Designing Intimate Experiences

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Introduction

• Intimacy and Embodiment
  – relationship aesthetics

• Research projects from HCT lab
  – Iamacope
  – Digital Lifestyles

• Perspectives on design
Intimacy and Embodiment

• Want interfaces that feel “good” to use
• Humans and machines intimately linked
  – degree of intimacy supported may determine success
• Types of relationships:
  – human to human
  – human to machine
Intimacy

• Intimacy is a measure of subjective match between the behaviour of an object and the control of that object.
  – extension of “control intimacy” from electronic musical instruments analysis (Moore, 1997)

• High intimacy implies:
  – object feels like an extension of self
  – satisfaction derives from interacting with object
  – emotional expression flows
    • requires cognitive effort to prevent
Intimacy

• Contributing factors
  – consistency
  – responsiveness
  – usefulness
  – learnability
  – functionality
  – others

• Relationship aesthetics drive development
Intimacy: Embodiment vs. Disembodiment

Case 1: Object disembodied from Self

Case 2: Self embodies Object

Case 3: Self disembodied from Object

Case 4: Object embodies Self

Aesthetic
response
ctrl
reflection
belonging
Iamascope

- Interactive multimedia artwork
- Participants are put inside a large kaleidoscope
- Participants' movements also map to music
- Run in real-time
- Immersive, exciting, satisfying, intimate
**Iamascope System**

170” Video Projector

Video Camera → Video Image → Kaleidoscope subsystem

- Texture Memory
- Texture Mapping

Active Video Region

Kaleidoscopic Image

Speakers

Music Synthesizer

Vision-to-music subsystem

- Image Processing
- Music Production

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Iamascope Video

Iamascope

S. Fels and K. Mase

performance (S. Fels)

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Digital Lifestyles

• services re-organized to fit identified digital lifestyles
• new mental models and metaphors
  – recognition of space and place
  – lifelong acquisition
  – organizing and searching
    • associative links/tagging
  – sharing
  – device and connectivity co-dependence
• Branding
Space and Place

Home

Home Space

3rd Place*

Workplace

Workspace

3rd space

Transit space

Transit Place

*The Great, Good Place, Ray Oldenburg
Space and Place

- Home Space
- Workspace
- 3rd space
- 3rd Place*
- Transit space
- Transit Place

*The Great, Good Place, Ray Oldenburg
Workspace Example

- file/folder system
- desktop
- control panels
- finder
- applications
- documents
Workspace Example

- file/folder system
- desktop
- control panels
- finder
  - applications
  - documents
Applications and documents

• applications give meaning to documents
  – may break metaphor

• associations of documents
  – application based
  – name space
  – keyword search (i.e. spotlight)

• Does this make sense?
Affordances in Physical and Virtual space

<table>
<thead>
<tr>
<th>Semantic layer</th>
<th>Music</th>
<th>Information semantics</th>
<th>Physical semantics</th>
<th>Norman affordances</th>
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<tbody>
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Virtual world

Physical world
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Allows flexibility in metaphor space
Space and Place

Home

Home Space

Workspace

3rd Place*

3rd space

Transit Place

Transit space

*The Great, Good Place, Ray Oldenburg
Homespace

- Define lifestyle
- Develop integrated services for lifestyles
  - identify digital artifacts
- Create metaphor spaces for lifestyles
Homespace

- MyMedia centre
- MyHealth centre
- Post office
- Accountant
- MyFamily and MyFriends
- Keys and Locks

- Digital artifacts included in these spaces overlap
  - buying medicine updates
    - health, accountant and MyFamily
  - email with a photo from mom updates
    - post office, MyFamily, MyMedia
  - hockey video browsed updates
    - interest profile, virtual team, practice video reel
Keys and Locks: Circles of trust

- relationships support access models
- spatial layout provides access privileges
- access model carried with artifacts
- keys can be given
- authentication and authorization supported
Approach that could be used:

- linear file system with links in database
  - one-to-one, one-to-many, many-to-one and many-to-many relationships
  - distributed
  - archival
- database to track tags
  - automatic
  - user specified
  - hierarchial
  - shared
- “skins” to provide associative contexts
  - tree structure file system
  - desktop
  - media centre
  - communication portal
  - relationship manager
Research issues

- **HCI**
  - Identifying lifestyles
  - creating metaphors
  - usability of spaces

- **Services**
  - interoperability
  - new functions

- **Networking**
  - networks to support new metaphors
In the lifestyle industry:

Home renovation approaches

DIY
Home Depot

?  ?

$ $ $$ $$$$$$

Architect/Interior designer
In the lifestyle industry:

Home renovation approaches

DIY
Home Depot

IKEA

Architect/Interior designer

$ $ $$ $$$$$$
What does this look like digitally?

- Services that identify digital lifestyles
  - integrate applications, devices and digital content
  - support skins/personal information management systems
    - media, social networks, authored, shared and collected content
  - Branding
    - middleware to support rich context representations and relationships

- Product directions:
  - Portal 2.0: Broadband Mechanics
  - Google world
  - Apple entertainment world
Summary

• Intimate interfaces depend upon
  – relationship dynamics
  – control aesthetics lead to embodied interfaces

• Approaches
  – Adaptive interfaces
  – Appropriate infrastructure to create effective representations
  – many projects at HCT and MAGIC lab

• Creation of new user interfaces
References and Bibliography:


