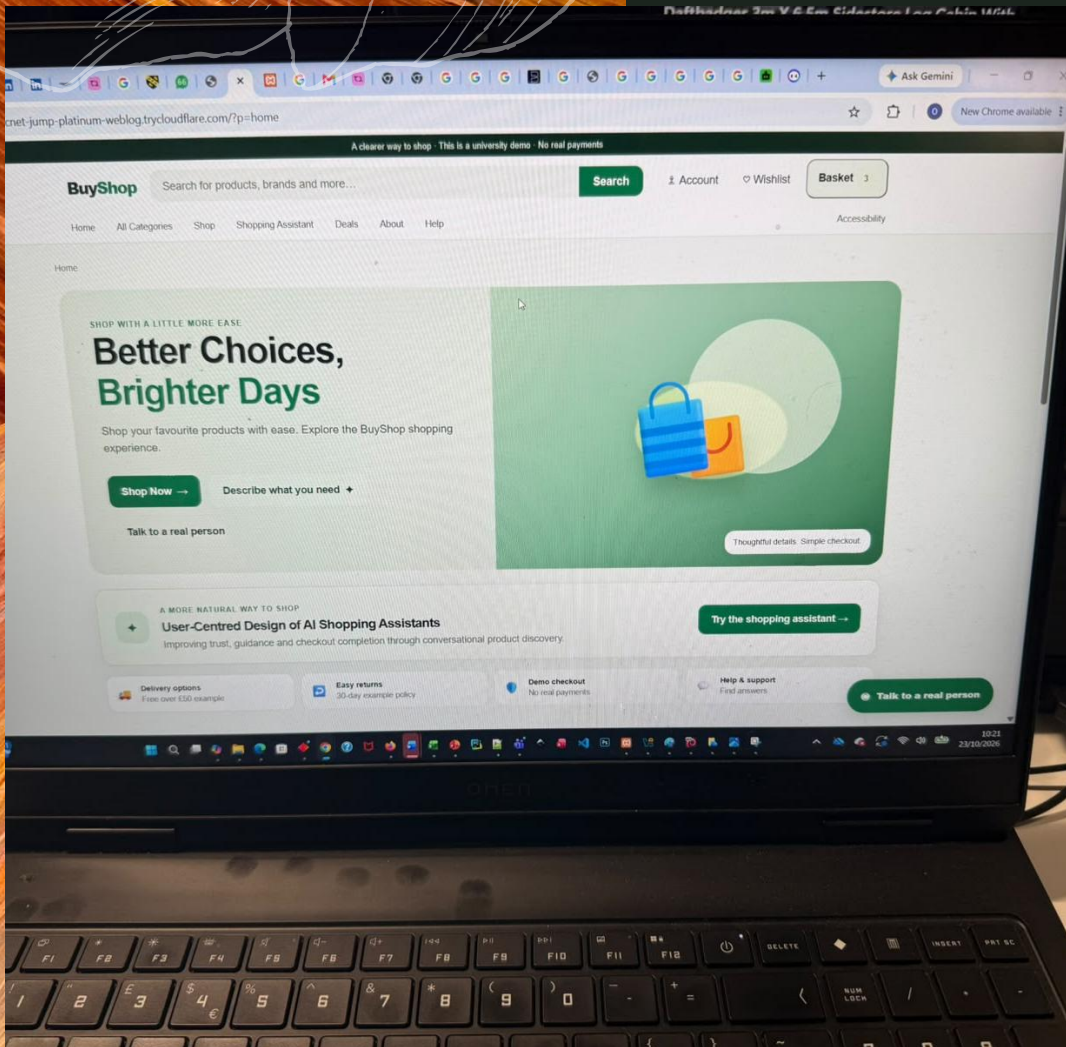
