Workshop ID: F7

Title: Frontiers in IT Development: Harnessing the Power of GenAl and Low-Code Development Platforms

1) Short Description

The Information Systems (IS) field continually evolves, especially in software development methodologies. This workshop aims to explore the intersection of Generative AI (GenAI) in software development and the ongoing relevance of Low Code Development Platforms (LCDPs). GenAI represents a significant leap in automating and enhancing software development processes, offering new dimensions in creativity, efficiency, and accessibility. Alongside, LCDPs continue to democratize IT development, allowing individuals with non-IT backgrounds to participate in software creation. This workshop will address the challenges, opportunities, and ethical considerations emerging from these technologies. We will explore how GenAI and LCDPs can coexist, complement, and potentially revolutionize software development and IT democratization.

2) Detailed description

Call for Papers:

In the rapidly evolving landscape of Information Systems (IS), the advent of Generative AI (GenAI) and the continued rise of Low Code Development Platforms (LCDPs) are setting new frontiers in IT development. Technologies, such as ChatGPT and GitHub Co-Pilot are becoming the new-normal for the modern workplace.

However, in practice, projects continue to fail at a high rate, measured by delays, time and budget overruns, and the inability to meet expected functionality and quality.

Generative AI and other expert systems overcome this aforementioned issue. GenAI tools can significantly reduce the time required for coding by suggesting code snippets, debugging, and even writing substantial portions of code. This can accelerate development cycles and help meet tight deadlines. LCDPs empower those without formal coding expertise (often referred to as citizen developers) to contribute to or even lead the development of applications. This democratization of development can lead to more diverse solutions and faster innovation. GenAI can improve the quality of software by providing code suggestions based on best practices and identifying potential errors before they become problematic. When combined with LCDPs, which often come with prebuilt modules and templates that adhere to industry standards, the overall quality and functionality of software can see significant improvement. By speeding up the development process and enabling non-developers to contribute meaningfully to projects, both GenAI and LCDPs can lead to substantial cost savings. Reducing the reliance on a large team of highly skilled developers for every aspect of development can make IT projects more financially manageable.

While the promise of GenAI and LCDPs is significant, their practical implementation is not without challenges. Organizations must navigate issues related to data privacy, security, and the need for oversight to ensure that the solutions developed meet all regulatory and compliance standards. Moreover, the human element remains crucial; the technology serves to augment and amplify human capabilities rather than replace them. Effective collaboration between humans and AI systems is key to unlocking the full potential of these technologies.

As we look to the future, the role of GenAl and LCDPs in IT development is expected to grow. Their ability to address core challenges in software development positions them as critical tools in the modern workplace. The evolution of these technologies will continue to shape the landscape of IS development, and this workshop provides a platform for sharing issues and potentials around this phenomenon.

We seek papers and contributions such as position viewpoints that focus on organizational, group, and individual levels analysis of gen-AI and LCDPs. We invite regular submissions (completed and research in progress papers) based on conceptual or empirical studies using qualitative or quantitative methods researching future-of-work, governance, and IS development (not exhaustive). In addition, we invite position viewpoints on the topic of gen-AI and LCDPs.

Topics of interest include, but are not limited to:

- Low-code/no-code/gen-AI-based approaches to IS design and development
- Agile, lean, and DevOps approaches to Low Code development and project management
- Technical and organizational challenges of designing Low-Code, Gen-Al Environments, including the role of and interaction between developers, business experts, and agentic systems
- Role of Platforms, Orchestrators, and APIs in IT Development with Gen-AI and Low-Code Environments
- Risks of applying gen-Al toward Codebase, collaboration, project management, and peer trust
- Al as the next layer of No-/Low-Code, e.g., ChatGPT or GitHub Co-Pilot
- Regulation and compliance issues in gen-AI and/or low code development
- Socio-technical aspects of design and project management in gen-AI and/or Low Code development
- Education, including the role of digital platforms and traditional institutions in providing Low Code and gen-Al related education
- Project management challenges in Low code and gen-Al-based development, including estimation, risk, quality assurance, governance, knowledge, team dynamics, and managing organizational change
- Effects of gen-Al assistant systems on work systems
- Changing nature of agency of gen-Al assistants within projects, management & governance of gen-Al assistants

Format: We accept research-in-progress papers (7 pages) as well as full papers (12 pages), or position statements (up to two pages highlighting problem statement, research question, research method and expected contributions). All page limits exclude references. The paper template will be based on the ECIS 2024 template and can be downloaded here: https://ecis2024.eu/types-of-submissions-instructions/

Submission: Interested researchers can submit their papers by sending them as PDF document and a list of all authors with their affiliations and e-mail addresses to the workshop organizers soon via the following forms: Link to Submission

Deadline for Submission:

- 12.05.2024 (for research papers as well as research in progress papers)
- 26.05.2024 (for position statements), AoE timezone

Review Process: Each paper submission will be reviewed non-anonymously in a juried process in accordance with their fit to the workshop goals. We intend to provide constructive feedback to each paper submission. In case of a higher amount of submissions, we will involve other participants and low code experts in reviewing the submissions. Position statements will not receive written feedback. Instead, feedback is provided for position statements during the workshop, especially as an input for the workshop collaborations.

On-Site Workshop: The workshop will be held as a one-day event on 16.16.2024 at the Coral Beach Hotel & Resort in Paphos, Cyprus.

3) workshop chairs and contact emails Contact Information of Organizers:

Edona Elshan, <u>e.elshan@vu.nl</u> (contact person) Andreas Janson, <u>andreas.janson@unisg.ch</u> Philipp Ebel, <u>philipp.ebel@unisg.ch</u> Mahei Li, <u>mahei.li@uni-kassel.de</u>

4) submission link\site\email,

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Submission: Interested researchers can submit their papers by sending them as PDF document and a list of all authors with their affiliations and e-mail addresses to the workshop organizers soon via the following forms: Link to Submission