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Level of Online Media Literacy of Collegiate Students: Basis for a Proposed Curriculum Enhancement Program

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Abstract. As early as the 2000s, the growing demand to integrate digital skills as competencies into the curriculum has been widely advocated by media scholars (Hobbs, 2009; Hobbs & Jensen, 2013; Bautista, 2021). Among these digital skills is online media literacy, which, according to Hallaq (2016), impacts students' acquisition of knowledge. Media literacy is defined as "the ability to access, analyze, evaluate, and create messages across a variety of contexts" (Livingstone, 2004). The five components of online media literacy formulated by Hallaq (2016) used in this study are ethical awareness, media access, media awareness, media evaluation, and media production. This study aimed to assess the level of online media literacy of Centro Escolar University-Makati students based on Hallaq's Digital Online Media Literacy Assessment (DOMLA). Using convenience sampling, 374 college students participated in the survey. Data collected were analyzed using statistical tools such as frequency, weighted mean, and the Kruskal-Wallis Test. The findings revealed that the students are slightly online media literate. Specifically, they are literate in ethical awareness and media awareness. The results also indicated no significant difference in the level of online media literacy across different ages and year levels, suggesting that media literacy is consistently moderate across different demographics. The study recommends a contextualized and interactive digital media literacy curriculum in college, which could either be separate and independent or integrated into various general education and professional subjects. Additionally, universities are encouraged to adopt the Vowel Approach in Online Media Literacy (awareness, education, integration, optimization, and utilization) formulated by the researchers.

Keywords: Online media literacy; Digital skills; Curriculum.

1.0 Introduction

In the present era, people live in a world that is saturated with media of all kinds (Vinney, 2023), extending its reach far and wide. This content saturation influences how people think and act, how they perceive the world, how they shape their opinions, and even how they change their behaviors. In such a media-rich environment, it is important to note that individuals who consume media must explore this complicated nature of information, i.e. discerning fact from fiction, getting details only from credible sources, producing quality content for public consumption, incorporating proper contexts in media products, among others.

The pervasive availability of media has resulted in its easy access, leading to media consumption. Media consumption is not just about listening, reading, browsing, and watching contents available on different media platforms such as social media, online media, print media, and broadcast media (TV and radio), but more importantly it is about applying critical and analytical thinking skills, i.e. how media consumers use the information they acquire from different media platforms.

This is where the concept of media literacy becomes relevant and necessary.

With the advent of digital technology, schools are advised to strengthen the need for the integration of technology and media into the curriculum. Likewise, the addition of digital skills as competencies is also encouraged. One of these digital skills is online media literacy among students. According to Hallaq (2016), the level of media literacy affects students' acquisition of knowledge. That is why it is very essential that media literacy becomes part of the curriculum enhancement.

Media literacy is defined as "the ability to access, analyze, evaluate, and create messages across a variety of contexts (Livingstone, 2004)." The four components of media literacy are "access, analysis, evaluation, and content creation (Livingstone, 2004)." Access refers to the opportunities for using media tools such as updating, upgrading, and extending hardware and software applications. Meanwhile, analysis means the ability to read and understand the conditions and possibilities of the media as tools. Evaluation is the ability to sense and distinguish facts and information that are reliable or not. Lastly, content creation means producing symbolic text, video, audio, and graphics in order for people to attain a deeper understanding of the conventions and merits of professionally produced material.

In 1997, Wulff (as cited in Schmidt, 2012) divided media categories of competencies into three: learning about media use, learning about media creation, and learning about media analysis. At present, ethical awareness is now incorporated into the categories.

Furthermore, media literacy is generally understood as an informed, critical understanding of the prevalent mass media, and it involves examining the techniques, technologies, and institutions involved in media production; being able to critically analyze media messages, and recognizing the role audiences play in making meaning from those messages. It is a kind of expanded information and communication skill that is responsive to the changing nature of information in our society. It addresses the skills students need to be taught in colleges and universities, the competencies citizens must have as they consume information in their homes and living rooms, and the abilities workers must have to understand the 21st-century challenges of a global economy.

The purpose of media literacy is "to help people use media intelligently, to discriminate and evaluate media content, to critically dissect media forms, to investigate media effects and uses, and to construct alternative media" (Kellner & Share, 2005) and includes the ability to "access, analyze, evaluate and produce communication in a variety of media forms" (Aufderheide, 1993).

The European Commission (EC) defines media literacy as "the ability to access the media, to understand and critically evaluate different aspects of the media and media content and to create communications in a variety of contexts."

In a Portuguese study conducted by Pereira et al. (2015) and Pereira and Moura (2019), they sought to assess levels of media literacy competence as adopted the European Council definition. In Pereira's latest study (2022), it explained that media literacy has three core elements, comprising: (1) the access to media and the capacity to use them; (2) the critical evaluation, understanding and analysis of the media and its contents; and (3) the capacity to engage in practices of mediatized participation and production.