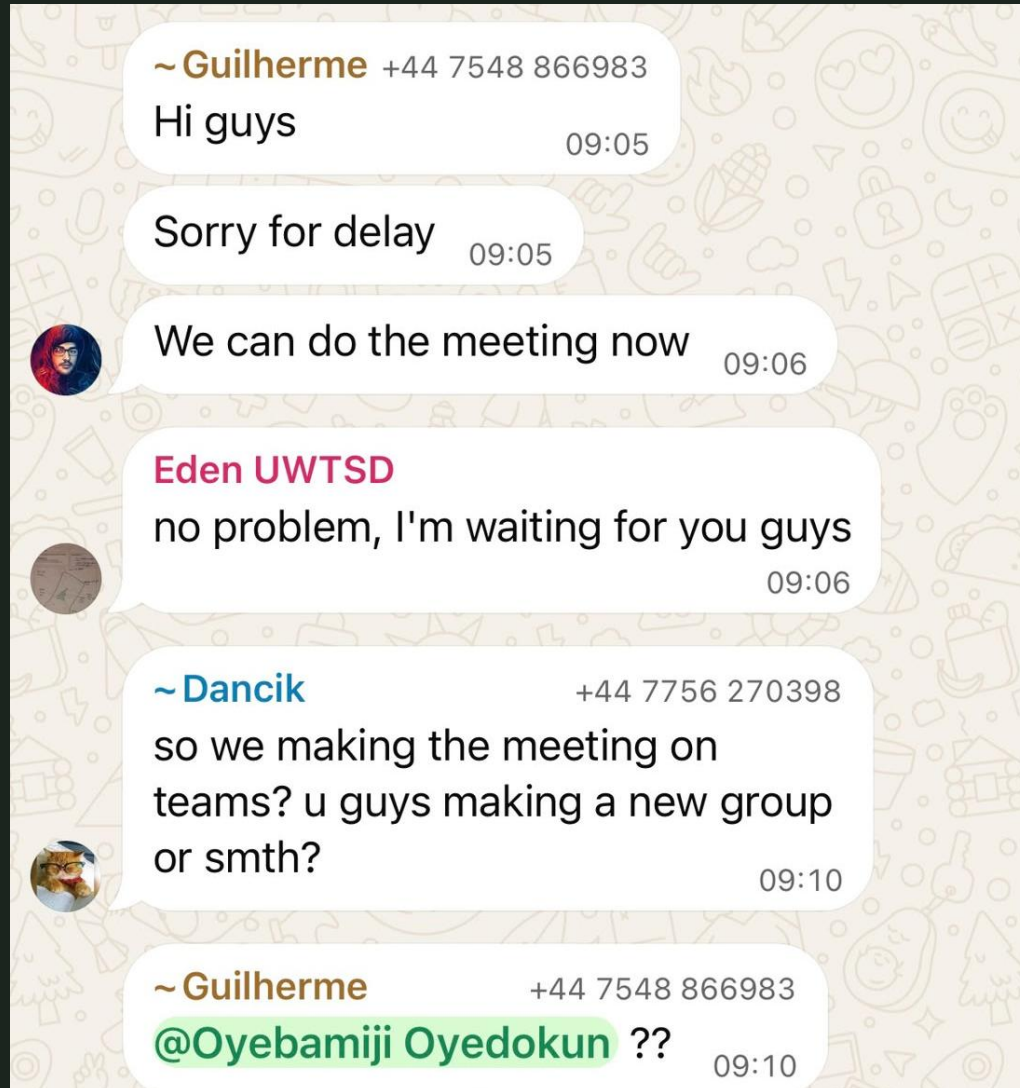




