

The Interplay of Learning Organization and Digital Accessibility in Promoting Inclusion and Equity for Persons with Disabilities

Achraf Othman¹ and Amnah Al Mutawaa²

Mada Qatar Assistive Technology Center, Al Nasr Tower B, Level 7, PO Box, Doha, Qatar

ABSTRACT

With the increasing reliance on emerging technologies in the context of digital transformation, businesses aim to enhance service quality and adapt to changing customer needs. However, persons with disabilities still face barriers to employment due to negative attitudes, lack of accessibility, and discrimination. Therefore, there is a need to explore the challenges and opportunities associated with learning organization, digital accessibility, and disability in digital transformation, specifically focusing on employment for persons with disabilities in the human resources industry. This research agenda seeks to investigate the role of learning organization in enabling persons with disabilities for employment, identifying key challenges and opportunities associated with learning organization, digital accessibility, and disability in digital transformation. The contributions will provide valuable insights into policies and strategies that can promote accessibility, inclusion, and equity in the workplace for persons with disabilities through the lens of learning organization, contributing to the sustainable development goal of reducing inequality and promoting inclusive economic growth. This research agenda will be relevant for policymakers, employers, and persons with disabilities in the human resources industry.

KEYWORDS

Learning organization; Digital accessibility; Disability; Employment; Human resource industry

1. Introduction

The arrival of digital transformation has simultaneously ushered in a plethora of benefits and presented several obstacles (Kutnjak & Pihir, 2019). It has offered the possibility of enhanced accessibility and inclusivity, which has resulted in significant changes to the way that the organization functions (Bailey & Gkatzidou, 2017). This shift is especially significant for people with disabilities because, in the past, they have often been subjected to significant obstacles in terms of work and participation (Hogan et al., 2012). This literature review is centered on an investigation into the ways in which learning organizations and digital accessibility interact to promote equity and inclusion for people with disabilities, with a specific emphasis on the field of employment and human resources. As we make our way through the digital revolution of the 21st century, the artificial intelligence era and the fourth industrial revolution, it is becoming more and more obvious that newly developed technologies have the potential to be a double-edged sword. Although they could improve service quality and cater to the ever-changing requirements of customers, they also bring into stark relief the unpleasant reality of the digital divide. Because of this divide, certain populations, most notably people with disabilities, and as well the elderly community (Chalghoumi et al., 2022), are frequently relegated to the margins of digital society (Chadwick & Wesson, 2016). As a result, they are prevented from fully participating in society's activities as a result of discriminatory attitudes, inaccessible design, and outright exclusion

(Keates & Clarkson, 2003).

In a learning organization, as mentioned by Serrat (2017), the principles of systems thinking, personal mastery, mental models, shared vision, and team learning can be applied to digital accessibility. Systems thinking allows an organization to understand the complexities of digital accessibility, identifying how different components like web design, assistive technologies, and user experience interact and influence each other. Personal mastery encourages individuals to develop their skills in creating and managing accessible digital environments. Mental models can help challenge existing assumptions about digital accessibility and inspire innovative solutions. A shared vision around digital accessibility can unify the organization, fostering a collective commitment to creating an inclusive digital environment. Finally, team learning facilitates collective problem-solving and innovation in digital accessibility, enabling the organization to continually improve and adapt to changing accessibility standards and technologies. In this way, learning organizations can play a crucial role in promoting digital accessibility.

Notably, a significant initiative led by the Mada Center has tackled this issue head-on. The recent work, "Assessing the Readiness of Government and Semi-Government Institutions in Qatar for Inclusive and Sustainable ICT Accessibility: Introducing the MARSAD Tool", focused on gauging the accessibility of ICT products and services in the state of Qatar (Othman et al., 2023). Mada developed and implemented the MARSAD tool starting from 2019 to measure national ICT accessibility adoption rates in the education, community, and employment sector. The tool exposed significant gaps in ICT infrastructure needed to foster an inclusive digital environment within the surveyed institutions, highlighting the necessity of further improvement.

