Journal of Management Information Systems

ISSN: 0742-1222 (Print) 1557-928X (Online) Journal homepage: www.tandfonline.com/journals/mmis20

Generative AI and its Transformative Value for Digital Platforms

Michael Wessel, Martin Adam, Alexander Benlian, Ann Majchrzak & Ferdinand Thies

To cite this article: Michael Wessel, Martin Adam, Alexander Benlian, Ann Majchrzak & Ferdinand Thies (2025) Generative AI and its Transformative Value for Digital Platforms, Journal of Management Information Systems, 42:2, 346-369, DOI: 10.1080/07421222.2025.2487315

To link to this article: https://doi.org/10.1080/07421222.2025.2487315

Published online: 22 Jun 2025.

JOURNAL OF MANAGEMENT INFORMATION SYSTEMS
2025, VOL. 42, NO. 2, 346–369
https://doi.org/10.1080/07421222.2025.2487315

Generative AI and its Transformative Value for Digital Platforms

Michael Wessel [a,b], Martin Adam [c], Alexander Benlian [d], Ann Majchrzak [e], and Ferdinand Thies [f]

[a]Business Information Systems, esp. E-Commerce and Digital Business, Friedrich Schiller University Jena, Jena, Germany; [b]Department of Digitalization, Copenhagen Business School, Frederiksberg, Denmark; [c]Chair for Information Systems, esp. Smart Services, University of Goettingen, Goettingen, Germany; [d]Information Systems and E-Services, Darmstadt University of Technology, Darmstadt, Germany; [e]Marshall School of Business, University of Southern California, Los Angeles, CA, USA; [f]Institute for Digital Technology Management, Bern University of Applied Sciences, Bern, Switzerland

ABSTRACT

The emergence of generative artificial intelligence (GenAI) represents a watershed moment in the evolution of digital platforms. The capabilities of this AI technology go beyond traditional AI systems, enabling the autonomous generation of novel outcomes with significant implications for platform value creation, architecture, governance, and stakeholder interactions. We develop an integrative conceptual framework that identifies four key mechanisms through which GenAI transforms digital platforms: intelligent automation, democratization, hyper-personalization, and collaborative innovation. Through intelligent automation, GenAI transforms boundary resources from passive interfaces into active, intelligent mediators of value creation. Democratization systematically lowers barriers to platform participation. Hyper-personalization enables dynamic, individual-level adaptation of platform content. Collaborative innovation transforms platform innovation by making GenAI an active participant in human-AI value co-creation. We use this framework to situate the papers in the special issue and develop a research agenda that explores the transformative impact of GenAI on platform stakeholder relationships.

KEYWORDS

Generative artificial intelligence; generative AI; GenAI; artificial intelligence; large language model; digital platforms; intelligent automation; platform democratization; hyper-personalization; collaborative innovation

Introduction

The emergence of generative artificial intelligence (GenAI) represents a watershed moment in the evolution of digital platforms. GenAI introduces unprecedented capabilities that transform how digital platforms operate and create value [65]. Unlike traditional AI systems, which are focused on pattern recognition and prediction, GenAI can understand context, learn from examples, and create novel outputs across domains such as text, code, images, and video [5, 64].

The timing and importance of examining the impact of GenAI[1] on platforms stems from both technological maturity and widespread adoption. Particularly since the introduction of ChatGPT by OpenAI in 2022, major platform providers such as Microsoft, Google, and

CONTACT Michael Wessel michael.wessel@uni-jena.de Business Information Systems, esp. E-Commerce and Digital Business, Friedrich Schiller University Jena, Carl-Zeiß-Str. 3, 07743 Jena, Germany.

GitHub have begun to integrate GenAI capabilities into their core offerings, while new platforms built specifically around GenAI are emerging [20, 86]—as exemplified by OpenAI's platform strategy of opening its application programming interface (API) to third-party developers. As AI-generated content already comprises nearly 20% of Google's search results,[2] these developments are reshaping platform dynamics—from how value is created and captured [20, 40], to who participates in value creation and who faces displacement [47, 106], and how platform governance and quality control are managed [19, 101].

This Special Issue explores how GenAI is transforming platform operations and strategy across multiple stakeholder groups. For platform owners, who organize and manage these digital platforms, it opens up new opportunities to scale operations and create novel value propositions. For complementors—third-party participants who contribute complementary products, services, or content that extend the platform's core functionality—it enables new forms of value creation while potentially disrupting existing business models [47, 65]. For end users and society at large, it presents both opportunities for innovation and challenges related to governance, equity, and potential job displacement. While all platform stakeholders can leverage GenAI to optimize operations and enhance the user experience in various platform settings, we are only beginning to understand the transformative value of the technology for digital platforms.

Information systems (IS) scholars have made important contributions to the literature on digital platforms [e.g., 18, 23, 25, 67, 74, 80, 92], much of which has been focused on the complex relationship between the triad of users, complementors, and the platform owner, which together form the platform ecosystem. Similarly, IS research has provided important insights regarding the implications of AI for business as well as how the technology could and should be managed [8]. However, with the emergence of GenAI, new research avenues are opening up, providing IS scholars with the opportunity to conduct cutting-edge research on the transformative and value-creating capabilities of this intriguing technology, particularly with respect to digital platforms [65]. As a disruptive technology, GenAI could threaten entire platform industries, while creating groundbreaking opportunities for others by enabling truly innovative services and business models that engage platform stakeholders in novel ways.

To frame these transformations and guide future research, we present an integrative framework that focuses on four key mechanisms through which GenAI is reshaping digital platforms: intelligent automation, democratization, hyper-personalization, and collaborative innovation. In the following, we first establish the theoretical foundation by examining key research perspectives and stakeholders in digital platforms. We then analyze how the four mechanisms reshape platform operations and stakeholder dynamics, situating the special issue papers within this framework. Finally, we outline a research agenda exploring how GenAI transforms relationships between key platform stakeholders in this rapidly evolving domain.

Digital Platforms: Key Theoretical Perspectives and Stakeholders

Digital platforms are technology-enabled infrastructures that facilitate interactions and value creation between multiple stakeholder groups through standardized interfaces and governance mechanisms [18, 84]. Examples include social media platforms such as X,

mobile app platforms such as Apple's App Store, e-commerce platforms such as Amazon, freelance platforms such as Upwork, and sharing economy platforms such as Airbnb—all serving as digital intermediaries that create value by bringing together groups of participants who would otherwise find it difficult or impossible to connect [37, 95]. Platform-based operating models have emerged as a dominant form of organizing economic activity in many industries, as evidenced by the fact that seven of the world's twelve largest companies are supported by such models [71].

Prior research has examined digital platforms from three main theoretical perspectives: engineering, economic, and organizational, each illuminating different aspects of platform dynamics and design [84]. The *engineering perspective*, most germane to software architecture and development, conceptualizes platforms as technical artifacts comprising peripheral components organized around a stable core in a modular architecture [4]. Specifically, in this layered-modular architecture, the stable core offers functionality for interoperating modules and complements. These complements, such as apps or add-ons, connect to the core through standardized interfaces like APIs and software development kits (SDKs) [4, 9, 26, 38, 91, 93, 100, 105, 107]. The modular architecture is essential for platforms to evolve, manage complexity, and maintain developmental flexibility [84, 102, 107]. Research taking this perspective examines how platform architecture and technical design enable innovation through standardized interfaces, with scholars investigating how modular platform architectures facilitate this process through boundary resources such as APIs, analyzing technical dependencies, interface design patterns, and architectural evolution strategies [26, 38, 59, 105]. The *economic perspective* views platforms specifically as two- or multi-sided markets facilitating interactions between distinct user groups, thereby enabling novel business models and strategies as well as value creation mechanisms that can disrupt traditional markets [27, 37, 43, 68, 83]. This view emphasizes how platform businesses differ from traditional businesses in their ability to scale user growth without corresponding increases in infrastructure costs, though it often emphasizes market dynamics and business model considerations rather than technical platform specifics. Building on this foundation, researchers have systematically investigated network effects, pricing strategies, and market dynamics, examining how different pricing structures and governance mechanisms affect platform adoption and growth [3, 28, 74, 109]. Finally, the *organizational perspective* frames digital platforms as meta-organizations where innovation practices emerge through both technical mechanisms and social arrangements [14, 35, 62]. A key concept within this perspective is platform generativity: the capacity to produce unanticipated innovations through unfiltered contributions from broad and varied participants [110]. This conceptualization emphasizes platforms' dual nature: maintaining stable core structures while accommodating dynamic temporary arrangements that allow for rapid product and service evolution [46, 58]. This perspective integrates economic and engineering aspects while incorporating social dimensions, particularly in how organizations establish governance structures to balance generativity and control through boundary resources [34, 38]. Scholars have focused on governance mechanisms and organizational structures that enable platforms to navigate this tension between enabling diverse innovations while maintaining platform stability and coherence [18, 23, 31, 48, 100, 102]. Collectively, these three perspectives underscore the fundamental distinction between digital and traditional platforms [23]. Digital platforms integrate layered-modular architectures that enable late-binding of capabilities, leverage network-driven economics for exponential scalability, and employ

