, prejudiced and inequitable social norms, are some of the aspects that may affect women's access to information.

Keywords: Women's empowerment, Gender equality, Social change.

Introduction

Woman's empowerment can help to eradicate poverty, reduce hunger, enhance justice, accelerate economic growth, minimize violence and build peace in society. The words of wisdom by Swami Vivekananda still reverberate across the country: "There is no chance of the welfare of the world unless the condition of women is improved. It is not possible for a bird to fly on one wing." Women's empowerment is the creation of a social condition where women can make independent choices regarding their personal progress as well as shine as equals in society, which further develops their ability to transfigure those structures and ideologies keeping them subordinate. It endows women with self-respect and dignity, which advances their self-image and social image (Bhasin, 2016). Empowerment encompasses control over resources (physical, human, intellectual, financial) and control over ideology (beliefs, values and attitudes). It is a course of authorizing an individual to think, take action, and control work in an autonomous way (Ganguli, 2015).

In order to realize humanism in practice requires removing gender inequalities in all forms through concerted efforts at all levels. "Gender inequality is not one homogenous phenomenon, but a collection of disparate and inter-linked problems" (Sen, 2001). Gender equality is essential to facilitate peace and justice and ensure a fair and unbiased society. India's growth towards establishing an unbiased society has been slow and inadequate even after 69 years since India won its Independence. Freedom infers that everyone has access to the same resources and options and then has the same freedom to select among them (Singhal, 2015). Freedom is always the yield of humanity and justice. No doubt, with time, Indian women have been acquiring more freedom but they still suffer from prejudice, social exclusion, hostility, patriarchy, poverty, and violence, cutting across religion, caste, social classes, urban and rural divides. In the gender inequality index (GII), which is based on three parameters (reproductive health, empowerment and economic status of females), India ranks 125 out of 159 countries. These reports show that women still suffer from a lack of access to quality education, proper health care, decent work, political representation, poor economic conditions and gender wage gaps. Gender inequality remains a major barrier to human development (UNDP, 2016).

The World Economic Forum (2016) in its global gender gap report ranked India 87 out of 144 countries. The report highlights the gender gap as limiting progress towards egalitarianism between men and women in four main areas: educational attainment, health and survival, economic opportunity and political empowerment. According to this report, India has moved up 21 spots from 108th position in 2015. The improvement in India's ranking is due to its progress in education where it has closed the gender gap entirely in primary and secondary schooling. In the educa-

tion attainment field, India has made substantial developments going up from being ranked 125th in 2015 to 113th in 2016. In the economic sector, India moved up to 136 from 139 in the year 2015. In the health sector, India has made slight progress moving up by one place to rank 142, while in political empowerment India continues to be ranked at number nine.

Women are less in number in well-paying formal sector jobs, and more in the low-paid informal and service sector jobs. Moreover, women's employment is less secure than men's. Due to this job-related discrimination, there is a gender pay gap of 27% in India (Singh, 2016). The Census of India (2011) reports that the women's literacy rate is just 65.46% as compared to male literacy of 82.14, with a gender gap of 16.7%. In 2011, sex ratio is 940 females per 1,000 males. The declining sex ratio in India, especially for the 0-6-year age group, has now become an international scandal that is 914 female children per 1,000 male children (in 2011). All this can be attributed to the increasing practice of sex detection by prenatal diagnostic techniques, and selectively aborting female foetuses. Likewise, girls in India have a higher mortality rate due to prejudices in nutrition and health care and due to a high burden of domestic responsibilities on them. The adverse child sex ratio in India is a mind-set issue (John, 2016).

There is no dearth of legal initiatives and framework to protect the rights of women and ensure gender equality but in the real social scenario, discrimination, exploitation and injustice continue to persist as the media often report such cases. Article 19 of the Universal Declaration of Human Rights, which promotes democracy, development, dialogue and social inclusion, states that "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers". The Constitution of India rejects discrimination based on age, gender, and caste. Women are also protected under the protection of Women from Domestic Violence Act (2005).

Female representation in the Indian Parliament demonstrates how far India has dropped in providing its women a level playing field when participating in the political decision-making process (Rao, 2016). At present in Rajya Sabha, there are 31 women members out of 244, which is just 12.7% of the upper house. Furthermore, in Lok Sabha, there are only 66 women MPs out of 543, which is only 12.2%. The 73rd and 74th Amendments in the Constitution of India passed in 1993 guarantees women a role in the government's decision-making process by reserving one-third of all seats for women in Panchayati Raj Institutions (PRI); however, women are still not empowered to take independent decisions. Even after more than 20 years since its launch in 1996, the "Women's Reservation Bill" is still pending which reserves 33% of seats in the Lok Sabha, and in all state legislative assemblies, for women.

Indian Government Initiatives

The Government of India took several initiatives to empower women. For instance, Rs 11,000 crores has been deposited in more than one crore accounts to ensure bright futures for daughters. Thirty lakh jobs are being provided to the women in the textile industry. More than 2 crore economically weaker women are given gas connections. Out of the 7.5 crore loans sanctioned under Mudra Yogna, 70% was for women (Empowering Women, 2017). Recently, the Government of India has directed to all its states to spend 30% of funds allocated towards farm schemes for empowering women farmers, whose share is significant in the country's agriculture workforce. Nonetheless, the government has made it mandatory to deploy one female scientist in 668 Krishi Vigyan Kendras (farm science centres) spread across India. So far 3.1 lakh female agriculturists have been trained (in the 2016-2017 fiscal year) by these kendras. A gender knowledge portal has been developed for women farmers. The Central Institute for Women in Agriculture in Bhubneshwar has also been set up for women farmers by the Indian Council of Agricultural Research (The Economic Times, 2017). Under the government's Mahatma Gandhi National Rural Guarantee Act (MGNREGA), which guarantees 100 days of wage-employment in a year to a rural household, several poor women have benefitted from the scheme. A web-based portal named "Vidya Lakshmi" has been set up under Pradhan Mantri Vidya Lakshmi Karyakaram to provide educational loans to students seeking higher education. Welfare schemes also exist in several states of the Indian union for the welfare of women and girls. For instance, in the Punjab state, education for girls is free from nursery school to doctoral research level. In the past, the government has given additional income tax rebates to women in comparison to men.

Digital Literacy

An Indian National Digital Literacy Mission is being implemented and over 8 million people have been trained in two years. The government is in the process of expanding this programme to over 60 million people. As part of the drive to promote digital payments, over 20 million people have been trained in about 6 weeks. The government is going to launch a new programme titled Digi-Gaon (Digital Village), which ensures the availability of education, health and public wi-fi in villages where broadband connectivity has reached. The programme will help provide basic social facilities to villages (Kumar, 2017). Although Internet penetration is gaining momentum in India, the usage of the Internet amongst women was lower than that in most countries in the world. In rural India, only one in ten Internet users is a woman. Recently, the Indian Union Cabinet approved "Pradhan Mantri Gramin Digital Saksharta Abhiyan" (PMGDISHA) to make 6 crore rural households digitally literate. This is expected to be one of the largest digital literacy programmes in the world and will have a huge impact on the empowerment of women in India.

The corporate sector at its own level has also initiated some programmes here and there to promote digital literacy among women. For example, Google India (Gallant, 2017), in partnership with Tata Trusts, has initiated the Internet Saathi (Internet Friend) programme which is working specifically for India's rural, less technologically educated women. The Internet Saathis are akin to the village postman, who is the single-point contact between the village and the outside world in terms of information as well as communication. Trained by Google, these saathis are roving educators and activists who travel to villages, armed with smart phones and tablets. One among the Internet saathi, a person by the name of Chadha, shared the story of Chetna, who lives in the Alwar district of Rajasthan and joined this programme in December 2015. "Chetna not only learned about mustard farming techniques to run her farm, but her own experience also inspired her to train over 500 girls and women in a span of four months."

Empowering Women through Knowledge Transfer and Use

India should empower women by facilitating access to relevant information and transferring needs-based knowledge. Improvement in knowledge infrastructure, particularly in rural areas, will have a ripple effect in empowering women. While preparing information polices and a transfer of knowledge systems which focus on women, India needs to take into consideration activities in which the majority of women are engaged. They must deal with existing constraints in accessing information and the flow of knowledge especially in rural areas. A report by the charity Oxfam released in January 2017 records that more than 40% of 400 million women living in rural India - one third of India's 1.2 billion inhabitants - work in agriculture. According to the official data, women make up more than one third of India's agriculture workforce (Goldsmith, 2017). An FAO (Food and Agriculture Organization) report says that closing the gender gap in agriculture would generate significant gains for the agriculture sector and for society. If women had the same access to productive resources as men, they could increase yields on their farms by 20%-30%. This could raise total agricultural output in developing countries by 2.5%-4%, which could in turn reduce the number of hungry people in the world by 12%-17%

(FAO, 2011). Women make up almost half of the adult population, constitute one third of the labour force but consume two thirds of the world's working hours; yet they earn one tenth of the income and own only 1% of the world's property (Varma, Shashi Kanta, 1992).

When women obtain access to quality information, better knowledge resources, and are trained in technology, they are able to achieve better productivity. For instance, Kanjarya, a 36-year-old woman from Mayapur in the western state of Gujarat, is being trained to grow sustainable cotton and run her farm as a business for a project by Social Enterprise Cotton Connect and India's Self Employed Women's Association (SEWA) which, in turn, is funded by British retailer Primark. Due to this support Kanjarva doubled her cotton yields while lowering her costs in three years – and the extra income changed her life (Goldsmith, 2017). A semi-literate, daily wage earner Lalmuni Devi of Azadnagar village of Patna district, now figures in the list of top 25 Asian farmers following her adoption of mushroom farming under the guidance of ICAR. According to Lalmuni, the turning point in her new profession came when a group of instructors from ICAR taught her the skills to grow mushrooms. This method thought up by ICAR instructors convinced her that it did not require much land. She has inspired 22 other women in her village to take up mushroom cultivation (Dutta, 2007).

It has also been observed that given a free hand, women farmers generally are more tempted to adopt integrated farming methods, expand their farming activities, increase farm incomes, extend help to other farmers, find solutions to problems and take adequate notice of environmental issues. Rita Kamila, a self-sufficient farmer, has achieved a sustainable source of livelihood in one of the world's top climate-change hotspots, the Sunderbans. Rita has successfully transitioned her farm to organic methods over the past few years and now grows several varieties of food crops. Using the ecologically sound practices of integrated farming, she has incorporated livestock and fish culture into her farm. She has also installed a bio-digester plant that generates bio gas from farm waste such as livestock manure and fish waste. The biogas is used as cooking fuel and the residue is judiciously recycled to provide nutrients to crops (Pal, 2016a).

Women farmers of the Medak District of Telangana state are teaching sustainable rain-fed farming techniques to peasants in the neighbouring Vidarbha region of Maharashtra. Representing the poorest of the poor in their village communities, these women farmers were once landless laborers, but today, due to the help of Deccan Development Society (DDS, which are village level women's sanghams – voluntary farmer associations), these women have not only tackled their farming problems effectively, but are also generating an additional income through innovative and eco-friendly ways. On their month-long seed bartering journey to 30 villages in the region, Chandramma and her team teach other villagers about organic farming methods and how to grow climate-resistant crops like traditional varieties of millet. Many of them are illiterate and have become filmmakers who have produced documentaries on organic farming, seed sovereignty, bio-fertilisers and good farming practices, which have been screened worldwide. Moreover, they have also launched the Sangham community radio, the first of its kind in India, which is another great initiative that educates farmers in a staggering 200 villages in the region (Pal, 2016b).

Chizami is a small village in Nagaland's Phek district and has been scripting a quiet revolution in terms of socio-economic reforms and environmental protection for almost a decade. A model village in the Naga society, Chizami is today visited by youth from Kohima and neighbouring villages for internships and training on the Chizami model of development. What is unique in the Chizami model of development is that marginalized women have played an important role in bringing about this socio-economic and sustainable transformation that is rooted in traditional practices of the state (Pal, 2016c). Empowering women with upgraded skills and transferring worthwhile knowledge is necessary to draw women into mainstream agriculture.

There are stories of women farmers who have found solutions for crop diseases where scientists could not do anything to save them. Whitefly pest attacks, which destroy cotton crops, have always been an issue in Punjab and Haryana. After many failed attempts by scientists and governments to find a solution, a group of women in Haryana has finally found a way to protect the crops. And state agriculture department officials claim that farmers from over 12 villages in Jind have adopted pesticide-free style of farming leading to limited impact of whitefly attack on more than 1,000 acres of land. Instead of using harmful chemicals and pesticides, the farmers use a homemade spray to strengthen the plants. Their spray is a mix of di-ammonia phosphate (DAP), urea, zinc and water, and is called "Dr Dalal solution". It is named after an agriculture development officer (ADO) named Surender Singh Dalal who started this style of farming about eight years ago in Jind. Instead of spending about Rs 5,000 per acre to control whitefly, they now just invest about Rs 500 per acre (Pareek, 2015).

There are negligible numbers of women cooperatives in India and this needs to be strengthened by providing them with financial aid. At present, there are only 20,014 out of the total 8 lakhs in India (*Economic Times*, 2017). One of the finest examples for the empowerment of women is "Kudumbashree" of Kerala state. Launched by the Government of Kerala in 1998 to wipe out absolute poverty from the state through concerted community action under the leadership of Local Self Governments, Kudumbashree is today one of the largest women-empowering projects in the country. The programme has 41 lakh members and covers more than

50% of the households in Kerala. Built around three critical components, credit, entrepreneurship and empowerment, the Kudumbashree initiative has today succeeded in addressing the basic needs of the less privileged women, thus providing them with a more dignified life and a better future. The literal meaning of Kudumbashree is prosperity (shree) of family (Kudumbam). The Kudumbashree network by March 2017 had 277,175 Neighbourhood Groups affiliated to 19,854 Area Development Societies and 1,073 Community Development Societies with a total membership of 4,306,976 women. Kudumbashree membership is open to all adult women, limited to one membership per family. It is arguably one of the largest women's networks in the world (Kudumbashree). These self-help groups are effective in disseminating information, building a sense of shared purpose and enabling cooperative action in sustainable natural resources management and development.

