Contents

INTRODUCTION

What is UX research?

Knowing our user ⟶ Positioning ourselves to make decisions to serve them

Ancestry of UXR

Psychology

Sociology/Anthropology

Human factors

Industrial design

Human-computer interaction

Statistics

How UXR fits into product development

Understanding unmet needs and mismatches between user mental models and our conceptual models

Measuring magnitudes of usage, satisfaction, ease, and their delta over time

Building the right product with the right features and interactions at the right time
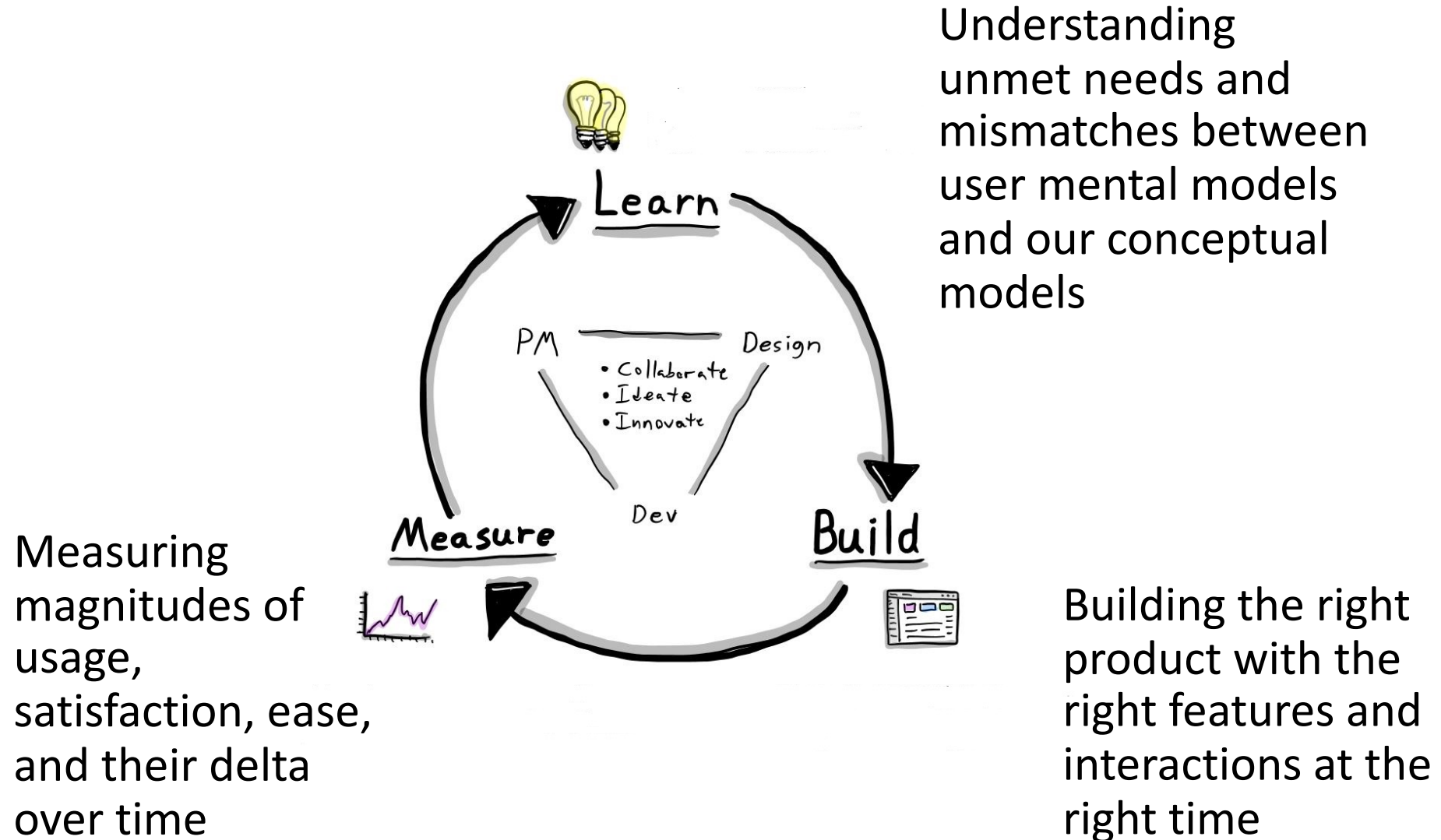
Psychological challenges to UXR

