Information Systems Journal

WILEY

OPINION OPEN ACCESS

Compassionate Digital Innovation: A Pluralistic Perspective and Research Agenda

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Received: 6 August 2024 | **Revised:** 18 May 2025 | **Accepted:** 12 June 2025

Funding: The authors received no specific funding for this work.

Keywords: common good | compassion | digital innovation | ethics | systemic inequity

ABSTRACT

Digital innovation offers significant societal, economic and environmental benefits but is also a source of profound harms. Prior information systems (IS) research has often overlooked the ethical tensions involved, framing harms as 'unintended consequences' rather than symptoms of deeper systemic problems. In response, this paper presents a problematization review that critiques and revises three widely held assumptions about digital innovations: (1) that they generate net benefits that outweigh the associated harm; (2) that their ethicality can be calculated through utility and (3) that their harms can be mitigated through technological, corporate or regulatory intervention. We argue that compassion provides a pluralistic ethical foundation that integrates the strengths of consequentialism, deontology, and virtue ethics. This framework prioritises serving *all* stakeholders, especially the most vulnerable, while avoiding harm. It sets a research agenda focused on addressing structural dysfunctions, amplifying marginalised voices, and fostering sustainable systems. By reimagining digital innovation as a force for the common good, this paper contributes to a more just and equitable digital future for all.

1 | Introduction

Digital innovation, or the creation and implementation of digital technologies that transform products, services and systems (Ciriello et al. 2018; Kohli and Melville 2019), is a cornerstone of IS scholarship (Fichman et al. 2014; Yoo et al. 2024). As a driver of digital transformation, it unlocks opportunities for economic growth, social empowerment and environmental sustainability (Zimmer and Järveläinen 2022). However, digital innovation can also do harm, exacerbating systemic inequities, social polarisation and environmental degradation (Elliot 2011; Möhlmann et al. 2021). This reveals digital innovation's dual potential for utopian and dystopian scenarios (Chatterjee and Sarker 2024). For instance, social media platforms connect billions but amplify polarisation and mental health challenges (Braghieri et al. 2022; Risius et al. 2023); AI is celebrated for its transformative potential yet feared for its existential risks (Aspray 2024) and metaverses foster creativity and interaction, but also raise concerns over exploitation and harassment (Dwivedi et al. 2022).

These complexities are not merely unintended consequences but reflect deeper systemic problems. Scholars have increasingly urged the IS community to shape digital innovations that deliver benefits without doing harm (Clarke and Davison 2020; Davison et al. 2023; Sarker et al. 2019). Yet digital technologies are inherently ambiguous, producing paradoxical outcomes as they interact with social, organisational and individual practices (Anderson and Robey 2017; Arnold 2003; Ngwenyama

et al. 2023; Riemer and Johnston 2017; Susarla et al. 2012). These tensions point to underlying structural issues, which IS scholarship has only partially addressed.

As a business discipline, IS scholarship has largely aligned with consequentialist reasoning, emphasising technology's business value (Clarke and Davison 2020). This approach tends to reduce ethical evaluation to cost–benefit analyses (Hannon et al. 2024; March 2011). While such focus can offer analytical clarity, it risks overlooking important dimensions of complex ethical tensions, especially those inherent in digital innovation. Ethical pluralism, which draws from consequentialism, deontology and virtue ethics, provides a more holistic framework. It enables IS scholars to consider intentions, duties and moral character alongside outcomes (Gal et al. 2022). Within this pluralistic perspective, *compassion*, defined as the altruistic recognition and alleviation of suffering (Schopenhauer 1840), provides a unifying moral foundation for understanding and navigating these ethical tensions.

Asking *how IS scholars can respond compassionately to the ethical tensions of digital innovation*, we problematise three widely held assumptions in dominant discourses on digital innovation. Assumption 1—that digital innovation generates benefits outweighing its harms—ignores systemic inequities that disproportionately burden marginalised groups. Assumption 2—that their ethicality can be calculated through utility—overlooks systemic injustices and marginalised perspectives, typically rationalising harms as 'unintended consequences'. Assumption 3—that technological, corporate or regulatory interventions can adequately mitigate harms—focuses on addressing symptoms, rather than root causes, of digital harms. Through a problematisation review (Alvesson and Sandberg 2020; Chatterjee and Davison 2021), we challenge these assumptions and propose a revised, pluralistic perspective rooted in compassion.

Our contribution reframes digital innovation as a moral and political enterprise, advancing the growing discourse on digital responsibility (Davison et al. 2023). Our pluralistic perspective reorients the discourse from 'more innovation is better' to 'more compassionate innovation is better', focused squarely on serving the *common good*—the well-being, welfare, and benefits shared by all stakeholders (Argandoña 1998). *Stakeholders* include individuals, groups, organisations, institutions, society or the environment, each with a vested interest in businesses or technologies (Mitchell et al. 1997). While benefiting all stakeholders is a noble aspiration, it involves complex dilemmas spanning economics, politics, ecology and ethics (Argandoña 1998), as helping others often requires sacrifice and leads to uneven distributions of benefits and burdens (Batson et al. 1995; Beauchamp and Childress 2011). In digital contexts, content moderators face distressing material (Douek 2022), combating cyberbullying can be emotionally taxing (Lowry et al. 2016) and biased hiring algorithms can worsen social divides (Tate 2023). Addressing these tensions is key to sustaining the IS discipline's relevance and prosocial impact.

The paper proceeds as follows. Section 2 critiques dominant assumptions of digital innovation, highlighting systemic inequities and limitations of prevailing ethical frameworks. Section 3 develops a research agenda for examining the social, economic and environmental effects of digital innovation. Section 4 positions compassion as a unifying foundation for ethical pluralism, connecting it to consequentialism, deontology and virtue ethics. Section 5 outlines the revised assumptions underpinning compassion as a pluralist perspective on digital innovation and discusses implications. Finally, Section 6 concludes by advocating to address systemic harms, amplify marginalised voices and reimagine digital innovation as a force for the common good.

2 | Questioning Dominant Assumptions About Digital Innovation

Much of the IS literature echoes a techno-utilitarian narrative that frames digital innovation as inherently progressive—an engine of economic growth, efficiency and transformation. This view is reinforced by an outsized focus on technology's business value, privileging adoption metrics, transformation benefits and hype cycles around shiny new gadgets like blockchain or AI (Chatterjee and Sarker 2024; Clarke and Davison 2020; Wessel et al. 2025; Yoo et al. 2024).

However, such a narrative obscures the unequal distribution of benefits and harms, often dismissing systemic issues as merely 'unintended'. For example, the move to online banking and government services has turned public libraries into de facto welfare providers, as agencies now routinely refer clients there for support, offloading responsibilities onto underfunded services while claiming progress (Shepherd 2025). More alarmingly, digital infrastructures are increasingly co-opted to centralise power and erode democratic governance. One example is the US Internal Revenue Service's recent agreement to share confidential taxpayer data with Immigration and Customs Enforcement for deportation (Browman 2025). These developments culminate in the actions of the 'Department of Government Efficiency (DOGE)', which, under Elon Musk's unelected leadership, has infiltrated multiple federal agencies, displaced thousands of civil servants and accessed vast amounts of sensitive citizen data in what WIRED (2025) terms a 'digital coup'. While DOGE may appear extreme, its actions crystallise the structural dysfunctions driven by a narrow, consequentialist focus on efficiency and control. Together, these examples reveal the political volatility and ethical fragility of digital innovations.

Recent critiques (e.g., Chatterjee and Sarker 2024; Clarke and Davison 2020; Yoo et al. 2024) challenge IS's traditional focus on technology's business value, highlighting how digital innovation often centralises control, deepens inequities and generates harmful externalities. While these critiques mark progress in acknowledging digital harms, they stop short of confronting their systemic roots. Digital innovation is not a neutral force, nor does it emerge in a vacuum, but it reflects deliberate choices embedded in sociotechnical systems. We therefore reject reductionist accounts and call for a systemic reframing. Digital innovation must be understood as a moral and political enterprise, not just a vehicle for economic progress. This shift requires IS scholars to move past technocentric enthusiasm and towards compassionate scrutiny: asking not only what digital innovation enables, but whom it serves, whom it harms and whose voices remain excluded from its design, governance and use.

Although all innovations create winners and losers, digital innovation is qualitatively distinct. First, its reprogrammability, generativity, and data-driven feedback loops enable rapid, large-scale diffusion (Yoo et al. 2010), increasing the risk of structural exclusion. Second, digital goods often have zero marginal costs: once created, they can be cheaply replicated and scaled globally, increasing the threat of monopolisation (Dou et al. 2017). Third, network effects and platform lock-in create powerful winner-takes-most dynamics, entrenching early movers and constraining user exit (Gussek and Wiesche 2024). Fourth, digital platforms are often general-purpose technologies, transforming multiple sectors at once and embedding deeply in organisational and societal infrastructures (Yoo et al. 2024, 2010). This consolidates economic and political power among a privileged few who control digital infrastructure. Fifth, their global reach allows digital giants to evade local regulation and exploit legal loopholes (Alcadipani and de Oliveira Medeiros 2020). These qualities create diffuse, systemic externalities such as surveillance, polarisation, environmental strain and platform dependency. Together, they render digital innovation a distinct phenomenon demanding a tailored ethical response.

In response, we conducted a problematisation review (Alvesson and Sandberg 2020) to surface and question foundational assumptions (Ashrafi et al. 2025; Chatterjee and Davison 2021; Monteiro et al. 2022) in the digital innovation literature. Problematisation differs from systematic reviews by embracing interpretive synthesis to challenge taken-for-granted perspectives and stimulate novel theorising (Alvesson and Sandberg 2020; Boell and Cecez-Kecmanovic 2014; Paré et al. 2015). We began with a broad yet selective review of 244 journals rated A or A* by the Australian Business Deans Council (ABDC), which includes the AIS Basket of Eleven and leading journals in management, law and policy. Combining keywords related to economics, environment, society, ethics, compassion and empathy, we identified 116 relevant papers, excluding those unrelated to digital innovation. We inductively grouped these into six thematic clusters: economic (18), environmental (12), social (16), compassion (18), stakeholder theory (21) and general ethics (20), with an additional 11 broadly relevant sources. We refined the resulting assumptions through iterative discussions among the six authors and in collegial workshops. Table 1 distils this process by presenting three assumptions, their problematisation and key sources. Rather than offering an exhaustive literature map, it provides a generative framing (Alvesson and Sandberg 2020), grounded in a pluralistic ethical stance.