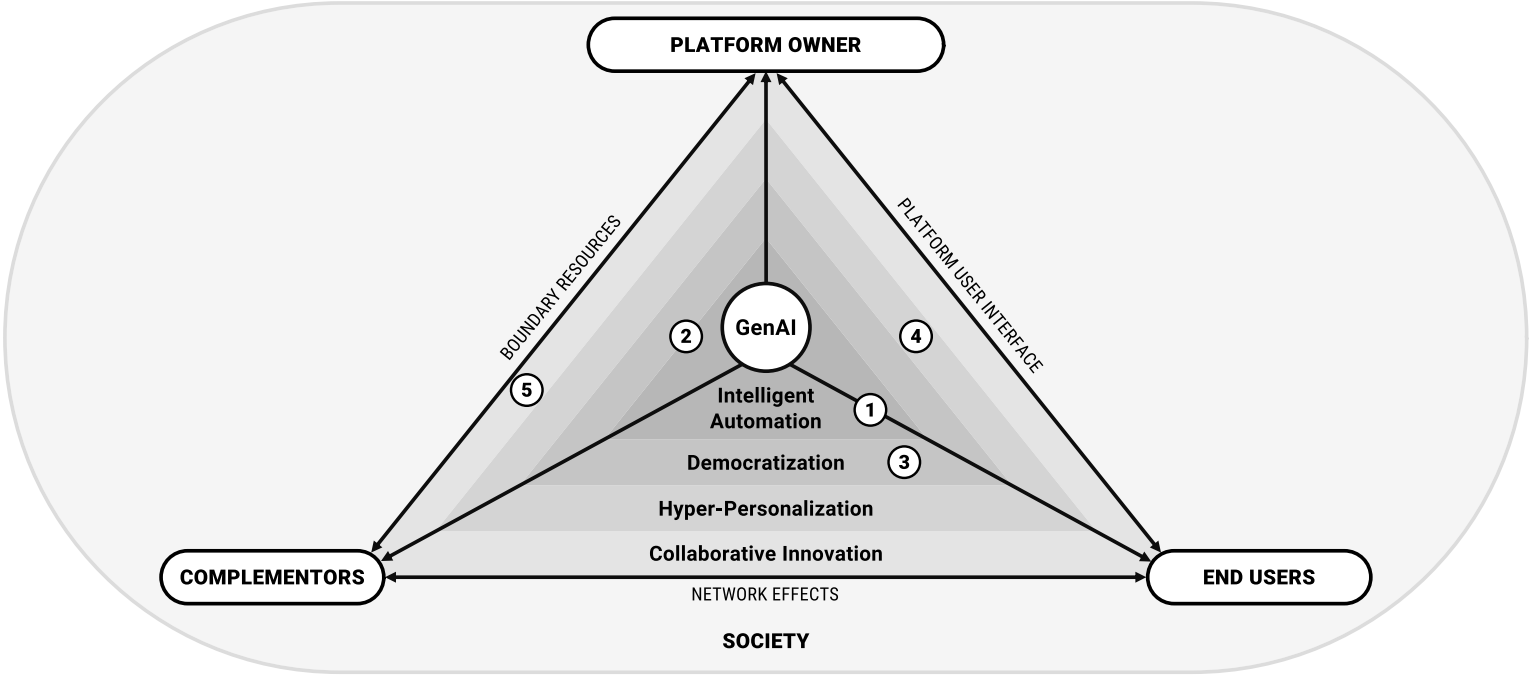
distributed socio-technical governance to balance generativity and control [4]. Underpinning these characteristics are digital affordances such as editability and reprogrammability, which enable their distinct capabilities and transformative potential [107].

Platform stakeholders operate within this complex landscape in distinct yet interconnected roles. *Platform owners* serve as focal actors organizing and managing digital platforms through mutual dependency relationships [84, 87]. They establish and maintain technical architecture while implementing rules and governance mechanisms that shape ecosystem interactions [48, 102]. In doing so, platform owners face the challenge to balance control and generativity, needing to maintain platform stability while fostering innovation [34]. This tension manifests particularly in strategic choices regarding openness versus control, which shape complementors' participation and innovation potential [7, 104]. *Complementors* enhance platform value by developing complementary products and services that extend core functionality [38]. Their success depends on navigating platform dependencies while maintaining sufficient autonomy for innovation [56, 92, 99]. The provider-complementor relationship involves complex dynamics of cooperation and competition, particularly as complementors balance platform-specific investments with multihoming [21, 50, 96]. *End users* directly interact with complementors on the platform, generating crucial network effects [95, 98]. Their participation patterns and social interaction dynamics strongly influence platform development and success [97]. Users increasingly adopt dual roles as consumers and contributors, especially on platforms enabling user-generated content or peer-to-peer interactions [93]. *Society* represents a broader stakeholder whose influence has grown as platforms dominate various industries. The institutional environment shapes platform development through regulatory frameworks, market structures, and social norms [23]. As the power of the platforms has grown, so too has societal concern about their effects, bringing increasing scrutiny of their governance practices and demands for more ecosystem accountability [18]. These forces inform platform providers' strategic choices about value creation and capture mechanisms.

Against this backdrop of platform theories and stakeholders, GenAI emerges as a transformative force that reshapes platform dynamics. In subsequent sections, we present our framework of four key mechanisms through which GenAI transforms digital platforms (Figure 1), examining how these mechanisms affect different stakeholder relationships and relate to existing theoretical perspectives on platforms.

Transformative Mechanisms of Generative AI for Digital Platforms

GenAI exhibits transformative mechanisms that impact platform stakeholders and their relationships by enabling novel forms of interaction and value creation. These transformative mechanisms—intelligent automation, democratization, hyper-personalization, and collaborative innovation—serve as analytical lenses in our framework to examine how GenAI reshapes platform dynamics. These mechanisms not only augment value creation in existing platforms but can also catalyze the emergence of entirely new platform businesses. Each of the mechanisms isolates a distinct dimension of GenAI's impact, allowing us to systematically explore how its technical capabilities translate into specific changes on digital platforms, explained in the light of existing platform theories and perspectives. Examining these mechanisms reveals how they reshape platform architecture by transforming boundary resources from passive interfaces into active, intelligent mediators of value creation [4, 38], introduce new forms of



Special Issue Papers

(1) Quinn and Gutt (2025) [82] "Heterogeneous Effects of Generative AI on Knowledge Seeking in Online Communities"
(2) Mayer et al. (2025) [70] "Shifting Dynamics: How Generative AI as a Boundary Resource Reshapes Digital Platform Governance"
(3) Sikhondze et al. (2025) [90] "Are You Willing to Pay for Generative AI Products? Disentangling the Disclosure Effects and the Mediating Role of Psychological Value"
(4) Malgonde (2025) [66] "Generative AI-Based Recommender Addressing Contribution Pollution and Information Cacophony on Digital Platforms"
(5) Heimburg et al. (2025) [44] "Complementor Value Co-Creation in Generative AI Platform Ecosystems"

Figure 1. Transformative mechanisms of generative AI for digital platforms.

network effects that go beyond traditional platform economics [27, 78], and revolutionize platform governance by enabling new forms of participation and innovation [18]. Each mechanism introduces both opportunities and challenges, requiring careful consideration of implementation and governance within platform ecosystems.

Intelligent Automation

Intelligent automation describes how GenAI is making it possible to automate increasingly sophisticated cognitive and creative tasks that previously required human intelligence [17]. Unlike traditional platform automation focused on routine processes and predefined workflows, GenAI transforms how platforms mediate interactions between users and complementors by enabling dynamic, context-aware responses rather than static, pre-programmed rules. This transforms boundary resources from passive interfaces that simply permit access into active, intelligent mediators of platform interactions, which can understand, interpret, and generate responses [26, 38, 81]. GenAI-enabled boundary resources can handle unstructured or open-ended requests and generate novel outputs, creating new forms of value mediation between platform participants.

This transformation is facilitated by several key technical capabilities of GenAI: complex natural language processing and generation, learning from examples rather than explicit programming, adaptation to diverse tasks, and continuous improvement through interaction [16, 64, 75]. Complex natural language processing enables platforms to interpret and process ambiguous inputs, transforming traditional boundary resources into intelligent interfaces, exemplified by GitHub Copilot, which can infer programming requirements given in natural language.[3] The ability to learn from examples and adapt to new situations allows platforms to generate contextually appropriate responses based on past interactions, as demonstrated by Upwork's AI-powered matching system, which learns from successful project completions to better pair freelancers with clients' requirements.[4] Additionally, continuous learning capabilities enable platforms to maintain consistent quality at scale through automated systems that can adapt their responses based on evolving platform standards and user feedback, as seen in TikTok's content moderation system, which continuously refines its understanding of community guidelines violations based on moderator actions and user reports.[5]

The implications of intelligent automation for platform theory and practice are profound. It transforms how boundary resources mediate interactions, enabling platforms to scale operations at unprecedented levels while maintaining quality through automated processes [19, 75]. Through these automated capabilities, platforms can reduce transaction costs and create new forms of network effects, as automated interactions between participants become more efficient and valuable [67]. However, this transformation also raises questions about platform governance, particularly regarding accountability and the appropriate balance of human oversight in increasingly automated processes [19, 101]. Platform owners must consider how to design and implement these capabilities to ensure they enhance rather than compromise platform value creation and governance.

Democratization

Building on the foundation of intelligent automation, democratization describes how GenAI transforms who can participate in platform value creation by radically reducing

traditional entry barriers and potentially reshaping how network effects operate [78]. Historically, platform value creation typically required specialized expertise (e.g., software development skills for mobile apps) or significant resources (e.g., professional design tools and training for marketing content). GenAI transforms this landscape by making sophisticated capabilities accessible through intuitive interfaces. This shift redefines how platforms facilitate and orchestrate value creation, not only reshaping complementor roles [102] but also extending beyond mere transaction cost reduction via boundary resources [100] to systematically lowering cognitive and technical barriers that once constrained participation [18, 51, 65, 79].