In line with the important purpose of having a media-literate community, it is hoped that schools devise ways how to integrate digital skills, particularly online media literacy, into the curriculum. This way, students will be able to exhibit lifelong empowerment through media literacy.

Hobbs and Jensen (2013) identified two issues for the potential of media literacy to the future of the field of education: (1) media literacy's relationship to the integration of educational technology into the K-12 curriculum and (2) the relationship between media literacy education and the humanities, arts, and sciences.

As society is rapidly becoming an information-driven economy, students, being future leaders, must be equipped with a broader body of skills essential for success in the 21st century. Hence, basic education schools and higher

education institutions should heed the call for the transformation of its educational experience aimed at improving the learning environment for all students by integrating emergent technologies with the curriculum and into school facilities.

A good test of how university-level students possess the necessary level of online media literacy was shown at the height of the COVID-19 pandemic. It forced Philippine educational institutions to shift from traditional learning setup to online learning setup. Despite the seemingly insufficient digital and technological infrastructure in the country, as the World Bank stated, the schools still continued the academic year with the hope that they can still deliver the quality instruction that is due to the students. Educational institutions were forced to maximize the full potential of mobile learning applications, wireless access, open digital materials, and online learning resources in the teaching-learning process.

However, the problem lies in the use of these resources and materials to aid the students' independent study. During such uncertain times, did students effectively use media technologies to meet their needs and interests? Did they access and make informed choices about a wide range of media forms and content from different cultural and institutional sources? Did they understand how and why media content is produced? Did they critically analyze the techniques, languages, and conventions used by the media and the messages they convey? Did they creatively use the media to express and communicate ideas, information, and opinions? Did they identify, avoid, and/or challenge, media content, and services that may be unsolicited, offensive, or harmful?

Media literacy should not be treated as an isolated or independent skill. On the contrary, it is a skill that involves and encompasses other skills and forms of literacy: reading and writing literacy, audiovisual literacy (often referred to as image or visual literacy), and digital or information literacy.

The relevance of media literacy in the field of curriculum studies is increasingly becoming important. The reason is that knowledge is now, primarily, transferred through different digital technologies.

Individuals who are media literate are able to engage and participate at every level of public life, from social networking to e-Government. Individuals who are not equipped with these skills are left isolated and vulnerable. It plays a key role in advancing the collective intelligence of a population – engendering cultural and educational participation to enable not only social development but also economic progress and competitiveness of the internal and international markets (medialiteracyweek.us, n.d.).

Moreover, Kafai, Fields, and Searle (2018), as cited in Rasi, Vuojärvi, and Ruokamo (2019), an educational research approach to media literacy is focused on the production of various digital media and becoming literate in the 21st century. To be digitally literate, an individual must understand how to (a) access digital media; (b) navigate digital media; (c) read digital media; (d) create digital media (Baron, 2019; as cited in Rasi, Vuojärvi, and Ruokamo, 2019).

The present study aimed to assess the level of online media literacy of CEU Makati students based on Hallaq's Digital Online Media Literacy Assessment (DOMLA) (2016). Specifically, it sought to answer the profile of the respondents, the level of online media literacy of the participant in terms of ethical awareness, media access, media awareness, media evaluation, and media production. It also determined if there is a significant difference between the level of online media literacy of the students and their age and year level. After the analysis of the results, the researcher proposed a curriculum enhancement plan.

2.0 Methodology

2.1 Research Design

A quantitative method of research was employed in the study in order to better understand how digital online media can and should be used within a teaching/learning environment at the university. Specifically, the researchers used comparative and correlational methods in determining the level of online media literacy skills of CEU Makati students and their relationships with their profile.

2.2 Research Participants
A total of 374 CEU Makati students participated in the study, using convenience sampling due to some mobility restrictions brought about by the COVID-19 pandemic.

2.3 Research Instrument
The researcher used the instrument, Digital Online Media Literacy Assessment (DOMLA), formulated and developed by Tom Hallaq of Kansas State University. Permission from Hallaq was secured before the distribution of the questionnaire. The questionnaire has 50 statements pertaining to the students' online media literacy skills. It also has 5 constructs, namely ethical awareness, media access, media awareness, media evaluation, and media production.

2.4 Data Gathering Procedure
Upon defending the proposal and receiving the approval and consent from the researcher's professor in Seminar in Fieldwork and Research, a subject offered in Doctor of Education major in Curriculum and Supervision program at the CEU Graduate School, the researcher sent an email letter to the Vice President for CEU Makati and Dean of Studies to conduct the study online. The same was approved by the Vice President. Students were randomly chosen to participate in the study. The researcher collected data by sending the modified questionnaire to the students through Google Forms. Following this, the answers from the Google Form were encoded for statistical analysis.