2.1 | Do the Benefits of Digital Innovation Outweigh Its Harms?

Digital innovations are typically assumed to generate net benefits that outweigh their associated harms, with negative consequences viewed as solvable through additional innovations. However, these benefits often disproportionately accrue to a privileged few, while marginalised communities bear the brunt of significant harms (Marjanovic et al. 2021, 2022). The challenge lies in recognising that the benefits of technological 'progress' are inherently unequal, which is easier to tolerate for those who benefit. Simply assuming fair distribution of benefits and harms can perpetuate this systemic inequity. Calls for 'balanced perspectives' (Chatterjee and Sarker 2024) and 'optimism' (Yoo et al. 2024) risk downplaying the harm inflicted on vulnerable populations and obscuring accountability.

Mainstream IS research predominantly emphasises the economic benefits of digital innovation, focusing on financial stakeholders such as system sponsors, corporate managers and owners (Clarke and Davison 2020). In contrast, social and environmental impacts, as well as the interests of vulnerable populations, receive comparatively little attention (Elliot 2011; Zimmer and Järveläinen 2022). While some studies have begun exploring these issues (e.g., Nishant et al. 2020; Watson et al. 2022), they remain underrepresented (Lagoarde-Segot and Currie 2018). Editorial resistance and challenges in publishing such research in top-tier IS journals indicate that marginalised voices are not fully acknowledged as central to the field (Payton et al. 2022). Instead, the dominant narrative typically insists on 'optimism' or a 'balanced perspective', which risks glossing over the profound harms digital innovation imposes on disadvantaged groups, society, and the environment.

This imbalance reflects and perpetuates systemic inequities by marginalising those most affected by the harmful externalities of digital innovation. Algorithmic bias and non-consensual deepfake pornography disproportionately harm women and minorities, exacerbating disparities and fostering an 'algorithmic monoculture' that further disadvantages already-marginalised groups (Bommasani et al. 2022; Jacobsen and Simpson 2024; Marjanovic et al. 2021, 2022; Smith and Miller 2022). Similarly, environmental harms like e-waste, resource depletion and climate change disproportionately burden socioeconomically disadvantaged communities in developing nations (Kunz et al. 2018). The gig economy's precarious working conditions and automation-driven job displacement intensify wealth inequities, channelling benefits from the many to a privileged few (Chipidza and Leidner 2019). These systemic inequities challenge beliefs about fair benefit distribution (Kazan et al. 2018; Zuboff 2015). By prioritising the benefits accruing to privileged stakeholders, IS scholarship risks institutional complicity in sustaining these inequities while neglecting broader ethical and social responsibilities (Davison et al. 2023).

A compassionate response demands a fundamental shift in priorities. Instead of merely 'balancing' benefits and harms or relying on naïve 'optimism' that future digital innovations will break from past patterns of injustice, IS scholars must place the interests of vulnerable stakeholders first. This entails embedding inclusivity, equity and justice into the development of digital innovations. By actively empowering marginalised groups as co-creators rather than passive beneficiaries, IS research can address systemic inequities and foster more equitable and just outcomes for all.

2.2 | Can Digital Innovation's Ethicality Be Calculated Through Utility?

Utility maximisation has long dominated ethical reasoning in business disciplines (March 2011), including IS (Hannon et al. 2024). Rooted in the utilitarian philosophies of Bentham

TABLE 1 | Questioning dominant assumptions about digital innovation.

Assumption	Problematisation	Key sources
1. Digital innovations generate net benefits that outweigh the associated harms.	The benefits of digital innovation disproportionately accrue to a privileged few.	Analysing 659 top IS journal articles, Clarke and Davison (2020) reveal that 90% focus narrowly on economic benefits to the system sponsor.
	In contrast, marginalised communities often bear the brunt of its harms.	
	This dynamic perpetuates power imbalances and challenges claims of fair benefit distribution.	Chatterjee and Sarker (2024) and Yoo et al. (2024) acknowledge digital harms but frame them as unintended and call for optimism or balanced views.
2. Digital innovation's ethicality can be calculated through utility.	Evaluating digital innovation through calculable utility often reduces complex societal issues to simplistic cost–benefit trade-offs.	March (2011) critiques utilitarian calculus as an ideological foundation of managerialism.
	This framing tends to sideline systemic inequities and marginalise diverse perspectives.	Alcadipani and de Oliveira Medeiros (2020) link utilitarianism to colonial capitalist exploitation.
	It perpetuates structural injustices while shielding beneficiaries from criticism and allowing harms to be dismissed as unintended.	Gal et al. (2022) and Hannon et al. (2024) expose how AI evaluations overlook embedded discrimination.
3. Digital innovation's harms can be mitigated through technological, corporate or regulatory intervention.	Efforts to mitigate the harms of digital innovation often focus on symptoms rather than underlying root causes.	Alcadipani and de Oliveira Medeiros (2020) and de Freitas Netto et al. (2020) expose the performativity of "greenwashing" and CSR.
	This approach risks perpetuating systemic issues.	Kim and Dennis (2019) and Riemer and Peter (2021) discuss challenges in content moderation to combat disinformation.
	It also raises doubts about whether conventional interventions are sufficient to address them.	Mueller (2022), Trier et al. (2023), Mihale-Wilson et al. (2022), and Lobschat et al. (2021) propose corporate digital responsibility to address these issues.

and Mill (1859), this approach was introduced to IS through Churchman (1968, 16, emphasis added to highlight consequentialist justification), who argued for judging systems by impacts:

> **How is it possible to judge systems without looking at the consequences** of our system changes to the generations to come? Of all the principles of ethics that men have been able to devise, **none is so fundamental** as the ethical postulate that we are morally obliged to meet the demands that coming generations would have imposed upon us were they able to speak to us today.

The appeal of this version of consequentialism lies in its simplicity, using calculable utility to evaluate outcomes. However, this approach often overlooks systemic inequities and marginalises diverse perspectives, reducing complex societal issues to oversimplified cost–benefit trade-offs. March (2011) exposes this utility-focused calculus as a near-theological doctrine in business disciplines, underpinning capitalist ideologies and perpetuating romantic notions of 'progress' while sidelining broader ethical considerations.

Economic thinkers have presented different versions of consequentialist reasoning. Adam Smith (1776) emphasised competition, specialisation and free markets as drivers of efficiency and growth, while John Stuart Mill (1863) advocated for utility maximisation and individual liberty as key to societal welfare. In contrast, Karl Marx (1875) critiqued capitalism's inequities, envisioning a communist society where resources are distributed 'from each according to their ability, to each according to their needs'. Smith, Mill and Marx all rooted their principles in consequentialist reasoning, though with differing visions of societal welfare. Smith's market efficiency and Mill's focus on liberty align with utilitarian ideals of maximising collective benefits, while Marx's emphasis on redistribution and equity reflects a consequentialist concern for marginalised groups. Together, these perspectives illustrate how consequentialism underpins economic ideologies and shapes assumptions about progress and fairness in digital innovation.

Consequentialist reasoning can rationalise harm by justifying burdens on minorities for the perceived benefit of the majority (Johnson et al. 2023). For example, AI systems are typically assessed for economic efficiency and productivity gains, disregarding harms like algorithmic discrimination or loss of autonomy (Gal et al. 2022; Hannon et al. 2024). In extreme cases, such reasoning can justify atrocities under the guise of maximising societal benefit (Johnson et al. 2023). Framing harms as 'unintended consequences' (Chatterjee and Sarker 2024; Lobschat et al. 2021; Yoo et al. 2024) allows powerholders to

rationalise inequities, avoid accountability and ignore systemic root causes. This perpetuates ethical blind spots and structural injustices, as beneficiaries defend inequitable systems while sidelining the harmed. How can we assume such recurring and foreseeable consequences are 'unintended' per default when negligence, recklessness or malice are real possibilities?

Decolonial critiques further expose the entrenchment of this simplified version of consequentialism in Western capitalism, presenting global challenges like the digital divide that exacerbate socioeconomic disparities disadvantaging the Global South (Alcadipani and de Oliveira Medeiros 2020; Alvesson and Willmott 1992; Mendonça and Asenbaum 2025). By rationalising them as byproducts of progress, the approach reinforces global inequities, enabling multinational corporations to perpetuate exploitative practices under the guise of innovation (Alcadipani and de Oliveira Medeiros 2020; Turley 2022). Restorative justice offers a more equitable alternative by addressing socio-economic disparities, fostering participatory policymaking, and rebuilding relationships (Wenzel et al. 2008). Rawls's (1971) theory of justice as fairness advocates for minimising inequities while preserving individual liberties. His 'veil of ignorance' thought experiment emphasises impartiality, arguing that decisions made without knowledge of one's social position would align with universal social justice (Dutton et al. 2006; Hoffmann 2017).

A compassionate response further challenges ethical universalism and power asymmetries by emphasising pluralistic ethics and holistic stakeholder inclusion. By prioritising decolonial and justice-centred perspectives, IS scholars can move beyond reductive, utility-focused frameworks. This approach aligns with broader efforts to confront historical inequities and foster more equitable and inclusive digital futures.

2.3 | Can Digital Innovation's Harms be Mitigated Through Technological, Corporate, or Regulatory Interventions?

Mainstream IS scholarship typically assumes that technological, corporate or regulatory interventions can adequately mitigate the harms of digital innovation. However, this view oversimplifies complex, systemic issues, focusing on symptoms rather than root causes.

Technological initiatives like 'Green IT' aim to enhance energy efficiency but often backfire due to rebound effects, where efficiency gains are offset by increased resource consumption (Hilty and Aebischer 2015). Emerging technologies like blockchain and generative AI exacerbate these issues through their high demands for energy and resources (Crawford 2024; De Vries and Stoll 2021). Moreover, digital accessibility efforts frequently overlook the exclusion of marginalised communities, mistaking access for meaningful participation (Agarwal et al. 2009; Avgerou and Li 2013; Srivastava and Shainesh 2015).