In the face of these challenges, an intriguing proposition arises: the adoption of a learning organization model. This concept promotes continuous learning, knowledge sharing, and personal development within an organization's culture (Nayak et al., 2003). This review posits that learning organizations can offer a research agenda for advancing and fostering digital accessibility, inclusion, and equity, especially within the employment and human resources sector. However, the literature remains limited in illustrating how these principles can interplay to create more inclusive employment practices for persons with disabilities. This knowledge gap will be investigated in this literature review, and we will look at how learning organization concepts can be integrated with digital accessibility to encourage more fair employment practices for people with disabilities in the employment. When examined through the lens of the Sustainable Development Goals established by the United Nations (Clark & Wu, 2016), which emphasize the urgency of eliminating inequality and encouraging economic growth that is inclusive for all, the investigation at hand takes on an even greater degree of significance (van Niekerk, 2020).

In essence, this review aspires to contribute meaningfully to the discourse on digital accessibility, inclusion, and equity. Through a detailed examination of existing literature and the insightful work of the Mada Center, it aims to offer valuable insights to policymakers, employers, and persons with disabilities within the human resources industry. Ultimately, it strives to illuminate a pathway towards a more inclusive digital future for persons with disabilities. In a nutshell, the goal of this assessment is to make a significant contribution to the ongoing conversation on digital accessibility, inclusion, and equity. Its goal is to provide policymakers, employers, and people with disabilities working in or in relation with the employment sectors with significant insights by performing a rigorous review of existing literature and based on the work MARSAD done by the Mada Center (Othman et al., 2023). In the end, it seeks to shed light on a way forward that will lead to a digital future that is more accessible to people with disabilities.

The ensuing review is structured systematically to present a thorough, cohesive analysis. Following this introduction, Section 2 outlines the methodology, detailing the search strategy, selection criteria, and analytical approach. This paves the way for Section 3, the literature review, which is divided into

two parts: thematic organization and critical analysis. The thematic organization identifies and categorizes the main themes, while the critical analysis delves into a deeper examination of the selected literature. In Section 4, the discussion further unpacks the themes and findings, focusing on identifying key challenges and opportunities. This allows for a detailed exploration of the complexities of digital accessibility and inclusion, and the role of learning organizations in addressing these. Section 5, the conclusion, synthesizes the main insights from the review, offering reflections on the current state of knowledge and directions for future research. This structure is designed to offer a thorough understanding of the issues at hand and foster a comprehensive conversation about the interplay between learning organizations and accessibility.

2. Methodology

The research objective was accomplished by reviewing existing studies on learning organizations, digital accessibility, and employment of persons with disabilities. The process of combining systematic reviews yielded a comprehensive understanding of the research conducted in these areas (Page et al., 2021). This method is apt for our context as it identifies gaps in the existing literature and provides an exhaustive summary of the pertinent research. Key data was collected from selected scientific databases using combination coding. This strategy was employed to gain a broad understanding of the field and unearth fresh perspectives.

2.1 Research questions

The research questions (RQ) driving this literature review stem from the identified need to understand the intersection of learning organizations (LO) and digital accessibility (DA) in relation to employment for persons with disabilities. As such, the following research questions have been formulated:

·RQ1: How do learning organization principles relate to digital accessibility? To explore the connections and practical implications between the principles of LO and DA.

·RQ2: What role does a learning organization play in promoting digital accessibility and inclusivity for persons with disabilities, particularly in the employment sector? To understand how LO can leverage their unique framework to foster DA and inclusivity, with a specific focus on the human resources industry.

·RQ3: What are the key challenges and opportunities in achieving digital accessibility and inclusivity for persons with disabilities within learning organizations? To identify the barriers and potential enablers to creating a digitally accessible and inclusive environment within learning organizations.

·RQ4: How can the insights from the existing literature inform policies and strategies to promote accessibility, inclusion, and equity in the workplace for persons with disabilities? To translate the insights from the literature into practical recommendations that can guide policy and strategy development.

