An Overview of Media Accessibility and Inclusivity in the Educational Domain

Alexandros Yeratziotis, Thomas Fotiadis, Andrina Granić, and George A. Papadopoulos

Abstract Educational technology has advanced considerably over the past two decades, yet media accessibility and inclusion still require significant improvement. These areas remain major barriers for many students with disabilities. This descriptive systematic review aims to provide an overview of current research, offering a concise analysis of key concepts related to media accessibility and inclusivity in education. The review examines the frequency and prominence of these themes in research. Recognized journals from the Web of Science (WoS) database were searched without a specified timeframe, resulting in the critical analysis of 14 review articles published between 1998 and 2023. The findings reveal a limited state of the art in this area, highlighting the need for further research and development. An in-depth analysis indicates that themes of inclusivity and accessibility appear with varying frequency, influenced by several factors. These factors include regulatory standards, the direct impact on disabled learners, the emergence of new technologies, and the historical prominence of inclusivity in research literature and the interdisciplinary nature of accessibility.

Keywords Education · Media · Accessibility · Inclusivity · Systematic review · Frequency · Current state of research

A. Yeratziotis (✉)
A.G. Connect Deaf Limited, Nicosia, Cyprus
e-mail: alexis@connectdeaf.com

T. Fotiadis · G. A. Papadopoulos
Department of Computer Science, University of Cyprus, Nicosia, Cyprus

A. Granić
Faculty of Science, University of Split, Split, Croatia

A. Marcus-Quinn et al. (eds.), *Transforming Media Accessibility in Europe*,
https://doi.org/10.1007/978-3-031-60049-4_10

1 Introduction

Over the last two decades, the use of technology in education has significantly increased, proving to be an effective tool for facilitating and enhancing learning. (Ortiz-Jiménez et al., 2020). Benefits of digital technologies, such as learning management systems (LMSs), digital learning materials, and massive open online courses (MOOCs), both for students and faculty, are well documented. A systematic review in Granić (2022) comprehensively explores theoretical perspectives and practical approaches regarding the acceptance and adoption of educational technology. Thorough analysis of 47 studies has been conducted to identify the key factors influencing successful educational technology adoption. Examining user aspects, task and technology aspects, as well as social aspects, the findings highlight significant predictors such as system accessibility (found to be greatly affecting intention of using mobile learning), self-efficacy, subjective norm, enjoyment, facilitating conditions, computer anxiety, and technological complexity. E-learning emerges as the most validated technology delivery mode, followed by m-learning, LMSs, and social media services, with most studies conducted in higher education environments. Despite existing research, the review suggests future exploration avenues, including predictive validity for emerging teaching strategies, validation of less-explored factors like perceived playfulness and social media usage, examination of cost-effective solutions, and integration with established theories from various fields to enhance explanatory power.

Equitable access for students with disabilities, however, remains a work in progress. Inaccessibility of digital technologies was reported as one of the main barriers experienced by students with disabilities pursuing higher education in particular (Kimball et al., 2016; Moriña, 2019). Design and implementation of technology has a significant influence on whether access is enhanced. Complying to usability and accessibility standards helps ensure that digital technologies do not become exclusionary tools, avoiding the digital disability divide (Ortiz-Jiménez et al., 2020). Interestingly, and equally importantly, faculty members were found to generally have positive attitudes towards inclusive education, which bodes well to influencing their willingness to contribute towards that goal (Rao, 2004). Understanding the needs of users with disabilities and involving them in the design process of inclusive and accessible technology extend beyond that of educational context alone.

In addition to the above, the comprehensive literature review in Ahlin and Hiddinga (2023) explores the impact of various communication technologies, including specialized ones like cochlear implants (CI) and generally accessible ones like text messaging and social media, on the socialities of deaf and hard-of-hearing (DHH) individuals, particularly adolescents and young adults. It was shown that such tools do not automatically increase inclusion for everyone and that, for a more inclusive approach to take place, DHH people needed to be involved in the design process of such applications. Grounded in the concept of "deaf anthropology," the review emphasizes ethnographic studies as the most suitable method for understanding the nuanced complexities of DHH socialities, allowing for a range of visual methods

tailored to the needs of DHH individuals. The analysis delves into the influence of CI on belonging and identity within the "deaf world" and "hearing world," contrasting it with the smoother integration of generic technologies like social media. While CI adoption has sparked debates, generic technologies, despite potential inequalities, have provided new avenues for socialization beyond local networks. The study calls for deeper theoretical exploration of communication technologies' role in relation to deafness and underscores the importance of participatory methods in inclusive technology design, moving towards a more respectful and inclusive approach for DHH individuals.

