#### Participatory, Generative Design Methods:

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

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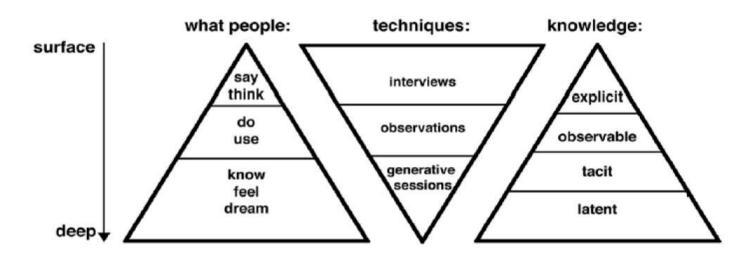


#### Outline

- 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?



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)

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

#### Theoretical understanding

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

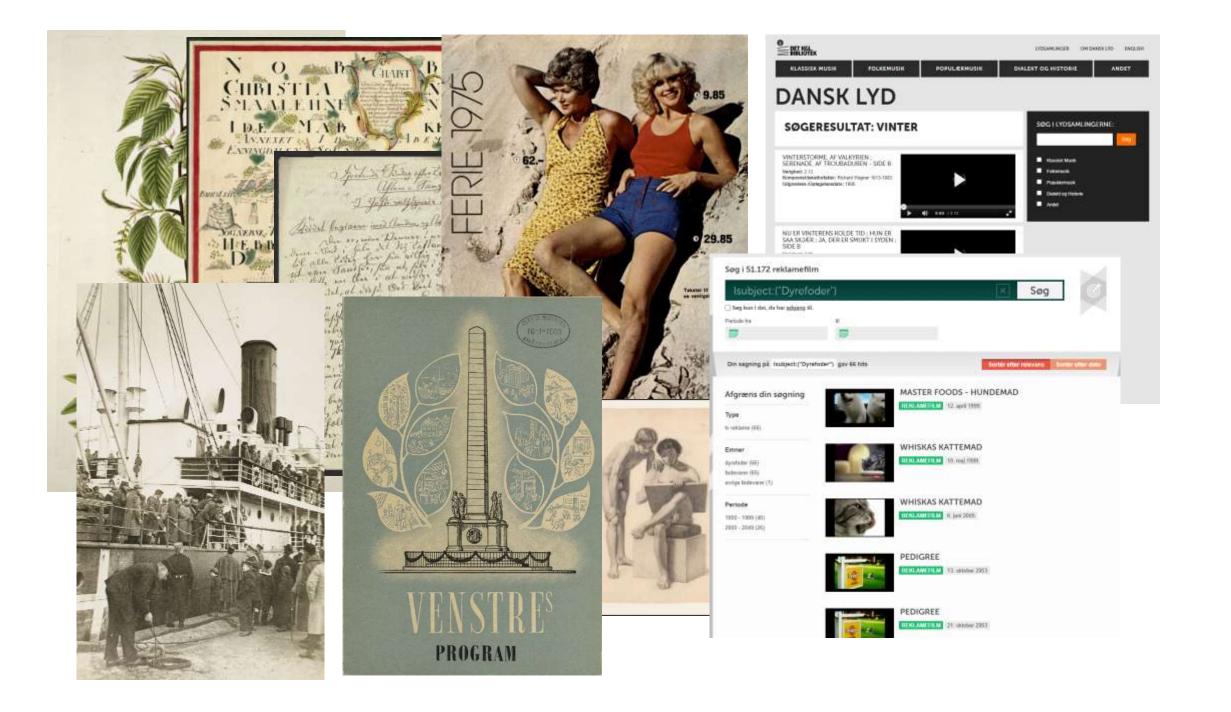


The generative tools and techniques are known!
But how can they be used to involve users in the discussion about IA?
What influences whether the method will provide useful insights?

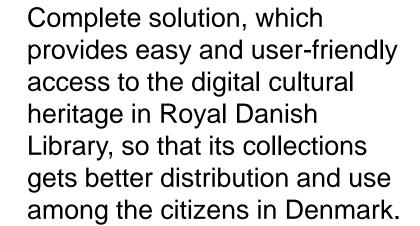
## A case study on the digital collections from the Royal Danish Library.