2.2 Data collection

The databases of SpringerLink, ScienceDirect, and ACM Digital Library were intentionally chosen for the search of pertinent articles. These databases were selected due to their vast collections of scholarly and technical literature, particularly strong in the fields of organizational studies, technology, human resources, and disability research. These resources are known to host extensive content relevant to the intersection of learning organizations, digital accessibility, and the inclusion of persons with disabilities, which is the focus of this review.

The aim of the search was to acquire a thorough understanding of the current landscape of research on the topic, hence both review papers and original research articles were considered. The keywords used for the search were: "Learning Organization" AND ("Digital Accessibility" OR "Accessibility") AND ("Persons with Disabilities" OR "Disability"). These search terms were constructed to ensure a

broad, yet relevant set of articles would be yielded for review and analysis.

In the first step, 467 articles were taken from each database and inserted into a Zotero-generated dataset as shown in Table 1. Five retractions were deleted during the publication title screening. After reviewing the abstracts and applying the exclusion criteria (non-English articles; studies focused solely on technology; studies focused solely on medicine; articles with a low focus on digital accessibility; studies with no discussion of learning organization), 438 more papers were excluded. The exclusion criteria, detailed in Figure 1, helped to narrow down the selection of publications. An initial count of 24 articles was reduced to 6 after a thorough full-text scan and application of these exclusion criteria. These 6 publications were deemed suitable for a comprehensive study and analysis. The breakdown of the research selection process is also illustrated in Figure 1. Among the final selections, there were 3 journal articles and 3 conference proceedings. Table 2 summarizes all investigated papers.

Table 1 Online electronic databases

Database	Filter	Number of articles
ACM Digital Library	All articles	6 articles
SpringerLink	Articles in English	359 articles
ScienceDirect	Review papers	102 articles
Total articles:		467 articles

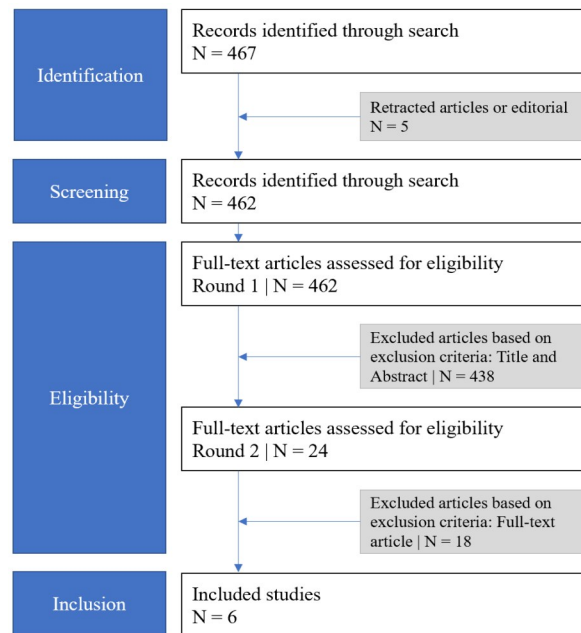


Figure 1 Methodology process for article inclusion and exclusion

Table 2 List of included studies with research questions

Title	RQ1	RQ2	RQ3	RQ4
(Altinier et al., 2022)	×	×	✓	✓
(Brooks & Webb, 1999)	×	×	×	✓
(Deaton, 2016)	✓	×	✓	×
(Pati & Bailey, 1995)	×	✓	✓	✓
(Raymaker, 2016)	✓	×	✓	×
(Yadav & Rajak, 2022)	×	×	×	✓

2.3 Coding and data analysis

In this phase, raw data were organized into categories, resulting in the emergence of new thematic categories. The categorization utilized a combined approach of deductive and inductive coding. Deductive coding applies to predefined categories, while inductive coding allows for the emergence of new categories through an exploratory process. For our pilot test, we selected five significant areas of learning organization principles and digital accessibility in the context of promoting employment for persons with disabilities for the deductive coding. Meanwhile, inductive coding was instrumental in identifying new themes and augmenting our codes. To clarify how this process is illustrated, the first set of categories in Table 3 were derived deductively, in alignment with the chosen themes. As the research proceeded, new categories organically surfaced, denoted in the later part of the table, exemplifying the use of inductive coding. This combined method enabled an early application of deductive coding, followed by inductive coding to encompass emergent themes in the area of learning organizations, digital accessibility, and employment for persons with disabilities.

