

ACTIVITY 1



INTENT AND IMPACT

- Is there a POV? If not, define one; or refine the POV if there is one.
- Describe what your UXR POV aims to achieve and enable in your team or organization?
- What tangible impact on user experience or business goals do you intend to achieve with your UXR POV?

Is there a POV? not really

Define / refine the POV.

We need to provide better information explaining systems

POV

- Provide tools/best practices to help practitioners build explainable systems that are currently imperfect.
- AI itself is a valuable tool for this process.

NOTES:

End users: Need to trust AI for it to be

Describe what the UXR POV aimed to achieve.

- A set of tools and best practices that will allow practitioners to know that the experiences they build can be clearly understood by users

Specifically:

- Researching the impact of XAI on user engagement and retention
- Evaluating effective and usable XAI experiences

What did it/could it enable for the team or organization?

- Trusted end user experiences
- Effective UXR and UXD

What tangible impact on user experience or business goals did the POV intend to achieve?

- increased engagement / retention
- user trust

Questions

Do users really need to be able to have the AI explain everything (decisions/model), etc

– Maybe only when there is an error

- We should question if users really need control.
 - Even if the data is telling us that they want this.

We should narrow to a user type

He also talks about a timeline – we can't expect the trust to be built over time.

– Did focus on the goal of user engagement

– What are the factors that contribute to trust (chain of trust)

Different user types are a factor – s

-

Visual elements for explainability

“help” is the product, goal is not “to explain AI” per se, but to help e.g. designers/practitioners to do XAI

ACTIVITY 2

CHALLENGE IDENTIFICATION

- Identify key hurdles preventing you from reaching the desired UXR POV state you described.
- What needs to evolve or be introduced to bridge the gap between current state and your intentions?

KEY HURDLES

- Advanced LLMs may not be fully explainable (or even “[faithful](#)”). This challenge will likely increase as model complexity increases (e.g. number of tokens)
 - (UX and other) Researchers may not be able to understand the underlying mechanisms that lead to AI explanation
 - Underlying models/ tech are highly specialized (and ever-changing)
 - Users may not have the time or willingness to engage deeply with AI- explanations, leading to cognitive disengagement.
 - Wide variety of user types & needs
 - Inherent difficulty in ensuring users accurately understand and utilize AI explanations
 - Complexity of designing XAI interactions that are user-friendly and promote long-term understanding
- End user perspectives evolve with experience e.g. trus, expertise

Users have different established knowledge of AI and its processes — their explanation needs may be extremely different given many individual differences (e.g., cultural differences, AI awareness, domain education)

Too many XAI methods, and no one size fits all.

UXR is not involved in the process of decision-making. We need to find out seat at the table sometimes, instead of being involved de-facto

^+1

How do we define and research the level of human-like explanation

How are we able to assess (and measure) XAI experiences?

Tension between XAI and task-effectiveness

NEEDS TO BE INTRODUCED

AI needs to be understood as valuable?

extract user intent

ACTIVITY 3 <A>

APPROACHES AND STRATEGIES

Identify multiple approaches and combine them into focused strategies that address specific experience challenges or business goals.

Pablo / Jonas

- Advanced LLMs may not be fully explainable (or even “faithful”). This challenge will likely increase as model complexity increases (e.g. number of tokens)

- > Transparency: Understand model limitations and make the users aware of them (AI’s confidence score for the answer, instead of a generic “Gemini can make mistakes, so double-check it”)
- > Assess the accuracy and usefulness of model explanations (for example via in-product feedback 👍👎)
- > Provide train-of-thought explanations that allow users to understand the model thinking
- > Visibility on what precise sub-model / sub-modules or even the query has triggered (e.g., Math calculations)
- > Visibility on the datasets or references used by the model

- (UX and other) Researchers may not be able to understand the underlying mechanisms that lead to AI explanation

- > It is the role of the researcher to represent the user needs and requirements (and validation) and pass that to the dev team

- Underlying models/ tech are highly specialized (and ever-changing)

- > Making users understand when there were model updates
- > Provide the brief diffs of answers from different model versions (versionize the answers based on the model)

Group C::

Users have different established knowledge of AI and its processes — their explanation needs may be extremely different given many individual differences (e.g., cultural differences, AI awareness, domain education)

educate? Onboard? Who are users/ What are their needs >> segmentation / critical journeys. Are there ways to tailor approaches?

How to assess? What signals are there to AI awareness? surveys??

Play: identify what is important to company for successful launch?

OR

Play: identify what is important to increase adoption?

Do they need to know at all? 99% invisible?

