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Dialoguing the Crisis of the 'Post-Truth' Era through Comparative Curriculum Analysis of Digital Literacy

Lijuan Wang[97], **Abigail Ruth Wiegand**[98], **Konul Ahmadzada, Karol Go, Laura Korpela, Beatriz Sarmiento Lobato, Shams Mohammad Nasif, Adinda Putri Pertiwi, Andraž Ravnikar, Fariha Rubaiyat Khan**

Résumé

À l'ère de la postvérité, où distinguer le vrai de la mésinformation et de la désinformation devient toujours plus difficile, l'éducation joue un rôle décisif dans le développement de la littératie numérique. À partir d'une matrice de catégorisation articulant compétence numérique, usage numérique et transformation numérique, cet article examine les discours officiels sur la littératie numérique dans les curriculums du Bangladesh, de la Finlande, de l'Indonésie et de l'Espagne, afin de comprendre comment ces pays répondent aux défis de l'environnement postvérité. Les résultats indiquent que, si tous les pays retenus se préoccupent du développement de la littératie numérique, de façon autonome ou intégrée, la compétence et l'usage numériques sont les dimensions les plus fortement mises en avant, au détriment de la transformation numérique. Il apparaît en outre que les pays du Sud global peinent à soutenir la concurrence dans l'économie mondiale et à préserver leur unité face à une nouvelle bataille de transmission idéologique dans le monde numérique.

Mots-clés

postvérité, compétences en littératie médiatique et numérique, éducation, curriculums, études comparatives

Abstract

In the post-truth era, where distinguishing truth from misinformation or disinformation is increasingly challenging, education plays a crucial role in promoting digital literacy. Based on our analysis of the categorization matrix of digital competence, digital use, and digital transformation, we delve into the official discourses on digital literacy in the curricula of Bangladesh, Finland,

[97] Hunan University, China
ORCID: https://orcid.org/0000-0002-5828-4363
E-mail: lijuan.wang@hnu.edu.cn

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Indonesia, and Spain to investigate how these nations address the challenges posed by the post-truth environment. Results suggest that although all selected countries are concerned about the development of digital literacy through education, either independently or in an integrated form, digital competence and digital usage are the most emphasized dimensions of digital literacy compared to digital transformation. However, it is evident that countries from the Global South are struggling to compete in the global economy and to preserve their unity through a new battle of ideology transmission in the digital world.

Keywords

post-truth, media and digital literacy competences, education, curricula, comparative studies

Introduction

Usage of the term "post-truth" has been increasing exponentially since 2015 (Lewandowsky et al., 2017). The term, as invoked by this article, refers to an era in which objective knowledge is devalued and stigmatized as being from and for upper-class, ivory tower intellectuals deserving of scorn from a rhetorically constructed working class. Chinn et al. (2021) describe the moniker as referring to an environment in which "public disagreements about established empirical findings are rampant, and opinion often takes precedence over evidence" (p.1). Misinformation dominates the online landscape, its spread unchecked or under-addressed by traditional sources of reliable facts. Moreover, Lewandowsky et al. (2017) claim that this misinformation spreads on social media at roughly the same rates as content that portrays objective facts, with viewers experiencing increasing difficulty differentiating between the two. Lynch (2016), as cited by Chinn et al. (2021), argues that the ability to analyze and act upon accurate information is a crucial skill to develop in citizenry for a functional participatory democracy.

In order to foster these abilities in its citizens, governments turn to the education sector. Values, skills, and understandings can be developed in the classroom, including what Leu et al. (2014) call New Literacy. This refers to the reading and writing abilities necessary to fully utilize and responsibly navigate digital tools. Nash (2021) points out that "reading has been moved from the page to the screen," and posits that the online

landscape is a primary source of meaning and reality construction for the youth of today (p. 713). Just as educators are, by and large, responsible for teaching book literacy skills in primary schools, we begin our research with the assumption that educators should support the development of New Literacy, or digital literacy, in students. This study focuses on the role of education in the post-truth era, adopting the ideas of John Dewey regarding education, which argue that schools are a microcosm for society as a whole and should therefore be drivers of social reform (Williams, 2017). We also refer to Horsthemke (2017), arguing that the education sector has a duty to challenge the erosion of truth.