This transformation is facilitated by several key technical capabilities of GenAI: natural language interaction, zero/few-shot learning that requires minimal training, multi-modal generation, and scalable content creation without manual effort [11, 30, 77, 85]. Natural language processing allows platforms to translate complex technical requirements into intuitive interactions, exemplified by Shopify Magic, which allows merchants to create product descriptions, marketing emails, and social media content through simple text prompts.[6] Zero/few-shot learning capabilities enable platforms to help users accomplish sophisticated tasks with minimal training, as demonstrated by Microsoft Power Platform's AI Builder that helps non-technical users create business applications through guided natural language interactions.[7] Additionally, multi-modal generation capabilities enable platforms to lower creative barriers across different media types, as seen in Canva's text-to-design feature that allows non-designers to create professional visual content by describing their needs in plain language.[8]

This democratization of platform participation represents a shift in platform economics. By permitting broader participation in value creation and reshaping platform participation structures, it amplifies network effects through increased diversity of contributions [27, 78] and enables new forms of value creation previously impossible without specialized expertise [39]. However, this transformation also introduces novel challenges for platform governance with respect to quality control, authenticity verification, and the economic impact on professional platform participants [25, 65, 80]. Platforms must develop new governance mechanisms that balance increased participation with maintaining quality standards and protecting the interests of existing platform participants.

Hyper-Personalization

Hyper-personalization transforms how platforms create and deliver individualized value. This mechanism enables personalized network effects, where platform value increases not just with the number of participants but with the degree of personalized adaptation [22, 40]. The combination of intelligent automation and democratized participation both enables and necessitates this transformation: intelligent automation's ability to process complex, unstructured data and generate contextual responses transforms platform boundary resources into dynamic interfaces [38], while the broader participation made possible by democratization creates a more diverse user base that requires more nuanced personalization. While traditional platform theory emphasized standardized interactions through stable interfaces [100], GenAI transforms this paradigm by making experiences truly unique, synthesizing and adapting content on demand through the combination of large-

scale pattern recognition with generative capabilities [40, 69]. This enables dynamic, individual-level adaptation where GenAI can process rich interaction data from a broader user base to create truly personal experiences [17, 55].

This transformation is enabled by key technical capabilities of GenAI: context-aware data synthesis, real-time content generation, and scalable individual-level adaptation [40, 69]. Context synthesis allows platforms to dynamically interpret and combine multiple streams of user data, exemplified by Spotify's AI DJ, which integrates user listening history, preferences, and feedback to build a deep understanding of personal music taste.[9] Real-time generation capabilities let platforms create new content based on the understood context, as demonstrated by Netflix's AI system, which generates tailored thumbnail artwork by analyzing and contextualizing viewing patterns and other user behavior.[10] Additionally, scalable adaptation capabilities enable platforms to maintain personalization quality across millions of users simultaneously, illustrated by Amazon's product recommendation system, which can generate unique descriptions and suggestions for each user.[11]

Hyper-personalization represents a shift in platform economics and governance, introducing new opportunities but also challenges for value creation. By enabling deeply personalized experiences, it strengthens user engagement and platform lock-in through increasingly tailored interactions [102, 109]. However, this transformation also introduces challenges regarding privacy, data collection, filter bubbles, and potential manipulation [29, 63]. Effective platform governance requires the development of nuanced regulatory mechanisms that balance the benefits of hyper-personalization with the imperatives of user protection and ethical responsibility.

Collaborative Innovation

Collaborative innovation extends platform generativity theory, which has traditionally focused on human actors creating unanticipated innovations [34, 110], by introducing a new dimension of human-AI innovation [17, 24]. This mechanism transforms our understanding of platform innovation from a human-centric process to one where GenAI becomes an active participant in value creation through continuous feedback loops between human inputs and AI-generated outputs [33, 73]. Collaborative innovation represents the synthesis of the previous three mechanisms, as the technology's ability to engage in persistent conversations, build on human ideas, learn from interaction patterns, and combine multiple knowledge domains empowers completely new forms of collaborative creativity that transcend traditional platform boundaries [17].

This transformation is enabled by several key technical capabilities of GenAI: continuous evolution, collaborative creativity, and augmented serendipity [24, 73]. Continuous evolution allows platforms to build upon and improve interactions over time through sustained dialogue, demonstrated by GitHub Copilot's ability to refine code suggestions based on developer feedback.[12] Collaborative creativity enables active participation in creative processes rather than just executing commands, exemplified by Adobe Firefly's GenAI, which can iterate on design concepts with users.[13] Additionally, augmented serendipity supports the discovery of unexpected solutions through human-AI interaction, illustrated by how users of AI music platforms discover novel compositional techniques through iterative experimentation.[14]

This new form of innovation marks a fundamental shift in platform economics and governance, redefining how value is created and distributed. Unlike conventional automation, these systems cultivate novel forms of creative synergy, yielding emergent solutions beyond the capacity of either humans or AI alone [17, 33, 94]. This mechanism suggests that the most transformative impact of GenAI may be not in replacing human platform participants but in creating new ways for humans and AI to collaborate. However, this transformation also introduces challenges for platform governance, particularly regarding how to ensure these interactions enhance rather than constrain human creativity [52]. To navigate this shift, platform owners must devise governance mechanisms that sustain AI-human co-creation while preserving human agency and creative latitude.

Overview of the Special Issue and Positioning of the Papers in the Framework

In response to the call for papers, 34 papers were submitted to the Special Issue, and we would like to thank all authors for entrusting us with their work. Papers that did not fit the themes of the Special Issue were desk rejected. All remaining manuscripts underwent peer review, managed by an outstanding group of Associate Editors with strong expertise in digital platforms and AI from an information systems perspective (their names are included at the end). The selection of papers was guided by three key criteria: (1) novel theoretical or empirical contributions that advance our understanding of the transformative value of GenAI for digital platforms, (2) methodological rigor in research design and execution, and (3) feasibility of completion within the Special Issue timeline. After the first round of review, most submissions were not advanced because they did not fully meet these criteria. The remaining manuscripts underwent up to three rounds of revision, two rounds with Associate Editors and reviewers, followed by a final round with only the Special Issue Editors. Following this rigorous review process, five papers were selected that advance our understanding of how GenAI is transforming platform operations, governance, and stakeholder relationships, collectively addressing multiple levels and mechanisms of the framework. In the following sections, we provide an overview of the papers and situate them within the framework by discussing the transformative mechanisms at play and the platform stakeholders primarily affected (Figure 1).

The first paper, *"Heterogeneous Effects of Generative AI on Knowledge Seeking in Online Communities,"* by Martin Quinn and Dominik Gutt investigates how different types of end users in online knowledge communities respond to the availability of *intelligent automation* through GenAI [82]. The authors integrate commitment-based theory and information foraging theory to examine user behavior changes. Through difference-in-differences analysis of StackExchange data (4.9M questions across 49 subforums), they find that casual users reduced question-posting by 18.2% after ChatGPT's launch, while remaining questions became more complex and novel, particularly from casual users. The research contributes by showing that while GenAI reduces overall knowledge-seeking activity, the effect varies based on users' commitment levels, with casual users showing the strongest decrease. Additionally, it reveals that rather than simply diminishing participation, *intelligent automation* may enhance content quality as remaining questions become more sophisticated and novel, particularly among casual users who now reserve community interactions for complex queries that GenAI cannot adequately address.

The second paper, *"Shifting Dynamics: How Generative AI as a Boundary Resource Reshapes Digital Platform Governance,"* by Anne-Sophie Mayer, Angelos Kostis, Franz Strich, and Jonny Holmström examines how platform owners adapt governance strategies when integrating GenAI as a boundary resource for the *intelligent automation* of content creation [70]. Through a case study of the educational platform Dugga, the authors analyze how a dialectic process of resistance and accommodation between the platform owner and complementors led to a shift from a GenAI hegemony logic (focusing on AI as the supreme content creator) to a GenAI assemblage logic (emphasizing human-AI collaboration). After initial resistance from teachers concerned about AI replacing them, Dugga implemented both interlocking mechanisms (promoting legitimacy, advocating personalization) alongside decoupling mechanisms (promoting guardrails, discouraging social encapsulation) to balance human expert engagement with the *democratization* of content creation through GenAI. This research makes a unique contribution by showing how platform governance becomes more relational and decentralized when GenAI is integrated, challenging traditional platform power asymmetries as complementors gain influence through their central role in content curation. The study also reveals an unexpected "reverse trajectory" in AI integration—moving from attempted automation back to human-AI collaboration, contrary to the typically assumed progression from augmentation to automation.

The third paper, *"Are You Willing to Pay for Generative AI Products? Disentangling the Disclosure Effects and the Mediating Role of Psychological Value,"* by Bachazile Sikhondze, Hua Jonathan Ye, Weiyu Wang, Xinhui Zhan, and Radhika Santhanam investigates how end users value and respond to GenAI products (GAIPs) versus human-generated products (HGPs) as *democratization* of content creation unfolds on digital platforms [90]. The authors introduce psychological value theory to examine how product type and creator identity disclosure affect users' willingness to pay. Through three randomized experiments with 862 participants testing functional (notepad), hybrid (T-shirt), and creative (wall art) products, they found that GenAI disclosure negatively impacts psychological value and willingness to pay for creative products, while human disclosure positively affects hybrid products. This research extends algorithmic aversion literature by demonstrating how psychological value mediates user reactions to GAIPs across different product types, providing practical implications for digital platform vendors' disclosure strategies.