2.4 Data interpretation

Based on the coded data, applications of learning organization principles for promoting digital accessibility and employment for persons with disabilities were categorized and defined. The primary findings of the analysis - the current and emerging areas for the application of learning organizations in fostering digital accessibility - were compiled and defined in line with the research questions. These are further discussed in the following section.

3. Literature review

The literature review aims to bring together existing knowledge on the nexus of learning organizations, digital accessibility, and employment for persons with disabilities. Through a systematic exploration of the selected studies, this section presents a thematic organization and a critical analysis of the literature.

Table 3 List of included studies with highlights

ID	Year	Highlights
(Altinier et al., 2022)	2022	● The importance of moving teaching practices in the accessibility field from compliance with current standards towards fostering a more inclusive mindset that considers the diverse range of needs of people with disabilities and involves them in the conception, design, development, and validation processes of any digital product, service, and tool. ● The development of new job roles such as "Digital Accessibility Mediator" and the certification of professionals with or without disabilities to ensure that accessibility is not only approached as a technical question but also involves dialogue between professionals and end-users to lead to better accessibility based on the perception of accessibility by the end-user, regardless of compliance to the standard. ● The challenges and opportunities in achieving digital accessibility and inclusivity for persons with disabilities within learning organizations, including the lack of professionals trained in universal design and user-centric perspectives, the emphasis on technical aspects of accessibility without considering fundamental competencies, and the need to involve end-users in the design process.
(Brooks & Webb, 1999)	1999	● The paper explores the role of IT tools in supporting the principles of a Learning Organisation (LO), and highlights the need for greater communication and cooperation between different sections of an organization to make the best use of these tools. ● The paper presents findings from a study on the use of IT tools in the context of LO principles, including the use of electronic mail, bulletin boards, and the World-Wide Web. The study found that while many organizations had access to these tools, they were not always being used effectively to support LO principles. ● The paper suggests that there is a gap between theory and practice when it comes to implementing LO principles and using IT tools to support them. The paper highlights the need for senior management to recognize the benefits of IT tools for supporting LO principles, and for organizations to make more effective use of the IT tools they currently employ.

Table 3 List of included studies with highlights(Continued)

