The current issue and full text archive of this journal is available on Emerald Insight at:
https://www.emerald.com/insight/2755-0761.htm

Received 4 October 2022
Revised 27 October 2022
11 November 2022
Accepted 11 November 2022

What is digital transformation? Investigating the metaphorical meaning of digital transformation and why it matters

Adebowale Owoseni
School of Computer Science and Informatics, Centre for Computing and Social Responsibility, De Montfort University, Leicester, UK

Abstract

Purpose – This study used a visual research approach to investigate how small business (SB) entrepreneurs in Nigeria, a low-income country, perceive digital transformation (DT). The study aims to improve and broaden the understanding of DT by uncovering its metaphors. Making metaphorical sense of DT will increase its knowledge among populations who are unfamiliar with digital technology concepts, as well as communicating and collaborating with them to develop future research and strategies on the subject of DT. This study is significant because scholars have paid little attention to social imaginations of DT depicted through metaphors, more so when considered from a worldview of SBs in low-income countries.

Design/methodology/approach – The uniqueness of the research objective motivated the use of social theory to frame the research approach, and picture-elicitation techniques to drive data collection through in-depth interviews with 17 SB entrepreneurs and business owners in Nigeria. Data were analyzed using a content analysis procedure known as metaphor analysis.

Findings – The study revealed three metaphors of DT: a drama, a war and a pregnant elephant. A triangulation of the metaphors with English lexicon, extant literature and interview excerpts supported the war and drama perceptions of DT but opposed "DT as a pregnant elephant."

Practical implications – It argued that the social perception of DT can improve the sustainable, purposeful and successful execution of DT strategies for SB DT. As a result, this study pushes the boundaries of DT, particularly for SB entrepreneurs in low-income countries.

Social implications – Metaphors pervade our daily lives, not only in our language and communications, but also in how we think and act; as such, they can play an important role in understanding and implementing DT, a concept that has received little attention in the SB settings.

Originality/value – This is one of the first empirical studies to figuratively explain DT and its implications for literature and practice in SB entrepreneurship and information systems domains.

Keywords Small business, Digital transformation, Metaphor, Visual research, Picture-elicitation, Social theory

Paper type Research paper

1. Introduction

Digital transformation (DT) concepts have continued to receive attention across a wide spectrum of industries and sectors. Business organizations, irrespective of size and prospects, have continued to embrace transformation by applying digital technologies as an enabling tool for maximizing opportunities, managing threats and coping with the socioeconomic

© Adebowale Owoseni. Published in *Digital Transformation and Society*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

The author would like to thank Dr. Adedamola Tolani, Miss Kanyinsola Odusanya and Dr. Zaheed Mahmood for the idea-generating sessions that sparked the concept for this study.

Digital Transformation and Society
Vol. 2 No. 1, 2023
pp. 78-96
Emerald Publishing Limited
e-ISSN: 2755-077X
p-ISSN: 2755-0761
DOI 10.1108/DTS-10-2022-0049

uncertainties of the COVID-19 pandemic and post-pandemic age (Fletcher & Griffiths, 2020; Winarsih, Indriastuti & Fuad, 2021). However, the social imaginations of DT and the knowledge of what inherently drives individuals who lead DT seem limited and sparsely covered in literature. More so, when considered from the context of small businesses (SBs) that are diverse, *naturally* ubiquitous and tricky to generalize (Owoseni & Twinomurinzi, 2018). In spite of the evasiveness of SBs, they account for more than 50% of economic activities across low-income and high-income countries (OECD, 2017). SBs in the context of this study are businesses with 2 to 15 employees.

Making sense of the social imaginations of DT has potential benefits. It can bridge the gaps between technology concepts and social constructs by enhancing DT communications (Hilton, SiamiNamin, & Jones, 2022), which, in turn, may improve the strategic, sustainable, purpose-driven, creative and successful deployment of digital technologies for transformation (Alves-Oliveira *et al.*, 2021). Consequently, the traditional qualitative data collection approaches, such as structured interviews and group discussions, do not go far enough in probing the deep-seated, social and instinctive mindsets of research participants (Knowles & Cole, 2008). To make up for this limitation, and in the context of SBs in a low-income country, a visual research approach through photo-elicitation seemed more appropriate (Hancock & Foster, 2020; Ramjaun, 2021). Photo-elicitation is frequently used in ethnographic studies and is more prevalent in branding and marketing fields, especially when seeking to understand the socially constructed consumers' mindset (Hancock & Foster, 2020). Similarly, the technique has been used in other domains such as healthcare, tourism education, fashion and computing (Bessette & Paris, 2020; Hillman, Moyle, & Weiler, 2018; Jung *et al.*, 2021; Venkatesh *et al.*, 2010). When participants talked about the pictures they collected, they often use their imaginations and create narratives that reveal what motivated the pictures; therefore, availing an opportunity to talk about the pictures would naturally trigger multidimensional expressions of specific scenario (Glaw *et al.*, 2017). Even if the situation is abstract, participants are able to express diverse information not only through words but also through facial expressions, gesticulations and metaphors (Bessette & Paris, 2020).

In recent years, researchers have explored the use of metaphors as tools for making sense of how people frame and communicate social realities (De Reuver, Sørensen, & Basole, 2018; Redden, 2017; Venkatesh *et al.*, 2010). In its simple form, metaphors associate two dispersing domains. For instance, *Love is Fire* associates love with fire and socially reconstructs the meaning of love as a *thing* that could be tangible or intangible, harmful or helpful, depending on the lover's worldview and social experience. Literarily, love is not fire, love is an abstract mental concept. Fire, on the other hand, is a perceivable material object that could be felt, seen or touched. More people would have seen or felt fire more than they have experienced love; therefore, thinking of love from a fire mental model helps to visualize and explain unfamiliar concepts (De Reuver *et al.*, 2018). Upon this backdrop, visualizing and explaining DT using metaphoric expressions presents opportunities for communicating DT to wider audiences and enhancing its acceptance and impacts.

The objective of this paper is to answer the research questions – *What metaphors illustrate digital transformation as seen through the eyes of small business entrepreneurs in Nigeria? How do these metaphors help to broaden our understanding of digital transformation?* In answering the questions, the paper described in detail the photo-elicitation technique used to investigate underlying and figurative views of DT. It also reflected on the research procedure through reflexivity and discussed the implications of the metaphors for DT practices in SB and low-income country situations. The remainder of this paper is sectioned as follows: an overview of social theory relative to DT; literature on DT and SBs; description of the visual research procedure; presentation of findings; discussions; implications of findings and conclusions.

2. Social theory and digital transformation

DT in a nutshell is a buzzword (Ossewaarde, 2019), and this perception resonates in practice because DT has many definitions and few weak theories that frame and explain the definitions (Markus & Rowe, 2021). Vial (2019), through a systematic review of 282 DT-related work, identified 23 definitions of DT; the study in summary suggests DT is how people use digital technologies for digitalization, and in the process enhance important competencies such as productivity, creativity, innovation, processes, operations, sales, communication and services. These competencies mean different things to different people in their unique social world, making it increasingly difficult to have a shared understanding of DT; this gap in *socio-techno* communications highlights the importance and relevance of social theory, particularly for this study. Social theory orchestrates peoples' mindsets and helps them to understand and explain the social world around them; it puts forward the inclinations that their actions and beliefs are influenced partly by social structures. Moreover, the use of digital technology permeates all aspects of life today, from the use of digital gadgets and handheld devices to software apps such as social media, payment solutions, heath, wellness and fitness solutions. It is becoming increasingly impossible to explain technology concepts without relating them to social imaginations and constructs.

