Participatory, Generative Design Methods:

How to Involve End-users as Active Participants in the Design of Information Architecture

Tenna Eliasen, Royal Danish Library, Denmark
Marianne Lykke, Aalborg University, Denmark

The 7th ISKO UK biennial conference, Glasgow
July 2023

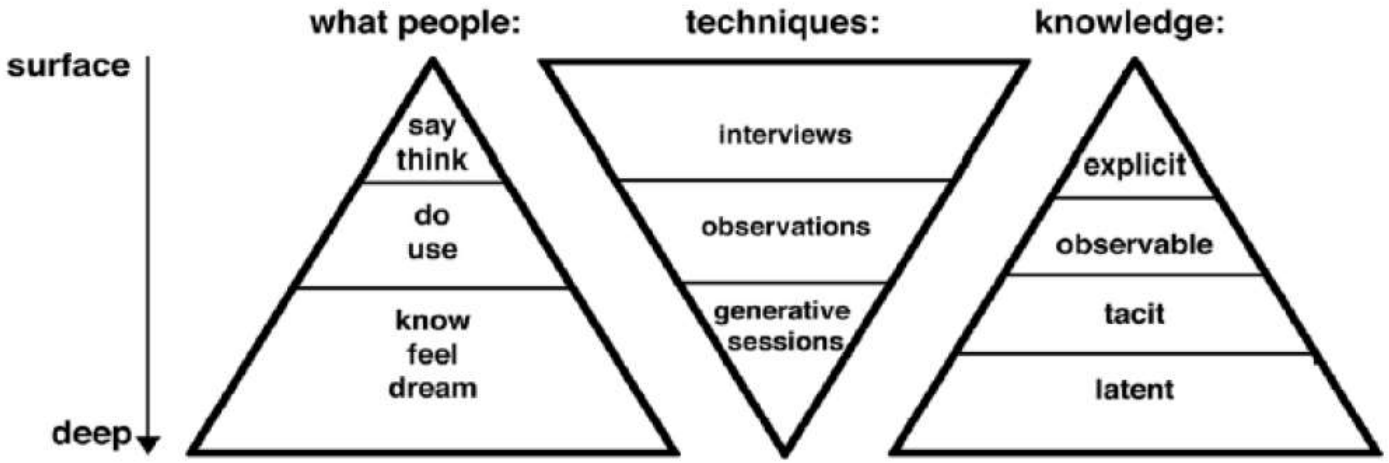
AALBORG UNIVERSITY

DET KGL. BIBLIOTEK
Royal Danish Library

Outline

- Motivation and research question
- Research design and method
- The generative tools
- Findings for IA and UX
- Results of the study

How do you talk with users about information architecture?



(Visser, Stappers, Lugt, & Sanders, 2005)

The elements IA supports (like the graphic design, functionality and content) are often explicit, but they are tacitly experienced by the users.

(Fenn & Hobbs, *"The Information Architecture of Meaning making*", 2014)

Theoretical understanding

- **Information architecture** (IA) is the structurel design of shared information environments (Rosenfeld, Morville & Arango, 2015)

    - Organization schemes and structures: How we categorize and structure information
    - Labeling Systems: How we represent information
    - Navigation Systems: How we can browse or move through information
    - Search Systems: How we can search for information

- **Participatory design** is a design approach involving users as partners to ensure design meets the users' situation, needs, and practices (Sanders & Stappers, 2008)

- **Generative methods and tools** seek to bring out the users' tacit know-how, experiences, and ideas of which they are not explicitly aware, and which they do not have the necessary words to express**.** The aim is to map the users' context, by letting them construct artefacts that give an insight into their experience with the product or system.
  (Visser, Stappers, Lugt, & Sanders, 2005)

What have others done?

