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CONCEPTUAL FRAMEWORK FOR CONVERSION PROCESSES IN DEVELOPMENT AND DISSEMINATION OF DIGITAL RESOURCES

Siphamandla Mncube¹, Sizwe Dlalisa², Xolile Samukelisiwe Zincume³

¹Durban University of Technology, South Africa. Email: SiphamandlaM8@dut.ac.za

²Durban University of Technology, South Africa. Email: SizweD@dut.ac.za

³Durban University of Technology, South Africa. Email: zincumex@dut.ac.za

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Corresponding Author: Siphamandla Mncube
(SiphamandlaM8@dut.ac.za)

ABSTRACT

Scholars worldwide are the primary developers of digital resources for various educational objectives. These resources can be created, stored, shared, and accessed on different digital platforms. Generally, they are classified into categories such as online resources, electronic resources, research publications, open educational resources, and open-source materials. Although all scholars are encouraged to create and distribute these digital resources, obstacles remain. It is uncertain whether all scholars are willing or able to contribute. At present, there is no established framework to help scholars persuade others to adopt digital resources. The aim of this study was to investigate how contributors can motivate others to join in or take the initiative. To tackle this issue, the study introduced the conversion process as its theoretical framework. An interpretivist methodology was employed, using qualitative techniques as the main research approach, including 44 semi-structured interviews conducted at the University of South Africa. The results show that both academic and institutional social capital are crucial to the conversion process, as they encourage others to use digital resources. Furthermore, this study contributes by proposing a conceptual framework for the conversion process and advocating further validation of this framework in the context of technology development.

KEYWORDS: Conversion Process, Development, Digital Resources, Dissemination, Higher Education, Academics.

1. INTRODUCTION AND BACKGROUND

The rise of digital resources in higher education has recently demonstrated their vital role in enhancing accessibility, lowering costs, increasing flexibility, and fostering pedagogical innovation. The importance of digital resources in supporting higher education stakeholders, such as institutions, faculty, and students, is well documented and supported by policy documents and reports like UNESCO (Olivier & Rambow, 2023; United Nations Educational & Organization, 2019). For example, digital resources help students better understand difficult concepts (Das & Sarkar, 2025), improve flexibility, accessibility, and the personalization of teaching environments (Ravi et al., 2024), and boost student interaction and engagement (Zhang & Wu, 2025).

Although there are several benefits to using digital resources, their full potential remains untapped due to challenges such as data privacy concerns, structural resistance among faculty, and the digital divide. Moreover, technological challenges like Internet connectivity and personal hardware contribute to the exclusion of disadvantaged students (Amjad et al., 2024). This underscores the importance of implementing equitable access strategies. However, most challenges in the higher education landscape fall into broader categories, such as the production and distribution of digital resources.

Several studies examine the challenges hindering the development of digital resources and consistently identify issues such as economic constraints, limited institutional support, and inadequate infrastructure (Cabral, 2025; Onan, 2024). They also highlight insufficient staff training and the digital divide among stakeholders, including students and staff members (Ajani, 2025; Cabral, 2025), as well as a lack of institutional policies to guide the development of digital resources (Agustina & Kurniawati, 2024; Swain & Pathak, 2024). Additionally, concerns about data security and ethics (Agustina & Kurniawati, 2024; Ajani, 2025), cultural resistance to technology adoption (Cabral, 2025), and inequities in digital access for marginalized groups (Amjad et al., 2024) are noted. The use of immersive technologies that exclude individuals with disabilities (Lang, 2025) is also problematic. Furthermore, organizational, technical, and semantic factors significantly influence the interoperability of digital resources (Maulana, 2025).

The challenges that hinder efforts to distribute digital resources are connected to those that impede their development. Therefore, there is a need for an integrated, process-oriented perspective that adopts

a holistic approach to the entire lifecycle of a digital resource. For example, financial support covers both production and distribution; the institution bears the costs because it requires a substantial budget to produce, maintain, and distribute digital resources for students, thereby enhancing accessibility and infrastructure.