In this study, social theory serves as a lens to extract implicit meaning of DT of SBs in Nigeria, the figurative expressions or metaphors that convey such meaning in a way that resonates socially and scientifically. The systematic mapping of correspondences between two domains of experience, in this case, DT concepts and SB owners social constructs, is known as conceptual metaphor (Zoltán, 2006). The use of metaphors to clarify communication in social settings exists in literature; Jensen, Bearman, and Boud (2021) used metaphors to unveil the knowledge of feedback and its role in remote teaching and learning environment through conceptual metaphor theory, which is a dimension of social theory (Brown, 1976). Metaphors may be poetic and linguistically appealing, but that is not its primary objective in social theory; instead, the goal of metaphor is to conceptualize and discern abstract concept in a familiar, simpler and relatable manner (Brown, 1976).

A literature search showed scholars have used metaphors to make sense of what people think of digital technologies; for example, the perceptions of people about artificial intelligence (AI), robotics and cybersecurity were extracted through metaphors in studies (Alves-Oliveira *et al.*, 2021; Demir & Güraksın, 2022; Hilton *et al.*, 2022). However, it seems no similar work has been done to make sense of DT other than the unpublished work of Chorianopoulos (2021), that considered DT metaphors in relation to teaching and learning. The evasiveness of what DT means across wide spectrum of its application further strengthens the argument for exploring the contextual meaning of DT through metaphors. This study focuses on SB DT in Nigeria as a case of low-income country.

3. Small business digital transformation

Empirical evidence suggests SBs have intensified DT as a lifeline for business survival as well as a strategic tool to navigate the economic crises during and beyond the COVID-19 pandemic (Mandviwalla & Flanagan, 2021; Matarazzo *et al.*, 2021; Papadopoulos, Baltas, & Balta, 2020).

However, like any other change initiative, DT has the potential to significantly modify the structure of an organization – structure, not in the sense of brick and mortal only, but also the culture within a broader societal setting (Roth, 2019). DT is associated with engaging and connecting with stakeholders (customers, employers, suppliers, regulators, shareholders) through multiple channels, in a way that encapsulates a process or collection of processes such as marketing, selling, delivering of goods and services and communication (Eller *et al.*, 2020; Reis *et al.*, 2018). DT employs digital technologies to develop new business models or

revise existing models in a way that delivers more value for the organization (Matarazzo *et al.*, 2021). SBs use a range of digital technologies for transformation; in peculiar situations, SBs adapt the use digital technologies in this regard, and such technologies include social media, productivity apps, collaboration platforms and e-payment apps. Specific examples of tools used are Google suite, Calendly, Slack, Microsoft Office 365, Zoom, WhatsApp and Telegram, and many of the tools have free subscription packages for SBs which motivate usage (Owoseni & Twinomurinzi, 2020). The more advanced solutions considered are AI, machine learning and 3D printing (Tolani, Owoseni, & Twinomurinzi, 2020).

According to (Vial, 2019), DT has impacts on consumer behavior and expectations; also, DT generates data that provide hindsight and insight on business landscape, which motivates competition. But the idea of DT does not come without resistance fueled by the combination of the fear of unintended outcomes of change and transformation, such as negative impacts on security, privacy and other ethical concerns (Winarsih Indriastuti, & Fuad, 2021). Moreover, the demand DT put on people to do things differently by unlearning, relearning and recalibrating mindsets is another barrier.

The above narrative is consistent with many SBs in Nigeria; however, in spite of the resistance and barriers, they have continued to use digital technologies to enhance business activities and processes, resulting in a shift in the business outcomes and experience of stakeholders, (Berman, 2012; Akpan, Udoh, & Adebisi, 2020). Taking Nigeria as an example of a low-income country with an estimated population of 202 million (World Bank, 2020), SBs in Nigeria create more than 80% of the jobs and are responsible for at least 50% of the GDP (BOI, 2019). This statistic underscores why governments and policymakers are concerned about creating structures that support the growth and development of SBs. A significant contribution to the resistance of DT in low-income country like Nigeria is inconsistent policies, poor governance and huge infrastructural deficit. These problems are related and played out as erratic power supply and poor Internet connectivity leading to excessive cost of running businesses, which further puts the drive for DT in a precarious situation and discourages SBs from considering and using DT as a strategic tool for business development.

To put the situation in context, according to Lawal Arowolo, and Douglas (2022), Nigeria has 62% electricity access. The demand for electricity is approximately 25,000 MW, and the total installed capacity is barely more than 12,000 MW. Several policies have been developed and executed to address the electricity inadequacy since Nigeria's independence in 1960, but the problem is still unresolved 62 years later. So far, neither the privatization policy that resulted in the sale of state-owned power infrastructure to 11 private firms in 2013 nor the multilevel supervision and regulations of electricity generation and distribution firms have proven to be a solution (Abubakar & Abubakar, 2014). Electricity is a critical requirement for Internet infrastructure, and it continues to be an important key tool for business (and economic) development; in situations where electricity is scarce, SBs look for alternative and localized solutions. They accomplish this by using expensive fuel-powered generators, inverters and solar panels, which significantly raised the cost of doing business and further made it difficult for SBs to invest in technology-driven transformation, especially since digital technologies rely on consistent power (Ihua & Siyanbola, 2012).

For the SBs that are reluctant to explore DT, the policymakers who may not understand the dynamics of a specialized domain such DT and the digital technology developers and deployers on sites, metaphoric expressions of DT could put all stakeholders on the same page and enhance the use of digital technologies for SB transformation, and this is the heart of this study.

4. Research methodology

In this section, the methodical research approach used is explained, starting from sampling, enrollment, data collection, data analysis and reflections on the research approach.

4.1 Sampling and enrollment

The research used a simple random sampling method to enroll 28 SB owners. Enrollment was initiated through Instagram and LinkedIn adverts that promised a one-to-one session with SB consultant to help them review their business models in light of the COVID-19 pandemic and to consider how they could use digital technologies for improved business efficiency. The motivation for advertising on Instagram and LinkedIn was to attract SB owners that have reasonable level of digital literacy. Logically, entrepreneurs that are willing to leverage advertised opportunities for business development on social media have reasonable awareness of digital capabilities and how digital technologies can enhance SBs. Another reason for choosing adverts is to discourage the researcher from recruiting participants from his network of colleagues, family and friends, thereby removing bias in the data collection process.

Potential participants that responded to the advert were contacted through emails, WhatsApp messages and calls to discuss the research procedure, highlighting the benefits and the expectations. In particular, the picture collection tasks were described in simple terms:

> As entrepreneur and business manager, think about what you would like your business to look like in the next five years, imagine how your business would have changed in specific areas like product/service delivery, business expansions and so on using Information Technology. Then look for 5 to 8 pictures that can represent the change you imagined. You are free to use any type of picture: you can search for pictures on the internet, you could extract from magazines, or take live photographs of people, places, and things, that capture your imaginations.

Subsequently, participants' consent and commitment to attend the session was obtained, and a tentative date and time was agreed for the extensive interview. Each participant had at least two-week period to carry out the task before the interview as suggested by Ramjaun (2021).

4.2 The photo-elicitation as a visual research approach

Photo-elicitation could be imagined as a data collection technique that involves asking research participants to take pictures that captured their thoughts or perspectives in a specific scenario, and then use the picture as a basis for engaging them in discussions or interviews (Lorenz & Kolb, 2009). Using photos in interviews does not only steer conversations, it stimulates the memories in a way standard interview questions will not (Bates *et al.*, 2017). Furthermore, the use of images in discussions evokes a more profound situation-awareness than words, typical in traditional interview questions. Also, it allows for the exploration of psychological connections between the physical and social worlds (Høybra, 2021; Raby *et al.*, 2018). While photo-elicitation appears to address the limitations of the traditional qualitative data collection technique because it gives more room for research creativity and innovation, the validity and reliability of the technique may be difficult to substantiate without reflexivity (Pink, 2001; Raby *et al.*, 2018). Moreover, other scholars may struggle to adapt the research method to different problem domains. Taking these into account, section 4.6 discusses reflexivity in the context of this study.