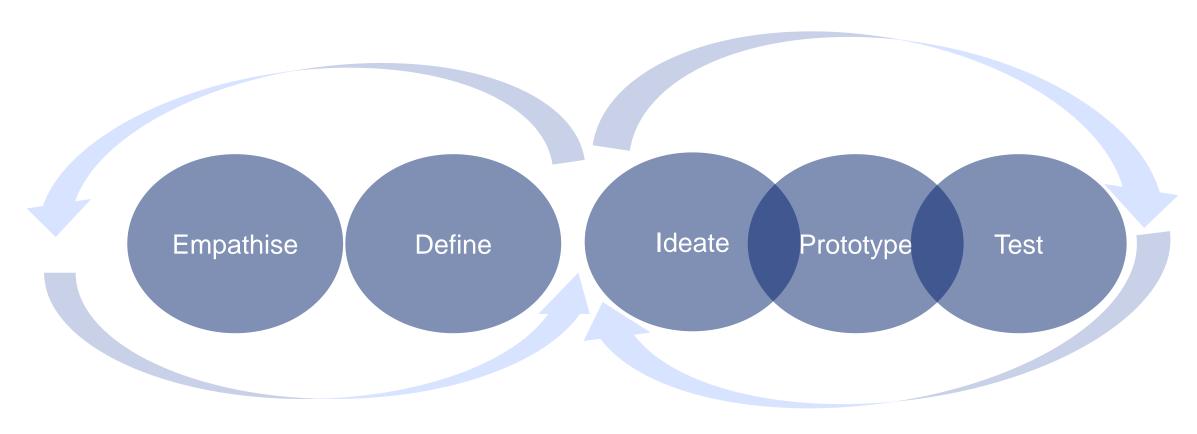
- Large collections of material
- Many different portals
- Some of older date



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

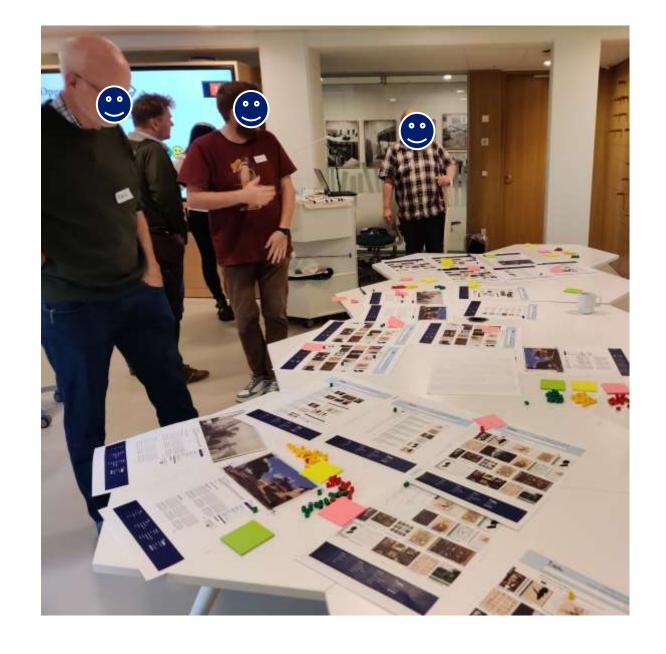
7 participants

1 facilitator

2 observers

Make-sessions followed by saysessions

Recordings
Photos of artefakts
Observation notes



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





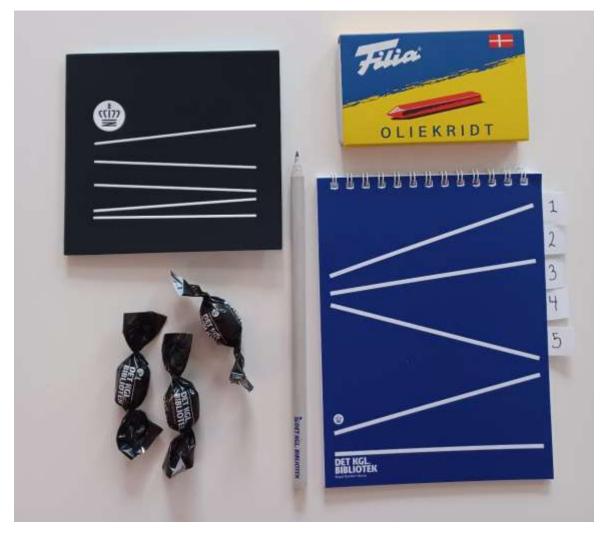
#### **Toolkit 1: Sensitization**

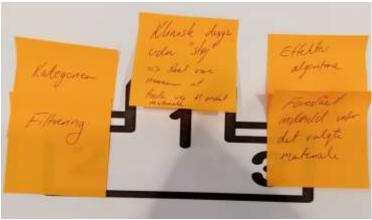
Notebook with a task and questions about search.