Social media nowadays has a significant influence on students' academic life. Some ways in which it is being used within this context is to try and influence critical thinking, collaboration, and knowledge construction amongst students and faculty alike (Boateng & Amankwaa, 2016). Exploring how social media is used in education by individuals with disability, and how these serve as tools for building supportive communities, (Sweet et al., 2020) conducted an in-depth thematic analysis. A total of 59 articles were reviewed, identifying six major related themes (community, cyber-bullying, self-esteem, self-determination, access to technology, and accessibility). Overall, online interactions seem to support and empower individuals, foster collaboration and networking, and facilitate the acquisition or exchange of valuable knowledge. On the downside, affording and accessing technology prove to be a hindering factor, due to the low income associated with the disabled. Accessibility itself incurs extra costs. Also, not all cyber environments, including social media platforms, are universally accessible, leading to isolation rather than socializing. By refining aspects of community, domain, and practice, more effective and positive social media practices can be applied. Further research is needed to ensure that social media becomes inclusive for everyone.

Types of technology, learning strategies, research issues, and learning environments have also been singled out as important dimensions in analysing trends of technology-based learning in specific applications (Lin & Hwang, 2019). This in turn further highlights the importance of exploring the needs of learners when using technologies from multiple dimensions (Fernández-López et al., 2013). Moreover, valuable information can be collected by determining the appropriateness and effectiveness of digital technologies for different types of disabilities at different school ages, leading to the enhancement of teaching quality and learning performance (Ok et al., 2016).

1.1 Research Gap

To the best of the authors' knowledge there is limited research in the field, highlighting the need for an overview of the current status of media accessibility and inclusivity in the educational domain. Within this context, particular emphasis is placed on the media domains, specifically audiovisual and multimedia, as well as the accessibility

domains, particularly cognitive, visual, and auditory. Hence, this overview aims at addressing this concern with the following three main research questions (RQs):

- RQ1. How can the current state of the art be summarized as an overview?
- RQ2. How prominent are the notions of media accessibility and inclusivity in the educational domain?
- RQ3. Which are the most prominent themes affecting media accessibility and inclusivity in the educational domain?

In answering the aforementioned RQs, both research and educational practices can benefit. Contributions towards a better understanding of media accessibility and inclusivity in the educational domain, foremost, will benefit the learners and can act as a catalyst to decision-makers too.

2 Research Approach

The overview focuses on understanding the current state of research on media accessibility and inclusivity in education. To ensure a comprehensive yet focused review, a search was conducted in the Web of Science (WoS) Current Contents Connect (CCC) database to cover representative literature from recognized journals. This chapter discusses the results of that search.

The literature review was not bounded by any time-based constraints. The search was conducted using relevant terms connected with Boolean operators "OR" and "AND", specifically ("education*" OR "learn*") AND ("technolog*") OR ("inclusive technolog*" OR "assistive technolog*"). Additionally, since we were interested in determining whether the studies contain references to specific media domains (i.e. audiovisual, multimedia) and accessibility domains (i.e. cognitive, visual, and auditive), the search terms "media" AND ("accessib*" OR "inclusiv*") were combined with the aforementioned ones using the operator "AND". Truncation was used to cover all variations of some keywords; for example, the search term "technolog*" was used to search for literature that included the word "technology" as well as "technologies". The search string used in its complete form is the following:

("education*" OR "learn*") AND ("technolog*" OR "inclusive technolog*" OR "assistive technolog*") AND ("media" AND ("accessib*" OR "inclusiv*"))

Specific search terms related to the publication topic, thus including the title, abstract, and author keywords, were sought (i.e. the filter "TOPIC" was selected). Moreover, inclusion criteria were defined for this review, enabling the selection of studies that reported on accessible and inclusive media used in technologies for the purpose of education or learning. Besides, the studies needed to be review articles, published in peer-reviewed journals, written in the English language and reporting on empirically evaluated research.

