



Artificial Intelligence (AI) and Bright Internet: Transforming the Internet for a Better Future

Artificial Intelligence (AI) is increasingly becoming a debated discussion for both the benefits it may bring and the adverse impacts it may have on individuals, society, and polity. There have been many studies which have highlighted how AI creates both positive effects as well as adverse effects in organization. For example, AI creates efficiencies through automation and enhances productivity of users across processes like operations, financial management, marketing and human resource management. Further AI brings reliability in project outcome and helps processes and innovations be standardized across the entire organization. However, on the other side, AI has adverse impacts like technostress among users and employees due to factors like job role changes and job uncertainty. Given how AI has pervasively been integrated into internet ecosystems today, we call for a need to explore this interface of knowledge areas. Internet ecosystems like social media, digital platforms and sharing economy platforms are driven by AI for creating engaging user experiences through content and user recommendations. Given this background we call upon researchers to explore this area in this special issue.

In recent times, the focus of this discourse has again been ignited with the news surrounding Generative Artificial Intelligence (GAI) products like ChatGPT and Dall-E. GAI platforms have demonstrated how they can create texts and images based on interactive inputs from users, and these generated contents are based on a very large web of information. These GAI models are driven by Large Language Models and typically have been used in applications like chatbots (Kushwaha & Kar, 2022). However, beyond GAI including chatbots, AI is gradually percolating into different spheres of work in business. However there are evidences that factors which impact user experiences and adoption of AI tend to vary among stakeholders as roles for AI users continue to evolve (Kar and Kushwaha, 2021; Merhi, 2022). For example, a new area of work deliverables have evolved in recent job descriptions, namely, prompt engineering, where users need to be proficient in using AI in obtaining suitable programming code or business documentation. This has been highlighted for the Information and Technology and Information Technology enabled Services industries, which are gradually moving from a low code to a no-code environment. For example, Goldman Sachs predicts AI automation will affect the reduction of 300 million jobs (Kelley, 2023). It is foreseen that GAI will expedite these changes.

In recent editorial deliberations (Dwivedi et al., 2023), it has been brought out how GAI can enhance productivity and also affect reduction in employment opportunities. Challenges are envisioned on the role that GAI may play in being a skill augmentor or skill complementor. There are deliberations that GAI may impact the cognitive skill development of users, when it comes to critical thinking abilities. However there are also editorial deliberations that industries, including academia, would need to embrace GAI and create an environment that could foster higher level cognitive skills and innovation (Susarla et al., 2023). There are also concerns surrounding the nature of the content that can be created and the veracity of the content. Many of these concerns surrounding data privacy, fairness, accountability and trust were highlighted in recent editorials surrounding adverse impacts of AI (Mikalef et al., 2022; Sivarajah et al., 2023). It is widely argued that while AI may enable digital transformation, the transformation should enable achieving sustainable societies in the future (Pappas et al., 2023).

Given how easily content can be generated using GAI, this brings in concerns surrounding the use of the content in social media. It is envisaged that both misinformation and disinformation may be increasingly created. This may create challenges among users surrounding the beliefs and trust on platforms and institutions. Polarization of belief systems is likely to happen in virtual communities. Further echo chambers effects may have a larger impact on the way polarization increased within virtual communities due to misuse of GAI content. This could potentially have very adverse impacts on the internet ecosystems and its different stakeholders.

Given this context, in this special issue of *Information Systems Frontiers*, we are keen to explore topics in line with the following areas in general but not limited to these only, as an extension of the Bright Internet Global Symposium (BIGS) 2023, a pre-ICIS workshop.

- Understanding the use and impact of GAI on content creation in the internet ecosystems
- Studies on the proxies of trust and quality of content and sources of content. How could platforms like social media and search engines index and rank content created by GAI?
- Strategies to manage misinformation and disinformation on the internet in an era of GAI
- GAI-generated content and their impact on virtual communities
- How can AI-generated content create polarization impacts and also switching of preferences online?
- Studies on echo chamber effects in social media due to GAI and user interactions.
- How do individuals trust content in online platforms when GAI can create content very fast which may be both accurate or erroneous?
- AI and its impact on Bright Internet in general
- AI and ethical implications for Bright Internet
- AI governance for Bright Internet
- Fostering collaboration with AI for Bright Internet
- AI its security challenges faced by individuals, organizations, communities and/or countries and strategies to address them
- Privacy and data breaches relevant to usage of AI systems for Bright Internet
- Novel preventive security mechanisms using AI for deterring cyber threat
- Transparency and explainability in AI systems for Bright Internet

- Bias and fairness considerations in AI systems for Bright Internet
- Trust and accountability mechanisms for AI systems for Bright Internet
- Human-AI collaboration and interaction for Bright Internet
- AI for content curation, recommendation, and discovery in the Bright Internet

We welcome studies which will contribute towards theory development in the above areas. Studies which validate theoretical models empirically using mixed research methods are preferred.

