Neurodiverse AId

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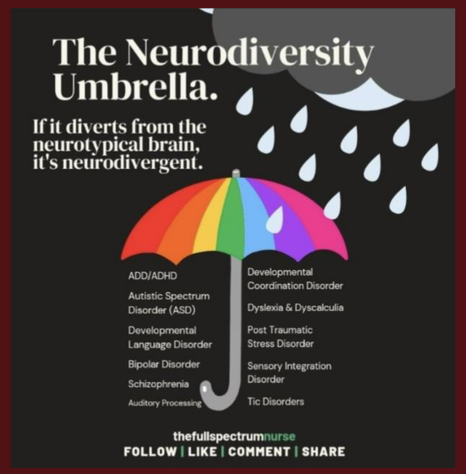
Problem Statement:

The creative and innovative ability of neurodivergent minds remains untapped in many workplaces due to issues with hiring, communication, and faulty technological adaptation. With recent advancements in generative AI technology, there is an opportunity to integrate tools with AI to cater to neurodivergent individuals.



Names of members from left to right: Lauren Christenson, Carlos Quinto, Cinthia Hinojosa

Generative AI Benefits For Business

- Spur Knowledge Management
- Improve Customer Experience
- Develop New Products
- Create Content on the Fly
- Improve Task Efficiency
- Facilitate Client Services
- Boost Personalization

CIMO Framework:

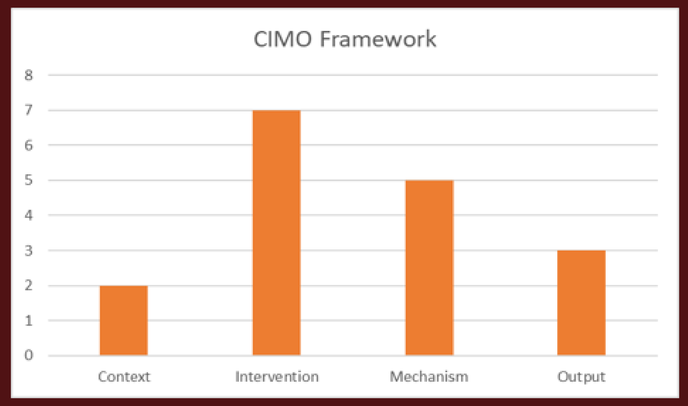
Comtext:

Workplace setting where NDI (neurodivergent individuals) are improving and benefiting from generative AI.

Intervention:
The NDI themselves.

Mechanism:
The interface that is eliminating the challenges to productivity that NDI face.

Output:
The added quality and time saved in the productivity of NDI.



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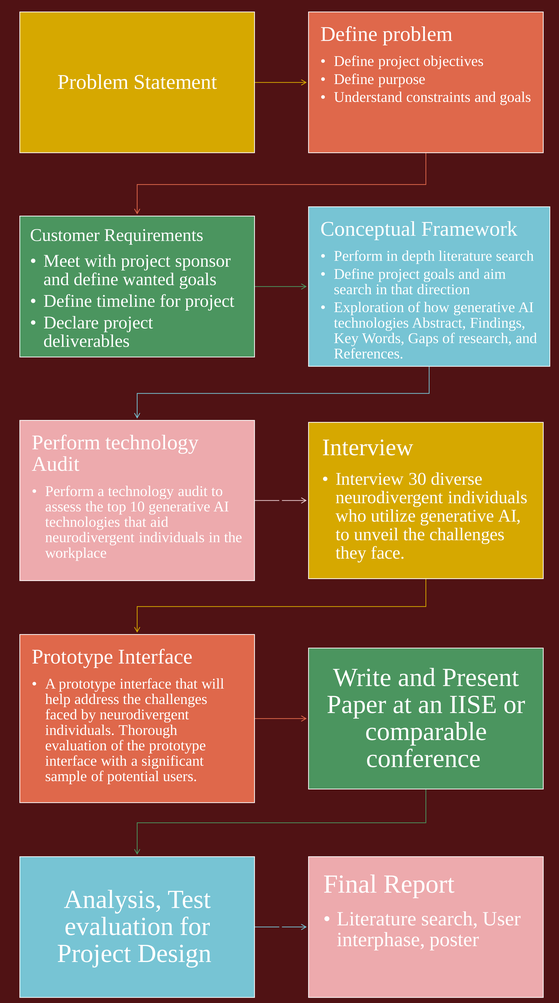
Plan:
Investigate and address challenges faced by neurodivergent individuals in their interactions with AI technologies, including a literature review, technology audit, interviews, and prototype creation.

Do:
Execute the planned activities, conducting a systematic literature review, evaluating top generative AI technologies, interviewing neurodivergent individuals, and creating a prototype interface.

Check:
Evaluate the prototype's effectiveness with a significant sample of neurodivergent users, gather feedback, and review findings from the literature review, technology audit, and interviews.

Act:
Implement improvements to the prototype based on user feedback, provide recommendations for further enhancements, and document the entire research process in a comprehensive Ergonomics in Design Journal-formatted research paper.



Human Factors

This project is centered around humans who are neurodivergent. The goal is to make a product and experience that provides utmost comfort and use to those involved not only in our final designs, but during our preliminary phases as well.

Paper writing
The first step concerning design is ensuring that the language in our literature search paper is appropriate. It is derogatory to refer to people who are neurodivergent as “neurodivergent” or “neurodivergent people” as this labels them and takes away from who they are as individuals. To write a professional paper that is not offensive or disrespectful to anyone there must be focus on using the correct language, and for this reason neurodivergent people will be referred to as POND (people of neurodivergence).

Interviews
Secondly, interviews with POND will be completely voluntary and ethical. To ensure this, these interviews will be anonymous, and will begin with a full disclosure of their use and purpose for this project. We will also provide contractual agreements to better convey this to our interviewees.

Product Design
Lastly, and most importantly, our product design will be fully optimized for the human experience. This is essential to this project due to the end goal of the project being the betterment of the lives of our users. Therefore, utilizing feedback from our interviewees will be a pivotal focus to create a system that mitigates user confusion, frustration and especially harm.

Promising Future
Allowing POND, a safe space to better explore the innovations of generative AI will not only improve their daily lives but allow the neuro-convergent community to better understand their creative and intellectual abilities. The combination of human factors and ergonomic precautions provides us a method to comfortably improve the lives of those who already use, and to those struggling to utilize generative AI.

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