Despite significant investment in the digitalization of educational materials in higher education, the existing literature and practice often address these challenges in isolation. Additionally, few frameworks cover the development, use, and dissemination of digital resources, along with the heterogeneity of studies, indicating a lack of a comprehensive conceptual framework for understanding the entire digital resource lifecycle (De Soriano et al., 2024). Singun (2025) also noted the absence of a conceptual framework to tackle complex, interconnected challenges in the production and distribution of digital resources. To address these issues, this study proposes the "conversion process framework," which can help academics in the production and distribution of digital resources in higher education. This paper is organized as follows: Section 2 presents the literature review; Section 3 introduces the conceptual framework; Section 4 details the research method; Section 5 discusses the findings; Section 6 offers a discussion; and Section 7 is the conclusion and recommendations.

2. LITERATURE REVIEW

2.1. Emergent of "Conversion" concept

The concept of conversion is one of the four basic domestication processes, along with appropriation, objectification, and incorporation (Johannessen et al., 2024), and it originates from Anthony Giddens' 1985 domestication theory. In the context of education, the term "conversion process" refers to how academics encourage their adoption and use of technology by integrating digital resources into their daily routines. Therefore, it is crucial that academics incorporate technology into their teaching methods once an institution has made an investment (Figuerola et al., 2024). However, the readiness of stakeholders (academics and institutions) is vital, as they are key to the success or failure of technology adoption (Dlalis & Govender, 2020).

2.2. Moral Economy

The concept of "moral economy" describes the values and interests of family members, whose beliefs significantly influence how digital artifacts are used in different settings (Berker et al., 2005; Haddon,

2016; Hirsch & Silverstone, 2003). It highlights the importance of representing various stakeholders in adopting digital resources in educational environments. Therefore, moral economy can help address certain financial challenges. In the South African context, some students cannot pursue higher education due to financial constraints, inequality, or lack of resources, and campaigns like #FeesMustFall have greatly increased public awareness of these issues (Cele & Adewumi, 2024). As a result, academics can help tackle financial challenges in education by developing, using, and sharing digital resources, especially considering the rising costs of higher education.

Academics have a "moral obligation" to develop digital resources and affordable teaching methods to reduce education costs. Empirical evidence indicates that integrating digital resources into higher education significantly reduces costs while improving critical thinking, collaboration, and problem-solving skills vital to 21st-century competencies (Kalyani, 2024). Moreover, the use of technology shifts the focus from instructors to students, promoting independent learning and a student-centered teaching approach (Kalyani, 2024).

2.3. Technology Adoption Theories

The interest of scholars in technology adoption theories dates back to the early 1970s, driven by the proliferation of personal computers. The introduction of information systems (IS) into organizational and societal contexts led to the development of theories such as the Technology Acceptance Model (TAM) and Diffusion of Innovation (DOI). These foundational theories continue to be influential despite recent criticism (Lee et al., 2025; Moraes et al., 2025). For example, Al-Adwan and Meet [28] argue that these seminal theories struggle to capture the complex, modern process of integrating technology into teaching and learning, which explains why the challenge of integration persists despite widespread adoption efforts. TAM is criticized for focusing more on the intention to adopt technology rather than actual user behavior, while DOI is criticized for neglecting social factors (Karbo et al., 2024). Although these theories offer alternatives to other models of technology adoption, they also have limitations. Critics contend that they may hinder critical thinking [30] and restrict learning, suggesting that these foundational theories cannot fully explain the intricate nature of technology adoption in educational settings (Sneesh et al., 2022).

2.4. Production and Distribution of Digital

Resources in IS

In the information age, the distribution and creation of digital resources have become essential components of teaching and learning. This foundation cannot strengthen without information systems, which act as the backbone of modern education (Mangundu, 2025). This is demonstrated by how digital resources such as collaborative tools, universal connectivity, and adaptive learning platforms have changed teaching methods and learning strategies (Adeshina, 2024). Since students learn in many different ways, the distribution and development of digital resources are vital for supporting diverse learning styles and experiences (Monika et al., 2023). Sharing digital resources enables quick information exchange by educators through digital platforms (Yu et al., 2024) and improves resource accessibility, while creating digital resources allows for personalized learning experiences (VARSHA et al., 2024). As a result, effective management of digital resources is crucial because they can enhance learning outcomes and boost institutional use of digital resources (VARSHA et al., 2024).

However, the distribution and production of digital resources can positively influence teaching and learning, but they are vulnerable to unauthorized sharing and reproduction, which greatly infringes on owners' rights (Wahyuningsih et al., 2021). This might discourage academics from engaging in the development of digital resources. Moreover, digital resources can be manipulated without leaving a digital trail, altering their original creative intent (Haliburton et al., 2021), and managing data resources becomes more complicated due to the constantly increasing volume of data (Stach, 2023).