This article will examine the ways in which digital literacy skills are being taught in a variety of global contexts, as directed by public sector and government organizations. Through comparison of national curricular mandates, the article will examine what educational goals are being set by world governments in response to the rising tide of misinformation. The goal of this inquiry is to identify potentially differing political attitudes toward the role of education in encouraging digital literacy in a post-truth era. Evaluations will also be made to determine whether and how digital literacy curricula may reveal positionality in the era of post-coloniality. For this article, the chosen contexts for comparison are Bangladesh, Indonesia, Finland, and Spain. These country contexts provide a sampling of political discourses across cultures and hemispheres. With these aims, we ask the following research questions:

How is digital literacy embedded in different national curricula?

What are the similarities and differences in digital literacy between various national contexts?

Digital literacy

In an age of information overload and easily disseminated misinformation, the integration of digital literacy into education has become a priority for many countries. However, there is no universal understanding of this concept. The debate over the definition of digital literacy began as recently as the 1990s (Janssen et al., 2013). Digital literacy was initially understood as the ability to process information presented through computers (Gilster, 1997). More recent definitions view digital competences as an important dimension of digital literacy

(Janssen et al., 2013). A "digitally competent" person can navigate through vast sources of information while protecting their own privacy and safety, and knowing how to collect, store, produce, and exchange data online (Ilomäki et al., 2011). To supplement the technical aspects of digital literacy, Erdem et al. (2023) recently expanded the definition to emphasize critical thinking and ethical discernment skills, which are vital in the digital world due to the wide engagement of people in online activities. In the digital age, developing proper digital literacy is of paramount importance. Lacković (2020) posits that a post-truth society demands a more robust knowledge of critical thinking and analysis from its citizens. Societal trends show that powerful emotions and personal beliefs have an outsized impact on the public's reactions to objective facts. This means that misinformation can spread quickly through social media platforms, echo chambers, and many other media outlets, being interpreted in accordance with the personal emotions of the messengers. The consequences of this transmission can be dire.

With the increasing use of digital devices worldwide, educational institutions have started to play a crucial role in cultivating digital literacy among students. Digital literacy education addresses the phenomenon of misinformation by training students to assess the information they receive, check its sources, identify biases, and recognize potential manipulation tactics (Friesem & Friesem, 2021). Thus, a digitally literate student can critically analyze the motives behind the content they encounter on social media or news websites. Additionally, digital literacy education fosters a sense of responsibility when interacting with the digital world, transmitting values such as ethical engagement with information online, sharing content in accordance with platform guidelines, respecting others, and being aware of potential dangers.

Postcolonialism

Due to the uneven application of concepts related to digital literacy, we adopt a postcolonial lens through which we compare nations. Scholarship on postcoloniality remains divided on the term's exact definition. One concern involves the prefix 'post', which implies a definitive end to the period of colonialism and the beginning of a subsequent era (Crossley & Tikly, 2004). However, many argue that colonialism has not truly ended and manifests in the modern day under

the guise of neoliberalism and globalization. Bhabha (1994) defines postcolonialism as the "discourses of 'minorities' within the geopolitical divisions of East and West, North and South" (p. 245), where unequal socio-economic conditions and the continuous marginalization of minorities and the underprivileged are accepted as normal. Postcolonialism critiques the "colonial encounter and its continuing impact" on the subjective and material conditions of formerly colonized countries and their peoples (Crossley & Tikly, 2004, p. 148). The field rejects the idea that the unequal distribution of wealth and power is a standard by-product of development and modernity (Bhabha, 1994). Instead, postcolonialism attempts to alter the dominant assumptions that play out in Western and non-Western regions (Young, 2003) and "claims the right of all people on this earth to the same material and cultural well-being" (p.2).

Education and learning institutions are particularly complicit in the diffusion of "hegemonic systems of reasoning" in compliance with the global development agenda (Rizvi et al., 2006, p.257). National educational policies are powerful tools that impose Western ideas and economic agendas upon developing nations (Crossley & Tikly, 2004). The global education trend that emphasizes New Literacy denies the reality that the digital and knowledge infrastructures of the Global South are inadequate and unreliable compared to those of the North. Furthermore, this trend fails to recognize that indigenous systems of knowledge, underrepresented in prevailing educational discourses, are even more excluded in ed-tech, online learning platforms, and digital literacy targets (Gonye & Moyo, 2023). Gonye and Moyo (2023) also note that technology and digital pedagogies exacerbate the marginalization of the impoverished and underprivileged and highlight the regional and international disparities in governance, economic resources, and technological capabilities.