Photo-elicitation procedure in this study imitates the Zaltman metaphor elicitation technique (ZMET) (Ramjaun, 2021), and it progressed in six stages, starting with participants' recruitment as described in the preceding section 4.1. The second stage sought to ascertain whether participants were having difficulty or required additional assistance in gathering the images, pictures or photos. Furthermore, they were reminded of the event (one-to-one SB consulting session) weekly, while reemphasizing the picture collection tasks as well as the instructions on how to send the pictures to the researcher via email or WhatsApp message. In the third stage, participants turned in the pictures, and a PowerPoint presentation file (slides) with each participant's set of pictures was created in

readiness for the extensive interview. The idea was to make it easier to show participants the pictures during the one-to-one online discussion by remotely sharing a computer screen with the participant.

The fourth stage was the first section of the online discussion; this section follows an interview protocol highlighted below:

(1) *Please tell me about your small business, what you do, your employees and your target customers.*

(2) *I will walk through the pictures you sent, and for each picture please describe how the picture reflects the future of your business.*

(3) *Please is there a future you imagined but could not have the right picture(s) to describe it?*

(4) *On a scale of 1-5 rank each of the pictures and the "missing" picture (if any) on how important they are to the future of the business. 1 is most important and 5 is least important*

(5) *What expression comes to your mind when you think about the process of using digital technologies to enhance your business.*

(6) *What problems and concerns come to your mind when you look at these pictures you ranked most important?*

In the fifth stage, which is the second aspect of the online interview session, the pictures submitted were used to create a vision board; this was an interactive design activity where the each participant co-created a vision board with the researcher – the pictures submitted by participant were arranged, merged or organized in ways that make meaning and summarize the SB's goals and objectives; the output of the session was an artistic piece that showed what the future of the SB will look like as imagined. A gift voucher together with the image of the vision board was sent to the participant via WhatsApp at the end of the session. In the concluding stage (stage six), the researcher got back to the participants after two weeks to ask about their experience of the *one to-one* session and requested to know if the discussions were valuable and whether they feel motivated to take further steps toward realizing the vision boards. Figure 1 summarized the research procedure.

In terms of participation, out of 28 people that registered for the session, 17 people completed the photo-elicitation task and the extensive one-to-one online interview session. Participation in this study sufficently met the requirement of photo-elicitation and ZMETs (Bates *et al.*, 2017; Ramjaun, 2021). Furthermore, each interview session spanned one hour on average. In retrospect, previous research that used the photo-elicitation technique found similar levels of engagement (Bates *et al.*, 2017; Hancock & Foster, 2020; Hidalgo Standen, 2021; Lorenz & Kolb, 2009; Ramjaun, 2021). For the registered participants that failed to turn-up, the reasons for absence include personal interruptions to already scheduled time, poor Internet connectivity and the inability to find at least five pictures that represent the future of their business.

4.3 The research population context

The 17 SBs involved in the project represented a diverse range of business sectors, including healthcare, education, construction, logistics, engineering, agriculture, consulting and fashion. The SBs have been in operation for 3 to 15 years. Furthermore, the largest SB in terms of staffing has 15 employees, while the smallest has only two employees. All the SBs in

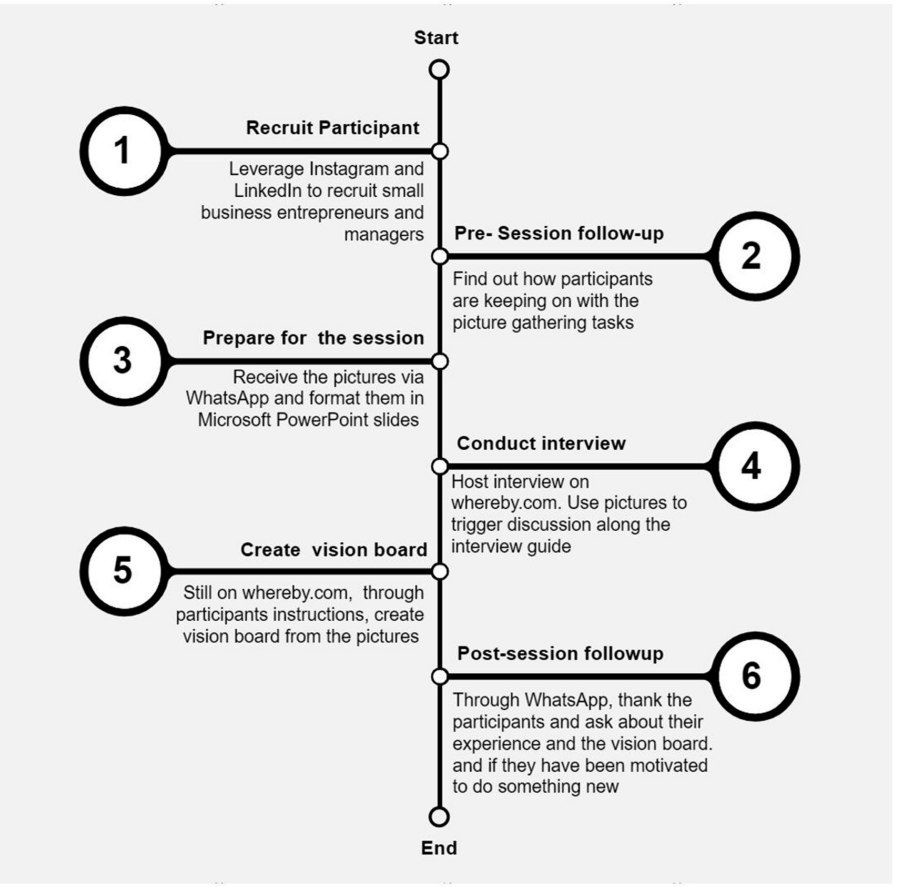

Figure 1.
Photo-elicitation procedure for collecting data from small business entrepreneurs and managers in Nigeria

this study are utilizing at least one digital technology to enhance productivity. Social media, online payments, online stores, online meeting and collaboration platforms, productivity apps and custom software are among the digital technologies used by SBs. Also, the SBs are aware of more advanced digital technologies and have mid- to long-term plans of exploring the technologies for business transformation. Some of the advanced digital technologies include 3D printing, augmented reality (AR), data modeling and analytics with machine learning (ML).

Table 1 summarized the research sample and emphasized the population described above; it helps readers to visualize the research population – a group of SBs in a low-income country using digital technologies to transform SBs. Furthermore, it gave a perspective within which readers could appreciate and relate to the metaphorical expressions of DT revealed in this study.

4.4 Photo-elicitation data set

The photo-elicitation procedure produced three qualitative data sets: the pictures (and vision boards), the audio interview and a transcribed audio interview. Figure 2 is a vision board created by a participant whose "*business is into food catering services, cooking indoor,*

SN	Small business area	Age of business (yrs.)	No of employees	Digital technologies for present and future use
1	Healthcare multimedia services	6	4	*Presently in use:*
2	Food sourcing and supply services	10	12	(1) Social media platforms (2) Online payments platforms
3	Market research services	5	2	(3) Online store solutions
4	Tailoring: design and development of children wears	4	4	(4) E-learning platforms (5) Virtual meeting solutions (6) Productivity apps (Google workspace, Microsoft Office 365)
5	Sales of fashion accessories	6	3	
6	Catering for persons with special needs	5	4	(7) Multimedia software (8) Custom software
7	Educational Services (Pre-School)	8	10	*Planned for future use:*
8	Online food ordering and delivery services	3	3	(1) 3D printing (2) Digital tailoring machine
9	Electrical installation services	15	10	(3) Augmented Reality (AR) fitting room
10	Furniture designs and fabrications	4	15	(4) Data analytics solution (5) Process management software
11	Farming – poultry and snails	5	5	(6) Digital branding and marketing technologies
12	Sales and services of medical equipment	5	8	(7) Building Information Modeling (BIM) software
13	African food and grills services	9	12	(8) Digital surveillance and monitoring solutions
14	Tailoring of African attires	7	4	
15	Haulage services	5	8	(9) Classroom smart boards
16	Building and construction services	6	9	
17	Business consulting services	3	3	

