Please quote as: Grauer, T. & Li, M. (2025). Are Narratives a success factor for Digital Transformation? A Qualitative Study on the Importance of Narratives. 20th International Conference on Wirtschaftsinformatik (WI), Münster, Germany: AIS eLibrary.

Are Narratives a success factor for Digital Transformation? A Qualitative Study on the Importance of Narratives

Research in Progress

Teresa Grauer[1], Mahei Li[1]

[1] University of Kassel, Information Systems, Pfannkuchstraße 1, Kassel, Germany
Teresa.Grauer@uni-kassel.de
Mahei.Li@uni-kassel.de

Abstract. Organizations seek to drive digital transformation. Initiatives fail, often due to human-related factors such as stakeholder resistance. Despite the role of human dynamics in digital transformation, research has yet to fully explore effective strategies for mitigating these challenges. Narratives represent a promising yet underexamined tool for managing human-related risks in digital transformation. Many organizations employ narratives, either implicitly or explicitly, to shape their transformation efforts. However, both scholars and practitioners lack understanding of how narratives influence transformation outcomes. This inductive case study examines how organizations leverage narratives to enhance digital transformation. We conducted interviews to analyze their use of narratives. Our findings reveal key functions and characteristics: (1) narratives serve a transformative, motivational function, (2) narratives help overcome resistance and engage people, (3) boundary conditions are relevant for successful narratives, (4) overarching narratives define digital transformation initiatives. By strategically shaping narratives, organizations can navigate human-related barriers and improve transformation success.

Keywords: Digital Transformation, Narrative, Automation, Human-centric, Human Friendly Automation

1 Introduction

Over the years digital transformation (DT) emerged as an important phenomenon for both strategic Information System (IS) research (Bharadwaj *et al*.,2013; Piccinini *et al.*, 2015) and practitioners (Fitzgerald, 2014; Westerman *et al*., 2011).
DT redesigns organizations (Vial, 2019) with the idea to create a better world with the help of digital technology (Conboy, 2019; Walsham, 2012). DT is often associated with change (Chanias *et al.*, 2019). As technologies can be used to transform organizational activities, changes can create broader resistance to adopting new ways of working

(Chuah, 2019; Jalo and Pirkkalainen, 2024). Moreover, the organization environment is more and more characterized by volatility, uncertainty, complexity and ambiguity which changes the mindset within an organization (Bennett and Lemoine, 2014; Eilers *et al.*, 2022). Technological change always brings organizational change that affects actors (Markus, 2004). A way to address this is through the articulation of narratives. Narratives are "something that someone tells" (Pentland, 1999, p.712). Narratives produce action (Oomen *et al*., 2022) while offering guidance for actor´s sensemaking (Weick, 1999).

Early work in this area emphasized the cognitive advantages of narratives leading some scholars to describe narratives as having a "privileged status" in human cognition (Schank, 1995). The role of narratives in DT has received scholarly attention, particularly as a means of sensemaking and alignment within organizations (Zimmer and Minkkinen, 2024). Some studies have gone further, examining narratives as essential resources for leading DT processes (Nielsen *et al*., 2024). Other scholars have taken a different angle, investigating the role of narratives in theorizing itself - focusing on how they shape the development of influential theories and guide future research. Despite growing interest, critical gaps remain in understanding how narratives contribute to the success of DT initiatives and what makes them effective. This results in the question (RQ): *How do narratives influence the success of digital transformation initiatives?*

This is particularly relevant in the context of Artificial Intelligence (AI) driven transformation, where shifts in technology often provoke uncertainty, resistance, or competing interpretations among different stakeholder groups (Engström *et al*., 2022; Stieglitz *et al*., 2023).

To answer our RQ, we pursue an interview study. Besides that, we examine the current literature on narratives as well as DT, automation and human-centric approaches. We conducted (until now) 5 semi-structured interviews to analyze experience and discuss implications of narratives for DT with experts.