In the current post-truth era, truth is malleable and not fixed, subject to interpretation rather than irrefutable fact (Held, 2022; Read, 2019; Haack, 2019). The post-truth period is also known as the time of "fake news, alternative facts, disinformation, deception, manipulation of facts, scepticism towards experts and lying" (Nally, 2023, p.611). According to Gonye and Moyo (2023), regimes of truth intentionally exclude epistemologies of the Global South. Digital information hegemony, especially in current post-truth times, reproduces and disseminates

dominant Western narratives and biases, effectively perpetuating historical inequalities and structural marginalization. The postcolonial lens reveals how national policies and curricula embody dominant "Western representations of knowledge" (Bhambra, 2014; Prakash, 1994, as cited in Anuar et.al., 2021), which define education provision according to the demands of the global market and knowledge economy (Tikly, 2001).

Digital Literacy in the Bangladesh National Curriculum 2021

Following global educational objectives, Bangladesh's education system is structured into four levels: Primary, Secondary, Higher Secondary, and Tertiary (UNESCO, 2000). Compulsory education was mandated by Article 17 (a) of the Bangladesh Constitution (1972) since its liberation in 1971, aiming for a uniform, mass-oriented, and universal educational system. The 2010 National Education Policy further extends the provision of free and compulsory primary education for all children aged 6 to 10 years.

This article focuses on compulsory education, entailing the first five years of schooling. With the Bangladeshi government's commitment to transforming the country into a technologically advanced nation, emphasizing the widespread use of information and communication technologies (ICTs) (Chowdhury, 2023), the national curriculum framework of 2021 has integrated digital literacy into the primary level curriculum. This is a leap forward from its previous focus solely on secondary education. The decision builds on an earlier initiative from 2013, when Bangladesh introduced a distinct ICT (Information and Communication Technology) textbook for secondary level students, aligning with its educational reform to embed digital literacy within the curriculum for grades six through ten. The 2021 curriculum emphasizes digital literacy, encompassing not only information and media literacy but also computational thinking, design thinking, and systems thinking. Learners are encouraged to become innovators capable of solving real-world problems through digital solutions.

Digital Literacy in Finnish National Core Curriculum for Basic Education 2014

In Finland, free education is every child's legal right. Education is compulsory until the child reaches 18 years of age (Finnish National

Agency of Education, 2024), but this article will focus on the first nine years of compulsory education, known as basic education. The most recent national core curriculum for basic education, first developed by the Finnish National Agency for Education in 2014, was implemented across all schools for grades 1-6 starting on August 1, 2016, before being gradually expanded to include lower secondary education. The curriculum was adopted by grade 7 on August 1, 2017, grade 8 in 2018, and grade 9 in 2019 (Finnish National Agency of Education, 2024). Given that the Finnish education system has a centralized curriculum with a decentralized implementation, municipalities across Finland have developed their own local curricula aligned with the national standards (European Commision, 2023; OECD, 2015). In the 2014 Finnish National Core Curriculum for Basic Education, digital competence, digital and media literacy are not standalone subjects. Rather, these skills are included in the teaching of every subject in various forms.

The 2014 curriculum contains language referring to the attainment of practical digital skills and students learning to create their own digital content. Pupils engage in activities in which they must locate information from various sources to critically evaluate its reliability. They are encouraged to recognize the impact of media on society and to gain practical experience in utilizing media as a tool for influencing others. In addition, the curriculum stresses the importance of teaching pupils about safety and ethics when using technology responsibly (Opetushallitus, 2015). Pupils also gain an understanding regarding the positive effects that limiting their internet usage can have on mental and physical well-being.

The national core curriculum also states that in a world where multimedia communication, global information networks, social media, and peer relationships greatly influence the values of children and young people, there is a heightened emphasis on value education (Opetushallitus, 2015). To this end, pupils are directed to acknowledge the influence of cultures, religions, and perspectives currently present in society and in daily life, to understand how media shapes culture. Learners may be encouraged, for example, to contemplate state actions that go against human rights and are considered unacceptable (Opetushallitus, 2015).