Table 1.
The research population summary and context

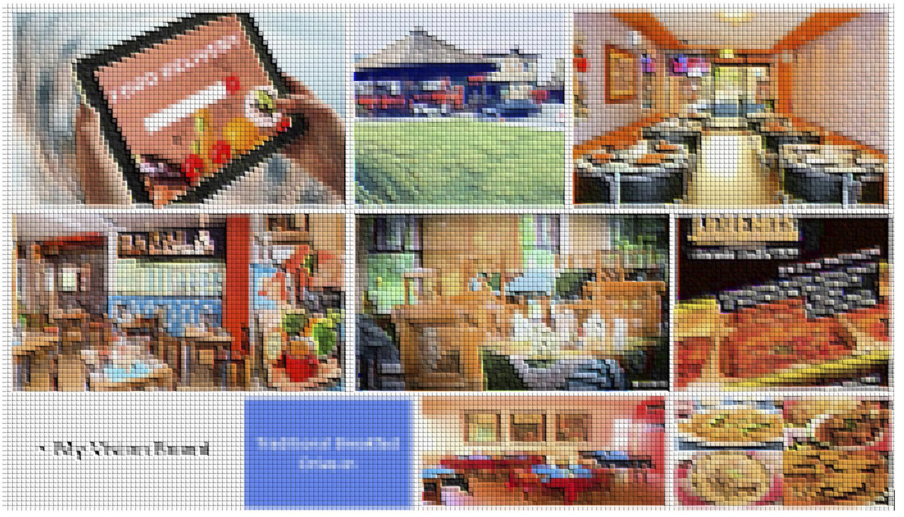

Figure 2.
Vision board for a catering business

outdoor, parties, weddings and here and there. [she] started with home specialized catering by cooking soup for busy executives; and had a vision of a drive-through restaurant that provides local Nigerian breakfast." The study produced 17 vision boards, and Figure 2 is a sample; it is blurred to avoid potential copyright concerns. Moreover, all data sets were anonymized in line with the research ethics requirements. Potentially, the data set can reveal multidimensional and deep-seated insight on SB DT.

4.5 Metaphor analysis of data set

Using inductive approach to content analysis and NVivo software, the transcribed interviews were analyzed according to the four stages of metaphor analysis: (1) coding and discarding, (2) compiling, (3) categorization, (4) establishing validity and reliability (Schmitt, 2015; Demir & Güraksın, 2022; Gök & Kara, 2022).

First, the transcripts were carefully studied to make sense of how the one-on-one conversation evolved, keeping an eye out for metaphors. In this context, a metaphor is a figurative expression in which a non-technical or non-business character, a descriptive word or phrase, is analogous to the use of digital technology for business development. This definition of metaphor resonates with extant literature (Pitcher, 2013; Schmitt, 2015). Although interview question 5 (section 4.2) directly elicited DT metaphors, the content analysis covered all the interview conversations. At the end, 27 figurative expressions were identified. Second, all expressions that reflected subjective opinions were discarded, more so, when it does not premise on an analogy that is widely accepted and understood. For instance, "*. . . I see everything as spiritual capital"* was a case in point. While *spiritual capital* is a figurative phrase, anyone who is not religious or does not believe in the supernatural may struggle to make sense of this phrase; moreover, it is open to misinterpretations because being spiritual may mean different things to different persons. As a result of the foregoing, six coded metaphoric expressions were discarded, and the coding produced 21 expressions.

Next, the 21 figurative expressions were reexamined for ambiguity, and the specific metaphors that were equivalent to DT were extracted and ordered alphabetically. Following this exercise, six more expressions were removed for the analysis, leaving 15 metaphors as final output. The categorization stage grouped the 15 metaphors into three main categories, and the dominant category was further divided into four subcategories in view of the perceived strong connections between the metaphors. The entire data analysis procedure relative to the raw data was revised again to ensure consistency.

4.6 Reflectivity as a proof of rigor, reliability and validity

In terms of reliability and validity, given that this is a qualitative study, reflexivity was deemed an acceptable and rigorous method of demonstrating reliability and validity (Pink, 2001; Dodgson, 2019). According to Corlett and Mavin (2018), reflexivity is a deep form of reflection; it is an act of introspecting on how the process of doing research influences the outcomes of the research (Fletcher-Brown, 2020). The researcher takes a step back, and in awareness of personal unconscious biases and as an external entity with no stake, reconsiders the research in its natural environment (Dodgson, 2019).

Reflexivity reveals the researchers' values and orientation, the sociocultural beliefs and the worldviews that influenced intents and purposes of doing research and how it affects the research outcome (Corlett & Mavin, 2018; Batool & Ali, 2021). As a result, research processes and outcomes are more meaningful as researchers are able to express a common language in communicating and understanding a subject. Moreover, when researchers have a shared knowledge of research dynamics, it is easier to adapt research methodologies to investigate problems in a similar or dissimilar domain. Therefore, the concluding phase of the metaphor analysis (establishing validity and reliability, see section 4.4) adopted a systematic approach

that listed key steps of the research procedure, and for each step, asked questions that probed four areas: (1) the researchers' positionality, (2) the social and environmental context of the research, (3) the motivations for tools and instruments used and (4) the ethics or morals of the researcher's choices (Corlett & Mavin, 2018; Dodgson, 2019). The outcome was presented in Figure 3.

5. Results and discussions

The findings of the metaphor analysis are presented in this section starting with the DT metaphors, and, subsequently, discussions on how the metaphors extend the knowledge of DT.

5.1 Small business digital transformation metaphors

The metaphor analysis revealed three main figurative expressions of DT:

(1) Digital transformation is a drama

(2) Digital transformation is a war

(3) Digital transformation is a pregnant elephant

In addition, the "dramatic" expression of DT is a grouping of four related metaphors:

(1) Digital transformation is a romantic drama

(2) Digital transformation is an action drama

(3) Digital transformation is an adventurous drama

(4) Digital transformation is a rock and roll drama

According to Erlingsson and Brysiewicz (2017), a category is formed by grouping together codes that are related in meaning, content or context. In this case, metaphors in Table 2 were visually inspected, and items that are related in meaning, content or context were classified together. Furthermore, the motivation for the drama subcategories was to improve the research narratives and discussions. Table 2 summarizes the results of the metaphor analysis and how the study arrived at the final figurative DT expression.

To further support the research outcomes, a mind map of the DT metaphors was developed using an online multimedia tool (Canva.Com), and quotes from participants were included as shown in Figure 4.

5.2 How metaphors extend knowledge of digital transformation

The use of metaphors to communicate social realities is not new in research; for example, Venkatesh *et al.* (2010) used metaphors to make sense of how fashion consumers describe their experiences when exposed to various types of fashion. De Reuver *et al.* (2018) mentioned how biological ecosystem metaphors improved the comprehension of business ecosystems; similarly, Gök and Kara (2022), through metaphors, revealed individuals' social conceptions of COVID-19 pandemic. Metaphors, according to Healy and Fitzgibbon (2020), are *symbolic* way of *seeing* and a *means* of *simplification* (Schmitt, 2015). In this light, how can drama, *war* and *pregnant elephant* metaphors *symbolically simplify* DT and broaden our understanding of it?

5.2.1 Digital transformation is a drama. Oxford English Dictionary defined drama as "*a composition in prose or verse, adapted to be acted upon a stage, in which a story is related by means of dialogue and action, and is represented with accompanying gesture, costume, and scenery, as in real life*" (Oxford English Dictionary, 2022a). This definition includes verbs –

Picture Elicitation Procedure: A Reflexive Board

Tools/Instruments
What specific tool helped to achieve or enhance the task objective(s)?