Forms of submission

This special issue will consist of 1) the best papers from an open call selected on a competitive basis from the BIGS 2023; and 2) invited papers that are requested from the editorial members. All submitted papers and invited papers will go through peer review; if an invited paper does not receive a satisfactory review, the paper will not be considered for the special issue.

Submission Instruction

Manuscripts must be submitted in word or latex format to the *ISF*-Springer online submission system at <http://www.editorialmanager.com/isfi/>. Paper submissions must conform to the format and submission guidelines of *Information Systems Frontiers*, which is available at <http://www.springer.com/business/business+information+systems/journal/10796>. Submissions should be approximately up to 32 pages double spaced including references.

About *Information Systems Frontiers*

Information Systems Frontiers (ISF) is a high-ranking, international scholarly journal designed to bridge the contributing academic disciplines and provide a link between academia and industry. The central objective of ISF is to publish original, well-written, self-contained contributions that elucidate novel research and innovation in IS/IT which advance the field fundamentally and significantly.

In ABDC Ranking, it is listed as an A ranked journal. In ABS ranking, it is listed as a 3 level journal. In Web of Science, it has an impact factor of 5.9 (2022).

ISF is Abstracted/Indexed in ABI inform, CompuMath Citation Index, Computer Literature Index, Current Contents/Engineering, Computing and Technology, Information Science & Technology Abstracts (ISTA), Inspec, ISI Alerting Services, ISI Web of Science, Risk Abstracts, Science Citation Index Expanded, SCOPUS, Zentralblatt Math.

Important Dates

Submission Deadline: **15th March, 2024 (extended)**.

Notification of first round reviews: 30th May, 2024.

Revised manuscripts due: 30th July, 2024.

Notification of second round reviews: 15th October, 2024.

Final manuscript due: 30th November, 2024
Last date for final acceptance: 31st December, 2024

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Select references

- Kushwaha, A. K., & Kar, A. K. (2021). MarkBot—a language model-driven chatbot for interactive marketing in post-modern world. *Information Systems Frontiers*, 1-18. <https://doi.org/10.1007/s10796-021-10184-y>
- Kar, A. K., & Kushwaha, A. K. (2021). Facilitators and barriers of artificial intelligence adoption in business—insights from opinions using big data analytics. *Information Systems Frontiers*, 1-24. <https://doi.org/10.1007/s10796-021-10219-4>
- Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., ... & Wright, R. (2023). “So what if ChatGPT wrote it?” Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 102642.
- Kelley, J. (2023). Goldman Sachs Predicts 300 Million Jobs Will Be Lost Or Degraded By Artificial Intelligence. <https://www.forbes.com/sites/jackkelly/2023/03/31/goldman-sachs-predicts-300-million-jobs-will-be-lost-or-degraded-by-artificial-intelligence/?sh=4f11904d782b>
- Susaria, A., Gopal, R., Thatcher, J.B. & Sarker, S. (2023). The Janus Effect of Generative AI: Charting the Path for Responsible Conduct of Scholarly Activities in Information Systems. *Information Systems Research*. <https://doi.org/10.1287/isre.2023.ed.v34.n2>
- Sivarajah, U., Wang, Y., Olya, H., & Mathew, S. (2023). Responsible Artificial Intelligence (AI) for Digital Health and Medical Analytics. *Information Systems Frontiers*, 1-6. <https://doi.org/10.1007/s10796-023-10412-7>
- Mikalef, P., Conboy, K., Lundström, J. E., & Popovič, A. (2022). Thinking responsibly about responsible AI and ‘the dark side’ of AI. *European Journal of Information Systems*, 31(3), 257-268.
- Merhi, M. I. (2022). An assessment of the barriers impacting responsible artificial intelligence. *Information Systems Frontiers*, 1-14. <https://doi.org/10.1007/s10796-022-10276-3>
- Pappas, I. O., Mikalef, P., Dwivedi, Y. K., Jaccheri, L., & Krogstie, J. (2023). Responsible Digital Transformation for a Sustainable Society. *Information Systems Frontiers*, 1-9. <https://doi.org/10.1007/s10796-023-10406-5>