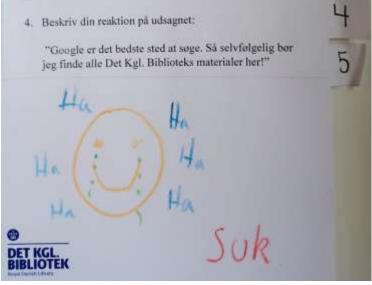
It is abstract to talk about IA!!

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.

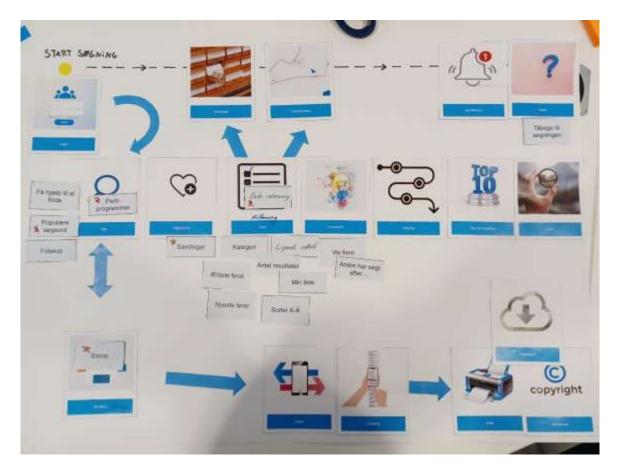
Combination of a cognitive and a storyline toolkit.

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.





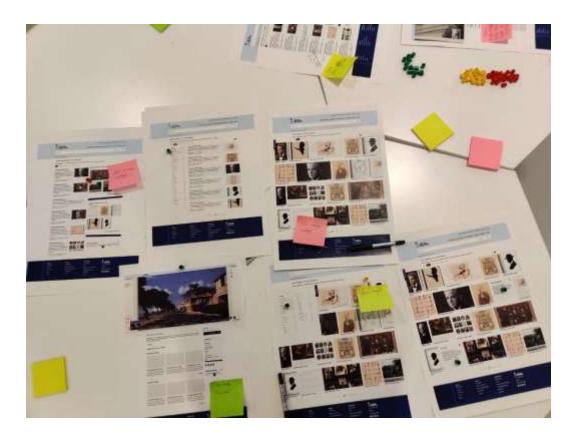
"Zalando and Spotify, that's what we want!"

"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.







deals or vest at lear research if len long on en gode i Aaftas, Normalt benytter an stadiarstore, men lige on et er enne han siger in, haads de lives meget, an up overe han på Gorgle, til af de første resultater er fra Det kgl. Bibliotek. I seskrikelsen af bliobet er det nemt for Mads, at affode om det er er relevant gi formuligt segenssutat for ham. Mads havde sive trænkt, at Des Kgl. på folke kurne fligte han med ut finde bilded, af har mest forbinder den på formalte for hand bette stadie og det stadie og det stadie og det kan hand stadie og det stadie og det stadie og det stadie og det til det stadie og det stadie og det stadie og det kan hand stadie og det stadie og det stadie og det til det stadie og det stadie og det get stadie og det stadie og det stadie og det det stadie og det det stadie og det stadie og det stadie og det stadie og det stadie og det det stadie og det stadie og det stadie og det det stadie og det stadie og det stadie og det det stadie og det stadie og det stadie og det det stadie og det stadie og det stadie og det det stadie og det stadie og det stadie og det sta

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Da Mada klikker på hjenet, bliver han spurg; om han vil oprette en brugeriorro, sa han kan gennre sins segenesuitatier og sortere i den senere. Det syres Made fylder amart, og besutter sig for at opretter sig som bruger. Hans første favoribiliteter ligger allerede på laten på hans brugerpolif, så han forsætter ån segning ved at klikker olig de blibeet gen.







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frer et par dage vil Mads arbejde videre med materialet til sin bog. Han sager frer "Det sigt Bittlicrek" og finder frem til forsiden af kit die, Derfra kan ban unigt rinde frem til, hvor han kan fortsætte sin sagning.



Han logger ind på sin konto ag ser sin liste fra sidste besag. I sag arbejder har mere koncenteret om at sortere sine søgeresultater i køtegerier, og vandere milke han vill bruget di sin bog hølge af billederne sortere han fra gå han kan se på informationerne om materialet, at det ikke vil kunne artiges i hans bag gå den måde, han sraker.



Mads ender med at downloade tre billeder, som er klar til at blive sat ind i layoutet til hans beg, sammen med de rette kidebeskrivelser. Alle oplysning er klar til download, så det er nemt for Mads at arbejde med det og anvende der

Mads gemmer Det Kgl. Bibliotek som bogmærke i sin browser. Her skal ha helt sikkert sigge materiale igen til sin næste bog.

#### 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.