The fourth paper, *"Generative AI-Based Recommender Addressing Contribution Pollution and Information Cacophony on Digital Platforms,"* by Onkar S. Malgonde addresses the dual challenges of contribution pollution (excessive user contributions that surpass users' ability to process them) and information cacophony (incoherent or low-quality contributions) on discussion platforms [66]. The paper highlights the limitations of existing moderation and recommender mechanisms and proposes a GenAI-based recommender system as a solution. This system generates intelligent content summaries to help users evaluate whether and how to contribute, rather than relying solely on traditional filtering or moderation. By leveraging *hyper-personalization*, the GenAI-based system tailors recommendations dynamically to users' engagement patterns, ensuring that they receive relevant, high-quality content while minimizing cognitive overload. Using agent-based simulations with real data from Reddit, Stack Overflow, and Hacker News, the study demonstrates that the GenAI-based recommender system effectively reduces both excessive and low-quality contributions while enhancing user engagement and preserving autonomy. Compared to traditional recommendation systems, this approach leads to fewer redundant contributions and a more balanced

information ecosystem. The research contributes to platform literature by showing how GenAI can dynamically orchestrate user participation without imposing strict contribution restrictions, thereby maintaining both platform efficiency and user satisfaction.

The final paper, *"Complementor Value Co-Creation in Generative AI Platform Ecosystems,"* by Vincent Heimburg, Maximilian Schreieck, and Manuel Wiesche examines how complementors, through a process of *collaborative innovation*, develop new ways to create value in GenAI platforms despite challenges posed by open-endedness (GenAI models accepting varied inputs and producing diverse, unpredictable outputs) and inscrutability (the non-deterministic nature of GenAI making input-output relationships uncertain) [44]. Through an embedded case study of OpenAI's platform ecosystem, including embedded complements (e.g., ChatGPT plugins, where OpenAI controls the interface) and standalone complements (e.g., apps using OpenAI's API, where complementors control the user interface)the study identifies two novel value co-creation logics. The "reap logic" focuses on making the platform core functionally usable by structuring interactions with the AI to ensure reliability and consistency. The "differentiation logic" involves leveraging exclusive data or specialized processing to create unique value that cannot be replicated by other complementors or end users interacting directly with GenAI. This research extends platform literature by showing how complementors navigate GenAI's unpredictability to find innovative approaches to value creation.

Directions for Future Research: Examining the Transformative Impact of Generative AI on Platform Stakeholder Relationships

Platform stakeholder relationships have traditionally been defined by established patterns of interaction between platform owners, complementors, and users, with each playing a distinct role in platform-mediated value creation and capture [6, 53, 84]. As platforms have grown in influence and reach, their impact now extends beyond these core stakeholders, increasingly also affecting society at large [23, 111]. GenAI is now transforming these relationships through the four key mechanisms: intelligent automation, democratization, hyper-personalization, and collaborative innovation. These transformations extend beyond technical efficiency, influencing accessibility, inclusion, and participation in digital ecosystems, while also raising critical questions about the nature of human contribution and agency.

Although all of the transformative mechanisms affect all platform stakeholder relationships to some extent, we expect their effects to be most pronounced in specific stakeholder dynamics. Specifically, we analyze how intelligent automation reshapes the platform owner-society relationship, how democratization influences platform owner-complementor interactions, how hyper-personalization affects platform owner-user dynamics, and how collaborative innovation transforms complementor-user interactions. Through this analysis, we identify critical areas for future research as platforms navigate the implications of integrating this transformative technology into their ecosystems (Table 1).

Intelligent Automation and the Platform Owner-Society Relationship

The relationship between platform owners and society is increasingly shaped by the pervasive integration of intelligent automation through GenAI. While intelligent automation drives operational efficiency and innovation, it also introduces systemic societal

Table 1. Future research agenda.

	Engineering Perspective	Economic Perspective	Organizational Perspective
Intelligent Automation and the Platform Owner–Society Relationship	• What technical architectures ensure equitable access to GenAI capabilities across different societal groups? • How can platforms design GenAI systems that protect user privacy while maintaining accessibility and performance? • What technical frameworks support effective monitoring and auditing of GenAI systems' societal impact?	• How can platforms balance automation efficiency gains with equitable distribution of benefits? • What models can prevent GenAI-driven workforce displacement while maintaining innovation?	• What governance structures ensure GenAI systems support rather than diminish human well-being and social connections? • How can platforms develop oversight mechanisms that incorporate diverse societal perspectives and needs? • What organizational frameworks effectively balance innovation with social responsibility in GenAI deployment?
Democratization and the Platform Owner–Complementor Relationship	• How do GenAI-powered tools (e.g., natural language interfaces, automated code generators) reconfigure platform architecture to support non-expert complementors? • What technical safeguards are needed to ensure interoperability between AI-generated complements and core platform functionalities? • What security architectures prevent misuse of AI-generated complements (e.g., deepfakes)?	• How does the GenAI-empowered influx of complementors alter platform competition among both traditional developers and new entrants? • Does GenAI dilute the economic value of specialized complementors? • How should platforms adapt pricing and revenue models to reflect democratized access while maintaining platform sustainability?	• How do platform owners establish governance mechanisms that balance inclusivity and quality control in democratized ecosystems where "citizen developers" can more easily participate? • What organizational structures and processes allow platform owners to effectively manage the shifting power dynamics when established complementors face competition from new, GenAI-empowered participants?
Hyper-Personalization and the Platform Owner–End User Relationship	• How can platform architectures integrate GenAI to enable hyper-personalized user experiences while maintaining system modularity and flexibility? • What interface design patterns and technical dependencies ensure the scalability of hyper-personalization algorithms?	• Does hyper-personalization strengthen platform lock-in through switching costs, or can mandated data portability preserve competition? • What new monetization strategies arise from hyper-personalized content, and how do they influence user retention and profitability?	• How do platform organizations establish governance structures to ensure ethical and responsible use of hyper-personalized features powered by GenAI? • What mechanisms ensure corporate accountability for GenAI-driven emotional manipulation (e.g., addictive content)?
Collaborative Innovation and the Complementor–End User Relationship	• Which platform design features foster spontaneous, high-value collaborations between GenAI, complementors, and end users? • What infrastructure supports seamless human-AI collaboration in service delivery (e.g., feedback loops, real-time iteration)?	• What revenue-sharing models fairly compensate human contributors when GenAI co-creates high-value outputs? • How do hybrid human-AI services impact the economic resilience of traditional freelance or gig workers? • Do GenAI-augmented or AI-generated complements expand existing markets or cannibalize traditional complementor offerings?	• What organizational and community strategies ensure GenAI augments, rather than supplants, human creativity and user-driven innovation? • How do communities establish trust in GenAI co-creators when authenticity is central to value propositions (e.g., art, education)? • What accountability frameworks address liability for errors in GenAI-mediated collaborative outputs?

Abbreviation: AI, artificial intelligence

challenges that change how platforms interact with society at large [86]. This transformation goes beyond technical efficiency to reshape accessibility and inclusion in digital platforms. For instance, while GenAI-driven tools such as natural language interfaces enable non-technical users to participate [39], disparities in access to high-quality GenAI tools can exclude marginalized groups that lack digital literacy or infrastructure [32]. Moreover, platforms that use GenAI must ensure that digital welfare solutions—such as GenAI-enhanced public services—remain accessible to all demographics, preventing the exclusion of disadvantaged communities due to digital divides [32]. These challenges provide opportunities for future research that goes beyond traditional platform architecture concerns to include questions of technological inclusivity and algorithmic accountability [88].

While automation can increase efficiency and create new opportunities, it also risks exacerbating existing inequalities through job displacement and differential access to GenAI capabilities. AI-generated assets may be portable across platforms, but their optimization often hinges on platform-specific data and tools, reinforcing centralized control [21, 40]. This paradox challenges traditional platform theories about value creation and capture, necessitating new models that reconcile efficiency gains with equitable value sharing [1, 40]. Similarly, automated content creation disrupts labor markets, displacing gig workers and creatives while centralizing value capture within platform ecosystems [65]. Platforms must thus navigate complex trade-offs between automation benefits and societal costs, particularly regarding income inequality and economic displacement [13]. Addressing these disruptions requires novel approaches to platform governance as well as national and supranational GenAI strategies that invest in workforce retraining and digital literacy programs to offset job displacement [32, 86].

From a governance perspective, intelligent automation introduces novel challenges regarding algorithmic accountability and societal welfare. The proliferation of AI-generated content—such as deepfakes or synthetic media—intensifies governance challenges, requiring robust detection systems to mitigate misinformation while preserving society's trust [41]. Ethical concerns around algorithmic bias and data privacy further complicate this balance, as biased training data or opaque AI decision-making can perpetuate systemic inequities [29]. Regulatory frameworks such as the European Union's (EU) AI Act [15] provide a foundation for mitigating these risks, but effective implementation and enforcement depends on multi-stakeholder cooperation, public oversight, and continuous adaptation to emerging GenAI threats [86].

The human dimension of GenAI deployment extends beyond passive consumption to active engagement in system improvement. Platforms must consider how humans can meaningfully participate in training and updating GenAI systems while maintaining appropriate oversight. This includes developing socio-technical design principles that support human-AI collaboration in content moderation and quality improvement. Beyond technical considerations, platforms must prioritize the emotional and mental well-being of users interacting with GenAI systems [89]. This includes understanding how GenAI-mediated interactions affect user self-esteem, social connection, and psychological safety. The effectiveness of these systems depends not only on technical performance metrics but also on their ability to support positive psychological outcomes and meaningful human connections. This raises questions about how platforms can foster healthy human-AI relationships while ensuring that automation enhances rather than diminishes human flourishing [54, 89].

Democratization and the Platform Owner-Complementor Relationship

The relationship between platform owners and complementors is structured by multiple dimensions that together define the terms and possibilities of their interaction [21, 50]. From an engineering perspective, this relation is enabled by boundary resources such as APIs and SDKs, which specify how complementors can integrate with the platform [26, 38]. Platform architecture and modularity determine the flexibility complementors have in developing innovations, whereas data sharing mechanisms and algorithmic controls influence their access to platform resources and visibility to users [2, 48, 100]. This traditional architecture, while efficient, has historically created barriers for marginalized groups through technical complexity, language requirements, and economic constraints [7]. From an organizational perspective, this relationship is governed by structures that establish trust, shared values, and power dynamics. These include governance frameworks that balance platform control with complementor autonomy, communication channels that enable knowledge sharing, and incentive structures that encourage certain behaviors [45, 49, 62, 103].