Corporate digital responsibility, modelled on corporate social responsibility (CSR), has gained prominence as a mitigation strategy (Lobschat et al. 2021; Mihale-Wilson et al. 2022; Mueller 2022; Trier et al. 2023). However, profit motives often reduce these efforts to performative 'greenwashing' rather than addressing systemic issues like environmental degradation, labour exploitation or algorithmic bias (Alcadipani and de Oliveira Medeiros 2020; de Freitas Netto et al. 2020). For example, social media platforms profit from misinformation while imposing societal costs, with little accountability (Kim and Dennis 2019; Kitchens et al. 2020; Riemer and Peter 2021). Meta's recent reduction of corporate fact-checking on Facebook and Instagram highlights the dangers of unilateral corporate control over digital public spaces, underscoring the need for democratic governance alternatives to corporate self-regulation.

Regulatory efforts face ideological resistance, corporate lobbying and protracted timelines, particularly in the United States, where techno-libertarian ideologies rooted in free-market deregulation dominate (Correia 2014; Ennser-Jedenastik 2016). These shortcomings highlight the need for systemic transformations that prioritise inclusivity, accountability and structural change. Although the European Union offers stronger consumer protections, multinational corporations resist such measures, viewing them as obstacles to profitability. Global frameworks remain fragmented due to political stalemates, cultural differences and legal ambiguities, limiting their effectiveness against rapidly evolving digital harms (Lanamäki et al. 2025).

A compassionate response calls for systemic transformations that prioritise inclusivity and accountability. IS scholars must amplify the voices of vulnerable stakeholders, address root causes of harm rather than symptoms and advocate for governance models that prioritise long-term societal well-being over short-term profit. By moving beyond superficial fixes, the IS discipline can play a pivotal role in mitigating the structural harms of digital innovation.

3 | A Compassionate Research Agenda on Digital Innovation

The paper now turns from critique to construction. Building on our earlier problematisation of dominant narratives—namely, the presumed benefits of digital innovation, the sufficiency of calculable utility and the adequacy of conventional interventions—this section broadens the analytical lens. It examines the social, economic and environmental effects of digital innovation, drawing attention to systemic inequities and harmful externalities. These three dimensions, commonly referred to as the 'triple bottom line' (people, profit, planet), are well-established in sustainability, ethics and CSR literatures (Alcadipani and de Oliveira Medeiros 2020; Dao et al. 2011; Sunyaev et al. 2025; Zimmer and Järveläinen 2022), providing a recognisable framework to evaluate digital innovation's multifaceted effects. While other dimensions such as political, legal, and behavioural concerns are also important, they typically manifest within or across the three focal categories: for example, political exclusion may deepen social marginalisation, regulatory capture may distort economic equity and legislative loopholes may amplify environmental harm.

The triad thus offers a parsimonious but powerful scaffold to map recurring ethical dilemmas and articulate a compassionate

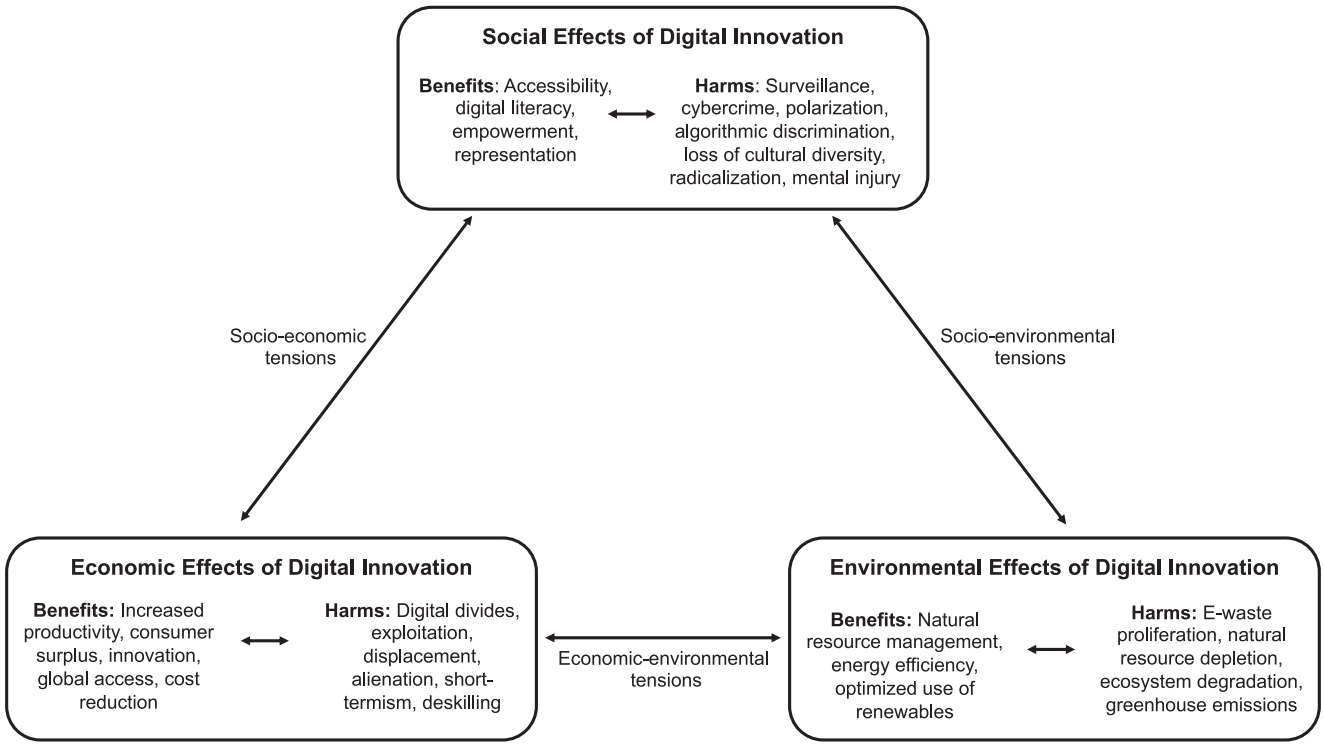

FIGURE 1 | Digital innovation: social, economic, and environmental effects.

research agenda. Importantly, it enables the integration of compassion, the common good and multi-stakeholder perspectives, surfacing tensions often obscured by purely economic framings. Mapping harms and benefits across and between these domains establishes the foundation for the pluralistic ethical framework developed in Section 4. The research agenda below is thus not merely descriptive, but normative and transformative, catalysing systemic change through compassionate inquiry. Figure 1 illustrates the interdependencies among the three focal dimensions, while Table 2 organises key research questions across domains. Together, they provide a roadmap for navigating digital innovation's effects and developing actionable, justice-oriented strategies.

3.1 | Social Effects of Digital Innovation

Digital innovation profoundly influences society, offering opportunities for inclusion while exacerbating inequities. IS scholarship has explored these dual effects, but significant gaps remain, necessitating further research to enhance social benefits and mitigate harms.

3.1.1 | Social Benefits of Digital Innovation

Considerations of *accessibility*—the ability for digital services to be usable by everyone, regardless of demographic—positions digital innovations as tools for social inclusion. For example, apps like *Be My Eyes* leverage crowdsourcing and image recognition to assist visually impaired users with daily tasks (Avila et al. 2016). Digital technology also enables refugee inclusion (Andrade and Doolin 2016). However, accessibility alone does not tackle deeper structural inequities like systemic racism, cultural imperialism or economic exploitation, which require redistributive efforts beyond surface-level empowerment (Selander and Jarvenpaa 2016). These inequities are often reinforced by power imbalances in platform design, access governance and content moderation, where dominant actors set the terms of participation.

Digital literacy—the capacity to use digital technology in a meaningful way—enables personalised learning and skill development, fostering participation in the globalised digital economy. Strengthening critical thinking skills can increase users' resilience against manipulation (Lewandowsky and van der Linden 2021). Digital tools, such as wikis and online platforms, enhance access to education and enable students in underserved areas to overcome infrastructural and geopolitical challenges (Greenstein and Zhu 2018). Remote work further supports work-life balance, creating positive social impacts (Wang et al. 2020). Yet, the effectiveness of these tools is shaped by governance frameworks that often fail to account for local needs and infrastructural constraints in underserved regions. Future research should explore how digital innovation can enhance educational access and outcomes for disadvantaged populations by asking:

RQ1. *How can digital tools be designed to enhance educational outcomes and opportunities for historically marginalised communities?*

Empowerment—granting historically marginalised groups the means to achieve previously unattainable goals—finds a catalyst in digital innovation. Social media amplify marginalised voices, fostering advocacy and collective action (Davison et al. 2023). Social media can unite communities around shared values to support collective action and social movements (Selander and Jarvenpaa 2016). For instance, civil rights groups have leveraged social media to coordinate global campaigns for democracy

TABLE 2 | Research questions for examining digital innovation effects.

Dimension	Research questions for examining digital innovation effects
Social effects	RQ1. *How can digital tools be designed to enhance educational outcomes and opportunities for historically marginalised communities?*
	RQ2. *How can digital innovation enable sustainable empowerment and representation for marginalised groups across different contexts?*
	RQ3. *What mechanisms can prevent privacy violations while preventing crime and ensuring equitable treatment for those excluded from digital services?*
	RQ4. *How can digital platforms balance algorithmic personalisation with exposure to diverse perspectives to counter polarisation and bias?*
Economic effects	RQ5. *How can digital innovation create new business models and services while ensuring equitable distribution of economic benefits across diverse populations?*
	RQ6. *What strategies can mitigate digital innovation's economic harms, such as worker exploitation, job displacement, and financial instability, while fostering inclusive and sustainable economic growth?*
Environmental effects	RQ7. *How can digital innovation be systematically integrated into large-scale sustainability efforts, optimising energy efficiency, renewable energy use, and natural resource management?*
	RQ8. *What systemic strategies and policies can mitigate digital innovation's environmental harms, such as e-waste, emissions, and ecosystem degradation, while promoting sustainable technology lifecycle management?*
Socio-economic tensions	RQ9. *How can digital innovation be leveraged to create equitable, stable job opportunities, particularly in sectors disrupted by automation and the gig economy?*
	RQ10. *How can ethical design practices balance corporate profitability with user rights and social justice?*
Socio-environmental tensions	RQ11. *How can digital innovation promote intergenerational equity by enhancing product durability and cultural heritage preservation?*
	RQ12. *What sustainable practices can mitigate the environmental harms of digital innovation while promoting social justice?*
Economic-environmental tensions	RQ13. *How can circular economy models incentivise sustainable practices in digital innovation while supporting economic growth?*
	RQ14. *What policies and strategies can reduce the environmental footprint of digital innovation without compromising affordability or accessibility?*

(Tarafdar et al. 2019). Further studies could examine how digital tools empower additional groups.

