



Tutorial 4: **User Experience of Augmented Reality**

Stefan Graser (MSc)

28th September, 2025 – SoftNet Congress, IARIA – Lisbon, Portugal

SUMMARY



User Experience (UX) is crucial for the success of digital products, referring to the subjective impression of users. In the context of Augmented Reality (AR), UX evaluation gains even greater importance due to new interaction paradigms.

While research on AR technologies has rapidly progressed, systematic approaches for evaluating UX in AR remain limited compared to more established domains. Conducting UX research in AR requires a suitable selection and combination of qualitative and quantitative methods, ranging from questionnaires and usability testing to observational studies and physiological measures.

Among the different methods, UX questionnaires are most commonly applied. This tutorial will introduce the state-of-the-art regarding UX evaluation methods, with a special focus on AR. In particular, the focus is on UX questionnaires. Based on this, the challenges of questionnaires are introduced. Moreover, directions on how to conduct a quantitative UX evaluation using questionnaires are provided.

Keywords– *Augmented Reality (AR); User Experience (UX); UX Evaluation; UX Questionnaires.*

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Research on user experience of augmented reality for corporate training.

The aim is to develop an **innovative UX measurement approach** by translating UX deficits into actionable improvement recommendations, making the results of scientific UX evaluation methods practically applicable for designing and improving applications' system characteristics.



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TUTORIAL OBJECTIVES

- ➔ **...provide an understanding regarding the relevance of UX research**
- ➔ **...provide insights into survey design and existing UX questionnaires**
- ➔ **...provide the current state of UX research in the field of Augmented Reality**
- ➔ **...indicate challenges and future directions**



AGENDA

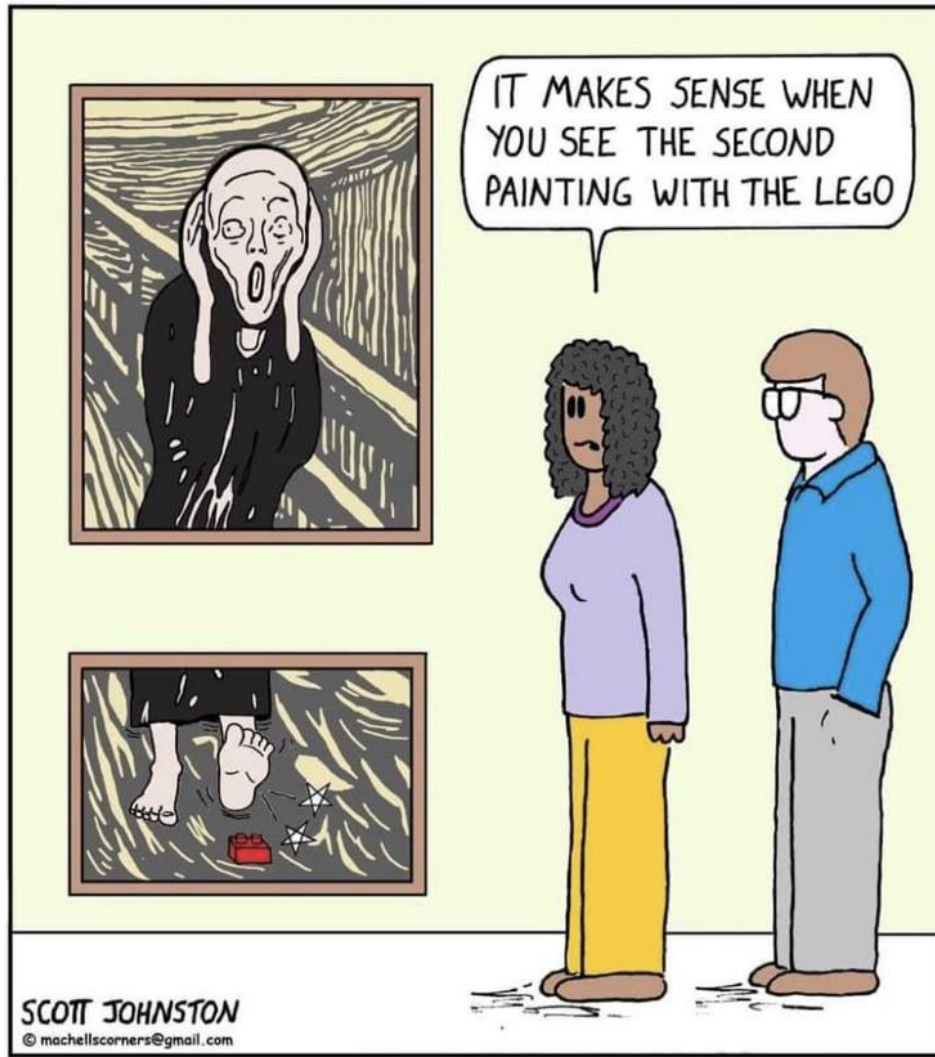
1. Introduction
2. Understanding User Experience
3. User Experience Evaluation Methods
4. Conducting Quantitative Surveys
5. User Experience of Augmented Reality
6. Challenges & Future Directions



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YOU ARE NOT YOUR USER



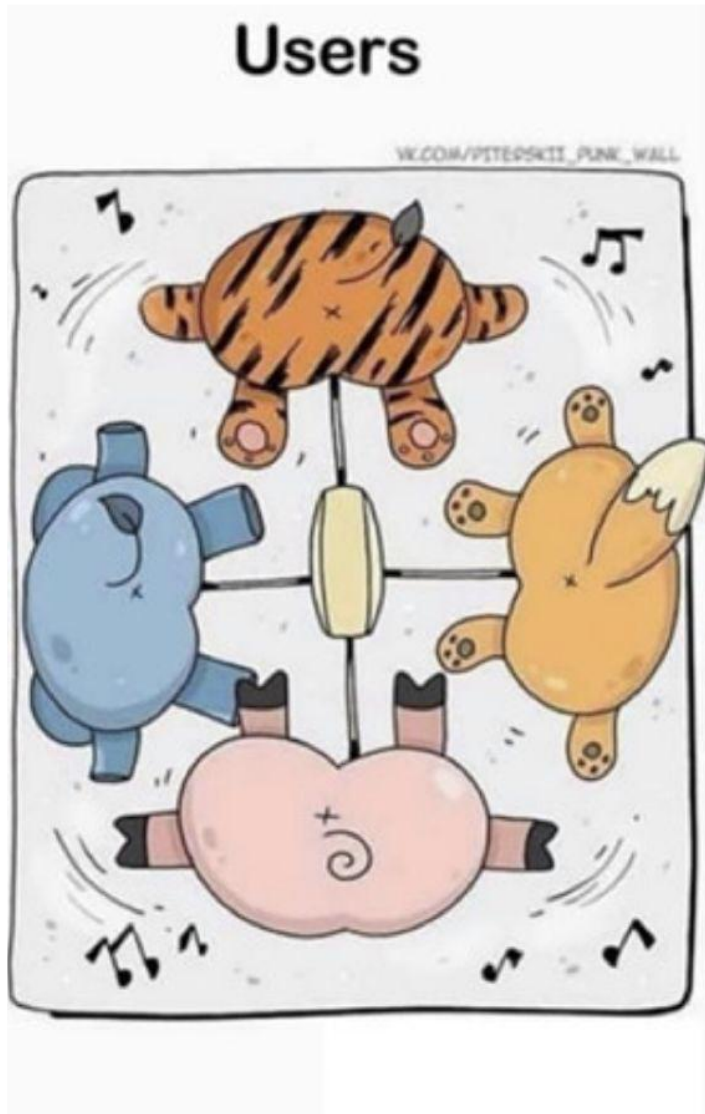
**It is impossible for us to know
how other people use our
products**

IT IS IMPORTANT TO UNDERSTAND THE **USER**



Industry research often focuses on the **clients...**

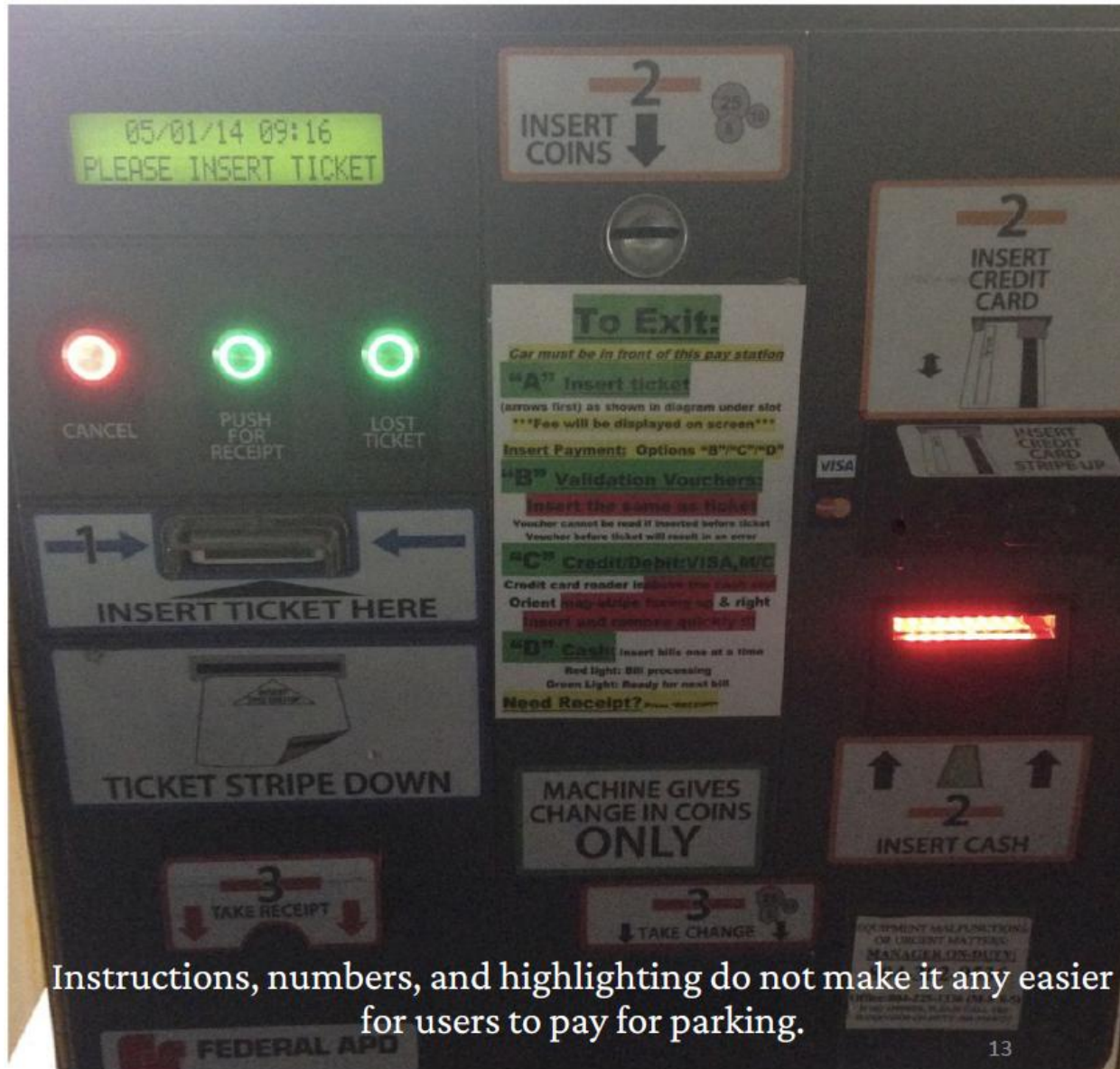
IT IS IMPORTANT TO UNDERSTAND THE USER



Industry research often focuses on the clients...