Too many XAI methods, and no one size fits all.

UXR is not involved in the process of decision-making. We need to find out seat at the table sometimes, instead of being involved de-facto

Group D:

How do we define and research the level of human-like explanation.

- Doing user research and bringing participants with different backgrounds and different abilities to ensure that the system is understood
- Applying Gestalt principles.
- Studying human-human interaction and comparing it to AI-human interaction.
 - Through this we might be able to address whether “human-like” explanation is a universal need / the right goal

How are we able to assess (and measure) XAI experiences?

- By applying some of the principles that we have used to do research in other areas in the past. At the end of the day, it’s human-computer interaction.
- Applying principles from linguistics, design, and other disciplines like communication.
- We have to design direct and indirect metrics (e.g. asking the user if she is understanding, if she made an error, if she trusts the system, etc...)

How do we solve the tension between XAI and task effectiveness?

- Applying scent of information principles: As the user feels that they are getting what they need, actual time would not matter as much as the perceived time.
- As technology gets better, it would be adapting to the user better and representing the user needs and usefulness of the value. The tension between XAI and task effectiveness will be reduced with more advanced models.
- In case of errors or undesired output, XAI should be designed with the len that it facilitate users to try again and more effectively.

ACTIVITY 3

APPROACHES AND STRATEGIES

Identify multiple approaches and combine them into focused strategies that address specific experience challenges or business goals.

- Users may not have the time or willingness to engage deeply with AI- explanations, leading to cognitive disengagement.

- Wide variety of user types & needs

Techniques to take: Experiment with different approachments to assess the approaches for engagement and design notification of explanations, define some personas for needs assessment

- Action: Only provide explanations when they are truly needed or when the user requests them.

- Rationale: Avoid unnecessary information. Users are more likely to engage when the explanation is relevant to their immediate task or question.

- Inherent difficulty in ensuring users accurately understand and utilize AI explanations

Techniques to take: we probably won't know this, try your best! You could run a study giving incorrect/incomplete explanations on target personas and assess general trust?

Try many different measurement methodologies

Highly context based, deliver highly personalized explanations! Have an LLM in your product that can deliver highly personalized explanations

Mitigate this issue by Always having an accessible explanation

-Complexity of designing XAI interactions that are user-friendly and promote long-term understanding

End user perspectives evolve with experience e.g. trus, expertise

Techniques to take: lots of testing images/explanations/interactions with diverse groups, also measure if these artifacts 'feel' trustworthy to users, test if artifacts should change given expertise etc.

experimentation with user feedback!

ACTIVITY 3 <C>

APPROACHES AND STRATEGIES

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what specific steps to get there

ACTIVITY 3 <D>

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ACTIVITY 4 <A>

CARD CREATION

Turn your intent and challenges into actionable guidance. Brainstorm strategies and build “Cards” in the table below to overcome these challenges and move closer to the intended impact.

ISSUE	TYPE	BEST PRACTICES
e.g., Stakeholder Bias	Best Practice, Be Ready, Other (please specify)	Brief description
Advanced LLMs may not be fully explainable (or even “faithful”). This challenge will likely increase as model complexity increases (e.g. number of tokens)	Best Practice	Transparency: Understand model limitations and make the users aware of them (AI’s confidence score for the answer, instead of a generic “Gemini can make mistakes, so double-check it”)
	Best Practice	Assess the accuracy and usefulness of model explanations (for example via in-product feedback 👍👎)
	Best Practice	Provide train-of-thought explanations that allow users to understand the model thinking



	Best Practice	Visibility on what precise sub-model / sub-modules or even the query has triggered (e.g., Math calculations)
	Best Practice	Visibility on the datasets or references used by the model
(UX and other) Researchers may not be able to understand the underlying mechanisms that lead to AI explanation	Be Ready	It is the role of the researcher to represent the user needs and requirements (and validation) and pass that to the dev team
Underlying models/ tech are highly specialized (and ever-changing)	Best Practice	Making users understand when there were model updates
	Best Practice	Provide the brief diffs of answers from different model versions (versionize the answers based on the model)
	Best Practice	Provide links to model specifications and brief overview of performance metrics on different knowledge domains for users who want to know more

ACTIVITY 4



Turn your intent and challenges into actionable guidance. Brainstorm strategies and build Cards in the table below to overcome these challenges and move closer to the intended impact.