Belief that we already know everything

Our expertise in subject matter, business, etc. is not expertise on the user

Sensitivity to criticism

Better to hear hear earlier, from proxy users, than later, from paying users

Politicking and power

Ship user experience design, not stakeholder opinion design

Practical challenges to UXR

Lack of understanding and interest

Lack of time

Lack of resources

Lack of access to real users

Disconnect between customers and users

Lack of UX to PM and dev parity

Lack of triad engagement

Lack of coordination across different teams within our product

Lack of higher-order support

Research pitfalls (skip until later)

Lack of foundational research (higher cost, invisible return, bigger impact) before tactical (lower cost, visible return, smaller impact)

Incremental improvements don't necessarily bring overall improvement

Skip to consuming UXR

Why do UXR?

Risk reduction, understanding expansion

You are not the user

Challenging assumptions

Long-term time and budget savings

Slowing down to speed up

Can't afford NOT to do research

People are irrational

Product sustainability depends on emotional factors

Empathy—walking a mile in their shoes

Curiosity—seeing the big picture

5 W's of UXR: WHO

Users we conduct research with

| 1P user of feature area in the product | 3P user of feature area in the product | 1P user of the product | 3P user of the product | 3P user of Azure | User of cloud services | ML pro |

←───→

More specific
Specialist
Experienced user
Harder to recruit

Less specific
Generalist
New user
Easier to recruit

Study participant volume

Smaller n (i.e. 3+)   Larger n (i.e. 100+)

