Applied Ethnography

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What is ethnography?

• A research framework the goal of which is to understand people’s everyday life as a social phenomenon
• Typically used in anthropology
• Typical qualitative method: fieldwork
  – Field notes
  – Interviews
  – Observations
What is design?

1. The result of design work; the change it creates (broader than ‘objects’) - an improvement; new appearance; a new way of functioning; or a completely new system, service, thing

2. The conceptual idea of design/change = theory - what is valuable for people

3. The activity or process to create these changes

-> evaluation = the process of perceiving the character of change, its merit, worth, significance ~ “system specifications”; “product requirements”

(Ylirisku & Buur 2007)
Why ethnography in design?

- Replacing a mechanistic way of doing “requirements elicitation” (Hughes & al 1994)
  - Work and other life is more complex than in ‘flow charts’, procedural manuals or even interview accounts
  - From an individual to a member of society (that might be old,...) -> a social and political undertaking (Ylirisku & Buur 2007)
  - Focus on practices, actions, doings rather than on categories and properties of objects, artefacts, designs
    - Central for interactive artefacts (cp Raudaskoski & Rasmussen 2003)
    - Ubiquitous, invisible designs emphasise this aspect (Hughes & al 1994)
      - From automaton to augmentation (cp Norman 2007)
    - The consumer as a creative user (cp Plowman 2003)
    - The designer as shaper of social and cultural practices (cp Shove, Watson, Hand & Ingram 2007; Ylirisku & Buur 2007)
What is ‘applied’? (~Hughes & al 1994)

Figure 3: The role of evaluative ethnography
## In sum (Hughes et al)

<table>
<thead>
<tr>
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Table 1: Outline features of the different roles of ethnography in design
So...

- Ethnography can have different roles in design
- Designers can also use results from studies that had nothing to do with design
- The focus is on social practices
- You can get usable results within a shorter time frame, too
- The ‘core’ of the design (what is essential, what is important, where should we focus) can be found with ethnographic methods
- Hughes & al seem to keep the two occupations (designers, ethnographers) separate, working together
From solving design problems to choosing a focus (Ylirisku & Buur 2007)

- If “The formulation of a wicked problem is the problem! The process of formulating the problem and of conceiving a solution (or re-solution) are identical, since every specification of the problem is a specification of the direction in which a treatment is considered.” (Rittel & Webber 1973),
- and if
  - the people designed for are considered as members of society
    -> design is a social and political undertaking
  - designers are producing change (by shaping social practices and attention)
- so, if we have a design task like this
  - North Sea Oceanarium in Hirtshals: The visitors’ experience ‘in’ the aquarium – how is it made better, maybe more participatory

1) What elements can you detect as important for this ‘local’ problem/solution? How could ethnography help in the design process?
2) Think of a problem/solution that includes a wider, ‘global’, ‘ethical’, ‘political’, ‘pressing’ perspective? How come you know of this issue?
Please sing your results!

• Surprised?
  – Now you know what your expectations were!
    • Surprise can be
      – Undesirable (for example, scary)
      – Desirable (for example, exciting)
    • No surprise can be
      – Undesirable (for example, boring)
      – Desirable (for example, comforting)

(¬Ylirisku & Buur 2007)

– Cp ethnomethodology/phenomenology:
  • The world as ‘typified’
    – Action in the world ‘approximation’
    – Documentary method of interpretation
    – Breaching experiments
~ design practice

- No surprise
  - Fits the existing practices/ways of thinking

- Surprise
  - Changes expectations/practices

- Thinking alternatively is ‘free of charge’ at the beginning of the design process, but costly towards the end (cp Iedema ‘resemiotization’)

- **Collaborative** design process can ensure a wider range of perspectives
Your design ideas (task earlier) ~ ISO?

- The ISO 13407 Standard Human-centred Process for Designing Interactive Systems
- Yours more at the conceptual level?
A dynamic framework for design (Ylirisku & Buur 2007)

Past, present, future practices, materials, spaces (user study)

Describing new concepts & ideas

To already known materials

A “co-thinking process”
Task: How do Hughes & al & Ylirisku & Buur compare?

