

# Use of UX and HCI tools among start-ups

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# Outline

1. Why UX/HCI and start-ups?
2. UX/HCI toolbox
3. Study of use among start-ups
4. What next



# Why UX/HCI and start-ups?

66 %

of total jobs in the EU by SMEs and start-ups



# Why UX/HCI and start-ups?

Competitive advantage from:

- Technical capabilities – features



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Competitive advantage from:

- Technical capabilities – features
- Price



# Why UX/HCI and start-ups?

Competitive advantage from:

- Technical capabilities – features
- Price
- *User experience*



*„The age of features is dead. The age of experience has arrived.“*

(Erik Flowers)



# The HCI/UX toolbox

1. Contextual Interview
2. Focus Groups
3. Online Surveys
4. Standard Usability Questionnaires
5. Heuristic Evaluation
6. First Click Testing
7. Eye-tracking
8. Mobile Device Testing
9. Wireframing
10. Cardsorting
11. Prototyping
12. Personas
13. Task Analysis
14. Individual Interviews
15. Diary Study



# Contextual Interview

- watch and listen as users work in their own environment



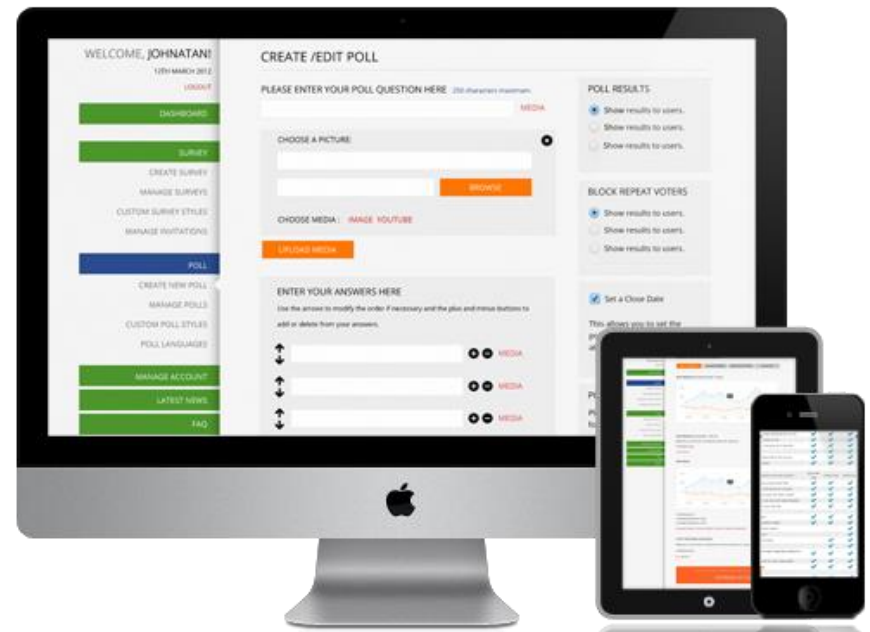
# Focus Groups

- a moderated discussion with 5 to 10 participants
- to learn about users' attitudes, beliefs, desires, and reactions to concepts



# Online Surveys

- structured questionnaires of varied lengths and formats
- collect information from a broad audience for very little cost
- learn who your users are, what your users want to accomplish, and what information are they looking for



# Standard Usability Questionnaires

- gone through the process of psychometric validation
- advantages: reliability, validity, sensitivity, objectivity, quantification, economy, communication, and norms
- Examples: SUS, SUPR-Q,