Quick-pulse or other qualitative   Statistically significant

Best volume =

Sweet spot of enough data to see meaningful patterns

Stop when cost of gathering more data outweighs its usefulness

5 W's of UXR: WHAT

Approaches/stances of research

Behavioral   **Attitudinal**

What users do   What users say

Quantitative

What/how much

Qualitative

Why/how

Generative

Solving the right problem

Preventionist

Evaluative

Solving the problem right

Interventionist

Formative

In-process

Summative

End-of-process

Inductive

Observation-driven
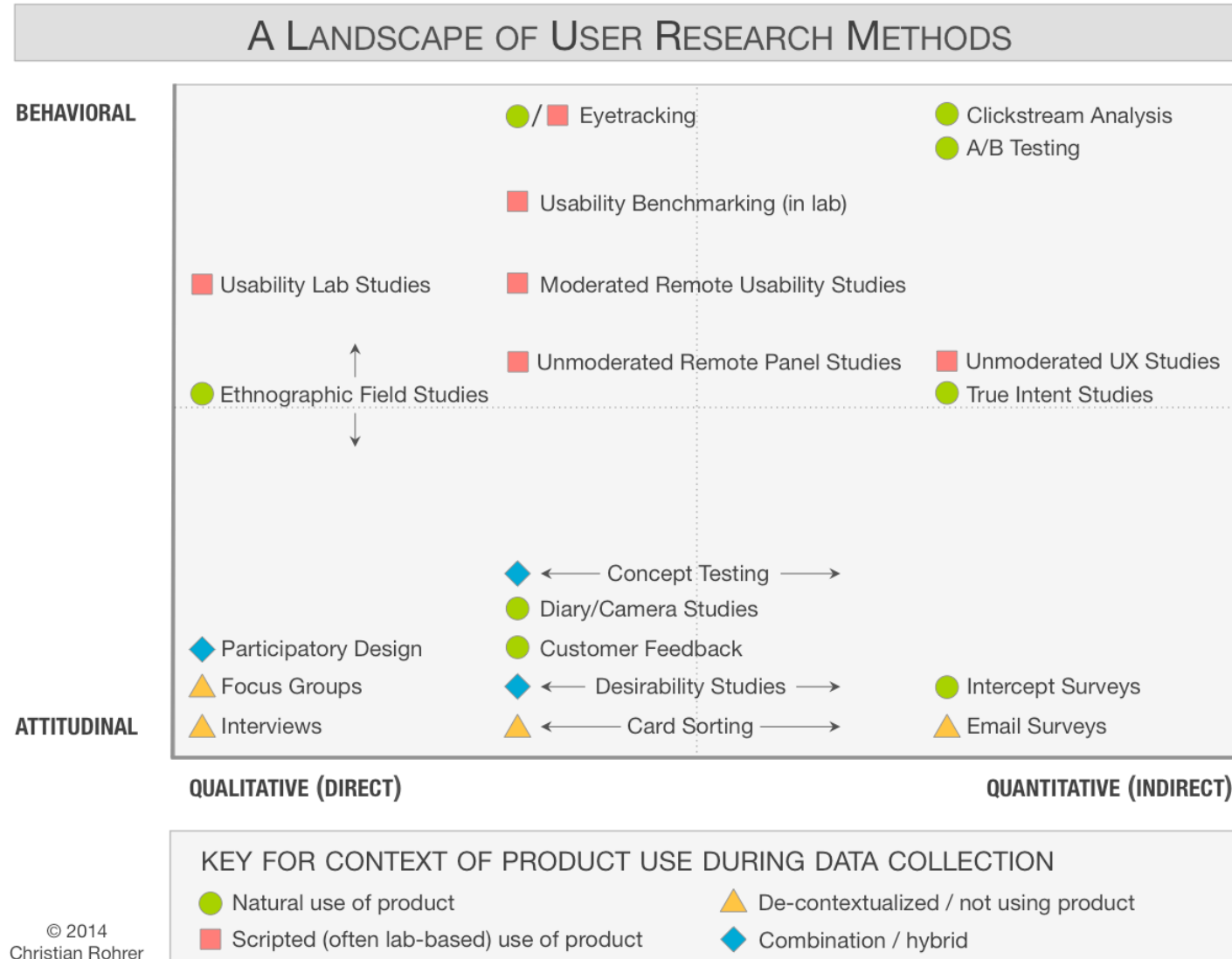
Deductive

Hypothesis-driven

Foundational

Tactical

Requirements-gathering

Fit-finding

Select user research methods

A LANDSCAPE OF USER RESEARCH METHODS

BEHAVIORAL

● / ■ Eyetracking
● Clickstream Analysis
● A/B Testing

■ Usability Benchmarking (in lab)

■ Usability Lab Studies
■ Moderated Remote Usability Studies

■ Unmoderated Remote Panel Studies
■ Unmoderated UX Studies

● Ethnographic Field Studies
● True Intent Studies

◆ ← Concept Testing →
● Diary/Camera Studies
◆ Participatory Design
● Customer Feedback
▲ Focus Groups
◆ ← Desirability Studies →
● Intercept Surveys

ATTITUDINAL

▲ Interviews
▲ ← Card Sorting →
▲ Email Surveys

QUALITATIVE (DIRECT)
QUANTITATIVE (INDIRECT)

KEY FOR CONTEXT OF PRODUCT USE DURING DATA COLLECTION
● Natural use of product
▲ De-contextualized / not using product
■ Scripted (often lab-based) use of product
◆ Combination / hybrid

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Source: Nielsen Norman Group

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Common user research methods

Interviews

Contextual inquiry

Reaction testing

Usability testing

Surveys

Other research methods

Competitive analysis

Heuristic evaluation

Cognitive walkthrough

Analytics/telemetry analysis

Statistical/business analyses

Customer feedback analysis (OCV)