Representation—encoding and presenting diverse identities and ideas through digital platforms—benefits from digital innovation by bypassing traditional gatekeepers. Social media platforms allow underrepresented creators to reach global audiences (Wang et al. 2021), while virtual spaces facilitate immersive artistic experiences (Dincelli and Yayla 2022). Crowdfunding platforms also enable creators to secure direct community funding, challenging conventional funding models (Gafni et al. 2019). However, these advances are often case-specific, and broader structural inequities persist. A key research question is:

RQ2. *How can digital innovation enable sustainable empowerment and representation for marginalised groups across different contexts?*

Overall, digital innovation enables social inclusion by fostering accessibility, digital literacy, empowerment and representation. It assists marginalised groups, provides tools for advocacy, enhances educational access and supports creative expression. Yet, much of the existing research remains preliminary, qualitative and case-specific. Further studies are needed to explore how digital innovation can systematically address structural inequities and promote enduring social inclusion. Research must also consider how power imbalances in IS governance shape the conditions under which such empowerment becomes possible or constrained.

3.1.2 | Social Harms of Digital Innovation

Digital innovation has introduced significant social harms that challenge individual autonomy, trust, and societal cohesion. *Surveillance and privacy violations* have emerged as major concerns (Zuboff 2015). The pervasive collection of personal data, often justified by improved service delivery, undermines privacy and autonomy (Hillebrand et al. 2023). Data breaches and invasive corporate practices can lead to social exclusion or financial disadvantages for those unwilling or unable to use certain services—an outcome often shaped by governance failures and corporate dominance in platform ecosystems. Future research should examine privacy invasions, data misuse and mitigation strategies. The broad spectrum of *cybercrime* encompasses hacking, identity theft, phishing and other illegal activities (Demetis and Kietzmann 2021). *Cyberbullying* includes harassment, cyberstalking, and doxing, which harm individual well-being (Petter and Giddens 2023). *Cyber warfare* targets national infrastructure and classified systems, threatening security (Baskerville 2010; Maasberg et al. 2020). IS research must develop policies and tools to combat these threats. Future studies could ask:

RQ3. *What mechanisms can prevent privacy violations while preventing crime and ensuring equitable treatment for those excluded from digital services?*

Content curation algorithms can create *filter bubbles, echo chambers and information cocoons* that limit exposure to diverse viewpoints and promote polarisation (Kitchens et al. 2020). This exposes users to harmful content and leaves them vulnerable to authoritarian societal shifts (Liu et al. 2025). The power to curate and disseminate content is concentrated in a few dominant digital platforms, which algorithmically distribute large amounts of information to interested users (Riemer and Peter 2021), raising concerns about unchecked algorithmic governance and limited public accountability that reinforce the power of dominant actors to shape discourse. Algorithmic bias in AI systems reinforces stereotypes and discrimination (Gal et al. 2022), as seen in biased facial recognition technologies (Raposo 2023). Research is needed on how to promote diverse training datasets and algorithms that expose users to varied perspectives.

Social media has amplified extremism, conspiracy theories, anti-democratic or authoritarian attitudes, and polarisation by enabling the segregation of different-minded online communities and amplifying divisive content (Mikhaeil and Baskerville 2024). *Disinformation*—intentionally false or misleading information intended to deceive others—threatens social cohesion and democracy (Kitchens et al. 2020). The impact of social media on mental health and well-being is complex, with both positive and negative effects (Braghieri et al. 2022; Krasnova et al. 2015). Future research needs to explore more effective mitigation approaches to address these negative effects. Digital innovation enables large-scale participation across organisational, cultural, and national boundaries. Yet, globally operating platforms often impose cultural norms without recognising local diversity, contributing to tribalism, polarisation and online radicalisation (Alfano et al. 2018). These dynamics reflect systemic governance failures and power imbalances, where global platforms impose norms and policies that may be misaligned with local cultures or democratic values. IS research should foster cultural sensitivity and inclusivity to mitigate these harms by asking:

RQ4. *How can digital platforms balance algorithmic personalisation with exposure to diverse perspectives to counter polarisation and bias?*

Overall, digital innovation's social harms—including surveillance, cybercrime, algorithmic bias and cultural insensitivity—require deeper exploration in IS literature. Addressing their root causes and developing robust mitigation strategies is critical to safeguarding societal cohesion.

3.2 | Economic Effects of Digital Innovation

Digital innovation is transforming the global economy, offering opportunities for growth, innovation and inclusion while posing risks such as inequality, job displacement and financial instability. IS scholars are well-positioned to examine these dual effects to guide equitable and sustainable economic outcomes. While progress has been made, significant knowledge gaps persist, particularly regarding how to mitigate harms and ensure the fair distribution of benefits.

3.2.1 | Economic Benefits of Digital Innovation

Digital innovation has long been associated with increased productivity, business profitability and consumer surplus. Hitt and Brynjolfsson (1996) argue that digital technologies enhance firm performance and create consumer value through greater choice and reduced search costs. Similarly, Brynjolfsson et al. (2003) highlight the significant consumer surplus generated by expanded product variety in online marketplaces. Additionally, digital innovation boosts productivity by automating repetitive tasks, improving operational efficiency (Van der Aalst et al. 2018) and optimising costs through tools like algorithmic inventory management and dynamic pricing (French et al. 2021). However, these gains often accrue disproportionately to firms with the power to shape market rules and control data infrastructures.

Digital innovation fosters economic opportunities by creating jobs in the IT sector, empowering small businesses with affordable marketing tools (Chung et al. 2020) and expanding financial services for underserved populations (Beck et al. 2018). For instance, peer-to-peer lending provide financially excluded groups access to credit (Glaser and Risius 2018), warranting further exploration of the effects on taxation, regulation, and public spending. Such opportunities are often unequally distributed, shaped by institutional governance and platform rules that favour dominant actors.

New services, industries and business models also emerge through digital innovation, offering custom experiences via AI chatbots, virtual assistants and sentiment analysis (Barrett et al. 2015; Müller et al. 2018; Somers 2019). Digital platforms enable innovative models such as the sharing economy, subscription services and two-sided marketplaces (De Reuver

et al. 2018), while e-commerce and freelance platforms connect entrepreneurs to global markets (Wagner et al. 2021). Still, platform governance often lacks transparency and accountability, raising questions about the terms of access and value capture for smaller participants.

Overall, digital innovation has driven economic growth by enhancing productivity, profitability and consumer experiences. However, research often overlooks its long-term societal and environmental implications, highlighting the need to ensure equitable benefit distribution. Thus, a key question for future research is

RQ5. *How can digital innovation create new business models and services while ensuring equitable distribution of economic benefits across diverse populations?*

3.2.2 | Economic Harms of Digital Innovation

Despite its benefits, digital innovation presents significant economic challenges, including the *digital divide*—disparities in access to and effective use of digital technologies among individuals, groups or communities (Agarwal et al. 2009). This divide exacerbates income inequality and market concentration, as the digital economy disproportionately benefits skilled workers and dominant platforms exploiting network effects. Digital giants leverage competitive advantages to hinder new entrants from competing and gaining market share (Kazan et al. 2018). These effects reflect underlying power imbalances in platform governance, where dominant firms set standards, shape user behaviour, and control value distribution with little oversight. IS scholarship must explore strategies to bridge this divide and promote inclusive growth, particularly, in developing economies where research on digital innovation remains limited. Governance failures, particularly in cross-border regulatory frameworks, further exacerbate the economic marginalisation of the Global South (Alcadipani and de Oliveira Medeiros 2020).

The rise of automation, outsourcing and crowdsourcing technologies has also contributed to exploitation and poor working conditions, especially in low-income economies (Chipidza and Leidner 2019). This exploitation often results from weak labour protections and governance gaps in digital platform ecosystems. Job displacement, work fragmentation, widening skill gaps and constant connectivity contribute to worker alienation (Möhlmann et al. 2021). Major digital platforms economically rely on users' unpaid labour and data, exploiting vulnerable populations (Mindel et al. 2018). Advancements in AI, robotics and automation have displaced workers in manufacturing, retail and transportation, raising concerns about distributional justice and the future of work (Brynjolfsson and McAfee 2014). These trends highlight a need to rethink governance structures that concentrate power in a few dominant actors while externalising risk.

Unchecked digital innovation can amplify short-termism, financial instability and predatory crime. Algorithmic high-frequency trading increases market volatility (Currie and Seddon 2017), while cryptocurrency speculation exposes financially vulnerable individuals to significant risks (Gan et al. 2021). As blockchain and cryptocurrencies have removed barriers to financial access for millions, they also facilitate criminal abuse (Braaten and Vaughn 2021). Automation further contributes to deskilling, devaluing human labour (Brynjolfsson and McAfee 2014). Much of the literature focuses on developed economies, demanding more research on the unique challenges presented by digital innovation in developing economies. This includes examining how legal loopholes allow digital multinationals to evade local regulatory institutions.

Overall, digital innovation's economic harms, including exacerbated inequality, worker exploitation and financial instability, demand comprehensive solutions. Addressing these challenges requires deeper investigation into their root causes and strategies to foster equitable and sustainable economic outcomes. A key research question therefore becomes:

RQ6. *What strategies can mitigate digital innovation's economic harms, such as worker exploitation, job displacement, and financial instability, while fostering inclusive and sustainable economic growth?*

3.3 | Environmental Effects of Digital Innovation

The environmental effects of digital innovation are a critical yet underexplored area within IS scholarship, encompassing opportunities to address environmental challenges alongside significant risks of exacerbating them. Effective governance of these effects requires nuanced approaches, as illustrated by contrasting perspectives from Garrett Hardin's (1968) 'tragedy of the commons' theory, which advocates for regulatory intervention and Elinor Ostrom's (1990). Work on collective action, emphasising trust, cooperation and shared values. Inspired by these frameworks, IS researchers increasingly investigate how digital platforms can function as information commons governed collaboratively (Mindel et al. 2018). This section examines the environmental benefits and harms of digital innovation and highlights areas for future research.

