Fields for co-creation

background for Rhyme

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My background

Education

Phd Courses in Interaction Design, K3, Malmö University College
MA in Industrial Design, AHO
BA in Humanities from Oslo University (Cand. Mag)
  Media and Communication Studies (2 years)
  Computer Science (div courses)
  History of Ideas and Philosophy (2 years)
BA-level in Economy from BI

Experience

20 years experience from industry
  Consultancy / Product Development
  User Interface Design / Interaction Design
  Service Design, ERP, BPR
  Brand Building
  Multimedia Design, Set Design
  Method development

Started 3 companies (New View, Interaction Design, Creuna)

10 years experience from research
  KTH - Smart Things and Environment
  Interactive Institute - Narrativity
  K3 - Malmö Högskola
  Design Sciences - Lund University
  AHO-Design-Rhyme (2010 - 2015)

Intuition and ambition

Signs of use
Signs of wear
The beauty of traces in physical objects
Inscription of ourselves caused by reuse of the object
Openness
  • Openness in the interpretation and doing
  • No Right or Wrong
  • Reduce dependencies in sequences
  • From any point there are many ways
  • From objects to Relation

Change the power structure
Starting research question

From
What is “good” design?
How does one create “good” design?

To
What is “meaningful” design?
How does one design meaningful smart objects?

Sub questions
• What does a designer create?
• What is a smart interactive object?
• What do I mean with meaningful as a design quality?
• For whom is it meaningful?
• What do I mean with use?
Suggestions...

What is “good” design?

From “good” design
To meaningful design

- Expresses identity
- Strengthens identity
- Builds relations between the actors over time
- Expand the discourse field
- Shapes the culture
Suggestions

What does it mean to use?
From use
Via consumption and production (prosumer)
To re-creation

- creation of meaning through mediated communication
- recreation of the mediated articulation in the discourse field, the network, the context
Suggestions...

What qualities must the design have to be meaningful?

From "user friendly" and controlled
To action space and negotiation space

- Openness
- Ambiguity
- Appropriate able /Adaptive / Transformable
- Circulateable
- Developing over time
- Acknowledgeable
- Offer relevance over time
- Negotiable over time
- Narrative structured

like a field
A field is something we cultivate where what we plant grows. It is an open area to walk through. It is an area of knowledge with yet unidentified constraints.

A field is ambiguous.
Suggestions

Object → Field

Defined functions → Potentialities

User → Co-creator

Use → Recreation

User friendly and efficient in performing functions → Ambiguity, openness, transformable, circulateable, inscribeable

Good design → Multivalent design
Unfoldings - a field
Unfoldings, Stockholm House of Culture, 2003
Unfoldings, Rooseum Malmö, 2003
Other fields...

IFI-BCAKK.ppt
MUFI, Malmöfestivalen 2002
Strainings, Neon, 2004
TigerTales, Hässleholm House of Culture, 2005
a new path

2006 -
background

- UbiComp and Tangible interaction unique potential for disabled
- UbiComp and Tangible interaction challenge universal design
- MSE (Snoezelen) are established method
- Music has unique communication potentials for this group
- No or little work on music therapy and interactive music
- AAC mostly pictograms and signs
- Exists few possibilities for collaboration
what we have done

- Based on this earlier work (musicalfieldsforever)
- Develop interactive, audio-tactile experience environments (fields)
- Children with severe disabilities and their families
- To facilitate collaboration and communication between all family members
- On equal terms (not in the same manner...)
- “Smart” textile active structures
- Communication through, with, in music
- MUSICKING (C. Small)
traditional situation
- one knows, one does not
Our interactive fields

- Designed and loaded with **potentiality**
- Open to **many**
  - interpretations
  - interaction forms
  - activity levels
  - relations

- Simultaneously
- Develops over **time**
Motivate to musical actions

- Our musical fields motivate the user to
  - play as on musical instruments
  - communicate as with musical actors (co-musicians)
  - experience as being in a soundscape
communicate with musical actors, co-musicians
Musical Gestures

- iterative
- sustained
- impulsive
- complex
testing the accelerometer
testing microphone and sound analysis
testing speakers as part of the physical experience
Open and Ambiguous

- The user can create **many interpretations** and **actions**
- The Field **simultaneously** offers many
  - roles (instrument, actor, soundscape)
  - interaction forms
  - activity levels (passive-active)

- Direct **and** communication like response
- **Many** active sensors at the same time
the user can create many interpretations
open to many forms of interaction and activity levels
open to many forms of interaction
open to many interpretations and actions
talk, sing, wonder, relax, interact, jump, experience, share
Changeable