The literature search was conducted in September 2023, and the publications that included specified search terms in the publication topic were identified ($N = 250$).

From these, only review articles, which were peer-reviewed journal publications and written in English, were further considered ($N = 36$). Since two duplicate publications were returned, the number of review articles considered were thus reduced ($N = 34$).

Subsequently, title, abstract, author keywords, keywords plus, and full text of the filtered literature were analysed to ensure publication suitability and relevance, and the qualified publications were retained. This resulted in narrowing the number further ($N = 14$) and leaving for more detailed analysis review articles that were found to be compliant with the purpose of this study.

3 Results

The analysis of the selected 14 review articles found to be compliant with the purpose of this paper is presented and discussed below.

3.1 Publication History and Distribution by Countries

The trend of publication frequency between the years 2014 and 2023 is illustrated on Fig. 1. All the identified studies ($N = 14$) have been published in the timespan of the past 10 years, reflecting the recent attention given to the researched domain. There was a plateau in relevant studies in the immediate aftermath of the pandemic, counterbalanced by the upwards curve followed since then. Given the prominence of the notions discussed in this paper and the continuous emergence and development of new technologies and media, this trend is expected to continue in the coming years.

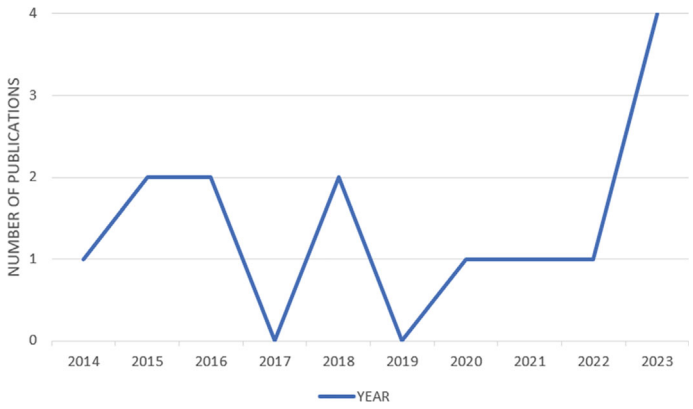

Fig. 1 Publication history

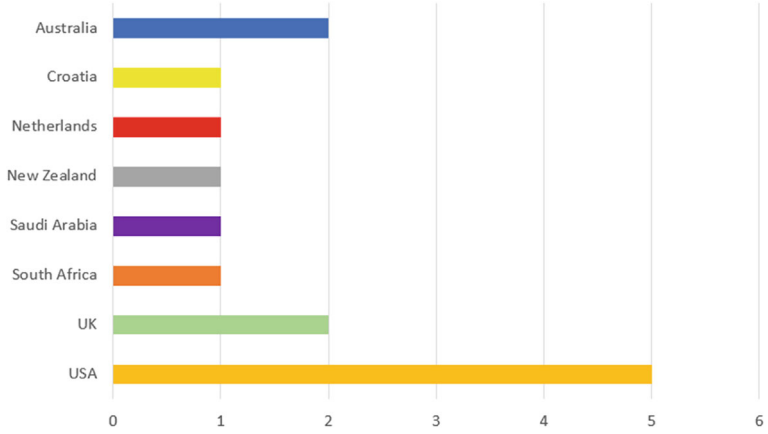

Fig. 2 Distribution of selected review articles by country

What also becomes evident is the spread of researcher interest worldwide (see Fig. 2). Most of the identified studies were conducted in the USA ($N = 5$), followed by the UK and Australia ($N = 2$). In the rest of the countries, only single studies were piloted (alphabetical order): Croatia, Netherlands, New Zealand, Saudi Arabia, and South Africa.