3.3.1 | Environmental Benefits of Digital Innovation

Compared to its social and economic dimensions, the environmental benefits of digital innovation remain underexplored and require greater conceptual clarity and empirical validation. Early IS research emphasised sustaining the socioeconomic benefits of digital innovation, with limited attention to environmental concerns (Elliot 2011). For example, Braa et al. (2004, 339) perceived sustainability as ensuring the continued functioning of IS 'in practice, over time, in a local setting', focusing on sustaining the socioeconomic benefits of digital innovation without addressing environmental harms. Subsequently, Melville (2010, 14) expanded this view by conceptualising IS as 'an important but poorly understood weapon in the arsenal of organisations in their quest for environmental sustainability'. Nonetheless, IS research remains predominantly focused on economic sustainability (Zimmer and Järveläinen 2022).

Recent studies emphasise the potential of 'Green IT' to enhance energy efficiency and integrate renewable energy (Saldanha et al. 2022). Watson et al. (2022) advocate for IS research in energy informatics, emphasising its role in renewable energy transitions and power grid management. In AI, scholars call for multidimensional, culturally sensitive approaches to address environmental challenges and promote sustainable development (Nishant et al. 2020). Green IT standards further aim to align organisational practices with sustainability imperatives, encouraging automation and the use of underutilised data to support environmental governance (Saldanha et al. 2022; Watson et al. 2022).

However, these initiatives often remain fragmented, lacking comprehensive frameworks to integrate digital innovation into large-scale sustainability strategies. The adoption of sustainability standards often depends on the willingness of powerful industry actors to self-regulate, highlighting gaps in global environmental governance and the need for enforceable oversight mechanisms. This signals an urgent need to explore systemic, actionable approaches that align digital technologies with global sustainability goals. A key research question is

RQ7. *How can digital innovation be systematically integrated into large-scale sustainability efforts, optimising energy efficiency, renewable energy use, and natural resource management?*

3.3.2 | Environmental Harms of Digital Innovation

While significant progress has been made in understanding the environmental benefits of digital innovation, its potential harms remain underexplored, highlighting an urgent need for mitigation strategies. An early visionary, Elliot (2011) warned of environmental damage throughout the technology lifecycle, including toxic chemical release during manufacturing, inefficient energy use during operation and soil contamination from improper disposal. These harms often reflect systemic governance failures, where regulatory frameworks lag behind technological development, particularly, in regions lacking the political leverage or institutional capacity to hold multinational 'Big Tech' firms accountable. Criticising IS studies for anthropocentrism, Elliot (2011, 208) called on IS researchers to 'minimise the negative impacts and maximise the positive impacts of human behaviour on the environment through the design, production, application, operation, and disposal of IT', aligning with the dominant consequentialist narrative in IS and business disciplines (March 2011).

Recent IS research has expanded on these warnings, identifying e-waste as a growing concern. Rapid obsolescence of devices like smartphones, electric vehicle batteries and cryptocurrency hardware contributes to mounting waste (De Vries and Stoll 2021), disproportionately affecting developing countries—where most of the developed world's waste is offloaded due to global power imbalances and weak environmental protections, perpetuating extractive dynamics reminiscent of digital colonialism—with inadequate recycling infrastructure, posing severe health risks to workers, including children, exposed to hazardous conditions (Kunz et al. 2018). Emissions from energy-intensive data centres and cryptocurrency mining farms also raise concerns, prompting debates over their carbon footprint and the need for more accurate measurement tools (Krause and Tolaymat 2018). Additionally, 'greenwashing' in cloud computing obscures its environmental impact, with global energy consumption by data centres reaching 2% of total production (Kumar et al. 2022). Greenwashing serves as a strategic tool for dominant firms to deflect accountability while continuing high-consumption practices, revealing the limits of voluntary compliance (Alcadipani and de Oliveira Medeiros 2020). These developments give reason to be pessimistic about the soaring environmental footprint of generative AI, where the research is embryonic and under-resourced (Crawford 2024).

Overall, digital innovation's environmental harms, including toxic manufacturing processes, e-waste and emissions, remain significant but under-addressed. While some progress has been made, current mitigation strategies lack the scope and specificity needed to address these challenges. Policymakers, industry leaders and researchers must collaborate to develop and enforce reforms that minimise digital innovation's environmental footprint while ensuring sustainable lifecycle management. Future research should also interrogate how power asymmetries shape global technology governance, particularly, the accountability of dominant actors in shaping environmental outcomes. A pressing research question is thus:

RQ8. *What systemic strategies and policies can mitigate digital innovation's environmental harms, such as e-waste, emissions, and ecosystem degradation, while promoting sustainable technology lifecycle management?*

3.4 | Tensions Between Social, Economic and Environmental Effects

This section examines the complex and interrelated tensions between the social, economic and environmental effects of digital innovation. These tensions reflect the inherent trade-offs and conflicts that arise when attempting to balance growth, inclusivity and sustainability. Drawing on a dialectical perspective, we argue that these tensions trigger recurring cycles of conflict and response, presenting both challenges and opportunities for transformation (Smith and Lewis 2011).

Socio-economic tensions arise when the pursuit of economic growth and profitability through digital innovation comes at the expense of social justice, diversity or inclusion. For example, digital platforms may lead to job displacement or create gig economy positions with precarious working conditions (Möhlmann et al. 2021). Tensions may also arise when digital innovations violate individual rights and privacy or exacerbate social divides (Gal et al. 2022). Companies may monetise personal data without consent or use manipulative design practices to maximise user engagement (Zuboff 2015). However, these tensions also create opportunities to foster equitable growth through initiatives like social entrepreneurship and impact investing, which leverage digital innovation to address societal challenges. Important research questions are:

RQ9. *How can digital innovation be leveraged to create equitable, stable job opportunities, particularly in sectors disrupted by automation and the gig economy?*

RQ10. *How can ethical design practices balance corporate profitability with user rights and social justice?*

Socio-environmental tensions arise when digital innovation contributes to environmental degradation through greenhouse gas emissions and resource depletion, disproportionately affecting marginalised and vulnerable populations. In addition, these tensions surface when the environmental footprint of digital innovation creates barriers to intergenerational equity, a moral obligation of the current generation not to compromise the well-being of future generations (Elliot 2011). The limited durability and backward compatibility of digital products and services can create barriers to the preservation of cultural heritage encoded in digitised information goods. In addition, the entrenchment of digital divides and the rise of inequities due to algorithmic discrimination underscore the need for an overhaul of algorithmic decision-making systems. Such changes may be resisted by those who benefit from current designs. Mitigating these tensions requires sustainable digital innovation and responsible practices, with a focus on intergenerational equity and social justice. Key research questions are

RQ11. *How can digital innovation promote intergenerational equity by enhancing product durability and cultural heritage preservation?*

RQ12. *What sustainable practices can mitigate the environmental harms of digital innovation while promoting social justice?*

Finally, *economic-environmental tensions* arise when the drive for economic growth through digital innovation leads to increased resource consumption, pollution and environmental degradation. For example, the lack of repairability and planned obsolescence of mobile phones increases corporate profits while depleting natural resources and accumulating e-waste, leading to hazardous working conditions for informal recyclers, who are typically located in low-income communities (Kunz et al. 2018). This highlights the need for safe recycling programmes, a circular economy, and longevity in digital design, which may conflict with consumer demand for affordable and rapidly evolving digital technologies. Energy-intensive data centres can contribute to climate change by increasing greenhouse gas emissions, creating a need for more affordable renewable energy use. These strategies show how aligning economic and environmental goals can reduce tensions and foster synergies that serve the common good. Key research questions are

RQ13. *How can circular economy models incentivise sustainable practices in digital innovation while supporting economic growth?*

RQ14. *What policies and strategies can reduce the environmental footprint of digital innovation without compromising affordability or accessibility?*

4 | Compassion as Unifying Foundation for Ethical Pluralism

In this section, we position compassion as the unifying foundation for ethical pluralism, addressing the limitations of the widely held assumptions that digital innovations generate net benefits that outweigh the associated harm; that their outcomes can be ethically evaluated based on calculable utility; and that their harms can be mitigated through technological, corporate or regulatory intervention. By connecting compassion to the 'big three' ethical theories—consequentialism, deontology and virtue ethics—we demonstrate its versatility and potential as a comprehensive ethical lens for IS scholarship on digital innovation. Table 3 provides an overview, elaborated in ensuing sections.

First, we explore how compassion moves beyond simplistic applications of consequentialist principles. While consequentialism's focus on utility maximisation offers clear guidance on weighing benefits and harms (Mill 1863), it often reduces complex societal issues to oversimplified cost–benefit analyses, neglecting systemic inequities and marginalised perspectives (Hannon et al. 2024; March 2011). Compassion challenges this reductionism by emphasising outcomes that account for the vulnerability of all stakeholders, encouraging ethical reasoning beyond simple numerical calculations (Hansen and Trank 2016).

TABLE 3 | Connecting compassion to the 'big three' ethical theories.

Ethical perspective	Relation to compassion	Key sources
Consequentialist ethics: Evaluates actions based on their outcomes, aiming to maximise happiness or minimise suffering.	Compassion can be judged by its outcomes, integrating both rational and emotional dimensions to alleviate suffering. Positive organisational scholarship emphasises emotional engagement, while psychology advocates rational compassion.	Dutton et al. (2006); Bloom (2017); Singer (2015)
Deontological ethics: Focuses on adherence to moral duties, regardless of outcomes.	Schopenhauer's compassionate imperative posits compassion as the true basis of morality, emphasising altruism and the situational aspects of moral actions over universal principles.	Kant (1785); Schopenhauer (1840, 1859)
Virtue ethics: Focuses on the character of the decision-maker, emphasising qualities like justice, courage and generosity.	Compassion can be seen as essential for moral character. It involves an altruistic commitment to alleviating nontrivial, unjustified, and universal suffering. It is central to many philosophical, religious, and scientific beliefs, regarded as *the* overarching moral virtue.	Aristotle (335 BC); Rynes et al. (2012); Gal et al. (2020)

Second, we connect compassion to deontology, which emphasises adherence to universal moral duties such as justice and respect for human dignity (Kant 1785; Schopenhauer 1840). Deontology provides a critical lens for evaluating practices that may violate ethical principles even when outcomes appear favourable (Chatterjee et al. 2009). Compassion complements deontology by linking moral duties with empathy and care for affected stakeholders, fostering a more human-centred approach to the design and governance of digital innovation.