Women are also being empowered by learning survival techniques in the wake of growing environmental problems. As Sursati from village Janakpur, district Gorakhpur in Uttar Pradesh, explains: "Earlier, we could not produce enough food for one year because our village would get water-logged by flood waters. Now, using early maturing paddy varieties and organic manure to revive soil fertility, we can at least eat for all 12 months from the same piece of land." Sursati was helped by a local NGO, Gorakhpur Environmental Action Group (GEAG), in the flood-prone areas of eastern Uttar Pradesh (UP), where climate vagaries have been impacting agricultural production for some years now. Women farmers like Kamlavati, from village Janakpur, now train other women in adaptation techniques and act as trainers at the government's Farmer Field Schools (Kapoor, 2013). Radhika Anand, a 52-year-old resident of Delhi, has planted over 110,000 fruit trees in the past 12 months. These include mango, tamarind, blackberry, and jackfruit trees that have been planted in and around Army Formations across North India, Rajasthan and Maharashtra. She used her own resources and savings for the plantation drives, with contributions from some of her friends (Tanava Singh, 2016)

Empowerment through Social Media

Social media has a huge potential to bring women's issues into the limelight and foster action against oppression, discrimination and crimes against women. While globally women are greater users of social media than men (McPheron, 2014), many women, especially in developing countries, still do not have access to this technology due to a lack of infrastructure, costs and discriminatory social norms (ICRW, 2010). India has the world's largest number of Facebook users with over 195 million.

However, 76% of Facebook users are men and 24% are women, which illustrates the barriers women face in India to access technology and information. There are 16 million Instagram users in India. Among these 74% are men and 26% women (Social Media facts & Stats, 2016). Social media sites empower every user to raise their voice and instantly post content for users all over the world, and women are increasingly finding this media as appropriate channels to make their voices heard. According to Twitter, conversations about feminism on the social networking service have increased by 300% over the past three years with prominent women, such as Emma Watson, taking a stand on women's rights issues and bringing conversations about it to a wider public. Patricia Arquette's Oscar speech last year, in which she demanded equal pay for women, sparked a wave of Twitter comments resulting in 320,000 tweets about equal pay in just two hours (Tatai, 2016). Women should be empowered to use social media to take up their serious issues and recurring concerns in a focused and collective way rather than using this for just sharing jokes, videos and good morning message. Collective efforts on common concerns have brought adequate action through social media. Following the 2012 gang rape of a young woman in Delhi, the Delhi Gang Rape hashtag campaign supported public street mobilizations which saw the government introduce specific anti-rape provisions in the criminal code (Sharma, 2014). To ensure that women's voices are heard and their genuine concerns carry weight in India, we need to provide women not only with access to technology, but also teach them how to use it appropriately instead of obstructing their access to it.

Empowerment through MIL

Many Indian women are unnecessarily living in poverty and deprivation just because they do not have access to information and knowledge resources that can make a difference in their lives and improve their economic lot. We therefore not only need to expand knowledge and information infrastructure, but also to make massive efforts to train people how to instantly access relevant information, effectively use it and leverage advantage from its use. Information brings about an awareness of opportunities, aids in making appropriate decisions and helps to initiate strategic actions. Women constitute almost 50% of the earth's population and if we are to enhance the economic growth and improve social conditions, we must empower every woman to independently access knowledge and information resources.

There has been no time in the history of the world as today to empower women when technology provides a natural advantage to network, communicate, have access to the incessant flow of information and opportunities, realize true potential and contribute to the growth and development of society. Women can instantly tweet their opinions on issues of common concern, create WhatsApp groups to share information of their interest and create blogs to self-express and convey their ideas and information in real time to the global community. The advent of the Internet, the development of the webpage and the emergence of social media have not only created a rich information environment, but also ensured seamless and democratic access to information on any subject of our choosing. Accessibility of information from any place and at any time through hand-held devices have further empowered women to self-help and self-do their work rather than remain largely dependent on their mostly conservative families and communities.

Media and information literacy will further empower women to adequately use technology, make choices and effectively use content in a wide range of subject areas of their concern. Women require a variety of information related to health, economic empowerment, occupational matters, as well as financial, political and legal issues. As many rural women are engaged in agricultural occupation, agricultural information literacy will be of paramount importance to them. Because of a diversity of cultures, languages, different educational levels and widespread illiteracy among women, India requires a needs-based approach to create specific models of media and information literacy (MIL) to empower women. Enormous efforts are required to identify the information needs of women and customize MIL programmes to address those needs. Television channels, women's empowerment groups, the help of key players in women's organizations such as Kutumbshree, can play a crucial role in empowering women through MIL. The government of India has already launched programmes like Digital India, a financial information literacy campaign that will also benefit women. A cross section of institutions and individuals such as public libraries, educational institutions that target villages for development, social workers, and NGOs need to work in tandem to help promote the empowerment of women through MIL. Some women can go on to share their knowledge and expertise to train other women. These collaborative efforts have the potential to continue till every woman, irrespective of social status and educational level, is able to access, evaluate and interpret information of their interest and thus be able to effectively use it for their endeavours and in the interests of their families.

We must look beyond educational institutions and develop MIL programmes in a broader cultural context to include professional work settings. These programmes should be customized to the needs of local communities. Ideally, they should motivate women to search for and make effective use of worthwhile information, inspire and transform them into lifelong learners. Empowering women directly leads to an enhanced contribution to social and economic development, improves their ability to take action and accomplish more for themselves and their families which, in turn, has a cumulative effect on national development. Many of women's health problems can be minimized by imparting health information literacy and nutritional literacy. Financial information literacy can help women to handle their finances more effectively.

Imparting technical knowledge to help women access worthwhile information is important but women should also be taught technological literacy skills to help in their own personal safety. For instance, Panic Button, the mobile phone app called "Himmat App" and global positioning systems on mobile phones can help women send out distress signals and inform emergency services of their current location for instant help. The Indian Railway Helpline, 182, as well as Twitter account activation aid train travelers in emergencies. There is a provision of the Sakhi-one Stop Centre Scheme which supports women affected by violence offering them medical help, police assistance, legal aid, counselling, and shelters. Already 14 centers are functional, and 183 more centers will be set up by 2017 (Kumari, 2016). What more could be offered in MIL courses focused on gender equality? UNESCO launched in 2014 a self-paced online course targeting girls and boys aged 15 to 25. The course focuses on MIL as a tool to promote gender equality and covers related Topics including intercultural dialogue (Media and Information literacy course, 2014). Broader MIL curricula and MOOCs on MIL are available. UNESCO also provides a MIL online course for youth. In India e-pgPathshala content on MIL exists which will be available on a MOOC platform.

However, MIL courses for the empowerment of women must help meet identified information requirements of targeted women's groups. MIL providers must understand the cultural barriers, contextual needs and customize MIL programmes accordingly. MIL programmes must empower women to access quality information and supply needs-based knowledge in the area of their choice. Apart from the general aspects of MIL, every MIL programme needs to be designed to meet the specific needs of all women irrespective of their background and realities. For instance, MIL programmes must differentiate between the information required by women working in agriculture and those engaged in handicrafts and provide the relevant training.

Factors Hindering Women from Accessing Media and Information Literacy

For many women access to MIL in India is limited due to illiteracy, lack of technical skills and, ultimately, cultural factors. Poor infrastructure, the high cost of Internet connectivity and poverty stops many women from having the full benefits of

MIL as well. Furthermore, many women are financially dependent on men, which may hinder their access to knowledge and learning. To make matters worse, most of the content and ways to access MIL is mainly in the English language. Due to the submissive behavior of women, prejudiced and sexist family customs, females have been restricted access to information. Often the burden of household responsibilities does not allow women to have enough time to use MIL services. Isolation from the public arena often means that women tend not to have access to libraries, community service centers and other MIL platforms. Finally, due to security issues, such as sexual and domestic violence, women often do not take full advantage of the benefits of MIL.

Conclusions

India has made some advancement in the empowerment of women and gender equality but a look at the Gender Inequality Index shows that the country still has a long way to go before a fair level of gender equality is achieved. The government of India has taken several initiatives to empower women. The Digital India campaign is having a profound impact on the empowerment of women. The government's Beti Bachao Beti Padhao (Save the daughter, Educate the daughter) and Selfie with Daughter initiatives are some awareness movements that contribute to the empowerment of women. Wherever women receive encouragement, inspiration and opportunities, they have demonstrated excellence and realized great achievements. The time has come for traditional Indian society to change its attitude and mindset set in favor of women and to inspire them for excellence. Rural and tribal communities should not hold back these human resources, but instead empower women to contribute to the economic advancement of India and enhance the nation's prestige.

There are development gaps in India because there are knowledge gaps. The integration of MIL programmes with women's education will help them to find information more effectively, improve their access to knowledge and, ultimately, improve their lives. Various studies reveal that improving women's access to knowledge and its use leads to improving their economic lot. Government initiatives that empower women is a top-down approach, whereas empowering every woman with MIL is a bottom-up effort which contributes to capacity building. This, in turn, will improve women's access to needs-based information and help them put their knowledge to use to improve their economic position and that of their families. MIL is a catalyst to enhance freedom of expression, intercultural and interreligious discourse, democracy, and equality. There is a dire need to include MIL in women's education as it has immense potential to take India to the next level in terms of inclusive growth and sustainable development. MIL, with all its resources, can augment learning, enhance technical skills, and help in self-learning. Mainstreaming and monitoring of a gender perspective in all MIL initiatives is the need of the hour. MIL can be a potent tool to have an equitable society free from gender injustice and discriminations as envisaged by the fifth Sustainable Development Goal (SDG) to "achieve gender equality and empowerment of all women and girls".

Women should also strengthen their cause for gender equality through social media and share information on useful resources and crucial knowledge that can benefit each other. This can be on women's education opportunities, women's fellowship schemes and stories of successful women entrepreneurs and MIL learning opportunities. MIL empowers women to independently access useful information and prepare them for self-learning and hence promote their education and make them aware of opportunities. MIL also empowers women in acquiring useful knowledge and making choices regarding the use of knowledge, which is so important for economic advancement in the knowledge economy. Education and the economic empowerment of women are the ultimate keys that will eliminate discrimination, bias and injustice towards them and accelerate the race for gender equality.

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New Solutions to the Old Stereotyped Women's Image in the Media

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Media plays an important role in how men and women are viewed. Some academic studies point out that women are underrepresented in the media, and that men and women are portrayed in stereotypical representations, which reinforces the characteristics that society typically expects men and women to display. Media is believed to have a potential role in supporting women and promoting gender equality both within the working environment and in the representation of women. Several (local, national and international) institutions have carried out studies and reports analysing the portrayal of women in the media. Among all the institutions, media regulatory authorities are those best suited for promoting gender equality in the media. However, they have carried out very few actions specifically dedicated to issues of gender. Such actions are clearly insufficient. In fact, there is a lack of specific measures to promote gender equality. In this article, the idea that public administrations should focus on two main aspects: media and civil society is developed. On the one hand, public administrations have the duty to promote gender equality as a democratic mandate. On the other, promoting Media Literacy programmes with a gender perspective should be a priority for all administrations.

Keywords: gender, media, representation, audio-visual regulation.

Gender and the Media

The Beijing Declaration and Platform for Action adopted at the United Nations Fourth World Conference on Women (1995) recognized the potential of the media to make a greater contribution to the advancement of women. The Declaration called on governments and international development organizations to address the "stereotyping of women and inequality in women's access to and participation in all communication systems, especially in the media". It is essential that the media promote gender equality both within the working environment and in the representation of women. On the working environment level, progress has been through over the last years and there are more women in the media and more female executives than ever before. However, the media sector is still dominated by men when top positions are examined (cf. Byerly and Ross, 2006)¹. In addition, in many countries the gender pay gap still exists with few companies taking steps to address the situation (see *The Women in Media Report*, 2015). According to The Women in Media Report (2015, p.2), only 12.5% of Australian newspaper publishers have conducted a remuneration gap analysis in the past 12 months. None has specific pay equity objectives in their formal policies. While the same number (12.5%) of broadcasters have analyzed the gap, 42% have pay equity objectives in their formal strategies. Around one in seven magazine and periodical companies (14.3%) have conducted a remuneration gap analysis. All of them (100%) have equity objectives in their policies and strategies.

Beyond the absence of women in the media (Gallagher, 1981) and her "symbolic annihilation" in the words of Gaye Tuchman (1978), media plays an important role in gender representation; gender stereotypes are ubiquitous and affect the public perception of reality (Cobo, 2000). The Beijing Declaration called on media owners and media professionals to develop and adopt codes or guidelines to promote fair and accurate portrayal of women in the media. Several studies have shown that the media represent gender based on stereotypes: women continue to be predominantly represented in passive and labelled roles in the media (Courtney & Wernick Lockeretz, 1971; Gallagher, 1981; Ceulemans & Fauconnier, 1981; López, 2008; Galarza, Cobo y Esquembre, 2016). There is a tendency to depict young women in the media as more valued in conformity with society's perspective by focusing on their beauty and sexuality in a demeaning manner through their clothes, roles and characters (Fernandez-Garcia 2016; Rakow & Kranich 1991). Some researchers address the "pornographication of women"; erotic depictions of women being sexually subordinated and denigrated (Caputi 2008).

Some institutions have analysed the portrayal of gender in the media. One of the largest and most extensive monitoring projects of the media representation of women is the Global Media Monitoring Project (GMMP). Sponsored by the Toron-to based World Association for Christian Communication, the GMMP has created a media toolkit to train activists to build gender and media campaigns (*Mission Possible: A Gender and Media Advocacy Toolkit*).

UNESCO's Communication and Information Sector has also engaged globally in a wide range of gender-specific initiatives. One of them, in cooperation with the International Federation of Journalists and other partners, is the elaboration of the global framework of *Gender-Sensitive Indicators for Media* (2012), a part of a suite of indicators to enable effective assessment of diagnosis of areas within UNESCO's mandate of media development. In 2009, UNESCO published a guide for journalists to equip them with more information and understanding of gender issues in their work (*Getting the balance right: gender equality in journalism*). Another initiative, prepared by UNESCO's Office in Santiago de Chile, is the guidelines *Toward non-sexist journalism: guidelines for communicating from a gender perspective in Chile* (2010), a publication that aims to raise awareness about the gender perspective and to promote inclusive journalism. UNESCO was also the founder of the Global Alliance on Media and Gender (GAMAG), a global movement to support gender equality in and through the media that was set up at the Global Forum on Media and Gender. In 2017, UNESCO launched the Women Make the News campaign with the Gender Equality Check-up, a global initiative, aimed at calling global attention to an issue related to gender equality in and through the media, driving debate and encouraging action-oriented solutions until global objectives are met. However, there is still a need for greater efforts to promote and achieve gender equality in the media.