3. CONCEPTUAL FRAMEWORK

The primary conversion process is based on domestication theory. This conversion process entails introducing an artifact that links to the external environment (Hajkazemi et al., 2025). It takes place at the crossroads of social factors, cultural norms, and potential technological, systemic, and content-related challenges. This stage frequently includes acceptance, resistance, denial, and transformation (Benavides, 2025). When designing and producing technologies and features, as well as developing policies, it is crucial to consider the ideal user and the most appropriate usage conditions.

The incorporation of digital resources has been shown to promote independent learning (Ussenova et al., 2025) and enhance skills such as critical

thinking, teamwork, and problem-solving. Furthermore, digital resources can help reduce the costs of educational materials. Despite these benefits, some educators struggle or hesitate to create digital educational resources. The successful integration of digital resources in teaching depends on the preparedness of three main stakeholders: the educational institution, the faculty, and the students. Therefore, this paper examines their roles during the transformation phase.

Academics play a significant role in the adoption of digital resources by incorporating them into their teaching methods, thereby encouraging students to

engage with these resources in their studies. However, a considerable number of academics are either reluctant or unable to assist in creating and applying these digital resources. Thus, it is crucial to motivate academics to either develop or leverage digital resources to benefit students. To exemplify this, Figure 1 illustrates a pertinent conceptual framework for the conversion process, encompassing several key concepts: (i) artefact development, (ii) conversion process which, encompasses multi-strategies such as (conversion platforms, critical arguments and conversion strategies), (iii) success conveys, and (iv) appropriation.

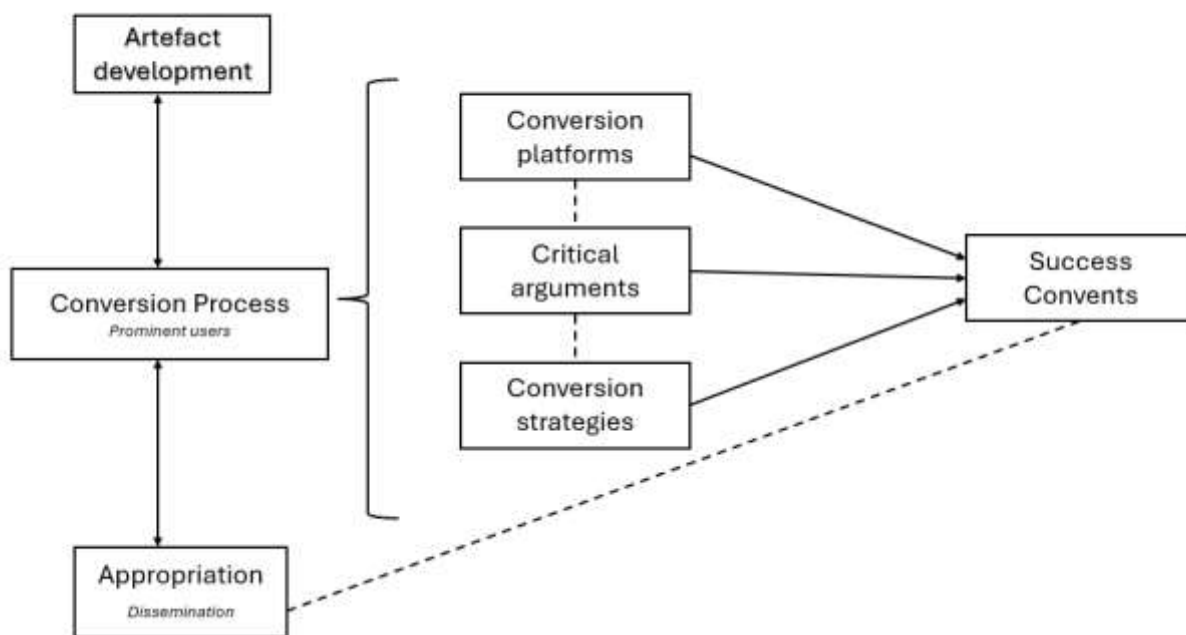


Figure 1: Conversion Process (Authors, 2026).