Digital Literacy in Indonesian National Curriculum Context

Despite recent governmental debate over expanding compulsory education to grade 13 (Fairuza, 2022), current Indonesian compulsory education ranges from grades 1-9 and consists of elementary school (grades 1-6) and junior high school (grades 7-9). Digital literacy discourse in Indonesia increased during the COVID-19 pandemic due to the high dependency on digital skills for distance learning. The head of the data and information center under the Indonesian Ministry of Education, Hasan Chabibie, defined digital literacy as "not only about information gathering but also sorting and selecting information so it becomes beneficial for students to enhance productivity, learning motivation, and collaboration" (Nur & Romanti, 2022). Students are expected to use digital devices in a wise, appropriate, and law-abiding manner in their everyday lives (Yanuarti et al., 2021). Within the latest revision of the national curriculum, called Kurikulum Merdeka (Emancipated Curriculum), published in 2020, digital literacy is oriented toward creating innovative solutions to societal problems. The national curriculum incorporates digital literacy into the subject of Informatics. Compared to the prior 2013 curriculum, Informatics subjects have become mandatory for grades 1–10, whereas previously they were only required for grades 1-6. Informatics is more thoroughly elaborated on in the 2020 curriculum, with the explanation that "Informatics is not only relevant for digital users but also involves computational thinking that builds problem-solving, logical and systematic thinking, processing and using data, and system thinking" (Anggraena et al., 2022, p. 53).

In terms of general structure, the latest curriculum focuses on 1) Fundamental competence and essential materials in curricular activities; and 2) Project-based learning to explore the global issues and strengthen "the profile of Pancasila students (Emancipated Curriculum)." Informatics learning objectives aim to encourage "computationally literate creators" (Indonesia Ministry of Education, 2022, p. 6), expecting students to not only become computer users but also problem solvers who master the core concepts and practices of using and developing information and communication technology (ICT) with interdisciplinary perspectives (Indonesia Ministry of Education, 2022).

Spanish Education Legislation Regarding Digital Literacy

The Spanish education system is considered decentralized, meaning that educational responsibilities are shared between different administrative levels. The national Ministry of Education shares duties with Autonomous Communities, local administration centers, and individual schools. These divisions are specified by the General Dispositions Law (GDL), which was approved in its most current form in December 2020. The previous iteration of the law (2006) was altered to address modern concerns and align with the standards and general pedagogical goals of other European countries. The reform also addresses a growing societal concern over the new challenges that come with the constant integration of new technologies as a necessary part of life and development (BOE-A-2020-17264 Sec. I. Pp. 122871).

One goal heavily emphasized in the GDL is the competent use of information and communication technologies in multiple aspects of daily life (BOE-A-2020-17264 Sec. I. Pp. 122871). According to Art. 9 of the Royal Decree 157 (2022), digital competence is established as a key goal that must be achieved at the end of a student's primary education (BOE-A-2022-3296 pp. 9). These goals align with European Union guidelines, and the Spanish curriculum focuses on teaching critical thinking regarding digital competencies and literacy. Students are to develop a comprehensive understanding of the personal and social impact of technology and how this impact disproportionately affects members of marginalized genders. Furthermore, students are to apply critical thinking skills and clarified values to engage ethically with the digital landscape. The GDL understands the ubiquity of digital technology in society as inevitable and sees the role of education as preparing learners to safely harness tech to their own advantage (BOE-A-2020-17264 Sec. I. Pp. 122871).

Compulsory education in Spain includes primary education from ages 6-12 and secondary compulsory education from ages 12-16. Due to the decentralized nature of the education system, national laws are open to interpretation by autonomous communities, who may adapt guidelines to suit their own needs and requirements. To facilitate comparison, this article also focuses on the basic competencies legislation for both educational stages: *Royal Decree 157/2022* from March 1, which establishes the primary education competencies and guidance, and *Royal Decree 217/2022* from March 29, which establishes the compulsory

secondary education competences and guidance. Both pieces of legislation establish the basic and specific competencies that students must display at the end of each educational stage under Organic law 3/2020 and the objectives set by the European Union and UNESCO for the 2020-2030 decade (BOE-A-2022-3296 pp.4).