... however, the **client's needs may differ from the user's needs!**

EARLY UX RESEARCH CAN AVOID “BAND-AIDS”



UX research is often **forgotten** in the **early stage** of product development.

Therefore, companies often resort to “**band aids**” to cover their mistakes

Instructions, numbers, and highlighting do not make it any easier for users to pay for parking.

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WHY IS UX RESEARCH IMPORTANT

UX research...

- ➔ ...enables us to learn and understand our users and their experiences
- ➔ ...avoids mistakes and problems arising after product launch

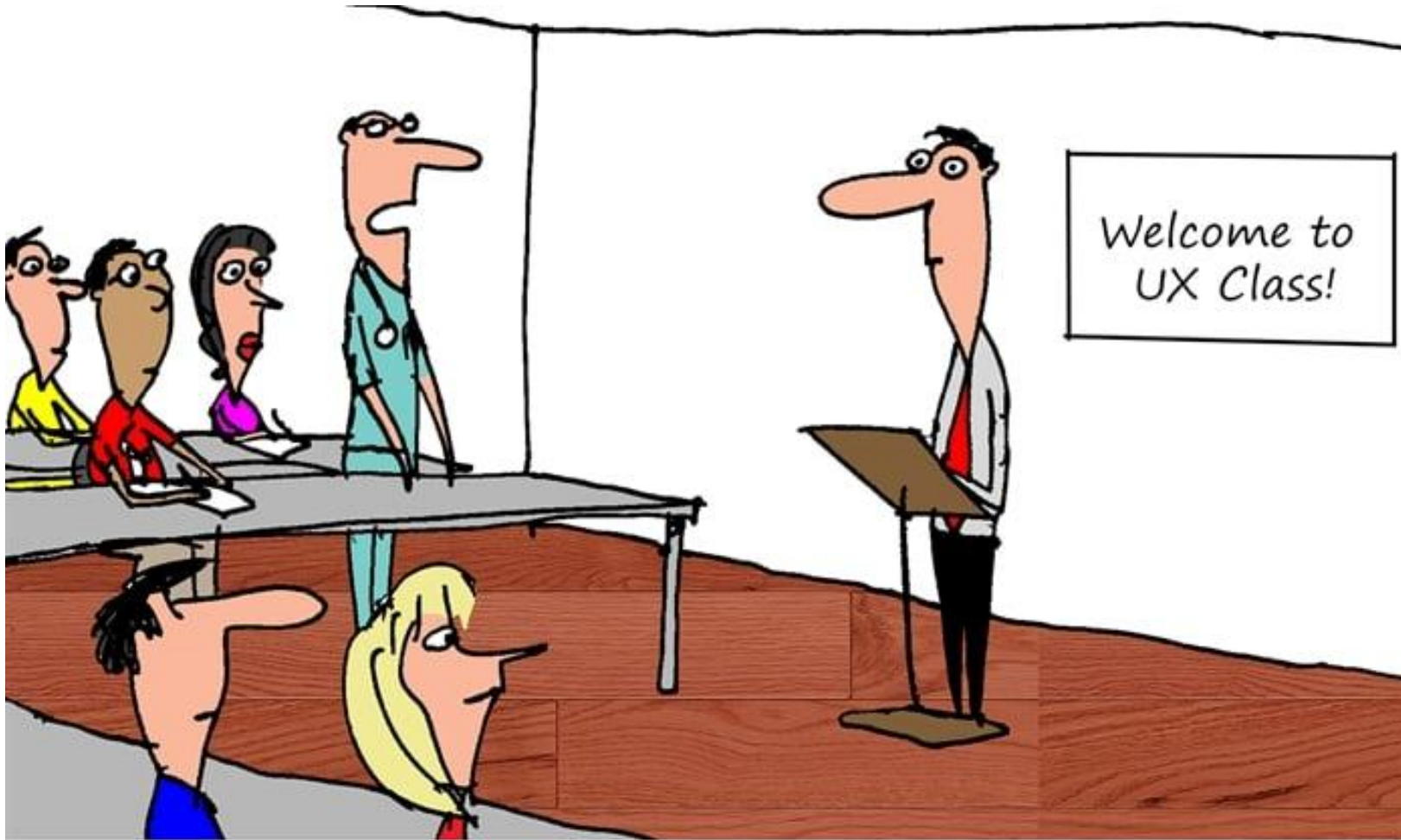




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UNDERSTANDING USER EXPERIENCE



"I'm a plastic surgeon and my patient wants me to take a user experience design class before giving her a face lift."

https://www.modernanalyst.com/Resources/BusinessAnalystHumor/tabid/218/ID/5738/UX_Class_-_User_Experience_Design.aspx

User Experience

“ *Person's perceptions and responses that result from the use or anticipated use of a product, system or service.*

(DIN ISO 9241-210)

”

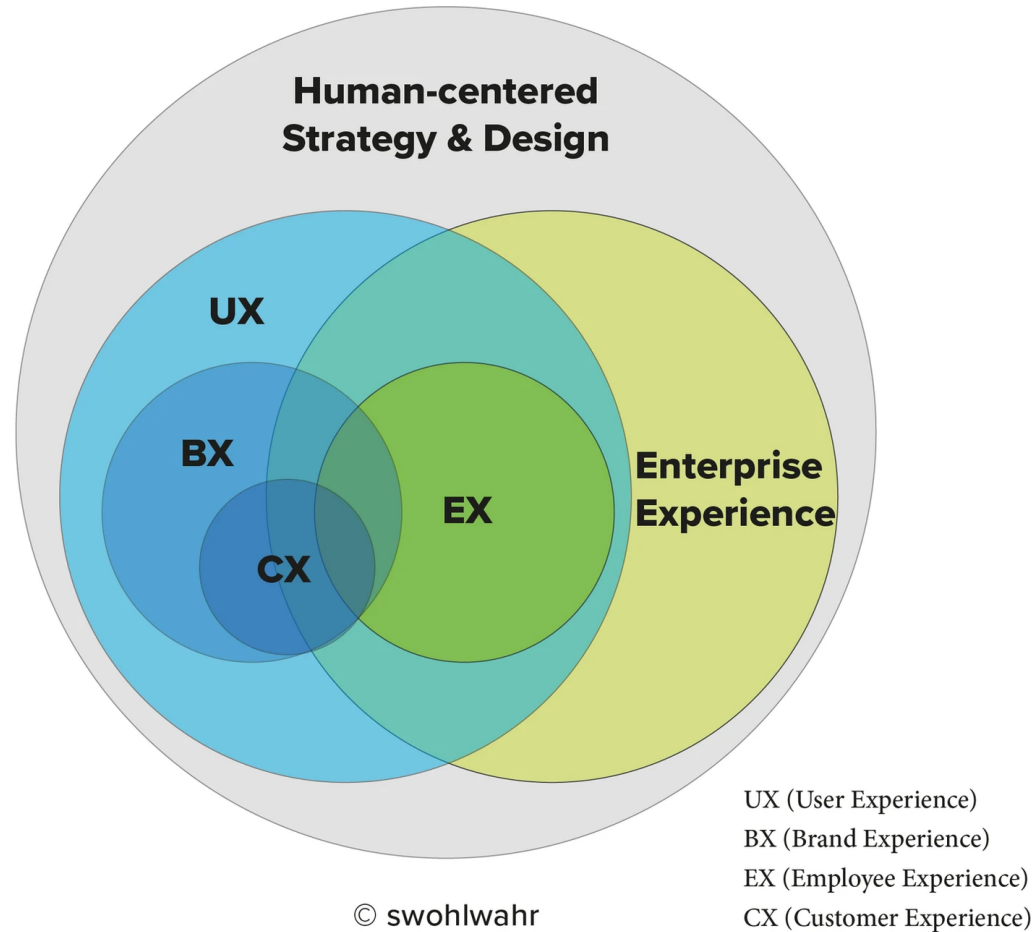
UX Research

“ *The systematic investigation of how people interact with products.*

We measure attitudes, perceptions, and behaviors.

”

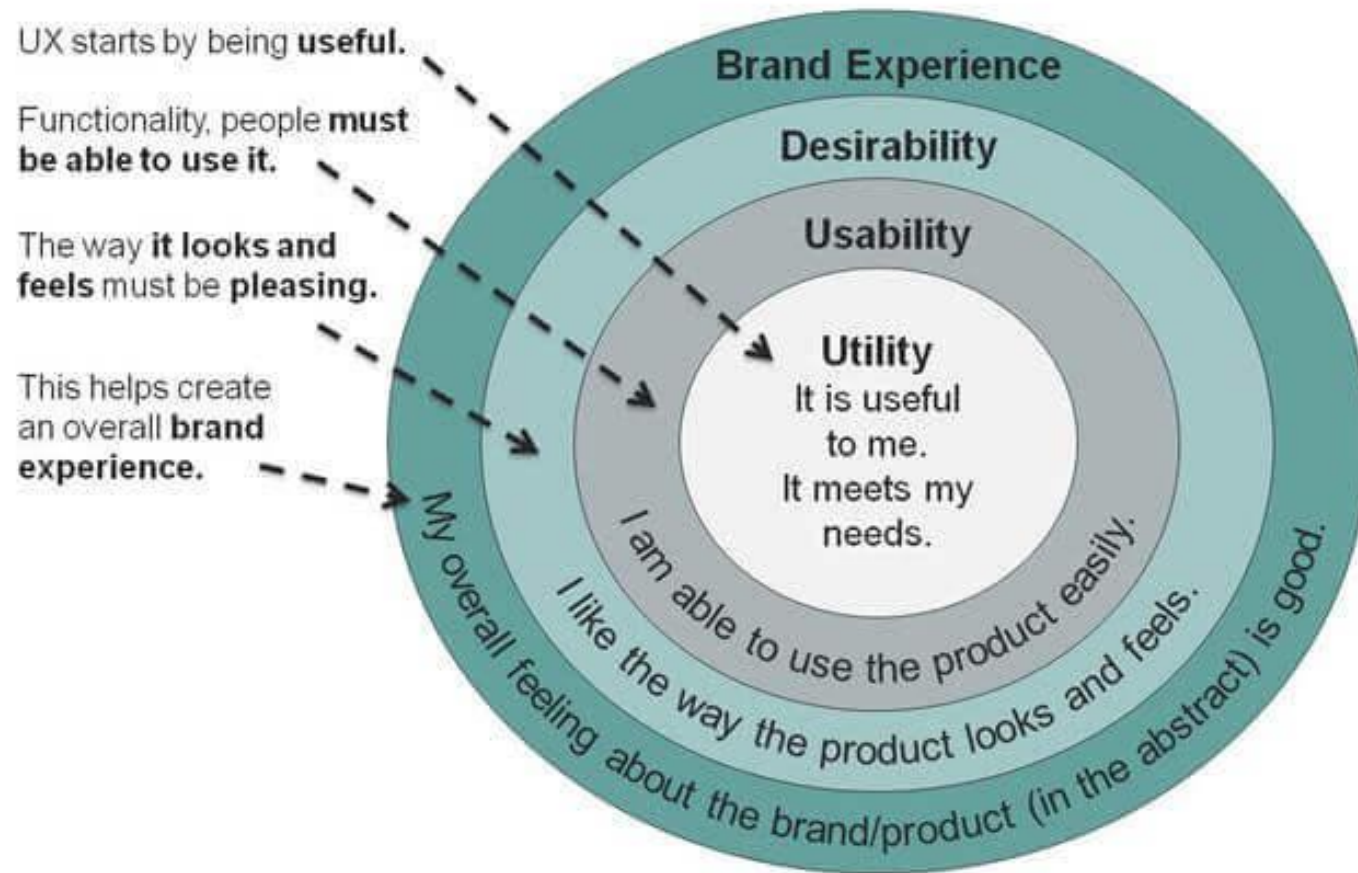
FACETS OF USER EXPERIENCE



- **Holistic Human-Centered Design**
UX is not limited to software or digital products, it covers **all human interactions with systems**
- **User Roles Beyond Customers**
Every customer is a user, but not every user is a customer. UX considers **all roles**
- **Quality Principles & Standard**
UX requires systematic, evidence-based methods