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Table 1: Outline features of the different roles of ethnography in design
The attention today is on
Video traditions in design (Ylirisku & Buur 2007)

- **Design ethnography**
  - Quick field studies of daily practices of (potential) users
  - Video data from professional documentaries to raw clips
  - New technologies -> *digital experience sampling, Mobile Probes*
  - Users == informants
  - Potential for design
  - Helps question designers’ taken-for-granted assumptions

- **Interaction analysis**: Conversation Analysis (CA) + material environments
  - CA: people’s *methods*, how people organise their (inter)actions
  - Can be studied in *data sessions* (cp http://www.hum.aau.dk/~pirkko/muma.htm)

- **Participatory design**: from a political to a practical design activity(?)
  - Users (co-developers) and designers come from different worlds
    -> barriers to be crossed
  - Designers have to make the design activity accessible to users (photos, stories..)
  - The users’ domain knowledge is accessed, for example, through
    - Stories from real life
    - Scenarios of the future
  - Increases *ownership* of the design
  - Video: to document design discussions and activities
Video traditions in design (Ylirisku & Buur 2007) ctd

- **Scenario-based design**
  - Stories about potential future use situations with the design solutions
  - Originally: Imagining alternative states of the future to prepare for changes to come
  - Useful for all stages of product development:
    - creating and presenting ideas
    - discerning user requirements
    - evaluating ideas and prototypes
  - Can replace functional prototypes
  - Can raise debate on what is the desirable future (do we really want to do this?)
  - Video brainstorming: acting out ideas using mock-ups vs. writing ideas on paper

- **Usability studies**
  - Current formats
    - heuristic evaluations
    - usability walkthroughs
    - usability tests
  - Problem with analysing video data: too much to do!
    - new software tools: annotating the data real-time -> video of key usability problems
Making video efficient for design (Ylirisku & Buur 2007)

• Video as a designer **clay** (of abstract concerns) to be formed, rather than analysed -> **video artifacts**
  – Who are the expected user, what do they do, and what do they like?
    • Decision to make: what is the **relevant use context**
    • Portrays of personality and feelings
  – Which core themes should the conceptual design pursue?
    • Video as a catalyst for dialogue
  – How will new product proposals fit into the user’s environment and practice? How will users interact with the new product?
    • A fictitious future: What will change?

• Video as social **glue**
  – Video is understandable for anybody -> observations
  – Video is **ambiguous** -> various interpretations -> interdisciplinarity
  – Video is more fun to watch than reading papers
  – Video is an effective mode to instigate debate and change
So...

- Video
  - Captures lived experiences/practices (in ‘user’ contexts)
    - ‘content’
  - Makes it possible to collaboratively talk about these experiences/practices
    - ‘object of study’
What is ‘practice’?

• We can use a photocopier (‘enacted practice’)
  – Cp video recording of us entering the lecture hall
• We can talk about ‘using a photocopier’ (identified practice)
  – Cp a group of people looking at the video and recognising it as capturing ‘using a photocopier’
• Suchman (1987) was among the first to realise that designing for practice requires an understanding of the embodied nature of interaction, rather than ‘mapping out the thinking process’
  – We approach situations on the basis of our experiences
  – We make sense of our surroundings and each other in a sequential fashion (‘in situ mutual intelligibility’)
  – ‘Routines’ are never ‘rules’ but adjustable ‘approximations’
  – We misunderstand, mishear etc, and get around those (routinely)
The role of the video camera in (capturing) embodied practice

• Whatever the aim of using the video camera
  – Don’t use too much time on pondering:
    • What is the effect? Are people ‘acting natural’
  – But: how did they (if they did) orient to the situation as ‘a video camera in it’
    • ALL situations are ‘natural’!
The role of video materials in design

• Even if the video captures ‘the user’s point of view’, it should be analysed for its relevance for the design task
  – > iterative framing of the focus (Ylirisku & Buur)
    • At first, the focus is usually open and blurry but clarifies in the course of design action
    • Cp Hughes & al’s ‘quick and dirty ethnography’
      – Also short fieldwork can produce satisfying results informing on the acceptability and usability of the future
      – More ‘close to the field’ than contextual design (which is an abstracted away list of design foci)
Rapid but relevant (~ Ylirisku & Buur)