3.2 Type of Participants and Sample Size

Regarding the types of participants/users involved in the reviewed studies, those were diverse and in some cases included more than one type within the same study. Overall, the most chosen sample group were students ($N = 8$) (Alshammari & Fayez Alanazi, 2023; Granić, 2022; Huang et al., 2016; Jordan, 2023; Mącznik et al., 2015; O'Connor et al., 2018; Radu, 2014; Sproul et al., 2021). Several studies also engaged respective teachers/faculty ($N = 2$) (Jordan, 2023; O'Connor et al., 2018) or professionals ($N = 4$) (Afzalan & Muller, 2018; Franklin et al., 2015; Mącznik et al., 2015; Rolls et al., 2016). To be more specific, teachers were mainly recruited from elementary and secondary school levels, while professionals were mainly representative of the healthcare sector. A smaller number of research also involved other participants, in particular individuals with disabilities, including students with light sensitivity and deaf and hard-of-hearing adolescents and young adults ($N = 3$) (Ahlin & Hiddinga, 2023; Sproul et al., 2021; Sweet et al., 2020). Meanwhile others involved parents, caregivers, and community health workers (Jordan, 2023; Till et al., 2023). A different, yet interesting sample group were researchers and practicing planners (Afzalan & Muller, 2018).

In studies where the sample sizes were reported (Alshammari & Fayez Alanazi, 2023; Granić, 2022; Huang et al., 2016; Jordan, 2023; Mącznik et al., 2015; O'Connor

et al., 2018; Rolls et al., 2016; Sweet et al., 2020; Till et al., 2023), these varied with the smallest (3) and largest (8586) samples of individuals with disabilities originating from the same study (Sweet et al., 2020). What is also notable is the domination of smaller sample sizes up to 400 participants ($N = 8$) compared to the number of larger sample sizes.

4 Discussion

The 14 review articles that form our literature corpus demonstrate how media accessibility and inclusivity are discussed in various educational contexts, such as healthcare education. The analysis reveals that these key concepts appear with varying frequency, with accessibility being more prominently featured than inclusivity in most articles.

Moreover, further related ideas are discussed. The integration of messaging apps in education is addressed, with emphasis placed on their potential in low- and middle-income countries (Jordan, 2023). A focus on the impact of communication technologies on deaf and hard-of-hearing individuals and an emphasis on the need for inclusive technology design through the involvement of the deaf community are visited in Ahlin and Hiddinga (2023). Digital health interventions for maternal and child health in low- and middle-income countries are explored, with challenges such as insufficient consideration of community perspectives and the exclusion of key players being pointed out (Till et al., 2023). The transformative influence of technology on nursing education in Saudi Arabia and the need for adequate training and the integration of emerging technologies are all discussed (Alshammari & Fayez Alanazi, 2023). Factors influencing the adoption of educational technology are explored, with emphasis placed on the importance of system accessibility and self-efficacy (Granić, 2022). Focus is also placed on guidelines for the safer use of digital media for light-sensitive students (Sproul et al., 2021). Social media's role in building supportive communities for individuals with disabilities is analysed, and challenges related to accessibility and affordability are identified (Sweet et al., 2020). Social media's role in healthcare education is explored, while factors such as motivation, accessibility, and digital literacy are also mentioned (O'Connor et al., 2018). Online participatory tools are explored, and concerns about social injustices and the importance of ensuring inclusiveness are highlighted (Afzalan & Muller, 2018). Changes in reading patterns influenced by Internet technologies are investigated, touching upon the accessibility and affordability of smart technologies (Huang et al., 2016). An assessment of online technologies in physiotherapy education takes place along with an identification of benefits related to accessibility and practical skills enhancement (Mącznik et al., 2015). Virtual communities in health care are discussed, recognizing ease of access as enhancing perceived benefits (Rolls et al., 2016). The affordability and approachability of ICT tools employed in health care are both examined (Franklin et al., 2015). Finally, augmented reality in education is explored, recognizing its wide accessibility, while factors influencing its effectiveness are also addressed (Radu, 2014).

Through an overview of the 14 review articles, the key themes of inclusivity and accessibility emerge with varying degrees of frequency, with the latter appearing in all review articles under consideration ($N = 14$) compared to the former ($N = 9$). This prominence can be attributed to several factors currently rendering one more widely researched than the other, including, but not limited, to:

- the regulatory standards pertaining to accessibility (it itself can be considered part of inclusion and therefore can provide a more focused target for policymakers).
- the fact that accessibility links directly with the disabled, itself a well-researched area.
- the emergence of new technologies, including (generative) artificial intelligence and virtual reality, and how these may enhance accessibility in educational settings.
- inclusivity's prominence in the research literature prior to the years under study in this paper. This has by no means exhausted all possible research avenues, and it has, however, also brought attention to the importance of making things accessible to users.
- accessibility itself is an interdisciplinary field, calling upon contributions from technology, education, social sciences, and disability studies, inter alia. Therefore, as these individual fields develop, more combined studies are expected to take place.