<https://www.swohlwahr.com/post/cx-and-the-dehumanization-of-a-profession>

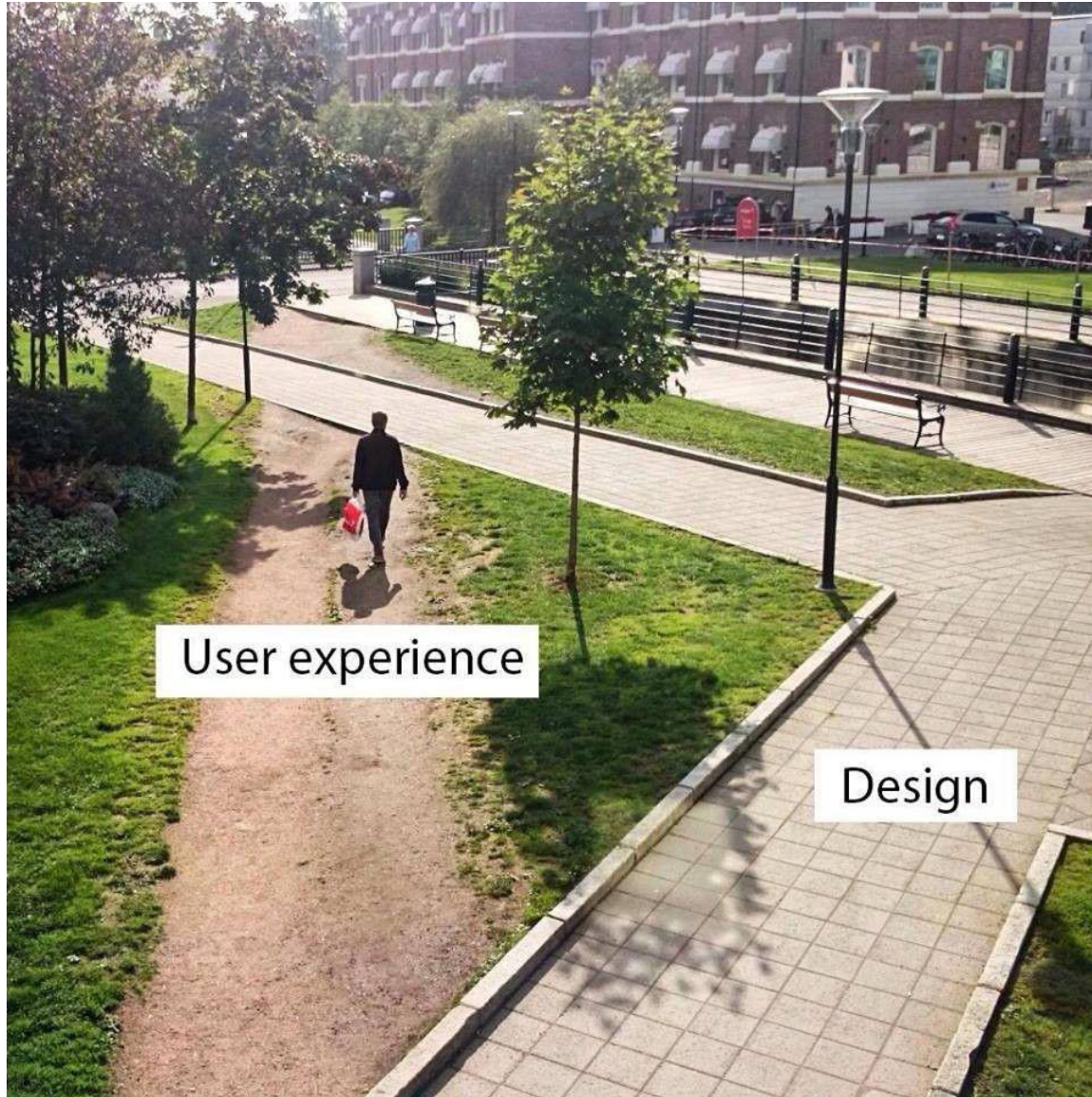
DESIGNING THE USER EXPERIENCE



- **Design means planning experiences**
It's not just drawing or making objects, but **shaping systems and services** that people live and use
- **User-centered design:**
Focuses on **people's needs and contexts**, using flexible guidelines instead of one-size-fits-all rules.

<https://www.tsw.it/en/journal-eng/research-experiences/what-is-user-experience/>

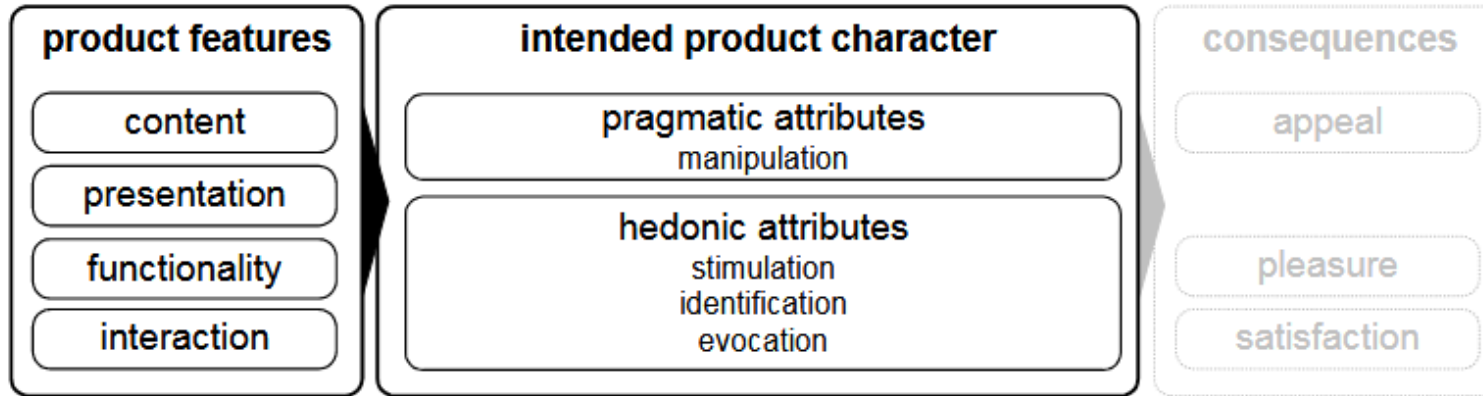
USER EXPERIENCE VS USER INTERFACE-DESIGN



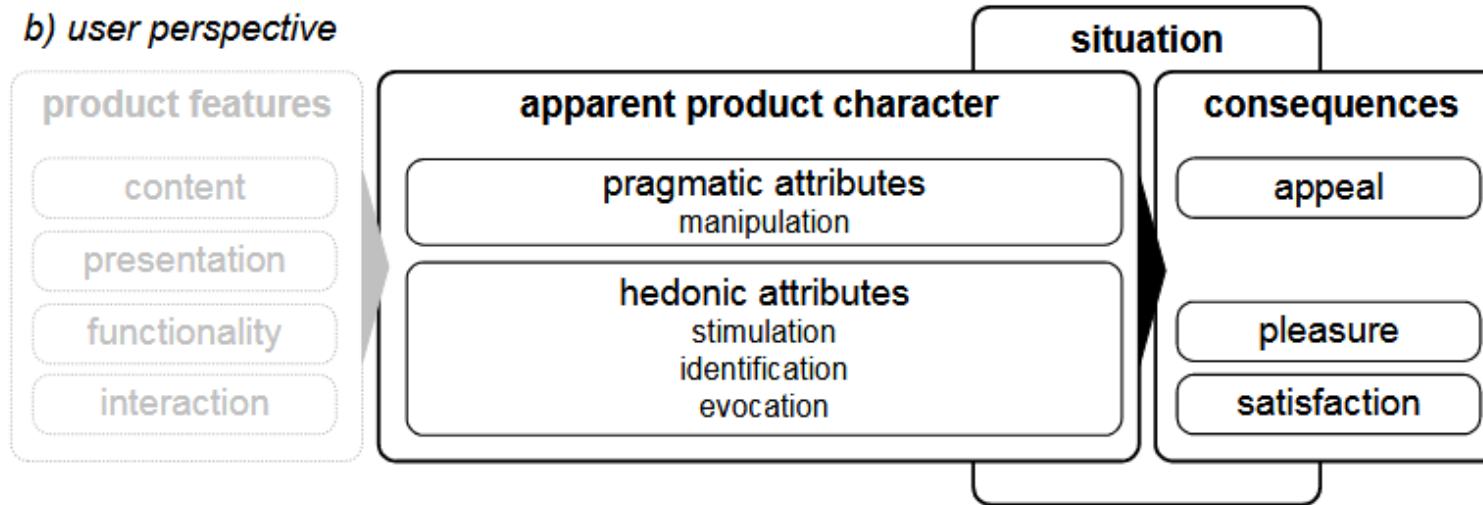
- **Intended vs. actual use**
What designers plan may not match how people prefer to interact
- **Users shape the experience**
Real behavior reveals needs that weren't considered in design

THEORETICAL FOUNDATION

a) designer perspective



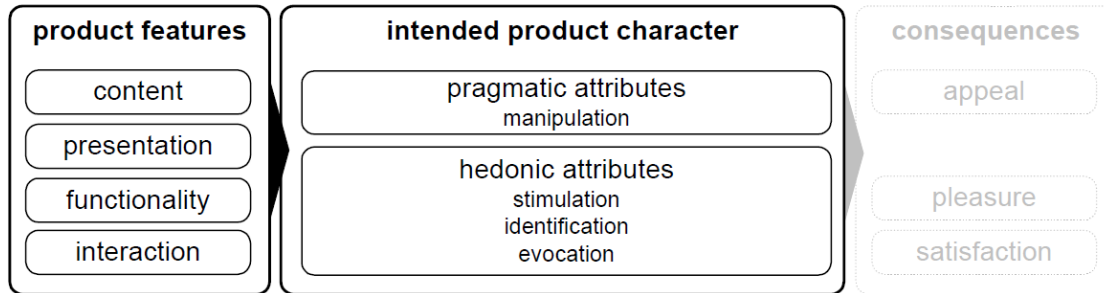
b) user perspective



M. Hassenzahl, "The thing and I: understanding the relationship between user and product," in *Funology: from usability to enjoyment*. USA: Kluwer Academic Publishers, Jan. 2005, pp. 31–42.

