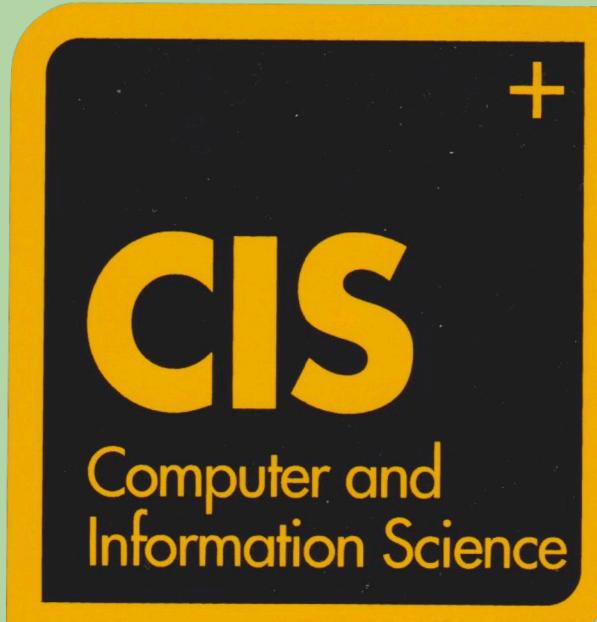


THE AI RENAISSANCE: FOSTERING CREATIVITY THROUGH GENERATIVE SYSTEMS

José Renteria, John Park

University of Oregon, Department of Computer Science, Department of Art & Technology



Introduction

My name is José Renteria. My project is about the exploration of the potential implications of generative AI in the field of user interface design.

Research Question

To what extent can generative AI systems be harnessed to modernize and propel user interface design?

Methods

A literature review on existing research on User Interface (UI) design. As well as a case study exploring existing and potential new use cases of generative AI in UI for modern applications.

Result 1

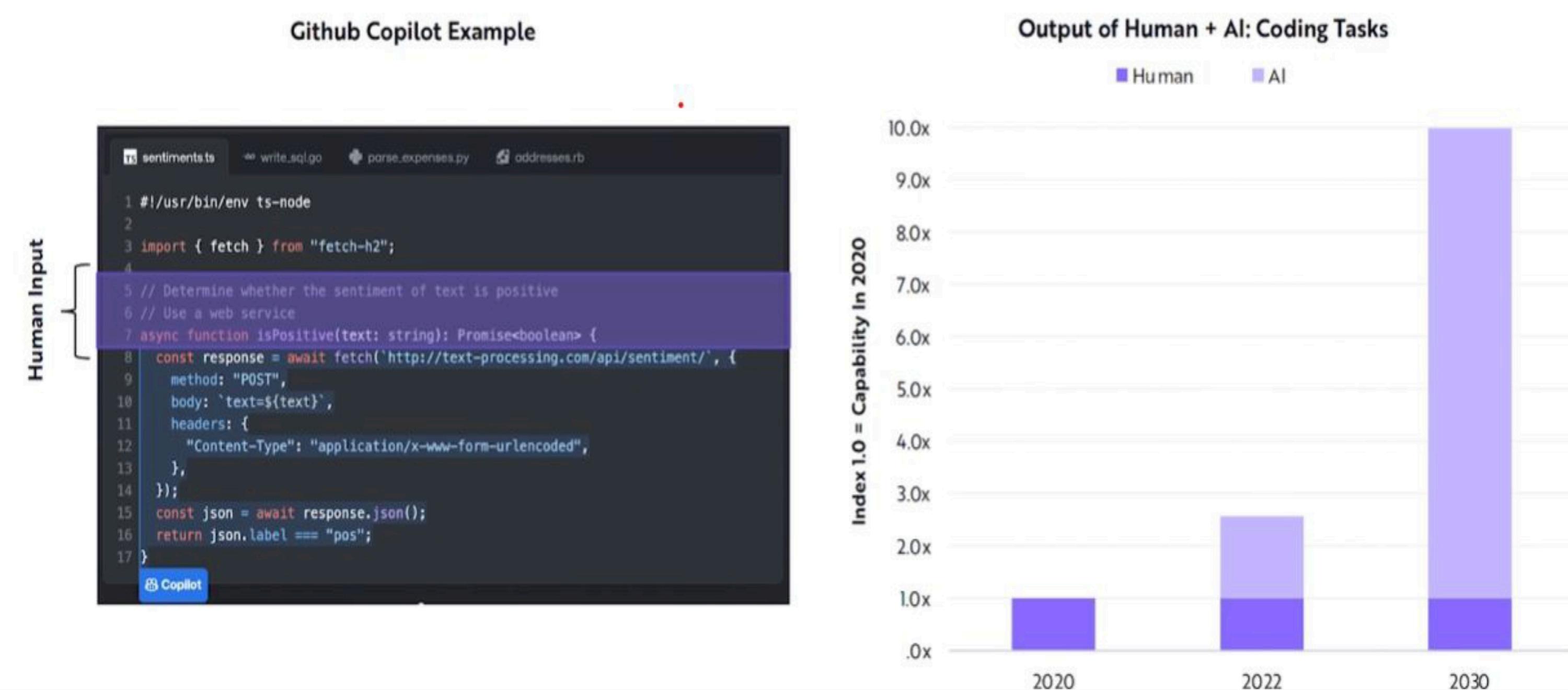
- Generative AI bears the potential to provide a much more seamless line of communication between the designers' specifications and the developer's integration, facilitating the ability for a single developer to be **both**.
- Now, this is not to say it will replace either, but when developers and designers have a foundational cross-disciplinary understanding of each other's fields, it can lead to more seamless collaboration, resulting in a better final product.

Result 2

- Acknowledgement of the transformative power of AI enhancing productivity reverberates throughout all aspects of software design. Just as AI promises to make software development more efficient and innovative, it presents a **parallel** opportunity in UI design.
- This highlights the profound synergy between AI and user-centric design principles. These emerging tools allow designers to experiment more freely, explore novel design patterns, and refine user experiences with greater precision and feedback.
- This shift from traditional manual design processes to AI-augmented design empowers designers to harness a creative approach which underscores its role as a driving force in UI innovation, shaping the future of human-computer interaction.

AI Could Lead To A 10-Fold Increase In Coding Productivity

Based on a 70% annualized drop in training costs and feedback loops, AI coding assistants like Copilot could increase the output of software engineers ~10-fold by 2030.



Conclusions

- Generative systems exemplify the transformative potential of AI-driven innovation, offering a glimpse into the realm where creativity and technology operate in harmony.
- At the intersection of design, and innovation, generative AI emerges as a powerful enabler, inciting novel design approaches and methodologies for personalized experiences, which pave the way for a more inclusive and accessible digital future.
- It is clear we are in the early stages of an impending AI-driven renaissance. One that is just beginning to be explored and brought forth by industry giants, such as Google and Microsoft. This will enable more independence in work and creative control in software development.
- The collaborative effort of human capability augmented by generative AI is forging a path toward a more creative, innovative, and universally accessible era of human computer interaction.

References

"Generative AI at Work - National Bureau of Economic Research." nber.org, https://www.nber.org/system/files/working_papers/w31161/w31161.pdf.

"Opportunities for Generative AI in UX Modernization." Joint International Conference on Intelligent User Interfaces Workshops <https://ceur-ws.org/Vol-3124/paper8.pdf>

Acknowledgments

Thank you to Feather Crawford and DucksRISE for providing me with the opportunity to pursue research. Thank you to John Park for mentoring me throughout this process. Thank you to Monique Falcon for providing guidance along the way.