GenAI transforms these dynamics by democratizing the access to platforms, allowing more diverse groups of complementors to participate. This democratization goes beyond mere technical accessibility—it enables participation from groups previously excluded due to language barriers, economic constraints, or lack of specialized training. The rise of low-code and no-code platforms further amplifies this trend, providing intuitive visual development environments that abstract complex programming tasks into drag-and-drop interfaces and pre-built components [39]. Natural language interfaces and GenAI-powered assistance allow complementors with limited technical skills to develop applications and automate workflows, expanding participation in platform ecosystems. However, AI-generated contributions may not align with established quality standards, raising concerns about content consistency and governance [38]. Research is needed to explore how platforms can maintain architectural stability while accommodating ambiguous AI-generated contributions that may transcend traditional content taxonomies and quality assessment frameworks.

AI-driven automation disrupts established platform business models and value capture mechanisms by commoditizing creative and technical skills. While GenAI tools reduce production costs and accelerate network effects—potentially solving the "chicken-and-egg" problem through automated content generation—they also threaten traditional complementors by shifting value toward platform owners [70]. The proliferation of AI-generated content creates new market tensions, as professional complementors must differentiate themselves from increasingly sophisticated GenAI-driven alternatives [65]. Platforms must determine whether to monetize AI-generated complements, subsidize GenAI-driven contributions, or create hybrid business models that integrate human and AI labor. These decisions will play a decisive role regarding how economic power is distributed across digital ecosystems.

The increasing presence of AI-generated content will create governance challenges regarding authenticity, trust, and quality control. With GenAI being able to produce product descriptions, reviews, and other media nearly indistinguishable from human-created work, concerns about misinformation, spam, and content manipulation are mounting [41]. Platforms must develop automated quality assurance mechanisms to moderate AI-generated contributions effectively while preventing ecosystem degradation. At the same

time, this shift alters community norms and expectations. With increasing AI-generated content, human complementors may feel threatened, questioning the authenticity and value of their work within the platform ecosystems [65]. Platforms must navigate tensions between inclusivity and quality control, ensuring that governance frameworks balance democratization with standards that preserve trust and ecosystem stability [100].

Hyper-Personalization and the Platform Owner-End User Relationship

The relationship between platform owners and users exhibits distinct characteristics through multiple theoretical lenses. From an engineering perspective, the relationship is mediated through user interfaces and experience design that define patterns of accessibility and engagement [108]. These technical foundations include data collection and privacy controls that govern user information, together with personalization systems that adapt platform behavior to individual users. The integration of GenAI expands these capabilities beyond traditional personalization, enabling emotionally adaptive interactions and deeply contextualized experiences that respond to users' psychological and emotional states [69]. These GenAI-driven enhancements extend into hyper-personalization, where AI-generated content dynamically adapts to users' implicit behaviors and evolving needs [22]. While this expansion creates deeply immersive experiences, it also raises new architectural challenges, requiring platforms to balance personalization against privacy and security [15].

From an economic perspective, hyper-personalization intensifies user dependency on platform services by strengthening switching costs through deeply ingrained personalized experiences [69]. While AI-generated content may enhance user engagement, it also introduces monetization complexities, as traditional revenue models built on user data accumulation and ad-driven engagement evolve toward more behaviorally targeted AI interactions. The development of real-time, adaptive personalization increases platform lock-in effects, making switching costs not only technical or economic but also psychological [22, 69]. Users become dependent on tailored content that competitors struggle to replicate, further entrenching dominant platforms [36]. As personalization systems evolve into proprietary GenAI models trained on vast user data, behavioral data asymmetries create competitive advantages that challenge traditional theories of network effects [78]. Regulatory interventions, such as the EU Digital Markets Act, attempt to counteract these effects by mandating data portability, introducing new tensions between personalization benefits and market competition [61].

Beyond economic dependencies, GenAI-driven personalization reshapes the information ecosystem, raising concerns about cognitive narrowing and societal cohesion [10]. The phenomenon of "filter bubbles" predates GenAI, having been observed in social media and recommendation systems [60, 76]. However, GenAI intensifies this issue by autonomously creating hyper-personalized content, reinforcing user preferences in ways that further entrench ideological echo chambers. GenAI systems that optimize for engagement risk promoting content that maximizes user retention at the expense of exposure to diverse viewpoints [29]. This dynamic extends beyond traditional recommender systems, as AI-generated content can now be tailored to individual psychological triggers, raising ethical questions about digital autonomy and social polarization [72]. Platforms must develop more nuanced strategies to counteract cognitive narrowing, moving beyond reactive

content moderation toward algorithmic interventions that intentionally expose users to a diversity of perspectives [88].

From a governance and ethical standpoint, hyper-personalization introduces critical challenges surrounding algorithmic bias, user autonomy, and emotional manipulation [12]. The potential for GenAI to tailor digital environments to individual psychological profiles gives rise to questions about transparency, agency, and the likelihood of manipulative personalization strategies [29, 57, 69]. As GenAI-driven systems curate content without explicit user control, individuals may experience a gradual erosion of autonomy in decision-making, as digital environments nudge behaviors in ways that are not always transparent [54, 60]. These challenges are further compounded by risks to privacy, since GenAI-driven personalization depends on large-scale behavioral profiling for optimizing engagement strategies [40]. Addressing these concerns requires governance frameworks that detect and mitigate bias, provide greater user control over personalization settings, and balance engagement metrics with well-being. Algorithmic audits, explainability mechanisms, and customizable personalization controls offer potential pathways for platforms to navigate the trade-offs between user experience optimization and ethical responsibility [22, 29].

Collaborative Innovation and the Complementor-End User Relationship

The relationship between complementors and end users assumes different dimensions through engineering, economic, and governance perspectives. From an engineering perspective, this relationship relies on technical infrastructure facilitating discovery, interaction, and value exchange. These include communication channels, quality feedback systems, and transaction infrastructure that ensure seamless interactions. Discovery algorithms help connect users with relevant complementors while maintaining ecosystem efficiency [67]. However, GenAI transforms these socio-technical systems by blurring the traditional distinctions between complementors and users, as AI-generated outputs are continuously refined through iterative user feedback loops. The introduction of GenAI requires new technical affordances that allow for human-AI collaboration while preserving meaningful human oversight [89].

From an economic perspective, GenAI-assisted co-creation disrupts traditional value attribution and pricing models. Historically, complementors monetized their expertise through unique contributions, but GenAI-assisted content creation erodes the exclusivity of human-driven work, potentially devaluing complementors' roles [65]. The emergence of sophisticated GenAI collaborators alters traditional income distribution patterns, raising concerns about fair compensation and economic equality in hybrid human-AI creative processes. Traditional frameworks struggle to account for GenAI's role in co-created outputs, necessitating new approaches to revenue sharing and value capture. GenAI's involvement also challenges existing theories of two-sided markets and pricing strategies [83], as platforms must redefine how value is created and captured in ecosystems where GenAI acts as a complementor.

Beyond economic concerns, the increasing sophistication of AI-generated content poses questions about trust, credibility, and expertise. As GenAI systems autonomously contribute to digital platforms, users may find it increasingly difficult to differentiate between human and AI-generated content, leading to skepticism about authenticity and originality

[29]. This shift challenges established reputation systems and quality signaling mechanisms, as platforms must ensure that AI-generated outputs meet expected standards of reliability and trustworthiness [42, 44, 79]. Digital platforms must balance the efficiency gains of automated assistance with concerns about human creativity, professional displacement, and expertise erosion.

The governance dimension of GenAI-assisted co-creation introduces new regulatory and ethical complexities, particularly concerning accountability, transparency, and compliance with AI governance frameworks. The EU AI Act mandates clear disclosures of AI-generated content, placing new pressures on platforms to ensure transparency in GenAI's role while maintaining complementor trust and authority. Platforms must balance automation benefits with ethical concerns surrounding GenAI's impact on labor markets and creative industries. These challenges require new frameworks for complementor governance, reputation systems, and accountability mechanisms that clearly delineate liability for errors in GenAI-mediated collaborative outputs [44]. Such frameworks must ensure that GenAI contributions enhance platform value while maintaining user trust through transparent attribution and responsibility allocation.

Conclusion

The emergence of GenAI is an inflection point in the evolution of digital platforms. Using the four transformative mechanisms, intelligent automation, democratization, hyper-personalization, and collaborative innovation, as analytical lenses, we shed light on how GenAI is redefining interactions between platform owners, complementors, users, and society at large. The articles in this Special Issue reveal how GenAI influences knowledge-seeking behavior in online communities and explore the evolution of platform governance with GenAI-based boundary resources. They investigate users' psychological reactions to AI-generated products, develop GenAI-based solutions for content moderation, and uncover new value creation logics in GenAI platforms. Taken together, these contributions reveal the many ways in which GenAI is reshaping digital ecosystems, demonstrating that its transformative potential lies not only in automating tasks, but also in reshaping user participation patterns, redefining complementor roles, and reconfiguring platform governance mechanisms.

This Special Issue serves as a call for further research on the challenges and opportunities posed by GenAI. As digital platforms evolve into increasingly intelligent and adaptive systems, the IS field is uniquely positioned to bridge technical, economic, and organizational perspectives. The socio-technical tradition equips IS scholars to address issues at the intersection of GenAI capabilities, human agency, and societal impact-including algorithmic accountability, ethical personalization, and the equitable distribution of value in AI-augmented ecosystems. As GenAI continues to permeate digital interactions, the IS community must remain at the forefront, championing rigorous inquiry, fostering ethical innovation, and illuminating pathways for responsible transformation.