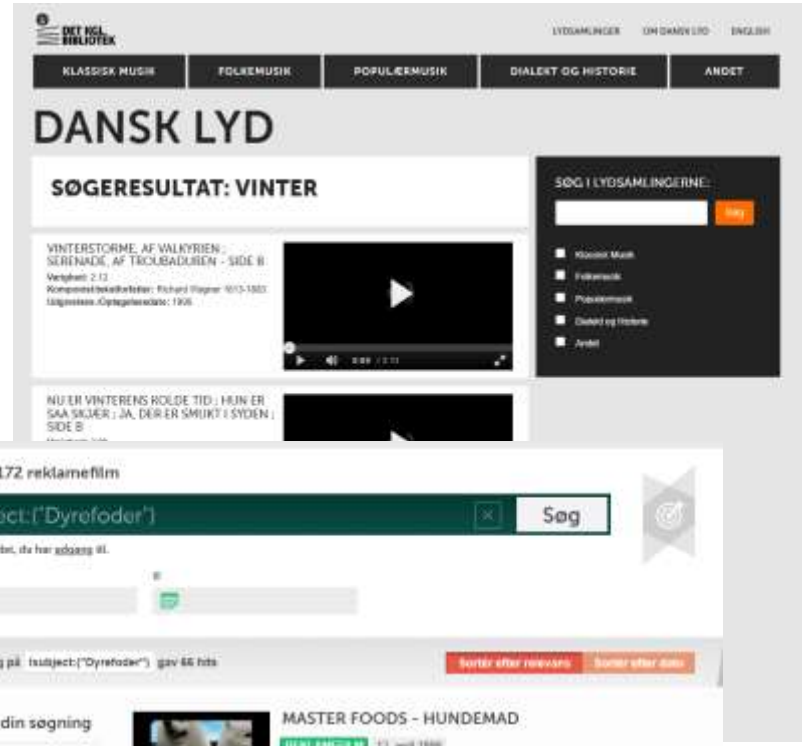
How and when have others involved users in the designproces of IA, and what generative tools have they used?

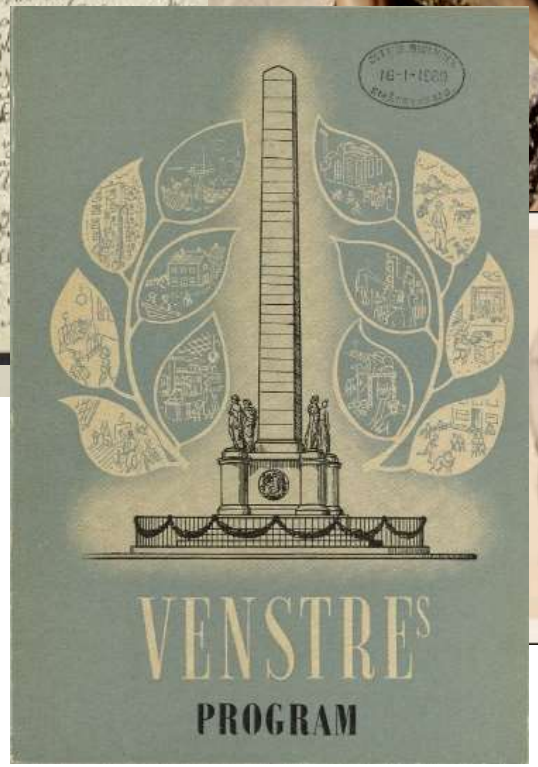
→ Cognitive toolkits, for mapping, diagrams and building models, is particularly useful for gaining knowledge about IA due to the possibility, of gaining insight into the user's mental models.

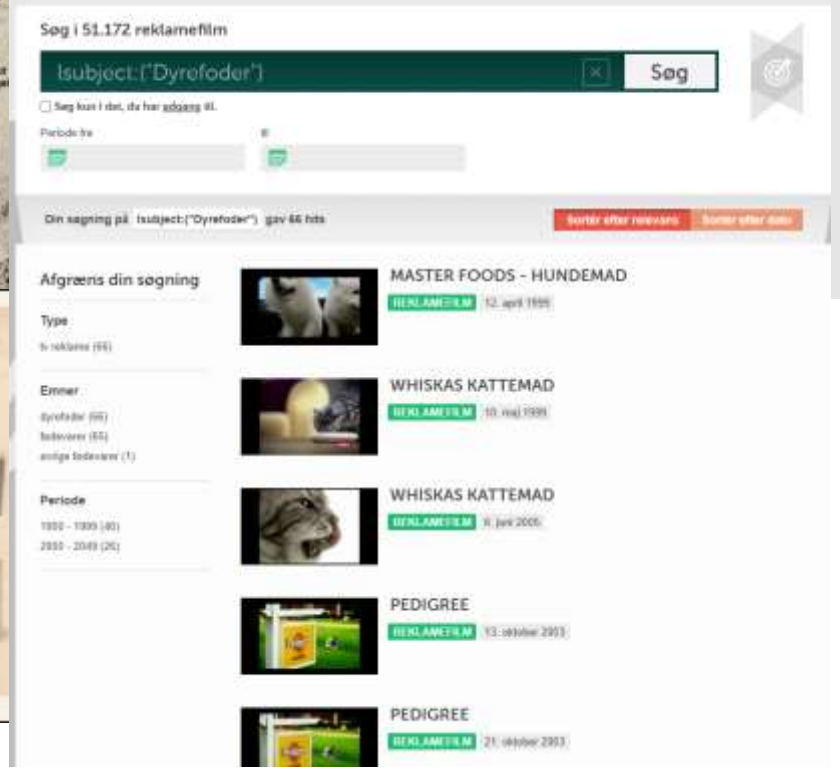
→ The generative tools and techniques are known!
But how can they be used to involve users in the discussion about IA?
What influences whether the method will provide useful insights?