ID	Year	Highlights
(Deaton, 2016)	2016	● Building a plan for accessibility requires specific goals and looking holistically at organizations. Organizational contexts define how organizations should develop plans. In order to enact ongoing plans, organizations need to build processes into existing teams and consider how to develop organizational awareness for individuals with disabilities and the varying ways that these users access and use technology. Process development for accessibility requires executive buy-in and leadership, clear communication and training, and a culture of awareness for digital accessibility. ● Processes for building Accessible Learning Experiences vary by the goals of the organization trying to implement these experiences for their students, users, or customers. Providing support for the user's ability to learn a system gives users the tools they need to make informed decisions on purchasing products. Technical experts in institutions should work with various teams to provide training and instructional material that is kept up to date, and that evolves with new emerging technologies and technical guidance. ● The key challenges and opportunities in achieving digital accessibility and inclusivity for persons with disabilities within learning organizations involve building a culture of awareness for digital accessibility, revising organizational goals, and providing ongoing support and training to ensure that Accessible Learning Experiences are consistently provided. The ability to provide equivalent educational experiences for students with disabilities, expand the reach of educational institutions through outreach, research, and instruction while maintaining a brand of world-wide engagement, and use diverse media and pedagogical strategies in an accessible way are some of the opportunities that can be leveraged to promote accessibility, inclusion, and equity in the workplace for persons with disabilities.
(Pati & Bailey, 1995)	1995	● The paper highlights the importance of promoting accessibility, inclusion, and equity in the workplace for persons with disabilities, and identifies the challenges and opportunities associated with achieving these goals. ● The paper emphasizes the role of learning organizations in promoting digital accessibility and inclusivity for persons with disabilities, and provides insights into how organizations can create a culture of continuous learning and improvement that supports the development of accessible digital products and services. ● The paper highlights the need for policies and strategies that address the needs of persons with disabilities in the workplace, and emphasizes the importance of promoting awareness and education among employers, employees, and other stakeholders about the importance of accessibility, inclusion, and equity.
(Raymaker, 2016)	2016	● The paper describes the use of a hybrid CST/CBPR approach to implement a learning organization model from soft systems thinking, which has helped to promote digital accessibility and inclusivity for persons with disabilities in the employment sector. ● The paper highlights the importance of understanding the political and social context in which learning organizations operate, as well as the paradigmatic, socio-economic, and personal differences that can have profound implications for promoting accessibility, inclusion, and equity in the workplace for persons with disabilities. ● The paper emphasizes the importance of collaboration and communication across different professional backgrounds and perspectives, as well as the need for precise headings, specific instructions, and optional sections to increase accessibility and understanding of information.
(Yadav & Rajak, 2022)	2022	● The paper explores the impact of diversity management practices on learning organization and organizational performance in the hospitality industry. It suggests that effective diversity management practices can increase learning in the organization and enhance organizational performance. ● The study adopts a mixed approach methodology that includes data published in various government and non-government organizations and various research papers, articles, and original work to get reliable and relevant information and in-depth knowledge on the concerned topic. ● The paper provides suggestions to the hospitality industry on how to manage diversity and implement adequate diversity management practices that increase learning in the organization and enhance organizational performance.

3.1 Thematic organization

Four main themes emerged from the literature:

Learning Organization Principles and Practices: This theme covers studies that discuss the core principles of learning organizations, which include systems thinking, personal mastery, mental models, shared vision, and team learning. These principles, as discussed in the literature, have profound implications for fostering an inclusive and accessible organizational culture.

Digital Accessibility: The literature under this theme explores various facets of digital accessibility, including but not limited to, accessible web design, assistive technologies, and digital skills development. These studies shed light on the ways digital accessibility can be improved, barriers that exist, and strategies that have been used successfully in various contexts.

Inclusion and Equity for Persons with Disabilities: This theme focuses on studies that examine the barriers persons with disabilities face in the workplace, the importance of inclusion and equity, and ways to overcome these barriers. The literature discusses several facets, including attitudinal, physical, and digital barriers, and provides insights into promoting an inclusive workplace culture.

Learning Organizations and Digital Accessibility: This theme ties together the above themes and delves into the intersection of learning organizations and digital accessibility. These studies explore how learning organizations can foster a culture of inclusion and digital accessibility and the role they can play in promoting employment opportunities for persons with disabilities.

3.2 Critical analysis

Each of the four identified themes offers valuable insights into the topic at hand, but they also raise important questions and highlight areas where further research is needed.

Learning Organization Principles and Practices: While the principles of learning organizations are well-established in the literature, there is a need for more studies exploring their application in the context of digital accessibility and inclusion for persons with disabilities.

Digital Accessibility: Despite the increasing recognition of the importance of digital accessibility, there are gaps in the literature concerning effective strategies to achieve this, particularly in the context of learning organizations.

Inclusion and Equity for Persons with Disabilities: Although there is a growing body of literature on this theme, there is a lack of research focusing specifically on the HR sector and the role of learning organizations in promoting inclusion and equity.

Learning Organizations and Digital Accessibility: The literature that directly explores this intersection is limited, signifying an area ripe for further exploration.

The next section discusses these themes and findings in more detail, focusing on the key challenges and opportunities identified in the literature.

4. Discussion

RQ1. How do learning organization principles relate to digital accessibility?

