## "Ask Doodle": A User-Centered Approach to **Generative Al Integration**

## Background

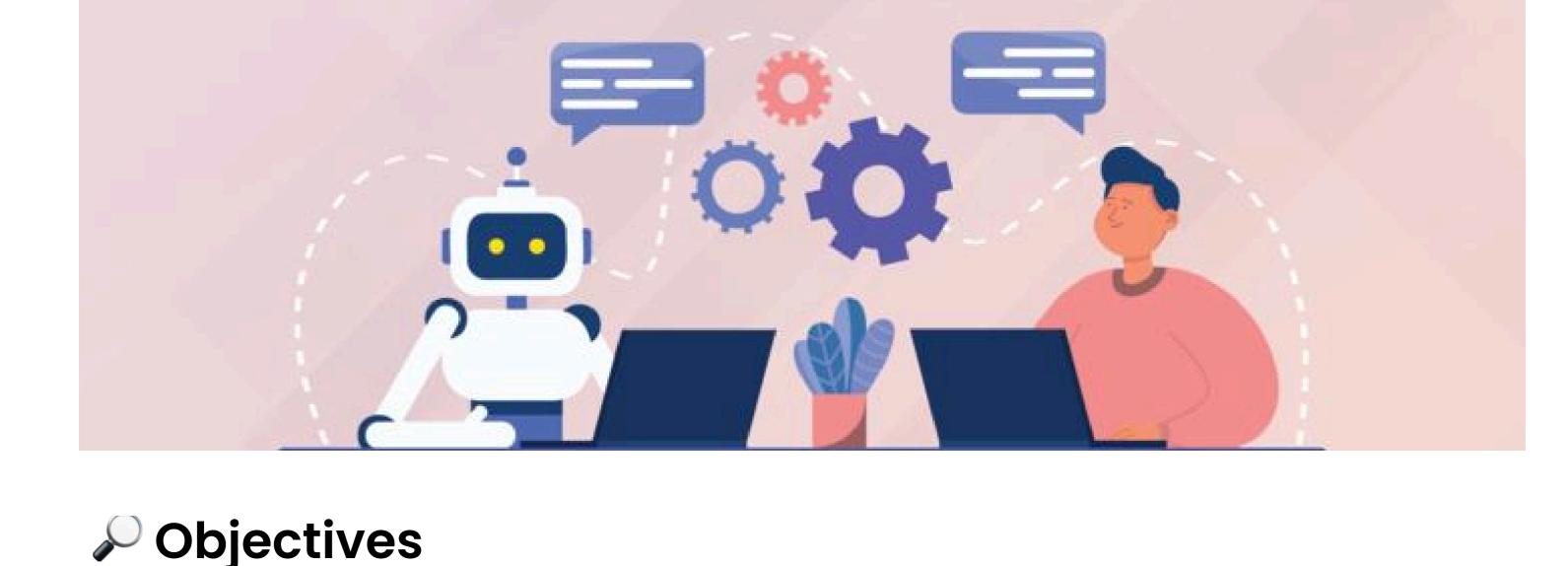
User feedback and queries revealed a strong demand for a generative AI feature within an AI based writing assistant tool. This enhancement would address evolving user needs and expand the tool's value proposition to support diverse writing workflows.

Scope User Interviews, Secondary Research, Competitive **Analysis** 

Tools Zoom, Calendly, Figma, Google

**Timeline** 1 month

sheets



#### objectives: • Assess the use of a Generative AI feature for users by analyzing how it integrates into their current writing workflows.

• Identify user challenges and expectations from a Generative AI feature. • Analyze similar AI-powered writing tools in the market, assess their feature offerings, UI-UX, and uncover gaps that writing

To effectively guide the development of the "Ask Doodle" feature, the research will focus on the following

- assistant tool can uniquely address.

focusing on the integration of generative AI into user writing workflows.

**Methodology** 

## Competitive Analysis • Primary Research: User Interviews

Secondary Research

- Secondary Research

### • Focus Area: a. Investigating the preferences and methods users employ during the writing and content generation process. Commonly used

employed to ensure the originality in the output. b. Exploring the role of different tools for revision in their writing process w.r.t grammar suggestions, plagiarism , and AI content detection

tools for writing, generating content, checking plagiarism and AI content detection. Investigating the tools and strategies

To establish a foundation for the "Ask Doodle" feature, we conducted comprehensive secondary research,

a. Data Collection : We reviewed articles, blogs , academic papers, reports on Generative AI trends in writing

• Process:

- 2. Challenges faced while using Gen Al Key FIndings:
- a. Genral Use case: 1. Majority prefer using Generative AI for the purpose of grammar corrections, paraphrasing/refining

text and finidng gaps in their drafts/ articlss

b. Analyis: We categorized the gathered in the following sections:

- 2. Generative AI is also used to summarize and translate content 3. Other major use case is content generation/ template geenration

information

recommendations.