Question	Score
Q1. I think that I would like to use this system frequently	Strongly disagree   1 2 3 4 5   Strongly agree 4
Q2. I found this system unnecessarily complex	Strongly disagree   1 2 3 4 5   Strongly agree 2
Q3. I thought this system was easy to use	Strongly disagree   1 2 3 4 5   Strongly agree 4
Q4. I think that I would need the support of a technical person to use this system	Strongly disagree   1 2 3 4 5   Strongly agree 2
Q5. I found the various functions in this system were well integrated	Strongly disagree   1 2 3 4 5   Strongly agree 4
Q6. I thought there was too much inconsistency in this system	Strongly disagree   1 2 3 4 5   Strongly agree 2
Q7. I would imagine that most people would learn to use this system very quickly	Strongly disagree   1 2 3 4 5   Strongly agree 4
Q8. I found this system very awkward to use	Strongly disagree   1 2 3 4 5   Strongly agree 2
Q9. I felt very confident using this system	Strongly disagree   1 2 3 4 5   Strongly agree 4
Q10. I needed to learn a lot of things before I could get going with this system	Strongly disagree   1 2 3 4 5   Strongly agree 2

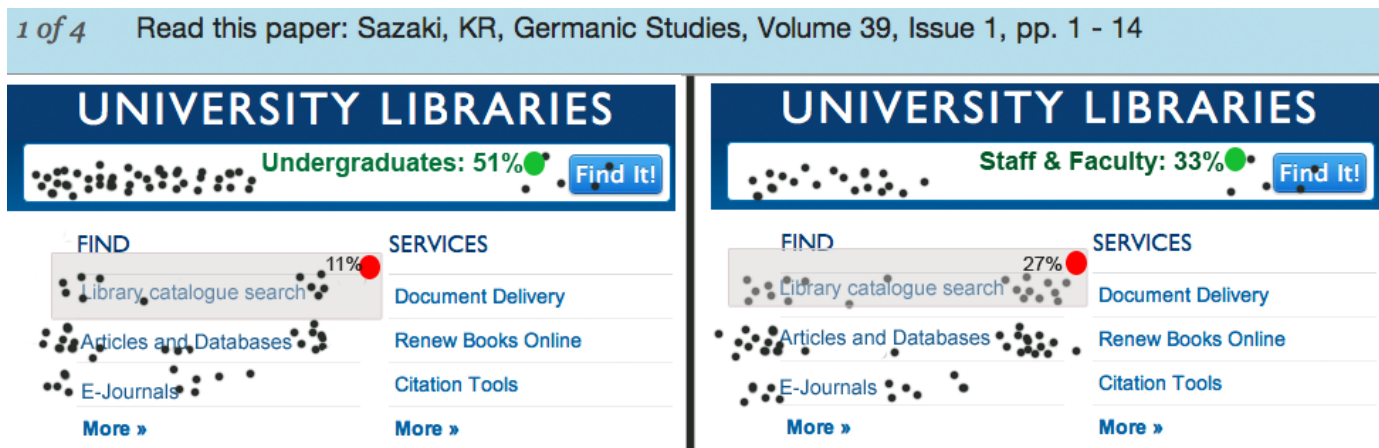
# Heuristic Evaluation

- Comparison of a product against accepted usability principles
- Results in a list of potential issues



# First Click Testing

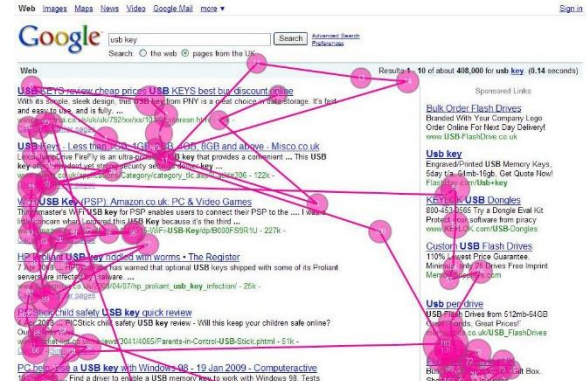
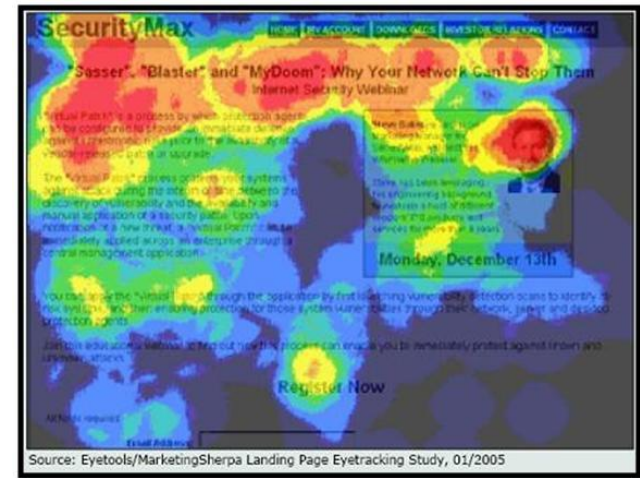
- what a test participant would click on first on the interface to complete their intended task
- evaluate the effectiveness of the linking structure or navigation of your site, including the navigation