3.1 Artefact development

In any information systems research, artefact development is the primary goal of the research. An artifact's characteristics can guide the design, execution, development, and assessment of future research in information systems (Mikalef et al., 2025). The essence of IT artifact development in Information Systems research is to provide innovative solutions to classes of organizational problems involving Information Technology (Ali et al., 2022). In the context of HEIs, one of the academic duties is to create or develop digital resources, especially within the education sector, as institutions move toward digitalization. Such innovation in the development of digital resources requires a full application of IT skills and methodologies to produce any desired artifact. Once the artifact has been identified or developed may lead to the conversion process.

3.2 Conversion process

The conversion process is traced back to domestication theory, where it is considered the theory's final phase. In this concept, the essence of conversion is captured, along with the three primary causes: platform, critical arguments, and conversion strategies. With the advent of IT and the digital age, conversion is easily practiced in digital platforms. Digital platforms are IT platforms used to persuade other users to adopt a given artifact; this can occur in organisations, societies, schools, or home contexts. In the educational context, open digital platforms facilitate inclusive digital education that considers special educational needs, context, and diverse learning needs (Arz von Straussenburg et al., 2025). The use of technologies such as big data, the Internet of Things, and social networks, among others, has impacted the teaching-learning process in both face-

to-face and distance environments, including e-learning, blended learning, and m-learning (Ramirez-Montoya et al., 2026).

Digital platforms are the channels, technologies, and tools used to promote products, services, or brands and attract potential users. Whether or not users utilize digital platforms, they can formulate critical arguments or participate in critical conversations about artifacts. Digital platforms can host any form of message, whether written, recorded, videoed, or printed. Leading to a series of conversion processes, critical arguments serve as the primary method of persuasion. In organizations, users, especially prominent ones, prefer critical arguments to convince an amateur or new employee about a particular artifact. In the context of higher education, highly experienced academics persuade less experienced users to adopt digital technologies (Montoya et al., 2022). One of the main contributors to critical arguments is word of mouth. Word of mouth refers to informal communication regarding the evaluation or marketing of products or services (Nguyen & Le, 2025). The impact of word of mouth on the diffusion of innovation is multifaceted and attracts potential users while shaping the innovation adoption process (Chen et al., 2025). Academics discuss the artifact with those who have not yet begun using it, aiming to improve education. From a marketing and promotional perspective, it is essential to bolster users' perceptions of digital technologies and systems.

Prominent users often rely on various strategies to persuade others to adopt or use technology. The conversion strategies employed can vary by context, organization, or individual, depending entirely on what the converter aims to achieve. In e-commerce, an integrated approach combines multiple digital marketing tactics to achieve optimal results and attract clients (Chanchal et al., 2026). Some organizations use conversion strategies to market their products and attract more customers. In education, technology is promoted to help improve throughput rates. As part of conversion efforts, in some educational settings, academics are encouraged to use technology in teaching and learning, and it is also a criterion for promotion (Purnomo, 2023). In different organizations, social capital is shaped by various strategies and policies designed to persuade users to adopt or embrace different technologies and platforms, ensuring that these artifacts receive attention.

3.3 Success Convents

In this context, the conversion process with its

strategies produces "success convents". The "success convents" concept refers to the potential user who has become convinced of a particular technology. Conversion process plays a crucial role in persuading users to adopt new technology (Schmidt et al., 2025). In this concept, users are successfully convinced by the positive impact of the artifact. Also, amateurs or inexperienced individuals often gain knowledge about the artifact. This can be experienced by individuals or organizations when tangible benefits from a technological solution, such as improved efficiency, cost savings, or increased convenience, are realized, making them much more likely to adopt it (Zhan et al., 2025). Users are naturally cautious about change, especially when it involves time, money, or learning new skills. When people see others achieve positive results, they are more likely to believe the technology will work for them as well (Tamrakar et al., 2026), thereby continuing the conversion process. Furthermore, early adopters who experience positive outcomes often influence others through word-of-mouth and social gatherings. At this stage, based on the knowledge and experience gained from early users, the converter becomes comfortable with the technology and may begin to embrace its full use.

