Experience?

- home, entertainment, shopping
  - not enough that people can use a system
  - they must want to use it!
- psychology of experience
  - flow (Csikszentmihalyi)
  - balance between anxiety and boredom
- education
  - zone of proximal development
  - things you can just do with help
- wider...
  - literary analysis, film studies, drama

Designing experience

- real crackers
  - cheap and cheerful!
  - bad joke, plastic toy, paper hat
  - pull and bang

Designing experience

- virtual crackers
  - cheap and cheerful
  - bad joke, web toy, cut-out mask
  - click and bang
how crackers work

Fill in web form

receiver

Sender

receiver

closed cracker page

watches progress

open cracker page

recipient clicks cracker opens ... very slowly

The crackers experience

<table>
<thead>
<tr>
<th>real cracker</th>
<th>virtual cracker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface elements</td>
<td>cheap and cheerful</td>
</tr>
<tr>
<td>design</td>
<td>plastic toy and joke</td>
</tr>
<tr>
<td>play</td>
<td>paper hat</td>
</tr>
<tr>
<td>dressing up</td>
<td></td>
</tr>
<tr>
<td>Experienced effects</td>
<td>sent by email message</td>
</tr>
<tr>
<td>shared</td>
<td>sender can’t see content</td>
</tr>
<tr>
<td>co-experience</td>
<td>until opened by recipient</td>
</tr>
<tr>
<td>offered to another</td>
<td>recruited expectation</td>
</tr>
<tr>
<td>pulled together</td>
<td>content</td>
</tr>
<tr>
<td>cultural connotations</td>
<td>first page - no contents</td>
</tr>
<tr>
<td>contents inside</td>
<td>slow ... page change</td>
</tr>
<tr>
<td>pulling cracker</td>
<td>WAV file (when it works)</td>
</tr>
<tr>
<td>surprise</td>
<td>bang (when it works)</td>
</tr>
</tbody>
</table>

Physical design

- many constraints:
  - ergonomic – minimum button size
  - physical – high-voltage switches are big
  - legal and safety – high cooker controls
  - context and environment – easy to clean
  - aesthetic – must look good
  - economic – ... and not cost too much!

Design trade-offs

constraints are contradictory ... need trade-offs

within categories:
  - e.g. safety – cooker controls
  - front panel – safer for adult
  - rear panel – safer for child

between categories:
  - e.g. ergonomics vs. physical – MiniDisc remote
  - ergonomics – controls need to be bigger
  - physical – no room!
  - solution – multifunction controls & reduced functionality

Fluidity

- do external physical aspects reflect logical effect?
  - related to affordance (chap 5)

logical state revealed in physical state?
  - e.g. on/off buttons

inverse actions inverse effects?
  - e.g. arrow buttons, twist controls

inverse actions

- yes/no buttons
  - well sort of

- ‘joystick’

- also left side control
spring back controls
• one-shot buttons
• joystick
• some sliders

good – large selection sets
bad – hidden state

a minidisk controller
series of spring-back controls
each cycle through some options
– natural inverse back/forward

twist for track movement
pull and twist for volume
– spring back
– natural inverse for twist

physical layout
controls:
logical relationship
~ spatial grouping

compliant interaction
state evident in
mechanical buttons
rotary knobs reveal internal state
and can be controlled by both user
and machine

Managing value
people use something
ONLY IF
it has perceived value
AND
value exceeds cost

BUT NOTE
• exceptions (e.g. habit)
• value NOT necessarily personal gain or money

Weighing up value
value
• helps me get my work done
• fun
• good for others

cost
• download time
• money £, $, €
• learning effort
Discounted future

- in economics Net Present Value:
  - discount by \((1+\text{rate})^n\) to wait

- in life people heavily discount
  - future value and future cost
  - hence resistance to learning
  - need low barriers
  - and high perceived present value

Example - HCI book search

- value for people who have the book helps you to look up things
  - chapter and page number

- value for those who don’t...
  - sort of online mini-encyclopaedia
    - full paragraph of context

... but also says “buy me”!!

Value and organisational design

- coercion
  - tell people what to do!
  - value = keep your job

- enculturation
  - explain corporate values
  - establish support (e.g. share options)

- emergence
  - design process so that
    - individuals value → organisational value

General lesson ...

if you want someone to do something ...

- make it easy for them!

- understand their values