1. Purpose of using Gen Al

- b. Challenges faced: 1. Al generated content contains hallucinations i.e. some false statements along with accurate
  - 2. The generated data maybe outdated 3. There are challenges in maintaing the integrity standard while using the AI generated content.
- **6** Competitive Analysis
- Analyzed features of competing tools like , Grammarly, QuillBot, Writer.com, ProWriting Aid, Wordtne to evaluate their Gen Al feature and functionality.

· The competitive analysis highlights the writing assistant tool's potential to stand out by addressing

gaps such as limited multi-lingual support, absence of fact-checking, and lack of domain-specific

# • We used the below template for the competitive analysis :

Types of prompts

UX

WORDTUNE **GRAMMARLY** QUILLBOT WRITER **PROWRITING AID Feature Offerings** 

Types of prompts it provides, such as open-ended, guided, or specific suggestions, option to create own

. How easy it is to regenerate the

- tonality

   What are the colors they have chosen

   What is the font they have gone for?

   Have they used icons? What kind of
  icons have they used?

   Is the design accessible for all groups UI \* First impressions- How to access the Gen Al feature? How many steps are involved? How much time does it take? How is the navigation across the platform?
   How easy it is to access the Gen Al
  - How fast users are able to recieve the What is the tone of the UX copies

Following an initial exploration of generative AI usage in research workflows through secondary research, we

approach allowed us to validate preliminary findings, uncover nuanced pain points, and gather actionable

• Target Audience: 8 active platfrom users, including university students and professors, recruited through personalized email

a. Semi-structured interview guide was used to ensure consistency while allowing participants to provide detailed responses

conducted user interviews to deepen our understanding of user behaviors, challenges, and needs. This

insights to inform feature development. For conducting user interviews following points were taken into

#### invitations • Interview Process:

b. We did thematic analysis for each interview

b. Scheduling of the Interview was facilitated through Calendly

consideration:

**User Interviews** 

c. Interviews were conducted remotely through video calls via Zoom, and each session lasted approximately 30 to 45 minutes • Focus Areas: a. Users' writing workflows b. Current generative AI usage and experiences c. Challenges and expectations from a generative AI feature d. Insights into maintaining integrity and originality while using generative AI

along with Frequency Analysis

the Stakeholders

Objectives:

User Research Study

(iii) Understand

Understand

academic v

Introduction: The following study is being conducted to understand researchers' an

User Research Study

Moster's St

Data Analysis:

a. After the interviews were conducted these sessions were transcribed and inferences were written for each transcript

c. Once all the interviews were conducted , an overall analysis was done and data was organised into common/ unique themes

**User Interview Findings:** Following are the insights drawn after doing an overall analysis: a. General Use Case: 1. Majority of the users used Generative AI for the purpose of refinising/paraphrasing their content. 2. To genrate outline/ structure for their drafts 3. Other use cases include: summarising text, looking for similar topics and finidng gaps in their work b. Pain Points: 1. Accuracy: Concerns about hallucinations in generated content. 2. Integrity: Changes in the meaning of the content after AI assistance. 3. Time Consumption: Significant time spent fact-checking AI-generated outputs. 4. Plagiarism: Al generated content is often flagged as plagarized c. User Expectation: 1. Introduce a fact checking feature 2. Domain specific prompts tailored as per user's area of work 3. Al models to be trained on variety of data.

Created a detailed report covering all the insights from the user interviews and the same was shared with

ChatGPT (n=5)

Gernini (n=2)

Sci-space (n=2)

think the writing mainly trying to

lim a Spanish no

long sentence."

Tike sometimes I also use AI to paraphysise. So, If there's

that I want to use, I want to paraphrase, I asked AI to par

7 use it only as a tool to palish it up, to make it more Eng

"I copy this regression tables the result and I say can yo

you ideas of how the paper would go like."

Generative Al Tools used by the users

**Common Themes** 

Issues faced while using Generative AI

"So I do not condemn denerative Al Decause I use it. Only that it

"It does not yet have this reasoning ability so I still have to think

they are related to each other those papers and then when I have a

question or when I write about my results or about my introduction

some kind of fact checking based on empirical research. So what

you mean it does, but for fact checking, you know, for the ciairs of

then it it's not really hallucinating

**Participnat Recruitment** 

Streamlined participant recruitment to

match target audience and research

needs.