3.4 Appropriation

Once the convent has been successfully equipped, trained, and convinced of the artifact's value, they are better positioned to participate in the appropriation process. This creates a cycle because the convent has appropriated the artifact to gain skills and techniques, and the conversion process begins again. In this theory, there is a strong connection between conversion and appropriation phases. Conversion, driven by the convert's succession, typically refers to the point at which a user decides to adopt or accept a technology, shifting from non-use to use. The same convent is responsible for initiating the "appropriation process," in which amateurs start adapting, modifying, and integrating that technology into their daily lives. Once the new user is exposed to the artifact and its characteristics, they start developing and disseminating digital resources. As a result, the appropriation is advancing as more tactics and strategies emerge, with innovation and skills growing among users across the organization. In appropriation, it is confirmed that there is a change in behavior, attitude, or practice (Emon & Khan, 2025). Furthermore, in IS research, emerging technologies, systems, and software have the potential to advance appropriations.

4. RESEARCH METHOD

This study employed an interpretivist paradigm and a qualitative approach to investigate how academics who contribute to the production and distribution of these digital resources can persuade others to participate or take a leading role in their creation and dissemination in higher education. The interpretivist paradigm was the paradigm of choice, as subjective interpretations of meaning are shaped by human behavior (Bevir & Blakely, 2018). Consequently, the primary objective of interpretive research was to understand how individuals interpret their social phenomenon by focusing on the meanings of their experiences. While the qualitative approach is suitable for understanding the nuances of this social phenomenon, it focuses directly on the study's aim: how academics assign meaning to their use of digital resources (Stacey, 2003).

The University of South Africa (UNISA), a comprehensive open distance e-learning (CODEL) institution, was selected as a case. This single, heterogeneous case study design was employed to provide an extensive investigation. UNISA was purposively selected because all lectures, assignments, and tests are conducted online, suggesting that academics at this institution are likely to incorporate digital resources into their daily activities.

Semi-structured interviews were employed as the data collection method because they offer flexibility and depth for exploring participants' experiences. The snowball sampling technique was used due to the size and diversity of the institution, which includes 70 departments, 18 schools, and 8 colleges. Initially, a permission letter was sent to each of the 70 department heads (HODs) to conduct the study. Respondents referred others, increasing the sample size by identifying potential participants who were either developers, consumers, or experts in digital resources. The final sample comprised 44 academics, including junior lecturers (JL), lecturers (L), senior lecturers (SL), and professors (P). All 44 participated in discussions regarding the use of digital resources, forming the final sample with representation from professors, junior lecturers, lecturers, and senior lecturers.

A thematic approach guided the data analysis, involving a systematic process of transcription, coding, theme identification, and refinement (Castleberry & Nolen, 2018). All interviews were fully transcribed after being audio recorded. The transcripts were then imported into NVIVO software, along with researcher notes from the interviews, to aid data management and analysis. The dataset was coded, and the initial codes were

iteratively grouped into potential themes. Within NVIVO, memos were created to analyze the data and track analytical thinking. Before finalizing the results, the themes were reviewed, labeled, and characterized; participant quotes were used as evidence to support the analysis.

All ethical protocols were strictly followed, and permission to conduct the study was officially approved through the university's ethical clearance process. Maintaining ethical standards was essential throughout the study, including obtaining informed consent from participants, protecting confidentiality, and ensuring respondents' well-being. The core principle of the study was that potential benefits should not outweigh any possible hazards (Pollock, 2012).

5. RESULTS

The results demonstrate that academics actively support the use of digital resources in higher education by influencing other academics, students, and external stakeholders through various strategies. Participants demonstrated greater confidence in promoting digital resources, particularly in their transformational potential in research, teaching, and learning contexts. However, there were differences in the level of support amongst the participants. Although most participants indicated that they encouraged other academics to use digital resources, seven academics admitted they had not participated in such promotional efforts, with one participant openly stating, "No, I haven't promoted digital resources" [JL2]. This negative response implies that, despite the prevalent support, some academics are unwilling or reluctant to participate in promotional efforts, suggesting potential challenges or shortcomings in the conversion process that warrant further investigation.

In line with the conversion process framework, the three primary questions were answered by the analysis: (i) Who is encouraged to use digital resources? (ii) what are the positive arguments they express about these resources? (iii) What communication platforms are used to promote digital resources? The following section sheds light on the complexities of digital resource adoption in higher education and the results are arranged according to these thematic topics. The results are organized by these themes to shed light on the complexities of digital resource adoption in higher education.