5 W's of UXR: WHEN

Research timelines

Short-to-medium term   Long-term

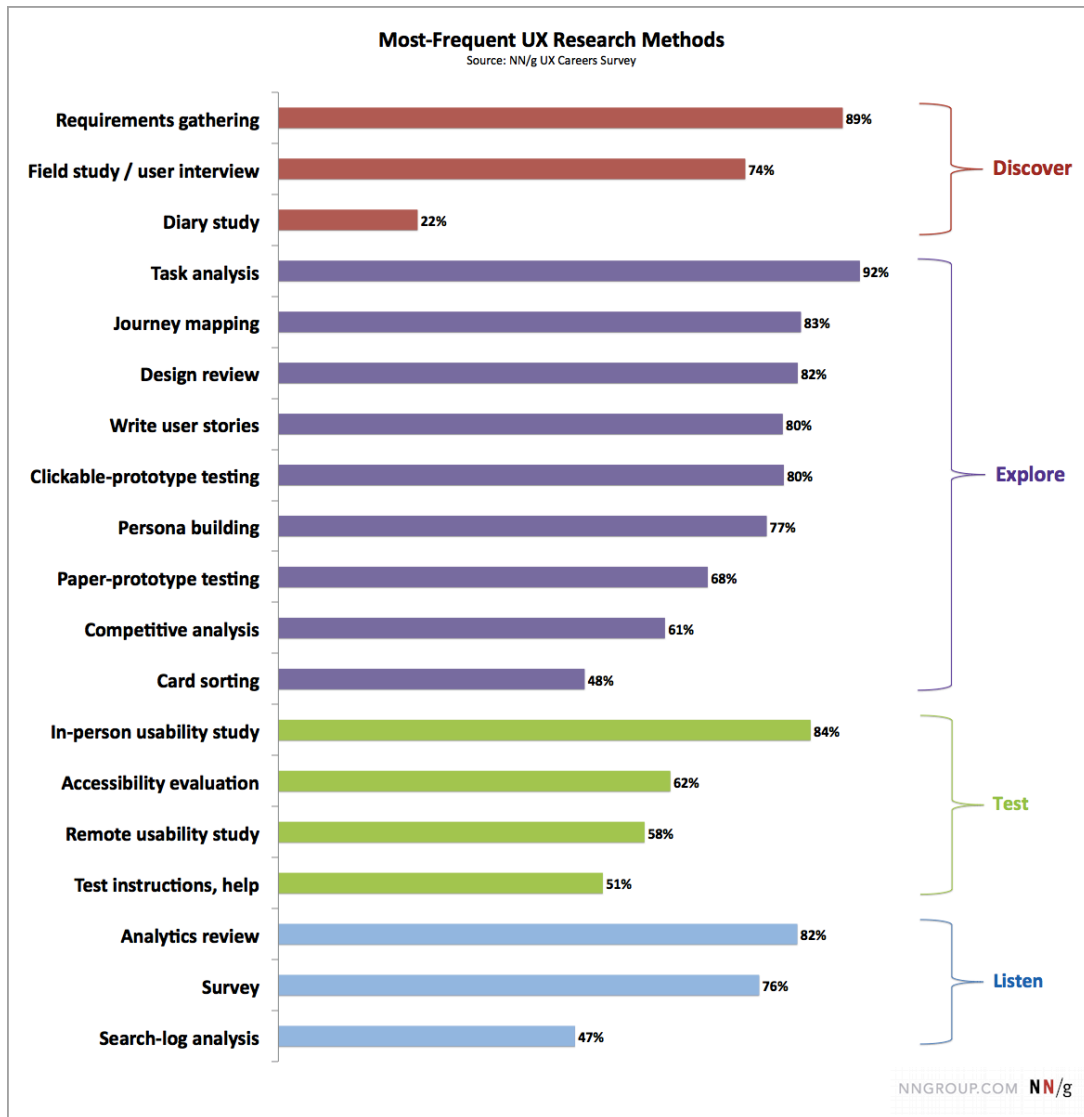One-off   Iterative   Recurring

Latitudinal

Longitudinal

Across different users over time

Across same users over time

Research by phase

Most-Frequent UX Research Methods
Source: NN/g UX Careers Survey

Method	Value	Phase
Requirements gathering	89%	Discover
Field study / user interview	74%	Discover
Diary study	22%	Discover
Task analysis	92%	Explore
Journey mapping	83%	Explore
Design review	82%	Explore
Write user stories	80%	Explore
Clickable-prototype testing	80%	Explore
Persona building	77%	Explore
Paper-prototype testing	68%	Explore
Competitive analysis	61%	Explore
Card sorting	48%	Explore
In-person usability study	84%	Test
Accessibility evaluation	62%	Test
Remote usability study	58%	Test
Test instructions, help	51%	Test
Analytics review	82%	Listen
Survey	76%	Listen
Search-log analysis	47%	Listen