Role of the Audio-visual Regulatory Authorities

With explicit and implicit gender inequality, relevant public administrations are obliged to respond to what is stipulated in a current legal framework emphasizing that gender equality must be real and effective. Public administrations can endorse regulatory actions aimed to stand against any kind of direct or indirect discrimination. They can further encourage the adoption of codes of ethics, style guides, guides, manuals and publishing policies that favour and stimulate the principle of gender equality in broadcast content (Morillo, 2015).

What institution could best perform this task? Media regulatory authorities are the most suitable for the mission. One of the roles of media regulatory authorities is supervising the implementation of broadcasting legislation. They also have a social mandate of ensuring representation of the most vulnerable groups in programming content. As Ramírez Alvarado (2015) states: "the main actions of regulatory authorities are oriented towards (1) ensuring a balanced and non-stereotyped portrayal of women, (2) ensuring regulatory compliance, (3) promoting self-regulation in order to make progress on gender equality and contribute to eradicate gender-based violence, (4) knowing the degree of visibility and balance between men and women in the news programming, (5) promoting the fair participation of women in the media, (6) detecting and evaluating stereotypes that advertising transmits, (7) focusing attention on the advertising regulation of sexual services and prostitution" (Alvarado, 2015, p. 61). Nevertheless, actions and initiatives of such institutions have been minimal and anecdotal.

Among the initiatives, which focus on endorsing gender issues in the media, is that of the British Office of Communications (Ofcom), one of the most renowned regulatory authorities. Ofcom has carried out several initiatives related to media literacy with relevant data about gender. It also develops periodical reports to examine media use and attitudes while understanding and analysing the gender variable (https://www.ofcom.org.uk/). Further, the Belgian Conseil Supérieur de l'Audiovisuel (CSA) has published the studies *Panorama des Bonnes Pratiques por l'égalité et la diversité dans les médias audiovisuels de la Fédération Wallonie-Bruxelles* (2012) and the *Baromètre Diversité Egalité* (2013) that analyse the representation of women in the media, among other social categories such as age, socio-professional status or cultural diversity.

In Spain, the Consell Audiovisual de Catalunya (CAC) has carried out research on women representation in the media. One of its studies is a set of recommendations to make women's contributions visible and, more recently, recommendations about the media portrayal of the LGBTQI+ community. In addition, the CAC with the Consejo Audio-visual de Andalucia (CAA), the Moroccan High Authority of Audiovisual Communication (HACA) and the Mauritanian Press and Broadcasting High Authority (HAPA) have carried out a study about sexist stereotypes in advertising in the Mediterranean space. The Mediterranean Regulatory Authorities Network (RIRM) adopted on the 23rd of November 2012 a Declaration on the fight against gender stereotyping in the audio-visual media so that Mediterranean regulatory authorities shall implement collaborative action to promote a non-stereotypical portrayal of women in the audio-visual media by developing co-regulation.

The Spanish Consejo Audiovisual de Andalucía (CAA) has been more enthusiastically involved. In fact, the promotion of gender equality through images is one of the CAA's (Audiovisual Council of Andalusia) strategic lines since its inception. Since 2009, it has monitored and analysed the presence of men and women in newscasts, being one of the most utilized indicators to evaluate gender equality in the communication sector, and a key area for the strategy promoted by the United Nations and the European Union through the Beijing Action Plan. The results of their last report (2016) reveal that the presence of women in the news has not improved enough and remains stagnant since three years: only 31.7% of newscasters were women in 2016. Another example of CAA's involvement is their recently published "*Guide for the treatment of gender-based violence*" (2016). The guide contributes to "constructing a new informative discourse based on the formulation of positive proposals to ensure gender equality in symbolic environments" (Jorge, 2015). In addition, the CAA has developed different actions aimed toward the protection of minors from harmful advertising over the years, such as the *Recommendations for the Elimination of Stereotyped Genders in Toy Advertising* (2014) which was developed in collaboration with the IAM (Andalusia Women's Institute). Finally, relevant to the connection between sports, gender and media, the CAA and the Andalusia Federation of Sports Journalists (FPDA) promoted the *Pact for the Advancement of Gender Equality and Pluralism in Sports (2015)* with the purpose of encouraging television and radio channels to eradicate stereotypes and discriminatory prejudices in sports-related contents.

Gender Media Regulation and Action

It must be emphasized that administrations with relevant mandates, audio-visual regulatory institutions as well as other institutions whose work promote gender equality, implement actions of pertinence. Nonetheless, such actions are not sufficient to achieve the required outcome. For this reason, public administrations' endeavours should focus on two facets: media and civil society.

Broadcasting share

In social media, and undeniably in television, content regulation has been mostly avoided, since any action of this nature has been classified as censorship, i.e., as an intolerable limitation to inalienable liberties such as freedom of speech and information rights. However, Resolution 1751 (2010) of the Council of Europe warns against the trivialization and lenience that is applied in the name of freedom of speech around gender stereotypes that are subtly linked to the media.

European and international laws provide the required legal foundations to set regulations on media actions. It is indeed comprised within the human rights, such as freedom of speech, the right to seek and receive information and the right to equality, where the mandate to ensure gender equality in mass media is found. If mass media and specifically audio-visual media constitute "after legislation, morality and politics the last frontier of inequality" (Reiser and Gressy, 2008) administrations can and must aim for the presence of a share of broadcasting content that promote gender equality in the sector.

Administrations have the ability to apply this, since both legislation and jurisprudence embrace gender equality in media. In addition, there is a need for such actions to promote and maintain a strong relationship between the media and the public – which could only be described as such if the media were to incorporate equality between men and women. Such relationship is a main characteristic of democratic institutions avoiding a situation where the principles that support democracy itself become invalid.

Media literacy for an organized civil society

The public has asserted the right to know the power relations that determine, from its inception, the information citizens receive and they have a right to have the mechanisms that enable them to analyse critically the messages broadcasted by the media. This is especially important for women's associations since they work very closely with gender equality policies. Hence, it is a priority to educate our society about the media. It is a matter of democratic health. When citizens are able to understand, analyse and evaluate the messages they receive, they will have more control over messages interpretation and their ability to diffuse them through various distribution channels.

On the other hand, following and implementing the regulations is essential to guarantee that the media play their role as public service providers, fulfilling those objectives entrusted to them. For this reason, punitive measures, such as economic sanctions or fines, are necessary, but they should be reinforced with training, particularly including media literacy with a gender approach.

The greatest obstacle for the media to effectively use the various existing tools is rooted in the disconnection between claims of gender equality and insufficient knowledge about the media. This means that there is a gap between gender equality claims by the gender conscious public and having little knowledge about the audio-visual sector.

For this reason, it is essential to prepare specific training programs about media for gender experts as well as for women and feminist associations. In order to engage the organized civil society through women and feminist associations, enabling them to raise public awareness on the responsibility of the media public administrations, specific actions related to media literacy with a gender focus need to be developed. In this sense, the collaboration between all public institutions is essential to optimize resources and promote media literacy with a gender approach, providing citizens with the basic knowledge to maintain a critical and analytical attitude towards messages broadcasted by the media.

Finally, colleagues from the communication area should present specific programmes on gender, demonstrating commitment to the social transformation suggested by gender equality between women and men, which potentially results in a fairer and equal society. For example, one of the suggested proposals is that the teaching staff of the communication departments commit to equality and incorporate it. Thus, in addition to gender focus, gender related subjects must be included in syllabi design aiming to effectively change the role of the media as a socializing agent. Gender inequalities are neither apparent nor clearly defined, besides becoming naturalized in the social world that they are a part of mental structures operating in a veiled manner and, therefore, in an effective way (Conway, Bourque and Scott, 1996).

These measures are even more necessary when the future of the media in general and television in particular is the Internet - a space where there is virtually no regulation, or in other words where there is high dependence on self-regulation. Furthermore, vigilance is key as the draft for the renewal of the European Commission Audio-visual Media Services Directive does not mention gender equality, supporting instead the expressed idea of a subversion of the hierarchy of rights at the expense of equality between men and women.

Notes

1. For example, a Glasdoor report (2016) that looks at the gender pay gap in the US found that the media is the fifth industry with the greatest gap between men's pay and women's pay. According to the report, the media industry has an average of 6.6% higher pay for men over women.

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An experience on informal learning, girlhood and collective collaboration: A case about young women in an online forum dedicated to translating books

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Gathered together in an Internet forum, a group of young women, lovers of romantic novels for teenagers, has been dedicated to the work of translating and editing already-existing books for non-profit. Beyond the possible impact that this activity may have on the complex world of the publishing industry and its possible transgression on existing copyright and intellectual property laws, these women, as pro-am amateurs and in a collaborative capacity, have inadvertently found a powerful dynamic in relation to informal, life-long learning skills.

Keywords: pro-am amateurs, pro-sumers, informal learning

When amateurs become pro-sumers

Amateurs have historically been minor, secondary characters who inspire more curiosity than interest (Gelber, 1999). Educationally, the amateur figure is one that has long been relegated to the shadow of academic interests. Despite this labeling, they have been important actors in the task of tracking, accumulating, sharing and circulating knowledge of a very different nature, particularly through the formation of clubs, organizations and groups designed for such purposes (Stebbins, 1992); this makes them, without a doubt, central characters in the scenario of the information and learning society.

Amateur activity has served as an important fortress that keeps and gathers together an often non-existent corpus of knowledge in institutionalized contexts; knowledge that, due to its peripheral nature or because of its lack of immediate, practical use (think of the cases of amateur philatelists, numismatists or orchidologists, for example) has been unseen or straightforwardly neglected (Clay & Phillips, 2015). This knowledge, though outside conventional, institutional thinking and orthodoxy, from time to time has become an important source of innovation (well-known are the cases where amateurs in the fields of numismatics, for example, have been of great help in professional, historical or archaeological projects; Skejo & Caballero, 2016).

On the assumption that an amateur is someone who does what he or she does for an existential interest which exceeds professional, instrumental or economic interests, the process of socialization of amateur knowledge has historically focused on the pooling of cognitive resources between peers and initiates, giving rise to the encapsulation and 'invisibilization' of the amateur. Nowadays, it is possible to perceive a nascent but still incipient interest in the capacity of these actors to design highly useful models in many areas of formal and informal management of knowledge (Keeney, 1999).

Starting from there and through the current appropriation of the latest ICT, these amateurs become capable of transforming themselves into *pro-sumers* (producers + consumers), to generate virtual communities. These virtual communities take the form of a network of collective actors that contribute and extend their expertise. This is based on an adhoc system of benefits and socially distributed knowledge which decentralizes the monopoly on obscure subjects and finds a series of new modes to produce and protect this knowledge. Above all, these *pro-sumer* amateurs have increased to historical levels the amount of information circulating through many informal modes of socialization, particularly by informal, virtual collaboration (Leadbeater, 2012).

Pro-sumers with professional standards and the challenge to intermediation: from the amateur to the pro-am

Although the various forms of amateur (including fans and other adherents) have always been over the internet (Duffet, 2013), the case of *pro-ams*, amateurs who carry out unpaid activities to levels or standards of professional or near professional quality and expertise, is particularly interesting for the dynamics of their association and organization achieved through adhoc models of collaboration (Jenkins, 2006). When we say that amateurs carry out activities at professional or near professional standards, we refer to those activities that require a high degree of expertise and the existence of infrastructures with a complex degree of formalization. These are carried out under conditions similar to those that would require someone who carries out those activities in the professional dimension (Leadbeater & Miller, 2004); otherwise, *pro-ams* constitute a particular category of *pro-sumer* amateur since they work with professional standards but from a non-profit position.

Thus, while professionalization provides the game rules in the professional field, in the virtual communities of *pro-sumer* amateurs with professional standards (*pro-ams*), the collaborative systems provide them. This difference is central to understanding why these players are so important in the diffusion and release of knowledge produced through creativity and collective collaboration. It is now obvious that this phenomenon poses an important challenge to the restructuring of the models of operation and capitalization in the global scenario of informal education (Johnson, 1999).

A brief exploratory description of a pro-am virtual community: the Forum Rose Rose

In 2015 we began to follow the development of a young women's Internet forum which spent much of its time translating (English to Spanish), editing and publishing books related to the genre of teenage, romantic literature (González, 2016 c). Their work, which can be labeled without doubt as a *pro-am* activity, consisted of the creation and organization of working teams which divided up the editorial work such as translation, correction of style and graphic packaging of already existing books subject to intellectual property rights.

The case was interesting because, as well as allowing us to observe their organizational performance (González, 206 b) at a high degree of non-commercial publishing (a *pro-am* standard), we were also able to see the development of informal learning in non-institutional contexts in the medium term (in this case, associated to the acquisition of skills in editorial processes and with regard to connecting it to the role of some gender components). Even when the forum ceased its activities a year ago, due to various threats as a result of some intellectual property law offences, here we recover the research experience gained (González, 2016 c).

In general, the forum team translated and released an average of four to five books per month in addition to summaries, short reviews and other products. The forum had a total of 53,534 members until its last day of operations (24 May 2015). After several months observing the dynamics of the forum we managed to ascertain that the working staff was not always made up of the same girls as the group grew and evolved. After an interview and more observations, we were able to confirm that the working teams were diversifying because they increased the number of their members as more girls joined the forum. Hence, our question: Did the girls join the forum because they already had the required skills or, rather, did they acquire the necessary skills during the processes of continuous collaboration?

By the end of the study we were able to confirm that some girls had indeed come with specific skills (the ability to write, translate, use a computer, design). On the other hand, many of the girls acquired skills as they worked on the job in their relevant teams. Thus, we were able to confirm what we thought from the beginning: the girls combined skills already acquired prior to starting work on the forum with learning new skills by doing during their time working for the forum.

Some girls who wanted to do translation work but whose level of English was not up to scratch (though their writing skills in Spanish was of a high standard) began to work painstakingly on editing while simultaneously studying English. Later, when they had improved, they returned to present reviews and evaluations in English and, suddenly, could begin to form part of the translation and proofreading team. During their linguistic progress, not only were these girls motivated and supported by their colleagues in the task of improving their writing skills in English, they were also able to improve other skills thus making the learning process more diverse and complete. Apart from editing, these other skills included contents packaging, word processing, graphic design, CMS managing (publishing tasks), and a general improvement in their written Spanish. Looking into the background of several of these participants, it was apparent that many of them had improved exponentially to the point of assuming the role of a senior translator in little more than a year. These girls learned serious technical skills by 'doing' and 'playing' which later they could use and apply in many other work-related and social situations (González, 2016 a).

Gender, diversity and communities of meaning

We strongly believe that something very important occurred in the way that everything moved and evolved in the forum -- it acted as an 'abstract literacy agent' in that the work carried out was based on a visible community of meaning, where the most important thing was not to share the same taste for something (romantic literature, in this case), but above all to share a way of perceived empowerment that, as girls, was denied them in other spaces. Here the girls governed and organized themselves forming their own space, a type of realm separate from other literary and mixed communities. It was their productive space which, even when boys were allowed to actively participate (and there were many boys), the girls naturally took the initiative. Although disagreements were never absent, in the process of ethnography it was possible to see that the shared sense around the gender identity (girlhood, we could say) was the great engine of organization, collaboration and learning. It was even more powerful to observe that the community, formed by girls from all over Spain and Latin America, reinforced this sense in the search for a collective collaboration around that common aim for all of them: to create written language in as neutral a style as possible (in the case of their Spanish writing skills); a textual form able to be freely read and understood from California to Patagonia, from the West coast of America across the Atlantic Ocean to Spain. If common aims are reinforced by diversity, gender identity puts them into action.

Conclusions

Although the text presented here does not ensure that the operational dynamics of this virtual community will always be the same, at least it allows us to imagine the *possibility* that similar communities may maneuver in a common way in various aspects of informal learning. The idea is to openly confront the traditional system of institutional learning and certification. This phenomenon suggests that the balance between training for the school-based learning model can be more flexible in the future. The idea is to merge the diverse in the recognition of the invisible corpus of knowledge.

On the other hand, and this is probably the most important point to be taken from the example outlined in this text, it is evident that some members of the younger generations are able to cleverly fill in a void of structural needs in the supply and demand of other ways of learning. Of course, many things can happen in the next few years, but what is almost certain is that this group of new *pro-sumers* will become adults, increase their experiential catalogues and grow different amounts of human capital. Above all, many of them will professionalize their current practices and somehow change the way we learn using and extracting value from knowledge: there are millions of young *pro-sumers* (and *pro-ams*) out there just waiting to have fun and create great communities of learning. They are coming after us, the old and individual learners.

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Transmedia learning as an opportunity for MIL education to foster participation through the experience of creative communities

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The background to this chapter is informed by data collected from an ongoing empirical study within a creative community of "makers" in Mexico, and based on a constructivist approach, this article develops a Transmedia Learning proposal with the aim of making visible and useful what mediatized subjects learn, even without being aware of it, through their joyful experiences with communication technologies. By making their learning evident, participants in the creative communities, as well as educators at schools, can take advantage of that informal learning to develop MIL knowledge within formal educational settings.

The analysis developed in this paper nurtures itself from a Do it Yourself Media perspective as an alternative way to accomplishing a deeper understanding of productive outcomes from participatory culture experiences. The results of this analysis show the emergence of an ethos characterized by values, which promote and reinforce a creative culture of sharing, manifested in a collective action to create media products and other tangible objects.

In short, this paper will sustain the idea of a MIL education based on transmedia learning developed from participatory experiences in which audiences get together to create media products and other objects inspired directly or indirectly by media content, or from their collective interaction with other participants interacting with media.

Keywords: Transmedia Learning, Media Literacy, Do it Yourself Media, Participatory Culture.

Introduction

In this work we intend to describe the collective construction processes of transmedia learning in light of the participation practices developed by members of the *Makers Community GDL* in the framework of the international movement of "makers". Participation practices in this movement are anchored to an ethos characterized by a set of values and motivations related to a *Do it Yourself Media* perspective, which reveals learning based on activities that those who perform find entertaining, exciting and challenging.

This work is located at the crossroads of different research areas and interests such as: media literacy, transmediality, participatory culture and the technological practices of creative communities. From this melting pot we highlight and build on an interdisciplinary approach and a set of concepts coming from different research orientations and methodologies.

The results presented in this document stem from ethnographic empirical research that combine on-site and virtual observation of the activities and interactions among the members of the researched community, in addition to in-depth interviews with key informers. This combination of techniques allows us to access the everyday activities of the subjects of the research via their participation practices in their communicative, interactive and productive dimension.

The ultimate goal of this work is to contribute to a new conceptualization of the processes involving media/information literacy that will enable us to surpass the premise that it is necessary to focus mainly on promoting critical thinking and critical consumption of media content to a position where the focus is directed towards the learning practices themselves. Doing so means that the MIL effort will reinforce the practices that are already promoting learning without the need for an explicit intervention of the school.

Rethinking the relation between education and learning

When reflecting on the central essence of education there must be a conceptual shift by taking the focus away from the institution and putting it on the learner; this is where the responsibility for learning truly lies.

Convention would have it that learning be seen on the basis of an "inside/outside the classroom" perspective, where what happens inside is always formal, valid and legitimate, and what happens outside is informal, invalid and not valuable. This artificial separation restricts the wealth of the conception of learning inasmuch as it constricts it to the spaces rather than to people's practices, interactions and experiences. Learning (which is the object of education) does not occur "only inside" or "only outside" the school and the classroom, but in both places simultaneously and constantly or, as suggested by Martin-Barbero (2002), education crosses over everything and we learn everywhere all the time.

Taking the above idea as the basic premise, the most relevant characteristics in order to assume the importance of learning which occurs outside the school space, in particular those related to MIL, is that they be oriented and chosen personally according to the interests, likes and aspirations of each learner (and not according to those of the institution). What is mentioned above results in practices of enjoyment, entertainment, leisure and recreation (Ferrés, 2014), practices that lead to informal learning and have three defining elements: the participating agents, the communication channels, and the control of the emotional. The participating agents that are involved are usually other peers with the same degree of experience or power, communication channels always remain open and they entail multiplicity of textuality, and the emotional is just as important as it is the logical reasoning that drives the learner.

Informal learning is understood as the meaningful knowledge that we extract from everyday life and that we manage to appropriate, interiorize, organize and systematize. To go from an understanding of education from schooling to an analysis of informal learning in everyday life is a way of focusing our attention on what education entails in its widest sense and not just in its traditional sense.

Margaret Mead (1970) said that the substantial difference between the two forms of learning is that in the scholarly context, adults want to teach, while in community learning youngsters want to learn. This difference is understood from the idea that in formal school learning, motivation must be generated (usually in terms of finding some usefulness for knowledge), whereas in informal learning, in the community and family context, motivation arises from the desire to participate directly and actively in the social life of the group or in the formation of identity for the subject. In the active subject's activities in the communities, the end and the means cannot be told apart, given that the pleasure of learning becomes integrated into the learning act itself and into what is learned (Paradise, 2005).

For the purposes of MIL, these perspectives are fundamental to understand, implement and promote the communicative and digital technologies, the new forms of organization and collaboration, the creative groups and communities, and the uses and competences to create and produce contents and tangible objects.

Participatory Culture and the Maker Movement

For Jenkins (2006) the key characteristics for the operation of a participatory culture are: the few limitations for artistic expression and civic engagement, the facilities to share their creations with others, the existence of some sort of knowledge guide and transference from the most experienced members to the new ones. The contributions should be valuable for the members of the communities. The members should be connected socially. In these points, it is possible to observe the importance of the collective and the communal for the participatory culture, as well as a direct link with learning, inasmuch as the importance of "mentorship," the importance of experience and acknowledgement and legitimization among peers are highlighted. These characteristics are essential to connect the practices of "maker" communities and participatory culture.

In this context it is possible to highlight the creative and innovative dimension of participation from an affinity of spaces and contents that may be considered spaces for informal, collective and collaborative learning around an interest, a narrative or an ethic, such as the hacker's ethic (Roig, 2013). Participatory culture has a substantial basis in the dynamics of the information society characterized by an increase in the user's capacity in connection with the processes of cultural production and consumption. This dynamic manifests itself strongly in the personal and collective production of contents which, according to Jenkins (2010), has acquired an unprecedented dimension through the Internet and other associated technologies. It is, however, not exclusive of the present because it has appeared in the past. In other words, participatory culture is certainly not a new phenomenon, but the Internet has reshaped its dynamics, effects and scopes in culture.

In this sense, the "maker" movement is one of the most significant in terms of participatory culture. This movement has its foundations in the *Do it Yourself* (DIY) premise, which means a renewed interest in the subject's own creations which enables the subject to express their own creative potential and possibilities in terms of media content as the result of a de-intermediation alternative for the production of materials, ideas or technology, which before used to be solely in the hands of corporations or companies. In terms of communities, Jenkins (2010) suggests that *do it yourself* does not mean *do it on your own*. Quite the contrary; the social and collaborative component is crucial to give rise to meaningful learning and knowledge transference experiences. The importance of DIY for the research of participatory cultures, and its relation to learning, is that it implies looking in detail at media production practices (as well as hardware and software production) which presupposes a reformulation of the ways in which we learn collectively, collaboratively according to leisure, entrepreneurial, innovative and civic interests.

Do It Yourself can be understood as the people's participation practices to produce contents of their own, according to media discourses or from the information available in the media. Producing content of their own means the creation of a wide range of textual, audio and visual compositions, but it also means the intervention, modification and creation of specialized software, hardware, objects, processes or technology. And these are precisely the defining characteristics of the "maker" movement.

Research into DIY is usually associated with the hacker ethics and culture, which focuses its activity on innovation through appropriation, intervention and creation of systems, products, and cultural and technological processes (Libow Martinez & Stager, 2013). The figure of the hacker has a double connotation: a negative one, associated with the people's capacity to use specialized computer knowledge to violate the security of computer systems, digital services and virtual corporations or companies; and a positive connotation, associated with the implementation of specialized knowledge to reconfigure systems and practices in the benefit of society by putting information and knowledge at the service of the people and its communities through open, horizontal structures (Himanen, 2011). These two interpretations are usually meant and they coexist, but the latter reflects better the original meaning of the term, and that is the meaning we are using here.

The "maker" movement can be understood as the heir to the tradition of the hacker culture insofar as it shares its civic ideals and is capable of participating in an intense manner in the cultural manifestations and social problems at their disposal. The "maker" movement has DIY as its direct antecedent which capitalizes multiple manners of collaborative creation, and is the result (among others) of an alternative against programmed obsolescence, by means of participation based on the intervention of product production and circulation processes.

The "makers" community has developed internationally through digital social networks and is characterized by the materialization of practices in *maker spaces*, which are spaces dedicated to collective creation and their members' socialization (Hatch, 2014). The "maker" transcends the amateur or the artisan inasmuch as it manages to establish community, corporate, educational, economic and political links with other relevant communities and agents. In this sense, the "maker" community should be distinguished from other similar communities because of their capacity to work collaboratively and their technical willingness to learn to use machinery and devices to attain their objectives.

It is essential to understand that research on *makers* implies an indissoluble connection with the DIY movement which in turn connects it with the participatory culture understood as the user's and the audience's capacity to reformulate cultural production and consumption processes. On the subject of education, the most direct connection is the strategies that the communities implement to obtain, produce and share information that is meaningful and useful for their objectives.

The main slogan of this movement born in the USA is: *Making, Creating, Changing.* The word "maker" is a term coined by Dougherty in 2005 denoting the people's capacity to make, create or change things from collaboration and self-learning. The "maker" community takes it upon itself to empower people through open innovation and knowledge, in such a way that its supporters have the possibility of recreating products and making their ideas come true without resorting to great investment. Everyone is an innovator and everyone shares what, how and why they create. In this sense the movement reveals one of the tendencies that are redefining the relationship of society with technology: technological innovations are not any more the exclusive result of the work of large manufacturers and multinational companies.

Connection with the media, technology and communication

The "maker" Movement seeks to encourage research for new computer technology, design, robotics applications, among other disciplines. One of its goals is that interaction among people goes beyond the virtual plane, which is why they hold innovative forums on *co-working* and *hacker spaces* and encourage encounters in shared spaces such as offices.

Five years after Dougherty published the magazine *Make*, Chris Anderson wrote in *Wired*, an article titled "The atoms are the new bits". In this piece he developed the idea of how the democratization of technologies was promoting a new way of manufacturing things that would change the world. He confirmed this hypothesis two years later with the book "Makers, the new industrial revolution", where he suggests that the Internet put an end to the information monopoly of mass media, since micro manufacture will put an end to the monopoly of mass manufacture (Anderson, 2012).

From our interpretation, one of the main contributions of the "maker" movement is managing to *make visible* the diversity of *participatory practices* and reaffirm the importance of *engagement* and motivation to become involved in creative communities. In this sense, we propose a typology of "makers", according to their interactions with other peers, their collective participation and the use of communicative technologies:

1. Makers are creators, they produce a wide range of objects and codes. Production is always oriented according to multiple interests and motivations.

- 2. Makers use digital technologies to create, this means that the design and prototyping of their productions goes through a digitalization process (which allows these designs to evolve and improve collaboratively). Even traditional or artisanal production is influenced by digital contents or tools.
- 3. Makers share their creations, and they know the current mediatized environment, which presupposes the development of communicative skills that allow them to explain to others the manufacturing and working processes.
- 4. Makers do not create to make money, but to solve some problem in their community or just for fun and entertainment (that does not prevent the fact that in the process, market forces may cause their creations to generate economic profit).
- 5. Makers prefer to work in communities, this means that they value emotional networks and collaboration thus acknowledging the value that this confers to their creations and products.

Though other authors have claimed that "We all are makers" (Hatch, 2014), this phrase should not be understood as a declarative-affirmative sentence but rather as an exhortative one. This expression intends to invite, not define. In this sense, action becomes more relevant than definition. Though we are all potential "makers", not all of us are. It is relevant to know what kind of learning can be obtained from the experience of being a "maker "and from the participation promoted in these types of communities.

DIY Ethos: Shared values and practices

The DIY ethos in terms of the *structure of feeling* (Williams, 1980) is assumed as a set of attitudes and values regarding the use of mass media and technology (both digital and analog), and not as an identity linked to a group of specific people. That is, the DIY ethos has more to do with the practice conducted by the communities than with the specific characteristics of the subjects that make up these communities. This in turn implies a type of active participation centered on the re-creation that takes other people's work, as well as the products of mediatized and technological culture, as inspiration.

The *DIY* ethos serves the purpose of making the set of values visible, which is characterized by an active attitude that is aware of being creative and capable not only of modifying or intervening, but also of creating, giving birth to new ideas, projects and objects with a symbolic and tangible value for its creators and (in

some cases) for the rest of the community/ies. A fundamental condition for this DIY culture to propagate into a social group is the acknowledgement of collaboration and collective work not only to attain goals and finish the work, but also to make a significant contribution to the objectives set by each community. As Jenkins (2006) put it, it is equally as important to have the capacity and the possibility of participating, as the fact that this participation be valued and significant for a community. This DIY ethos is the reason that justifies the fact that "makers" practices are ever more socially relevant and important for education because they imply a reshaping of society in terms of: how collective objectives are defined, what the use of learning is, how knowledge is constructed and how the creations are shared.