# Eye-tracking

- measuring where the eye is focused or the motion of the eye
- information about where users look, for how long, how their focus moves from item to item, what parts of the interface they miss, and how parts of the interface effects attention



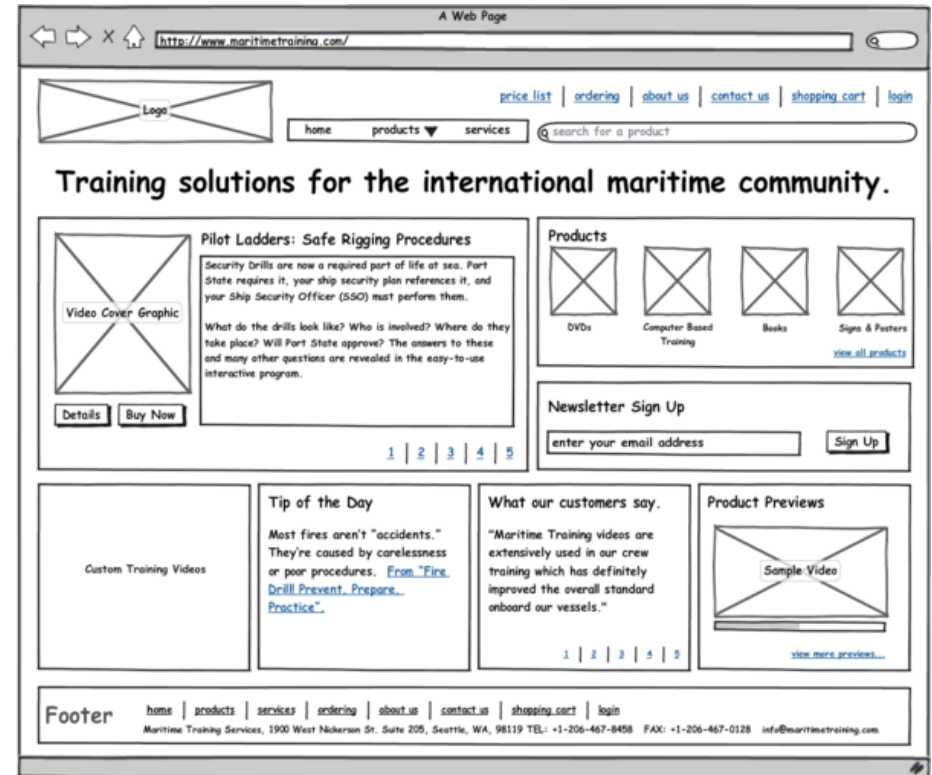
# Mobile Device Testing





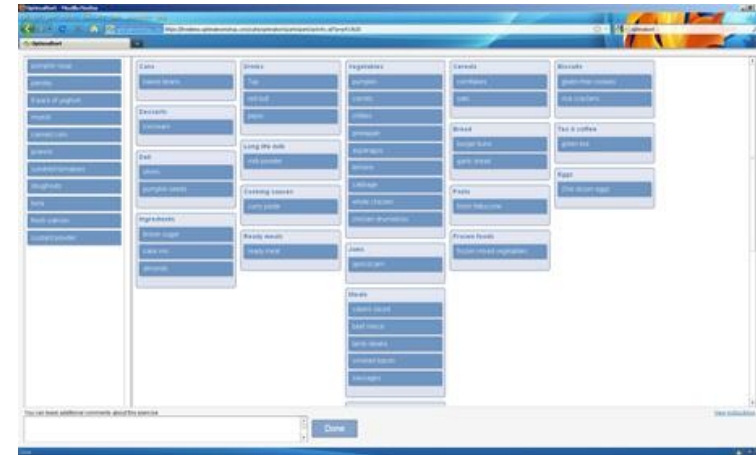
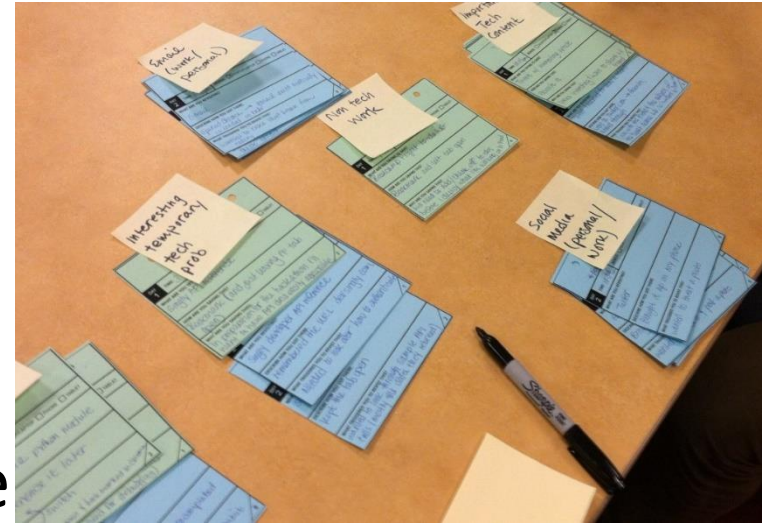
# Wireframing

- focus on space allocation and prioritization of content, functionalities available, intended behaviors
- no styling, color, or graphics



# Cardsorting

- to understand users' expectations and understanding of topics
- to help design or evaluate the information architecture of a site
- participants organize topics into categories that make sense to them
- they may also label these groups



# Prototyping

- explore ideas or show the intention behind a feature or the overall design concept
- before investing time and money into development
- low-fidelity VS high-fidelity

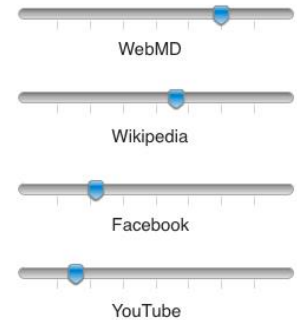


# Personas

- are reliable and realistic representations of your key audience segments for reference
- based on qualitative and some quantitative user research and web analytics
- describe real people with backgrounds, goals, and values



## Frequency of use



## Goals

- Find relevant health information about healthy living and treatment plans
- Find neurologists that specialize in Neurogenic Orthostatic Hypotension and Parkinson's disease
- Seeks support from online communities that are dealing with the same condition
- Find alternative treatment more specialized for her husbands condition
- Resolve conflicting information about her husbands condition

## We must

- Increase organic visibility around NOH
- Create a social community around NOH
- Become " the resource " for raising awareness around NOH
- Use trusted key opinion leaders to write content and blogs.