2 Related Work

2.1 Digital Transformation and Change

DT has become a key research focus in organizational and IS literature and is widely cited as "a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies" (Vial, 2019, p.121).
Transformative technologies such as e.g., robotic process automation (RPA) (Aguirre and Rodriguez, 2017) large language models (LLM) (Petroni *et al.*, 2019), are reshaping practices within domains studied by IS research by enabling greater levels of process automation (Schulte-Althoff, 2023). Traditional human-centric operations are re-

shaped into automated systems (Oberländer *et al.*, 2018). Beside altering the operational landscapes of organizations, they reshape human roles, responsibilities and participation within these systems (Diederich *et al.*, 2022). Additionally, organizational challenges emerge, as automation often reshapes work practices and process logic, requiring effective change management strategies. These hurdles frequently contribute to the failure of automation initiatives (Reijers *et al.*, 2016). Syed et al. (2020) further emphasize the need to address sociotechnical implications. Non-technological aspects as culture, employee training and leadership are equally important for successful IT-enabled transformation (Markus, 2004).
An important feature of IS is the tradition of sociotechnical systems thinking (Sarker *et al.*, 2019). Besides the technical disciplines of computer sciences and software engineering, focus is on what emerges from the interaction of digital technology and social elements. Consistent with this, many define IS as sociotechnical systems comprising both social and technological elements (Alter, 2013; Sarker *et al.*, 2019).

A persistent challenge in digital initiatives is *resistance to change*. Resistance can manifest in various forms - ranging from passive non-compliance to active opposition - and stems from a variety of sources, such as fear of the unknown, perceived loss of competence, or a lack of trust in leadership (Oreg *et al*., 2011). Far from being irrational, resistance frequently reflects a gap between the proposed change and existing cultural or identity structures within the organization (Sonenshein, 2010). While traditional change management approaches emphasize planning, communication, and stakeholder alignment, they often fall short in addressing how meaning is made during transformation (Weick and Quinn, 1999; Sonenshein, 2010) - a gap that narratives can help to bridge (Weritz *et al*., 2024; Zimmer and Minkkinen, 2024).

2.2 Narratives

Reviewing literature on narratives shows, that narratives are more easy to comprehend and more engaging in contrast to traditional logical-scientific communication (Green, 2006). Historically, narratives have been used to give information, transition beliefs, and inspire action as a fundamental mode of thinking (Schank, 1995).
Narratives can be defined as descriptive and textual representation that captures one or more aspects of a domain's substance and form, structured as a coherent sequence of sentences in natural language (Hvalshagen *et al*., 2023). Narratives are not just cultural by-products or retrospective accounts of organizational activities; rather, they actively shape social reality by guiding organizational actions (Czarniawska, 1995). They are inherently performative, meaning that individuals do not simply retell stories, but actively enact them through their behavior and choices (Pentland, 1999).

Narratives typically reflect dominant cultural meanings and reinforce shared understandings of reality (Lundholt *et al*., 2018).
Narratives are used to enable empowered users to unlock the full potential for the analysis, design, development, implementation and maintenance of IS and data (Hvalshagen *et al.*, 2023). Usage of narratives as textual representations is evident

throughout the IS lifecycle (Alexander and Maiden, 2004), and is often combined with graphical representations (Cockburn, 2000).

Narratives stand often in contrasted with other formats of communication, especially with argumentative or expository, descriptive communications (Avraamidou and Osborne, 2009). Empirical studies support a categorical difference between narratives and paradigmatic processing. They suggest narrative processing as generally more efficient (Michael and Dahlstrom, 2014). Resulting benefits from narratives do not result from simplicity – narratives demand a high level of complexity - internally as in alignment to cultural and social expectancies (Monteagudo-Gonzalez, 2011). Narratives offer intrinsic benefits within the four main steps of information processing: motivation and interest, allocating cognitive resources, elaboration, and transfer into long-term memory (Glaser *et al.*, 2009). Ongoing discussions within the field of science communication can benefit from including of narrative constructs (Dahlstrom, 2014).

Research also indicates that narrative explanations are processed more quickly than logical-scientific descriptions by non-expert audiences, regardless of their prior knowledge of the subject (Graesser *et al.*, 2003). Furthermore, narratives are generally more engaging and persuasive, fostering greater trust and comprehension of AI models among non-experts (Dahlstrom, 2014).

3 Research Approach

Given the exploratory nature of our research question, we adopted a qualitative research approach. To gain deeper insights into the importance of narratives for DT, we conducted five expert interviews, to get insights on best practices and past experiences for narratives within DT. The interview data was organized using the Gioia methodology, aiming to provide a clear and systematic approach to building theory from the interviewees' experiences while ensuring transparency and academic rigor (Gioia *et al.,* 2013).
The experts were selected from both academia and industry, including researchers and experts on human friendly automation and human-computer collaboration. Our experts were either academically engaged in the topic or experienced practitioners working closely with narratives in DT projects. Looking forward, more experts will be interviewed to past experiences and future research topics.