NNGROUP.COM N N/g

Source: Nielsen Norman Group

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5 W's of UXR: WHERE

Research locales

Natural environment

Conducive to requirements-gathering

Controlled environment

Conducive to fit-finding

Digital environment

Analog environment

Uncovering known unknowns

Uncovering unknown unknowns

Unmoderated

Asynchronous researcher review

Moderated

Synchronous researcher oversight

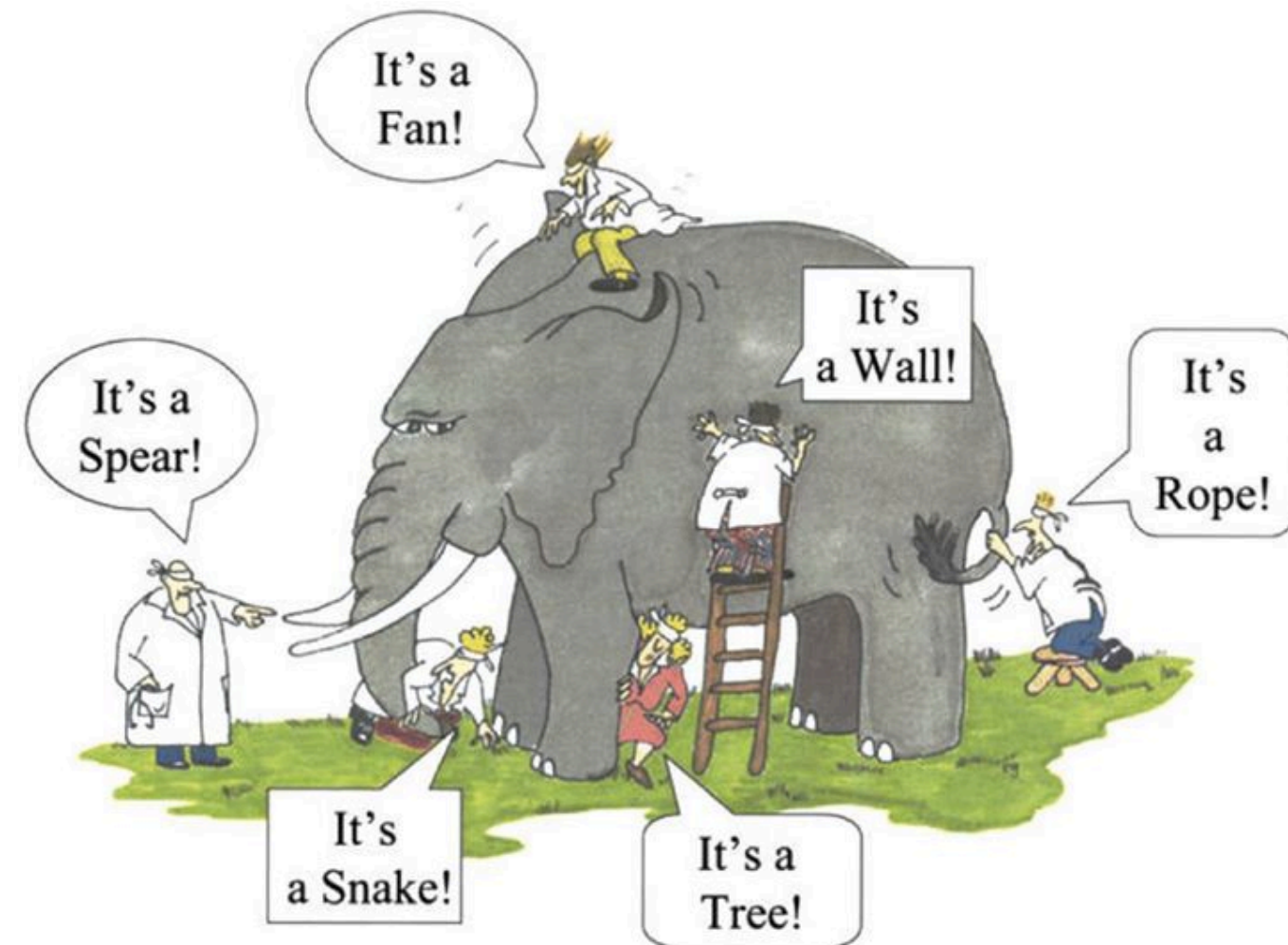# 5 W's of UXR: WHY

Organizing questions

10,000-foot view

10-foot view

Is this a domain users care about?

Is this edge case articulation consistent with user expectations?

Triangulating data

Multiple approaches make more than the sum of their parts

Repeat, follow-up, and continued research

Changing market

Changing user population

Changing user needs and wants

Addressing questions raised in previous research

Increasing certainty in previous findings and replicability

[Back to research pitfalls](#)

CONSUMING AND BENEFITING FROM UXR

Why follow UXR?