A case study on the digital collections from the Royal Danish Library.


FERIE 1975
9.85
62.-
29.85


DET KGL. BIBLIOTEK
LYDSAMLINGER
OM DANSK LYD
ENGLISH
KLASSISK MUSIK
FOLKEMUSIK
POPULÆRMUSIK
DIALEKT OG HISTORIE
ANDET
DANSK LYD
SØGERESULTAT: VINTER
SØG I LYDSAMLINGERNE:
Søg
Klassisk Musik
Folkemusik
Populærmusik
Dialekt og historie
Andet
VINTERSTORME, AF VALKYRIEN ; SERENADE, AF TROUBADUREN - SIDE B
NU ER VINTERENS ROLIGE TID ; HUN ER SAA SKJÆR ; JA, DER ER SMUKT I SYDEN ; SIDE B


VENSTRES
PROGRAM


Søg i 51.172 reklamefilm
!subject:("Dyrefoder")
Søg
Søg kun i det, du har adgang til.
Periode fra
til
Din søgning på !subject:("Dyrefoder") gav 66 hits
Sorter efter relevans
Sorter efter dato
Afgræns din søgning
Type
Emner
Periode
MASTER FOODS - HUNDEMAD
REKLAMEFILM
12. april 1999
WHISKAS KATTEMAD
REKLAMEFILM
10. maj 1999
WHISKAS KATTEMAD
REKLAMEFILM
9. juni 2005
PEDIGREE
REKLAMEFILM
13. oktober 2003
PEDIGREE
REKLAMEFILM
21. oktober 2003

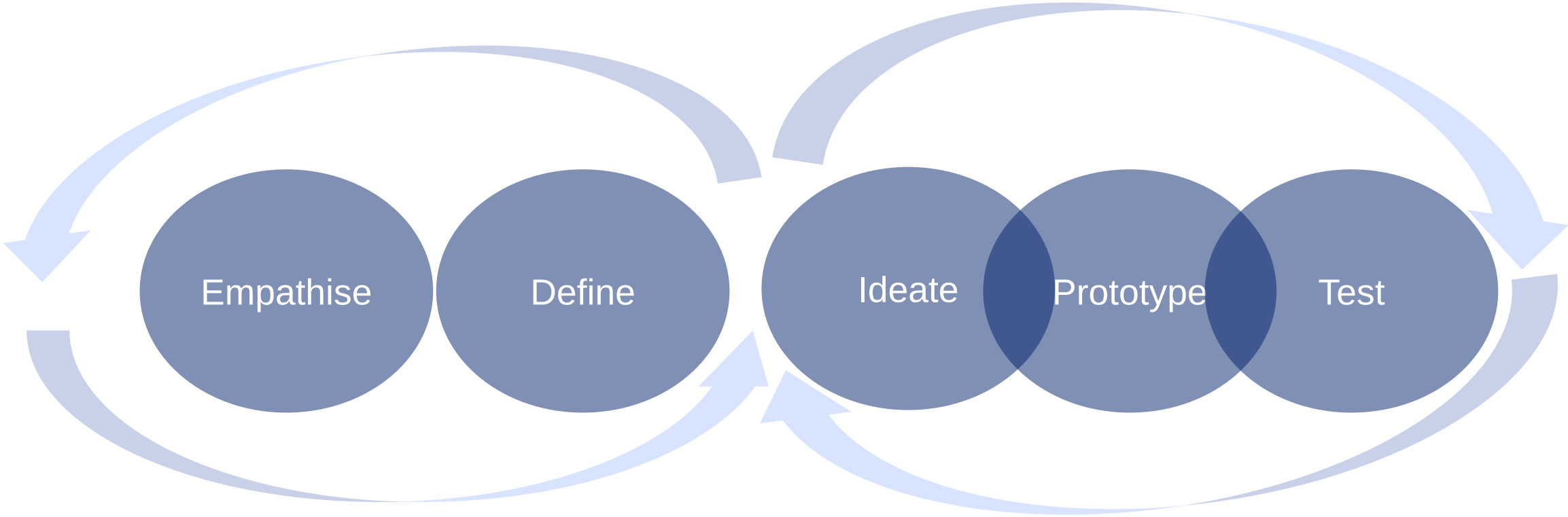
- Large collections of material
- Many different portals
- Some of older date

Complete solution, which provides easy and user-friendly access to the digital cultural heritage in Royal Danish Library, so that its collections gets better distribution and use among the citizens in Denmark.