- **Modular**
  - motivate to use *over time*
  - possible to change, distribute and *restructure*
  - user can adopt *many roles*

- **Transformable**
  - dynamically *changeable* form, new functions

- **Inscribable**
  - individual *interpretation*
  - *personification*
  - physical and auditive tagging/sampling
motivating to change, distribute and restructure over time
users create new functions through changeable form
personificate by physical and auditive inscription (tag)
Consistent and Suprising

- Consistency between sound and interaction form
  - small flexing wire curls motivate iterative gestures
  - large dimensions motivate impulsive gestures
  - consistent with character of the Field
- Registration of presence offers long use sequences
- Surprising invitations motivate communication
- Unpredictable wire curl encourage communication
homogeneous textile supports the background soundscape
small flexing wire curls motivate iterative gestures
the empty field waits and invites to interaction
continuous flexing wire offers rhythmic variation
skin like, mat finish, user compares with touching
stretch textile with bouncing qualities
a father plays with iterative gestures
they share ambient experiences
they communicate
she wonders
mother and boy communicate in the Field
he hits!
they tease
he hides
the Field answers in music and rhythmic glow
they roll and throw
he climbs sustained
they share
they play, communicate and experience
A therapist at Rosenlund Hospital after the testing perion in February 2009:

"Rummet ger möjlighet till närhet, kommunikation, att vara tillsammans, att upptäcka med alla sinnen, att påverka själv, inget är ”fel” allt är ”rätt”. Samspelet blir naturligt och självklart, det går inte att undvika. En hjälp till ”närvaro i stunden”.

Verklig den vi vill!"
Experiences

Huge potential for this group
More work with sensors/materialisation of sensors
More work on voice (filters, clipping, composing)
More work on specific genres MINI, VOXX,
More work on individual setups
More work on hardware (robustity, battery, charging)
Get it on Internet
More work on social distributed aspects (social media)
More work with musical therapie and communication strategy
next step
RHYME

coopreation through
tangible interaction
and music
VERDIKT
5 years
10.mill NOK
VERDIKT - The future of Internet

Brugergrensesnitt, informasjonsforvaltning og programvareteknologi
Kommunikasjonsteknologi og infrastruktur
Sikkerhet, personvern og sårbarhet
Samfunnsmessige, økonomiske og kulturelle utfordringer og muligheter

Fremtidens internett

Sosiale nettverk
Tingenes internett
Mobilt internett
Objectives from application
“Radically **improve the health and well-being of people with severe disabilities**, through a new treatment paradigm based upon collaborative, **tangible**, net based, "smart objects", with multimedia capabilities.”
2.

“Contribute to the emerging body of knowledge in interface design, specifically within the area of networked social co-creation, based on cross-medial interaction through the Internet of Things.”
Further objectives are:

Develop **knowledge through design** of new concepts of Internet of Things. Things that facilitate play, communication and co-creation, **between** people with and without severe disabilities, on **equal terms**, in different communicative situations.

Identify the **new field** and its potential that emerges, by bringing together **Interaction Design, Tangible Interaction, Universal Design, Music & Health**.

Establish an **international network** for the field.

Contribute to **collaborative courses** between the partners.
Perspectives...

Ecological and Humanistic Health approach (Blaxter, 2004, 2010)

Everyday use of music (deNora 2000, Ruud 2006)

Research by design (Schön, 1983) and User-centred design (UCD)

Art and design perspectives on technology
...perspectives

Technology as instrument, actor and ambient landscape (Latour 1999, DeNora 2000)

Openness (Eco 1962, Löwgreen 1999/2004) and Design for diversity

Narrative structured, Dynamic affordance and Cross-media
3 partners
Norwegian Academy of Music Center for Music and Health
Even Ruud,
3 x Professor, Musicology, Music therapy, Music and Health, Founder of Center for Music and Health
Musician, Musicologist, Psychologist, Music therapist, author and co-author of 40 books

Karette Stensæth,
Ass. Professor in Music therapy
20 years music therapist, Phd in Music therapy on collaboration and improvisation
document health effect

publish in the music and health and music therapy community
Jo Herstad,
Ass. Professor in Informatics, Phd in Informatics
on use of mobile communication,
Specialist in Universal Design and
mobile communication
IFI: HCI and Universal design perspective
AHO
Oslo School of Architecture and Design
Interaction Design Group
(project owner)
AHO: design and prototype development

research by design methodology
Birgitta Cappelen, Ass. Professor in Interaction design at AHO, Industrial designer, Interaction designer, Service designer