Transmedia Learning

In the last decade, within the context of an ever-more mediatized world, the idea of transmedia has strongly positioned itself in academic debates to reflect on the relations between audiences, producers and content. Coined by Marsha Kinder (1991), but popularized by Jenkins (2003), the concept of *Transmedia* responds to a set of narrative elements and environments that propitiate participation to expand stories through multiple technological platforms and media. Transmedia takes different forms depending on the context, the subjects, media and purposes in which and for which they are used and with which they are related.

The main perspective from which the concept has been developed is the study of storytelling. According to Jenkins (2003) there are two fundamental moments that cause a story to be considered transmedia. First, when there is *expansion*, which implies that different fragments of the same storytelling are told through two or more media, formats or textualities. Second, when there is *participation of the audiences*, which can intervene, modify or re-signify at least a portion of the contents proposed by the seminal producer, remaking them, redistributing them and adding novel elements to the storytelling. The idea of transmedia learning has its basis in these two elements: participation and expansion.

In this sense, the proposal is to understand transmedia learning from the following characteristics: first, because of the intense diversity of communicative mediations a subject is exposed to in the information society; second, to promote a type of information interaction that focuses on the user's and prosumer's self-managed appropriation; and third, as a result of the transmedia context in which communication occurs, relatively new skills and competences are updated, diversified and created. The "makers" (but not only they) need and learn on a daily basis in their being in contact with hypermedia reality.

As a result of the empirical work done, the fundamental principles were identified to consider that transmedia learning can transform media literacy processes by promoting practices centered on collaborative production, assessment of entertainment and leisure, and visibility of altruistic practices and activism. The basic principles to promote transmedia learning should therefore: 1. Seek that the subjects are aware of the practices done on a daily basis and how they produce significant *experiences*. 2. Actively promote the *engagement* that the members of communities develop for the purposes of storytelling and activities such as DIY. 3. Promote *disciplinary diversifica-tion* and the exercise of skills that are implemented by means of participation and the creation of contents and products. 4. Acknowledge the value of *emotions and passions* to arouse intrinsic motivations anchored to what is local and near for each community. 5. Promote the creation of horizontal collaboration networks that allow exchanging experiences, information and knowledge among communities.

Transmedia learning has its oldest theoretical referent in Piaget's constructivism (1976), but it is exponentially re-dimensioned by the communicative and technological access environments of our times, which constantly give rise to the implementation of methods that encourage collective, virtual and global action and participation. Transmedia learning transforms educational experiences, it having become nurtured with an interdisciplinary perspective to access and redistribute information to construct knowledge that transcends traditional school needs through everyday practices anchored to emotional proximity, engagement in causes or discourses and passion to develop an open, collaborative attitude.

"Makers", and similar communities that define their practices from the perspective of a DIY ethos, constantly face the need to solve real problems from everyday life. This puts them in a position to *think and feel together* in such a way as to propose feasible and possible alternatives that provide prompt, effective solutions to the desires and challenges society presents.

Conclusions

Promoting transmedia learning through the practices of these types of communities is useful for MIL because it allows us to display alternatives to promote the desired participation of students in creative activities.

The "maker" movement has given rise to the creation of *maker spaces* in many countries around the world, even in places where the situation of inequality and

the digital gap are still significant. Despite inequalities and limitations, it is possible to work collectively from these spaces and communities sharing analog and digital tools. Above all, it is possible for "makers" to share their interest in science, technology and the production of media content allowing them to add value to collective practices anchored in entertainment and the mediatized culture.

The main conviction and proposal developed in this article is that educational institutions have to pay attention to collective self-learning, network learning, interactivity and cooperation and creativity practices as fundamental principles to implement in schools. This would mean a veritable transformation in education itself and not just (as has been happening to date) a mere adaptation and incorporation of digital and interactive technologies in the traditional school curriculum.

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An analysis of Media Literacy messages in popular children's television

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It is well documented that most children in the U.S. consume over four hours of screen media each day (Common Sense Census, 2015). The majority of this time is spent watching traditional television, on a television set in the home. This television consumption statistic has remained relatively consistent over the past five years, even though children have access to numerous forms of digital media via computer and mobile devices. Children's options for media consumption may extend far beyond traditional television, but their habits are still routed in television. Additionally, their habits remain routed in the two brands that have been the most popular children's media brands for decades: Nickelodeon and Disney. Through these networks, messages about media creation, media literacy and many related topics (i.e. gender representation) are conveyed. And because children watch programmes on these networks over and over, the messages are conveyed with repetition. What are the messages children are receiving about the role of media in their lives and their relationship and responsibility with media through their television viewing on these popular networks?

This research study analysed the integration of media literacy concepts in current popular children's television in the U.S. focusing on four highly-rated television programs from Nickelodeon and Disney Channel: Game Shakers (Nickelodeon), The Loud House (Nickelodeon), Bizaarvark (Disney Channel) and Stuck in the Middle (Disney Channel). Episodes were coded along four key definers of media literacy according to the definition of media literacy from the National Association for Media Literacy Education: access, analyse, evaluate, create. The study assesses the opportunity for increasing media literacy messages, while recognizing that the primary goal of the content is entertainment.

Keywords: Nickelodeon. Disney. Children. Children's media. Media literacy.

It is well documented that most children in the United States consume at least four hours of screen media each day¹. This habitual media consumption influences a child's understanding of the major components of their life, including reflections on their home, their family, their friends, their school, their community, even their country. The value messages children receive through media are not coordinated curriculum messages across programmes and platforms. These messages are woven into the character's personalities, storylines and dialogue of the programs children watch. These messages are influential due to the amount of time children spend with media and their habit of repetitive consumption. In addition to value messages contained in the shows about gender, race, ethnicity, consumerism, friendship, nutrition, and numerous other topics, are messages about media. Media is not just providing value messages about components of a child's life, it is providing messages about media itself. The media children consume contain messages – intentional or unintentional – about how media should be consumed, including when, what, with whom, how often, and using which specific devices. These messages inform a child's first thoughts of what it means to be media literate.

Media literacy is defined by the National Association for Media Literacy Education (NAMLE) as "the ability to access, analyse, evaluate, create, and act using all forms of communication"². One might think that once a child has completed high school, she or he has developed the skills necessary to critically analyse media, evaluate and create media, since media is potentially such an influential information provider in his life, but that assumption cannot be made. Without diverting into a full analysis of how much or how little media literacy is taught in U.S. classrooms, it can be stated that since media literacy is not a required subject, its inclusion in formal education is inconsistent, and often non-existent. Contrast that with a child's actual media consumption, which is both consistent and existent. Therefore, the place a child is most likely to receive messaging about media is from media.

Although children's options for media consumption extend far beyond broadcast television and cable networks, their habits are still deeply routed in two brands that originated in that environment and have been two of the most popular children's media brands for decades: Nickelodeon and Disney. This article details a research study conducted to analyse the integration of media literacy concepts in children's television, focusing on four highly-rated television programs from Nickelodeon and Disney Channel: *Game Shakers* (Nickelodeon), *The Loud House* (Nickelodeon), *Bizaarvark* (Disney Channel) and *Stuck in the Middle* (Disney Channel).

Methodology

This research study coded media literacy messages using a methodology first developed in an unpublished study conducted by the Center for Media and Information Literacy³ in 2012. In that study, undergraduate students from Temple University, U.S. screened episodes of children's television and analysed the content for inclusion of four key definers of media literacy according to the NAMLE definition: access, analyse, evaluate, create. This current study utilized the same rubric to code occurrences of media literacy messages. Definitions from the Oxford English Dictionary⁴ were used to explain each of the four key definers, and a list of examples was drafted in advance to serve as a guide during the screening of each episode.

Access

Focus is on availability and consumption. "the right or opportunity to use or benefit from something".

Note: if a character in an episode used media to passively consume, the moment was coded as "access". If the character used media to analyse, evaluate or create, it was coded for that category, even though the character would also need to "access" that particular media at the same time.

Examples:

- Media or technology seen within the frame, but not in use
- Media or technology seen within the frame and in use
- · Character using media or technology, without reflective commentary

Analyse

Focus is on seeking meaning. "to examine (something) methodically and in detail, typically in order to explain and interpret it"

Examples:

- Reflection about media use made by a character using the media or technology
- Reflection about media use made by a character watching someone else use media or technology
- · Reflection on the name of the media or technology, terminology, or related jargon

Evaluate

Focus is on assessing value. "to form an idea of the amount, number, or value of...".

Examples:

- · Comment in which a character makes a judgment about their media use
- Comment in which a character makes a judgment about someone else's media use

Create

Focus is on new and original. "bring something into existence". Examples:

- Character creating a video.
- Character taking a photo.
- Character uploading content online.

Overview of selected television series

Four television series were screened for this study. Two of the series are from Nickelodeon (U.S.) and two of the series are from Disney Channel (U.S.). Five episodes, each with a run-time of approximately thirty-minutes, were screened for each program for a total of twenty episodes. In cases where two shorter episodes aired to make up the thirty-minutes, each episode was evaluated separately.

Game Shakers⁵

This series centers on two seventh-grade girls, Babe and Kenzie, and their video game company, Game Shakers, located in Brooklyn, New York. The (fictitious) rap superstar Double G is their business partner. Double G's son, Triple G, is a game consultant that works for the girls. Their friend Hudson is their main game tester. Many scenes take place in the Game Shakers office. A unique element of the series is that viewers may download the games created as part of specific plotlines, through the Nickelodeon app. Game Shakers premiered on Nickelodeon September 2015. The second season premiered September 2016. A third season is scheduled to premiere September 2017.

The Loud House⁶

This series focuses on the day-to-day life of Lincoln Loud, a middle child in a family of eleven children, all of whom (other than Lincoln) are female. Throughout the series, Lincoln navigates the challenges, accidents, involvement, and love of his ten sisters; Lori (age 17), Leni (16), Luna (15), Luan (14), Lynn (13), Lucy (8), Lana and Lola (identical twins, 6), Lisa (4), and Lily (15 months). The family lives in the fictional town of Royal Woods, Michigan. The series has received praise for the representation of Howard and Harold McBridge, two supporting characters who are a same sex couple, as well as the parents of Lincoln's best friend, Clyde. The Loud House premiered on Nickelodeon May 2016. The second season premiered November 2016. A third season is in production.

Bizaarvark⁷

This series centers on two thirteen-year-old girls, Paige and Frankie, who create humorous videos for their online comedy channel on Vuugle, a video streaming website similar to YouTube. Episodes follow the girls on their quest to become popular Internet celebrities. The main location for the series is the Vuugle Studios, a production center in which many Vuugle stars produce their video content, including Dirk Mann, star of the online channel *Dare Me Bro*, and Amelia Duckworth, star of the online channel *Perfect Perfection with Amelia*. Paige and Frankie's longtime friend Bernie Schotz serves as their agent. The opening song for the series shows the girls in the screen of a laptop, as if in a video. As the song continues, they jump off the screen and move around on the laptop keyboard (special effect). The girls sing "You could spend all day on a swing eating a baguette. But why do boring things like that when there's the Internet." The lyric "Let's go make some videos!" repeats several times. Bizaarvark premiered on Disney Channel June 2016. Season two is scheduled to premiere in late 2017.

Stuck in the middle⁸

This series centers on Harley, the middle child of the Diaz family. Harley is a budding inventor. Her six siblings, Rachel (age 17), Georgie (16), Ethan (14), Harley (13), Lewie and Beast (10-year-old twins), and Daphne (11) often rely on her technical knowledge and creativity to solve their problems or help them out. Episodes explore the typical day-to-day challenges and activities of a large family. Other main characters include Harley's best friend Ellie and Harley's parents, Suzy and Tom. The family lives in the fictional town of Marshport, Massachusetts. Stuck in the Middle premiered on Disney Channel February 2016.

Evaluation of media literacy messages

A total of twenty episodes were screened. Scenes and dialogue were coded by four major definers for media literacy: access, analyse, evaluate, create. Combining all coded moments from all four categories reveals a total of 196 media literacy moments.

The media literacy category reflected most often was "access". This category was reflected 68 times in action and dialogue. In descending order, the next highest-ranking category was "create", with 55 moments, then "evaluate" with 42 moments and "analyse" with 31 moments. Note that this descending order was not the same for each series.

- The descending order for Game Shakers was access (23 moments), create (22), evaluate (13) and analyse (9), for a total of 67 media literacy moments.
- The descending order for The Loud House was access (32 moments), create (15), evaluate (10) and analyse (4), for a total of 61 media literacy moments.
- The descending order for Bizaarvarks was evaluate (17 moments), analyse (14), create (12), access (4), for a total of 47 media literacy moments.
- The descending order for Stuck in the Middle was access (9 moments), create (6), analyse, (4) evaluate (2), for a total of 21 media literacy moments.

Even in the two cases where the descending order for an individual series matched the descending order of the four series together (as it was for Game Shakers and The Loud House) there is a notable difference in percentage allocations. For example, the 55 moments of "create" for the series assessed together represents 28% of the total number of media literacy moments (196). But in Game Shakers the 22 moments of "create" represents 33% of the total number of media literacy moments (67). This shows that Game Shakers has a higher percentage of moments reflecting "create" than the four series together.

The series with the greatest number of "access" moments was The Loud House (32).

The series with the greatest number of "analyse" moments was Bizaarvark (14). The series with the greatest number of "evaluate" moments was Bizaarvark (17). The series with the greatest number of 'create" moments was Game Shakers (22).