5.1 Who is encouraged to use digital resources?

Academics in higher education are well-

positioned to promote the use of digital resources. They can encourage students to engage with various digital tools and explore beyond prescribed textbooks through their teaching platforms. This influence extends beyond their classrooms, as academics are involved in community activities as part of their tripartite goal, which includes teaching, research, and community engagement. Additionally, academics play a crucial role in motivating their colleagues to develop and incorporate digital resources into their teaching and research efforts. Over time, higher education institutions are shifting toward models that involve more collaboration with external stakeholders such as communities and government agencies, with academics actively working with these external partners. Consequently, academics expand their impact beyond students and colleagues to include external stakeholders such as government departments, thereby offering the potential to influence policymakers and public officials.

"I even convince government employees, if they come to us wanting to learn how to develop policies and any other relevant support, I encourage them to use digital resources" (L19).

This external influence suggests that the conversion process relies on multi-faceted networks involving students, academics, and external stakeholders, thereby increasing the impact and reach of digital promotional efforts.

5.2 Positive arguments concerning digital resources

Participants provided several reasons, including cultural, pedagogical, and socioeconomic values, to support digital resources. However, a recurring theme in their support centered on key arguments such as the effectiveness of reaching broad audiences, the potential to decolonize the curriculum, and the promotion of social justice. In modern higher education, digital resources are essential for successful teaching, learning, and research, especially as digital engagement becomes more common among students and staff. The importance of digital resources was further reinforced during the COVID-19 pandemic, leading to increased adoption of e-learning and blended learning, which academics view as ways to boost efficiency, reduce costs, and save time. Additionally, as one participant noted, digital resources enable the quick and scalable distribution of educational content.

"I said...it makes you reach a wider audience easily and speedily" (SL2).

The results revealed a compelling theme about how digital resources contribute to decolonization. Participants emphasized that these materials can be adapted to meet learner needs and localized, primarily created by academics and instructional design professionals. Due to their flexibility, digital resources can be used to decolonize and Africanise higher education curricula by aligning content with cultural contexts and promoting values relevant to African students.

"digital resources fulfil a particular order, and Ubuntu, which is a moral code, and I operate in that sphere, and Ubuntu is fundamental in understanding African knowledge and human values in the process" (SL1).

This result emphasizes how digital resources can foster epistemic inclusion and culturally responsive teaching. Even educators who do not develop digital resources acknowledge their duty to choose materials that connect to students' real-life experiences and challenges. However, educators must ensure that digital resources are effective, especially if they engage students and offer practical solutions to the issues students face. Social justice was a key point of discussion. Specifically, in a developing country like South Africa, where socioeconomic disparities remain, many university students struggle to access traditional textbooks. Despite significant progress by the government in increasing access to higher education, the cost of essential materials still limits many students from fully participating. Therefore, digital alternatives make higher education more accessible and enable many students to participate fully, particularly given the availability of free online resources.

"I think it's just fairness and social justice, students deserve a good service, and they need full access to affordable teaching materials" (L33).

5.3 Strategies and tools used for promoting digital resources

Academics used various strategies to advocate for digital resources, such as institutional incentives, online platforms, academic gatherings (e.g., meetings, conferences, seminars, or workshops), and interpersonal communication. One effective strategy for promoting digital resource adoption is linking it to the performance management system. This is particularly evident at the CODEL institution, where academics are incentivized for outstanding performance in their responsibilities, including digital resource adoption. Academics explained how they incorporate digital resources into their classes as an example of innovative practice during Integrated

Performance Management System (IPMS) meetings, aiming to improve their performance scores and related bonuses.

"In this department, I was asked about utilisation of digital resources in IPMS [performance bonus], my HOD asked if I had any evidence of using digital resources in my teaching and learning" (SL24).

For academics using digital resources, this institutional acknowledgment offers both encouragement and validation, thereby fostering the adoption of digital resources. This idea was further supported by Open Educational Resources (OER) advocates, who confirmed that encouragement and validation indeed promote the adoption or creation of digital resources.

"Digital resources contribute to academics' IPMS [performance bonuses]. It's an incentive of some sort; it's not an explicit incentive at the moment. It can be linked to monetary value because, when you evaluate performance at the end of the year, depending on how the employee has performed, then they are remunerated." [P 18]

Social media platforms have become some of the most common tools for promoting digital resources. Departments and faculties maintain active accounts on platforms like Facebook, LinkedIn, Messenger, Telegram, WhatsApp, and ResearchGate to encourage interaction with digital resources and to share experiences and information. Additionally, they use these platforms to discuss issues related to digital resources, such as benefits, limitations, and how the field of digital learning is evolving. While 'word of mouth' is recognized as a powerful informal strategy for generating conversations, formal lectures tend to be less effective in persuading colleagues because personal excitement and clear benefits communicated through word of mouth are more convincing.