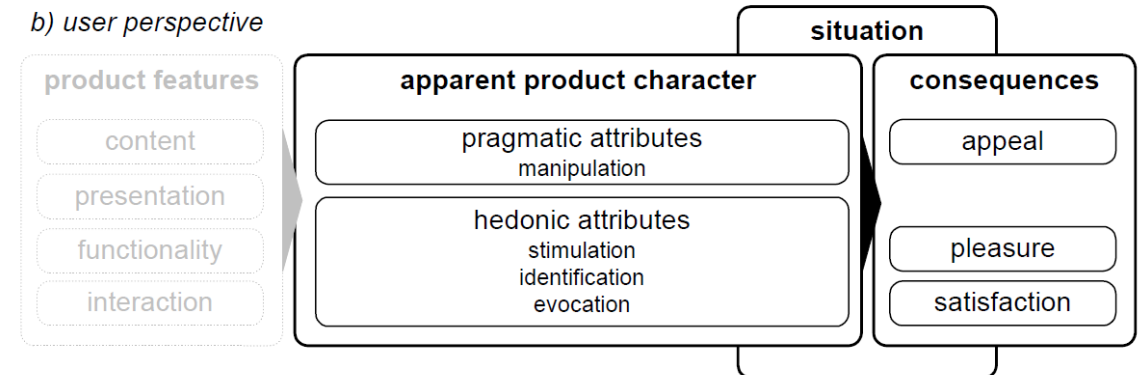
THEORETICAL FOUNDATION

a) designer perspective



Designers intend to create a specific experience based on their **subjective opinions**

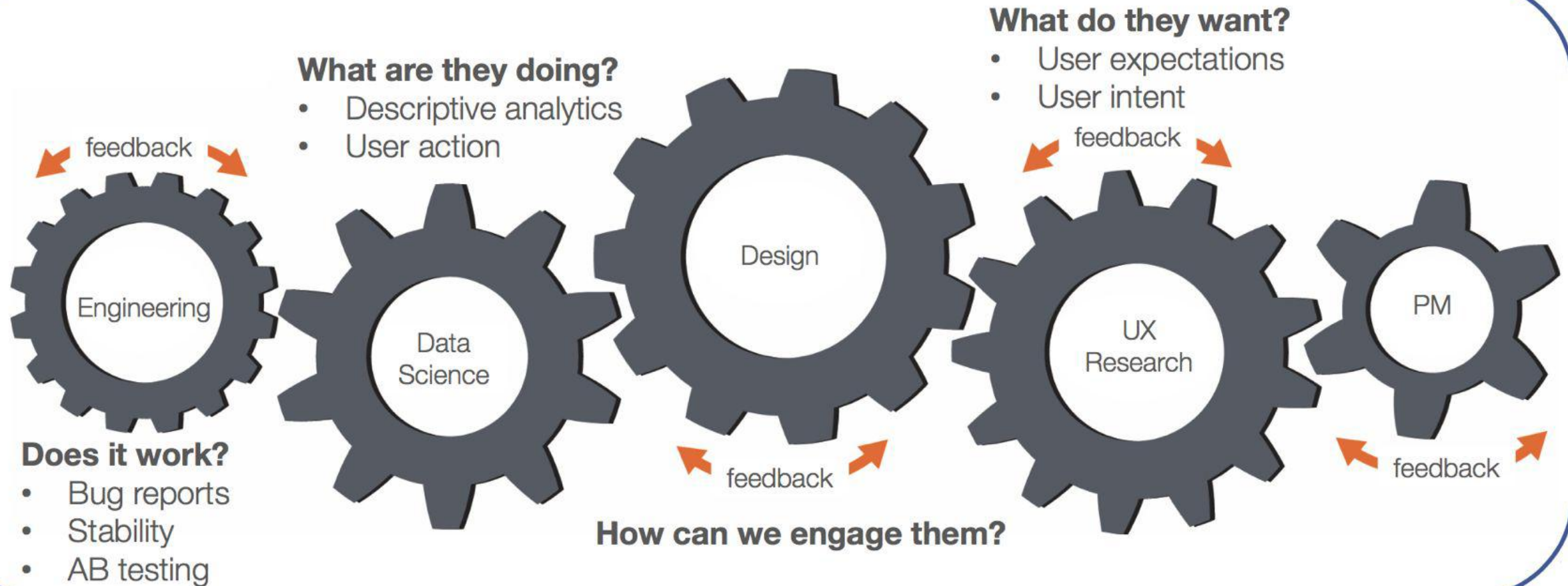
b) user perspective



Using a product creates an apparent product character constructed on the **combination of product features** created by the designer and **personal expectations** and standards

“Good design is actually a lot harder to notice than poor design, in part because good designs fit our needs so well that the design is invisible.”

- Don Norman



Romano Bergstrom, J. & Werner, K. (2017). Data Science and UX Research to Understand Users' Experiences and Perceptions. Poster presentation at the Women in Data Science and Statistics conference, La Jolla, CA, Oct 2017

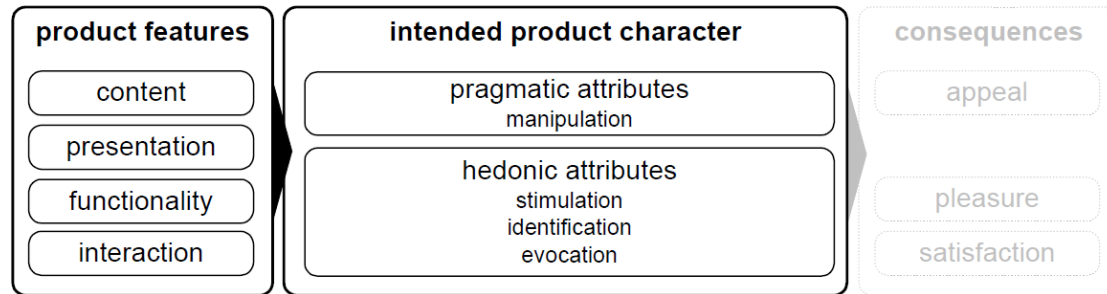


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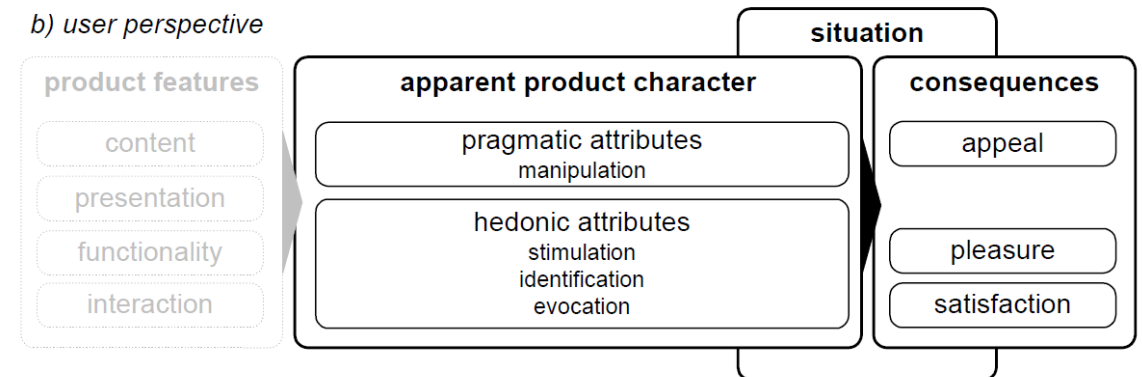
USER EXPERIENCE EVALUATION METHODS

a) designer perspective



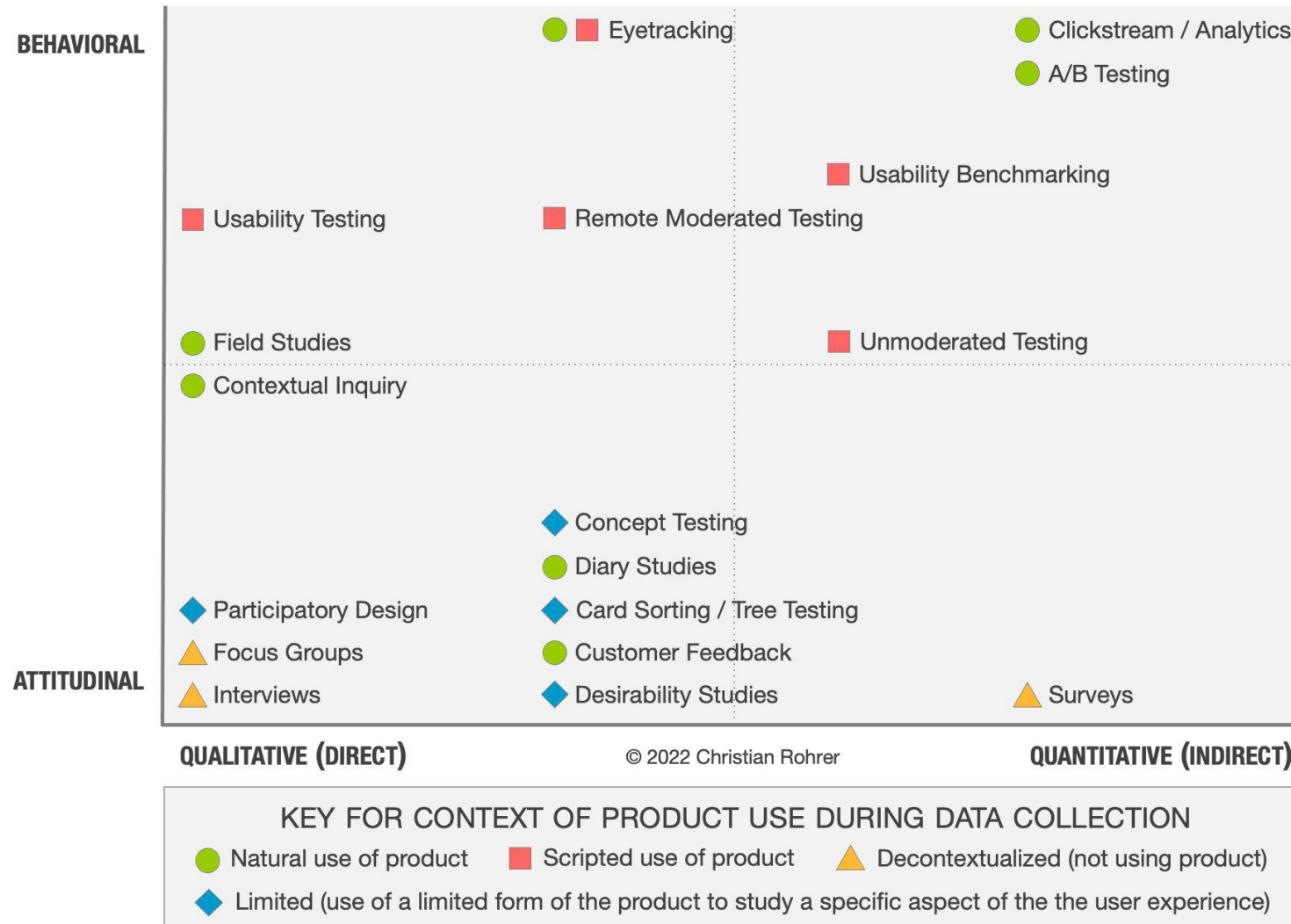
...Heuristics
...Design Recommendations
...Guidelines
...

b) user perspective



...A/B-Testing
...Interviews
...Surveys
...