Season/ Episode	Episode title	Access	Analyse	Evaluate	Create
GAMESHAKI	ERS				
S2/E20	Clam Shakers- part 2	4	0	0	8
S2/E19	Clam Shakers- part 1	11	4	2	7
S2/E6	Lama Lama Spit Spit	0	0	2	4
S2/E15	Wing Suits & Rocket Boots	5	0	5	1
S2/E12	Air TNP	3	5	4	2
	TOTALS (67)	23	9	13	22
THE LOUD H	OUSE				
S2/E14	Out of the picture	4	2	4	6
S2/E14	Room with a feud	6	0	0	2
S2/E13	The Loudest Mission: R. Chaos	5	1	0	0
S2/E9	The Bucket List	1	0	2	1
S2/E9	Party Down	2	0	1	2
S2/E6	Cheater by the dozen	7	1	3	3
S2/E6	Patching things up	1	0	0	0
S1/E18	April Fools rules	4	0	0	0
S1/E18	Cereal offender	2	0	0	1
	TOTALS (61)	32	4	10	15
BIZAARVAR	(
S1/E20	In your space	2	6	7	1
S1/E19	Paige's birthdaybe great	0	2	0	1
S1/E18	Mom stop	0	2	4	6
S1/E17	Agh, humbug	1	2	4	3
S1/E16	Control + ALT + Escape	1	2	2	1
	TOTAL (47)	4	14	17	12
STUCK IN TH	IE MIDDLE				
S2/E11	Stuck in a good deed	1	1	1	1
S2/E10	Stuck with a bad influence	5	1	1	1
S2/E9	Stuck with a boy genius	3	1	0	3
S2/E5	Stuck in the garage sale	0	1	0	0
S2/E4	Stuck in a slushy war	0	0	0	1
	TOTAL (21)	9	4	2	6
	GRAND TOTALS (196)	68	31	42	55

Figure 1 List of screened episodes and the number of media literacy moments

Source: Own elaboration.

It is worth noting precisely how these media literacy moments were conveyed since the moments in some episodes were fairly brief and simplistic, while others showed a deeper level of personal reflection from a character or a more complex and nuanced use of media. Below are examples of each media literacy key definer from the coded series.

Access

Game Shakers – *e*xamples include; a drone being operated by a character trying to get to an out-of-reach billboard (S2/E20⁹), two adults playing the video game "Lama Lama Spit Spit" with Babe and Kenzie on tablets (S2/E19), Kenzie checking the time on her mobile phone (S2/E19).

*The Loud House – ex*amples include; Lori using a flash drive to store her new yearbook photo (S2/E14), Ronnie Anne reading a book (S2/E13), the family gathering in the living room to watch the television show, "Dreamboat", a fake reality show (S2/E13).

Bizaarvark – examples include; Teddy obsessively looking at something on his mobile device (S1/E20), Paige using a laptop to check statistics for Bernie's uploaded videos (S1/E17), Paige and Frankie using virtual reality headsets (S1/E16).

Stuck in the middle – examples include; Mom using her mobile phone to leave a message for Rachel (S2/E10), Dad saying, "I'll check the security camera from the store.", then looking at the video stream on his phone from a security camera (S2/E10), Daphne luring her brothers into her tent with downloaded episodes of *Dumpster Jack* (S2/E9).

Analyse

Game Shakers – examples include: Double G posting a comment on social media inviting people to meet him face-to-face to tell him their comments in person (S2/E12), Kenzie interviewing the "focus group" participants when they leave the bathroom after playing their game, "Unicorn on the cob" (S2/E12).

*The Loud House – exa*mples include: Lincoln saying "All we gotta do is copy these handsome dudes, grab a photo from the yearbook file and paste "em here." (S2/E14), Lincoln playing a handheld video game, then hitting "pause" and the word "pause" coming up on the video game screen (S2/E6).

Bizaarvark – examples include: Amelia saying "In your space is live-streaming and the WIFI in my house is down. Do you guys have Internet?" (S1/E20), Frankie saying "You missed out yesterday. Your mom hired the camera crew for a full day, so I shot a bunch of footage in the pancake costume. I came up with a character and developed a full back story" (S1/E18).

Stuck in the middle – examples include: Mom and Harley watching a commercial about visiting the elderly and Mom saying "Those old people need us. We should be helping too." Then, they volunteer (S2/E11), Harley watching a commercial for a boarding school and thinking about her best friend Ellie going to the school (S2/E10).

Evaluate

Game Shakers – examples include: Everyone wanting to take selfies with a meatball because Michael Strahan (former football star) was in the restaurant earlier and choked on a meatball (S2/E6), Trip saying "Our fans like watching him, and that means we sell more games!" (S2/E15), Babe saying "Yesterday when people were watching Hudson our numbers jumped from 200,000 to 400,000 – so all those people are gonna see him wearing a Game Shakers t-shirt and that's gonna help us promote our games." (S2/E15), Hudson saying "Not everybody loves your new album. I'm looking online at comments from people and some of them aren't so nice." (S2/E12).

The Loud House – examples include: Lincoln saying that by putting his face and Clyde's face in all those group photos they can be assured they won't be forgotten, "Our immortality rests on this flash drive!" (S2/E14), Lori talking about being devastated if her bad photo makes it into the yearbook (S2/E14), Bobby saying "You listened to a magazine instead of following your own instincts?" (S2/E9), Clyde saying "Time for the 20/20 rule. For every 20 minutes looking at screens, you should look away for 20 seconds" (S2/E6).

Bizaarvark – examples include: Victor saying "Teddy, we talked about you not paying attention to me (because of obsessive use of his mobile device). I'll make you a deal. If you can tell me the details of my evil plan, I will double your phone's data plan." (S1/E20), Paige and Frankie asking, "You created an entire show just to breakup our friendship? Hired actors? Created a fake network? All to bring down two teenage girls who still haven't cracked 20,000 subscribers? (S1/E20), Dirk saying "I'm such a dope. Always record in landscape. It's more cinematic that way." (S1/E18), Dirk saying, "I'm taking an off-the-grid vacation this weekend. No calls. No

texts. Just me in a cabin writing haikus." (S1/E18), Paige saying "I love this virtual snow. It's just like playing in real snow but without any of the actual life experience." (S1/E17).

Stuck in the middle – examples include: Harley saying "Next time, we fast-forward through the commercials", referencing the fact that she and her Mom were motivated to volunteer to visit the elderly after watching a commercial (S2/E11), Harley imagines a commercial for Radistone Boarding School with Ellie's face super-imposed on various scenes (S2/E10).

Create

Game Shakers – examples include: a crowd of people taking out their phones and video recording the meltdown of Double G (S2/E20), Kenzie working on coding & hacking into a video billboard (S/2E19), Babe saying "Trip, get this test on video, ok?" Then Trip takes out his mobile phone, says "rolling" and starts recording (S2/E6), Babe puts a "yo-pro" harness and camera on Hudson so they can "live stream" him all day (S2/E15).

The Loud House – examples include: Baby Lillie holds a mobile device and hits the buttons (S2/E14), Lincoln shows Clyde how to insert photos of them into some group yearbook photos on his home computer (S2/E14), Lucy uses new technology that she invented to find the best roommate mix for the sisters (S2/E14), Leni saying "I'm totally posting this!" then she uploads video of the party to social media (S2/E9), Lincoln installs a go-pro-like camera on a dog to get video from a dog angle (S2/E6).

Bizaarvark – examples include: Victor saying 'This entire web series was created by me!" (S1/E20), Paige and Frankie write a song and make a music video about getting sweaty in gym class for their Vuugle channel (S1/E18), Dirk is stuck under a pile of stuff and records and uploads videos to his web channel, "Dare me bro" (S1/ E18), Bernie tries to create different videos to figure out his brand (S1/E17).

Stuck in the middle – examples include: Harley imagining how she would convert the family activity board into a digital, high tech interface (S2/E11), Brothers camping in the backyard, playing sound effects through their mobile device to annoy their sister and make her go inside. i.e. burping (S2/E9), Harley remembering she posted a bad review online of a department of motor vehicles employee who failed her sister in her driving test and finds out his boss fired him for the bad review. Later in the episode, there's a flashback of her sitting on a couch using her Dad's laptop typing the bad review (S2/E4).

Conclusion

The coding analysis from this study revealed that each of the four coded series reflect inclusion of some media literacy messages, however, the messages vary greatly in frequency and in the complexity and depth of the message. For this reason, the messages often fall short of truly building media literacy skills. This statement need not be seen as a goal to simply insert educational content into an entertainment programme, but rather, as a way to further engage children and their enjoyment of media content, with the added benefit of building media literacy skills. Children's attraction to media extends to many of the messages inherent in a media literacy conversation. Children are curious about how media is made, by whom, for what audience, how much it costs, how it can influence others, etc. Keeping in mind the age of each series target audience and the need to maintain the goal of entertainment, there are many ways characters could be shown modeling decision-making about media, evaluating content, and reflecting on their own media use.

It is recommended that future coding studies add to the rubric used in this study to include components not easily categorized within the four areas. Additional coding could include key definer areas such as target audience, representation, media industry economics, and news credibility, and media messages about body image.

Children's media content will likely continue to use children's proven interest in media as a storyline because it has been and continues to be a successful model. From 2006-2011 the Disney Channel series *Hannah Montana*¹⁰ took kids into the fictional behind-the-scenes world of a pop star revealing the media construction of celebrity and marketing. From 2007-2012 Nickelodeon introduced kids to *iCarly*¹¹, a series about three middle school friends who produce an online TV show revealing the kinds of challenges faced by producers. In these shows, and in the four television series analysed in this study, media literacy messages have enhanced the entertainment value, while integrating media literacy information. There is a tremendous opportunity to increase those messages recognizing the enjoyment and potential influence of media in children's lives.

Notes

- 1. "Zero to Eight: Children's Media Use in America". Common Sense Media. 2013.
- 2. National Association for Media Literacy Education, www.namle.net
- 3. www.centermil.org
- 4. Oxford English Dictionary online. https://en.oxforddictionaries.com/
- 5. http://www.nick.com/game-shakers/

- 6. http://www.nick.com/loud-house/
- 7. http://disneychannel.disney.com/bizaardvark
- 8. http://disneychannel.disney.com/stuck-in-the-middle
- 9. The parentheses after each example, represents the season and episode in which the example aired. For example, "(S2/E19)" means the example aired during season 2, episode 19.
- 10. http://www.imdb.com/title/tt0493093/
- 11. http://www.imdb.com/title/tt0972534/

Media Literacy as a key component in new learning environments: e-learning, U-learning and social learning

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Media and information literacy (MIL), understood as the capability of being efficient and effective in a digital society, becomes an essential competency if we refer to new learning environments. In this regard, citizen digital participation in these new learning scenarios is framed not just in terms of basic access to media and the Internet but by the effective use of a range of media and learning experiences. Challenges all citizens face arise from the features of new learning environments: new devices, continuous connectivity and wide access to all kinds of information anywhere, anytime and any place, which will be better met by the set of competencies MIL provides. In this context, MIL becomes a key component in 21st century learning. This article aims to provide the theoretical evidence and connections between media literacy and new learning environments: e-learning, u-learning and social learning, evidencing the need to foster media literacy to empower active citizenship to achieve new educational goals in both formal and informal learning through the use of new technologies and the Internet. E-learning, u-learning and social learning are the learning contexts in the digital age and their feasibility and exploitation will mostly rely on media literacy and information competency. The conclusions will show how MIL will foster a better use and understanding of learning environments for the 21st century. This is based on the nature of new approaches to learning that are not only focused on knowledge transfer strategies, such as in traditional learning, but are also centred on more complex social interactions, more designed learning experiences in virtual and hybrid spaces, which, in turn, are strengthened if MIL is developed previously or simultaneous*ly.* Rethinking education means leveraging e-learning, u-learning and social learning supported by media and digital literacy in the sense of improving learning experiences in the digital age.

Keywords: media literacy, e-learning, social learning, u-learning, learning environments

State of the art

Since the beginning of the 21st century, the international community has become concerned about which competencies the new generations should have in a digitalized world. Several efforts have been made to distinguish and define new challenges for the needed literacy in the emerging context. These collective efforts were developed and driven by different international organizations such as UNESCO, ITU, UNDP, and the OECD: the Delors Report (1996), the DeSeCo Project (OECD) (1997), the World Education Forum in Dakar (2000), the World Summit on the Information Society, the WSIS (from 2003), the United Nations Literacy Decade (2009), the United Nations Decade of Education for Sustainable Development (2005-2014) establishing millennium development goals.

More specifically, another set of challenges was addressed in the same direction in the European Union: the Bengemann Report (1994), the Lisbon Strategy (2000), Education and Training 2010 (2003), Education and Training 2020 (2009), all of which supported three key drivers: a) smart growth fostering knowledge, education, innovation and the digital society; b) sustainable growth, making EU production greener and more resource-efficient while boosting competitiveness; and c) inclusive growth, enhancing labour market participation, skills acquisition and the fight against poverty. It is important to note that achieving these priorities was basically supported by specific programs that focused on the enhancement of digital societies in terms of digital skills, connectivity and media literacy: the eEurope Plan (2002), the eLearning Program (2001-2004), i2010: a European Information Society for Growth and Employment (2005-2009), the Lifelong Learning Programme (2007-2013), the Digital Agenda for Europe (2010), Opening Education (2013), digital Society: Access, Education, training, employment, tools for equality (2014), A new start for Europe (2014) and A new Skills Agenda for Europe (2016).

It is also important to note that this new agenda endorsed by the European Commission in 2016 once again highlights that digital skills, broadly referring to what a person knows, understands and can do in a digital society, will be the pathway to employability and prosperity.

Simultaneously, along with this wide range of actions and programs set out to foster a new map for education, learning and training, we can find different actions that are needed in order to propose a new conceptual framework of literacy that bridges traditional and new digital scenarios from UNESCO's Grünwald Declaration (1982), to its Conference in Vienna (1999), the Alexandria Declaration (2005), the UNESCO Paris Agenda (2007), the ICT Competency Framework for Teachers (2008), the AMI Curriculum (2011; Pérez-Escoda, García-Ruiz and Aguaded, 2016). In this overview of the international framework, the contributions from the assessment that has been striving to measure the new skills in the 21st century should be highlighted. Of special relevance in this specific area we find is the Partnership on Measuring ICT for Development (2009) created in 2004 in recognition of the need for improved data and indicators on information society developments; IEA evaluations, since 2006 with SITES M-1 and M-2 (Computers in Education Study); ICILS (International Computers and Information Literacy Study, 2013). In the European Union, different benchmarking indicators have been defined from the different programs and actions developed: eEurope, eLearning, and from the Eurydice network, Education and Training Monitors, providing an overview of key developments in educational systems in Europe.

This overall framework defines a multidimensional context within different areas, developing and fostering the skills that are essential for students and citizens in a digital society, not only as mere digital users, but as producers, tackling the digital divide, also ensuring that people with disabilities have the same access and avoiding gender inequality.