Table 1. Role and experience of interviewee

ID	Role	Experience	Company
I1	Expert	Hybrid Intelligence	Research
I2	Expert	Digital Transformation, Narratives, Hybrid Intelligence	Research in corporation with manufacturing company
I3	Manager	Augmentation, Digital Transformation	IT provider
I4	Manager	Human Friendly Automation, Hybrid Intelligence	Research in corporation with public sector agency
I5	Expert	Narratives in Digital Transformation	Manufacturing

We conducted semi-structured online interviews, each lasting approximately 40 minutes. All interviews were recorded and transcribed with prior consent. To structure our study, we first reviewed the literature to define key concepts relevant to our research question. Based on this foundation, we developed a semi-structured interview guide following (Mayring, 2015) problem-centric approach. The interview questions aimed three insights: (1) on past projects where human-centric narratives were used, (2) on the relevance and importance of narratives themselves and (3) on fears and the need for change management related to automation and DT. Initially, participants were asked to describe their specific work in the field, as well as to provide examples of past projects and success stories (e.g., What was the outcome of implementing a human-centered narrative in your project? Were there any tasks you did not implement due to human-centered considerations?). This was followed by a broader discussion on the significance of narratives (e.g., Why should digital transformation and automation be guided by a narrative? What does a narrative mean to you?). Additional questions focused on addressing fears related to digital transformation (e.g., What common fears do people have regarding automation and digital transformation? Do you believe a human-centered approach helps reduce these fears? What makes the difference?). The interviews concluded with the question of how the participants´ individual definition of narratives evolved throughout the interview.

4 Preliminary Results and Contributions

We systematized the insights from the interviews following the data structure by Gioia et al. (2013) providing a structured synthesis of our research findings. This procedure is considered widely to gain rigorous findings and to identify patterns and connections. Following the Gioia methodology, we began with open coding to identify first-order concepts grounded in the participants' own terms. These concepts were then grouped into second-order themes, which reflect patterns and core ideas emerging from the data. Finally, we connected these themes into aggregate dimensions that capture broader processes and outcomes within the organization (Gioia *et al.*, 2013). One main outcome and essence is that narratives serve as the bridge between employees' emotions, fears and hopes and the practical realities of the organization transformation through technology. Throughout all interviews, narratives emerged as a success factor for DT (see figure 1).

Our findings reveal four key features. It needs to be differentiated between functions of the narratives and their characteristics: (1) Narratives serve a transformative and motivational function. They help people make sense of change, give purpose to transformation efforts, and motivate engagement (I1-I5). (2) Narratives reduce stakeholder resistance and engage them in the transformation while they create enthusiasm, explain why change is needed and support acceptance (I1-I5). (3) Boundary conditions are relevant for successful narratives. (4) Overarching narratives exist in DT and especially in AI. By strategically shaping narratives, organizations can navigate human-related barriers and improve transformation success.