Due to the amount of content IA is a key element in providing a good user experience.

Design of the case study

Design and testing of three cognitive toolkits
for three of the stages in Design Thinking: *Empathise, Ideate* and *Prototyping*.

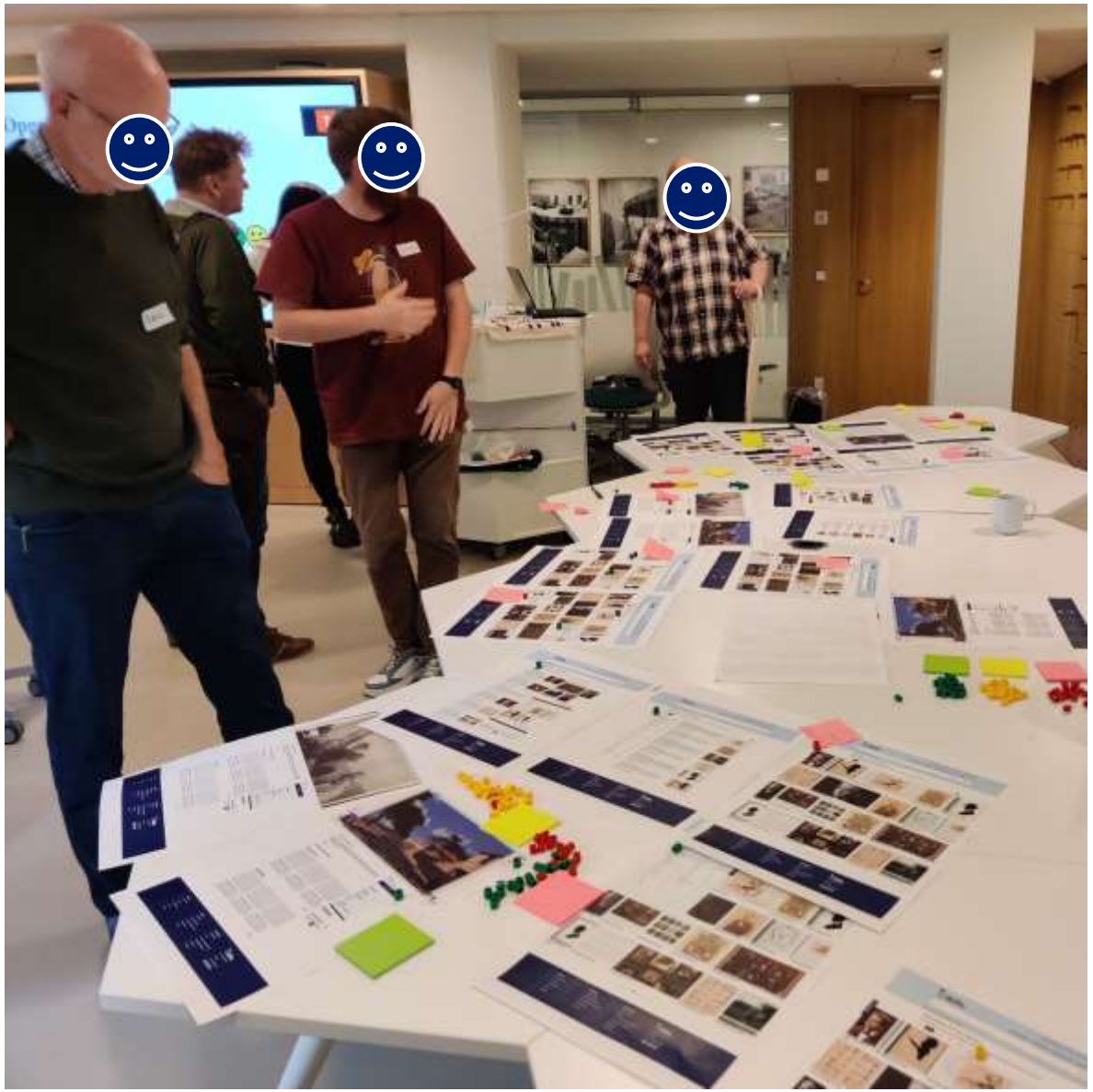


Research method

2 hours generative workshop
3 toolkits
7 participants
1 facilitator
2 observers

Make-sessions followed by say-sessions

Recordings
Photos of artefakts
Observation notes



How did the tools work in hands of the users? What insights did they give for the designproces?