New learning environments at a glance

It can be said, and widely accepted, that learning, understood as the process of acquiring knowledge or skills, has dramatically changed with the emergence of digital environments that have given rise to new learning paradigms such as e-learning, ubiquitous learning and social-learning. This emergence has been tightly linked to digital media, emergent technologies and wireless communications with continuous connectivity (Ehlers, 2012). The widespread use of computers firstly, and connected devices, latterly, have promoted a paradigm shift within education due to the impact of information and communication technologies. In this regard, we will focus on three learning environments that have emerged and developed in the 21st century which constitute the pillars for smart learning in the digital era:

- E-learning: as the delivery of a learning or training program, course or degree via the Internet which is completely, or partly, online;
- M-learning: any sort of learning that takes place when the learner is not in a fixed, pre-determined location; learning that occurs when the learner takes advantage of the learning opportunities offered by mobile technologies;
- U-learning (ubiquitous learning) is based on ubiquitous technologies, enhancing a new learning style that is available anywhere, anytime.

Based on previous studies by De Freitas et al. (2010), Saadiah et al. (2012), Ehlers (2012) and Velandia-Mesa et al. (2017), six characteristics of new learning scenarios that shape a paradigm shift are proposed as follows:

- Permanency: The information remains unless the learners purposely remove it.
- Accessibility and self-directed: The information is always available anywhere, anytime the learners need to use it.
- Immediacy and flexibility: The information can be retrieved immediately by the learners.
- Interactivity: The learners can interact with peers, teachers, and experts efficiently and effectively through different media, in communities of learning.
- Context-awareness: The environment can adapt to the learners' real situation to provide them with adequate information.
- Digital mediated communication: connected devices and ubiquitous technologies.

These characteristics may be extended to e-learning, m-learning and u-learning taking into account the level of embeddedness and mobility (Saadiah et al., 2010; Bhattacharya & Nath, 2016).

As it may normally occur, changes come due to the appearance of differential elements that promote this change. In this case these elements are as follows:

- Social software as the key component that offers new opportunities for learning afforded by emerging technologies. It has already led to the widespread adoption of innovative forms of learning by bringing together a new ecology of learning: new open contents, different sources, multimedia learning materials, etc., providing ongoing lifelong learning. In the words of Atwell (2007): used in the meaning of software that lets people rendezvous, connect and collaborate by use of a computer network.
- **Personal Learning Environments** as the new approach to using technologies for learning. PLE entail a radical shift, providing learners not only with more re-
sponsibility and independence in the way they use technology for education, but also in the organization and ethos of education, redrawing education's static roadmap. It could be said that PLE are the tools needed to break down the walled limits of traditional learning.

• Digital generation due to digital media. It has been largely discussed if digital media has created a new generation category, defining them by their relationship with digital media. Following the arguments from different authors such as Tapscott, (1998), or Buckingham and Willet (2013), we accept the existence of a digital generation empowered by the opportunities that technology offers in different areas of life: playing, learning, consumption, relationships, and work. The "Net generation" (Buckingham, 2013: 8) "not only has different skills in terms of accessing and navigating through information, it also processes and evaluates information in a radically different way from the previous generation". Technology provides a direct and wide global empathy between the individual and the world.

MIL as catalyst of learning in new educational scenarios

The connection between new learning scenarios and new elements of the digital age are arranged with the set of competencies fostered by media literacy that occur in the emergence and convergence of new learning practices not embodied in conventional forms of learning (classrooms). This gives rise to a whole new educational milieu related to MIL and new learning scenarios: digital media and learning, DML (Gee, 2009).

This set of changes implies a new conceptualization of literacy that has been merging all of these improvements, acquiring a much needed organic, global perspective. Literacy, passing from the traditional concept based on "reading, writing and understanding" moved to a more complex audiovisual literacy, with the explosion of mass media. It then further evolved into a concept of digital literacy since the appearance of the computer and digital media, becoming a multidimensional media literacy concept which ultimately transformed itself into media convergence. This evolution has generated a multi-perspective concept based on two different dimensions to be developed, connecting media literacy to new scenarios of learning (EAVI, 2011):

Environmental factors, which include two dimensions: a) media availability or access (mobile phone, radio, newspapers, Internet, television, and cinema); and b) media literacy context, encompassing media education, media literacy policy, civil society and the media industry.

 Individual competencies, containing: a) social competencies, referred to as communication skills (citizen participation, social relations and content creation), and b) personal competencies, based on critical understanding (knowledge on media and media regulation, user behaviour and understanding media content and its function), and use (balanced and active use of media, advanced Internet use and computer and Internet skills).



Graphic 1 The six characteristics of new learning environments supported by MIL

Source: Own elaboration.

As seen in graphic 1, media literacy is shown to be essential, in terms of environmental factors and individual competencies, for fostering and developing education in new learning environments.

Gender equality as a political must

In July 2014, in the European Parliament Plenary Session, Jean-Claude Juncker, at the time President-elect of the European Commission, presented a report on the new start for Europe called: *My Agenda for Jobs, Growth, Fairness and Democratic Change*. The president assumed as a key task the rebuilding of bridges in Europe after the global financial crisis, focusing on ten policy areas. He defended these policy areas on the basis of two main points:

- 1. This will involve working with everyone "whether in the Euro or not, whether in the Schengen agreement or outside, whether supportive of deeper integration or not. My firm conviction is that we must move forward as a Union; we do not necessarily all have to move at the same speed" (Juncker, 2014: p. 12).
- 2. Ensure gender equality as a political must: "I will do my utmost to ensure a gender-balanced choice of leading personnel in the Commission, both at the political and administrative levels. Gender balance is not a luxury; it is a political must and it should be self-evident to everybody, including the leaders in all capitals of our Member States when it comes to their proposal for the choice of members of the next Commission. This is in itself a test of the commitment of the governments of Member States to a new, more democratic approach in times of change" (Juncker, 2014: p.12).

Conclusions

Developing, fostering, assessing and learning new skills are the pillars for a sustainable future in terms of labour markets and growth in every country and government. In this regard, the bridging of media literacy, required in the digital society, with new learning scenarios, is essential, as shown in graphic 1.

Despite the presence of many specific projects that foster media literacy in terms of outlines for good-practices within formal education (European Audio-visual Observatory, 2016), we should seek a shared commitment with academic institutions and policy makers that ensure media literacy from the basis of formal and informal education alike. Firstly, in formal education which is continuous and essential in the first stages of the cognitive, educational development of students; and secondly, in informal and ubiquitous learning that forms part of the next stages of lifelong learning education for all citizens. These intentions rely on the ten key initiatives outlined by the European Commission in the *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions. A New Skills Agenda for Europe* (Official Journal of the European Commission, 2016) as shown below:

Table 1 Ten key initiatives outlined by the European Commission for the Skills Agenda

10 key Initiatives outlined by the European Commission for the Skills Agenda

1. Improving the quality and relevance of skills information

- 2. Strengthening the foundation: basic skills
- 3. Building resilience: key competences and higher, more complex skills
- 4. Making VET a first choice
- 5. Getting connected: focus on digital skills

Making skills and qualifications visible and comparable

- 6. Improving transparency and comparability of qualifications
- 7. Early profiling of migrants' skills and qualifications

Advancing skills intelligence, documentation and informed career choices

- 8. Better information for better choices
- 9. Boosting skills intelligence and cooperation in economic sectors
- 10. Better understanding the performance of graduates

Source: Own elaboration.

These ten key initiatives are encompassed in the New Skills Agenda (Official Journal of the European Commission, 2016) where the roles of education, media literacy and new learning scenarios are essential. As discussed in previous paragraphs, media literacy requirements are closely related to the skills required to profit from new learning environments. In addition, those skills should be the pathway to reducing significant shortcomings in the cases of gender inequality, digital divides and disability inequalities. To sum up, it could be said that MIL can foster the better use and understanding of learning environments for the 21st century. This is based on the nature of new approaches to learning that are not only focused on knowledge transfer strategies, such as in traditional learning, but also centred on more complex social interactions and more designed learning experiences in virtual and hybrid spaces. These learning experiences are further strengthened if MIL is developed previously or simultaneously. Rethinking education means leveraging e-learning, u-learning and social learning supported by media literacy in the sense of improving learning experiences in the digital age.

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Enhancing learning on peace and non-violence through Media Literacy: The case for a non-violent Media Literacy Programme

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At a time when "the world is witnessing an unprecedented increase of polarization, hate speech, radicalization and extremism happening both offline and online" (La Rue, 2016), there is an emergent need to promote non-violent media literacy programmes. Integrating non-violent communication and learning from non-violent action in different dimensions of media literacy training programmes can contribute to promoting peace orientation among young people. This chapter will specifically look at Mahatma Gandhi's model of non-violent communication and how this can be integrated in media literacy programmes. Using findings from different workshops on media literacy which used this model of non-violent communication, this chapter will explore how a non-violent media literacy programme can contribute towards promoting peaceful alternatives to violence and construction of non-violent messages in different communication channels. It will also help articulate how peace communicators can be trained to facilitate intercultural dialogues and emotional bridge-building for a culture of peace.

Keywords: Mahatma Gandhi's theory of non-violent communication, non-violent media literacy, peace communicators, emotional bridge-building in communication

Introduction

One of the most powerful communicators of the modern age, Mahatma Gandhi, gave to the world a model of non-violent communication with a strong commit-

ment to values of truthfulness, mutual respect, openness and flexibility. At a time when "the world is witnessing an unprecedented increase of polarization, hate speech, radicalization and extremism happening both offline and online" (La Rue, 2016), Gandhi's model of non-violent communication, along with perspectives of other peace apostles like Martin Luther King and Daisaku Ikeda, integrated in media literacy curriculum worldwide offers avenues for peace orientation amongst young people. (Kundu, 2017).

The rapid advancement of media technologies and increasing accessibility of different communication tools means people across the world can connect with each other at an unprecedented speed and ease. This has enabled the sharing of an enormous quantity of knowledge and information. This increased interconnect-edness and sharing of information can contribute to bringing people and groups across the globe to come together for positive action and promote shared solidarity. On the other hand, this also contributes to propagating violence and hatred at a speed never experienced before. In this context, Ikeda (2007) points out, "Rapid advancement of media technologies has made it possible for religious and ethnic hatred to be broadcast around the globe in the blink of an eye." Hence, the challenge to communications today, he says, is to address the lack of true dialogue linking the hearts of one individual to another.

As this chapter will focus on how non-violent media literacy education can contribute to the enhancement of learning in peace and non-violence, it would be pertinent to look at the effects of media violence on young people. Feilitzen et al. (2000), on discussing the influences of media violence, says there could be imitation; getting tips and models about how violence can be used; aggression; surrounding; biased conceptions about violence in society and habituation to media violence.

In this context, Cantor and Wilson (2003) argue that media literacy is one type of intervention that can be used to help counter effects of violence in media. Scharrer (2009) notes that by encouraging children to think critically about the violence they see on television, movies, video games, and other media, school media literacy programmes have the potential to interfere with the potentially negative effects of media violence.

Scharrer (2009) further argues that a curriculum that combines the critical analysis of violence in media with the facilitation of positive conflict mediation skills is fruitful. She adds, "In order to help young people to negotiate the conflicts and difficulties they experience in their day-to-day lives, the enormous appeal of media should be harnessed to present a relevant, interesting and multifaceted approach to the topic in school. If such curricula can effectively challenge media models in which conflict is met with aggression and encourage among young people a more peaceful approach to conflict, they deserve a place in the classroom." Meanwhile Galan (2011), while talking about the spirals of peace which approaches an education model proposed for the contribution of the construction of peace and intercultural understanding, points out that through media education, audiences could be more critical and less vulnerable facing communication used to promote violence. Arguing on the need to link to media literacy, education with strategies to achieve violence prevention, conflict transformation, peacebuilding or intercultural understanding, he underscores the determinant role that communication and education plays to provide young people with tools to become critical in order to construct future societies.

Galan (2011) further notes that learning for peace, human rights and intercultural violence would not be effective enough if it is not complemented with media and information literacy as the population is continuously exposed to media messages and to a wide range of spirals of cultural violence.

Furthermore, Nagaraj and Kundu (2013) argue for a framework of media and information literacy which could help facilitate dialogue between diverse communities, further positive engagement in conflict situations, promote a culture of peace and, most importantly, facilitate sustainable development in culturally diverse countries like India. They use the perspectives of Gandhian, Natwar Thakkar on the centrality of emotional bridge-building and mutual respect in the communication praxis of India to argue their case for the framework (2013).

With the arguments of Cantor and Wilson (2003), Scharrer (2009), Galan (2011) and Nagaraj & Kundu (2013) as the foundation for integrating principles of non-violence and non-violent communication in media literacy programmes, this chapter will specifically look at the Gandhian model. Using findings from training programmes on media literacy with a thrust on communication against violence from different cities in India, the chapter will try to contribute towards a framework of Gandhian non-violent communication that can be integrated in media literacy education with an aim to contribute towards a culture of peace and intercultural dialogue.

The Gandhian Model of Non-violent Communication

Bode (1995) captures Mahatma Gandhi's Non-violent Communication theory as having four theoretical units: (1) non-violent speech and action; (2) maintenance of relationships and enrichment of personhood; (3) openness; and (4) flexibility.

According to Bode (1995):

For Gandhi, the goal of communication was to build and maintain human relationships and thus enhance personhood. Gandhi's insistence on non-violence recognized the importance of others, valued humanity, and appreciated the importance of human relationships and personhood ... Gandhi's non-violent communication theory included the valuing of personhood throughout the world, but he also stressed the importance of individual relationships and friendships. ... Openness was manifested in Gandhi's rhetoric and is a characteristic of his non-violent communication theory. For Gandhi, openness included communication practices such as free speech and press, public discussion, and direct negotiation.

In the context of how media today can be used as a tool to incite violence and passion, Gandhi's ideas of restraint and not be an instrument to excite passion needs to be a lesson to be incorporated in media literacy programmes. He had said, "To be true to my faith, therefore, I may not write in anger or malice. I may not write idly. I may not write merely to excite passion. The reader can have no idea of the restraint I have to exercise from week to week in the choice of topics and my vocabulary. It is training for me." (Gandhi, 1925).

Gonsalves (2010) explains Gandhi's verbal output as the fruit of an overwhelming desire to communicate, to engage in dialogue, to express himself and to stay in touch with people. He writes, "Gandhi's adherence to truth in communication was best seen in the way he managed conflicts."

Gonsalves (2010) further writes, "From start to finish, the underlying principle of Gandhian engagement with an opponent in a conflict is to keep the channels of communication open, to avoid intimidation and to remove all obstacles to dialogue ... Gandhi's integrity and communication management skills ensured that he was able to make his message reach places far beyond the influence of newspapers, telegraph, the radio and rail-road transportation."

