Designing to be Used
adoption and appropriation

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designing to be used

• design for adoption
• design for appropriation

designing for adoption

three use words

• useful
  – functional, does things

• usable
  – easy to do things, does the right things
  include ongoing experience

• used
  – attractive, available, acceptable to organisation

adoption
– getting initially used

appropriation
– getting eventually USED

dynamics of use

no use
adoption
usable
usable
useful
useful
personalised
use
use
use

no use
adoption
usable
usable
useful
useful
personalised
use
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personalised
use
use
use

managing the path

- marketing life cycle: ‘early adopters’, etc.
- how ‘design’ it in
- just think

no use

think about the whole path

easy to focus here

use

if you are big

- just stick it in the OS  (Microsoft, Apple)
- or stick it on your web site  (Google, Yahoo!)
- does NOT guarantee use
  (e.g. Apple OpenDoc, automator)
  … but it does help :-)

if not …

you have to think harder!

if you want someone to do something …

- make it easy for them!
- understand their values

designing for 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
value depends on time

- in economics Net Present Value:
  - discount by \((1+\text{rate})^{\text{years to wait}}\)
- in life people heavily discount
  - future value and future cost
  - hence resistance to learning
  - need low barriers
  - and high perceived present value

value depends on other people

- network effects
  - value of Word for ME is higher if YOU have it too
- critical mass (Grudin)
  - reduce initial cost
  - increase initial value
  - find cliques

different kinds of people
- market ecologies

  teachers

  parents

  children

  critical issues:
  - fan-out (gain)
  - feedback loops (exponential growth)
  - adding paths (information products)

lattice of value

- two groups (example):
  - developers
  - users
- each need value on their own
  - otherwise initial use
- need more value for both
  - to encourage growth

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"!!
  - but also says "buy me"!!

organisational design

- coercion
  - tell them 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
design guidelines? … some ideas …

- think about the path
- increase zero point value
- identify cliques
- understand relationships
- create community value
- leverage existing products

see also Andy Cockburn’s PhD thesis

designing for appropriation

motivation

- appropriation in many studies
- growing literature
  - Dourish lots, also Jennie Carroll (Melbourne),
  - several workshops, Illyenkov (cultural timescale)
  - … but hard to find explicit guidance

- how to pass on to students …

why appropriation?

+ situatedness – every environment different
+ dynamics – environments and needs change
+ ownership – feelings of control, pride

? subversion

design for appropriation

≈ design for the unexpected

an oxymoron?

design guidance

- allow interpretation
- provide visibility
- expose intentions
- support not control
- plugability and configuration
- encourage sharing
- learn from appropriation
example - onCue

• suggestions based on clipboard
• observed use:
  – open blank temp doc
  – type in words
  – do ‘copy’
  – use onCue
  – discard temp doc
• learn from appropriation
  – redesign had pop-down type-in area

eCommerce - example

• requirement – marker for uncompleted orders
• guidelines:
  – support not control
  – allow interpretation
• provided:
  – uncommitted ‘flag’
  – plain text comment
• appropriation
  – use to mark need to restock

no rocket

science here!

... so

• you can design for appropriation
• often seems trivial but really powerful
• needs humility

... and now ...

• Web2.0 … community content + mashups
  adoption = appropriation?
• what about end-user mashups
  (not just the techie ones!)
  – e.g. messes, P2P location-aware design frameworks
  – UI + infrastructure issues (e.g. local resource URIs)
• mashups in the home?
  (hard enough with wires!)
  – not just usability - Green agenda too

summary

• useful and usable not enough
• things need to be used
• adoption – from no use to use
  – think path
• appropriation – from use to personal use
  – think enable
• maybe coming together?