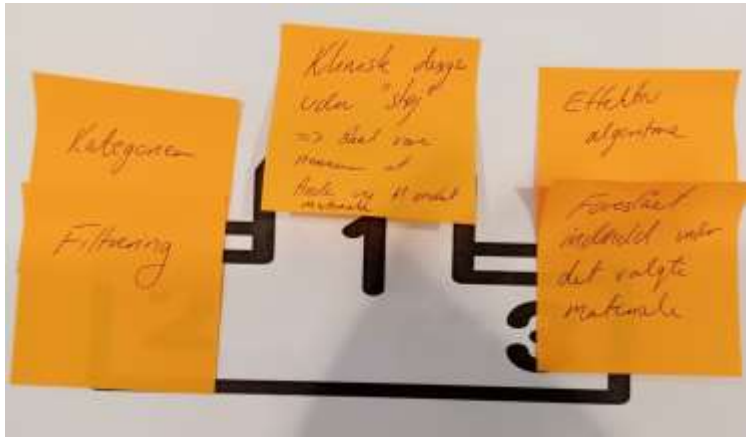
Toolkit 1: Sensitization

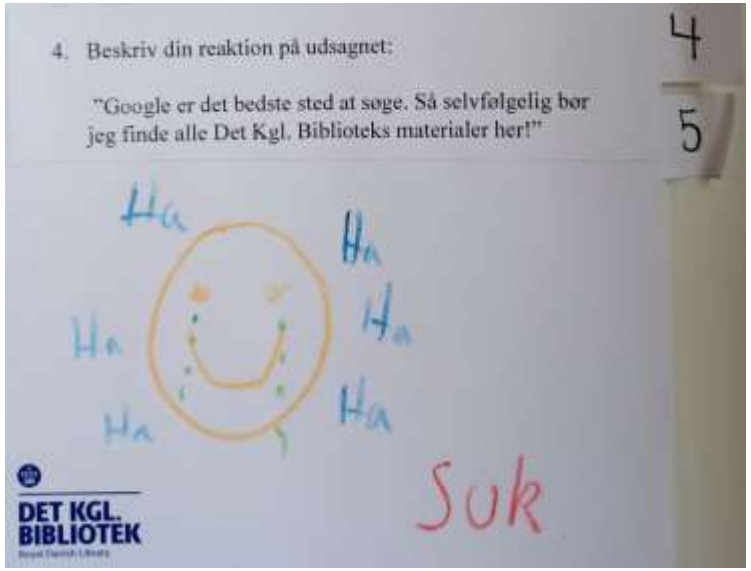
Notebook with a task and questions about search.

It is abstract to talk about IA!!

Preparation can trigger the participant's memories.

A common starting point for the workshop, which the participants often returned to.