LANDSCAPE OF USER RESEARCH METHODS



<https://www.nngroup.com/articles/which-ux-research-methods/>

RESEARCH METHODS COMPARISON MATRIX

Usability Testing	Survey or Questionnaire	In-depth Interview	Card Sorting Exercise	Diary Study	Contextual Inquiry	Ethnographic Methods	Eye Tracking
A study where the goal is to identify strong and weak points of a product by having a user test it with minimal guidance or bias introduced by the researcher.	A structured questionnaire that assesses knowledge, beliefs, attitudes, intentions and behaviors of a target audience.	A study where the goal is to learn more about the user of a certain product and determine user profiles, motivations and pain points.	A task where people organize information into categories that make sense to them.	A study that has users recording their experiences with the product over an extended period of time.	A semi-structured interview that obtains information about users as they interact with the product in their own environments.	A qualitative approach to capturing detailed, in-depth understanding of people's everyday life, practices, and cultures.	A method that collects data on where a user is looking, how long and in what order. Typically produces heatmaps and percentage of time spent looking at sections of a user interface.
QUALITATIVE VS. QUANTITATIVE							
Both	Both	Qual	Both	Qual	Qual	Qual	Both
WHEN IN PRODUCT LIFECYCLE? UNDERSTAND > PROTOTYPE > BUILD > LAUNCH							
Prototype, Build, Launch	Understand, Launch	Understand, Launch	Understand	Build, Launch	Understand, Launch	Understand, Launch	Build, Launch
TOP RESEARCH QUESTION(S)							
What roadblocks exist in the product?	How do users feel about a product?	What does a user think about a certain product?	How should a product be structured?	How do people use a product over time?	What is the context surrounding use of a product?	How does a user's environment shape their actions?	Can users discover a certain feature intuitively?
STRENGTHS							
Flexible timing, instant feedback and direct observation.	Quick turnaround, large representative data-sets and less ongoing labor.	Ability to ask follow-up questions and generate a rich understanding.	Quick, easy, inexpensive and well-known.	Long-term data from the user captures behavioral and attitudinal changes over time.	Very rich data that can only be obtained in a user's day-to-day life.	Insights are very diverse and deep that can't be gained from other means.	Very definitive and quantifiable data.
WEAKNESSES							
Long preparation time, possible bias associated with lab setting.	Low response rate, recall bias.	Time and effort intensive, outcome depends on interviewer's skills.	Data limited by researcher's choice of cards.	Good results depends heavily on the motivation and openness of the user.	Risk of disrupting user's environment and biasing the data.	The data can be very open-ended and the method can take a lot of time.	Doesn't work well with a broad scope and for those with certain eyewear.
COMMON MISTAKES OR MISCONCEPTIONS							
Too much focus on verbal feedback instead of behaviors.	Leading questions can influence the results.	Too much focus on what people want instead of their problems.	Researchers choosing cards or categories that create bias.	Underestimate work and time required from researcher.	Researchers can sometimes rely too much on what users say instead of what they actually do.	If the research team gets too large, it can bias the data.	Wrong conclusions could be drawn if the researcher always equates looking as attention.
TYPICAL DELIVERABLES							
Use cases, quotes, videos, stories and product recommendations.	Descriptive statistics, inferential statistics, charts and graphs.	Word clouds, personas, emerging themes, quotes and product recommendations.	Info architecture diagrams, cluster analysis, percentages of certain buckets.	Workflows, mental models, journey maps, personas and reports.	Workflows, task analysis, artifacts and diagrams of users' environments.	Personas, journey maps and people stories.	Heat maps, gaze paths and metrics.

<https://verstaresearch.com/blog/8-morphing-methods-as-market-research-shifts-to-ux-research/>

Self Report

- Scale rating
- Think-aloud protocol
 - Interviews
 - ...

Observational

- Click rates / patterns
 - Task accuracy
- Time to complete tasks
- Conversations rates
 - ...

Implicit

- Eye tracking
- Behavioral analysis
 - Pupil dilation
 - ...

QUESTIONNAIRES & SURVEYS



87% OF THE 56% WHO COMPLETED MORE THAN 23% OF THE SURVEY THOUGHT IT WAS A WASTE OF TIME

	1	2	3	4	5	6	7		
annoying	☐	☐	☐	☐	☐	☐	☐	enjoyable	1
not understandable	☐	☐	☐	☐	☐	☐	☐	understandable	2
creative	☐	☐	☐	☐	☐	☐	☐	dull	3
easy to learn	☐	☐	☐	☐	☐	☐	☐	difficult to learn	4
valuable	☐	☐	☐	☐	☐	☐	☐	inferior	5
boring	☐	☐	☐	☐	☐	☐	☐	exciting	6
not interesting	☐	☐	☐	☐	☐	☐	☐	interesting	7
unpredictable	☐	☐	☐	☐	☐	☐	☐	predictable	8
fast	☐	☐	☐	☐	☐	☐	☐	slow	9
inventive	☐	☐	☐	☐	☐	☐	☐	conventional	10
obstructive	☐	☐	☐	☐	☐	☐	☐	supportive	11
good	☐	☐	☐	☐	☐	☐	☐	bad	12
complicated	☐	☐	☐	☐	☐	☐	☐	easy	13
unlikable	☐	☐	☐	☐	☐	☐	☐	pleasing	14
usual	☐	☐	☐	☐	☐	☐	☐	leading edge	15
unpleasant	☐	☐	☐	☐	☐	☐	☐	pleasant	16
secure	☐	☐	☐	☐	☐	☐	☐	not secure	17
motivating	☐	☐	☐	☐	☐	☐	☐	demotivating	18
meets expectations	☐	☐	☐	☐	☐	☐	☐	does not meet expectations	19
inefficient	☐	☐	☐	☐	☐	☐	☐	efficient	20
clear	☐	☐	☐	☐	☐	☐	☐	confusing	21
impractical	☐	☐	☐	☐	☐	☐	☐	practical	22
organized	☐	☐	☐	☐	☐	☐	☐	cluttered	23
attractive	☐	☐	☐	☐	☐	☐	☐	unattractive	24
friendly	☐	☐	☐	☐	☐	☐	☐	unfriendly	25
conservative	☐	☐	☐	☐	☐	☐	☐	innovative	26



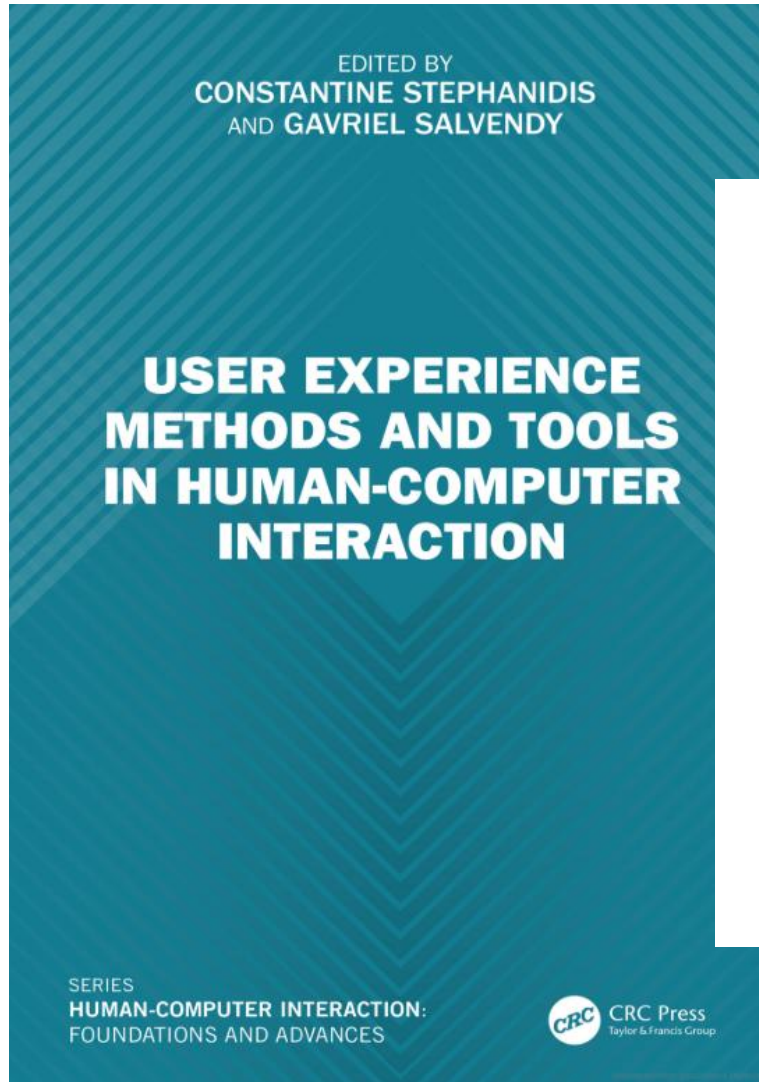
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of Applied Sciences

- **Best way** to capture the subjective perception of users (self-reported data)
- **Most applied**, both in general and in the context of Augmented Reality
- **Simple, fast, and cost-efficient** use



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6 Designing and Analyzing Questionnaires and Surveys

Martin Schrepp

6.1 INTRODUCTION

Surveys are a popular method to collect feedback concerning the user experience (UX) of products. They allow to capture qualitative feedback in the form of open-ended questions, information about the user base (e.g., age, occupation, education, and frequency of use) and objective and reliable quantitative data that describe how well a product complies with relevant UX quality aspects, for example efficiency, intuitive use, aesthetic design, or controllability (Bargas-Avila & Hornbaek, 2011; Díaz-Oreiro et al., 2019; Lewis & Sauro, 2021c; Schrepp, 2021).

Before we go deeper into the subject, we need to explain the difference between the terms *survey* and *questionnaire*. A *questionnaire* is a predefined set of questions (often called items). A *survey* consists of a questionnaire and the processes to collect and analyze the data. But the difference between these terms is often ignored and they are used as synonyms.

In this introduction, we will discuss several high-level aspects associated with the application of UX surveys that are relevant to the understanding of the following sections.