Learning organization principles are essential for promoting digital accessibility. As Deaton (2016) discuss, building a plan for accessibility requires specific goals and looking holistically at organizations. Organizational contexts define how organizations should develop plans. In order to enact ongoing plans, organizations need to build processes into existing teams and consider how to develop organizational awareness for individuals with disabilities and the varying ways that these users access and use technology. Process development for accessibility requires executive buy-in and leadership, clear communication and training, and a culture of awareness for digital accessibility. Technical experts in institutions should work with various teams to provide training and instructional material that is kept up to date, and that evolves with new emerging technologies and technical guidance. Therefore, learning organization principles are critical for promoting digital accessibility and ensuring that Accessible Learning Experiences are consistently provided.

From another side, the principles of a learning organization can be applied to promote digital accessibility for persons with disabilities in the employment sector. Raymaker (2016) describes the use of a hybrid CST/CBPR approach to implement a learning organization model from soft systems thinking, which emphasizes the importance of collaboration, co-learning, and capacity building among all partners. By attending to both local relevance and ecological perspectives, and developing systems using a cyclical and iterative process, organizations can balance knowledge generation and intervention for the mutual benefit of all partners. Furthermore, by disseminating results to all partners and involving them in dissemination, organizations can commit to long-term processes and group sustainability. These principles can help to promote digital accessibility and inclusivity for persons with disabilities in the workplace, while also addressing the political and social context in which learning organizations operate.

RQ2. What role does a learning organization play in promoting digital accessibility and inclusivity for persons with disabilities, particularly in the employment sector?

Pati and Bailey (1995) mentioned that learning organizations can play a critical role in promoting digital accessibility and inclusivity for persons with disabilities in the employment sector. By adopting a learning organization approach, employers can create a culture of continuous learning and improvement that supports the development of accessible digital products and services. This may involve ongoing training and education for employees, as well as regular audits and testing to identify and address accessibility barriers. In addition, learning organizations can help to promote inclusivity by fostering a culture of diversity and inclusion. This means creating an environment where all employees feel valued and respected, regardless of their background or abilities. By promoting inclusivity, employers can attract and retain a more diverse workforce, which can lead to a range of benefits, including increased innovation and creativity.

RQ3. What are the key challenges and opportunities in achieving digital accessibility and inclusivity for persons with disabilities within learning organizations?

Altinier et al. (2022) identify several challenges and opportunities in achieving digital accessibility and inclusivity for persons with disabilities within learning organizations. Some of the key challenges include the lack of professionals trained in universal design and user-centric perspectives, the emphasis on technical aspects of accessibility without considering fundamental competencies, and the need to involve end-users in the design process. On the other hand, some of the opportunities include the development of new job roles such as "Digital Accessibility Mediator", the certification of professionals with or without disabilities to ensure that accessibility is not only approached as a technical question, and the promotion of awareness and involvement of stakeholders to foster inclusive mindsets.

Deaton (2016), in his work, mentioned that the key challenges and opportunities in achieving digital accessibility and inclusivity for persons with disabilities within learning organizations involve building a culture of awareness for digital accessibility, revising organizational goals, and providing ongoing support and training to ensure that accessible learning experiences are consistently provided. The ability to provide equivalent educational experiences for students with disabilities, expand the reach of educational institutions through outreach, research, and instruction while maintaining a brand of world-wide engagement, and use diverse media and pedagogical strategies in an accessible way are some of the opportunities that can be leveraged to promote accessibility, inclusion, and equity in the workplace for persons with disabilities. However, the lack of awareness and understanding of digital accessibility, the absence of clear policies and guidelines, the limited availability of technical expertise, and the high cost of implementing accessibility measures are some of the challenges that need to be addressed to ensure that digital accessibility and inclusivity are achieved within learning organizations.

From another perspective, Pati and Bailey (1995) cited that the key challenges in achieving digital accessibility and inclusivity for persons with disabilities within learning organizations include lack of

awareness, limited resources, resistance to change, and technological barriers. However, there are also many opportunities for learning organizations to promote digital accessibility and inclusivity for persons with disabilities, including improved user experience, increased innovation, competitive advantage, and legal compliance. By prioritizing accessibility, inclusion, and equity in the workplace, learning organizations can create a more equitable and inclusive environment for all users, while also promoting diversity, innovation, and compliance with legal requirements.