Social and Environmental Context
What are internal or external factors, social or psychological that could influence the research participants?

Researcher's Positionality
What drives the researcher? personal experience, knowledge, judgment, and belief?

Ethical Consideration
What moral risk or concern could the achievement of this task expose?

Task	Tools / Instruments	Social and Enviromental Context	Ethical Considerations	Researchers Positionality
1 Recruit small business (SB) Entrepreneurs or managers as research participants	Instagram, LinkedIn, and MS Forms. Used for adverts and collection of participant's registration data	SBs use social media and other digital technologies for business. COVID-19 pandemic restrictions are still active in an unpredictable social-economic landscape. SBs in growth/expansion stages and managers are usually busy and pressed for time.	The information sheet was presented as "Terms and Conditions" of a one-to-one discussion session. Names and phone numbers were collected.	I have a software development background and worked in the financial service sector for 13years. Interacted consistently with SBs in the process Also, I worked as a part-time IS lecturer and could sense the mistrust between academic and SB entrepreneurs and managers.
2 Follow-up participants before discussion sessions	WhatsApp. Messaged and call participants to describe the picture collection task.	WhatsApp is a frequently used app by many individuals and SBs in Nigeria. The app presents easy, faster, cheaper, and convenient way of interacting with people.	Use dedicated contact numbers for the research, different from the researcher's personal mobile line, conversations were not recorded.	I use WhatsApp daily, I use it to interact with family, friends, and professional associates. Personally, I find the app easy, convenient, and safe to use.
3 Prepare pictures for the discussion session	WhatsApp and MS PowerPoint. I received pictures via WhatsApp, and I put them together in a PowerPoint presentation deck	WhatsApp is a frequently used app by many individuals and SBs in Nigeria. The app presents easy, faster, cheaper, and convenient way of interacting with people.	The risk of sharing a copyrighted image. To address this concern, Pictures were blurred when I refer to them in external communications	I am naturally drawn to visuals (images, pictures, artworks) and I could easily derive meaning from pictures. As such, preparing the pictures for the discussion gives me the opportunity to reflect on the participant's thought process. Also, I am skillful at MS Powerpoint
4 One-to-One picture motivated discussions	MS PowerPoint and Whereby.com Whereby.com is a video-based communication app that allows audio and video recording and devise screen share	The use of communication apps such as zoom for online meetings gained acceptance, however, the perceived limitations include a high rate of data consumption, and poor connectivity and power supply Also, participants would need to install the app on their device, and this could pose a constrain	Unauthorized use of voice/audio recordings. Participants consented to audio and video recordings of the discussion session. Although, they were free to activate or activate the camera during the discussion session	Drawing on my software engineer background, Whereby.com appears more appropriate for use in low-income country settings because it consumes less data compared to other meeting apps, the user interface is minimalistic in nature and users do not have to install it on their device before they join a meeting. I am a pragmatist and enjoy initiating practice-based conversations. Using pictures as a cue sound good to me. Also, I have read a lot about Zaltman Metaphor Elicitation Technique (ZMET).and it was an opportunity to adapt ZMET
5 Develop vision boards	MS PowerPoint and Whereby.com I shared the PowerPoint screen on Whereby.com, and I move. format, adjust the images as directed by the participant	A few participants use a handheld devices such as smartphones or tabs for business activities. They would expect that the vision board development is do-able when they connect on the mobile device	It appears considerations for stages 3 and 4 already address the concerns at this stage	I thought of the vision board as a concrete outcome of the session that could add immediate value to the participants. In particular, as it helps to create a picture of the future. Also, my presentation and excellent PowerPoint skills made the session interactive and enjoyable.
6 Follow-up participants before discussion sessions	WhatsApp. I sent appreciation messages to the participants and sought to know their perceptions of the discussion sessions	Participants appear to be cynical when interacting with academic researchers, they appear not convinced that the researchers are reflective and appreciative of research participant role in a typical research	This post-discussion engagement message may come across as an activity not captured in the "terms and condition"	My industry background and prior interaction with stakeholders in the financial service sector tend to influence my desire to create an excellent customer experience, I tend to see the participants as my customers in this instance and wanted to create a positively memorable experience.

Figure 3.
The output of the conceptual framework for reflexivity when applied to a photo-elicitation procedure

SN	Metaphors	Screening (discard? yes/no)	Grouping decision
1	Action film	No	Drama – action
2	Adventure	No	Drama – adventure
3	Adventure	No	Drama – adventure
4	Adventure movie	No	Drama – adventure
5	Buffet	Discard	–
6	Classical music	No	Drama – rock and roll
7	Documentary	No	Drama – adventure
8	Drama	No	Drama – drama
9	Egg	Discard	–
10	Game adventure	No	Drama – adventure
11	Love affairs	No	Drama – romance
12	Magic	Discard	–
13	Masterpiece	Discard	–
14	Pregnant Elephant	No	Pregnant elephant
15	Rock and roll	No	Drama – rock and roll
16	Romantic	No	Drama – romance
17	Romantic movie	No	Drama – romance
18	Spiritual	Discard	–
19	Story	Discard	–
20	Technical Knock-Out	No	War
21	Waging war	No	War

Table 2.
Digital transformation metaphor grouping

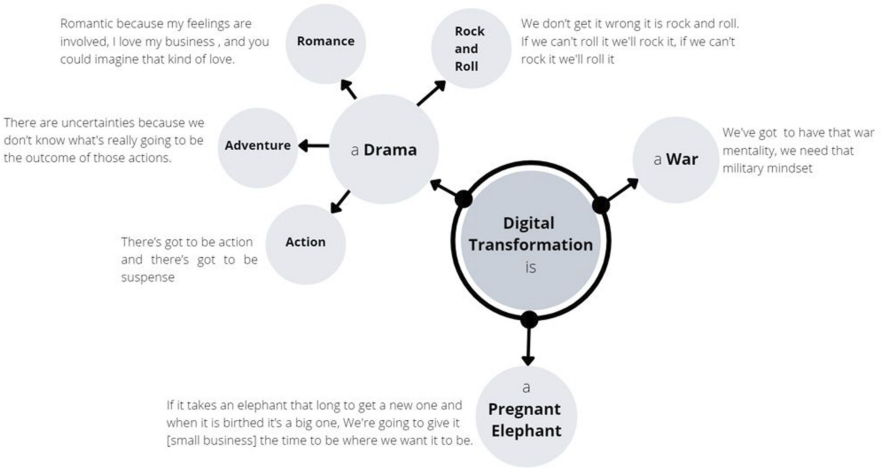

Figure 4.
Mind-map of small business digital transformation

action words worth exploring, such as *composing*, *adapting*, *dialouging* and *staging*. In similar ways in which drama uses props and characters in various scenes to "compose" a narrative and achieve defined objective, DT entails the careful and purposeful mix of transformational tools and capabilities such as digital technologies, innovation, business models, culture, skills, processes and procedures to achieve predefined goals. (Eller *et al.*, 2020; Schallmo, Williams, & Boardman, 2017; Vial, 2019). DT adapts digital tools to business situations, which can often be dramatic, particularly in low-income country setting where the underlying digital infrastructure and resources such as electricity, Internet connectivity and digital skills that supports DT are scarce or unevenly distributed (Zhang & Xu, 2022).

Considering the words of SB owners that participated in the study, the idea of DT playing out in different dramatic genres such as adventure, romance, action, as well as rock and roll appears more relatable while paying attention to the underlined words.

To a *pre-school owner:*

> (DT) is magical for them (pupils), and it's also an adventure for the teachers, and staff who's caring for them, they can see this level of good that comes with the new development.

To the healthcare multimedia service provider:

> (DT) is like a sci-fi (adventure) movie, 'cause we wanna move into the future.