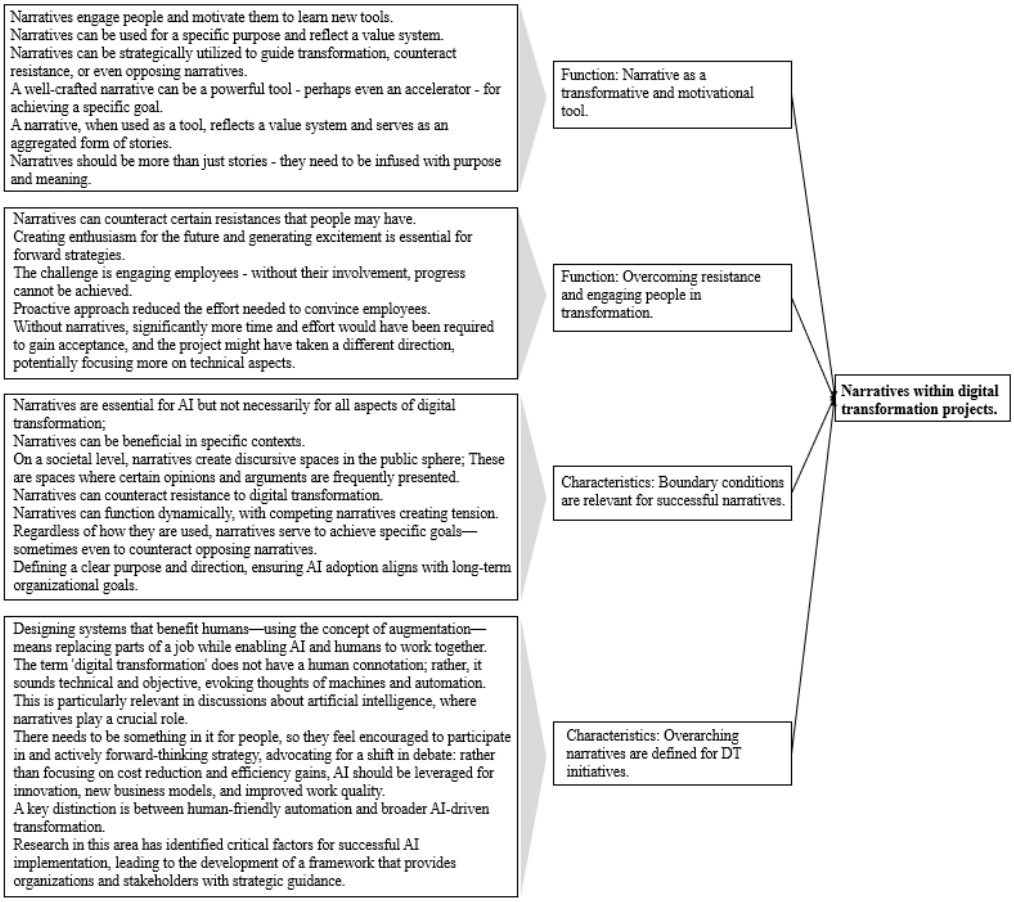

Figure 1. Data structure

DT continues to evolve as new technologies emerge, often intensifying existing forms of resistance (Vial, 2019; Mettler *et al*., 2024). By constructing narratives around the purpose, urgency, and expected outcomes of change, organizations can help employees and stakeholders reframe uncertainty as opportunity and align with new strategic directions (Nielsen *et al*., 2024; Sonenshein, 2010). Further interviews are necessary to gain a broader understanding of the roles of narratives and to confirm the success factors. Future research is essential to explore their implications and role in DT in greater depth. Besides further interviews we are planning to conduct workshops to evaluate the themes in a structured manner. Future research will be done especially on how to effectively design and embed narratives within organizations. Moreover, further research will examine how narratives can be leveraged to drive successful DT and align technological changes with employee´ experience and expectations.

References

Aguirre, S. and Rodriguez, A. (2017) 'Automation of a business process using robotic process automation (RPA): A case study', in Figueroa-García, J.C., López-Santana, E.R., Villa-Ramírez, J.L. and Ferro-Escobar, R. (eds.) *Applied Computer Sciences in Engineering*. Springer International Publishing, pp. 65–71.

Alexander, I. and Maiden, N. (2004) 'Scenarios, stories, and use cases: the modern basis for system development', *Computing and Control Engineering*, 15(5), pp. 24–29.

Alexander, I. (2004) *Scenarios, Stories, Use Cases: Through the Systems Development Life-Cycle*.

Alter, S. (2013) 'Work System Theory: Overview of Core Concepts, Extensions, and Challenges for the Future', *Journal of the Association for Information Systems*, 14(2), pp. 72–121.

Avraamidou, L. and Osborne, J. (2009) 'The role of narrative in communicating science', *International Journal of Science Education*, 31, pp. 1683–1707.

Bennett, N. and Lemoine, G.J. (2014) 'What a difference a word makes: Understanding threats to performance in a VUCA world', *Business Horizons*, 57(3), pp. 311–317.

Bharadwaj, A., El Sawy, O., Pavlou, P. and Venkatraman (2013) 'Digital business strategy: Toward a next generation of insights', *MIS Quarterly*, 37(2), pp. 471–482.

Chanias, S., Myers, M.D. and Hess, T. (2019) 'Digital transformation strategy making in pre-digital organizations: The case of a financial services provider', *The Journal of Strategic Information Systems*, 28(1), pp. 17–33.