Methods

The methods applied in this article are deductive qualitative content analysis as developed by Elo et al. (2008), as well as Bereday's (1964) method for comparative studies, which focuses on illustrative juxtaposition as a system of comparison. The primary data pool for this study was drawn from national core curricula for the compulsory stages of education in selected countries. Based on definitions of digital literacy established in previous sections of the article, we conducted a systematic process of data organization and preliminarily matched information from different countries to evaluate similarities and differences between the curricular and policy goals of the given nations. Specifically, coding and analysis of the data focused on locating content related to digital literacy where it appears in the "judgement sampling" (Elo et al., 2008). We then developed a structured categorization matrix based on the twelve digital competence areas from Janssen et al (2013) and the three dimensions of digital literacy from Erdem et al. (2023), namely digital competence, digital usage, and digital transformation (see Table 1). This matrix was used as a guiding tool for systematic data coding and further analysis regarding our predetermined criteria.

Table 1. General framework for coding digital literacy *

Digital competence	**Skills**	**Use in everyday life**	**Be able to integrate technologies into the activities of everyday life.**
		Technology mediated communication and collaboration	Be able to connect, share, communicate, and collaborate with others effectively in digital environments
		Information processing and management	Uses technology to improve his/her ability to gather, organise, analyse and judge the relevance and purpose of digital information.
		Informed decisions on appropriate digital technologies	Be aware of most relevant or common technologies and can decide upon the most appropriate technology according to the purpose or need at hand.
	Knowledges (concepts and approaches)	General knowledge and functional skills	Knows the basics (terminology, navigation, functionality) of digital devices and can use them for elementary purposes.
		Privacy and security	Has the capacity to protect personal data and take appropriate security measures.

	Attitudes and values	Legal and ethical aspects	Behaves appropriately and in a socially responsible way in digital environments, demonstrating awareness and knowledge of legal and ethical aspects on the use of ICT and digital content.
		Balanced attitude towards technology	Demonstrates an informed, open-minded, and balanced attitude towards Information Society and the use of digital technology. The digitally competent person is curious, aware of opportunities and new developments, and is comfortable to explore and exploit them.
		Understanding and awareness of role of ICT in society	Understands the broader context of use and development of information and communication technology.
Digital use	Professional and discipline application	Specialised and advanced competence for work and creative expression	Be able to use ICT to express his/her creativity and to improve his /her professional performance.
		Learning about and with digital technologies	Actively and constantly explores emerging technologies, integrates them in his/her environment and uses them for lifelong learning.

		Seamless use demonstrating self-efficacy	Confidently and creatively applies technologies to increase personal and professional effectiveness and efficiency.
Digital transformation	Innovation and creativity	NV	NV

* This table is adapted from Janssen et al. (2013) and Erdem et al. (2023).

Findings

Through systematic coding of the compulsory education curricula of the four studied contexts, we report the findings by nation as follows:

Bangladesh

Our findings suggest that all three dimensions of digital literacy - digital competence, digital transformation and digital usage - have been clearly articulated in the curriculum (NCF 2.11). While digital technology is not a standalone subject at the primary level (grade 1 to grade 5), its integration across various subjects ensures comprehensive skill development (NCF 2.10.1). This approach aligns with the goal of nurturing digitally empowered citizens capable of thriving in a rapidly evolving digital society.

Going beyond the conventional view of digital literacy as mere competence in using the basic technological tools, the curriculum adopts a more comprehensive perspective on digital competence, developing critical skills beyond the technical arena. These competencies include technical skills, critical thinking, problem-solving abilities, and responsible citizenship in the digital world, among others (pp. 54). In the national curriculum, digital literacy is not considered as a separate entity but a crucial focus in building students' readiness for the diverse applications of technology. The NCF places special emphasis on acquiring the ability to make appropriate and creative use of information and communication technology to solve individual or collective needs or problems (pp. 54).

The focus on digital transformation in the national curriculum is also evident. Emphasis is placed not only on the use of technology for data collection but also on enabling learners to use appropriate digital technology properly at every step, from planning to solving any problem. It views creativity and innovation as a category of competencies that includes not only the creative use of information and communication technology to solve problems but also the ability to create digital solutions, from content generation to applying innovative capabilities to problem-solving (NCF pp. 54).

This curriculum framework further places emphasis on developing learners as digital citizens by enabling certain social and ethical values among them. According to the NCF, values can be clustered into many types, such as personal, social, religious, humane, and so on. The sources of these values are the Liberation War of Bangladesh, national identity and history, culture, religious beliefs and practices, present and future contexts, and global values (NCF 2021). Considering this, the practices of the values which have been considered in the development of this curriculum are 'Solidarity', 'Patriotism', 'Harmony', 'Tolerance', 'Respect', and 'Integrity' (NCF 2021). Digital citizenship has been included in the curriculum with the aim of enabling learners to position themselves efficiently in a digital society.