Achieving digital accessibility and inclusivity for persons with disabilities within learning organizations presents both challenges and opportunities as described in the paper written by Raymaker (2016). One key challenge is the need to address paradigmatic, socio-economic, and personal differences that can have profound implications for promoting accessibility, inclusion, and equity in the workplace for persons with disabilities. Additionally, the highly politicized context in which learning organizations operate can present barriers to the basic concept of the learning organization and to getting any work done at all. However, there are also opportunities to promote digital accessibility and inclusivity through collaboration and communication across different professional backgrounds and perspectives, as well as the use of precise headings, specific instructions, and optional sections to increase accessibility and understanding of information. By attending to both local relevance and ecological perspectives, and developing systems using a cyclical and iterative process, organizations can balance knowledge generation and intervention for the mutual benefit of all partners.

RQ4. How can the insights from the existing literature inform policies and strategies to promote accessibility, inclusion, and equity in the workplace for persons with disabilities?

From the papers (Altinier et al., 2022; Brooks & Webb, 1999; Pati & Bailey, 1995; Yadav & Rajak, 2022), insights from existing literature offer a robust foundation for the creation and enhancement of policies and strategies that foster accessibility, inclusion, and equity for individuals with disabilities in the workplace. Firstly, there's a documented need for comprehensive training and education for all employees, not just those at managerial levels, on accessibility and inclusion. A focus on universally designed digital tools, informed by a user-centric approach, is vital. Furthermore, the establishment of roles like "Digital Accessibility Mediator" and certifications for professionals emphasize a proactive stance on inclusion. It's also evident that successful strategies engage stakeholders, particularly disability advocacy groups, to ensure a holistic perspective on needs and solutions. In addition to this, the literature points out the value of regular assessments of accessibility initiatives and an overarching culture of transparency in organizational communications. Addressing barriers identified in the literature, advocating for policy changes, and leveraging insights on the benefits of diversity management practices to overall organizational performance can result in workplaces that are not just compliant, but truly inclusive.

5. Conclusion

In summary, the critical analysis and in-depth discussions of the identified themes highlight the pivotal role of learning organization principles in promoting digital accessibility, inclusivity, and equity for persons with disabilities. While established principles of learning organizations are recognized as catalysts for inclusivity, their direct application in the domain of digital accessibility necessitates further exploration. Gaps in the literature emphasize the need for continued research, particularly in bridging the realms of learning organizations and digital accessibility. Challenges faced by organizations, including the lack of universal design expertise and resistance to change, underscore the importance of ongoing education and awareness. Conversely, opportunities such as the introduction of specialized roles and proactive stakeholder engagement offer avenues for creating an inclusive work environment. The synthesis of these insights can provide a roadmap for policies and strategies, fostering a more inclusive, equitable, and accessible workplace for individuals with disabilities. By understanding these nuances and integrating them holistically, we can pave the way for a more inclusive future where organizational cultures truly embody the principles of learning and adaptability.