2.5 Data Analysis
The following statistical tools were used in interpreting and analyzing the data:
1. The percentage was employed to determine the total respondents as to their profile.
2. The mean was used in determining the level of online media literacy of CEU Makati students.
3. The Kruskal-Wallis Test was also utilized to determine the significant difference between the respondents' profiles (age and year level) and the level of online media literacy.

3.0 Results and Discussion
3.1 Profile of the Respondents

Table 1. Age of the respondents

Age	Frequency	Percentage
17-20 years old	183	48.9
21-23 years old	169	45.2
24-27 years old	17	4.50
28 and above	5	1.30
Total	**374**	**100**

Table 1 shows the age distribution of the respondents, i.e. 183 out of 374 respondents or 48.9 percent are aged between 17-20 years old, followed by the age group, 21-23 years old, with 169 or 45.2 percent. These age groups make up 94.1 percent of the total respondents. They are one of the first batches of the Philippine Government's K-12 program, a 12-year basic education program, that instituted the stand-alone subject Media and Information Literacy (MIL) taken in Grade 11. This indicates a generational familiarity and exposure to contemporary educational reforms. The prevalence of this age group underscores the importance of understanding their online media literacy skills, given their status as digital natives who have grown up immersed in digital technologies and online media platforms (Prensky, 2001). He added the students today are all "native speakers" of the digital language of computers, video games, and the Internet.

Table 2. Gender of the respondents

Gender	Frequency	Percentage
Male	89	23.8
Female	264	70.6
LGBTQIA+	21	5.60
Total	374	100.0

Table 2 presents the gender profile of the respondents. It shows that CEU is a female-dominated university, comprising 70.6 percent of the total number of respondents, while only 23.8 percent comprises male students.

There were about 21 students or 5.6 percent who identified themselves as part of the LGBTQIA+. This gender composition mirrors broader trends in higher education, where female enrollment has surpassed male enrollment in many countries, including the Philippines. The significant representation of female students in this study highlights the importance of taking into consideration gender dynamics in understanding online media literacy skills, as research suggests variations in digital engagement and media consumption patterns between genders (Livingstone & Helsper, 2007).

Table 3. Course/Program of the respondents

Course/Program	Frequency	Percentage
Dentistry	66	17.6
International Hospitality Management (HRM and Tourism)	81	21.7
Medical Technology	76	20.3
Accountancy and Management	61	16.3
Pharmacy	47	12.6
Nursing	43	11.5
Total	374	100.0

The distribution of respondents across different courses/programs provides insight into the academic landscape of CEU Makati. It can be gleaned from Table 3 that the International Hospitality Management programs, comprising Hotel and Restaurant Management and Tourism Management, has the highest number of respondents with 81 or 21.7 percent, emerging as the most represented discipline. This is followed by Medical Technology at 76 or 20.3 percent, Dentistry at 66 or 17.6 percent, Accountancy and Management at 61 or 16.3 percent, Pharmacy at 47 or 12.6 percent, and Nursing at 43 or 11.5 percent. CEU is known for its science and allied health programs; this is why 62 percent comprises the total number of respondents. Understanding the distribution of respondents across different programs is crucial for tailoring interventions and curriculum enhancements to meet the specific needs and challenges faced by students in various academic disciplines.

Table 4. Year level of the respondents

Year Level	Frequency	Percentage
First Year	90	24.1
Second Year	103	27.5
Third Year	159	42.5
Fourth Year	6	1.60
Fifth Year	3	0.80
Sixth Year	13	3.50
Total	374	100.0

Table 4 shows the Year Level distribution of the respondents. Out of 374 students, 159 (42.5 percent) are already in their third year of college, while 103 (27.5 percent) are in their second year. This is followed by the First Year students at 24.1 percent, Sixth Year at 3.5 percent, Fourth Year at 1.6 percent, and Fifth Year at 0.8 percent. This set of data reflects a normal academic trajectory, in which students progress through sequential levels of undergraduate education, with larger population in earlier years and smaller in higher years.

Table 5. Media engagement of the respondents

Media Engagement	Frequency	Percentage
0-3 hours a day	22	5.90
3-6 hours a day	81	21.7
6-9 hours a day	91	24.3
9-12 hours a day	85	22.7
12-15 hours a day	50	13.4
15-18 hours a day	29	7.80
18-21 hours a day	9	2.40
22 hours and above a day	7	1.90
Total	374	100.0

Table 5 shows the media engagement or the number of hours spent by the participants online. On average, they spend 6-9 hours online, comprising 91 or 24.3 percent. This is followed by 9-12 hours at 22.7 percent, 3-6 hours at 21.7 percent, 12-15 hours at 13.4 percent, 15-18 hours at 7.8 percent, 0-3 hours at 5.9 percent, 18-21 hours at 2.4 percent, and 22 hours and above at 1.9 percent. In a report by New York-based agency We Are Social and social media management firm Hootsuite in 2022, the amount of time people across the world spend online has surged

remarkably in the wake of the COVID-19 pandemic. These agencies found that across all devices, the average Internet user aged 16 to 64 spends six hours and 58 minutes online per day. This confirms the 6-9 hours a day of media engagement of the students. One factor that contributed to the surge is the daily conduct of online classes by the students. The unprecedented transition to remote learning and increased reliance on digital technologies have likely contributed to this uptick in online engagement, as students adapt to virtual classrooms and utilize online resources for academic purposes.

