

Editorial

In this issue, the journal brings together a collection of research that exemplifies the ongoing pursuit of intelligent systems that serve real human needs. The studies featured are rooted in applied innovation where technology meets societal challenges head-on. From advancing prompt engineering in artificial intelligence to enhancing assistive navigation, enabling real-time creative education, addressing linguistic inequality in language processing, and optimizing healthcare for older adults, each article contributes to a broader vision of impactful, ethically grounded technology. Together, they illustrate how research can not only push boundaries but also reshape how people live, learn, communicate, and thrive.

One article investigates the role of generative artificial intelligence and the precision required in prompt engineering to guide its outputs effectively. The discussion opens with a clear technical lineage from GANs and VAEs to the more recent Transformer models underscoring their disruptive applications in fields ranging from language to pharmaceuticals. By dissecting the mechanics and implications of prompt design, the study exposes how vague or overly constrained prompts can hinder both ethical performance and creative potential. At the same time, real-world use cases in education, finance, and medicine highlight how thoughtful prompt strategies can elevate decision-making and innovation. Emerging practices such as domain-specific fine-tuning and real-time adaptive designs are explored as promising directions, affirming the foundational role of precise, responsible input design in shaping AI's future [1].

Another contribution presents a smart solution aimed at addressing outdoor mobility challenges for the blind. The system introduced in this study goes beyond conventional navigation by factoring in psychological stress levels across multiple route options. It calculates a unique stress index using route difficulty as a foundation, ultimately selecting the least taxing path for the user. This route selection is complemented by real-time navigation support and obstacle detection, creating a feedback loop that enhances safety and ease of movement. The approach reflects a significant shift toward assistive systems that are not only technically sound but also empathetic to users' lived experiences [2].

Further research introduces an AI-powered tool designed to support photography education through automated, real-time feedback. The evaluation platform utilizes convolutional neural networks to assess images for both technical elements such as exposure and lighting and creative aspects. Trained on a dataset that combines professional standards with student work, the system delivers results with high accuracy and speed, enabling timely intervention in large or resource-limited classrooms. Initial user trials suggest that learners benefit from both skill development and increased motivation, positioning the tool as a valuable supplement to traditional instruction. As the system evolves, its framework holds potential for wider application across other visual art domains [3].

A fourth study confronts a systemic gap in natural language processing: the inability of current models to perform effectively across under-resourced languages. While NLP technologies have become sophisticated for high-resource contexts, many linguistic communities remain marginalized due to limited data, complex syntactic structures, and computational constraints. The research outlines these challenges and calls for more inclusive design strategies that support linguistic diversity and global accessibility. It emphasizes that equitable NLP systems must be grounded in culturally and structurally aware modeling, supported by policies that prioritize digital inclusion and local language preservation [4].

Another study focuses on the role of smart medical technologies in managing chronic diseases among older adults, particularly those living independently. The analysis considers how systems such as remote monitoring, AI analytics, and IoT-based devices can align with personal health needs and behavioural patterns. Using psychological and behavioural frameworks, the research outlines a methodology for designing products that accommodate both physiological requirements and adoption barriers like the digital divide. Strategies for fostering engagement and ease of use are also proposed, demonstrating that thoughtful design can significantly enhance quality of life for an ageing population while easing pressure on healthcare infrastructure [5].

These articles compiled in this issue reflect the essential shift from theoretical potential to applied, meaningful outcomes. Whether refining the mechanisms that drive generative AI, enabling more humane assistive technologies, or extending the reach of digital tools to overlooked populations, this body of work reinforces the responsibility of research to serve human contexts. These studies not only showcase technical excellence but also foreground empathy, accessibility, and equity as central pillars of technological progress.

References:

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