To the entrepreneur who caters for persons with special needs:

> (DT) is romantic because I know I cherish what I do and I'm going to do it for the love of it. . . that kind of love you know. . . through technologies that are helpful. . . (because) my feeling is involved.

To the business consultant who runs a consulting as an SB:

> If (DT) is drama, then there's got to be action, and there's got to be suspense.

To a fashion designer who runs fashion SB:

> We don't get it wrong with (DT as) rock n roll, if we can't roll it, we'll rock it, if we can't rock it, we'll roll it, we keep moving.

These narratives underscore the adventure, romance, action and rock "n" roll drama perception of DT. Furthermore, given that change is fundamental to transformation, DT is psychological, as evidenced by a shift in perspectives and worldviews of the research participants, SB owners and entrepreneurs that drive DT. Psychology of communication and dialogue are essential for effecting change. As the drama "director" communicates expectations and ensures actors reflect expectations through verbal and greater nonverbal communications across different "scenes" of the "drama," the DT leaders be aware of the psychology of stakeholders and communicate effectively through the *stages* of DT (North, Aramburu and Lorenzo, 2020).

Drama often is enjoyable to see on our screens, but we forget a lot of work has gone behind the scenes to produce admirable piece of art on "stage." Similarly, a digitally transformed business is admirable because of how every part of the business syncs to deliver desired business outcomes, but a lot of unseen, backstage work has gone behind the scenes into building such outward capabilities seen on "stage." The perception of DT as drama is instructive given that it combines emotional, physiological and physical elements of transformation that is essential for us to make sense of DT in social context.

5.2.2 Digital transformation is a war. War is not a pleasant experience, and the memories of war often do not leave something to be happy about; in that case, why do SB entrepreneurs regard DT as a war? Let us consider a quote from the interview:

> We've got to have that war mentality; we need that military mindset

It is clear that the participant was referring to the military mindset, which is required to drive DT, rather than getting physical fighting real battle. Although SBs in low-income countries contend with many limiting factors such as poor access to credit, double taxation, low ease of doing business index, training and development, poor access to markets and exchange issues, and it looks as if these issues are all out to stifle SBs; it is apparent that executing DT successfully in such an environment requires a forceful approach which will imagine the business environment a battleground first for survival and afterward for the acquisition of *territories* as market share for the purpose of business expansion.

In wars, there are casualties, which may resonate as temporary defeats; the researcher's interaction with the SB owners suggests that SBs are aware of this fact:

> For everybody on a mission to achieve something there are definitely going to be challenges right, and now challenges are not disappointment but I think they are learning points. If the period was set to realize this, we did not achieve it, then we have to go back and ask ourselves where we got it wrong. Where did we make the mistake and not get discouraged to continue but I will go back to the trenches and start pushing again,

Will there be *collateral damage*? Yes, it is understandable that some transformational ideas and their executions will be unsuccessful and the outcome could be catastrophic, but the SB entrepreneur needs to remain resolute and continue to strategize for victory. Missions in war can be protracted, disruptive and forceful, so also is DT, as it can change the course of business landscape and invalidate known ways of doing things (Manyika *et al.*, 2013). War requires strategic planning and careful execution, just as DT does. When DT is compared to war, it conveys the message that, while DT is desirable, it is a deliberate and strategic process, sometime involving tough decisions and actions, wins and defeats.

5.2.3 Digital transformation is a pregnant elephant. Elephant has been used in idiomatic expressions to interpret social concepts. A "white elephant," for example, is an expensive item that is ineffective; "a baby elephant in the room" is an obvious truth that is regarded as embarrassing and is being deliberately ignored (Oxford English Dictionary, 2022b). However, in this study, what does associating DT with a "pregnant elephant" imply?

To start with, the elephant is a ginormous animal, and as such, it presents different perspectives to different people. According to Haynes (1991), African elephants can be pregnant for up to 22 months followed by an extended period of calf dependence. Elephants have the longest gestation period of all mammals, which makes sense given the size of elephants. Elephants, unlike other animals, usually have only one calf at a time. Although elephants can have twins, this occurs in only 1% of elephant births. "Baby elephant," also known as calf, can weigh up to 268 pounds at birth and stand about 3 feet tall. Elephants give birth every four years, and given that their pregnancies can last up to two years, they typically only have four or five calves in their lifetime if they live for 60-70 years, which means a sizable portion of their life will be spent in making calves.

Based on these premises, it appears SB entrepreneurs' social perceptions of DT as a pregnant elephant imply that DT takes considerable time for conception, planning and delivery, in essence takes time for the benefits of transformation to be realized, but when realized it is significant. This interpretation is further affirmed by a quote from the interview with an SB entrepreneur:

> If it takes an elephant that long to get a new one and when it is birthed its big, we are going to give it time to be where we want it to be.

How accurate is this perception of DT? Does it really take significant time to deliver SB DT results? Must the result be big bang at a time? Scholars have argued that DT is a process (Juergensen *et al.*, 2020; Priyono, Moin, & Putri, 2020; Schallmo *et al.*, 2017), and benefits are realizable in bits as the process unfolds (Eller *et al.*, 2020; Ulas, 2019). According to Mandviwalla and Flanagan (2021), a recent study of 42 cases of SB suggests that DT could generate immediate gains. In the same vein, (North *et al.*, 2020) opined that DT is a journey rather than a destination, so it is not about delivering a big result at the end of a long haul, especially for SBs. The misconception of DT as pregnant elephant could further explain the slow adoption of digital technologies for transformation by SBs in low-income country (Owoseni, Hatsu and Tolani, 2022).

While war and drama metaphors of DT resonate with the realities of DT, the social understanding of DT as a pregnant elephant is socially misconstrued, especially in the SB setting.

6. Implication of findings and conclusion

The overarching objective of this study was to uncover metaphors that depict DT as seen through the eyes of SB entrepreneurs in their social setting and, as a result, make sense of how these metaphors broaden our understanding of DT. The uniqueness of these objectives motivated the use of social theory to frame the research approach, and picture-elicitation technique to drive data collection through in-depth interviews with 17 SB entrepreneurs and business owners. Data were analyzed using a content analysis procedure known as metaphor analysis. Subsequently, the study revealed 21 metaphors that qualify DT; the metaphors were categorized into three and phrased to make three figurative statements: DT is drama; DT is war; and DT is a pregnant elephant. The reliability and validity of the research process was asserted through reflexivity. Reflection on the results and a triangulation of the metaphors with English lexicon, literature and broader interview excerpts supported the notions of "DT is a drama" and "DT is a war," but opposed "DT is a pregnant elephant," especially in the context of SBs in low-income countries. This is one of the first empirical studies that figuratively explain DT, and its implications for literature and practice in the SB management and information systems areas.

First, DT is a novel concept that is frequently misinterpreted (Reis *et al.*, 2018), and this study has increased the knowledge of DT across a wide audience and business stakeholders who may perceive DT as a buzzword, a rave of the digital age or a social construct that lacks depth. The findings of this study have aided in the description of DT to SB owners who have limited knowledge of information technology. The meaning of DT communicated through the metaphors makes the knowledge of DT more inclusive; it makes it easier to connect with entrepreneurs regardless of social barriers like age, language and literacy levels. Second, it also becomes easier to design, develop, communicate and execute DT strategies and interventions targeted at SB. For example, insights derived from these metaphors can be used to create workshops, training materials and advertisements that are both appealing to people and strategic in intent. Third, it helps deliver DT sustainably, and sustainability in this regard is twofold: (1) it speaks to resilience in the face of change, allowing SBs to maximize the benefits of DT in the short, medium and long term. (2) It helps delivers DT in a way that is eco-friendly because the social imaginations of the SB owners who lead DT are better understood, and stakeholders, including policy actors, can have useful conversations and collaborations with minimal communication barriers.

Metaphors pervade daily life, not only through our language and communications, but also in the way we think and act (Redden, 2017). As such, they play a crucial role in understanding and practicing DT.

