

Prompting Play: AI-Generated Design through the Eyes of a Child

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Abstract

This study investigates generative AI as a co-creative partner for children (aged 9-12) in the design of child-centric school streets. Through a workshop in New Delhi, India, children used AI tools to translate abstract ideas for school signage into tangible visuals. The findings demonstrate that AI extends children's expressive capacity and alters the dynamics of speculative design. Ultimately, this research shows that generative AI serves as a collaborative catalyst, making participatory design more inclusive, reflective, and imaginative. This study contributes to child-centered design methodologies by demonstrating that generative AI is not only a representational tool but also a collaborator that enables children to learn, adapt, and co-create.

Tables

Table 1 presents demographic data for the 30 participants, showing that most participants are between the age groups of 9-10 and 11-12.

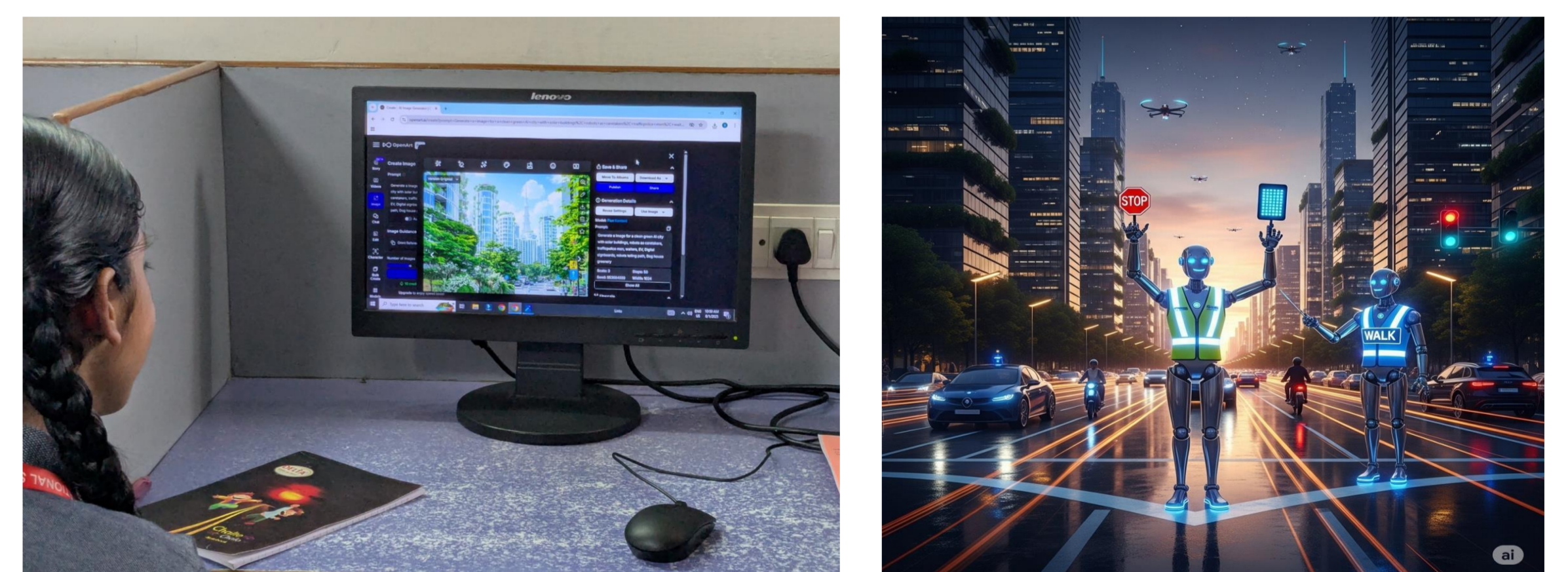
Variable		Percentage
Age	9 to 10	30 (60%)
	11 to 12	20 (40%)
Gender	Males	32 (64%)
	Females	18 (36%)
Experienced with AI image generation tools previously	No	8 (16%)
	Yes	42 (84%)

Methods/Results

This study employed speculative design methodology. In the first phase, students created A5 drawings by combining AI-generated designs from IGAI tools with traditional hand-drawing and narrative techniques. This process aimed to document the integration of AI with manual methods. In the second phase, students completed assessments to compare their experiences with AI tools versus traditional design methods.

Figures

This study highlights that IGAI tools boost designer confidence and creativity, aiding in rapid iteration and idea generation. While AI improves contextual integration, human oversight remains vital for cultural nuances, leading 88.9% of students to prefer a hybrid approach that blends AI efficiency with traditional drawing. With over 80% of participants seeking further training, there is a clear need for educational programs to integrate AI into their curricula to prepare students for the evolving industry.



Consequently, 80% of participants advocate for a balanced mastery of both AI and traditional skills, with 92% seeking further training in AI integration.

Conclusions

The integration of IGAI tools significantly enhances graphic design workflows by boosting student confidence (77.8%) and streamlining creative iteration. While these tools excel at automating routine tasks and improving conceptual exploration, they possess a limited ability to capture cultural and historical nuances. Tools like Midjourney allow designers to focus on strategy, with 69.4% noting a positive impact on idea generation. Ultimately, the high demand for further AI training (81.2%) underscores the necessity for design curricula to evolve, equipping future professionals with the skills to navigate this shifting technological landscape.