Table 1 presents the incidence of those themes as well as several highly related indicative key notions that fall under each of the two major themes according to their relevance, along with studies looking at those themes and notions. The list is obviously non-exhaustive, but it serves to show how commonly these related notions occur in our corpus. Below follows an analysis of the findings.

4.1 Interpreting the Results for Media Accessibility Theme

For the media accessibility theme, the notions of accessibility and its derivatives (access, accessible, and inaccessible) were present in all studies reviewed ($N = 14$) which points to the prominence and significance of the term as a research area. Technologies ($N = 14$) and user experiences/user satisfaction ($N = 13$) were equally highly-researched terms. Both these were expected to feature high on this list, given that (a) technologies is the underlying concept of the overall scope of this paper and (b) users are the reason such technologies are developed and researched in the first place, rendering their experiences and general views important. Policies and regulations relating to media accessibility were also frequently researched ($N = 9$), which is testament to the fact that rendering media accessible to users regardless of their means, backgrounds, location, etc., is slowly becoming the norm rather than the exception to the rule. Having access regulated ensures that accessibility is not a privilege like it used to, but a right of all. Related notions like sensory ($N = 5$), navigation ($N = 4$), subtitles/transcripts ($N = 3$), and captions ($N = 1$) appeared in the search in

Table 1 Incidence of themes relating to media accessibility and inclusivity

Category	Incidence of key notions	Indicative sample research
Media accessibility	Access ($N = 14$)	Jordan (2023)
	Technologies ($N = 14$)	Ahlin and Hiddinga (2023)
	User experience/satisfaction ($N = 13$)	Granić (2022)
	Policies/regulations ($N = 9$)	Sweet et al. (2020)
	Affordability ($N = 6$)	Afzalan and Muller (2018)
	Sensory ($N = 5$)	Huang et al. (2016)
	Navigation ($N = 4$)	Radu (2014)
	Subtitles/transcripts ($N = 3$)	Mącznik et al. (2015)
	Captions ($N = 1$)	Ahlin and Hiddinga (2023)
Media inclusivity	Interactivity ($N = 14$)	Alshammari and Fayez Alanazi (2023)
	Participation ($N = 14$)	Franklin et al. (2015)
	Platform ($N = 13$)	O'Connor et al. (2018)
	Integration ($N = 12$)	Till et al. (2023)
	Collaboration ($N = 11$)	Till et al. (2023)
	Diversity ($N = 10$)	Granić (2022)
	Exclusion ($N = 10$)	O'Connor et al. (2018)
	Inclusion ($N = 9$)	Sproul et al. (2021)
	Format ($N = 5$)	Jordan (2023)
	Usability ($N = 5$)	Sweet et al. (2020)
	Respect ($N = 5$)	Afzalan and Muller (2018)

more limited numbers, which might be an indication that even though accessibility was the overarching theme with a striking prevalence among the researched notions indeed, not all of its parameters were equally researched. This is not to necessarily say that such notions warrant less attention, but rather that the scope of the reviewed papers may have been such that more emphasis was placed on some umbrella terms and less on more nuanced ones.

4.2 Interpreting the Results for Inclusivity Theme

For the media inclusivity theme, the notions of inclusivity and its derivatives (inclusion, inclusive, and inclusiveness) were present in the majority of studies reviewed ($N = 9$). Like mentioned above, inclusivity appears less frequently in the review articles compared to accessibility. In fact, it might cause surprise that most of the key notions identified in this category and which link to inclusivity appear more frequently in the

review articles than inclusivity itself. Ever-present are the notions of interactivity and participation ($N = 14$), which makes sense given that such terms are at the core of inclusivity. The notions of platform ($N = 13$) and integration ($N = 12$) also feature highly, drawing direct links to how technology is employed in an effort to help make environments more inclusive. Collaboration ($N = 11$) was one of those terms that not only appeared in the majority of studies but was also highly prevalent among the key notions. This is in complete alignment with pedagogical developments of the past two decades or so, which have placed collaboration at the forefront of learning. Diversity ($N = 10$) and exclusion ($N = 10$) also feature higher in prominence than inclusivity. Lastly, terms like format, usability, and respect appear similarly among them ($N = 5$). Results here indicate that inclusivity as a notion is widely researched, while the same can be said for a number of its major parameters.