Notes

1. We use the terms "GenAI" and "AI" interchangeably throughout the remainder of the text.
2. https://originality.ai/ai-content-in-google-search-results

3. https://github.com/features/copilot
4. https://investors.upwork.com/news-releases/news-release-details/upwork-expands-ai-innovation-and-unveils-new-solutions-better
5. https://www.tiktok.com/transparency/en-us/content-moderation/
6. https://www.shopify.com/magic
7. https://powerapps.microsoft.com/en-us/ai-builder/
8. https://www.canva.com/magic-design/
9. https://newsroom.spotify.com/2023-02-22/spotify-debuts-a-new-ai-dj-right-in-your-pocket/
10. https://netflixtechblog.com/artwork-personalization-c589f074ad76
11. https://aws.amazon.com/personalize/
12. https://github.blog/news-insights/product-news/github-copilot-chat-beta-now-available-for-all-individuals/
13. https://www.adobe.com/products/firefly.html
14. https://openai.com/research/musenet
15. https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai

Acknowledgments

We would like to thank the many anonymous reviewers and the following Associate Editors whose contributions were instrumental in advancing the papers in this Special Issue: Ivo Blohm, Alec W. Cram, Ben Eaton, Jens Förderer, Andreas Fügener, Dominik Gutt, Thomas L. Huber, Philipp Hukal, Thomas Kude, Harris Kyriakou, Gene Moo Lee, Wietske Van Osch, Jella Pfeiffer, Jingchuan Pu, Roopa Raman, Mark de Reuver, Anne-Francoise Rutkowski, Stefan Seidel, Timo Sturm, Christoph Weinert, Markus Weinmann, Martin Wiener, Hong Xu, and Michael Andreas Zaggl. We also thank Philipp Hukal, Thomas Kude, and Carsten Sørensen for reviewing earlier drafts of this Special Issue introduction. Any errors remain ours.

We also benefited greatly from the valuable suggestions and advice of the members of the Special Issue Advisory and Editorial Board: Carmelo Cennamo, Panos Constantinides, Oliver Hinz, Kai-Lung Hui, Robert J. Kauffman, William J. Kettinger, Abhay Mishra, Carsten Sørensen, Shirish C. Srivastava, Bernard C.Y. Tan, Monideepa Tarafdar, Jason Thatcher, Ofir Turel, and David Xu.

Finally, we are grateful to the Editor-in-Chief, Vladimir Zwass, for recognizing the importance of this topic and for his continued support throughout the process.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Michael Wessel (michael.wessel@uni-jena.de; corresponding author) is chaired Professor of Business Information Systems, especially E-Commerce and Digital Business at the Friedrich Schiller University Jena, Germany and Associate Professor at the Department of Digitalization, Copenhagen Business School, Denmark. He holds a PhD in Information Systems from the Technical University of Darmstadt, Germany. Dr. Wessel's current research projects, which are mainly empirical and quantitative, include the management of digital platforms, the design of consumer-oriented e-commerce solutions, the development of digital and data-based business models, the potential of digital entrepreneurship, and the interaction between humans and AI/algorithms. His work has been published in such journals as *Journal of Management Information Systems, Journal of Information Technology, Information Systems Journal, Decision Support Systems*, and others. He serves as Associate Editor for the *European Journal of Information Systems*.

Martin Adam (martin.adam@uni-goettingen.de) is chaired Professor of Information Systems, especially Smart Services, at the University of Goettingen, Germany. His research interests include user-AI collaborations as well as the digital transformation of work and people. Dr. Adam's work has been published in such journals as *Information Systems Research, Journal of the Association for Information Systems, Information Systems Journal, European Journal of Information Systems*, and many others. He serves as an Associate Editor for *Information Systems Journal, Business & Information Systems Engineering*, and *Electronic Markets*.

Alexander Benlian (benlian@ise.tu-darmstadt.de) is chaired Professor of Information Systems and E-Services at Technical University Darmstadt, Germany. He holds a PhD in Business Administration and Management Information Systems from LMU Munich, Germany. Dr. Benlian's research interests include human-AI collaboration, algorithmic management, platform ecosystems and digital transformation. His work has appeared in such journals as, *Information Systems Research, Journal of Management Information Systems, MIS Quarterly*, and several others. He is Associate Editor of *Information Systems Research*, Senior Editor of the *European Journal of Information Systems*, Department Editor of *Business & Information Systems Engineering*, and serves the Editorial Review Board of *MIS Quarterly Executive* and *Electronic Markets*.

Ann Majchrzak (majchrza@usc.edu) is Professor Emerita of Digital Innovation at Marshall School of Business, University of Southern California. She received her PhD degree in Social Psychology from University of California, Los Angeles. Dr. Majchrzak has authored or coauthored extensively and serves on the editorial boards of many journals in the field. She has held concurrent appointments at Esade Business School (Spain), Ramon Llull University (Spain), and Luiss Business School (Italy). Her research interests include virtual large-scale collaborations for innovation.

Ferdinand Thies (ferdinand.thies@bfh.ch) is Professor at the Institute for Digital Technology Management at the Bern University of Applied Sciences, Switzerland. He holds a PhD in Information Systems from the Technical University of Darmstadt, Germany. Dr. Thies' research interests include digital platforms, entrepreneurship, and AI. He has published in *Journal of Management Information Systems, Journal of Business Venturing, Entrepreneurship Theory and Practice, Information Systems Journal, Journal of Information Technology*, among others. He serves as Associate Editor for the *European Journal of Information Systems*.

ORCID

Michael Wessel http://orcid.org/0000-0002-2611-9689
Martin Adam http://orcid.org/0000-0001-9369-7203
Alexander Benlian http://orcid.org/0000-0002-7294-3097
Ann Majchrzak http://orcid.org/0000-0002-3077-8513
Ferdinand Thies http://orcid.org/0000-0003-3379-302X

References

1. Acemoglu, D.; and Restrepo, P. The wrong kind of AI? Artificial intelligence and the future of labour demand. *Cambridge Journal of Regions, Economy and Society*, *13*, 1 (2020), 25–35.
2. Adam, M.; Croitor, E.; Werner, D.; Benlian, A.; and Wiener, M. Input control and its signalling effects for complementors' intention to join digital platforms. *Information Systems Journal*, *33*, 3 (2023), 437–466.
3. Armstrong, M. Competition in two-sided markets. *The RAND Journal of Economics*, *37*, 3 (2006), 668–691.

4. Baldwin, C.Y.; and Woodard, J.C. The architecture of platforms: A unified view. In A. Gawer (ed.), *Platforms, Markets and Innovation*. Cheltenham, UK: Edward Elgar Publishing, 2009, pp. 19–44.
5. Banh, L.; and Strobel, G. Generative artificial intelligence. *Electronic Markets*, *33*, 1 (2023).
6. Benbya, H.; Nan, N.; Tanriverdi, H.; and Yoo, Y. Complexity and information systems research in the emerging digital world. *MIS Quarterly*, *44*, 1 (2020), 1–17.
7. Benlian, A.; Hilkert, D.; and Hess, T. How open is this platform? The meaning and measurement of platform openness from the complementers' perspective. *Journal of Information Technology*, *30*, 3 (2015), 209–228.
8. Berente, N.; Gu, B.; Recker, J.; and Santhanam, R. Managing artificial intelligence. *MIS Quarterly*, *45*, 3 (2021).
9. Boudreau, K. Open platform strategies and innovation: Granting access vs. devolving control. *Management Science*, *56*, 10 (2010), 1849–1872.
10. Bozdag, E. Bias in algorithmic filtering and personalization. *Ethics and Information Technology*, *15* (2013), 209–227.
11. Brown, T.; Mann, B.; Ryder, N.; Subbiah, M.; Kaplan, J.D.; Dhariwal, P.; Neelakantan, A.; Shyam, P.; Sastry, G.; and Askell, A. Language models are few-shot learners. *Advances in Neural Information Processing Systems*, 33 (2020), 1877–1901.
12. Brundage, M.; Avin, S.; Clark, J.; Toner, H.; Eckersley, P.; Garfinkel, B.; Dafoe, A.; Scharre, P.; Zeitzoff, T.; and Filar, B. The malicious use of artificial intelligence: Forecasting, prevention, and mitigation. *arXiv preprint arXiv:1802.07228* (2018).
13. Brynjolfsson, E.; Li, D., and Raymond, L. The Quarterly Journal of Economics, qjae044, (2025), Generative AI at work.
14. Cennamo, C.; and Santalo, J. Platform competition: Strategic trade-offs in platform markets. *Strategic Management Journal*, *34*, 11 (2013), 1331–1350.
15. Chellappa, R.K.; and Shivendu, S. An economic model of privacy: A property rights approach to regulatory choices for online personalization. *Journal of Management Information Systems*, *24*, 3 (2007), 193–225.
16. Chen, M.; Tworek, J.; Jun, H.; Yuan, Q.; Pinto, H.P.D.O.; Kaplan, J.; Edwards, H.; Burda, Y.; Joseph, N.; and Brockman, G. Evaluating large language models trained on code. *arXiv preprint arXiv:2107.03374* (2021).
17. Chen, Z.; and Chan, J. Large language model in creative work: The role of collaboration modality and user expertise. *Management Science*, *70*, 12 (2024), 9101–9117.
18. Constantinides, P.; Henfridsson, O.; and Parker, G.G. Introduction—platforms and infrastructures in the digital age. *Information Systems Research*, *29*, 2 (2018), 381–400.
19. Cram, W.A.; Wiener, M.; Tarafdar, M.; and Benlian, A. Examining the Impact of algorithmic control on Uber drivers' technostress. *Journal of Management Information Systems*, *39*, 2 (2022), 426–453.
20. Cusumano, M.A. Generative AI as a new innovation platform. *Communications of the ACM*, *66*, 10 (2023), 18–21.
21. Cutolo, D.; and Kenney, M. Platform-dependent entrepreneurs: power asymmetries, risks, and strategies in the platform economy. *Academy of Management Perspectives*, *35*, 4 (2021), 584–605.
22. Davenport, T.H. Hyper-personalization for customer engagement with artificial intelligence. *Management and Business Review*, *3*, 1–2 (2023), 29–36.
23. de Reuver, M.; Sørensen, C.; and Basole, R.C. The digital platform: A research agenda. *Journal of Information Technology*, *33*, 2 (2018), 124–135.
24. Dellermann, D.; Ebel, P.; Söllner, M.; and Leimeister, J.M. Hybrid intelligence. *Business & Information Systems Engineering*, *61*, 5 (2019), 637–643.
25. Dunn, B.; Jensen, M.L.; and Ralston, R. Attribution of responsibility after failures within platform ecosystems. *Journal of Management Information Systems*, *38*, 2 (2021), 546–570.
26. Eaton, B.; Elaluf-Calderwood, S.; Sorensen, C.; and Yoo, Y.J. Distributed tuning of boundary resources: The case of Apple's IOS service system. *MIS Quarterly*, *39*, 1 (2015), 217–243.