It is crucial for curriculum developers to determine the media engagement habits of the students to tailor the teaching strategies and support mechanisms effectively in the curriculum. As students spend significant portions of their day online, there is a need to promote digital well-being, balance screen time with offline activities, and foster critical media literacy skills to navigate the digital landscape responsibly.

3.2 Online Media Literacy of CEU Makati Students

In terms of Ethical Awareness

Table 6. Descriptive statistics of the ethical awareness of the respondents

Indicators		Mean	SD	Interpretation
1.	I usually try to know something about the business practices of online companies from which I purchase goods.	4.52	1.196	Agree
2.	I am aware that sharing files of music that I have purchased is not legal.	4.71	1.363	Agree
3.	I am aware of my school's policies about downloading digital files.	4.87	1.156	Agree
4.	I have a personal responsibility to gather information about how to properly use media tools.	5.33	0.852	Agree
5.	I can intelligently discuss the ethical considerations of using social media in the academic environment.	4.74	1.000	Agree
6.	Using pictures from the Internet for personal projects is appropriate as long as I don't make money from them.	4.24	1.385	Somewhat Agree
7.	If I post copyrighted material on a website hosted by a larger company (i.e. YouTube), that company shares legal responsibility for any copyright violation.	4.68	1.256	Agree
8.	I am confident in my ability to update my computer's virus protection software.	4.24	1.449	Somewhat Agree
9.	I am careful to be sure that my passwords for online banking do not include information that can be found in my online profiles on Internet sites such as Facebook, LinkedIn, or other easily accessible sites.	5.51	0.831	Strongly Agree
10.	For this question, mark the "agree" checkbox.	5.09	0.777	Agree
Overall Mean		**4.79**	**0.602**	**Agree**

Table 6 shows that the respondents generally agree in terms of their online media literacy in ethical awareness, obtaining a total mean of 4.79. Of the 10 statements on ethical awareness, the statement "I am careful to be sure that my passwords for online banking do not include information that can be found in my online profiles on Internet sites such as Facebook, Linkedin, or other easily accessible sites" obtained the highest mean, which is 5.51 with a verbal interpretation of "strongly agree". This is followed by the statement "I have a personal responsibility to gather information about how to properly use media tools," which obtained 5.33 weighted mean with a verbal interpretation of "agree".

The results speak highly of the CEU Makati students' sense of ethics even online. That despite the ongoing pandemic, following the basic tenets of ethics should still be the norm. The importance of ethical awareness in digital media cannot be overemphasized, especially since the increasing use of online media tools is accompanied by privacy issues and ethical concerns. These include copyright issues, academic theft, ethical considerations of using social media in the academic environment, the school's policies about downloading digital files from its learning management systems, and the like.

With an overall mean score of 4.79, indicating agreement, the findings suggest that students perceive themselves as being media literate in terms of ethical considerations. This aligns with previous research indicating a growing awareness among young adults regarding the importance of ethical behavior in online environments (Adenekan & Lala, 2022). They further stated that there was a high level of ethical behavior exhibited by college students in one university in Nigeria because of the students' well-versed use and conduct on social media. This connotes that students are now well aware of the dangers of over indulging in social media.

The study further highlights specific areas of strong agreement among respondents, such as the careful management of online banking passwords and the recognition of personal responsibility in acquiring information about media tools. These findings resonate with the study of Saikrishnan (2023), emphasizing the protection of personal data and digital well-being as a fundamental imperative in a world where digital interactions have become integral to everyday life. Moreover, the relevance of ethical awareness in the context of digital media, particularly amid the ongoing pandemic, is paramount. Despite the challenges posed by remote learning and increased reliance on online platforms, CEU Makati students demonstrate a commitment to upholding ethical standards, reflecting a resilient and adaptable approach to digital media usage. The importance of ethical considerations in digital communication and the need for educational interventions to promote responsible online behavior have to be taken into consideration in crafting online media literacy curriculum.