Gandhi's approach of openness, truthfulness, flexibility and stress on dialogue in communication was in sync with his stress on the importance of cultural diversity. At a time when there is a global push to enhance intercultural dialogue for peace, Gandhi's perspective holds relevance. He had said, "I do not want my house to be walled in on all sides and my windows to be stuffed. I want the cultures of all lands to be blown about my house as freely as possible." He had further noted, "Nothing can be farther from my thought than that we should become exclusive or erect barriers." (Prabhu and Rao, 1967).

Senior Gandhian, Natwar Thakkar uses Gandhi's model of non-violent communication to advocate for values of pluralism, mutual respect and inclusivity. He says the communication praxis should encompass not only deep understanding of each other's culture and tradition but also do the work of emotional bridge building thereby connecting people of diverse cultures (Nagaraj & Kundu, 2013).

Thakkar observes unless pluralism, compassion and mutual respect becomes central to one's communicative abilities, one cannot reach out to diverse communities. These, he opines, has to be part of any communication messages, be it person-to-person, the mass media or the social media. (Nagaraj and Kundu, 2013).

Tornero and Varis's (2010) perspectives on the new objectives of media literacy in the twenty-first century echoes Gandhi's model of non-violent communication and in turn underlines the significance of linking media literacy education to peace. These objectives include: a) capacity for listening, namely for understanding, for talking; b) tolerance; c) respect for diversity; and d) ethics. They further note that the creation of a culture of peace and peaceful understanding between communities and people must be the ultimate value for media literacy.

Findings of Training Workshops on Media Literacy based on the Gandhian model of Non-violent Communication

To study the possibilities of integrating the Gandhian model of non-violent communication in media literacy programmes so as to develop and enhance learning in peace and non-violence, The Peace Gong¹ bureaux in Bhopal (Madhya Pradesh); Waynad (Kerala); Shantiniketan (Bengal); Jhansi (Uttar Pradesh); and Srinagar (Jammu & Kashmir) organized week-long workshops for children and youth. As the majority of the members of The Peace Gong team are girls, the participants were mostly young women. About 20-25 participants took part in each workshop.

The workshop content included: a) exposition to Gandhi's model of non-violent communication; b) analysis of different media reports – print and television; c) deconstruction of the film, Gandhi by Richard Attenborough; d) sharing of ideas on non-violent communication among the participants of all the bureaux through The Peace Gong WhatsApp group; e) as media literacy entails construction of own media messages, a few bureaux developed media products like a short film on peace and comic strips.

Learning from the workshops can be encapsulated by the views of The Peace Gong Editor, Noopur Soni, a student of Class XI from Jhansi. At the end of the workshop she observed:

Non-violent communication teaches us to be compassionate and also to develop inner peace. Children should nurture the art and science of non-violent communication right from a young age so that they can develop relationships based on mutual respect and empathy. Mahatma Gandhi has shown us the importance of dialogue and openness with our opponents even during conflicts. His approach also teaches us to practice self-restraint in our communication. These should be practiced in our daily lives. His model tells us how to develop communication with people from different cultures, class, creed and faith. By practicing non-violent communication we can explore alternatives to violence portrayed by today's media. As Peace Communicators, it should be our responsibility to contribute towards a global non-violent planet.

The following are some of the broad findings that evolved out of the workshops in different cities during May-June, 2017:

The Peace Gong Bhopal team analysed non-violent movements of Gandhi, King and Mandela. According to some of the participants like Simran Gupta, Ayushi Sinha and Kavya Singh and Gurnihal Singh, "To ensure students understand on how to use media literacy for peace and non-violence, the curriculum should encourage study of different peace and non-violent movements and the communication strategies they used." The Bhopal team felt that by analysing peace movements and their communication strategies, students could use these approaches to resolve conflicts.

As an outcome of the workshop, the Bhopal team made a five-minute film, Aakhri Khat – The Inner Moorings of a Soldier (https://youtu.be/1qDdK4R2vVY). It was written, directed and acted by the students themselves. Kanupriya Gupta, the former Peace Gong Editor talks about the film: "The film is about how the struggles of soldiers all around the world are identical. They fight for peace and war takes away peace from their lives and the lives of their family. The world is segregated with borders. We may be different but that doesn't mean we should be indifferent. We should help each other grow and be united in our diversities. War and conflicts are no options, only non-violence can make the world beautiful in all sense."

Notwithstanding the fact that violence in the media has become extremely pervasive, the participants at the workshops felt the first step is to go beyond the idea that only violent behavior is an effect of violence in the media. It was observed that the important effect is how violence in media may colonize our assumptions about violence and human nature in general, making us far more tolerant of violence in society, if not oblivious to it altogether. As part of media literacy and peace programmes, it was felt students should do exercises to unpack their assumptions about violence and learn to recognize it (war, against women, against one's own self, against animals/nature, in "thought, word and deed" etc.). They should be introduced to seminal texts on non-violence, like for instance Bhikhu Parekh's discussion of Gandhi's critique of modernity in his book, Gandhi: A Very Short Introduction. For instance, in the chapter on "Critique of Modernity", Bhikhu Parekh (1997) explains how, for Gandhi, modern civilization neglected the soul, privileged the body, misunderstood the nature and limits of reason, and had no appreciation of the person's psychological and moral constitution.

The workshops underscored that the essence of media literacy programmes should be furtherance of non-violent communication in all aspects of life. Through the analysis of different media clippings and films it was felt how a very large number of children and young people pick up expressions and language from films and media which can block compassion, empathy and sensitivity towards others. From the work of Gandhi, the importance of self-restraint and avoidance of poisonous communication was stressed. Pooja Raj, a Pharmacy student of Waynad observed, "At a time when we find so much of hate speech and intolerance being portrayed freely in the media, it is critical that communicators and media persons learn how to exercise self-restraint."

The participants deconstructed the film, Gandhi to analyse the non-violent action as portrayed in the film. A few violent films were also deconstructed. Through these exercises, participants in Shantiniketan, Waynad and Bhopal came up with broad parameters for deconstructing television shows and films which could develop a better understanding of the phenomenon of violence:

- Does the character remind them of someone in real life?
- What was the problem or conflict in the story?
- How was the conflict resolved?
- Would these solutions work in real life?
- How do the students think victims feel?
- Did the television/film version of violence leave anything out?
- What would happen if people would do it in real life?
- In what way could the problem have been solved without anyone getting hurt?
- Did the characters think about alternatives before becoming violent?
- How would you have solved the same conflict had you been in the same situation?
- How do you think a peace apostle like Gandhi or King would have solved the same conflict?

During the workshops it was felt that not only media can endorse biases and prejudices, it can also be used for portraying normalization of violence. In this context, participants like Bakul, Anirban and Saugata (all pursuing post-graduation in Mass Communication, Visva Bharati University; Shailendra and Shikha (school students from Jhansi), Roshan, Aparna and Jagath (Waynad) and Munazah Shah (Jammu and Kashmir) stressed the need of media-literacy programmes to teach children and young people to be peace communicators and peace journalists. The Jhansi team put together a series of articles on non-violent communication by talking to a cross section of society. To be better peace communicators, it was felt that students could be trained to do discourse analysis of conflicts in news media, television and films. Simultaneously they should be shown clippings of speeches of the peace apostles and be encouraged to analyse the language used by these apostles. This will provide the space for critical reflection.

Aritri Chatterjee (student of Visva Bharati University, Bengal) argued the importance of integrating the art of dialogues in media literacy programmes. She and students like Hadiya, Ayesha and Junaid (school students from Jammu and Kashmir) discussed how they developed listening skills, "From the workshops we could gather that for dialogues we will have to develop empathetic listening skills. This can help to build trust and respect, reduce tensions and encourage information to come up for discussion. Through dialogues people can share their own views and listen to differing views, thus gradually moving towards a deeper understanding of the situation, thereby laying the foundation to resolve conflicts." In this context, Ikeda (2007) has stressed the essence of open dialogue to "transform relationships between civilizations that are characterized by dissonance and tension into peaceful, constructive encounters".

As an experiment, the participants of Waynad engaged in a dialogue with participants of Jhansi on mutual coexistence for peace on the occasion of World Environment Day using Skype.

Natwar Thakkar's perspective on emotional bridge-building in the communication praxis (Nagaraj and Kundu, 2013) was an important element that was discussed during the workshop. The participants experimented with how language and choice of words were the key in the construction of media messages for emotional bridge-building.

Conclusion

The ideas and approaches which emerged during the media literacy workshops provide the foundation of integrating the Gandhian model of non-violent communication in media literacy programmes. Right from construction of media messages to deconstruction and analysis of communication messages, there was a felt need to integrate the model along with approaches of other peace apostles like King and Ikeda in different dimensions of media literacy programmes. In the backdrop of increasing polarization and hate speech being witnessed in different parts of the world, there is an emergent need to promote a Media Literacy programme against violence. Some key points which could be part of such a programme can be encapsulated as under:

- Media Literacy programmes against violence should be able to enhance open and true dialogue thereby facilitating mutual respect, tolerance, active listening skills, justice and equality. This will also help in promoting dialogue between people from different cultures, creeds and faiths. Linked to this is training to construct messages which promote emotional bridge-building in all communication processes.
- 2. The essence of media literacy programmes should be the furtherance of non-vioolent communication in all aspects of life. The centrality of Gandhi's non-violent communication theory was highlighted in all the workshops. Also ideas of other peace apostles like King, Mandela and Ikeda was discussed for promotion of non-violent communication.
- 3. Analysis of different non-violent movements and their communication strategies is important. Elements of critical communication planning should be integrated in media literacy programmes so that students understand how to use non-violent communication strategies for social causes and contribute towards a culture of peace.
- 4. Importance of media literacy in reasoning, dispelling of stereotypes and prejudices and critical reflection on conflicts and reasons for conflicts.
- 5. Develop a better understanding of the link between media and a conflict-free society.
- 6. The grounding of media literacy education for the promotion of humanhood and the development of human relationships.

Notes

1. The Peace Gong is a child media platform of the Gurudev Rabindranath Tagore Foundation, New Delhi, which tries to engage young people through a non-violent media literacy programme. http://thepeacegong.org/our-journey/.

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UNESCO Chair on Media and Information Literacy for Quality Journalism

The Autonomous University of Barcelona (UAB), 2018

The focal objective of the Chair is to foster quality journalism mainly through contributing to the promotion of news literacy, empowerment and quality information. It mainly focuses on expanding and improving media and information literacy, one of UNESCO's priorities in the Communication and Information Sector.

Given the growing multiplicity and variability of information sources fed by different phenomena such as big data (data based journalism), complex mobile communication devices (mobile, citizen journalism and blogging), information consumption (increased navigation, information creation and consumption due to mobile use, better connections and Wi-Fi), along with associated factors such as increased disinformation, misinformation and mistrust of media and journalism, enhancing critical thinking and citizens' knowledge are continuously set as priorities for more active citizenship and improved participation in the public and private sphere. Accordingly, achieving higher trust in reliable media and supporting the appreciation of quality journalism are of great importance. These come as essential dimensions of media and information literacy that require deeper attention.

Specific Objectives:

- Promote MIL for quality journalism in a changing communication and information landscape (sharing MIL's impact on journalism's best practices, ethics, media trust, engaged audiences, etc.)
- Enhance the role of MIL in preparing critical citizens who can identify reliable media.
- Reflect on current trends in journalism to identify lines of action and research issues; specifically the potential role of MIL in this area
- Establish strategies to cooperate with libraries and strengthen current agreements with information providers and disseminators.

http://www.qualityjournalismchair.info/es/

The Arab Academy for Science, Technology and Maritime Transport, Egypt 1972

The Arab Academy for Science, Technology and Maritime Transport (AASTMT), established in 1972 as a non-profit organization, is one of the League of Arab States' specialized organizations. AASTMT has as its main mission "Contributing to the social and economic development of the Arab region by offering distinguished Change Agents who have been qualified through comprehensive educational programs, high caliber faculty, and centers of excellence in research, training and consultancies while strictly committed to the highest levels of Quality". Since its establishment, for more than 45 years, the AASTMT has provided a multiplicity of educational opportunities to students from more than 59 Arab, African, Asian and European countries.

http://www.aast.edu/en/index.php

The UNESCO UNITWIN Cooperation Programme on Media and Information Literacy and Intercultural Dialogue (MILID) is based on an initiative from the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the UN Alliance of Civilizations (UNAOC). This Network was created in line with UNESCO's mission and objectives, as well as the mandate of UNAOC, to serve as a catalyst and facilitator helping to give impetus to innovative projects aimed at reducing polarization among nations and cultures through mutual partnerships.

This UNITWIN Network is composed of universities from different geographical areas: Autonomous University of Barcelona (Spain), University of the West Indies (Jamaica), Cairo University (Egypt), University of Sao Paulo (Brazil), Temple University (USA), Tsinghua University (China), Moulay Ismail University (Morocco), Sidi Mohamed Ben Abdellah University (Morocco), University of Guadalajara (Mexico), Western University (Canada), University of Gothenburg (Sweden), Sorbonne Nouvelle University (France), Punjabi University, Patiala (India), University of the South Pacific (Fiji), University of South Africa (South Africa), Nnamdi Azikiwe University (Nigeria), Ahmadu Bello University (Nigeria), Lagos State University (Nigeria), University of Jors (Nigeria), University of Calabar (Nigeria), Hosei University (Japan), University of Latvia (Latvia), Moscow Pedagogical State University (Russia), Unified National Higher Education Corporation (Colombia), Vytautas Magnus University (Lithuania), and MICA (India).

The main objectives of the Network are to foster collaboration among member universities, to build capacity in each of the countries in order to empower them to advance media and information literacy and intercultural dialogue, and to promote freedom of speech, freedom of information and the free flow of ideas and knowledge.

Specific objectives include acting as an observatory for the role of media and information literacy (MIL) in promoting civic participation, democracy and development as well as enhancing intercultural and cooperative research on MIL. The programme also aims at promoting global actions related to MIL and intercultural dialogue.

In such a context, a MILID Yearbook series is an important initiative. This MILID Yearbook is a result of a collaboration between UNESCO UNITWIN Cooperation Programme on Media and Information Literacy and Intercultural Dialogue, UNESCO Chair on Media and Information Literacy for Quality Journalism, the Autonomous University of Barcelona (UAB) and the Arab Academy for Science, Technology and Maritime Transport, Egypt.







UAB Universitat Autònoma de Barcelona UNESCO Chair on M for Quality Journalism



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