Reference

Abubakar, A. N., & Abubakar, T. (2014). Counting the cost of policy inconsistency in Nigeria: The case of privatization policy. *Public Policy and Administration Research*, *3*(4), 30–34. Available from: www.isste.org

Akpan, I. J., Udoh, E. A. P., & Adebisi, B. (2020). Small business awareness and adoption of state-of-the-art technologies in emerging and developing markets, and lessons from the COVID-19 pandemic. *Journal of Small Business and Entrepreneurship*. Routledge, 1–18. doi: 10.1080/08276331.2020.1820185.

Alves-Oliveira, P., Lupetti, M. L, Luria, M., Löffler, D., Gamboa, M., Albaugh, L., & Lockton, D. (2021) (In this issue). Collection of metaphors for human-robot interaction. In *DIS 2021 - Proceedings of the 2021 ACM designing interactive systems conference: nowhere and everywhere* (pp. 1366–1379). ACM Digital Library. doi: 10.1145/3461778.3462060.

Bates, E. A., McCann, J. J., Kaye, L. K., & Taylor, J. C. (2017) (In this issue). Beyond words: A researcher's guide to using photo elicitation in psychology. *Qualitative Research in Psychology*, *14*(4), 459–481. doi:10.1080/14780887.2017.1359352.

Batool, S., & Ali, R. (2021). Rethinking reflexivity and positionality in researching happiness: Negotiating fieldwork dilemmas in Pakistan. *Women's Studies International Forum*, Elsevier, *89*(May 2020), 102537. doi: 10.1016/j.wsif.2021.102537.

Berman, S. J. (2012). Digital transformation: Opportunities to create new business models. *Strategy and Leadership*, *40*(2), 16–24. doi: 10.1108/10878571211209314.

Bessette, H. J., & Paris, N. A. (2020). Using visual and textual metaphors to explore teachers' professional roles and identities. *International Journal of Research and Method in Education*, *43*(2), 173–188. doi: 10.1080/1743727X.2019.1611759.

BOI. (2019). MSME's definition | Bank of industry, Nigeria. Available from: http://www.boi.ng/smedefinition/

Brown, R. H. (1976). Social theory as metaphor. *Theory and Society*, *3*(2), 169–197. Available from: https://jstor.org/stable/656845

Chorianopoulos, K. (2021). Metaphors to die for: Digital transformation for learning and work. *BibBase*. Available from: https://pdf.epidro.me/Chorianopoulos_2021.pdf

Corlett, S., & Mavin, S. (2018). Reflexivity and researcher positionality. *The SAGE Handbook of Qualitative Business and Management Research Methods: History and Traditions* (pp. 377–398). doi: 10.4135/9781526430212.n23.

Demir, K., & Güraksın, G. E. (2022). Determining middle school students' perceptions of the concept of artificial intelligence: A metaphor analysis. *Participatory Educational Research*, *9*(2), 297–312. doi: 10.17275/per.22.41.9.2.

De Reuver, M., Sørensen, C. & Basole, R. C. (2018). The digital platform : A research agenda. 124–135. doi: 10.1057/s41265-016-0033-3.

Dodgson, J. E. (2019). Reflexivity in qualitative research. *Journal of Human Lactation*, *35*(2), 220–222. doi: 10.1177/0890334419830990.

Eller, R., Alpford, P., Kallmunzer, A. & Peters, M. (2020). Antecedents, consequences, and challenges of small and medium-sized enterprise digitalization. *Journal of Business Research*, Elsevier, *112*(September 2019), 119–127. doi: 10.1016/j.jbusres.2020.03.004.

Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, African Federation for Emergency Medicine, *7*(3), 93–99. doi: 10.1016/j.afjem.2017.08.001.

Fletcher, G., & Griffiths, M. (2020). Digital transformation during a lockdown. *International Journal of Information Management*, Elsevier, June, 102185. doi: 10.1016/j.ijinfomgt.2020.102185.

Fletcher-Brown, J. (2020). Reflexivity and the challenges of collecting sensitive data in India: A research note. *Qualitative Research*, *20*(1), 108–118. doi: 10.1177/1468794119833318.

Glaw, X., Inder, K., Kable, A., & Hazelton, M. (2017) (In this issue). Visual methodologies in qualitative research: Autophotography and photo elicitation applied to mental health research. *International Journal of Qualitative Methods*, *16*(1), 1–8. doi:10.1177/1609406917748215.

Gök, A., & Kara, A. (2022). Individuals' conceptions of COVID-19 pandemic through metaphor analysis. *Current Psychology*, *41*(1), 449–458. doi: 10.1007/s12144-021-01506-z.

Hancock, C., & Foster, C. (2020). Exploring the ZMET methodology in services marketing. *Journal of Services Marketing*, *34*(1), 48–58. doi: 10.1108/JSM-11-2018-0344.

Haynes, G. (1991). *Mammoths, mastodonts, & elephants: Biology, behavior and the fossil record*. Cambridge: Cambridge University Press.

Healy, D., & Fitzgibbon, W. (2020). Different ways of seeing: Exploring audience reactions to images of probation supervision. *Qualitative Social Work*, *19*(4), 663–684. doi: 10.1177/1473325019845426.

Hidalgo Standen, C. (2021). The use of photo elicitation for understanding the complexity of teaching: A methodological contribution. *International Journal of Research and Method in Education*, Taylor & Francis, *44*(5), 506–518. doi: 10.1080/1743727X.2021.1881056.

Hillman, P., Moyle, B. D., & Weiler, B. (2018). Application of visual methods to perceptions of tourism development. *International Journal of Culture, Tourism, and Hospitality Research*, *12*(1), 124–129. doi: 10.1108/IJCTHR-06-2017-0073.

Hilton, K., Siami Namin, A., & Jones, K. S. (2022). Metaphor identification in cybersecurity texts: A lightweight linguistic approach. *SN Applied Sciences*, Springer International Publishing, *4*(2). doi: 10.1007/s42452-022-04939-8.

Høybra, H. M. (2021). A semi-structured approach to photo elicitation methodology for research participants with intellectual disability. *International Journal of Qualitative Methods*, *20*, 1–6. doi: 10.1177/16094069211027057.

Ihua, U. B., & Siyanbola, T. O. (2012). Critical challenges limiting small business performance in Nigeria: An exploratory investigation. *International Journal of Business and Globalisation*, *9*(2), 171–185. doi: 10.1504/IJBG.2012.048958.

Jensen, L. X., Bearman, M., & Boud, D. (2021). Understanding feedback in online learning – a critical review and metaphor analysis. *Computers and Education*, Elsevier, *173*(July), 104271. doi: 10.1016/j.compedu.2021.104271.

Juergensen, J., Guimon, J. & Narula, R. (2020). European SMEs amidst the COVID-19 crisis: assessing impact and policy responses. *International Journal of Information Management*, Springer, 1194 AISC(June), 1–14. doi: 10.1002/isd2.12061.

Jung, J., Yu, J., Seo, Y. & Ko, E. (2021). Consumer experiences of virtual reality: Insights from VR luxury brand fashion shows. *Journal of Business Research*, Elsevier, *130*(October), 517–524. doi: 10.1016/j.jbusres.2019.10.038.

Knowles, J., & Cole, A. (2008). *Handbook of the arts in qualitative research: perspectives, methodologies, examples, and issues*. Thousand Oaks CA: SAGE Publications. doi: 10.4135/9781452226545.

Lawal Arowolo, D. A., & Douglas, T. (2022). Electricity generation and renewable energy policy in Nigeria: Resolving the regulatory challenges. *American Journal of Environment and Climate*, *1*(1), 42–53. doi: 10.54536/ajec.v1i1.258.

Lorenz, L. S., & Kolb, B. (2009). Involving the public through participatory visual research methods. *Health Expectations*, *12*(3), 262–274. doi: 10.1111/j.1369-7625.2009.00560.x.