- **Design ethnography** (Blomberg & al 1993)
  - Natural settings (field settings rather than experiments)
  - Holism (an action can only be understood in its everyday context)
  - Descriptive (how do people actually behave in their everyday settings)
  - Members’ point of view (what was meaningful for the participants)

- ‘Rapid ethnography’ by Millen (2000):
  - Study fewer but better chosen people and activities
  - Use interactive observations
  - Use collaborative and computerised methods

- ‘Rapid ethnography’ with video by Sperschneider & Bagger 2000)
  - Situated interview
  - Simulated use
  - Acting out
  - Shadowing
  - Apprenticeship

From ‘capturing the everyday practices’

Towards ‘ethnography of the future’ or ‘simulacra’
Participant *intervention* (Ylirisku & Buur 2007)

- A designerly way of engaging with the field through mock-ups and experiments (Kjærdsgaard & Petersen 2007)
- Design devices (probes, props, mock-ups) help create an open-ended dialogue with users
- Ethnography: understanding current practices
- Design: studying change (ethnography of the future?)
  - Placing intended change (design ideas) into the practices that then change
  - Important to understand
    - *what is it in current practices that may be changed and how*
    - *how to project the possible changes in practices onto the visions of change (is the change with this product/process desirable?)*
      - *What needs to be changed*
      - *What can be changed*
- *In situ* vs policies, plans, procedures, insitutionalities (that is, what is ‘context’?)
How to capture user experience? (Ylirisku & Buur 2007)

(pople's interpretations of what they do
people's situated practices/interpretations
people's ability to envisage a desirable future)

say think
say

do use
do

know feel
dream

make

interviews
shadowing
self-recording

Sanders 2001
Method: Situated interview

• Start with easy questions
• Prime the interview with self-documentation, or use observation as a help to being more reflective
• Ask open questions rather than brief “yes” or “no” questions
• Provoke details through details: Ask concrete questions and provide a detailed context
• Get a real practitioner: Remember that someone who thinks s/he knows, such as the superior, does not have the same relationship to the practice
• Ensure good sound quality: Use an extra shotgun (or wireless) microphone in noisy environments
Method: Shadowing (observing people while they move)

- Keep the person in the picture all times
- Follow what the user is doing and where his/her attention moves
- Use your feet to zoom
- Keep up with the pace of the user
- Remember that if you cannot hear, neither can the camera
- Let the video run continuously (do not stop the camera when surprised)
- Allow the “user” to control what can be videotaped
Method: *In-situ* Acting (in native settings)

- Frame the situation in a proper environment with appropriate tools
- Prepare props if future-oriented acting is desired
- Establish a relevant orientation: When, who, and what are usually good facilitating questions
- Use video in the same way as in shadowing
Method: Self-recording (video diaries)

- Instruct the person on the use of the camera
- Provide a focus: describe the kinds of issues the project is interested in
- Explain how to deal with other people that may be videotaped: Hand out, for instance, a brief outline of the project that helps the user to explain the project to outsiders easily
- Inform the user how the videotapes may be utilised later
-> **Co-exploring**

- **For designers**
  - Entering new realms of user contexts and practices
  - What is there, what may change in the future
- **For the users**
  - Triggers a reflective process (and maybe change)
  - May enable them to see their practices in new light
- **A participatory task to move towards change**
More concretely, the ‘user context’ is...

...people with experiences...

...to do something

..who are alone, with somebody or in a group...

..and who are in a certain place, using language and other cultural tools...