Toolkit 2: Mapping the information seeking journey

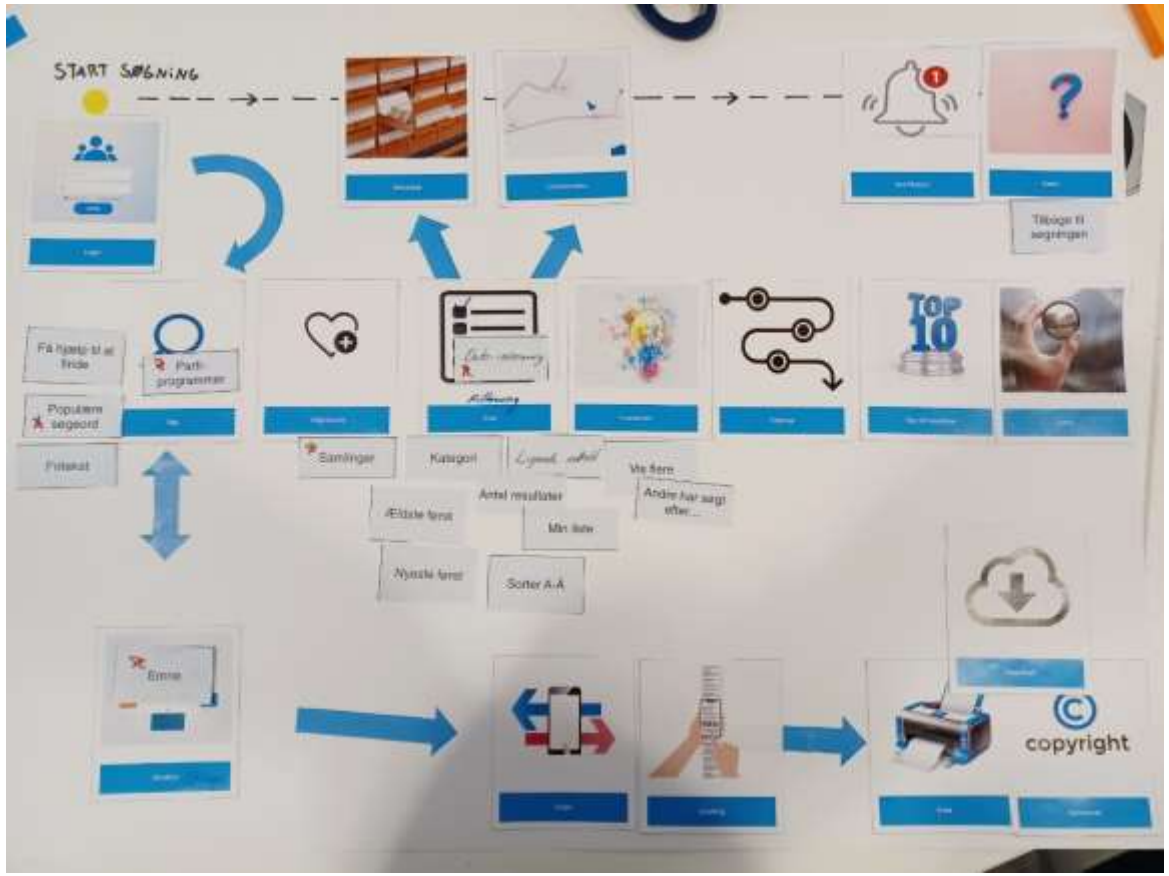
Empathise and ideate.

Combination of a cognitive and a storyline toolkit.

Materials to build a 2D model of the information seeking journey.

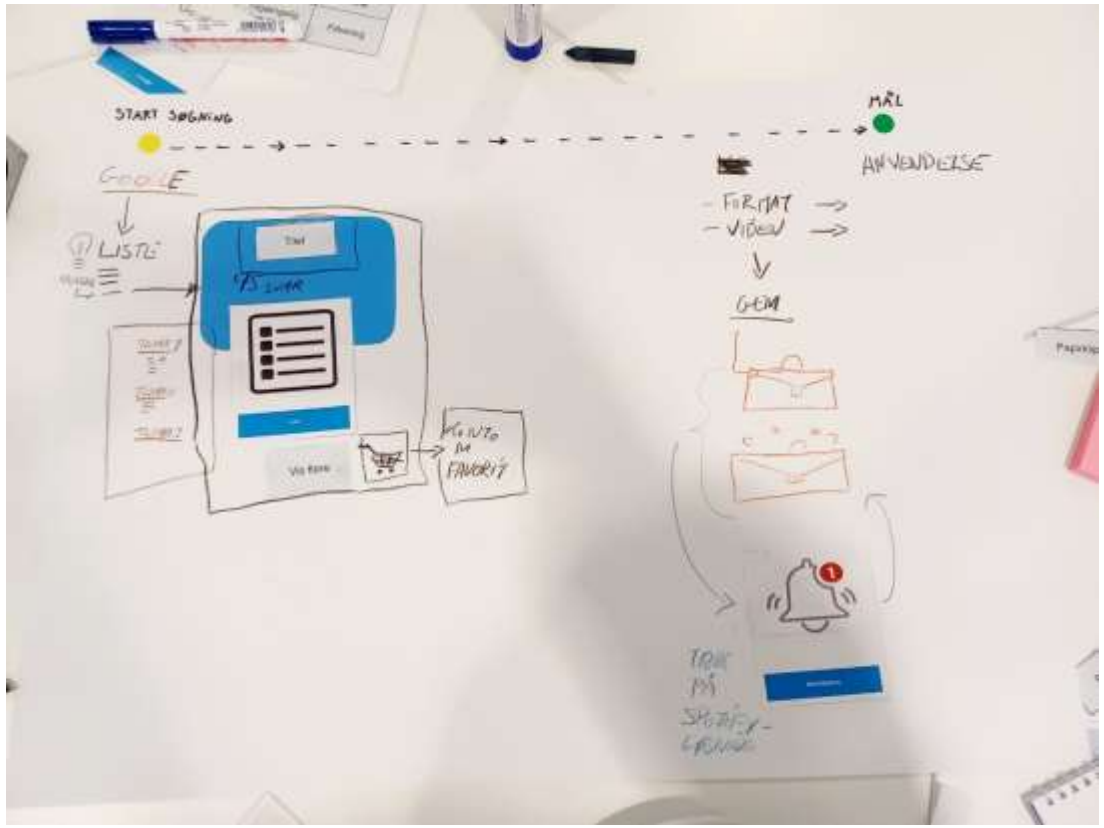
Trigger cards with pictures of features, functions and content.