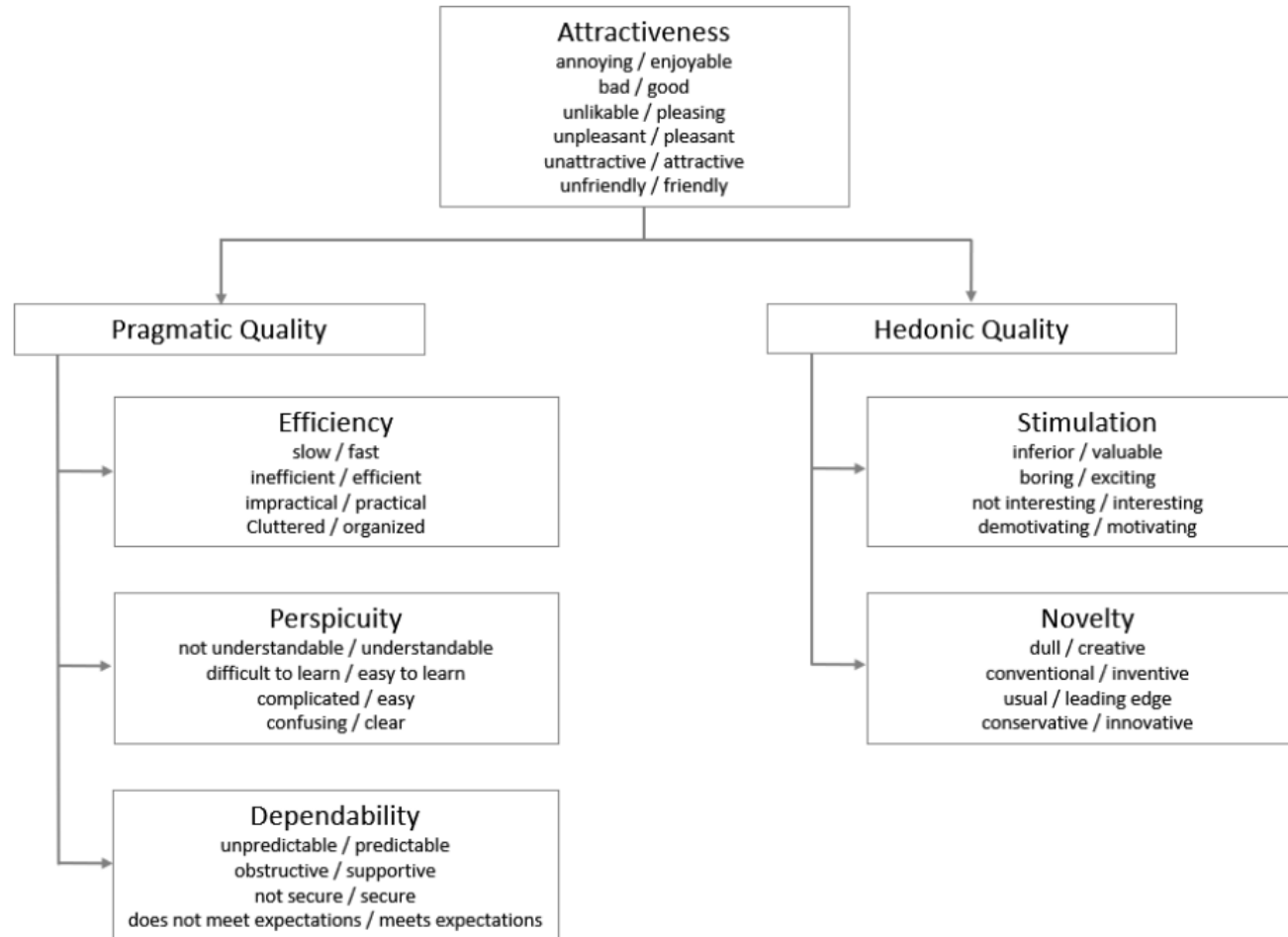
Stephanidis, C., & Salvendy, G. (Eds.). (2024). *User Experience Methods and Tools in Human-Computer Interaction* (1st ed.). CRC Press. <https://doi.org/10.1201/9781003495161>

STRUCTURE OF QUESTIONNAIRES (EXAMPLE: UEQ)

Questionnaires are structured based on **UX dimensions**, **items**, and **rating scales**.



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of Applied Sciences



	1	2	3	4	5	6	7		
annoying	☐	☐	☐	☐	☐	☐	☐	enjoyable	1
not understandable	☐	☐	☐	☐	☐	☐	☐	understandable	2
creative	☐	☐	☐	☐	☐	☐	☐	dull	3
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friendly	☐	☐	☐	☐	☐	☐	☐	unfriendly	25
conservative	☐	☐	☐	☐	☐	☐	☐	innovative	26

Laugwitz, B., Held, T., & Schrepp, M. (2008). Construction and evaluation of a user experience questionnaire. In Symposium of the Austrian HCI and usability engineering group (pp. 63-76). Berlin, Heidelberg: Springer.

QUESTIONNAIRE DESIGN: BASIC RULES

(1) Do not ask leading questions

Did you like this module?

Yes

No

>>

To what extent did you like or
dislike this module?

Dislike a great deal

Dislike somewhat

Neither like nor dislike

Like somewhat

Like a great deal

>>

Tourangeau, R., Couper, M. P., & Conrad, F. (2004). Spacing, Position, and Order: Interpretive Heuristics for Visual Features of Survey Questions. Public Opinion Quarterly, 68(3), 368–393. <https://doi.org/10.1093/poq/nfh035>

(2) Middle means typical

To what extent did you like or dislike this module?

☐ Dislike a great deal

☐ Dislike somewhat

☐ Neither like nor dislike

☐ Like somewhat

☐ Like a great deal

Conceptual midpoint = visual midpoint



Tourangeau, R., Couper, M. P., & Conrad, F. (2004). Spacing, Position, and Order: Interpretive Heuristics for Visual Features of Survey Questions. Public Opinion Quarterly, 68(3), 368–393. <https://doi.org/10.1093/poq/nfh035>

(2) Middle means typical

To what extent did you like or dislike this module?

☐ Dislike a great deal

☐ Dislike somewhat

☐ Neither like nor dislike ← **Conceptual midpoint**

☐ Like somewhat ← **Visual midpoint**

☐ Like a great deal

☐ Don't know

☐ No opinion

Tourangeau, R., Couper, M. P., & Conrad, F. (2004). Spacing, Position, and Order: Interpretive Heuristics for Visual Features of Survey Questions. Public Opinion Quarterly, 68(3), 368–393. <https://doi.org/10.1093/poq/nfh035>

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Conceptual midpoint = visual midpoint



Tourangeau, R., Couper, M. P., & Conrad, F. (2004). Spacing, Position, and Order: Interpretive Heuristics for Visual Features of Survey Questions. Public Opinion Quarterly, 68(3), 368–393. <https://doi.org/10.1093/poq/nfh035>

(3) Responses options should be exhaustive and mutually exclusive

In a typical month, how many times do you go to the grocery store?

1-2 times

2-4 times

More than 4 times

>>

In a typical month, how many times do you go to the grocery store?

0 times

1 to 2 times

3 to 4 times

5 or more times

>>

Tourangeau, R., Couper, M. P., & Conrad, F. (2004). Spacing, Position, and Order: Interpretive Heuristics for Visual Features of Survey Questions. Public Opinion Quarterly, 68(3), 368–393. <https://doi.org/10.1093/poq/nfh035>

(4) Do not ask double-barreled questions.

Do you support policies that
make private workplaces,
restaurants, and stand-alone bars
smoke-free?

Yes

No

>>

Tourangeau, R., Couper, M. P., & Conrad, F. (2004). Spacing, Position, and Order: Interpretive Heuristics for Visual Features of Survey Questions. Public Opinion Quarterly, 68(3), 368–393. <https://doi.org/10.1093/poq/nfh035>

QUESTIONNAIRE DESIGN: BASIC RULES

(4) Do not ask double-barreled questions.

Do you support policies that
make private workplaces smoke-
free?

Yes

No

>>

Do you support policies that
make restaurants smoke-free?

Yes

No

>>

Do you support policies that
make stand-alone bars smoke-
free?

Yes

No

>>

Tourangeau, R., Couper, M. P., & Conrad, F. (2004). Spacing, Position, and Order: Interpretive Heuristics for Visual Features of Survey Questions. Public Opinion Quarterly, 68(3), 368–393. <https://doi.org/10.1093/poq/nfh035>

QUESTIONNAIRE DESIGN: BASIC RULES

(5) Do not ask too many open-ended questions.

Please describe what you were doing when you last used the app?

What was happening when the app crashed?

What aspects of the app do you like the least?



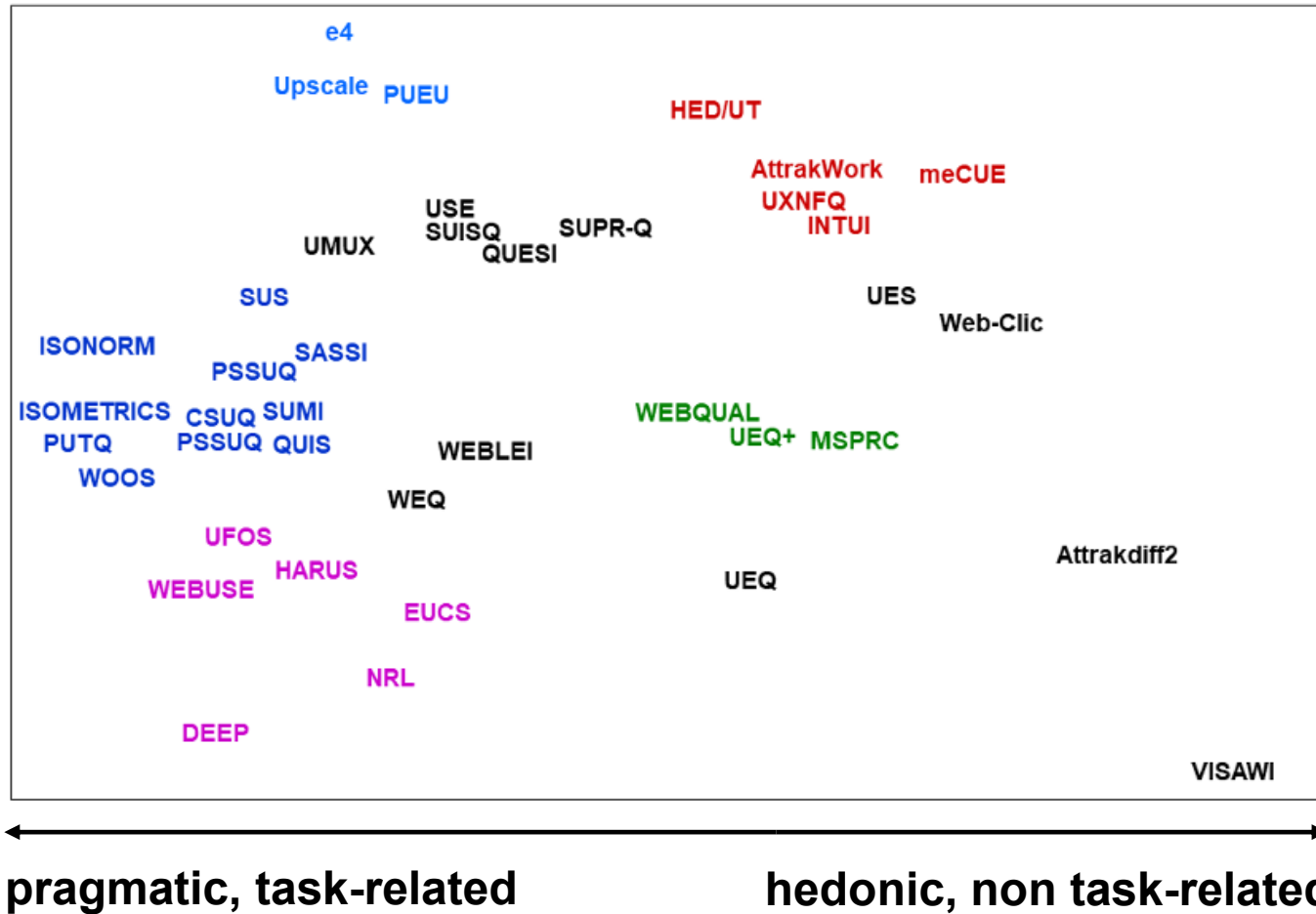
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EXISTING UX QUESTIONNAIRES



- Existing questionnaires differ in structure and focus
- Pure adoption of questionnaires risk **losing their original quality** (still measuring what they were initially designed to measure?)