27. Eisenmann, T.; Parker, G.; and Van Alstyne, M.W. Strategies for two-sided markets. *Harvard Business Review*, *84*, 10 (2006), 92–+.
28. Evans, D.S.; and Schmalensee, R. *Matchmakers: The New Economics of Multisided Platforms*. Cambridge, MA: Harvard Business Review Press, 2016.
29. Feuerriegel, S.; DiRresta, R.; Goldstein, J.A.; Kumar, S.; Lorenz-Spreen, P.; Tomz, M.; and Pröllochs, N. Research can help to tackle AI-generated disinformation. *Nature Human Behaviour*, *7*, 11 (2023), 1818–1821.
30. Feuerriegel, S.; Hartmann, J.; Janiesch, C.; and Zschech, P. Generative AI. *Business & Information Systems Engineering*, *66*, 1 (2024), 111–126.
31. Foerderer, J.; Kude, T.; Mithas, S.; and Heinzl, A. Does platform owner's entry crowd out innovation? Evidence from Google photos. *Information Systems Research*, *29*, 2 (2018), 444–460.
32. Foffano, F.; Scantamburlo, T.; and Cortés, A. Investing in AI for social good: An analysis of European national strategies. *AI & Society*, *38*, 2 (2023), 479–500.
33. Fügener, A.; Grahl, J.; Gupta, A., and Ketter, W. Will humans-in-the-loop become borgs? Merits and pitfalls of working with AI. *Management Information Systems Quarterly (MISQ)-Vol*, *45* 3 1527–1556 (2021).
34. Fürstenau, D.; Baiyere, A.; Schewina, K.; Schulte-Althoff, M.; and Rothe, H. Extended generativity theory on digital platforms. *Information Systems Research*, *34*, 4 (2023), 1686–1710.
35. Gawer, A. Bridging differing perspectives on technological platforms: Toward an integrative framework. *Research Policy*, *43*, 7 (2014), 1239–1249.
36. Gawer, A. Digital platforms and ecosystems: remarks on the dominant organizational forms of the digital age. *Innovation*, *24*, 1 (2022), 110–124.
37. Gawer, A.; and Cusumano, M.A. Industry platforms and ecosystem innovation. *Journal of Product Innovation Management*, *31*, 3 (2014), 417–433.
38. Ghazawneh, A.; and Henfridsson, O. Balancing platform control and external contribution in third-party development: The boundary resources model. *Information Systems Journal*, *23*, 2 (2013), 173–192.
39. Grashoff, I.; and Recker, J. How GuideCom used the Cognigy.AI lowcode platform to develop an AI-based smart assistant. *MIS Quarterly Executive*, *23*, 3 (2024), 7.
40. Gregory, R.W.; Henfridsson, O.; Kaganer, E.; and Kyriakou, S.H. The role of artificial intelligence and data network effects for creating user value. *Academy of Management Review*, *46*, 3 (2021), 534–551.
41. Groh, M.; Sankaranarayanan, A.; Singh, N.; Kim, D.Y.; Lippman, A.; and Picard, R. Human detection of political speech deepfakes across transcripts, audio, and video. *Nature Communications*, *15*, 1 (2024), 7629.
42. Grote, G.; Parker, S.K.; and Crowston, K. Taming artificial intelligence: A theory of control-acountability alignment among AI developers and users. *Academy of Management Review* (2024).
43. Guo, Y.; Li, X.T.; and Zeng, X.H. Platform competition in the sharing economy: Understanding how ride-hailing services influence new car purchases. *Journal of Management Information Systems*, *36*, 4 (2019), 1043–1070.
44. Heimburg, V.; Schreieck, M.; and Wiesche, M. Complementor value co-creation in generative AI platform ecosystems. *Journal of Management Information Systems*, *42*, 2 (2025).
45. Heimburg, V., and Wiesche, M. Relations between actors in digital platform ecosystems: A literature review. *European Conference on Information Systems* June 18-24, 2022 Timisoara, Romania, 2022.
46. Hong, S.J.; Bauer, J.M.; Lee, K.; and Granados, N.F. Drivers of supplier participation in ride-hailing platforms. *Journal of Management Information Systems*, *37*, 3 (2020), 602–630.
47. Huang, H.; Fu, R.; and Ghose, A. Generative AI and content-creator economy: Evidence from online content creation platforms. *Available at SSRN 4670714* (2023).
48. Huber, T.L.; Kude, T.; and Dibbern, J. Governance practices in platform ecosystems: Navigating tensions between cocreated value and governance costs. *Information Systems Research*, *28*, 3 (2017), 563–584.

49. Hukal, P.; Henfridsson, O.; Shaikh, M.; and Parker, G. Platform signaling for generating platform content. *MIS Quarterly*, *44*, 3 (2020).
50. Hurni, T.; Huber, T.L.; Dibbern, J.; and Krancher, O. Complementor dedication in platform ecosystems: rule adequacy and the moderating role of flexible and benevolent practices. *European Journal of Information Systems*, *30*, 3 (2021), 237–260.
51. Huy, L.V.; Nguyen, H.T.; Vo-Thanh, T.; Thinh, N.H.T.; and Thi Thu Dung, T. Generative AI, why, how, and outcomes: A user adoption study. *AIS Transactions on Human-Computer Interaction*, *16*, 1 (2024), 1–27.
52. Issa, H.; Kadian, A.; Ahuja, S.; and Nishant, R. When a dream turns into a nightmare: A case study of an education technology startup to uncover the dark side of generative AI. *Communications of the Association for Information Systems*, *54*, 1 (2024), 39.
53. Jacobides, M.G.; Cennamo, C.; and Gawer, A. Towards a theory of ecosystems. *Strategic Management Journal*, *39*, 8 (2018), 2255–2276.
54. Kane, G.C.; Young, A.G.; Majchrzak, A.; and Ransbotham, S. Avoiding an oppressive future of machine learning: A design theory for emancipatory assistants. *MIS Quarterly*, *45*, 1 (2021), 371–396.
55. Kang, H.; and Lou, C. AI agency vs. human agency: Understanding human-AI interactions on TikTok and their implications for user engagement. *Journal of Computer-Mediated Communication*, *27*, 5 (2022), zmac014.
56. Karhu, K.; Gustafsson, R.; and Lyytinen, K. Exploiting and defending open digital platforms with boundary resources: Android's five platform forks. *Information Systems Research*, *29*, 2 (2018), 479–497.
57. Karwatzki, S.; Dytynko, O.; Trenz, M.; and Veit, D. Beyond the personalization-privacy paradox: Privacy valuation, transparency features, and service personalization. *Journal of Management Information Systems*, *34*, 2 (2017), 369–400.
58. Kathuria, A.; Karhade, P.P.; and Konsynski, B.R. In the realm of hungry ghosts: Multi-level theory for supplier participation on digital platforms. *Journal of Management Information Systems*, *37*, 2 (2020), 396–430.
59. Kazan, E.; Tan, C.-W.; Lim, E.T.K.; Sørensen, C.; and Damsgaard, J. Disentangling digital platform competition: The case of UK Mobile payment platforms. *Journal of Management Information Systems*, *35*, 1 (2018), 180–219.
60. Kitchens, B.; Johnson, S.L.; and Gray, P. Understanding echo chambers and filter bubbles: The impact of social media on diversification and partisan shifts in news consumption. *MIS Quarterly*, *44*, 4 (2020).
61. Kranz, J.; Kuebler-Wachendorff, S.; Syrmoudis, E.; Grossklags, J.; Mager, S.; Luzsa, R.; and Mayr, S. Data portability. *Business & Information Systems Engineering*, *65*, 5 (2023), 597–607.
62. Kretschmer, T.; Leiponen, A.; Schilling, M.; and Vasudeva, G. Platform ecosystems as meta-organizations: Implications for platform strategies. *Strategic Management Journal*, *43*, 3 (2022), 405–424.
63. Kwon, H.E.; Oh, W.; and Kim, T. Platform structures, homing preferences, and homophilous propensities in online social networks. *Journal of Management Information Systems*, *34*, 3 (2017), 768–802.
64. Liu, P.F.; Yuan, W.Z.; Fu, J.L.; Jiang, Z.B.; Hayashi, H.; and Neubig, G. Pre-train, prompt, and predict: A systematic survey of prompting methods in natural language processing. *ACM Computing Surveys*, *55*, 9 (2023), 1–35.
65. Lysyakov, M.; and Viswanathan, S. Threatened by AI: Analyzing users' responses to the introduction of AI in a crowd-sourcing platform. *Information Systems Research*, *34*, 3 (2023), 1191–1210.
66. Malgonde, O.S. Generative AI-based recommender addressing contribution pollution and information cacophony on digital platforms. *Journal of Management Information Systems*, *42*, 2 (2025).
67. Malgonde, O.S.; Zhang, H.; Padmanabhan, B.; and Limayem, M. Managing digital platforms with robust multi-sided recommender systems. *Journal of Management Information Systems*, *39*, 4 (2022), 938–968.