"I just talk about digital resources, you know. I found that when you talk about something, it sometimes takes a person to hear you, and people see just how excited you are about it. Then, you can show them how it has benefited you, and you will know who is sold on the idea" (SL18).

Academics also use formal academic gatherings as a platform to promote the development and production of digital resources. In these forums, speakers discussed OER and digital resources, and attendees found these presentations thought-provoking and insightful.

"I've heard about digital resources and OER in conferences. I attended few conferences, and it was just amazing, and people are talking about digital resources and OER" (L22).

These strategies, such as institutional, social media, word of mouth, and formal event-based platforms, highlight the need for diverse approaches in the conversion processes within higher education. They also show how academics use different platforms to promote digital resources among various stakeholders. These findings provide essential insights for developing a conceptual framework that captures the complex nature of conversion processes, including the target audiences, the messages conveyed, and the platforms used during the process.

6. DISCUSSION

This discussion analyzes three interconnected concepts critical arguments, conversion strategies, and conversion platforms within a broad body of literature. These are regarded as key elements of a conceptual framework for understanding conversion processes in the production and distribution of digital resources.

6.1 Critical Arguments as Catalysts for Conversion

Although some academics remain disengaged from persuading others, the results show that they are in a strong position to promote digital resources. The importance of social influence in convincing both academics and students to adopt digital tools is emphasized using various platforms. Participants reported that peers were successfully encouraged to integrate digital resources into their teaching and research strategies through informal referrals and word-of-mouth communication. These findings align with well-established research on innovation diffusion, which indicates that innovations typically move from early adoption to widespread acceptance through reliable interpersonal networks, where early adopters influence others via informal channels within their social circles.

Over the years, word-of-mouth strategies have proven effective in promoting the adoption of technology (Al Halbusi et al., 2022), and this is supported by the results of this study, which show that word-of-mouth is a particularly powerful tool for encouraging the production and adoption of digital resources. This strategy works well in formal academic settings like conferences, seminars, and workshops (Kambarova Diloram Yusupovna, 2025).

Bokhari (2025) argues that verbal communication from people with firsthand experience reduces perceived uncertainty, provides comfort, and is a crucial source of information that influences attitudes, perceptions, and expectations about

adopting innovations. The findings of this study align with the positive link between word-of-mouth communication and the adoption of digital consumer innovations (Al Halbusi et al., 2022). Academics effectively persuaded students, staff members, and other external stakeholders to support digital resources (Adeshina, 2024). As Das and Sarkar (2025) note, technology adoption involves the gradual development of consumer acceptance for new technologies over time. Users' decisions to adopt are constantly affected by the current state of technology. However, the results suggest that potential adopters need to critically evaluate the content and structure of persuasive messages to make well-informed decisions throughout the conversion process. One key factor influencing conversion effectiveness is the strength of the argument, especially how well messages provide logical, contextually appropriate explanations.

In line with the conversion process framework, this study recommends "critical argument" as a key concept to explain conversion processes. Critical arguments are logical, fact-driven persuasive messages that address the worries of prospective adopters, explicitly state the benefits, and place digital resources in relevant educational and cultural contexts. They serve as transformative messaging that alters views and reduces resistance to adoption in addition to being sources of information.

6.2 Conversion Strategies: Incentives, Stakeholder Alignment, and Institutional Support

The results show that both formal institutional structures and informal interpersonal strategies are used in initiatives to promote digital resources. Academics mentioned that incorporating digital resources into their teaching improved their performance reviews and compensation outcomes, with institutional recognition and performance incentives emerging as key motivators for digital resource adoption. This aligns with studies that reveal psychological factors such as rewards and incentives can be important motivators and may encourage the development or use of digital resources (Ali et al., 2025). Additionally, this study also showed that academics are more likely to adopt technology without incentives or rewards if pedagogical reasons are convincing (Dahake et al., 2026). This suggests that academics are motivated by both psychological and intrinsic factors, which can play vital roles in the adoption process. These diverse benefits highlight the importance of designing conversion strategies that appeal to different

stakeholders.