Assurance, certainty, efficiency

Fewer code/plan changes and throwaway code/strategy

Relevance and valuation

See your work out in the real world, with real users
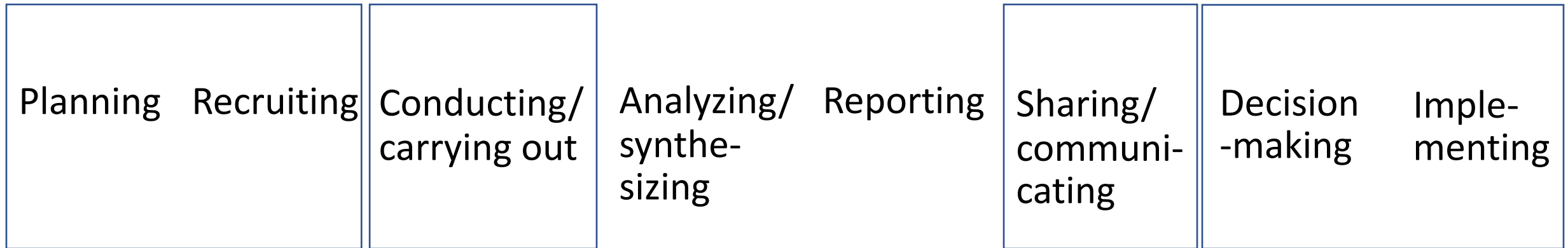
No developing in a vacuum

Control, ownership, engagement

Proactive over reactive

Seeing the future!

Help yourself by keeping abreast of the product

Research stages

| Planning | Recruiting | Conducting/ carrying out | Analyzing/ synthe-sizing | Reporting | Sharing/ communi-cating | Decision -making | Imple-menting |

□ Engagement touchpoint

Planning and recruiting phases

Know the motivations for the research project

*Provide contextual info and history on the area

Establish understanding of the status quo

*Point to previous research done

*Write and organize hypotheses

Help us scope the project by providing large-picture goals and limitations

*Work with us to coordinate material for the study

Recommend users/user types for recruitment

*if applicable to the project

Conducting phase

Attend as many sessions as you can following best practices laid out in invitations

Take notes using provided forms and share

Participate in back-channel discussion or debriefs

Encourage other interested parties to attend and forward invitations

Get in touch if you think of follow-up questions/topics of interest

DO form opinions and theories but DON'T jump to conclusions

If following RITE, work with us to adapt materials in-process

Sharing phase

Read the research report, preferably ahead of a share-out meeting

Make notes and ask questions using comment boxes

Attend the share-out meeting

Participate in discussion and share your point of view

Be respectful of others' interpretations if they differ and leverage curiosity

Decision-making and implementing phases

Consider research recommendations

*Help suggest solutions

*Help the team come to decisions

*Help triage changes from research

*Track progress and keep the team informed of changes

**Identify follow-up research needs and wants

**Request research through intake form

*if applicable to the project

**can also happen at any stage

COLLABORATION

UXR+UXD

Prototyping for research

Aligning on scenarios prior to discussion guide creation

RITE and design tweaks in-process

Advocating for the user experience throughout

Aligning on design changes post-research

UX+PM+Dev

Live environment setup for research

Recruiting strategy

Team analysis in-process through shared notes and discussion

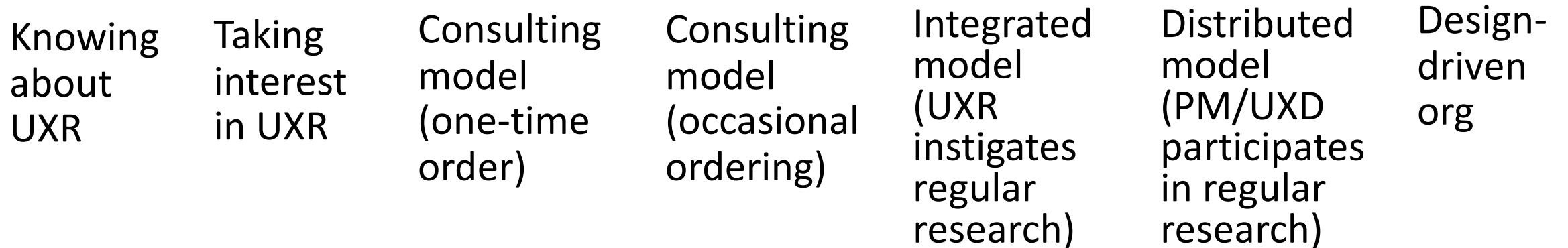Team synthesis through affinity diagramming