## We must never

- Create the content to slant to one perspective or the other
- Talk directly about our treatment plans with out talking about all treatments available

## Behaviours

- Does not trust big pharmaceutical sponsored content
- Is skeptical of health information created by peers online
- Gets frustrated when health information conflicts with her current understanding or information she considers trusted
- Gets overwhelmed with the abundance of irrelevant information
- Gets excited about trusted health information that suggest an alternative treatment plan
- Heavily influenced by PEW Research articles

# Task Analysis

- the process of learning about ordinary users by observing them in action to understand in detail how they perform their tasks and achieve their intended goals

Task matrix

	 William Owen Owner, Rain Design	 Stephanie Mueller Project Manager, Cligeo Apple Technologies	 Matthew Miller Freelance Graphic Designer
Research	Rarely / High	Rarely / High	Rarely / High
Define requirements	Rarely / Medium	Rarely / Medium	Sometimes / High
Design requirements	Rarely / Medium	Rarely / Medium	N/A
Develop	Rarely / High	Sometimes / High	N/A
Define usability	Often / High	Often / High	Often / High
Implement user	Rarely / High	Rarely / High	Rarely / High
Evaluate user	Sometimes / Medium	Sometimes / Medium	Rarely / Medium
Implement	Often / High	Often / High	N/A
Test usability	Often / High	Often / High	N/A
Release new version	Sometimes / High	Often / High	N/A
Update maintenance	Sometimes / High	Often / High	N/A

Key  
 Frequency / Importance  
 Frequency: Often, Sometimes, Rarely  
 Importance: High, Med, low  
 N/A: Does not perform this task

fuzzy math

# Individual Interviews

- 30 minutes to an hour
- to probe user attitudes, beliefs, desires and experiences
- to get a deeper understanding of the users
- f2f, over phone, online





# Diary Study

- a longitudinal technique to capture data from participants as they live through certain experiences
- elicitation studies: participants capture media that are then used as prompts for discussion in interviews
- feedback studies: participants answer predefined questions about events