Finally, we argue for the primacy of virtue ethics as the most practical and actionable foundation for integrating compassion into digital innovation research and practice. Rooted in Aristotelian ethics (Aristotle 335 BC), virtue ethics focuses on cultivating moral character traits such as generosity, courage and justice (Alexander 2019; Gal et al. 2020). Unlike deontology's rigidity or consequentialism's reliance on uncertain and uncontrollable outcomes, virtue ethics emphasises the moral development of individuals and organisations, making compassion a central virtue for all stakeholders of digital innovation, including IS scholars. This approach highlights the role of character in fostering systemic change and aligning digital innovation with the broader goals of equity, inclusion and sustainability.

We complement these arguments with a brief discussion of decolonial perspectives on compassion, pointing to fertile areas for further research. Recent advances in IS scholarship have embraced ethical pluralism by combining these three ethical theories to provide a more comprehensive evaluation of digital innovation (Gal et al. 2022; Hannon et al. 2024). While each framework has its limitations—be it the reductionism of consequentialism, the rigidity of deontology or the context-dependence of virtue ethics—their combination can address systemic inequities and structural injustices inherent in digital innovation more holistically. Compassion serves as the thread connecting these frameworks, guiding IS research towards solutions that respect human dignity, balance competing interests and promote collective well-being.

4.1 | Consequentialism: Judging Compassion by Its Outcomes

Consequentialism judges actions based on their outcomes, aiming to maximise overall happiness or minimise suffering for the greatest number (Rachels and Rachels 2015). This ethical framework has deeply influenced IS scholarship (Churchman 1968; Hannon et al. 2024; March 2011).

Compassion aligns with consequentialist ethics by prioritising outcomes that alleviate suffering and promote well-being. Philosophical debates on compassion's role in ethics are long-standing. Sceptics like Plato, Descartes, Nietzsche and Kant dismissed compassion as sentimental and irrational, potentially undermining justice. The Stoics viewed it as a weakness that amplified suffering. In contrast, Rousseau and Schopenhauer championed compassion's moral significance, with Rousseau positioning it as complementary to justice and reason and Schopenhauer regarding it as the foundation of morality. Even Adam Smith, often associated with self-interest, recognised compassion's societal value (Rynes et al. 2012).

Modern scholarship reflects this tension between emotional and rational compassion. Positive organisational scholarship highlights the emotional dimension, emphasising prosocial practices over profit-driven motives (Tsui 2013). Dutton et al. (2006, 61) describe compassionate organising as a 'collective response to human suffering' involving cognition, affect and behaviour, distinguishing it from empathy or sympathy by its actionable nature (Dodson and Heng 2022, 183). Hansen and Trank (2016, 355) advocate for compassionate organisational research methods, emphasising emotional immersion in suffering and rejecting dispassionate norms in organisational life and research.

Psychology, by contrast, underscores rational compassion. Bloom (2017) distinguishes it from empathy, which he argues can foster bias, sentimentality, and divisive preferences for familiar individuals. Rational compassion prioritises universal well-being through objective reasoning. Studies reveal that empathy-induced altruism can exacerbate inequities and undermine social justice (Batson et al. 1995; Piff et al. 2015). Rational compassion, exemplified by Singer's (2015) effective altruism, advocates evidence-based, impartial efforts to maximise societal benefit. This approach also aligns with managerial applications of compassion, such as supporting business continuity amid trauma and loss (Peticca-Harris 2019).

Both perspectives resonate with consequentialist ethics, emphasising compassionate outcomes. Rational compassion is grounded in fairness and justice, using cognitive processes to assess and implement effective, equitable solutions (Rachels and Rachels 2015). It targets broad, distant audiences, while emotional compassion is immediate and relational. This distinction underscores complementary mechanisms: rational compassion leverages reason for systemic care, whereas emotional compassion fosters direct, empathetic connections.

In keeping with its largely consequentialist roots, the IS discipline has recently engaged with compassion for its potential to address societal challenges. Majchrzak and Shepherd (2021) explore how crowdsourced technologies alleviate suffering, such as during Hurricane Katrina. Building on positive organisational scholarship, IS researchers call for IT solutions that create compassionate workplaces, balancing financial goals with employee well-being (Chatterjee et al. 2021; Raman and McClelland 2019).

Despite its utility, consequentialism has critical limitations in addressing digital innovation's ethical challenges. Its emphasis on outcomes presents challenges for managing emergent harms in interconnected systems like social media or blockchains, where individual actions create unpredictable ripple effects, such as misinformation undermining democracy (Riemer and Peter 2021). Additionally, its outcome-oriented nature can obscure systemic inequities, as aggregated benefits may justify harms to marginalised groups, perpetuating biases (Gal et al. 2022). Finally, its reliance on retrospective evaluation hampers preventive harm mitigation (Ciriello et al. 2025), leaving it inadequate for the fast-evolving digital landscape.

These shortcomings—reductionism, neglect of systemic inequities, and retrospective focus—underscore the need for a more comprehensive ethical approach in IS. Compassion bridges these gaps by integrating rationality and emotionality,

addressing immediate and systemic concerns. Schopenhauer's compassionate imperative, paired with a dialectical view, offers a foundation for navigating digital innovation's ethical complexities. Embedding compassion into consequentialist ethics fosters a holistic framework that prioritises alleviating suffering, addressing inequities, and considering societal impacts, aligning with calls for ethical pluralism (Gal et al. 2022; Sarker et al. 2019; Walsham 2012).

4.2 | Deontology: Positioning Compassion as the Highest Moral Duty

Deontology emphasises adherence to moral duties and principles, regardless of the outcomes of actions (Rachels and Rachels 2015). Schopenhauer's (1840) ethic of compassion critiques Kant's categorical imperative, which asserts a universal moral commandment: 'Act only according to that maxim whereby you can at the same time will that it should become a universal law' (Kant 1785, 30). Schopenhauer argues that assuming a universally valid categorical imperative implies selfish egoism, mistaking one's subjective view of morality as a universal law. Thus, he sees Kant's imperative as a hypothetical one, lacking moral worth. Instead, Schopenhauer posits compassion as the true basis of morality, defining it as 'altruistic, immediate participation, independent of all ulterior considerations, primarily in the suffering of another, and thus in the prevention or elimination of it' (Schopenhauer 1859, §16). He argues that compassion, not reason, is the only genuinely moral motive because it dissolves the boundary between self and others, overcoming egoism through shared suffering.

This leads to his compassionate imperative: 'Neminem laede; imo omnes, quantum potes, juva' (Hurt nobody; instead, help everybody, as much as you can) (Schopenhauer 1859, §21). This imperative comprises two foundational principles. The first principle, 'hurt nobody', demands the protection of individual dignity and autonomy, prohibiting the treatment of any person as a mere means to an end. The second principle, 'help everybody as much as you can', calls for proactive alleviation of suffering, especially for those most vulnerable. Together, these principles provide a robust deontological foundation that transcends consequentialist utility-maximisation by prioritising dignity, responsibility, and relational care. While Schopenhauer echoes Kant's insistence on treating others as ends in themselves, his emphasis on moral particularism and subjectivity guards against abstract formalism and moral relativism. When applied to digital innovation, the compassionate imperative implies that (1) digital innovation must serve the needs of *all* stakeholders, (2) the needs of vulnerable stakeholders must be prioritised in proportion to their vulnerability and (3) harming stakeholders can never be justified by any anticipated benefit. This reinforces compassion's role as a principled foundation for ethical digital innovation.

Schopenhauer's compassionate imperative contrasts with the 'golden rule' of treating others as *we* want to be treated, advocating instead for treating them as *they* want to be treated (Ciriello 2025). This humanistic, relational and subjectivist imperative aligns with philosophies like the feminist ethic of care, which emphasise interdependency and attentiveness to vulnerabilities (Rynes et al. 2012; White 1999). Although he underscores the Kantian idea to treat others as *ends in themselves*, rather than as a *means to an end* (Kant 1785; Rachels and Rachels 2015), Schopenhauer stresses the subjective and situational aspects of moral actions over Kantian deontological universalism, advocating for distinguishing caregivers' needs from those they care for to avoid paternalism (Held 2018). This resonates with Tronto's (1993) concept of care as a committed, burden-accepting practice focused on alleviating suffering, which is increasingly finding favour in recent IS scholarship (Paltiel et al. 2023). Studies such as Chatterjee et al. (2009) show how ethical collaboration tools can be designed with deontological duties in mind.

While deontology emphasises adherence to universal moral rules, its rigidity often renders it insufficient in the complex, dynamic realm of digital innovation. Rules-based frameworks struggle to adapt to the nuanced and emergent nature of sociotechnical systems, where rigid rules may stifle creativity or fail to account for moral diversity. For example, Kant's assertion that lying is always immoral illustrates how deontology can overlook the moral complexity of real-world scenarios (Varden 2010).

4.3 | Virtue Ethics: Developing Compassionate Characteristics

Virtue ethics follows several philosophical traditions, most notably the Aristotelian conception of a *virtue* as 'a trait of character, manifested in habitual action, that it is good for anyone to have as they will fare better in life' (Rachels and Rachels 2015, 178). Unlike the rule-based rigidity of deontology or the outcome-centric nature of consequentialism, virtue ethics attributes moral value to the character of the individual (MacIntyre 2013). Embodying an important virtue, *compassion*, from the Latin root *com* + *pati* meaning 'to suffer together', denotes an altruistic commitment to alleviating nontrivial, unjustified, and universal suffering.