4.3 Addressing the Research Questions

Returning to the RQs posed in the introduction section, the literature overview reveals a limited current state of the art in the area. This can be attributed to educational technology's relatively recent rise to prominence and the even more recent development of areas like media accessibility and inclusivity. Further development is imminent though, as new technologies are emerging at a fast pace (e.g. virtual reality and artificial intelligence), giving rise to a whole new set of possibilities and research areas. Addressing RQ2, the notions of media accessibility and inclusivity currently show themselves somewhat prominent in the educational domain but only just. In line with the discussion above, they appear to be under-researched to date. Although both notions have received some attention, there is still a lot of ground to cover, particularly research that looks at the two in tandem. Finally, RQ3 enquired which themes affecting media accessibility and inclusivity in the educational domain are most prominent. Themes closely linked to accessibility included technologies, user experiences and user satisfaction, and related policies and regulations governing and/or ensuring equitable access. On the other hand, interactivity of online educational environments, user participation and collaboration, platform setup and integration of tools and other sources were the themes being more closely linked to inclusivity.

5 Conclusions and Future Work

Scarcity of literature on educational technology accessibility (Brito & Dias, 2020) is a more general concern. Media accessibility and inclusivity can be considered as an important part of this broader problem. Published works have conducted comparative analysis on educational technology and others documented problems experienced by students with disabilities to cope with educational technology. Two main concerns highlighted in Brito and Dias (2020) are accessibility of the educational technology,

i.e. LMS in this study and accessibility of the contents published in the educational technology. We share similar observations from the contents perspective especially, as the conducted review has made a two-fold contribution to the research area under study. Firstly, it exposed the limited current state of the art, and secondly, it revealed the need for educational technologies to be more compliant to usability and accessibility standards to ensure inclusive education. Continuous development of new educational technologies to support diverse users, including those with disabilities, further emphasizes the priority and attention that this requires.

In the overview of the 14 review articles, the key themes of inclusivity and accessibility emerged with varying degrees of frequency, with the latter and its derivatives (access, accessible, and accessibility) appearing in all review articles under consideration ($N = 14$) compared to the former and its derivatives (inclusion, inclusive, and inclusiveness) ($N = 9$). This prominence can be attributed to several factors discussed in detail in Sect. 3.3.

The limited current state of the art in this area highlights the need for further research. In light of recent findings, this chapter could be expanded to provide a more comprehensive review, supported by a literature map. This map would represent the landscape of media accessibility and inclusivity in education, summarizing the purpose of each code category. Such an approach would contribute directly to this specific research area by guiding researchers on where contributions can be made. Additionally, future research could focus on identifying the types of learning content that can be effectively taught using emerging technologies, such as VR and AI, and how these should be designed to ensure accessibility and inclusivity.

Acknowledgements This chapter is based upon work from COST Action CA19142—Leading Platform for European Citizens, Industries, Academia and Policymakers in Media Accessibility (LEAD-ME) supported by COST (European Cooperation in Science and Technology).

References

Afzalan, N., & Muller, B. (2018). Online participatory technologies: Opportunities and challenges for enriching participatory planning. *Journal of the American Planning Association, 84*(2), 162–177.

Ahlin, T., & Hiddinga, A. (2023). Technological socialities: The impact of information and communication technologies on belonging among deaf and hard-of-hearing people. *Sociology Compass, 17*(5), e13068.

Alshammari, A., & Fayez, A. M. (2023). Use of technology in enhancing learning among nurses in Saudi Arabia; a systematic review. *Journal of Multidisciplinary Healthcare, 31*, 1587–1599.

Boateng, R., & Amankwaa, A. (2016). The impact of social media on student academic life in higher education. *Global Journal of Human-Social Science, 16*(4), 1–8.