# The HCI/UX toolbox

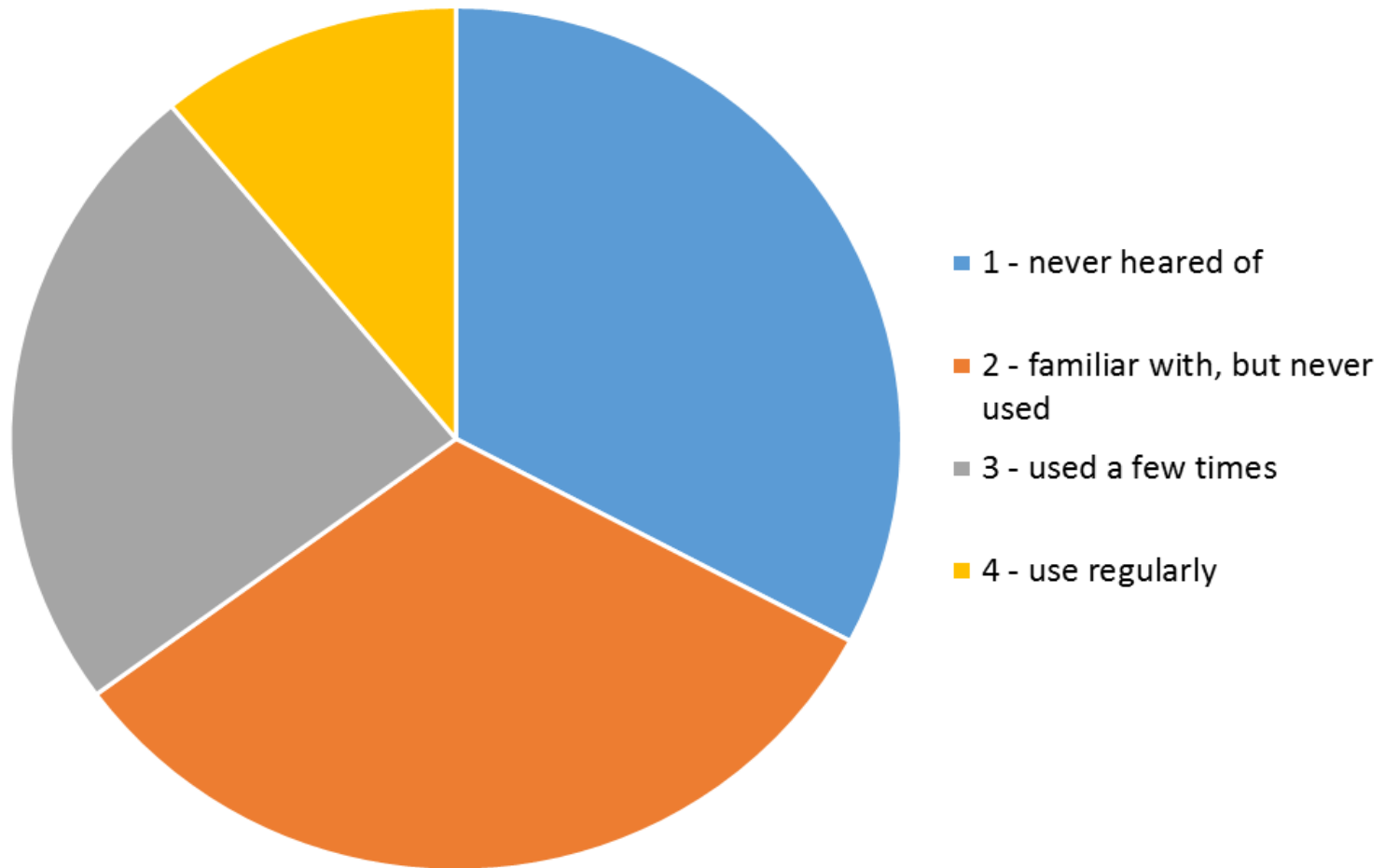
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