**Stakeholder Communication** 

Presented findings in the form of

actionable insights to the stakeholders

**Cross-Functional Collaboration** 

guides you but not giving you the best"

academic writing

A fact checking feature to ensure that the

Common Themes

generated output exists. (n=2)

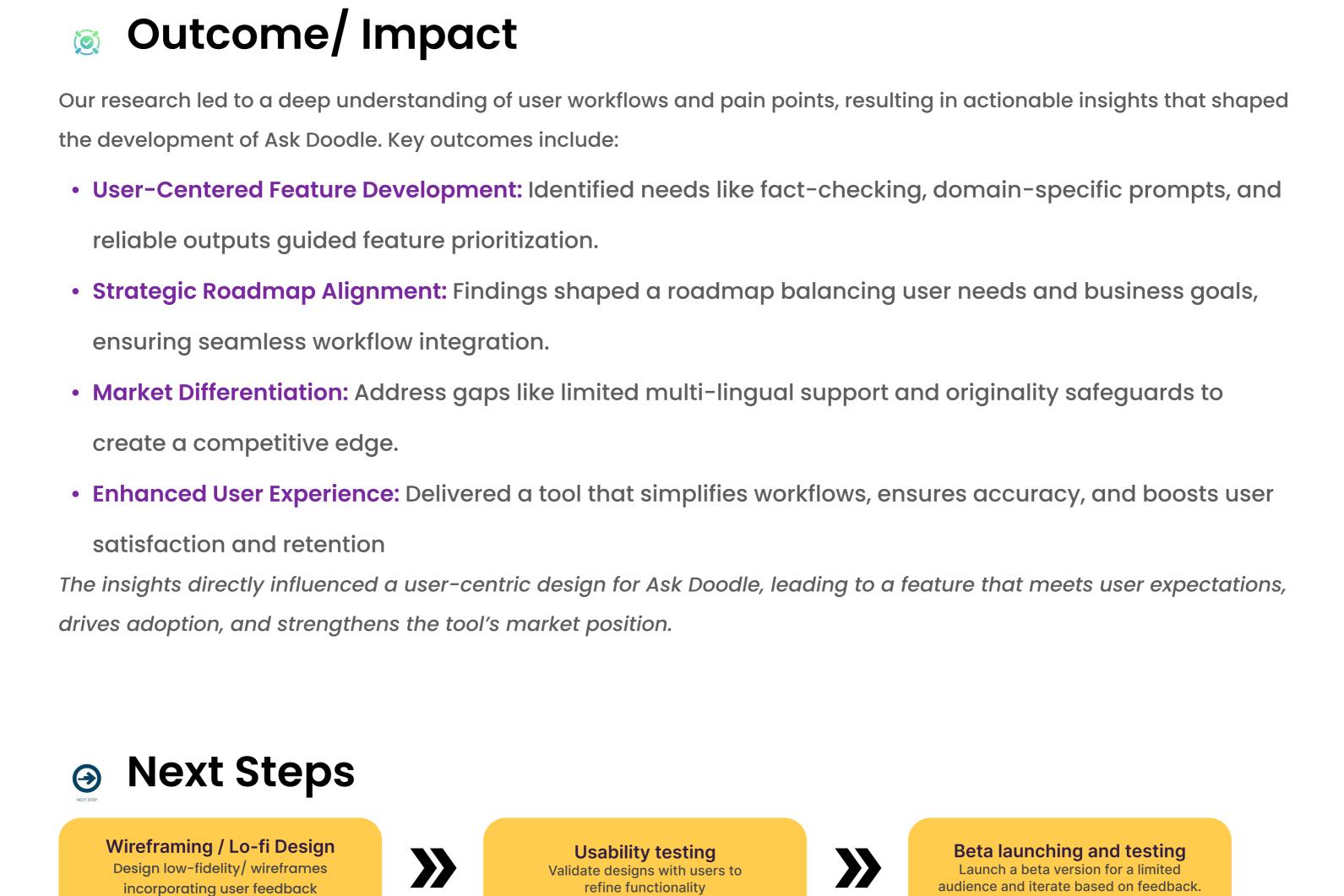
ChotPDF Output received is very generic (n=3) Master's Student Civil Engineering Basic Premium Researc Use case of Generative AI in Aca Suggestions/Improvement w.r.t Generative AI in The tool changes the mea

content short. (n=8)

document (n=5)

for analyzing data (n=2)

To get a structure or outline for the





launched.

**Skills Acquired** 

My Role

**Study Design** 

Created a research plan and semi-

structured interview guide

**Primary Research** 

Conducted user interviews via Zoom



**Secondary Research** 

Conducted literature reviews and

competitor analysis

**Data Analysis** 

Analyzed primary and secondary

research data to identify themes

and insights.

**Qualitative Research** 