Team decision-making post-research

Follow-up and continuing research

Down the road…

UX + PM + Dev + Docs + Mkt + LT

+ other stakeholders

Team maturity around research

Knowing about UXR

Taking interest in UXR

Consulting model (one-time order)

Consulting model (occasional ordering)

Integrated model (UXR instigates regular research)

Distributed model (PM/UXD participates in regular research)

Design-driven org

Remember…

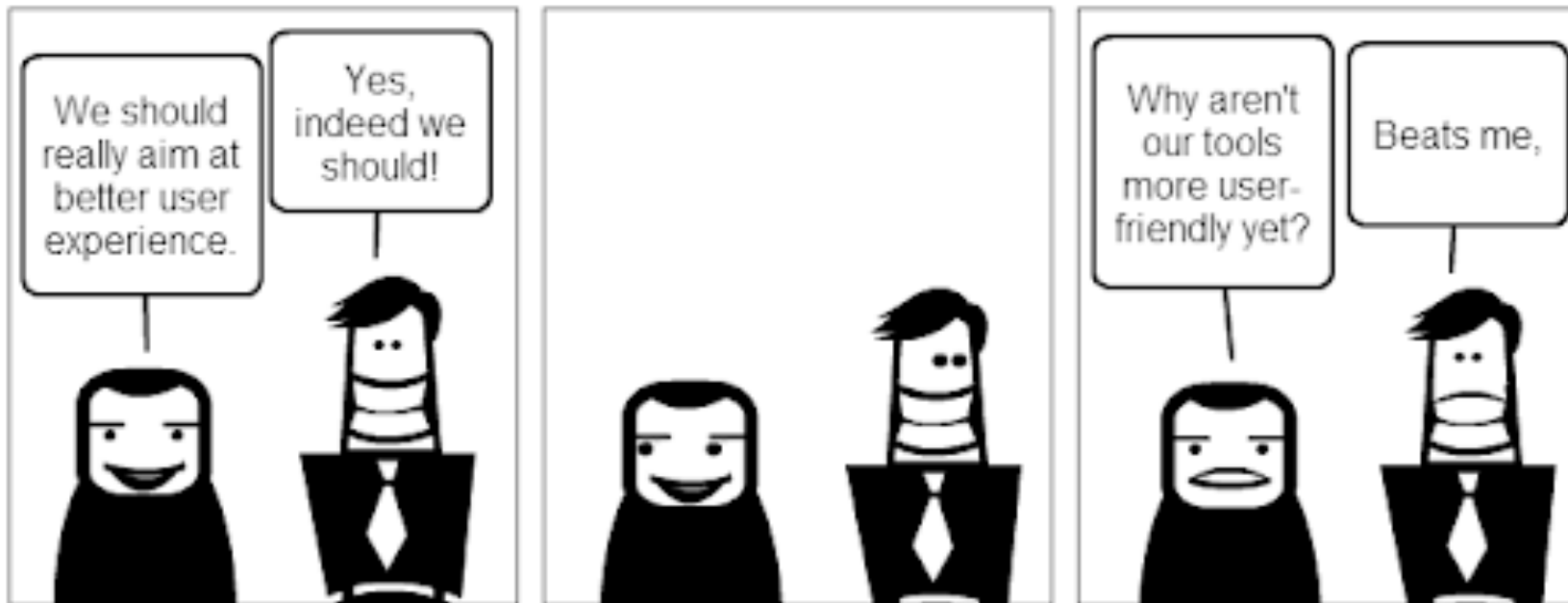You can't solve a problem without UNDERSTANDING it first

User knowledge = POWER

UXR is a valuable PART of the product development ecosystem

The whole team works TOGETHER to pool expertise

The best collaboration comprises both joint efforts AND checks and balances

No ONE party owns the experience

Source: Satu Kyröläinen

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Q&A/CASE STUDIES

Thank you

Contact Xian at v-xiang@microsoft.com for more information or with questions