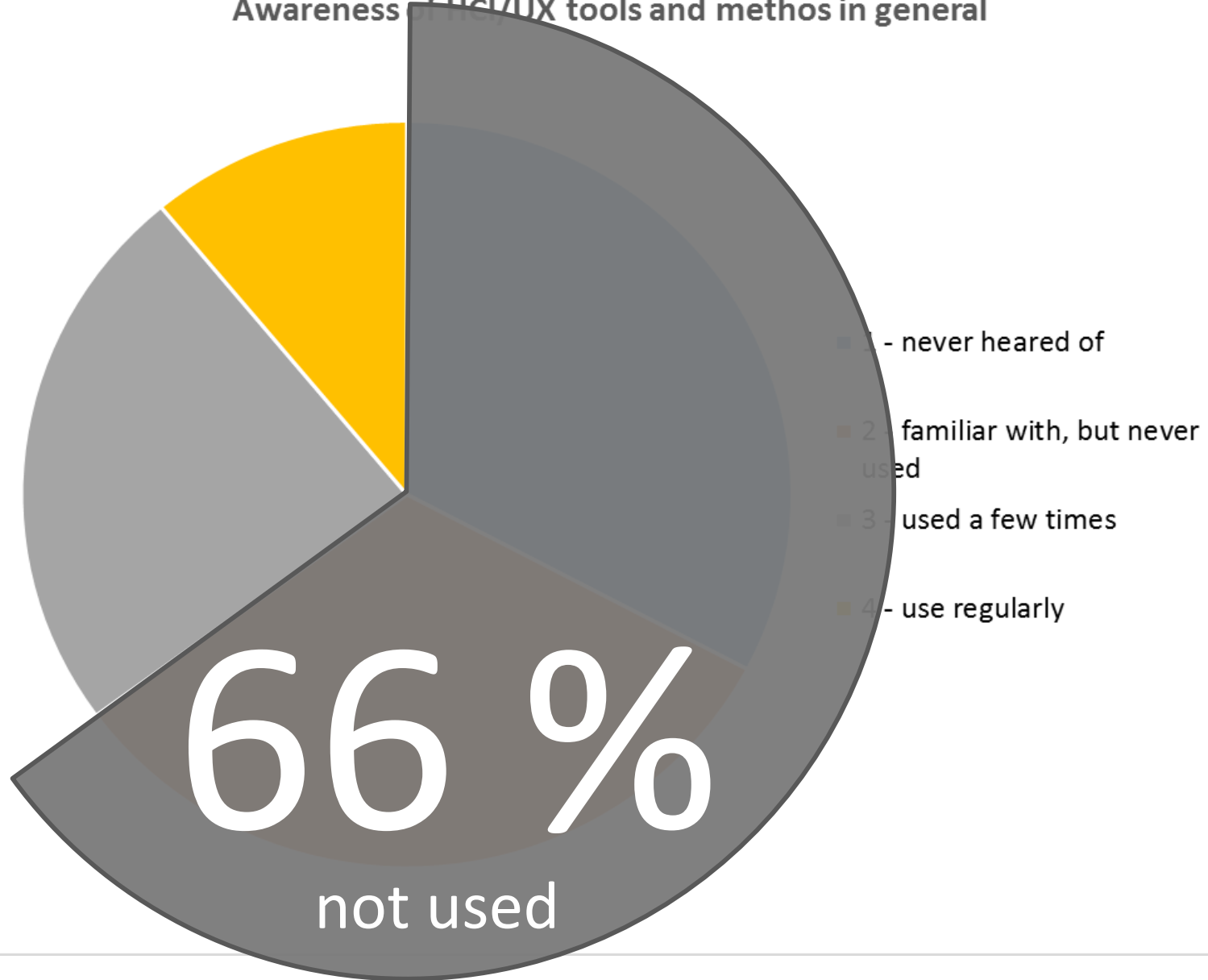
# Study of use among start-ups