Finland

Our findings suggest that the three dimensions of digital literacy are embedded in the curriculum in multiple ways. Digital competence and digital usage receive the most focus, with minimal language that could be coded as digital transformation. Digital competence is emphasized in the curriculum through the integration of technologies and ICT into pupils' schoolwork and everyday life (Opetushallitus, 2015, p. 22).

In terms of digital usage, Opetushallitus (2015) states that pupils are directed to use ICT in a manner that is both safe and ethically sustainable, especially in grades 7-9. Safety in this context refers both to protection against cybersecurity risks and the implementation of sustainable, healthy screen time habits (p. 284).

Furthermore, Opetushallitus (2015) describes how pupils learn to explore, test, and apply the most appropriate techniques and digital resources for their individual learning and tasks. This form of digital usage can lead to digital transformation when pupils can create, produce, and process text using digital technology (p. 101).

Indonesia

In relation to digital literacy, Informatics subjects in the Indonesian curriculum place strong emphasis on computational thinking and the use of technology in everyday life. From grades 1-6, learners are encouraged to apply computational thinking to solve common concrete and abstract problems. Students are prepared to have basic knowledge of ICT devices and computer components, computer systems, and local

communication signals in grades 1–8. In terms of communication and collaboration skills, students should develop the ability to optimally utilize various software applications and ICT-based communication tools.

The curriculum also focuses on developing students' attitudes towards technology. Students are directed to consider aspects of tech use related to health, comfort, security, and safety (Indonesia Ministry of Education, 2022). Students must "appreciate digital copyright, comprehend intellectual property rights, licenses, technical aspects, legal, economic, environmental, and social aspects of ICT products" (Indonesia Ministry of Education, 2022, p. 19).

Learning objectives related to digital usage are outlined only in vague terms. In contrast, the objectives related to digital innovations in interdisciplinary practices and computational thinking elements are described in more detail. Students can apply computational thinking in multidisciplinary contexts. Students from grades 3-6 engage in creative product development projects. Then, until grade 9, students collaborate on informatics-themed projects to identify problems, design, implement, test, and refine computer programs using appropriate algorithmic strategies.

Spain

In the primary and secondary curricula, the phrase most used to refer to the digital world is "digital competencies" (defined as in Table 1). "Digital usage" also appears in Spanish national curricula in various contexts. However, "digital transformation" is mentioned only briefly, and only in the legal document devoted to secondary compulsory education.

Digital literacy in primary curricula is presented through a multidisciplinary approach, in subject areas including social studies, geography, science, or technology more broadly. Digital competencies here center around value transmission. Students are to gain an understanding of digital privacy (CD4a, where 'a' indicates primary education coding) and security (CD4b, where 'b' indicates basic education), civic and responsible digital citizenship (CD3b), and legal understanding of intellectual property (CD1b, CD2a, CD3a). Regarding digital usage, the main goal outlined by the curriculum refers to the development of specialized and advanced technical skills for work,

learning about and with digital technologies, and creative expression. Digital transformation (CD5b) includes application (app) development and creative and sustainable problem-solving through technological tools. The educational framework expects students to show curiosity and interest in the evolution of digital life.

In secondary education, the curriculum establishes technology and digitalization as a standalone subject (Art.8 BOE-A-2022-4975 pp.9). Students must complete this course at least once in their first three years of secondary education and can continue with optional studies in this subject in the fourth year. The transmission of attitudes and values is key as "the subject 'Digitalization' addresses topics necessary to be able to exercise active and committed digital citizenship" (BOE-A-2022-4975 Annexe II pp.42). Notably, the introduction also highlights gender division and equality concerns regarding the usage of digital competencies, explaining that the course, "through the creation and dissemination of new knowledge to address the digital divide, including the gender divide, pays special attention to the disappearance of sexist stereotypes that make it difficult to acquire digital skills under conditions of equality" (BOE-A-2022-4975 Annexe II pp.42-43). The inclusion of this topic exemplifies the program's focus on value transmission and the application of critical thinking skills in the digital space.