In terms of Media Access

Table 7. Descriptive statistics of the media access of the respondents

Indicators	Mean	SD	Interpretation
1. I am confident in my ability to succeed in a fully online class.	3.90	1.461	Somewhat Agree
2. I get most of my information from the Internet.	4.83	1.119	Agree
3. I regularly log in to several social media sites (i.e. Facebook, Twitter, Pinterest, etc.).	5.09	1.250	Agree
4. I access social media sites through a variety of devices (i.e. laptop, tablet, iPod, smartphone, etc.).	5.37	0.922	Agree
5. I usually spend 12 hours or more per week on the Internet - outside of school or work.	4.90	1.302	Agree
6. When I use my computer, I have several different browser windows open at the same time.	4.90	1.355	Agree
7. I prefer online vs. traditional classroom-based education.	2.35	1.578	Disagree
8. I am confident in my ability to adapt to changes in teaching and learning technology.	4.54	1.175	Agree
9. I have the ability to block contact from specific individuals or content on my social networking sites.	5.17	1.038	Agree
10. For this question, mark the 'disagree' check box.	2.19	1.220	Disagree
Overall Mean	**4.32**	**0.638**	**Somewhat Agree**

Table 7 sheds light on the media access patterns and attitudes and online media behaviors and preferences of CEU Makati students. Seven (7) out of the 10 statements on media access were agreed upon by the participants. However, the overall mean of media access is 4.325, which means that they slightly agree in terms of their media literacy on media access.

The statement "I access social media sites through a variety of devices (i.e. laptop, tablet, iPod, smartphone, etc.)" obtained the highest mean, which is 5.37, followed by the statement "I have the ability to block contact from specific individuals or content on my social networking sites" with a mean of 5.17. They also agree that they regularly log in to several social media sites (i.e. Facebook, Twitter, Pinterest, etc.) with a mean of 5.09.

The high mean scores across statements such as accessing social media through various devices, having the ability to block contact or content on social media sites, and regularly logging in emphasize the nuanced nature of digital inclusion among young people (Livingstone & Helsper, 2007). This further amplifies that CEU Makati students are actively engaged in digital spaces and skilled in using different digital tools to access online content. Moreover, the results indicate a significant level of engagement with various digital platforms and technologies among college students, especially exacerbated by the pandemic.

However, notable is the strong disagreement with online-based education by CEU Makati students, having obtained a mean of 2.35. This is complemented by their slight agreement (a mean of 3.90) on their confidence to succeed in a fully online class. The discrepancy in attitudes towards online-based education, as evidenced by the strong preference for traditional classroom-based learning over online modalities, echoes with the findings from Selwyn's (2012) critical analysis of schooling in the digital age. While students demonstrate confidence in their ability to adapt to changes in teaching and learning technology, their hesitation towards online education underscores the complex interplay between digital technologies and educational preferences.

Moreover, the overall mean score indicating a moderate level of agreement regarding media access resonates with insights from Boyd (2014) regarding teenagers' engagement with social media and digital platforms. CEU Makati students' familiarity with digital media tools and their ability to access online content without censorship reflect key aspects of media literacy, as highlighted by Buckingham (2005) in his review of research literature on children and young people's media literacy skills.

In terms of Media Awareness

Table 8. Descriptive statistics of the media awareness of the respondents

Indicators		Mean	SD	Interpretation
1.	I feel competent in my ability to save money by shopping online.	4.21	1.356	Somewhat Agree
2.	I am familiar with media file formats such as jpeg, Avi, and mp3.	5.30	0.936	Agree
3.	I like to learn new things about other cultures through online activities (i.e. surfing the Internet, playing online games, participating in online communities or forums, etc.).	5.20	0.939	Agree
4.	I am confident in my ability to evaluate information found online for credibility.	4.75	0.982	Agree
5.	I am confident in my ability to personalize the information I receive through online news sites.	4.63	1.060	Agree
6.	There are some circumstances where I would misrepresent my personal profile when interacting online socially.	4.07	1.334	Somewhat Agree
7.	I am aware of the information that is available about me on the Internet.	4.91	1.054	Agree
8.	I am confident in my ability to use the Internet for shopping.	5.02	1.081	Agree
9.	I am more likely to post my media projects to sites targeted toward media professionals rather than open sites like Youtube.	4.01	1.242	Somewhat Agree
10.	I am confident in my ability to find a way to take college courses without leaving my hometown even if I am not near a college campus.	4.15	1.388	Somewhat Agree
11.	I am able to create an alter ego on the Internet.	3.99	1.426	Somewhat Agree
Overall Mean		**4.57**	**0.632**	**Agree**

As shown in Table 8, media awareness is generally rated by the respondents with an overall mean of 4.57, which translates to a verbal interpretation of "agree." This means that the students generally perceive themselves as media literate in terms of their awareness and understanding of various media formats and online activities.

Media awareness, as explained by the European Commission (2007), is one of the aims of media literacy. It is shown through the "increased awareness of the many forms of media messages encountered in everyday life. It should help citizens to recognize how the media filter their perceptions and beliefs, shape popular culture and influence personal choices. It should empower them with the critical thinking and creative problem-solving skills to make judicious consumers and producers of content (European Commission, Report on the Results of the Public Consultation on Media Literacy, 2007)."