- Onlyne survey:
  - 1-never heard of,
  - 2-heard of, but never used,
  - 3-used a few times,
  - 4-use regularly
- 23 participants aged from 21 to 38 (28 average)
- Countries: Slovenia, Italy, Romania, Poland, Czech republic, Bulgaria, Ukraine
- involved in 3 startups in the last 3 years on average
- backgrounds: business, design, technical and marketing
-

## Awareness of HCI/UX tools and methods in general



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# What next?



- HCI/UX in curricula at faculties
- Promote UX/HCI in companies
- Make tools accessible (e.g. translations of questionnaires)

# Thank you. Any questions?



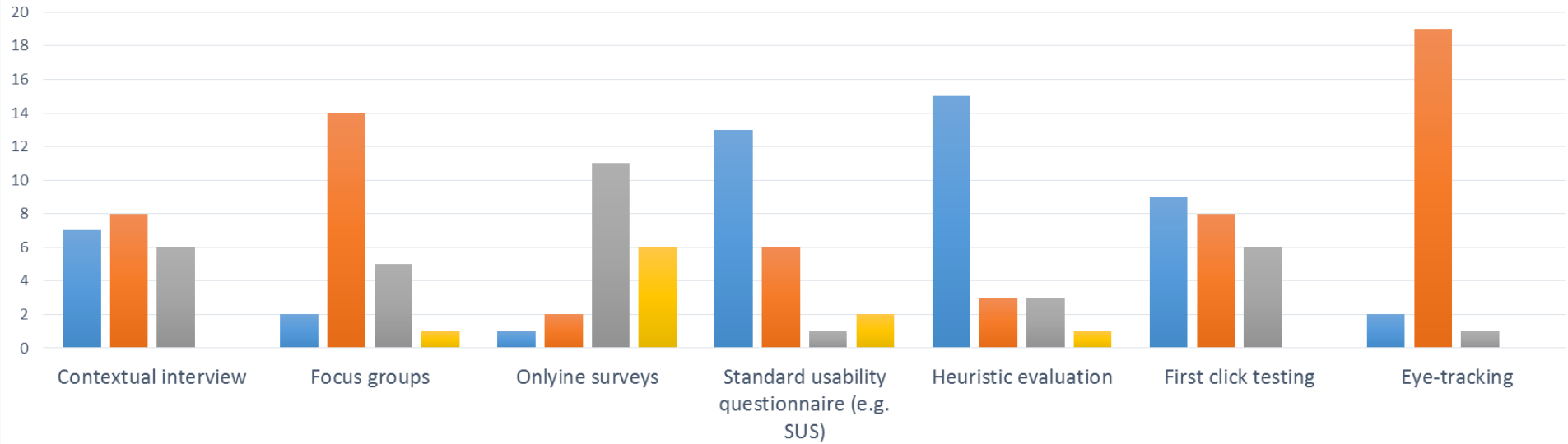
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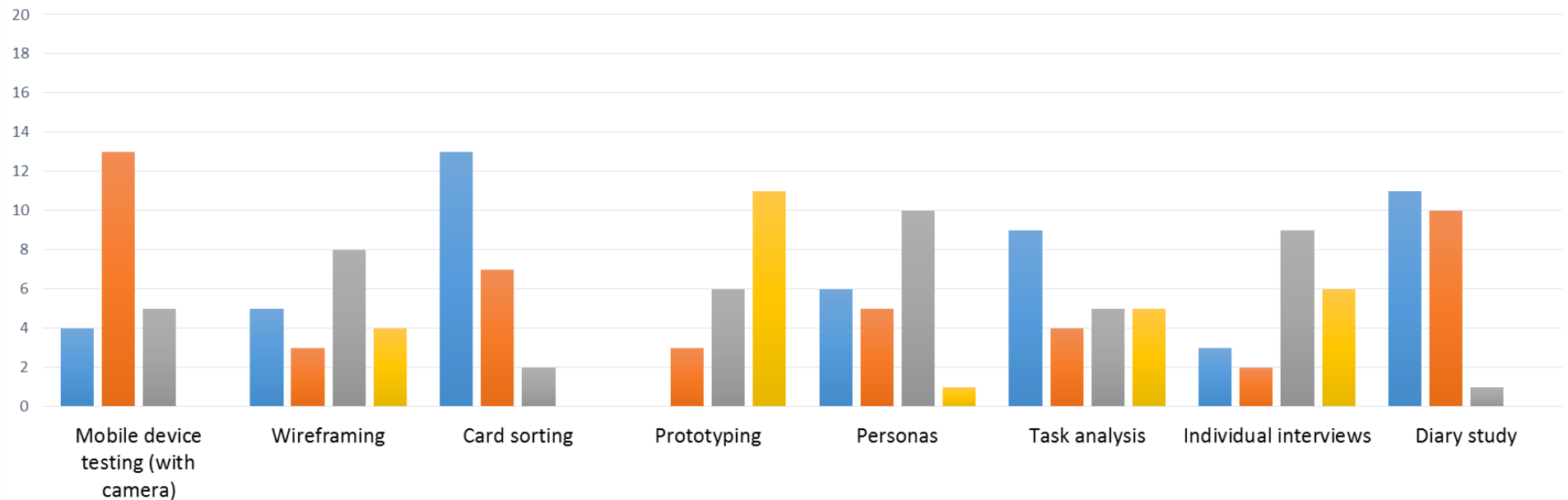
### Use of specific HCI/UX tools and methos (part I)

■ 1 - never heard of   ■ 2 - familiar with, but never used   ■ 3 - used a few times   ■ 4 - use regularly



### Use of specific HCI/UX tools and methos (part II)

■ 1 - never heard of   ■ 2 - familiar with, but never used   ■ 3 - used a few times   ■ 4 - use regularly







FRIENDSHIP STARTS WITH GOOD COMMUNICATION

LA AMISTAD COMIENZA CON LA COMUNICACION

友誼建於互相溝通

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