In philosophy, Aristotle stressed compassion's emotional and cognitive aspects as integral to justice and reason. Aristotle (335 BC) identified three essential qualities of compassion: it is *nontrivial*, meaning it goes beyond mere pain that can be alleviated by common methods; it is *unjustified*, meaning it is inflicted due to circumstances beyond one's control and it is *universal*, affecting all sentient beings and thus potentially oneself, making it rational to help others.

Modern compassionate scholarship acknowledges the persistence of unnecessary suffering and calls for action to alleviate it (Tsui 2013). Rynes et al. (2012, 506) describe compassion as 'a fundamental quality or potential inherent in all human beings—the highest form of moral wisdom', which is 'generated by the mind, directed outward, [and] manifested in generosity toward others'. This framing aligns compassion with virtue ethics, emphasising its intrinsic value in cultivating moral character (Köllen 2016; Rynes et al. 2012).

In IS scholarship, virtue ethics has become a valuable lens in addressing ethical challenges in digital innovation. Chatterjee et al. (2015) propose that IT fosters ethical organisations by encouraging improvisation and innovation. Gal et al. (2020) adopt

a critical stance, suggesting that organisations can break cycles of harm in algorithmic management by treating people analytics tools as 'fallible companions' and fostering virtue among employees. These insights demonstrate how virtue ethics, rooted in compassion, can guide IS practices towards greater moral and social responsibility.

Virtue ethics' contextual sensitivity is particularly suited to digital innovation, where diverse actors with conflicting values demand moral flexibility. Unlike the rigidity of deontology or the reductionism of consequentialism, virtue ethics emphasises situational judgement, empowering individuals to make ethically sound decisions in dynamic environments. Traditional ethical frameworks typically focus on punitive responsibility tied to specific actions (Ciriello et al. 2025). However, the rapid evolution of digital technologies calls for a shift towards proactive responsibility rooted in individual character. Virtue ethics facilitates this shift by cultivating virtues that encourage moral agency in complex systems (Alexander 2019). Virtue can be exercised, developed and cultivated over time: it is non-static, and by definition, this dynamism is key to the *process* of digital innovation. By positioning virtue ethics as the foundation for compassionate digital innovation, IS scholarship can move beyond punitive and outcome-oriented models, advancing a proactive, inclusive and context-sensitive ethical framework. Cultivating compassion fosters more responsible and equitable digital innovation, aligning with the broader goals of ethical pluralism and societal well-being.

While virtue ethics serves as a robust foundation, it also complements deontology's focus on moral principles and consequentialism's emphasis on outcomes, creating a unifying framework that integrates the strengths of all three approaches. This perspective enables a pluralistic ethical understanding of digital innovation. For IS researchers and practitioners, virtue ethics offers actionable insights, shifting the focus from 'more innovation is better' to 'more compassionate innovation is better'. By adopting this pluralistic approach, IS scholarship can more effectively address the ethical challenges posed by digital innovation.

4.4 | Decolonial Perspectives on Compassion

In the spirit of decolonising IS scholarship (Chughtai and Young 2024), it is diligent to consider ethical traditions beyond the Western mainstream that have long emphasised the power of compassion. This involves challenging dominant narratives that centralise control, exacerbate inequities and marginalise vulnerable voices in digital innovation. Compassion provides a powerful lens for understanding diverse stakeholder perspectives and addressing systemic harms. By prioritising the needs of the most vulnerable and amplifying their voices, a compassion-driven approach actively counters the power asymmetries inherent in current practices. Our focus on the Western-centric 'big three' ethical theories reflects their prominence in mainstream literature, but it is not an assertion of their superiority. While this article cannot exhaustively discuss all relevant ethical traditions, this section provides a few pointers to encourage further research to explore the richness of diverse ethical traditions.

Compassion is foundational across philosophical, religious and scientific traditions, reflecting its cross-cultural significance as *the* overarching moral virtue (Dutton et al. 2006; Rynes et al. 2012). In Confucianism, *rén* represents benevolent love and humaneness as the highest moral ideal. Hinduism emphasises *ahimsa*, the principle of non-harm and treating all creatures as oneself. In Judaism, compassion is linked to mandates for justice, peace and healing the world, reflecting divine attributes. Christianity emphasises acts of mercy, forgiveness and charity as core teachings of Jesus, reflecting compassion. Islamic tradition emphasises tolerance, love and compassion as reflections of Allah's values, inspiring individual behaviour (Rynes et al. 2012). Buddhism underscores compassion as essential for alleviating suffering and achieving moral excellence, emphasising harmony with all beings (Ciriello 2025). Ubuntu philosophy further highlights community, interdependence and virtues like humility, reciprocity and human dignity, advocating for respect and solidarity (Abubakre et al. 2021; Zubler et al. 2025).

Critical management scholars critique mainstream theories for perpetuating a colonial mindset that rationalises systemic harm and corporate exploitation as byproducts of profit-driven capitalism (Alcadipani and de Oliveira Medeiros 2020; Alvesson and Willmott 1992). This allows multinational corporations—primarily from the Global North—to perpetuate exploitative practices reminiscent of colonial hegemonies, exacerbating harm in the Global South (Alcadipani and de Oliveira Medeiros 2020). Restorative justice offers a decolonial alternative by focusing on healing, reconciliation, and inclusive policymaking rather than punishment (Wenzel et al. 2008). This approach aligns with compassion, as both frameworks amplify marginalised voices, address systemic harms and prioritise rebuilding equitable relationships. Applying these principles to digital innovation challenges power asymmetries to create technologies that uphold the dignity and rights of all stakeholders, particularly those most affected by historical systemic inequities.

Overall, integrating insights from diverse ethical traditions allows IS scholarship to adopt a more inclusive, humanistic approach to compassion. Compassion's pluralistic perspective is central to addressing ethical challenges in digital innovation. Since ethical decision-making often reflects cultural norms—such as Western prioritisation of personal privacy versus collectivist emphasis on public safety (Riemer et al. 2020)—designing adaptive, context-sensitive data-sharing mechanisms requires sensitivity to these differences. Grounding digital innovation in decolonial principles and a compassion-driven framework enables IS scholarship to transcend narrow utilitarianism and entrenched inequities. This approach fosters inclusive, equity-focused practices that amplify marginalised voices and promote a more just and sustainable digital future.

5 | Discussion

Having problematised the widely held assumptions in prior literature, we can now outline the revised assumptions underpinning compassion as a pluralist ethical perspective and discuss their implications for conceptualising and researching digital innovation. Section 4 introduced compassion not simply as one ethical stance among many, but as a unifying,

pluralistic foundation. The three dimensions explored in Section 3—social, economic, and environmental—each entail different tensions that align with various ethical concerns, such as autonomy, fairness, equity, care, sustainability and justice. Rather than addressing these through overly rigid ethical silos—or overly lenient moral relativism—a compassion-based framework enables coherent, context-sensitive navigation of these tensions while maintaining principled commitments to dignity, justice and the alleviation of suffering. This section builds on this agenda by revising foundational assumptions for compassionate digital innovation and articulating their implications for conceptualising and researching this important sociotechnical phenomenon.

5.1 | Revised Assumptions for Compassionate Digital Innovation

Our problematisation review (Alvesson and Sandberg 2020) uncovers the ethical tensions within the social, economic, and environmental impacts of digital innovation, highlighting its dual potential for benefit and harm. Framing these effects through the principle of compassion emphasises balancing rationality and emotionality to alleviate suffering. By engaging broadly with diverse stakeholders, IS researchers can amplify digital innovation's benefits while mitigating its harms, ultimately serving the common good by addressing the intertwined social, economic and environmental dimensions. This holistic critique of digital innovation reveals pervasive systemic inequities and tensions that demand a reorientation of IS scholarship. Table 4 revisits the dominant assumptions about digital innovation and revises them, compassionately.

Dominant assumptions about digital innovation often obscure its structural inequities and externalities. The belief that benefits and burdens are fairly distributed overlooks evidence of concentrated value among dominant actors and disproportionately borne harms by marginalised communities. Examples include algorithmic bias disproportionately harming women and minorities (Marjanovic et al. 2021, 2022), environmental degradation operations in developed economies impacting developing nations and exploitative labour conditions in the gig economy (Zuboff 2015; Kunz et al. 2018; Yoo et al. 2024). Compassion challenges these assumptions, emphasising equitable benefit distribution and the need to prioritise vulnerable stakeholders.

Over-reliance on consequentialism to evaluate the morality of digital innovation reduces complex societal challenges to cost–benefit trade-offs, often marginalising vulnerable perspectives (March 2011; Gal et al. 2022). Compassion counters this reductionism by adopting an ethically pluralistic approach that incorporates intentions, systemic contexts and relationships for a holistic evaluation of digital innovation. While consequentialism, deontology and virtue ethics each offer valuable insights, their true analytical strength lies in their integration (Gal et al. 2022). Compassion serves as the overarching moral virtue that harmonises virtues, outcomes and norms, leveraging the strengths of these ethical frameworks.

Additionally, technological, corporate and regulatory interventions are often presented as adequate solutions to mitigate harms. However, these approaches frequently address symptoms rather than systemic root causes. Technological fixes like 'Green IT' face rebound effects, corporate digital responsibility initiatives risk performative greenwashing and regulatory efforts are hampered by lobbying and ideological resistance (Crawford 2024; Mihale-Wilson et al. 2022). Compassion highlights the insufficiency of these measures, calling for systemic transformations that integrate inclusivity, accountability and transparency.

This pluralistic perspective emphasises the interplay between rationality and emotionality, aligning mind and heart to drive compassionate responses (Dutton et al. 2006). When balanced, this dynamic fosters virtuous cycles that alleviate suffering and promote well-being (Smith and Lewis 2011). Conversely, imbalances—such as overemphasising or neglecting one dimension—can lead to harmful outcomes. By reframing rationality and emotionality as complementary rather than opposing dimensions, compassion equips us to navigate the complexities of digital innovation effectively.

5.2 | Implications for Conceptualising Digital Innovation

Our framework positions compassion as the central moral principle uniting all three ethical traditions: it represents the highest

TABLE 4 | Revised assumptions for compassionate digital innovation.