Trigger card with words that could be used in labels.

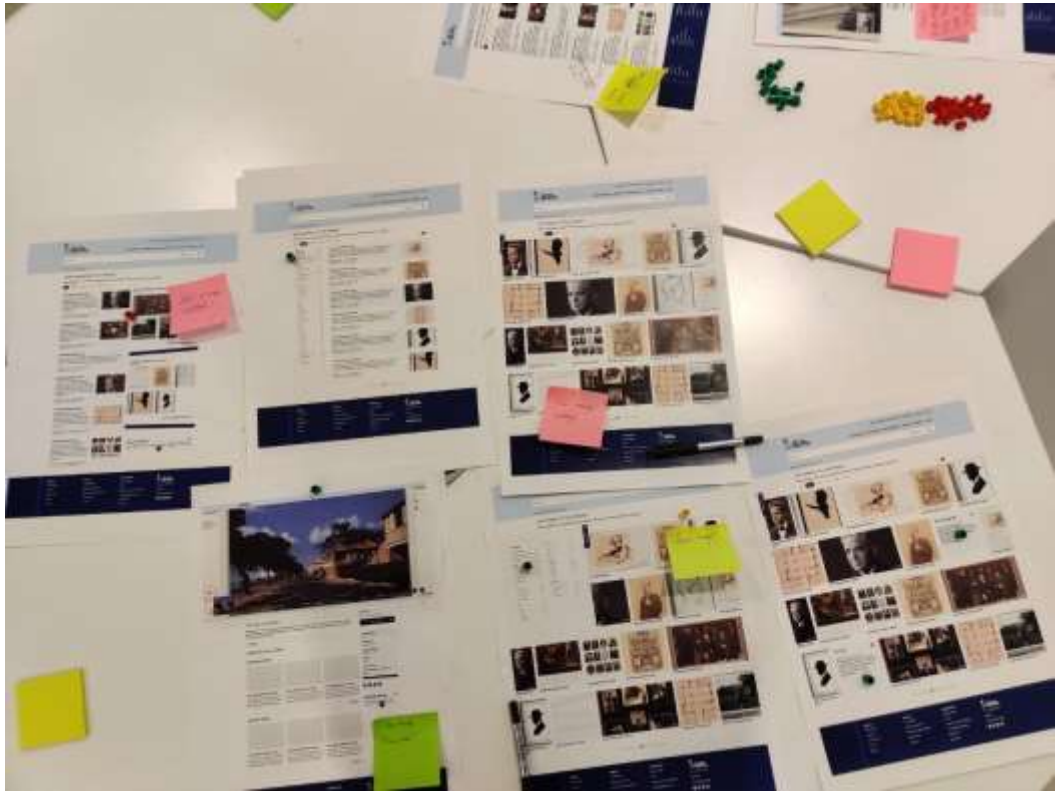


"Zalando and Spotify, that's what we want!"

"You don't necessarily start the search on the Royal Danish Library website.
You start the search in Google."



Toolkit 3: Evaluation of user interface design



Prototyping where the prototype is part of the toolkit.

Dot-coding: Technique for understanding and seeing patterns in the participants' reactions to the selected topic (interface design).

How the participants browsed in the visual design, and how they understood the function of the different elements in the interface.