Brito, E., & Dias, G. P. (2020). LMS accessibility for students with disabilities: The experts' opinions. In *2020 15th Iberian Conference on Information Systems and Technologies (CISTI)* (pp. 1–5). IEEE.

Fernández-López, Á., Rodríguez-Fórtiz, M. J., Rodríguez-Almendros, M. L., & Martínez-Segura, M. J. (2013). Mobile learning technology based on iOS devices to support students with special education needs. *Computers & Education, 61*, 77–90.

Franklin, N. C., Lavie, C. J., & Arena, R. A. (2015). Personal health technology: A new era in cardiovascular disease prevention. *Postgraduate Medicine, 127*(2), 150–158.

Granić, A. (2022). Educational technology adoption: A systematic review. *Education and Information Technologies, 27*, 9725–9744. https://doi.org/10.1007/s10639-022-10951-7

Huang, S., Orellana, P., & Capps, M. (2016). US and Chilean college students' reading practices: A cross-cultural perspective. *Reading Research Quarterly, 51*(4), 455–471.

Jordan, K. (2023). How can messaging apps, WhatsApp and SMS be used to support learning? A scoping review. *Technology, Pedagogy and Education, 32*(3), 275–288.

Kimball, E. W., Wells, R. S., Ostiguy, B. J., Manly, C. A., & Lauterbach, A. A. (2016). Students with disabilities in higher education: A review of the literature and an agenda for future research. In M. B. Paulsen (Ed.), *Higher Education: Handbook of Theory and Research* (pp. 91–156). Springer.

Lin, H. C., & Hwang, G. J. (2019). Research trends of flipped classroom studies for medical courses: A review of journal publications from 2008 to 2017 based on the technology-enhanced learning model. *Interactive Learning Environments, 27*(8), 1011–1027.

Mącznik, A. K., Ribeiro, D. C., & Baxter, G. D. (2015). Online technology use in physiotherapy teaching and learning: A systematic review of effectiveness and users' perceptions. *BMC Medical Education, 15*(1), 1–2.

Moriña, A. (2019). Inclusive education in higher education: Challenges and opportunities. *Postsecondary Educational Opportunities for Students with Special Education Needs, 18*, 3–17.

O'Connor, S., Jolliffe, S., Stanmore, E., Renwick, L., & Booth, R. (2018). Social media in nursing and midwifery education: A mixed study systematic review. *Journal of Advanced Nursing, 74*(10), 2273–2289.

Ok, M. W., Kim, M. K., Kang, E. Y., & Bryant, B. R. (2016). How to find good apps: An evaluation rubric for instructional apps for teaching students with learning disabilities. *Intervention in School and Clinic, 51*(4), 244–252.

Ortiz-Jiménez, L., Figueredo-Canosa, V., Castellary López, M., & López Berlanga, M. C. (2020). Teachers' perceptions of the use of icts in the educational response to students with disabilities. *Sustainability, 12*(22), 9446.

Radu, I. (2014). Augmented reality in education: A meta-review and cross-media analysis. *Personal and Ubiquitous Computing, 18*, 1533–1543.

Rao, S. (2004). Faculty attitudes and students with disabilities in higher education: A literature review. *College Student Journal, 38*(2), 191–198.

Rolls, K., Hansen, M., Jackson, D., & Elliott, D. (2016). How health care professionals use social media to create virtual communities: An integrative review. *Journal of Medical Internet Research, 18*(6), e166.

Sproul, J., Ledger, S., & MacCallum, J. (2021). A review of digital media guidelines for students with visual light sensitivity. *International Journal of Disability, Development and Education, 68*(2), 222–239.

Sweet, K. S., LeBlanc, J. K., Stough, L. M., & Sweany, N. W. (2020). Community building and knowledge sharing by individuals with disabilities using social media. *Journal of Computer Assisted Learning, 36*(1), 1–1.

Till, S., Mkhize, M., Farao, J., Shandu, L. D., Muthelo, L., Coleman, T. L., Mbombi, M., Bopape, M., Klingberg, S., van Heerden, A., & Mothiba, T. (2023). Digital health technologies for maternal and child health in Africa and other low-and middle-income countries: Cross-disciplinary scoping review with stakeholder consultation. *Journal of Medical Internet Research, 25*, e42161.