Obtaining the highest means are the statements regarding familiarity with media file formats (mean = 5.30) and interest in learning about other cultures through online activities (mean = 5.20). These self-rated perceptions reveal the students' competence in technical aspects of media and in culturally enriching digital experiences. These competencies indicate that they are digitally literate generation that navigates various media formats and actively seeks to broaden their cultural horizons through online means.

Furthermore, the study also reveals that students feel competent in evaluating online information for credibility (mean = 4.75), emphasizing their capacity to critically assess the truthfulness of the contents found online as this is one of the increasingly vital skills in this period of widespread misinformation and digital manipulation. Additionally, it is also found out that students are confident in using the internet for shopping (mean = 5.02) and aware of personal information available online (mean = 4.91). While these are practical applications of online media literacy in everyday activities, these are also essential for navigating the digital marketplace and managing one's digital footprint.

On the other hand, the participants in the present study showed lower confidence in creating an alter ego online (mean = 3.99) and posting media projects to professional sites (mean = 4.01). This suggests a potential gap in advanced media production skills, i.e. comprehensive media literacy education.

Overall, the CEU Makati students possess a solid foundation in media awareness, with noteworthy strengths in online technical familiarity and cultural engagement. However, there is room for improvement in areas related to advanced media production and digital identity management.

In terms of Media Evaluation

Table 9. Descriptive statistics of the media evaluation of the respondents

Indicators	Mean	SD	Interpretation
1. I feel confident in my ability to identify the credibility of an Internet pop-up notice telling me to "click here."	4.85	1.197	Agree
2. I am aware of the terms of User Agreements for websites where I post content.	4.87	1.228	Agree
3. I have the ability to evaluate another person's media skill/competency.	4.16	1.137	Somewhat Agree
4. I visit social media sites (for example Facebook) to learn information about a specific company I am interested in.	4.49	1.238	Somewhat Agree
5. I am able to effectively evaluate the quality of student interaction between students in an online class discussion.	4.33	1.109	Somewhat Agree
6. I find it interesting to read personal arguments posted back and forth between my online friends on social networks.	4.26	1.463	Somewhat Agree
7. I have visited a brick-and-mortar store to view an item that I intend to purchase online.	3.65	1.563	Somewhat Agree
8. I often check competing online sources before making a major purchase from a brick-and-mortar store.	4.43	1.309	Somewhat Agree
9. I prefer sharing documents through online applications such as Google Drive or DropBox rather than standard email.	4.89	1.195	Agree
10. When I produce media projects for others, I can target the specific audience they want to reach.	4.48	1.126	Somewhat Agree
Overall Mean	**4.441**	**0.695**	**Somewhat Agree**

With an overall mean of 4.441 (somewhat agree), the students perceived that they slightly agree on their media evaluation skills. To define, media evaluation is the ability to sense and distinguish facts and information that are reliable or not. It includes media analysis, which is the ability to read and understand the conditions and possibilities of the media as tools. Crucial in the digital age, media evaluation assesses the credibility and reliability of information, which is essential for making informed decisions and avoiding misinformation.

It is observed that CEU Makati students are confident in identifying the credibility of internet pop-up notices (mean = 4.85) and are well aware of User Agreements (mean = 4.87). This is indicative of the students' knowledge of explicit online prompts and legal terms. Metzger and Flanagin (2013), in their study on credibility in online environments, emphasize that digital literacy includes recognizing trustworthy sources and understanding legal and ethical considerations in online interactions.

Nonetheless, CEU Makati students are slightly online media literate to evaluate another person's media competency (mean = 4.16) and the quality of student interaction in online discussions (mean = 4.33). While they are confident in their individual skills, they find it difficult to gauge the skills of online users of the online community. Media literacy does not only involve competencies exhibited individually but it also involves the evaluation of the social contexts in which media is produced and consumed.

Interestingly, the lower mean score for visiting brick-and-mortar stores to view items before purchasing online (mean = 3.65) reveals a cautious approach of students to online shopping. This indicates a critical evaluation of products that requires physical inspection. Consumers often seek tangible product experience before making online purchases, indicating a blend of digital and physical evaluation strategies.

In terms of Media Production

If one is ethically aware of and can access and evaluate media, he or she must also know how to properly create or produce content. Media production skills complete the online media literacy skills of an individual. Media production is the ability to create content such as text, video, audio, and graphics, which are necessary for effective communication in the digital age.