Chuah, S.H.W. (2019) 'Wearable XR-technology: literature review, conceptual framework and future research directions', *International Journal of Technology Marketing*, 13(3/4), p. 205.

Cockburn, A. (2000) *Writing Effective Use Cases*.

Conboy, K. (2019) 'Being Promethean', *European Journal of Information Systems*, 28(2), pp. 119–125.

Czarniawska-Joerges, B. (1995) 'Narration or Science? Collapsing the Division in Organization Studies', *Organization*, 2(1), pp. 11–33. https://doi.org/10.1177/135050849521002

Diederich, S., Brendel, A., Morana, S. and Kolbe, L. (2022) 'On the design of and interaction with conversational agents: An organizing and assessing review of human-computer interaction research', *Journal of the Association for Information Systems*, 23(1), pp. 96–138.

Eilers, K., Peters, C. and Leimeister, J.M. (2022) 'Why the agile mindset matters', *Technological Forecasting and Social Change*, 179, p. 121650.

Engström, A., Mohlin, A., Mirzaei, N.E., Pittino, D. and Johansson, A. (2022) 'Understanding Organizational Tensions During Artificial Intelligence Transformation', *Academy of Management Proceedings*, 2022(1), Article 12745. https://doi.org/10.5465/AMBPP.2022.12745abstract

Fitzgerald, M. (2014) 'Embracing digital technology: a new strategic imperative', *MIT Sloan Management Review*, 55(2), p. 1.

Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2013) 'Seeking Qualitative Rigor in Inductive Research', *Organizational Research Methods*, 16(1), pp. 15–31.

Glaser, M., Garsoffky, B. and Schwan, S. (2009) 'Narrative-based learning: Possible benefits and problems', *Communications-European Journal of Communication Research*, 34, pp. 429–447.

Graesser, A., Olde, B. and Klettke, B. (2003) 'How does the mind construct and represent stories?', in *Narrative Impact*. Psychology Press, pp. 229–262.

Graesser, A. and Ottati, V. (1995) 'Why Stories? Some evidence, questions, and challenges', in Wyer, R.S. (ed.) *Knowledge and Memory: The Real Story*. Lawrence Erlbaum Associates, Hillsdale, NJ.

Green, M.C. (2006) 'Narratives and Cancer Communication', *Journal of Communication*, 56(suppl_1), pp. S163–S183.

Hvalshagen, M., Lukyanenko, R. and Samuel, B.M. (2023) 'Empowering Users with Narratives: Examining the Efficacy of Narratives for Understanding Data-Oriented Conceptual Models', *Information Systems Research*, 34(3), pp. 890–909.

Jalo, H. and Pirkkalainen, H. (2024) 'Effect of user resistance on the organizational adoption of extended reality technologies: A mixed methods study', *International Journal of Information Management*, 75, p. 102731.

Lundholt, M.W., Maagaard, C.A. and Piekut, A. (2018) 'Counternarratives', in Heath, R.L. and Johansen, W. (eds.) *The Wiley Blackwell-ICA International Encyclopedias of Communication: The International Encyclopedia of Strategic Communication*. Chichester: John Wiley & Sons, pp. 1–11.

Markus, M.L. (2004) 'Technochange Management: Using IT to Drive Organizational Change', *Journal of Information Technology*, 19(1), pp. 4–20.

Mayring, P. (2015) *Qualitative Inhaltsanalyse: Grundlagen und Techniken*. 12th edn. Beltz Verlag, Weinheim Basel.

Mettler, T., Miscione, G., Jacobs, C.D. and Guenduez, A.A. (2024) 'Same same but different: How policies frame societal-level digital transformation', *Government Information Quarterly*, 41(2), p. 101932. https://doi.org/10.1016/j.giq.2024.101932

Michael, F.D. (2014) 'Using narratives and storytelling to communicate science with nonexpert audiences', *Proceedings of the National Academy of Sciences*, 111(supplement_4), pp. 13614–13620.

Monteagudo-Gonzalez, J. (2011) 'Jerome Bruner and the challenges of the narrative turn. Then and now', *Narrative Inquiry*, 21, pp. 295–302.