Original assumption	Compassionately revised assumption
1. Digital innovations generate net benefits that outweigh associated harms.	Digital innovation undoubtedly brings many benefits and burdens. Distributing these compassionately would mean benefiting vulnerable stakeholders the most while burdening the privileged ones. We do not know yet to which extent the empirical reality reflects this. However, the opposite seems to be the case.
2. Digital innovation outcomes can be ethically evaluated based on calculable utility.	Compassion provides a unifying foundation for ethical pluralism, connecting various scholarly, philosophical, and religious traditions. A pluralistic perspective, rooted in compassion, is better suited to judge digital innovation holistically.
3. Digital innovation's harms can be mitigated through technological, corporate or regulatory intervention.	Appropriate technological, corporate, or regulatory intervention is necessary, but not sufficient. Such interventions can also amplify harms if not designed with compassion in mind. Ultimately, every digital innovation stakeholder – including IS scholars—shares a responsibility to mitigate digital innovation's harms.

form of moral wisdom in virtue ethics, seeks to alleviate suffering as guided by consequentialism and aligns with deontological norms through Schopenhauer's compassionate imperative. This approach resonates with *principlism*—the application of high-level ethical principles to real-world dilemmas (Beauchamp and Childress 2011)—a foundation that also underpins broader information ethics (Floridi 1999). By embracing this pluralistic foundation, the framework ensures that ethical evaluations of digital innovation are robust, inclusive and attuned to diverse moral considerations, avoiding overly simplistic or biased analyses (Gal et al. 2022).

Compassion requires a discourse reorientation, from a narrow focus on economic value, to an expanded consideration of all stakeholders and their shared benefits (Argandoña 1998). Traditionally, IS scholarship has prioritised economic stakeholders, often neglecting social and environmental ones. Definitions like that of Ahn and Skudlark (1997, 3)—depicting *stakeholders* as a group of people sharing a pool of values that define what the desirable features of an information system are and how they should be obtained'—typically focus on business-consumer relations. While this emphasises shared values within a corporate setting, it no longer captures today's spectrum of conflicting stakeholders. Recent work on corporate digital responsibility reflects this complexity (Lobschat et al. 2021), aligning with the IS discipline's historical focus on the business value of IT (Clarke and Davison 2020; Davison et al. 2023).

A growing sensitivity to stakeholder complexity is evident in IS scholarship. Special issues in top-tier IS journals and new tracks on social justice and sustainability at IS conferences reflect a movement towards heightened stakeholder awareness. Despite this progress, the IS discipline can further benefit from expanded stakeholder engagement. Addressing the diverse interests and impacts of digital innovation requires compassion to empower stakeholders, recognising the need for IS scholarship to consider the general public, business, government, nonprofit and tacit stakeholders. This entails continuous iteration and adaptation in response to stakeholder feedback and evolving problem contexts in IS studies, aligning research with practical problem-solving while developing theoretical insights (Mathiassen 2017). Thus, focusing IS scholarship firmly on compassion facilitates more comprehensive theories of digital innovation. The effects of digital innovation, often unforeseen initially, gradually unfold to impact various stakeholders in multiple and sometimes indirect ways. This requires engaging with a wide range of stakeholders and careful consideration of social, economic and environmental effects and their intersections.

Our contribution also speaks to the emerging discourse on digital responsibility (Davison et al. 2023) by offering compassion as a complementary yet distinct ethical foundation. While responsibility emphasises obligations to respond to others, typically driven by legal requirements or social pressures (Ciriello et al. 2025), compassion prioritises an altruistic character rooted in a genuine concern for alleviating suffering without ulterior motives (Schopenhauer 1840). Compassion integrates rational and emotional dimensions, enabling researchers to address systemic harms proactively and empathetically, rather than merely adhering to prescribed norms or obligations. Unlike the inherently relational and reactive nature of responsibility, compassion fosters a broader, proactive engagement with ethical challenges, making it, particularly, well-suited for navigating the complexities and consequences of digital innovation.

While our framework positions compassion as a principled foundation for ethical pluralism, we also acknowledge its pragmatic potential—within the boundaries of Schopenhauer's (1859, §21) compassionate imperative (Section 4.2). As Chatterjee and Sarker (2024) argue, moral pragmatism invokes different ethical perspectives at various stages of digital innovation to navigate complex, evolving moral terrain. For instance, consequentialist views may be apt for framing utopian narratives to justify business cases, attract investment or persuade managers. Conversely, deontological views may better support dystopian framings that invoke the precautionary principle to shape regulation and technical guardrails. We agree with this pragmatist stance insofar as compassion offers a practical guide for such moral flexibility without burdening decision-makers with overly abstract or rigid ideological commitments.

Still, we caution that this flexibility must remain anchored in principled commitments to avoid instrumental misuse and corporate 'compassion-washing', akin to greenwashing (Alcadipani and de Oliveira Medeiros 2020). Reducing compassion to a pragmatist tool risks weakening its normative integrity and opening the floodgates for strategic co-optation—especially in corporate contexts where rhetorical empathy is often used to justify harmful or performative practices. This risk is reflected in the rise of 'toxic positivity' in managerial and academic settings, where dissent is suppressed under the guise of politeness and structural dysfunction is deflected onto individuals (Arnstein 1969; Cloud 1998). Without firm ethical boundaries, moral pragmatism may devolve into cherry-picking whatever ethical frame best suits short-term convenience.

Compassion, by contrast, offers a clear normative anchor. While it can inform moral pragmatism, it must remain rooted in Schopenhauer's dual imperative: a non-negotiable duty to "hurt nobody" and an obligation to 'help everybody as much as you can'. These principles protect compassion from instrumentalisation and ensure it remains focused on serving all stakeholders, especially the most vulnerable, rather than reinforcing entrenched power imbalances. In this way, compassion is best understood not as a flexible tool but as a meta-ethical orientation that anchors pluralism in justice, dignity and care.

5.3 | Implications for Researching Digital Innovation

Compassion compels IS researchers to amplify the perspectives of historically excluded groups, prioritising the interests of those disproportionately harmed by past waves of digital innovation. This entails designing research methodologies that emphasise co-creation, equitable representation, and stakeholder empowerment (Payton et al. 2022; Nishant et al. 2020). Practical use of our framework requires a flexible and open-minded approach to the design and evaluation of research studies.

Recognising the dual potential of digital innovation requires a critical and balanced approach to advance the common good.

IS scholars should address the complex interplay of benefits and harms (Chatterjee and Sarker 2024). A compassionate approach calls for holistic evaluation, striving for balanced and equitable outcomes by asking: Does the study acknowledge both the benefits and harms of digital innovation? Does it aim to serve the common good by striving for the just distribution of benefits and harms? Does it avoid unduly utopian or dystopian narratives?

Framing compassion through consequentialism, deontology and virtue ethics fosters virtuous cycles while mitigating harmful ones. This perspective emphasises the interplay of rationality and emotionality as complementary dimensions. Integrating rational analysis with emotional intelligence reflects a commitment to alleviating suffering through both rigour and empathy. Key questions include: Does the study include cognitive and affective dimensions? Does it align with Schopenhauer's compassionate imperative to avoid foreseeable harm while alleviating suffering, particularly for vulnerable stakeholders?

Engaging broadly with all stakeholders of digital innovation, especially prioritising vulnerable groups, amplifies social, economic and environmental benefits while mitigating harms. Inclusive stakeholder engagement ensures IS research addresses diverse needs and perspectives (Barrett et al. 2016). For example, involving vulnerable populations in the design and implementation of digital health solutions can result in more equitable and effective outcomes (Majchrzak and Shepherd 2021). Scholars can evaluate inclusivity by asking: Does the study involve a diverse range of stakeholders, including social, economic and environmental ones? Does it explicitly aim to amplify benefits while mitigating harms across these stakeholder groups? Does it recognise and address tensions between these dimensions?

Overall, compassion offers a transformative agenda for addressing digital innovation's ethical challenges. By revising dominant assumptions and integrating ethical pluralism, this framework fosters a nuanced understanding of the complex tensions inherent in digital innovation. It calls on researchers to prioritise systemic change, amplify marginalised perspectives and engage in interdisciplinary collaboration to foster equitable and sustainable outcomes. In doing so, IS scholarship can reimagine digital innovation as a force for the common good, bridging gaps between technological advancement and ethical responsibility.

6 | Conclusion

Our problematisation review highlights that digital innovation offers transformative societal, economic, and environmental benefits, while also creating significant harms, including inequitable benefit distribution, systemic injustices and environmental degradation. These harms are typically framed as unintended consequences rather than symptoms of deeper systemic issues, reflecting overly optimistic and insufficiently critical assumptions. To address these challenges, we develop a pluralistic framework for digital innovation, rooted in compassion and outline an agenda for future research.

This pluralistic framework combines consequentialism, deontology and virtue ethics, leveraging their complementary insights while addressing their limitations. Compassion serves as the unifying moral foundation, challenging dominant assumptions and guiding ethical evaluations of digital innovation's complex effects. It revises key assumptions by prioritising the fair distribution of benefits and burdens, focusing on vulnerable stakeholders and acknowledging inequities; recognising that technological, corporate and regulatory interventions, though necessary, are insufficient without compassion and shared responsibility; and moving beyond consequentialism to incorporate intentions, systemic contexts and relationships for holistic evaluation. This perspective balances uncritical optimism and unwarranted pessimism, fostering critical reflection to guide digital innovation towards the common good.

In addition to offering a theoretical foundation, this paper outlines an agenda for future research that emphasises amplifying marginalised perspectives and engaging with vulnerable stakeholders in the design and governance of digital innovation. It calls for exploring the intersections of digital innovation's social, economic and environmental effects through interdisciplinary approaches, navigating tensions to foster equitable outcomes across contexts.

While this pluralistic perspective offers a robust starting point, it has limitations. Our problematisation review, though rigorous, reflects interpretive and subjective perspectives, leaving room for broader contributions to enrich the understanding of compassion. Additionally, empirical validation of this perspective in practical settings is essential to refine its implications and applications. By rooting digital innovation in compassion and advancing a pluralistic research agenda, IS scholarship can address systemic harms, amplify underrepresented voices, and contribute to a more just and sustainable digital future for all.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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