Focus on action

Actions are always mediated, with mediational means that actors have learnt to use. (Mediated Discourse Analysis)
**Nexus Analysis as a research framework**

- To find out *which actions* are central
- To find out *how exactly* the actions are done in the *nexus of practice* or *community of practice*
- To find out what makes these actions possible (historical, cultural, institutional, private reasons) and what emanates from the actions
Nexus Analysis ‘ethnography’

• Useful when
  – interest in ‘local’ interaction but
    • also in a close analysis of *important* interaction
    • the ‘context’ is big or vague (for instance, an organisation)
    • the idea or interest is ‘vague’ and needs to be pinned down to a concrete phenomenon (for instance, how could staff members be more active in the North Sea Oceanarium)

• Can also be used to ‘place’ various types of data that have already been collected
How to find the crucial actions?

To gain an overall understanding of the social issue and to detect its key mediated action(s)

To do a thorough analysis of the central mediated action(s) + their ‘pasts’ and ‘emissions’ (often a ‘longitudinal study of change & learning’)

To detect change and to help understand the motives behind ways of doing + how to change them to something else – with the participants ~ action research

~ ethnography
I Engaging the nexus of practice: To do

- Establish the social issue you will study
- Find the crucial social actors
- Observe the interaction order
- Determine the most significant cycles of discourse
- Establish your zone of identification
I Engaging the nexus of practice: How?

II Discourses survey: media content & public opinion

III Scene surveys: historical body questions, interaction order questions, discourses in place questions

III Focus groups

Check the results from 1.1. & 1.2

Where mostly?

Interacting with whom?

What’s the scene; which mediational means are used?
II Navigating the nexus of practice:  
The development of the central social action(s)  

- **Semiotic cycles**  
  - Persons  
    - What enabled these participants do this action?  
  - Semiotic aggregates  
    - How is the environment used to do the action?  
  - Overt & internalized discourses  
    - Which discourses are central, which invisible?  
  - (The changing use of) objects & concepts  
    - How did this object/concept to be used here?  

- **Mapping: Focus on**  
  - Anticipations (e.g. design) & emanations  
    - Is this following from before or producing a next?  
  - Points and intervals  
    - What are the most important transitions?  
  - Timescales  
    - As material-physical or discursively constructed  
  - Links among semiotic cycles  
    - Do these cycles always appear together?  
  - Resemiotization  
    - Is there a transformation in this action?  
  - Circumferences  
    - What are the narrowest/widest crucial timescales?  

1. An overall idea  
   (“broadstroke maps”)  
   - History of the participants  
   - Mediational means  
   - Discourses  
   - Place  

2. Select some cycles to follow  
   - A longitudinal study
Nexus Analysis & Design Ethnographies

• The aim:
  – ‘to design for change with people and for people
• Gaze on on *in situ* actions and practices
  – in NA, from text and talk to embodied interaction
  – In DE, from objects to embodied interaction
• Gaze on the ‘past’
  – In NA, the cultural-historical formations
• Gaze on the ‘future’
  – In DE, futuristic scenarios
What is *action*? (Scollon & Scollon 2004)

• Mediated Discourse Analysis/Theory:

**Mediated action**: all actions are mediated
e.g. *saying something in a formal meeting*
putting up a finger, waiting for a go-ahead, talking, using texts, etc.

**Mediational means**: cultural tools that are used in any action
e.g. *the language used in taking a turn-at-talk,*  
the material arrangement of the room (round table with chairs), the printed agenda for the meeting, coffee on the table, overhead/computer screen projector, laptops...

**Site of engagement**: multiple social practices intersect to form a unique moment in history, enabling a mediated action to occur
e.g. *getting attention by lifting a finger,*  
waiting for a permission to do/say something...
Mediated Discourse Analysis/Theory

• **Practice and mediational means**: A mediational means is an object in the world as it has been appropriated within a practice; also through a person’s practice-history-habitus
  – *e.g. lifting up finger to get attention/permission, using the agenda to participate in a meeting...*

• **Nexus of practice**: Consists of linked social practices that we recognize in the actions of others. A genre of activity and the group of people who engage in that activity
  – *e.g. attending a guest lecture at the University*

• **Community of practice**: Formed by a group of people who explicitly belong to a group and regularly interact with each other towards some common purpose or goal
  – *e.g. doing a group project*

• When a nexus of practice starts knowingly transferring into a community of practice, the process is called the technologization of a nexus of practice
Literature quoted