ISSUE e.g., Stakeholder Bias	TYPE Best Practice, Be Ready, Other (please specify)	BEST PRACTICES Brief description
User cognitive disengagement with AI Explanations	Best Practice	Experiment to assess the approaches for engagement and design notification of explanations Examples: - Action: Only provide explanations when they are truly needed or when the user requests them. - Rationale: Avoid unnecessary information. Users are more likely to engage when the explanation is relevant to their immediate task or question. - Employ progressive disclosure: start with a brief summary and offer options to delve deeper. Break down explanations into smaller, digestible chunks. - Offer customizable explanation settings (level of detail, type of explanation).
Challenges with user understanding & utilization of AI Explanations	Be ready	Have Gen-AI in your product that can deliver highly personalized and context-aware explanations Mitigate this issue by Always having an accessible explanation
Complexity of creating useful and usable XAI interactions	Best Practice	Experimentation with user feedback! Testing images/explanations/interactions with diverse groups. Measure if these artifacts 'feel' trustworthy to users, test if artifacts should change given expertise etc.



ACTIVITY 4 <C>

CARD CREATION

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Users have different established knowledge of AI and its processes — their explanation needs may be extremely different given many individual differences (e.g., cultural differences, AI awareness, domain education)		

UXR POV

ACTIVITY 4 <D>

CARD CREATION

Turn your intent and challenges into actionable guidance. Brainstorm strategies and build “Cards” in the table below to overcome these challenges and move closer to the intended impact.



ISSUE e.g., Stakeholder Bias	TYPE Best Practice, Be Ready, Other (please specify)	BEST PRACTICES Brief description
Lack of defined human-like explanation levels	Best Practice	Conduct user research where participants come from different background, and have different abilities
	Best Practice	Apply Gestalt principles
	Be Ready	Study human-human interactions and compare them with human-AI interactions
Assess / Measure XAI experience	Best Practice	Apply some of the principles that we have used to do research in other areas in the past. At the end of the day, it's human-computer interaction.
	Best Practice	Apply principles from linguistics, design, and other disciplines like communication.
	Best Practice	Design direct and indirect metrics (e.g. asking the user if she is understanding, if she made an error, if she trusts the system, etc...)
Tension between XAI & task effectiveness	Best practice	Apply scent of information principles: As the user feels that they are getting what they need, actual time would not matter as much as the perceived time.
	Be ready	Adapt to the user better by learning what each user needs and what is the value of the system to her.
	Best practice	Design XAI with the lense that it facilitates users to try again and try more effectively.

ACTIVITY 5

UXR POV FRAMEWORK MAPPING

Position your *Cards* and *Plays* within the UXR POV Framework to identify where your efforts are focused and where you may have gaps.

Discuss: Where is your strength concentrated? Where do you need to build more?

Pyramid Level	CARDS <Best Practices>	PLAYS <Strategies>
UXR POV	What drives success (increase understanding)?	needs to be measurable; need a research program to get us there; clear ownership of research/ research outcomes
INSIGHT GENERATION	Have Gen-AI in your product that can deliver highly personalized and context-aware explanations Mitigate this issue by Always having an accessible explanation	Challenges with user understanding & utilization of AI Explanations
DATA COLLECTION	Assess the accuracy and usefulness of model explanations (for example via in-product feedback 👍👎) Experiment to assess the approaches for engagement and design notification of explanations Examples: - Action: Only provide explanations when they are	LLM's need to be explainable User cognitive disengagement with AI Explanations

	truly needed or when the user requests them. - Rationale: Avoid unnecessary information. Users are more likely to engage when the explanation is relevant to their immediate task or question. - Employ progressive disclosure: start with a brief summary and offer options to delve deeper. Break down explanations into smaller, digestible chunks. - Offer customizable explanation settings (level of detail, type of explanation).	
	Experimentation with user feedback! Testing images/explanations/interactions with diverse groups. Measure if these artifacts 'feel' trustworthy to users, test if artifacts should change given expertise etc. How to assess [current state of AI understanding]? <Also Foundational>	Complexity of creating useful and usable <XAI> interactions look at journeys, are they successful etc; look at engagement (expert vs novice); sensemaking > interview/qual / outside of quant
Lack of defined human-like explanation levels	Apply some of the principles that we have used to do research in other areas in the past.	Study human-human interactions and compare them with human-AI interactions <in
FOUNDATION	Transparency: Understand model limitations and make the users aware of them (AI's confidence score for the answer, instead of a generic "Gemini can make mistakes, so double-check it")	LLM's need to be explainable



Lack of defined human-like explanation levels	What defines success (of good XAI)? <Also in POV>	collective decision (triad) Conduct user research where participants come from different background, and have different abilities <also research> Apply Gestalt principles <also research>
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