01: research introduction:

Title:

Integrating GAI with FIGMA for interactive prototypes to improve development efficiency, and quality.

Description:

The inclusion of interactive prototyping tools such as Figma, which have transformed the design and development process, has had a significant impact on the growth of web development approaches. This study investigates the transformative influence of these technologies, with a particular emphasis on the ground-breaking integration of Artificial Intelligence (AI) with Figma and the new use of ChatGPT during the coding process, on improving both efficiency and quality in web development. Figma's capabilities, now enhanced with AI, allow for a more rapid and iterative design process that is closely linked with customer wants and expectations, resulting in significant time and cost savings (Bohm and Graser, 2023).

Interactive prototypes serves as a critical link between concept and development, allowing for rapid validation of user needs and iterative modifications before proceeding to the development phase. The addition of AI to Figma enhances this approach by automating design chores, providing intelligent design recommendations based on data-driven insights, and forecasting user preferences using predictive analytics. Furthermore, Figma's coding mode marks a huge advancement in expediting the development process. This capability enables the immediate conversion of designs into HTML code, thereby closing the gap between design and development. The addition of ChatGPT improves this transition by creating code snippets, debugging, and providing coding recommendations based on the prototypes created in Figma. These advancements not only streamline the workflow, but also ensure a higher quality final product through early user feedback, streamlined communication, and a better understanding of user interactions, resulting in a significantly shorter development cycle and reduced resource expenditure (Bohm and Graser, 2023).

Furthermore, the integration of AI technologies with Figma, as well as the synergy with tools such as ChatGPT, have the potential to change the future of prototype tools. AI's ability to automate design processes, generate dynamic content, and predict user behaviors, when combined with the ability to easily move from design to code, has the potential to accelerate prototype development and improve user-centered design practices. This is a big step forward in how online applications are conceptualized, built, and produced, providing a balance of efficiency, innovation, and user-centricity that profoundly alters the design landscape (Bohm and Graser, 2023).

To summarize, creating interactive prototypes with tools like Figma, augmented with AI, and supplemented by coding support from ChatGPT provides a forward-thinking approach to web development. This paradigm shift emphasizes on excellence in design and user experience rather than coding efficiency. By adopting this integrated strategy, developers and designers may speed up the development process while ensuring a higher quality end product. The novel incorporation of AI into Figma, together with ChatGPT's coding skills, represents a huge step forward in the progress of web technologies and processes.**Research Aim:**

The purpose of this study is to investigate the influence of combining General AI (GAI) and technologies such as ChatGPT with interactive prototyping via Figma on the efficiency and quality of web development processes. This study aims to better understand how AI-driven design and code upgrades can speed up the transition from conceptual design to practical prototypes, hence enhancing both the speed and quality of web development initiatives.

Research Hypothesis:

The integration of General AI technologies, such as ChatGPT and Figma, significantly improves the web development process by automating design and coding tasks, providing intelligent design and code suggestions, and allowing for a more agile, iterative approach to design that is closely aligned with user needs and expectations. This leads to shorter development cycles, lower costs, and higher-quality end products.

Research Questions:

How can integrating AI into Figma improve the efficiency and inventiveness of the web development design phase?

How does ChatGPT contribute to the coding process after Figma prototyping, and how does this impact the total development duration and product quality?

What are the perceived benefits and limitations of using an AI-integrated strategy (Figma + ChatGPT) in web development projects according to developers and designers?

Inspirational sources:

Protoyping tools: https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A21839&dswid=2513

About figma in design https://www.researchgate.net/profile/Stefan-Graser/publication/375662274_AI-based_Mobile_App_Prototyping_Status_Quo_Perspectives_and_Preliminary_Insights_from_Experimental_Case_Studies/links/6554e94e3fa26f66f40450da/AI-based-Mobile-App-Prototyping-Status-Quo-Perspectives-and-Preliminary-Insights-from-Experimental-Case-Studies.pdf

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Tutorial using FIGMA:

https://www.bing.com/videos/riverview/relatedvideo?q=Improving+web+development+efficiency+with+Figma+interactive+prototypes&qpvt=Improving+web+development+efficiency+with+Figma+interactive+prototypes&view=riverview&mmscn=mtsc&mid=8B987CABA0625E93BB078B987CABA0625E93BB07&&aps=10&FORM=VMSOVR

Chatgpt and figma: https://bootcamp.uxdesign.cc/supercharging-your-product-design-workflow-with-chat-gpt-and-figma-8da99128b1ef#:~:text=By%20providing%20natural%2Dsounding%20text,they%20work%20on%20their%20designs.

Interactivity:
https://blog.logrocket.com/ux-design/figma-interactive-components-microinteractions/