

**Call for Papers:** The Rise of Low-Code/No-Code: Accelerating Digital Transformation

#### **Guest Editors**

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### Introduction

The digital transformation of businesses has been rapidly accelerated by the increasing use of low-code-no-code (LCNC) platforms to automate workflows, increase efficiency, and reduce costs. These platforms have emerged as an important enabler for businesses to create applications quickly without requiring extensive coding expertise (Carroll & Maher, 2023). In fact, they are touted to lead to a "democratization of AI" (Sundberg & Holmström, 2023) as they provide a visual interface and drag-and-drop functionality to enable so called, "citizen developers," to build software applications quickly and easily (Matook et al. 2023).

Low-code/no-code platforms continuously evolve while giving raise to several trends that are shaping the future of these platforms. One such trend is the integration of LCNC platforms with machine learning and generative capabilities (Sundberg & Holmström, 2024), enabling the fast creation of smarter, more automated applications. These have the potential to transform the way software is developed and how businesses digitally transform. For example, AI-powered LCNC platforms can analyze user behavior and suggest design elements, code snippets, and even entire application components. Along with another emerging trend, that of the rising citizen developer (Binzer & Winkler, 2022; Carroll & Maher, 2023) where non-technical users create applications using low-code/no-code platforms, the burden on IT departments will dramatically shift. Which direction, however, remains to be seen (Hoogsteen & Borgman, 2022).

Other areas that remain lightly or unexplored are LCNC collaboration approaches within respective developer communities, enabling users to share their knowledge and expertise, and reuse components to accelerate development. Research needs to unpack these while also examining required training efforts.

We also want to better understand both the downsides and the emerging control efforts. Questions regarding security and compliance are shaping the future of the LCNC platforms, demanding secure applications and compliance with regulations. Concerns about maintainability, scaling, lack of standardization and architectural integrity also arise in LCNC development initiatives.

While LCNC methods open up numerous opportunities for human-centricity in a sustainable digital economy and sustainable digital transformation, the field lacks commonly accepted

interdisciplinary definitions, concepts, evaluation methodologies, and realization approaches (Human et al. 2022).

This Special Issue of the MIS Quarterly Executive (MISQe) is dedicated to exploring the phenomenon of low-code/no-code platforms in business, emphasizing their pivotal role in driving digital transformation. We seek in-depth insights into a range of critical topics prevalent in today's dynamic business landscapes. The following are examples of, but not limited to, potential topics:

- 1. The role of LCNC in digital transformation: research which explores how low-code/no-code platforms help businesses accelerate their digital transformation journey.
- 2. **LCNC** methods, tools, and frameworks for software development: examples of businesses revolutionizing software development through the creation of custom solutions, coordinating teams, scaling practices, and improving collaboration by accelerating digital transformation and democratizing the development process.
- 3. **Use cases and success stories**: research that showcase successful implementations of LCNC platforms in businesses including, but not limited to, healthcare, manufacturing, and finance.
- Citizen Development: case-based research presenting novel insights and success stories on use and management of LCNC tools and practices to empower citizen developers
- 5. **Security considerations for LCNC applications**: research which examines the security implications of using LCNC platforms to develop software applications and provide insights into best practices to ensure the security of these applications.
- 6. **Challenges in implementing LCNC platforms**: research which identifies the challenges that businesses may face when implementing LCNC platforms and provide insights into strategies to overcome these challenges.
- 7. **Integration of LCNC platforms with other organizational practices**: research which reports on how IT departments brought LCNC platforms into the fold along with other software tools, such as CRM or ERP systems.
- 8. **Training and upskilling for LCNC platforms**: research which explores the training and upskilling required for users to effectively use LCNC platforms and provide insights into best practices to ensure effective adoption.
- 9. **LCNC for sustainability:** research on showcasing the success stories on how LCNC tools are contributing to sustainable development goals and corporate ESG efforts.
- 10. **The future of LCNC platforms**: research which presents evidence on the potential of LCNC platforms to transform the way businesses develop software applications and provide insights into how these platforms may evolve in the future, for example, advancements in AI, ML, etc. Examples of how IT organizations might be restructured to best harness LCNC are also welcome.

### Queries

If you have any questions, feel free to contact us at misge.lcnc@gmail.com

### **Submission Guidelines**

We welcome original research papers and case studies related to the topics mentioned above or related topics. All papers must be original and not have been previously published or under consideration for publication in any other journal.

Instructions for authors can be found here: <a href="https://aisel.aisnet.org/misqe/policies.html">https://aisel.aisnet.org/misqe/policies.html</a> Also check out the "Guidance for Research Articles Submitted to MIS Quarterly Executive," available at: <a href="https://aisel.aisnet.org/misqe/vol22/iss2/1/">https://aisel.aisnet.org/misqe/vol22/iss2/1/</a>

## **Important Dates**

- Two Page Abstract Submission (optional via email: misqe.lcnc@gmail.com): July 30, 2023
- Full Paper Submission Deadline: September 30, 2023
- Author Notification (First Round): November 30, 2023
- Author Development Workshop: December 2023 (online, TBC)
- Paper Resubmission: March 31, 2024
- Author Notification (Second Round): May 31, 2024
- Final submission of accepted papers deadline: July 31, 2024

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### References

Binzer, B., & Winkler, T. J. (2022). Democratizing Software Development: A Systematic Multivocal Literature Review and Research Agenda on Citizen Development. In Software Business: 13th International Conference, ICSOB 2022, Bolzano, Italy, November 8–11, 2022, Proceedings (pp. 244-259). Cham: Springer International Publishing.

- Carroll, N. & Maher, M. (2023). How Shell Fueled a Digital Transformation by Establishing DIY Software Development, *MIS Quarterly Executive*, 22 (2), 131-159.
- Carroll, N., Móráin, L. Ó., Garrett, D., & Jamnadass, A. (2021). The Importance of Citizen Development for Digital Transformation. Cutter IT Journal, 34, 5-9.
- Hoogsteen, D., & Borgman, H. (2022). Empower the workforce, empower the company? Citizen development adoption. In Proceedings of the 55th Hawaii International Conference on System Sciences (HICSS 2022). Hawaii International Conference on System Sciences. https://doi.org/10.24251/hicss.2022.575
- Human, S., Neumann, G., & Alt, R. (2022). A call for interdisciplinary research on applied human-centricity in a sustainable digital economy. In Proceedings of the 55th Hawaii International Conference on System Sciences (pp. 4695-4696).
- Matook, S., Wang, Y. M., Koeppel, N., & Guerin, S. (2023). Metacognitive Skills in Low-Code App Development: Work-Integrated Learning in Information Systems Development. *Journal of Information Technology*, 02683962231170238.
- Sundberg, L., & Holmström, J. (2023). Democratizing artificial intelligence: How no-code Al can leverage machine learning operations. *Business Horizons*.
- Sundberg, L., & Holmström, J. (2024). Teaching Tip: Using No-code AI to Teach Machine Learning in Higher Education. *Journal of Information Systems Education*, 35(1).