Table 10. Descriptive statistics of the media production of the respondents

Indicators	Mean	SD	Interpretation
1. I could be successful at a job where I promote my company's products through blogs, online forums, or other social media formats.	4.31	1.251	Somewhat Agree
2. I am confident in my ability to upload videos I have created to Youtube, Vimeo, or other similar sites.	4.10	1.458	Somewhat Agree
3. If I don't know how to use a creative software program, I can find information I need on the web.	5.06	1.019	Agree
4. I am familiar with free open-source programs that can be used to create media projects.	4.55	1.109	Agree
5. I share with my friends the personal media projects I have created like digital art, videos, or music mashups through online social media sites.	4.40	1.354	Somewhat Agree
6. I think professors should allow a student to replace a class assignment with a selfcreated multi-media project.	4.05	1.185	Somewhat Agree
7. I am capable of adding information to a web forum.	4.09	1.228	Somewhat Agree
8. I am confident in my ability to post to my own blog.	3.74	1.356	Somewhat Agree
9. I am confident in my ability to upload my creative work to web sites like DeviantArt.com, Vimeo, Flicker, or other online media outlets.	4.02	1.346	Somewhat Agree
Overall Mean	**3.97**	**0.927**	**Somewhat Agree**

The overall mean of media production of CEU Makati students is 3.9746, which can be interpreted as somewhat agree. It means that they slightly agree as to their skills in media production. Content creation means producing symbolic text, video, audio, and graphics in order for people to attain a deeper understanding of the conventions and merits of professionally produced material.

The highest mean is 5.06 (agree) for the statement "If I don't know how to use a creative software program, I can find information I need on the web." This implies that students are poised to learn independently and utilize online resources to enhance their media production skills.

On the other hand, surprisingly, the lowest mean is 3.74 (somewhat agree) for the statement "I am confident in my ability to post to my own blog." Despite some performance tasks or post-task activities in language or writing classes involving media creation, they still find skills in posting blogs to be a little adequate. This implies that they have low confidence in writing, which is one of the macro-skills in communication.

Summary of Online Media Literacy

Table 11. Descriptive statistics of the overall online media literacy skills

Constructs of Online Media Literacy Skills	Mean	SD	Interpretation
Ethical Awareness	4.79	0.602	Agree
Media Access	4.33	0.638	Somewhat Agree
Media Awareness	4.57	0.632	Agree
Media Evaluation	4.44	0.695	Somewhat Agree
Media Production	3.97	0.927	Somewhat Agree
Overall Mean	**4.42**	**0.699**	Somewhat Agree

Generally, the overall mean of the Online Media Literacy Skills of CEU Makati students is 4.42, which can be interpreted as somewhat agree. This can be further interpreted as somewhat media literate. This suggests that while students possess a basic level of media literacy, there is a significant need for enhancement, particularly in the areas of media access and production, where the mean scores were lower.

The respondents' slight literacy on online media poses a serious consideration not only in CEU Makati but also in other higher educational institutions (HEIs). The students may be ethically aware and media aware, but they also have to understand thoroughly, access properly, evaluate intensively, and produce critical online media content. Hence, this warrants close attention by HEIs.

Powers (2022), in her study on media literacy, states that young people "associated media literacy with technology use and information literacy and expressed the desire to learn about internet and social media safety as well as media production." In saturated world of digital and online media, the need to further develop the media production skills of the students is imperative due to the vast options of social media sites now where young people can freely produce or create content. While content creation or media production has become a pastime for many, it must be properly taught to them by experts. Media production skills equip young people to not only navigate the ever-evolving social media and online media landscape but also thrive in a world that increasingly values effective communication and content creation.

In a Position Statement of the National Council for the Social Studies (2022), it calls for the integration of media literacy in social studies education. It further states that "today, young people are immersed in a complicated media ecology that promotes an infodemic of disinformation and profit-driven spin while simultaneously presenting extraordinary opportunities for participatory engagement. The social studies classroom is a critical platform for preparing our next generation to cope and thrive amid this unprecedented deluge of mediated messages. Given these realities, it is essential that social studies education integrates media literacy: the ability to access, analyze, evaluate, act on, and create media messages in a variety of forms."

In summary, the overall media literacy skills of CEU Makati students are within the basic level of competence only. Based on the results, there is a strong need for a curriculum enhancement to address the identified gaps in media access and media production categories. Hence, the researchers formulated some guidelines that may be used by higher education institutions (HEIs) in improving their students' online media literacy so that they will be well-prepared to engage critically and creatively with the media landscape, becoming informed and skilled online media users.

3.3 Difference Between the Students' Level of Online Media Literacy Skills When Grouped According to Their Age and Year Level

Table 12. Analysis for the difference between the college students' level of online media literacy based on age

Age group	Mean Rank	H value	Sig. value	Interpretation	Decision to Ho
17-20 years old	189.90				
21-23 years old	187.55				
24-27 years old	148.15	3.179	0.365	Not Significant	Accept
28 and above	231.70				

α = 0.05 Level of Significance

Table 12 shows the mean comparison of online media literacy when grouped according to age categories. As shown from the table, there is no significant difference across the groups reflective of the H value of 3.179, $p>0.05$. Hence, the null hypothesis is accepted. This means that regardless of age, their online media literacy is the same. College students are active users of digital technologies. They are called digital natives as opposed to adults who are called digital immigrants. Surprisingly, college students are merely slightly media literate, as shown in the level of online media literacy data above. This can be explained by the general public's common notion that media literacy only involves watching videos, listening to music, browsing social media, reading articles, and playing mobile games. But media literacy is defined as an informed, critical understanding of the prevalent mass media, and it involves examining the techniques, technologies, and institutions involved in media production; being able to critically analyze media messages, and recognizing the role audiences play in making meaning from those messages.