Academics are not the only beneficiaries of digital resource adoption, but these benefits extend to several stakeholders in the educational ecosystem. For instance, students benefit from improved engagement and academic success (Sudarsana et al., 2019) and enhanced access to information (Ussenova et al., 2025). In addition to reducing the costs of educational materials, digital resources also promote critical thinking, problem-solving, and teamwork skills essential for the 21st century (Kalyani, 2024). However, the effectiveness of digital resources heavily depends on student traits such as cognitive skills and determination to succeed (Yang et al., 2025). Furthermore, this highlights the importance of academic support in integrating digital resources, as educators are well positioned to foster student success by aligning institutional objectives with student goals. Nonetheless, institutions must support the shift toward producing and adopting digital resources. This requires significant changes, including management commitment, supportive policies (Benavides, 2025), and sufficient financial support (Cele & Adewumi, 2024), to overcome structural barriers. Conversion strategies should be deliberate and well-planned, involving both institutional and interpersonal stakeholders, as the effectiveness of these strategies, whether intrinsic or extrinsic, is crucial to meeting the needs of various stakeholders.

6.3 Conversion Platforms: Digital and Social Media as Sites of Influence

Academics in this study demonstrated innovative use of digital platforms to promote digital resources for teaching and learning. This has led to integrating traditional teaching strategies with online methods, OER, and other digital tools in higher education institutions. Recently, many institutions have intentionally incorporated digital technology into their frameworks to modernize traditional teaching, research, administrative, and student services (Hughes et al., 2025; Storey et al., 2025). The widespread availability of digital resources is driving change that enhances access, equity, and learning quality, while also positively impacting teaching and learning (Hughes et al., 2025; Storey et al., 2025).

This study revealed that academics' use of conversion strategies such as Facebook, LinkedIn, Messenger, Telegram, WhatsApp, and ResearchGate helps persuade their colleagues and students to use digital resources for supporting their academic goals. To fully leverage these platforms, management must develop strategic plans for digital resources,

strengthen staff support through professional development programs, and create comprehensive frameworks that encourage ongoing innovation (Mukhsin et al., 2025). This indicates that scholars and academics at higher education institutions recognize the important role of ICTs in teaching, learning techniques, strategies, and methodologies (Septiowati, 2026). However, the effectiveness of digital resources depends on reliable infrastructure and internet access.

Digital resource platforms serve dual purposes, acting as gateways to higher education and conversion sites. Moreover, the proper use of these platforms can foster the development and utilization of digital resources, as well as engage stakeholders, including academics and students (Sudarsana et al., 2019). Singh et al. (2025) argue that the adoption of digital resources in teaching is influenced by academics' prior experience and social media platforms. These platforms facilitate the development, adoption, and diffusion due to their widespread use.

Thus, the conversion platforms are characterized as digital communication tools and social media where relationships are fostered, persuasive communication occurs, and decisions about adoption are made. The beneficial attributes of digital resources, such as multimodality, accessibility, persistence, and engagement, are crucial for the development of the conversion process.

7. CONCLUSION AND RECOMMENDATIONS

The paper aimed to develop a framework for the conversion process involved in creating and disseminating digital resources for teaching and learning in higher education. It sheds light on

academics' experiences with promoting, adopting, and integrating digital resources in educational settings through an interpretivist and qualitative approach. However, the unwillingness or capacity of academics to contribute to the development and production of digital resources remains unclear. Currently, there is no established framework to encourage others to produce and share digital material. Therefore, this study's contribution is to fill the theoretical gap identified in the literature and provide practical guidance for stakeholders navigating the digital transformation of higher education.

This paper recommends that institutions formalize incentives for academics to produce digital resources and incorporate them into both workload models and promotion criteria. Additionally, institutions should encourage cross-stakeholder participation through collaborations and outreach; promote the use of multiple platforms (social media, word-of-mouth, formal events); and develop networks for mentoring and peer influence.

The limitation of this study is its atomistic approach, which focuses on academics' perspectives while underrepresenting other stakeholders' voices. Therefore, future research should include multi-stakeholder or quantitative methods to validate and enhance the framework. Additionally, emerging technologies such as blockchain and artificial intelligence introduce a new dynamic that requires ongoing updates to frameworks. The framework could also be applied in fields beyond higher education, such as organizational studies, information systems, information technology, and design sciences. Scholars in these areas are encouraged to explore their relevance and contribute to its refinement.

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