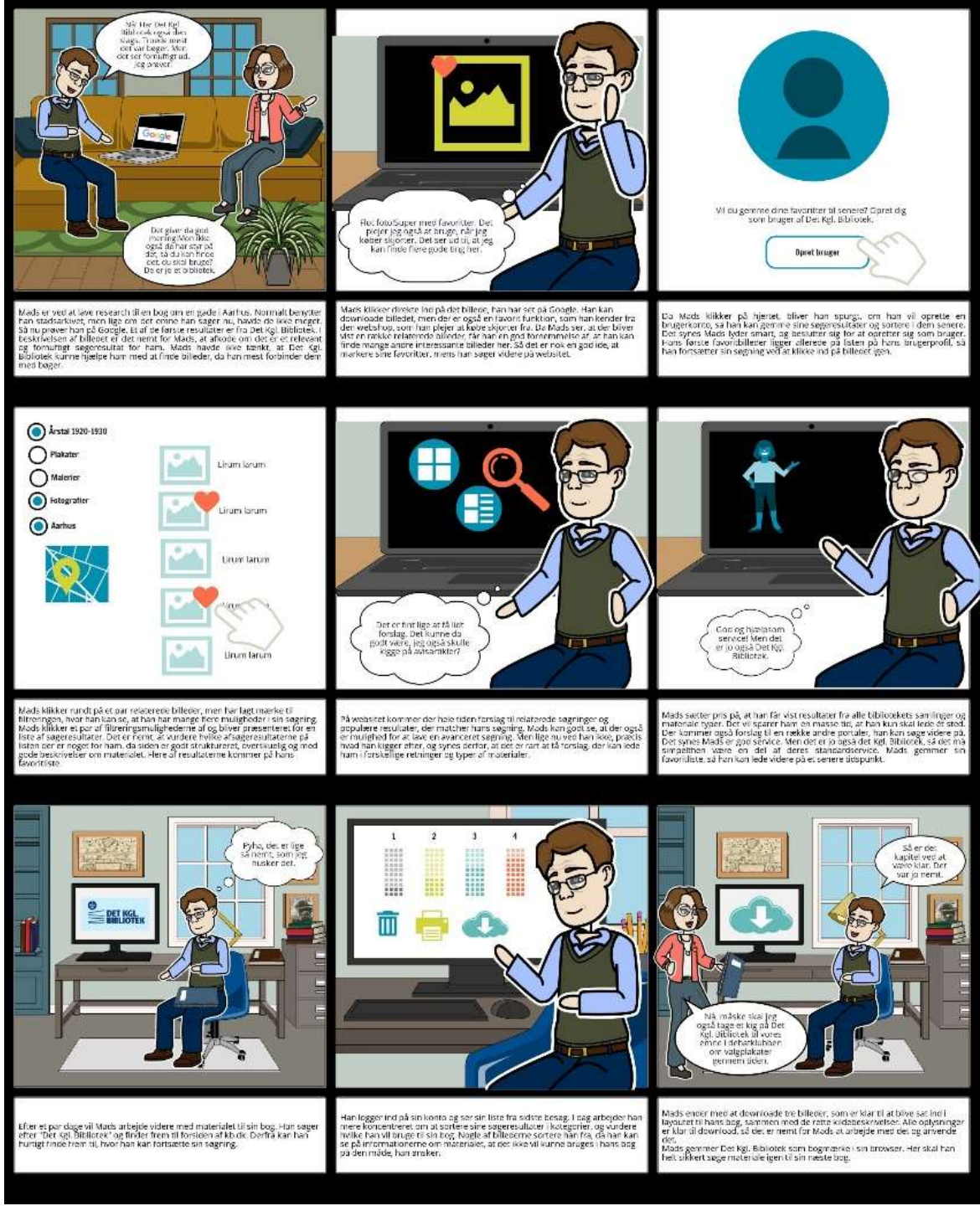
What findings did we get for how IA can support the user experience?

IA

- Bottom up IA
- Filtering and metadata requirements
- Federated Search
- Algorithm vs. Advanced search
- Personalised navigation
- User account and Customization

UX

- To be received by a welcoming librarian who can quickly find what the users are looking for, plus something they may also be interested in.
- Involving, learning and personal.
- The road to the goal was just as important as getting your assignment solved.



Result of the study

The method is useful for getting the participants to participate in the discussion about IA.
Particular in the empathize and ideate stages in the design process.

The participants contributed to creating choices by providing insights that can be used for idea generation for a new solution for the digital collections.

The participants level of IT technical skills, might influence whether they can be included in the discussion.

Facilitation is especially important as it is abstract to talk about IA.

A Toolkit for sensitization is effective at getting participants to associate and maintain focus on the task.

Thank you …

Time for questions?

You are also welcome to find me for a chat.

AALBORG UNIVERSITY

DET KGL. BIBLIOTEK
Royal Danish Library