BUYSHOP: User Centered Design of an AI Shopping Assistant to Improve Trust, Guidance and Checkout Completion in E-commerce

Presenter

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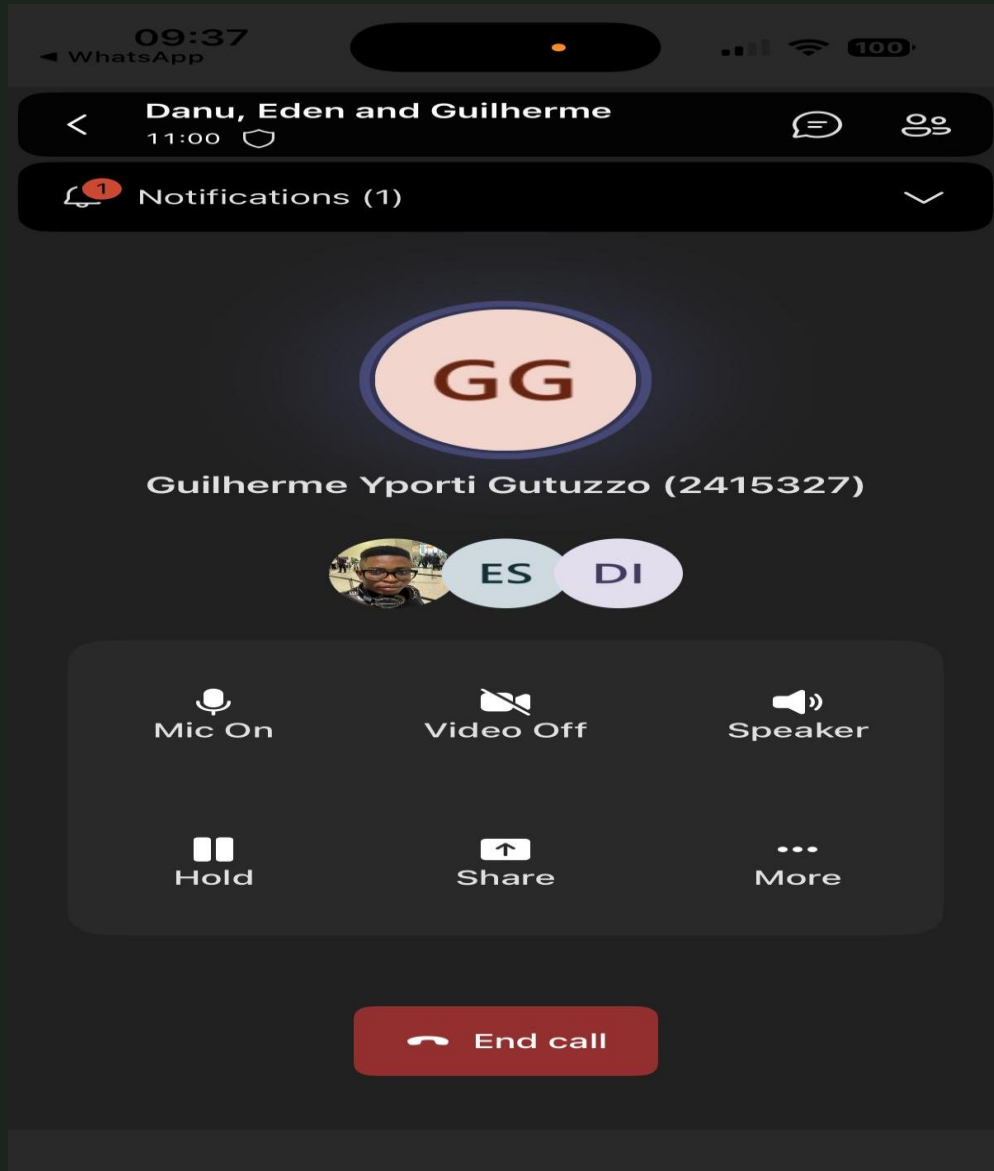


Introduction

Today our team will present the development of **BuyShop**, a user-centred AI shopping-assistant prototype. Since Presentation One, we have worked collaboratively to refine the idea, plan the interface, build the prototype and test its functionality.

Each member contributed according to their role, and we coordinated through shared messages, documents and reviews to keep our research, design, development and testing aligned.

In this presentation, we will explain how our teamwork shaped the project, how the idea evolved into an innovative AI assistant, how our wireframes guided the prototype, how functional testing identified improvements and what our next steps will be as we prepare the final evaluation.



Teamwork and Collaboration

I will explain our teamwork and collaboration. Since Presentation One, our team has developed BuyShop into a user-centred AI shopping-assistant prototype. We allocated responsibilities based on our roles and communicated through our group channel to share files, review decisions and monitor progress.

I supported team communication, research and user requirements. Oyebamiji developed the idea and its innovative features. Guilherme planned the wireframes and produced the working prototype. Eden tested the system and documented identified problems. We reviewed one another's contributions so that the research, interface, shopping assistant, checkout and testing remained connected.

Our collaboration evidence includes group messages, shared documents, allocated tasks, wireframes, the prototype and a bug report showing how testing will guide further improvements [1].

Idea Development and Innovation

BuyShop focuses on the user-centred design of an AI shopping assistant to improve trust, guidance and checkout completion in e-commerce. Customers can explain what they need using everyday language, including their budget, product and intended use.

Idea development

The idea development behind BuyShop is to create a user-centred AI shopping assistant that simplifies decision-making, reduces confusion and keeps customers fully in control. The system uses conversational AI to understand natural language, provide clear recommendations and support accessible, inclusive shopping. Its feasibility is assessed through Feasibility Analysis, including Technical Feasibility (AI capability, product-matching accuracy, accessibility tools) and **Financial Feasibility** (development cost, integration expenses, maintenance and projected return). This ensures the concept is practical, scalable and economically viable [2].

Innovation

The innovation lies in combining conversational guidance, transparent recommendations, accessibility features, human support and a simplified checkout into one seamless experience. This approach reduces choice overload, supports informed decision-making and creates a more inclusive shopping environment. User testing and feedback will play a key role in refining the prototype, helping the team identify usability challenges and improve the system's clarity, accuracy and trustworthiness [3].