Schrepp, M. (2020). A comparison of ux questionnaires-what is their underlying concept of user experience?. In Mensch und Computer 2020-Workshopband (pp. 10-18420). Gesellschaft für Informatik eV.

MOST USED SCALES IN UX RESEARCH

Published at CHI '19–'22, across 60 eligible papers, 85 different scales for a total of 155 uses

Coded scale name	References	Frequency
SUS (System Usability Scale)	Brooke, 1996	14 (9.03%)
UEQ (User Experience Questionnaire)	Laugwitz et al., 2008	13 (8.39%)
NASA-TLX (NASA Task Load Index)	Hart and Staveland, 1988 ; Hart, 2006	12 (7.74%)
USE questionnaire	Lund, 2001	5 (3.23%)
12-item Power user scale	Sundar and Marathe, 2010	3 (1.94%)
AttrakDiff	Hassenzahl et al., 2003	3 (1.94%)
IMI (Intrinsic Motivation Inventory)	McAuley et al., 1989	3 (1.94%)
IPQ (igroup presence questionnaire)	Schubert et al., 2001	3 (1.94%)
Trust between People and Automation Scale	Jian et al., 2000	3 (1.94%)
Presence Questionnaire (Witmer and Singer)	Witmer and Singer, 1998	3 (1.94%)
PXI (Player Experience Inventory)	Vanden Abeele et al., 2020	3 (1.94%)
SAM (Self-Assessment Manikin)	Bradley and Lang, 1994	3 (1.94%)
UX of the Recommender System	Knijnenburg et al., 2012	3 (1.94%)

Perrig, S. A., Aeschbach, L. F., Scharowski, N., von Felten, N., Opwis, K., & Brühlmann, F. (2024). Measurement practices in user experience (UX) research: A systematic quantitative literature review. *Frontiers in Computer Science*, 6, 1368860.

CHOOSING THE SUITABLE SCALE

User Experience Questionnaire Plus (UEQ+) Framework

- List of **27 UX scales** to be combined to build a questionnaire
- Includes scale descriptions and classification

<https://ueqplus.ueq-research.org/>

Scales not restricted to a special product type or scenario		
Efficiency	Impression that tasks can be finished without unnecessary effort.	These scales are not restricted to a certain type of products or special usage scenarios. But of course, that does not mean that they are equally important for all types of products. For example, Trust is especially important for products that handle sensitive data, e.g. banking apps, eCommerce or Social Networks. Adaptability is typically only of interest for products that are heavily used in a professional environment. Please think carefully what are the most important UX aspects for your products and restrict your survey to these scales.
Usefulness	Impression that using the product is beneficial.	
Perspicuity	Impression that it is easy to learn how to use the product.	
Adaptability	Impression that the product can be easily adapted to personal preferences or working styles.	
Dependability	Impression to be in control of the interaction with the product.	
Intuitive Use	Impression that the product can be used immediately without any training or help.	
Stimulation	Impression that it is interesting and fun to use the product.	
Novelty	Impression that the product design or product idea is creative and original.	
Trust	Impression that sensitive data are in safe hands and are not misused.	
Attractiveness	Overall impression concerning the product. Do users like or dislike it?	

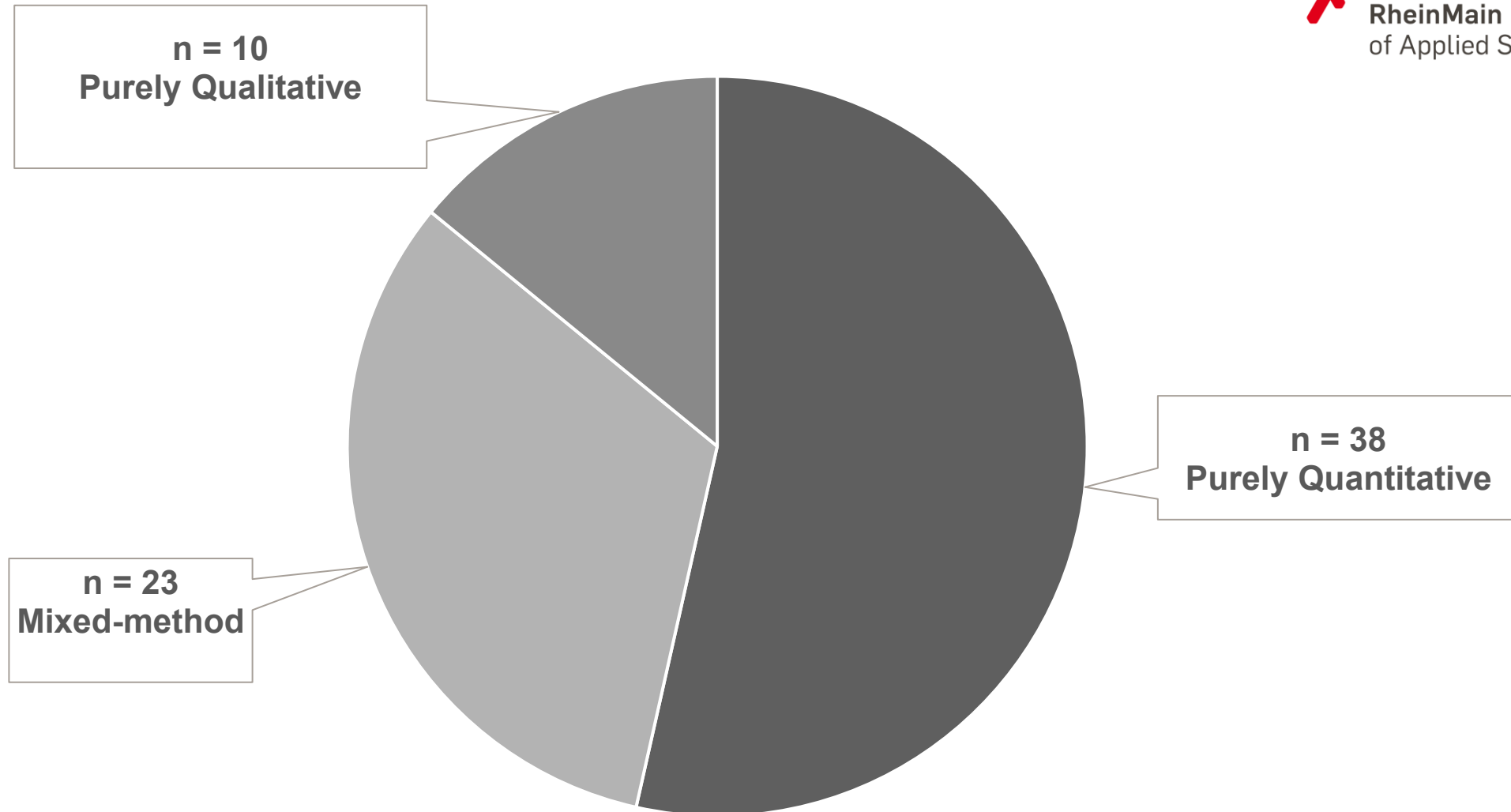
Schrepp, M., & Thomaschewski, J. (2019). Design and validation of a framework for the creation of user experience questionnaires. *IJIMAI*, 5(7), 88-95.



AGENDA

1. Introduction
2. Understanding User Experience
3. User Experience Evaluation Methods
4. Survey Design
5. User Experience Questionnaires
- 6. User Experience of Augmented Reality**
7. Challenges & Future Directions

METHODOLOGICAL APPROACH



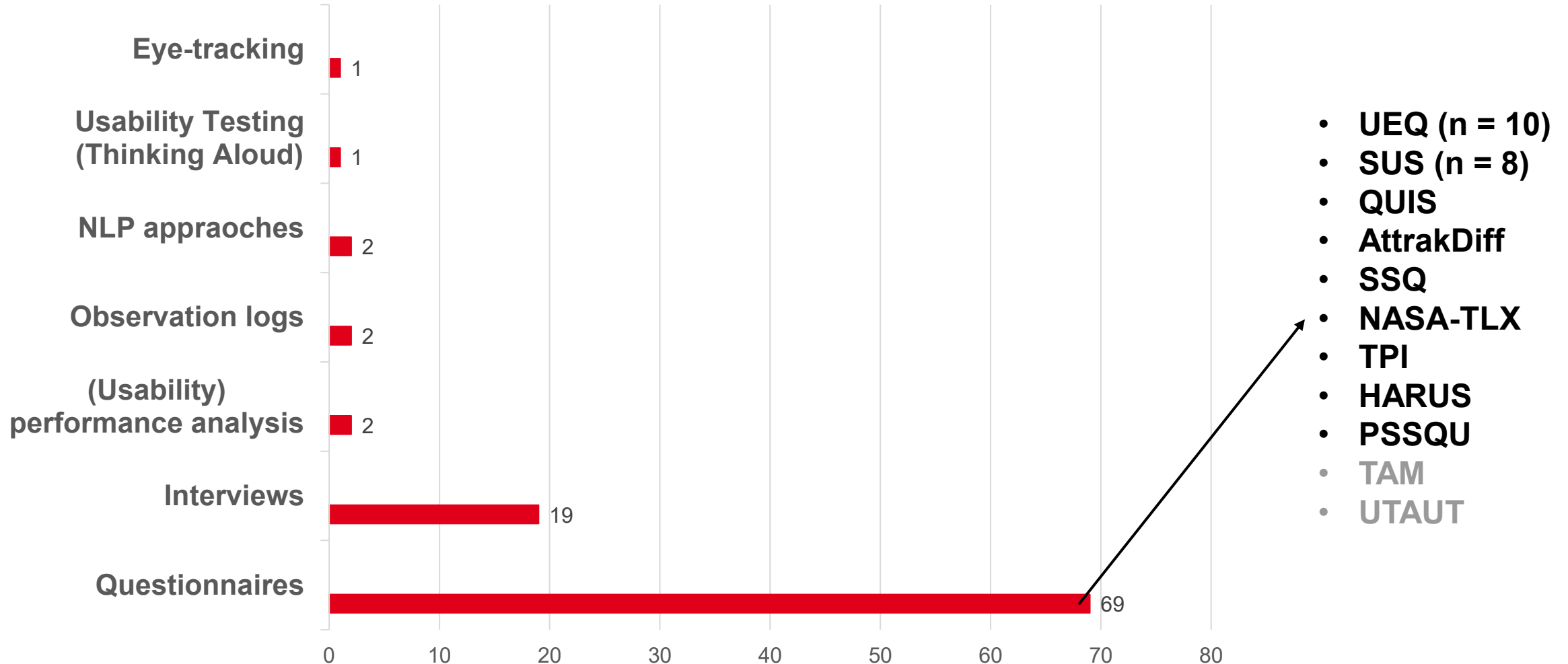
APPLIED EVALUATION METHODS

Graser, S., Kirschenlohr, F., Böhm, S. (2024). User Experience Evaluation of Augmented Reality - a Systematic Literature Review, The Seventeenth International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services CENTRIC 2024, Venice, Italy. https://www.thinkmind.org/library/CENTRIC/CENTRIC_2024/centric_2024_1_30_30013.html