About the authors

Achraf Othman Email: aothman@mada.org.qa

Annah Al Mutawaa Email: aalmutawaa@mada.org.qa

References

- [1] Altinier, A., Oncins, E., Sauberer, G., & Mehigan, T. (2022). Demystifying digital accessibility and fostering inclusive mindsets. Compliance with the European standard for digital accessibility EN 301 549. In M. Yilmaz, P. Clarke, R. Messnarz, & B. Wöran (Eds.), *Systems, software and services process improvement* (pp. 595–609). Springer. https://doi.org/10.1007/978-3-031-15559-8_42
- [2] Bailey, C., & Gkatzidou, V. (2017). Considerations for implementing a holistic organisational approach to accessibility. In *Proceedings of the 14th International Web for All Conference* (pp. 1–4). <https://doi.org/10.1145/3058555.3058571>
- [3] Brooks, L., & Webb, H. (1999). Information technology support for the learning organisation. In T. Wood-Harper, N. Jayaratna, & B. Wood (Eds.), *Methodologies for developing and managing emerging technology based information systems* (pp. 217–229). Springer. https://doi.org/10.1007/978-1-4471-3629-3_19
- [4] Chadwick, D., & Wesson, C. (2016). Digital inclusion and disability. In A. Attrill & C. Fullwood (Eds.), *Applied cyberpsychology: Practical applications of cyberpsychological theory and research* (pp. 1–23). Palgrave Macmillan UK. https://doi.org/10.1057/9781137517036_1
- [5] Chalghoumi, H., Al-Thani, D., Hassan, A., Hammad, S., & Othman, A. (2022). Research on older persons' access and use of technology in the Arab region: Critical overview and future directions. *Applied Sciences*, 12(14), 14. <https://doi.org/10.3390/app12147258>
- [6] Clark, H., & Wu, H. (2016). The sustainable development goals: 17 goals to transform our world. In *Furthering the Work of the United Nations*. United Nations. <https://doi.org/10.18356/69725e5a-en>
- [7] Deaton, P. J. (2016). Accessible learning experience design and implementation. In F. F.-H. Nah & C.-H. Tan (Eds.), *HCI in business, government, and organizations: Information systems* (pp. 47–55). Springer. https://doi.org/10.1007/978-3-319-39399-5_5
- [8] Hogan, A., Kyaw-Myint, S. M., Harris, D., & Denronden, H. (2012). Workforce participation barriers for people with disability. *International Journal of Disability Management*, 7, 1–9. <https://doi.org/10.1017/idm.2012.1>
- [9] Keates, S., & Clarkson, P. J. (2003). Countering design exclusion: Bridging the gap between usability and accessibility. *Universal Access in the Information Society*, 2(3), 215–225. <https://doi.org/10.1007/s10209-003-0059-5>
- [10] Kutnjak, A., & Pihir, I. (2019). Challenges, issues, barriers and problems in digital transformation—Systematic literature review. *11 Th International Doctoral Seminar (IDS 2019)*, 7.
- [11] Nayak, P., Garvin, D., & Maira, A. (2003). *Creating a learning organization*. <https://api.semanticscholar.org/CorpusID:45782346>
- [12] van Niekerk, A. J. (2020). Inclusive economic sustainability: SDGs and global inequality. *Sustainability*, 12(13), 13. <https://doi.org/10.3390/su12135427>
- [13] Othman, A., Al Mutawaa, A., Al Tamimi, A., & Al Mansouri, M. (2023). Assessing the readiness of government and semi-government institutions in Qatar for inclusive and sustainable ICT accessibility: Introducing the MARSAD tool. *Sustainability*, 15(4), 4. <https://doi.org/10.3390/su15043853>
- [14] Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews.

- Journal of Clinical Epidemiology*, 134, 178–189. <https://doi.org/10.1016/j.jclinepi.2021.03.001>
- [15] Pati, G. C., & Bailey, E. K. (1995). Empowering people with disabilities: Strategy and human resource issues in implementing the ADA. *Organizational Dynamics*, 23(3), 52–69. [https://doi.org/10.1016/0090-2616\(95\)90025-X](https://doi.org/10.1016/0090-2616(95)90025-X)
- [16] Raymaker, D. M. (2016). Intersections of critical systems thinking and community based participatory research: A learning organization example with the autistic community. *Systemic Practice and Action Research*, 29(5), 405–423. <https://doi.org/10.1007/s11213-016-9376-5>
- [17] Serrat, O. (2017). Building a learning organization. In O. Serrat (Ed.), *Knowledge solutions: Tools, methods, and approaches to drive organizational performance* (pp. 57–67). Springer. https://doi.org/10.1007/978-981-10-0983-9_11
- [18] Yadav, M., & Rajak, R. (2022). Impact of diversity management practices on learning organization and organizational performance in hotel industry. *International Journal of System Assurance Engineering and Management*, 13(1), 81–91. <https://doi.org/10.1007/s13198-021-01264-y>