Moreover, Rasi, Vuojärvi, and Ruokamo (2019) explain in their study that "media literacy education interventions must be designed to meet the needs of individuals of different ages by understanding the life roles and goals that

they have across the lifespan. Different pedagogical strategies are required to effectively address the media literacy competencies of young children, teens, adults, parents, and older adults."

Table 13. Analysis for the difference between the college students' level of online media literacy based on year level

Year Level	Mean Rank	H value	Sig. value	Interpretation	Decision to Ho
First Year	201.90	5.154	0.397	Not Significant	Accept
Second Year	177.18				
Third Year	188.42				
Fourth Year	219.67				
Fifth Year	183.83				
Sixth Year	144.35				

α = 0.05 Level of Significance

Table 13 shows the mean comparison of online media literacy when grouped according to year level. The data shows there is no significant difference across all year levels reflective of the H value of 5.154, $p>0.05$. Hence, the null hypothesis is accepted. This means that regardless of the year level, online media literacy is the same.

Irrespective of the year level, college students have the same level of online media literacy. This means that they consume media, i.e. online and offline, equally in amount, content, and use because of the prevalence of free subscriptions to different online media tools. This no longer creates a divide in terms of media accessibility. It means the playing field is now even. It can also be inferred that despite the subject Media and Information Literacy they took in Senior High School, they still belong to the slightly online media literate bracket.

3.4 Proposed Curriculum Enhancement Plan

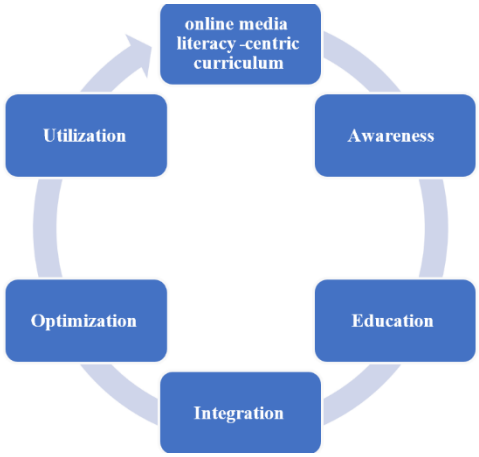

Figure 1. The vowel approach in online media literacy (Riparip, 2022)

Upon analyzing the results, the following policies and/or guidelines are proposed to enhance the college curriculum regardless of the programs or courses students take:

a. **Awareness.** Reintroduce the importance of online media literacy education in college as a life skill;
b. **Education.** Intensify the media literacy education movement in college by creating campaigns about understanding media, contemporary communication, news literacy, information literacy, technology literacy, and digital citizenship, to create a state of public trust and cognitive immunization in the face of rumors, fake news, false information, disinformation, misinformation, and malinformation;
c. **Integration.** Integrate contextualized and interactive digital media literacy curriculum in college into different general education and professional subjects; otherwise, draft a separate and independent media literacy program that is age-appropriate;

d. **Optimization.** Optimize different digital media tools in highlighting the value of collaborative, creative, playful, and multimodal media production practices as well as analytic, reflective, inquiry- and project-based learning practices in media literacy education; and
e. **Utilization.** Provide extensive training and/or retraining, including immersion activities, of media literacy teachers in Senior High School and college, and utilize these in their lessons.

The "Vowel Approach in Online Media Literacy," which stands for Awareness, Education, Integration, Optimization, and Utilization, summarizes the proposed approaches for improving media literacy skills of the students. This holistic approach aims to address the gaps identified in the current media literacy levels of students and ensure a comprehensive enhancement of their digital competencies.

4.0 Conclusion

Based on the results and discussion, it can be concluded that most of the respondents are females aged between 17-20 years old, with an average media engagement between 6-9 hours a day. The students are also slightly online media literate. However, they are online media literate in ethical awareness and media awareness categories. This is evident from their careful management of online banking passwords and their recognition of personal responsibility in acquiring information about media tools

Despite their proficiency in digital or online media usage, noteworthy is their preference for traditional classroom-based education over online learning. This implies that while students are confident in adapting to digital technologies, they still value conventional teaching strategies.

The results further indicate that there is no significant difference between the college students' level of online media literacy and their age and year level, indicating that online media literacy is consistently moderate across different demographics. These insights provide highlight on the need for academic interventions that enhance online literacy skills that should be part of the students' 21st century skills and foster responsible engagement with digital technologies, bridging the gap between traditional and online learning modalities within the university setting.

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The authors confirm the equal contribution in each part of this work.

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7.0 Conflict of Interests

Both authors declare that they have no conflicts of interest as far as this study is concerned.

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