68. Mantena, R.; and Saha, R.L. Co-opetition between differentiated platforms in two-sided markets. *Journal of Management Information Systems*, *29*, 2 (2012), 109–139.
69. Matz, S.C.; Teeny, J.D.; Vaid, S.S.; Peters, H.; Harari, G.M.; and Cerf, M. The potential of generative AI for personalized persuasion at scale. *Scientific Reports*, *14*, 1 (2024), 4692.
70. Mayer, A.-S.; Kostis, A.; Strich, F.; and Holmström, J. Shifting dynamics: How generative AI as a boundary resource reshapes digital platform governance. *Journal of Management Information Systems*, *42*, 2 (2025).
71. McKinsey & Company. Platform plays. Retrieved 2024-02-02 from https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/five-fifty-platform-plays
72. Mittelstadt, B.D.; Allo, P.; Taddeo, M.; Wachter, S.; and Floridi, L. The ethics of algorithms: Mapping the debate. *Big Data & Society*, *3*, 2 (2016), 2053951716679679.
73. Muller, M.; Chilton, L.B.; Kantosalo, A.; Martin, C.P., and Walsh, G. GenAICHI: Generative AI and HCI. *CHI Conference on Human Factors in Computing Systems Extended Abstracts* Apr 30–May 6, 2022 (ACM) New Orleans, LA, USA, 2022. https://doi.org/10.1145/3491101.3503719
74. Nan, G.F.; Yao, L.N.; Ho, Y.C.; Li, Z.Y.; and Li, M.Q. An economic analysis of platform protection in the presence of content substitutability. *Journal of Management Information Systems*, *36*, 3 (2019), 1002–1036.
75. Noy, S.; and Zhang, W. Experimental evidence on the productivity effects of generative artificial intelligence. *Science*, *381*, 6654 (2023), 187–192.
76. Pariser, E. The Filter Bubble: How the New Personalized Web Is Changing What We Read and How We Think. Penguin, 2011.
77. Park, J.S.; O'Brien, J.; Cai, C.J.; Morris, M.R.; Liang, P., and Bernstein, M.S. Generative agents: Interactive simulacra of human behavior. *Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology* October 29–November 01, 2023 (ACM) San Francisco, CA, USA, 2023.
78. Parker, G.G.; and Van Alstyne, M.W. Two-sided network effects: A theory of information product design. *Management Science*, *51*, 10 (2005), 1494–1504.
79. Pinski, M., and Benlian, A. AI literacy for users–A comprehensive review and future research directions of learning methods, components, and effects. *Computers in Human Behavior: Artificial Humans* 2 1 (2024), 100062.
80. Pu, J.C.; Nian, T.T.; Qiu, L.F.; and Cheng, H.K. Platform policies and sellers' competition in agency selling in the presence of online quality misrepresentation. *Journal of Management Information Systems*, *39*, 1 (2022), 159–186.
81. Pujadas, R.; Valderrama, E.; and Venters, W. The value and structuring role of web APIs in digital innovation ecosystems: The case of the online travel ecosystem. *Research Policy*, *53*, 2 (2024), 104931.
82. Quinn, M.; and Gutt, D. Heterogeneous effects of generative AI on knowledge seeking in online community. *Journal of Management Information Systems*, *42*, 2 (2025).
83. Rochet, J.C.; and Tirole, J. Platform competition in two-sided markets. *Journal of the European Economic Association*, *1*, 4 (2003), 990–1029.
84. Rolland, K.H.; Mathiassen, L.; and Rai, A. Managing digital platforms in user organizations: The interactions between digital options and digital debt. *Information Systems Research*, 29, 2 (2018), 419–443.
85. Rombach, R.; Blattmann, A.; Lorenz, D.; Esser, P., and Ommer, B. High-resolution image synthesis with latent diffusion models. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition* June 21–24, 2022 (IEEE) New Orleans, Louisiana, USA, 2022, pp. 10684–10695.
86. Sabherwal, R.; and Grover, V. The societal impacts of generative artificial intelligence: A balanced perspective. *Journal of the Association for Information Systems*, *25*, 1 (2024), 13–22.
87. Schreieck, M.; Huang, Y.; Kupfer, A.; and Krcmar, H. The effect of digital platform strategies on firm value in the banking industry. *Journal of Management Information Systems*, *41*, 2 (2024), 394–421.
88. Selbst, A.D.; Boyd, D.; Friedler, S.A.; Venkatasubramanian, S., and Vertesi, J. Fairness and abstraction in sociotechnical systems. *Proceedings of the Conference on Fairness, Accountability, and Transparency* January 29–31, 2019 (ACM) Atlanta, GA, USA, 2019, pp. 59–68.

89. Shneiderman, B. *Human-Centered AI*. Oxford, UK: Oxford University Press, 2022.
90. Sikhondze, B.; Ye, H.J.; Wang, W.; Zhan, X.; and Santhanam, R. Are you willing to pay for generative AI products? Disentangling the disclosure effects and the mediating role of psychological value. *Journal of Management Information Systems*, *42*, 2 (2025).
91. Soh, F.; and Grover, V. Effect of release timing of app innovations based on mobile platform innovations. *Journal of Management Information Systems*, *37*, 4 (2020), 957–987
92. Soh, F.; and Grover, V. Leveraging platform boundary resources: The role of distributed sensemaking. *Journal of Management Information Systems*, *39*, 2 (2022), 366–394.
93. Spagnoletti, P.; Resca, A.; and Lee, G. A design theory for digital platforms supporting online communities: A multiple case study. *Journal of Information Technology*, *30*, 4 (2015), 364–380.
94. Stelmaszak, M.; Möhlmann, M., and Sørensen, C. When algorithms delegate to humans: Exploring human-algorithm interaction at Uber. *MIS Quarterly* 49 1 305–330 (2025).
95. Tan, B.; Pan, S.L.; Lu, X.H.; and Huang, L.H. The role of IS capabilities in the development of multi-sided platforms: The digital ecosystem strategy of Alibaba.com. *Journal of the Association for Information Systems*, *16*, 4 (2015), 248–280.
96. Tavalaei, M.M.; and Cennamo, C. In search of complementarities within and across platform ecosystems: Complementors' relative standing and performance in mobile apps ecosystems. *Long Range Planning*, *54*, 5 (2021), 101994.
97. Thies, F.; Wessel, M.; and Benlian, A. Effects of social interaction dynamics on platforms. *Journal of Management Information Systems*, *33*, 3 (2016), 843–873.
98. Thies, F.; Wessel, M.; and Benlian, A. Network effects on crowdfunding platforms: Exploring the implications of relaxing input control. *Information Systems Journal*, *28*, 6 (2018), 1239–1262.
99. Tiwana, A. Evolutionary competition in platform ecosystems. *Information Systems Research*, *26*, 2 (2015), 266–281.
100. Tiwana, A.; Konsynski, B.; and Bush, A.A. Research commentary—Platform evolution: Coevolution of platform architecture, governance, and environmental dynamics. *Information Systems Research*, *21*, 4 (2010), 675–687.
101. van Giffen, B.; and Ludwig, H. How boards of directors govern artificial intelligence. *MIS Quarterly Executive*, *22*, 4 (2023), 7.
102. Wareham, J.; Fox, P.B.; and Giner, J.L.C. Technology ecosystem governance. *Organization Science*, *25*, 4 (2014), 1195–1215.
103. Wessel, M.; Gleasure, R.; and Kauffman, R.J. Sustainability of rewards-based crowdfunding: A quasi-experimental analysis of funding targets and backer satisfaction. *Journal of Management Information Systems*, *38*, 3 (2021), 612–646.
104. Wessel, M.; Thies, F.; and Benlian, A. Opening the floodgates: The implications of increasing platform openness in crowdfunding. *Journal of Information Technology*, *32*, 4 (2017), 344–360.
105. Wulf, J.; and Blohm, I. Fostering value creation with digital platforms: A unified theory of the application programming interface design. *Journal of Management Information Systems*, *37*, 1 (2020), 251–281.
106. Xue, M.; Cao, X.; Feng, X.; Gu, B.; and Zhang, Y. Is college education less necessary with AI? Evidence from firm-level labor structure changes. *Journal of Management Information Systems*, *39*, 3 (2022), 865–905.
107. Yoo, Y.; Henfridsson, O.; and Lyytinen, K. Research commentary—The new organizing logic of digital innovation: An agenda for information systems research. *Information Systems Research*, *21*, 4 (2010), 724–735.
108. Zhang, C.; Song, P., and Lim, K. Standardize or let a thousand flowers bloom? Interface design coordination between software platforms and hosted apps. *MIS Quarterly*, *47*, 3 1333–1352 (2023).
109. Zhou, Z.; Zhang, L.L.; and Van Alstyne, M. How users drive value in two-sided markets platform designs that matter. *MIS Quarterly*, *48*, 1 (2024), 1–30.
110. Zittrain, J. Law and technology the end of the generative internet. *Communications of the ACM*, *52*, 1 (2009), 18–20.
111. Zuboff, S. Surveillance capitalism and the challenge of collective action. *New Labor Forum: 28*, 1 (2019). 10–29.