PUR – Introduction in User Research

Defining User Research

Research Strategies

Before You Start
Big Picture

Lecture

1 2 3 4 5 6 7

User research

General Topics
Methods of data collection I
Methods of data collection II
User Studies Facilitation
Personas
Current Trends

Practice

User Research Project
Lecture Outline

General introduction / motivation
Research strategies
Sampling
Biases

Credit: Autismspot.com
User Research

Applied interdisciplinary subject

Cognitive Psychology
Interaction Design
Methodology of Social Sciences
Computer Science
User Research

Acquiring, maintaining a presenting information about users'
needs
habits
experience
skills
Even potential users
Providing information for ID, production teams
SW development, web, design, consumer goods..
User Research and Market Research

are similar...

Methods

Background

...but quite different

Focus

Goals?
User research Benefits

You do not need only to understand them, but you also need to know how to present them to others.

Use their language, values, goals, pains..

User research Benefits

Our **assumptions** about how users use the product might **differ** from its **real usage** resulting in **frustration** of the user.
User research Benefits

Significantly **reduces** development and service costs.

Credit: Sonia Paz, missphones.co.uk
User Research Benefits

Essential for product success on current market

Credit: businessweek.com
User Research in UX Processes

- **UR understands users' goals, experience, skills, needs.**

  - **PM + UX uses UR findings to create successful product concepts and design UI to suit users' needs.**

  - **UR evaluates the outcomes.**

  - **Generative Research**

  - **Product Concept Creation**

  - **Evaluative Research**
Types of Research

Generative

Evaluative
Or Even More General Division

Applied

Basic
Another Research Approaches Division

Qualitative
Quantitative
Mixed
Qualitative Approach

Why? How?
Holistic picture
Small sample, lots of information, in depth
Less structured
Researcher investigates by her/himself
Interviews, ethnographic studies, observations, case-studies..
Qualitative Approach – Evaluation

Advantages
Provides insight and detailed description
Helps with initial exploration, broadens view
Investigates phenomenons in their natural environment
Allows formulation of the hypothesis

Disadvantages
Not always possible to generalize
Time consuming
Vulnerable to researcher bias
Quantitative Approach

Reductionist - narrows scope
Large sample, little information
Structured
Surveys, tests, observations
Quantitative Approach – Evaluation

Advantages

Allows hypothesis testing - allows generalization about the whole population
Quick data collection
Provides exact numeric data

Disadvantages

Marginalizes phenomena that are not direct subjects of the investigation
Knowledge gained could be too abstract for application in real conditions
Reduction

Situation:

natural systems are too complex – non-seizable
too many variables involved

Need to reduce the scope in:
number of observed variables
population
time continuum
How Does It Relate?

1. qualitative research gains **insights** and **questions**
2. these are transformed in **hypothesis**
3. and **tested** through quantitative research
4. to be **interpreted** in the context of qualitative data
Research Properties

Validity – does it measure, what it is supposed to measure?

Reliability – does the measurement remain consistent over repeated measurements?

Systematic error

Random error

Credits: T. Twynam
Research Phases

1. research questions / hypotheses formulating
2. defining population and sampling
3. choosing the data collection method
4. constructing research tools
5. pilot research
6. data collection
7. data analysis and interpretation
8. presenting, making the data actionable
Wanna Learn More?

Mike Kuniavsky: Observing The User Experience
Lazar et al.: Research Methods in Human-Computer Interaction
Miloslav Disman: Jak se vyrábí sociologická znalost

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http://www.userfocus.co.uk/articles/how_to_tell_managers_theyre_wrong.html
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Thank for your attention

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