Mandviwalla, M., & Flanagan, R. (2021). Small business digital transformation in the context of the pandemic. *European Journal of Information Systems*, *30*(4), 359–375. doi: 10.1080/0960085X.2021.1891004.

Manyika, J., Chui, M., Bughin, J., Dobbs, R., Bisson, P., & Marrs, A. (2013) (In this issue). Disruptive technologies: Advances that will transform life, business, and the global economy. *McKinsey Global Insitute*, (May), 163. doi:10.1080/02699931.2013.803459.

Markus, M. L., & Rowe, F. (2021). Guest editorial: Theories of digital transformation: A progress report. *Journal of the Association for Information Systems*, 273–280. doi: 10.17705/1jais.00661.

Matarazzo, M., Penco, L., Profumo, G. & Quaglia, R. (2021). Digital transformation and customer value creation in made in Italy SMEs: A dynamic capabilities perspective. *Journal of Business Research*, Elsevier, *123*(October 2020), 642–656. doi: 10.1016/j.jbusres.2020.10.033.

North, K., Aramburu, N., & Lorenzo, O. J. (2020). Promoting digitally enabled growth in SMEs: A framework proposal. *Journal of Enterprise Information Management*, *33*(1), 238–262. doi: 10.1108/JEIM-04-2019-0103.

OECD. (2017). Enhancing the contributions of SMEs in a global and digitalised economy, meeting of the OECD council at ministerial level. Available from: https://www.oecd.org/mcm/documents/C-MIN-2017-8-EN.pdf

Ossewaarde, M. (2019). Digital transformation and the renewal of social theory: Unpacking the new fraudulent myths and misplaced metaphors. *Technological Forecasting and Social Change*. Elsevier, *146*(December 2018). 24–30. doi: 10.1016/j.techfore.2019.05.007.

Owoseni, A., & Twinomurinzi, H. (2018). Mobile apps usage and dynamic capabilities: A structural equation model of SMEs in lagos, Nigeria. *Telematics and Informatics*, Elsevier, *35*(7), 2067–2081. doi: 10.1016/j.tele.2018.07.009.

Owoseni, A., & Twinomurinzi, H. (2020). Evaluating mobile app usage by service sector micro and small enterprises in Nigeria: An abductive approach. *Information Technology for Development*, Taylor & Francis, *26*(4), 762–772. doi: 10.1080/02681102.2020.1727825.

Owoseni, A., Hatsu, S., & Tolani, A. (2022). How do digital technologies influence the dynamic capabilities of micro and small businesses in a pandemic and low-income country context? *Electronic Journal of Information Systems in Developing Countries*, *88*(2), 1–17. doi: 10.1002/isd2.12202.

Oxford English Dictionary. (2022a). 'Drama': Oxford English dictionary. Available from: https://www.oed.com/view/Entry/57475?redirectedFrom=drama#eid> (accessed 16 September 2022).

Oxford English Dictionary. (2022b). 'Elephant': Oxford English dictionary. Available from: https://www.oed.com/view/Entry/60391?redirectedFrom=elephant#eid> (Accessed 16 September 2022).

Papadopoulos, T., Baltas, K. N., & Balta, M. E. (2020). The use of digital technologies by small and medium enterprises during COVID-19: Implications for theory and practice. *International Journal of Information Management*, Elsevier, *55*(July), 102192. doi: 10.1016/j.ijinfomgt.2020.102192.

Pink, S. (2001). More visualising, more methodologies: On video, reflexivity and qualitative research. *Sociological Review*, *49*(4). doi: 10.1111/1467-954X.00349.

Pitcher, R. (2013). Using metaphor analysis: MIP and beyond. *Qualitative Report*, *18*(34), 1–8. doi: 10.46743/2160-3715/2013.1476.

Priyono, A., Moin, A., & Putri, V. N. A. O. (2020). Identifying digital transformation paths in the business model of smes during the covid-19 pandemic. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(4), 1–22. doi: 10.3390/joitmc6040104.

Raby, R., Lehmann, W., Helleiner, J., & Easterbrook, R. (2018) (In this issue). Reflections on using participant-generated, digital photo-elicitation in research with young Canadians about their first part-time jobs. *International Journal of Qualitative Methods*, *17*, 1–10. doi:10.1177/1609406918790681.

Ramjaun, T. A. (2021). Experimenting with zmet: Issues and adaptions. *Qualitative Report*, *26*(5), 1633–1640. doi: 10.46743/2160-3715/2021.3718.

Redden, S. M. (2017). Metaphor analysis. *The International Encyclopedia of Communication Research Methods*, January, 1–9. doi: 10.1002/9781118901731.iecrm0154.

Reis, J., Amorim, M., Melão, N., & Matos, P. (2018) (In this issue). Digital transformation: A literature review and guidelines for future research. *Advances in Intelligent Systems and Computing*, *745*(March), 411–421. doi:10.1007/978-3-319-77703-0_41.

Roth, S. (2019). Digital transformation of social theory. A research update. *Technological Forecasting and Social Change*, Elsevier, *146*(May), 88–93. doi: 10.1016/j.techfore.2019.05.016.

Schallmo, D., Williams, C. A., & Boardman, L. (2017). Digital transformation of business models-best practice, enablers, and roadmap. *International Journal of Innovation Management*, *21*(8), 1–17. doi: 10.1142/S136391961740014X.

Schmitt, R. (2015). Systematic metaphor analysis as a method of qualitative research. *The Qualitative Report*, May. doi: 10.46743/2160-3715/2005.1854.

Tolani, A., Owoseni, A. & Twinomurinzi, H. (2020), Designing for context versus the lock-in effect of 'free' global digital platforms: A case of SMEs from Nigeria. 321–332. doi: 10.1007/978-3-030-64823-7_29.

Ulas, D. (2019). Digital transformation process and SMEs. *Procedia Computer Science*, Elsevier B.V., *158*, 662–671. doi: 10.1016/j.procs.2019.09.101.

Venkatesh, A., Joy, A., Sherry, J.F. Jr, & Deschenes, J. (2010) (In this issue). The aesthetics of luxury fashion, body and identify formation. *Journal of Consumer Psychology*, *20*(4), 459–470. doi:10.1016/j.jcps.2010.06.011.

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, Elsevier, *28*(2), 118–144. doi: 10.1016/j.jsis.2019.01.003.

Winarsih, Indriastuti M., & Fuad, K. (2021). Impact of covid-19 on digital transformation and sustainability in small and medium enterprises (smes): A conceptual framework. *Advances in Intelligent Systems and Computing*, Springer International Publishing. doi: 10.1007/978-3-030-50454-0_48.

World Bank (2020). *The World bank in Nigeria*. Available from: https://www.worldbank.org/en/country/nigeria#:~:text=A%20key%20regional%20player%20in,of%20youth%20in%20the%20world (accessed 15 september 2022).

Zhang, X. & Xu, Y. (2022). Research on successful factors and influencing mechanism of the digital transformation in SMEs.

Zoltán, K. (2006). Conceptual metaphor theory. In S. Elena, & D. Zsófia (Eds.), *The Routledge Handbook of Metaphor and Language* (pp. 31–57). London: Routledge Handbooks. doi: 10.4324/9781315672953.ch1.

Further reading

Shoshani, J. (1992). *Elephants: Majestic creatures of the wild*. Emmaus, PA: Rodale Press.

About the author

Dr Adebowale Owoseni is a senior lecturer in information systems at the School of Computer Science and Informatics, De Montfort University. Prior to joining academia in 2019, he functioned at different software development related roles in the financial service sector for 13 years. He leverages significant industry experience and finds fulfillment in teaching and researching subjects that speak to societal impacts of business computing, digital technologies and digital transformation. Adebowale Owoseni can be contacted at: adebowale.owoseni@dmu.ac.uk

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**