The last element analyzed for the secondary compulsory education curriculum is the minimum knowledge (BOE-A-2022-4975 Annexe II pp.46-47) expected from the student. These are divided into four categories. The first is "digital devices," referring to the skills required to use operating and communication systems. The second, "digitization of the personal environment," relates to digital use, with some gestures towards digital transformation (editing and creating content: mentioning application design, virtual, augmented, and mixed reality). The third category, "digital security and well-being," also relates to digital competencies with an emphasis on the clarification of values and attitudes, especially those concerning personal safety and security. Lastly, "critical digital citizenship" involves values and attitudes related to digital competence, with a specific focus on the interaction, ethics, and social aspects integrated into new technologies.

Concluding Discussion

Different country contexts take varied approaches to the teaching of digital literacy. Starting with mandatory primary education, the 2021 Bangladesh National Curriculum Framework prepares pupils for an information-driven society by integrating digital literacy across topics. The Spanish education legislation and Finnish National Core Curriculum for Basic Education take a similar multidisciplinary approach, although the basic knowledge and skills related to digital competencies and digital usage are also supported in specific ICT classes. In Indonesia, digital competencies and usage are transmitted through the standalone subject of Informatics.

Digital competence is the most frequently outlined topic in the curricula of the discussed country contexts. Every nation places particular emphasis on the development of technical skills, with variation in the application of such skills to broader society (though Spain's education legislation features an added focus on attitudes and values in an attempt to balance this). Curricular priorities reveal a preference for skills that might translate directly into economic growth and individual capital acquisition rather than ethical engagement and transformative digital use. It is evident that the national curricula from the Global South continue to align with neocolonial and globalizing logic of producing knowledge to serve progress and development as expressed in the global economic agenda (Gonye & Moyo, 2023).

Digital transformation is the least present in compulsory education in each of the explored contexts. If present in a curriculum at all, it is only briefly mentioned. The Finnish curriculum directs students at the end of their compulsory education years to critically examine the role of technology in society and extrapolate potential implications of these technologies into the future. Indonesian policies also include some mention of evaluating the impact of the digital world on broader society. Although Erdem (2023) highlights the importance of digital transformation in digital literacy education, curricula on the subject are still far underdeveloped.

Encouragingly, multiple national curricula include safe and sustainable engagement with the digital landscape. Finland incorporates the teaching of safe, responsible, and ethical digital usage throughout the entire curriculum. In Indonesia, this concept of digital usage relates more specifically to law-abiding action rather than ethical

action. The Spanish and Bangladeshi curricula both refer to responsible digital citizenship. However, the Spanish curriculum emphasizes critical discussion of digital usage and its impact on social issues related to gender, while the Bangladeshi curriculum is more concerned with fostering national identity and patriotism among pupils. Through these discourses in the curricula, it is evident that national governments consider education a tool to combat misinformation, especially when the populace is not prepared with sufficient media literacy. Meanwhile, the national governments from the Global South are struggling to shape ideologies in the new landscape of the digital world to protect themselves from the power imposed by the Global North (Gonye & Moyo, 2023).

By evaluating the different countries' approaches to value transmission related to digital usage, we can gain insight into the rhetorical and social goals of each government. In Bangladesh, the curriculum reflects a government-backed vision for a modernized society and a desire to keep pace with the global North (Tikly, 2001). Similarly, the urgency the Indonesian curriculum places on digital innovation shows a focus on rapid development and economic growth to align with former colonial powers (Tikly, 2001). By analyzing the national curricula, we can observe that Global South countries are under pressure to adopt Western perspectives on modernity and keep up with the development of the North. Finland, on the other hand, facing less of this pressure, has the resources to focus on the day-to-day well-being of citizens in addition to skill acquisition (Fleischer et al., 2023). The Finnish emphasis on cybersecurity and protecting students' mental health through sustainable usage is more closely related to individual development than nation-building. Spain is also able to focus on social issues such as gender equality and emphasizes value transmission throughout multiple stages of the curriculum.

This study has a limited reach. As it was conducted through analysis of official discourses, we are unable to comprehensively analyze the practical application of these national curricula. Though the curricula in each national context are similar in many key respects, implementation may vary. Global South countries (Bangladesh, Indonesia) are disadvantaged by global power structures that favor former colonial powers (Spain) and economically advantaged countries (Spain, Finland). These contexts may face added resource challenges in

implementing curricula, which should be explored with further research.

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