Anders-Petter Andersson, senior lecturer at Interactive Sound Design, Kristianstad University Sound designer, Musicologist

Fredrik Olofsson, Composer, Programmer, Video artist, lecturer at Universität der Künste Berlin

worked together over 10 years, met at ii musicalfieldsforever.com
RHYME
to rhyme, a rhyme
co-creation with tangible, spatial, cross-media

by communicative, musical and narrative principles
to improve health and well-being for people with severe disabilities
samskapende ting
co-creative tangibles
family plays on and with ORFI
Background
music effects health
scientifically documented over the last 15 years
music therapy
multisensory room - Snoezelen
the Internet of Things
Ubiquitous Computing
research in **interactivity** and **narrativity**
interactive music composition
user tries out the microphone and the VOX music genre in ORFI
co-created digital narratives and experiences
social media
interactive art
Searching Voices, World New Music Days, 2009
design for all
for diversity
Goals
increased health through

(Ruud, 2006)
reduction of isolation and passivity
friends playing in ORFI
evoke feelings
increase ability to master
create social relations
family spending time together in Vinings
create experience of meaningful wholeness
users experience sounds and vibrations in Vinings
with co-creative things,
co-creative tangibles
ICT- based things
tactile interaction
Vining’s accelerometers are being tested.
music, actions and gestures
Strainings, Neon, 2004
light and dynamic graphics
cross-medial, spatial interaction
User group
children with severe disabilities and their families
one of Norway’s leading schools and centers within the field
Related things
Soundbeam
Paro
Japanese PARO is bought by Oslo Municipal
The project
4 empirical studies
3 new prototypes
different design qualities and situations
Situations
to facilitate co-creation between 2 persons simultaneously
to facilitating simultaneous co-creation, in social networks
tangible cross-media solution to facilitate co-creation, distributed in time and space
start with existing ORFI, created earlier by 3 (Birgitta, Anders-Petter, Fredrik) project participants to create common foundation
bend sensor

LED lights

dynamic graphics

microphones

speakers
Spring 2011

action research, 5 actions
weekly interviews
video observations
Generation 2
hardware explorations
3 new hardware platforms
iDevice
    (iPhone)

RHYME wireless
    (Android, Google I/O ADK)

RHYME wired
    (Arduino Mega, Shell, MiniMac)
tactile textile touch sensors
ORFI - too hard for some
e-textile explorations
different light, light spreading and textile techniques
creating tangible tactile glowing sensors
cross-media explorations
cross-media interaction with camera and projection
People with dementia remember with music.
Just Now
E-textile and musical interaction-course
AHO-KhiO

Presentation 4. nov. 13.00 KhiO
Other possibilities
other target groups: dementia
other places: institutions
other situations: therapy sessions
other places: institutions
other relations: home, institutions, users, care persons
people with dementia remember with music
other combinations:
co-creative things
social media
service design
great potential, social and economical
a new paradigm for health improvement ICT?
back to the start
So...

Forget about tables, chairs, sofas and floors
The new potentialities lies in between, in hybridizations,
  Work and leisure
  Reading and Writing
  Tables and Sofas
  Designers and users
  etc. in intertextuality

My suggestions is to create
  multivalent fields of potentialities for co-creators
  instead of user-friendly objects with functionalities for users

Its another way of thinking and designing

Fields for co-creation
My inspirators...

Aristotle (rhetorics, poetics, praxis, phronesis)
Goffmann E. (The presentation on self in everyday life)
de Certau M. (The Practice of Everyday Life)
Miller D. (Material Culture)
Appadurai A. (The social life of things)
Barthes R. (Mythologies, The pleasure of the text, other...)
Eco U. (The open works)
Hall S. (Identity theory, Encoding/Decoding)
Giddens A. (Identity theory, Modernity)
My inspirators...

Bourdieu P. (Distinction, Theory on Power/Praxis, )

Foucault M. (Discourse theory, Archeology/Genealogy, The Order of things, Power theory)

Arent H. (Human Condition)

Nardi B. (Information Ecology, Contextual Design)

Laurel B. (Computer as Theatre)

Suchmann L. (Situated Actions)

Latour B. (We have never been modern, Pandoras hope, Laboratory life)

Löwgren J. (Thoughtful Interaction, “Handlingsutrymme”)

www.musicalfieldsforever.com
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Min. of education and research, 2008. Hefte om barn med nedsett funksjonsevne:

National Committees for Research Ethics, 2006. Guidelines for research ethics in the social sciences, law and the humanities:

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TAKK !