Accessibility is a core part of the innovation adjustable text sizes, high-contrast modes, reduced motion and clear information displays help different users navigate comfortably. A human-support option is also included for customers who prefer speaking to a real person, reducing confusion and supporting those who may struggle with digital interfaces[2] [3].

This idea development and innovation applies Disruptive Innovation, because it transforms traditional e-commerce by replacing complex product browsing with guided, conversational shopping that simplifies decisions and empowers all users [2].

Design Planning and Wireframes

I created wireframes showing how customers would move from the homepage and AI shopping assistant to product comparison, basket, checkout, payment and confirmation. The layouts helped us plan navigation, product information and customer control before development. We then converted the designs into a BuyShop prototype. Customers can describe what they need, answer guidance questions, receive recommendations, compare products, manage their basket and complete a simulated checkout. The website also provides adjustable text sizes, high contrast, reduced motion and human-support options. An SQLite administrator panel allows catalogue changes. Moving from wireframes to an interactive prototype demonstrates design progress and provides a system that can be tested and improved [2].

The human-support feature will be demonstrated through a clearly visible ‘Speak to a Person’ button. If the AI cannot answer a question or the customer needs more help, the customer can choose live chat, telephone support or request a callback from a human adviser.

Wireframes created
Homepage
AI shopping assistant and Human support
Product comparison
Basket
Checkout and payment

Working Prototype Progress
Product search and filtering
Guided shopping assistant
Product comparison and Basket management
Simulated checkout and Accessibility controls
SQLite administrator panel

Functional Testing

My role is to determine whether BuyShop provides trustworthy guidance and supports checkout completion. During functional testing, I entered, “I need an Apple laptop under £500.” I expected the AI shopping assistant to recognise Apple and recommend a matching product or explain that no match existed. Instead, it displayed “No preference” and recommended HP and Lenovo laptops without explaining the brand difference. I recorded this as BUG-001 with medium severity because the journey continued, but the customer’s requirement was ignored. This problem could reduce trust in the recommendations [5].

The proposed improvement is brand recognition and explanations for alternatives. After correction, I will repeat the test and conduct usability and accessibility testing with users.

Evaluation Matrix

Scoring: 1 = Very poor, 5 = Excellent; N/T = Not tested.

Feature/ Solution	Feasibility	Scalability	Security	Accessibility	Sustainability	Current score
AI assistant brand recognition	3/5	N/T	N/T	N/T	N/T	3/5

Our next steps are to correct BUG-001 and retest the brand-recognition feature to ensure the shopping assistant accurately understands customer requirements. After this, we will conduct both usability testing and accessibility testing to evaluate how easily different users can navigate the prototype. We will record all user feedback and use it to guide improvements to the interface, recommendations and checkout flow. Once these refinements are complete, we will prepare the final project evaluation for presentation[4].

Test information	Result
Test input	I need an apple laptop under £500
Expected	Recognise apple or explain no match
Actual	Displayed “No Preference”
Recommendation	HP and Lenovo
Security	Medium
Status	Open
Next action	Correct and retest

Test Input

https://subjects-impression-measured-concentration.trycloudflare.com/?p=shopping-assistant

BuyShop Search for products, brands and more... **Search** Account Wishlist **Basket 3**

Home All Categories Shop Shopping Assistant Deals About Help Accessibility

1 Budget 2 Product type 3 Preference 4 Intended use

Start by describing what you need.

Hi! What are you shopping for?

Describe the product, your budget, preferences or how you plan to use it. For example: "I need headphones for commuting under £50."

I need an Apple laptop under £500

Find products →

This is an interactive, rule-based prototype using fictional products. It is not connected to a live AI service or real stock data.

Need a person? **Talk to a real person →**

Talk to a real person

Hi! What are you shopping for?

Describe the product, your budget, preferences or how you plan to use it. For example: "I need headphones for commuting under £50."

I need an Apple laptop under £500

Thanks — I'll use your description to narrow down the options.

Budget Up to £500.00 [Change](#)

Product type Electronics [Change](#)

Preference Not set [Change](#)

Intended use Not set [Change](#)

Which feature matters most to you?

Best value

Wireless

Lightweight

Durable

Highest rated

No preference

This is an interactive, rule-based prototype using fictional products. It is not connected to a live AI service or real stock data.

Need a person? [Talk to a real person →](#)

References

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