RheinMain University
of Applied Sciences

*across 83 papers



EXISTING AR-SPECIFIC QUESTIONNAIRES

	HARUS Handheld Augmented Reality Usability Scale	ARI Augmented Reality Immersion Questionnaire	CIQ Customizable Interaction Questionnaire
<i>name</i>			
<i>focus</i>	Usability of handheld AR devices	Immersion in location- aware AR settings	Quality of Interaction with objects
<i>dimensions</i>	<i>Comprehensibility</i> <i>Manipulability</i>	<i>Engagement</i> <i>Engrossment</i> <i>Total Immersion</i>	<i>Quality of Interactions</i> <i>Comfort</i> <i>Assessment of Task Performance</i> <i>Consistency with Expectation</i> <i>Quality of the Sensory</i> <i>Enhancements</i>
<i>Items</i>	16 items	21 items	17 items
<i>scale format</i>	7-point rating scale	7-point rating scale	5-point rating scale

UX DIMENSIONS WITHIN EXISTING QUESTIONNAIRES

Relevant UX dimensions for AR in CT

Questionnaire	Dependability	Perspicuity	Efficiency	Usefulness	Clarity	Intuitive Use	Immersion	Novelty	Aesthetics	Identity	Stimulation	Quality of Content	Adaptability	Loyalty	Trust	Value
UEQ	●	●	●					●			●					
AttrakDiff2	◐	◐	◐							●	●					
VisAWI		◐						●	●							●
meCUE		●		●			●		●	●				●		
SUS		◐	◐													
SUMI	●	●	●	●												

● = complete included

◐ = partially included

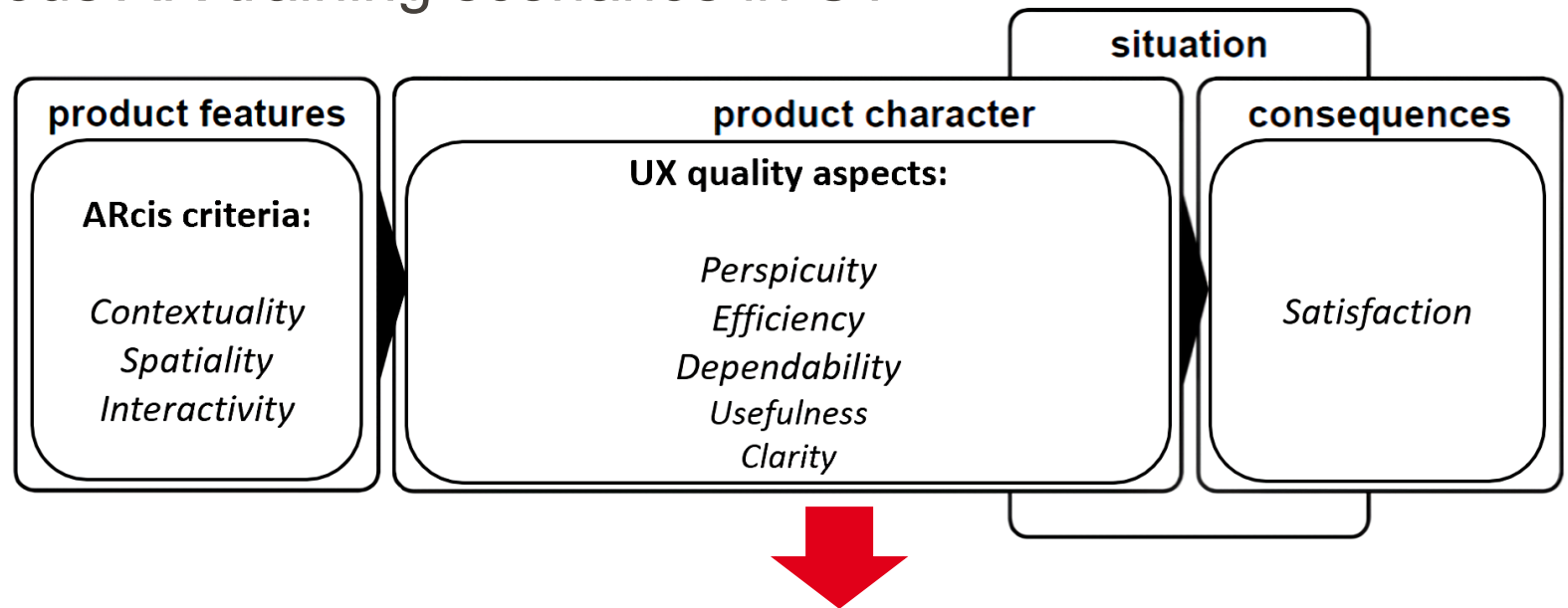
➔ No AR-specific UX questionnaire for CT exists
measuring all relevant UX dimension

AR-SPECIFIC UX QUESTIONNAIRE UXARCIS

Graser, S., Schrepp, M., Krüger, J., Böhm, S. (2025). Development of a UX Measurement Approach for Augmented Reality in Corporate Training HCII 2025. Lecture Notes in Computer Science, Springer, Cham. [accepted for publication]

- Quantifying both product features and product character as UX dimensions
- 7-Point Likert Scale
- Evaluation based on various AR training scenarios in CT

Reframed AR system characteristics from users' perspective within the field training and education



Semantically clearly described **UX dimensions**
relevant for AR in CT

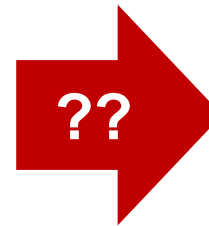
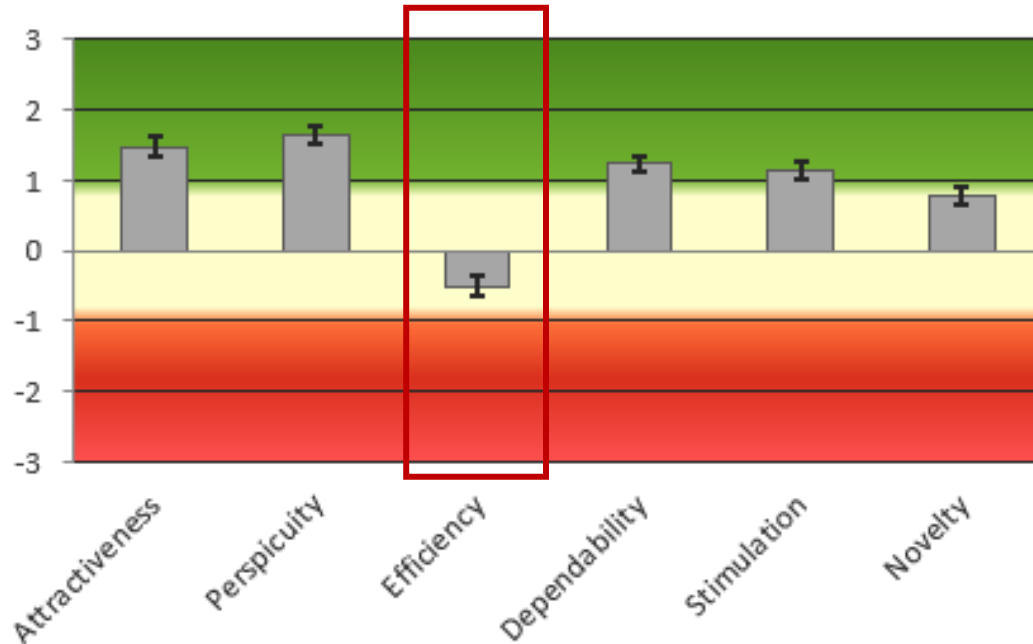


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CHALLENGE: LIMITED INTERPRETATION

*Example: Evaluation results indicate a low efficiency
→ **slow, inefficient, impractical, and cluttered***



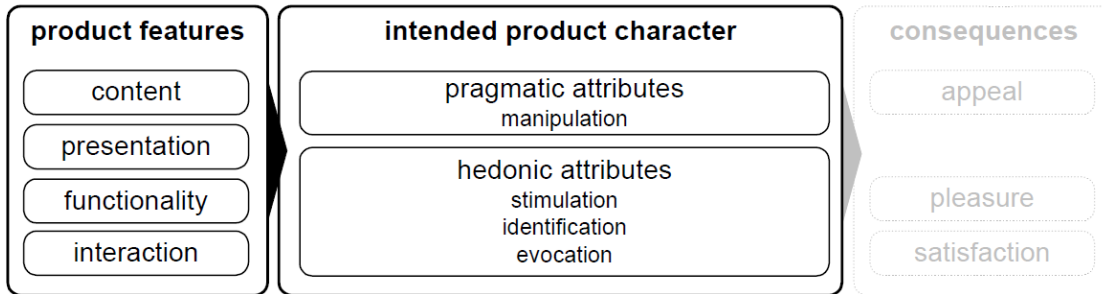
What does this mean for the developer?

*What must be improved to...
...make the application faster, more
efficient, practical and organized?*

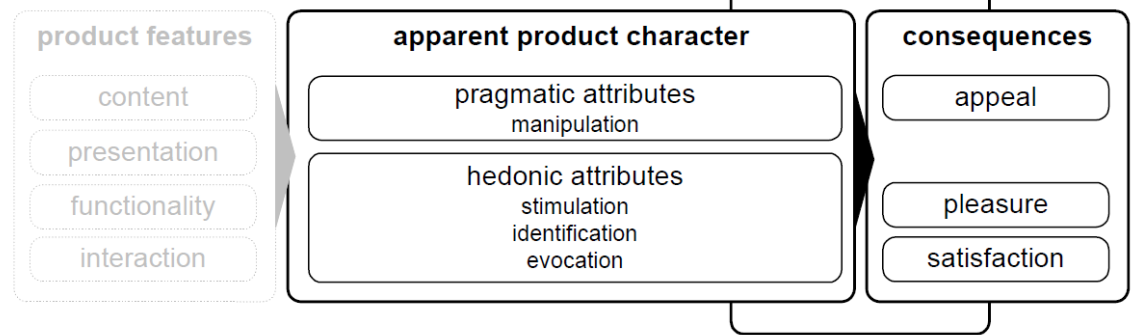
 **Indication of the user perception, but no concrete, practical feedback for system improvement.**

CHALLENGE: EARLY UX-INTEGRATION IN DEV OPS

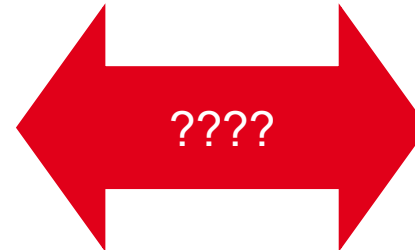
a) designer perspective



b) user perspective



...Heuristics
...Design Recommendations
...Guidelines
...



...A/B-Testing
...Interviews
...Surveys
...

 **Currently, we don't know how best practices influence the UX and the other way round!**

FUTURE DIRECTIONS: AI-BASED UX RESEARCH

Graser, S., Snimshchikova, A., Schrepp, M., Böhm, S. (2024). *Enhancing UX Research Activities Using GenAI - Potential Applications and Challenges*, *The Seventeenth International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services CENTRIC 2024*, Venice, Italy. https://www.thinkmind.org/library/CENTRIC/CENTRIC_2024/centric_2024_1_10_30004.html

(Generative) Artificial Intelligence as driver and chance to enhance UX research activities

AI based...

- ...user personas
- ...data evaluation and analysis
- ...data interpretation
- ...text operations

Are we doomed?





Thank you for your attention!

Connect!



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