Designing to be Used
adoption and appropriation

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designing to be used

• design for adoption

• design for appropriation

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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

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adoption
  – getting initially used

appropriation
  – getting eventually USED

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dynamics of use

no use

adoption

apropriation

use

personalised use

useful usable

disuse

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designing for adoption

managing the path

no use

easy to focus here

think about the whole path

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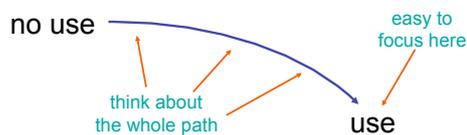
- marketing life cycle: 'early adopters', etc.
- how 'design' it in
- just think

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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 ;-)

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if not …

you have to think harder!

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if you want someone to do something …

- make it easy for them!

- understand their values

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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

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weighing up value

value
- helps me get my work done
- fun
- good for others

cost
- download time
- money £, $, €
- learning effort

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value depends on time

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

- 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

critical mass · benefit · cost · number of users
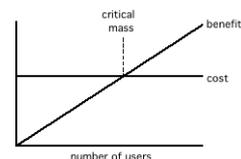
different kinds of people
– market ecologies

teachers · parents · children
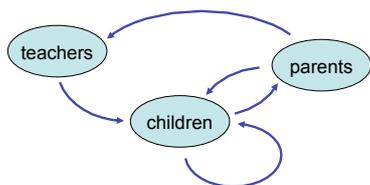
critical issues:
  – fan-out (gain)
  – feedback loops (exponential growth)
  – adding paths (information prodicts)

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

(d) both have our products · (iii) · (iv) · (b) web developer has product A · (c) web user has product B · (i) · (ii) · (a) neither have our products
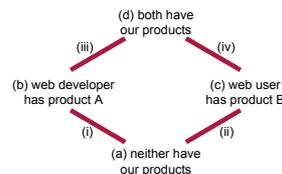
example – HCI book search

- 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"!!

engagement
search the book!

Search Results

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 abut 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

approp

example - eCommerce

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

Use this page to flag up actions and information for yourself or c
Set flag:
  no flag
  *****
  OK
  ???
Add/Edit a note:
Optional field to add notes for yourself or other
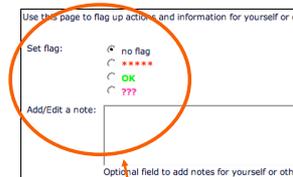
no rocket
science here!

.. so

- you can design for apporpriation

- 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. mscape, HP location-aware design framework
  - 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?