Nielsen, J.A., Elmholdt, K.T. and Noesgaard, M.S. (2024) 'Leading digital transformation: A narrative perspective', *Public Administration Review*, 84(4), pp. 589–603. https://doi.org/10.1111/puar.13721

Oberländer, A., Röglinger, M., Rosemann, M. and Kees, A. (2018) 'Conceptualizing business-to-thing interactions–A sociomaterial perspective on the Internet of Things', *European Journal of Information Systems*, 27(4), pp. 486–502.

Oomen, J., Hoffman, J. and Hajer, M.A. (2022) 'Techniques of futuring: On how imagined futures become socially performative', *European Journal of Social Theory*, 25(2), pp. 252–270.

Oreg, S., Vakola, M. and Armenakis, A. (2011) 'Change Recipients' Reactions to Organizational Change', *The Journal of Applied Behavioral Science*, 47(4), pp. 461–524. https://doi.org/10.1177/0021886310396550

Pentland, B.T. (1999) 'Building Process Theory with Narrative: From Description to Explanation', *The Academy of Management Review*, 24(4), pp. 711–724. https://doi.org/10.2307/259350

Petroni, F., Rocktäschel, T., Lewis, P., Bakhtin, A., Wu, Y., Miller, A. and Riedel, S. (2019) 'Language Models as Knowledge Bases?', *arXiv preprint*, arXiv:1909.01917.

Piccinini, E., Gregory, R.W. and Kolbe, L.M. (2015) 'Changes in the producer-consumer relationship-towards digital transformation', in *Wirtschaftsinformatik Conference*. Osnabrück, Germany: AIS Electronic Library, pp. 1634–1648.

Reijers, H., Vanderfeesten, I. and van der Aalst, W. (2016) 'The effectiveness of workflow management systems: A longitudinal study', *International Journal of Information Management*, 36(1), pp. 126–141.

Sarker, S., Chatterjee, S., Xiao, X. and Elbanna, A. (2019) 'The Sociotechnical Axis of Cohesion for the IS Discipline: Its Historical Legacy and its Continued Relevance', *MIS Quarterly*, 43(3), pp. 695–719.

Schank, R.C. (1995) *Knowledge and Memory: The Real Story*.

Schulte-Althoff, M. (2023) 'What's to automate? A task analysis of AI-enabled start-ups'.

Sonenshein, S. (2010) 'We're Changing—Or Are We? Untangling the Role of Progressive, Regressive, and Stability Narratives During Strategic Change Implementation', *Academy of Management Journal*, 53(3), pp. 477–512. https://doi.org/10.5465/amj.2010.51467638

Stieglitz, S., Möllmann, N.R., Mirbabaie, M., Hofeditz, L. and Ross, B. (2023) 'Recommendations for managing AI-driven change processes: when expectations meet reality', *International Journal of Management Practice*, 16(4), Article 132074, pp. 407–433. https://doi.org/10.1504/IJMP.2023.132074

Syed, R. et al. (2020) 'Robotic process automation: Contemporary themes and challenges', *Computers in Industry*, 115, p. 103162.

Vial, G. (2019) 'Understanding digital transformation: A review and a research agenda', *The Journal of Strategic Information Systems*, 28(2), pp. 118–144.

Walsham, G. (2012) 'Are We Making a Better World with ICTs? Reflections on a Future Agenda for the IS Field', *Journal of Information Technology*, 27(2), pp. 87–93.

Weick, K.E. and Quinn, R.E. (1999) 'Organizational change and development', *Annual Review of Psychology*, 50, pp. 361–386. https://doi.org/10.1146/annurev.psych.50.1.361

Weritz, P., Braojos, J., Matute, J. and Benitez, J. (2024) 'Impact of strategic capabilities on digital transformation success and firm performance: theory and empirical evidence', *European Journal of Information Systems*, pp. 1–21. https://doi.org/10.1080/0960085X.2024.2311137

Westerman, G., Calméjane, C., Bonnet, D., Ferraris, P. and McAfee, A. (2011) *Digital transformation: A roadmap for billion-dollar organizations*. MIT Center for Digital Business and Capgemini Consulting, pp. 1–68.

Zimmer, M. and Minkkinen, M. (2024) 'Narrative approach to futures: future-oriented perspective to responsible digital transformation', in *ECIS 2024 Proceedings*, Track 25: Futures. https://aisel.aisnet.org/ecis2024/track25_futures/track25_futures/2