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Human–Computer Interaction
as it was, as it is, and as it may be

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… about me

I work in Lancaster
and been living in Cumbria
The Lake District

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… but

I am not English
I am **Welsh**
rydw i'n Cymraeg

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… and have sabbatical year so

moving to Tiree
… in fact ½ way there now

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what I'm going to talk about

Human–Computer Interaction (HCI)

… but what's that?

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Human–Computer Interaction

as it was
- whose computer is it anyway?
- HCI what it is and where it came from

as it is
- the great escape
- state of the art

as it may be
- connected, but under control? big, but brainy?
- some of my stuff

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Human–Computer Interaction:
as it was, as it is, and as it may be

Whose Computer Is It Anyway?

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every computer system is for people

so all computing is part of HCI

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Human–Car Interaction (HCrI)?

all about the driver

so is mechanics just HCrI?

scale
context
interaction

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roots

industry – Shackel, etc.
- CS + ergonomics

innovation – Englebart, PARC
- CS + psychology ... later sociology, etc.

impact – Apple, PC
- bottom-line benefits

ideas
- CS, erg., psych. ... later sociology, anthropology, ...

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a boundary discipline

the frontier is always where the action is

by exploring the boundaries
you understand the heart

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contrasts

practice ⟷ academic
design ⟷ theory

formal ⟷ informal
cognitive ⟷ social
reductionist ⟷ holistic

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areas

understanding
design
evaluation
technology
implementation
formalism

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understanding
design
evaluation
technology
implementation
formalism

- physiological
- cognitive
- situated action
- phenomenological (ethnographic)

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understanding
design
evaluation
technology
implementation
formalism

- desktop metaphor
- direct manipulation
- GUI

- principles
- guidelines
- methods

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understanding
design
evaluation
technology
implementation
formalism

- lab vs. field
- heuristics
  simplify for practical use
- find a cusséd user

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understanding
design
evaluation
technology
implementation
formalism

- mouse ... nose mouse
- pen interfaces
- speech
- VR
- stereoscopic displays
- whatever you imagine

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areas

understanding
design
evaluation
technology
implementation
formalism

- toolkits
- architecture (Seeheim, MVC)
- algorithms

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understanding
design
evaluation
technology
implementation
formalism

- specifiy systems
- understand issues

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communities and conferences

understanding
design
evaluation
technology
implementation
formalism

ACM
CHI
DIS
UIST
EICS
NEW
DSVIS
EHCI
Interact
BHCI

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but above all ...

attitude

someone is going to use this system

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the really useful system

I made a great system

why doesn't anyone use it?

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three use words

- useful
  - functional, does things
- usable
  - easy to do things, does the right things
    including ongoing experience
- used
  - attractive, available, acceptable to organisation

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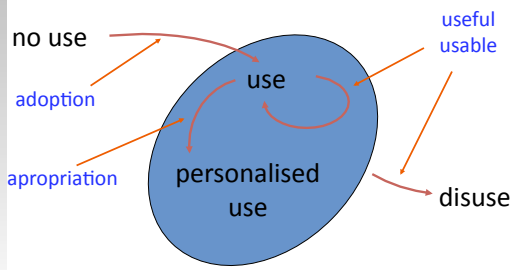
dynamics of use



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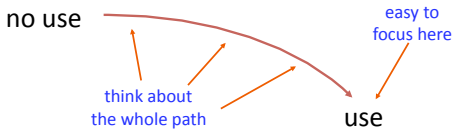
managing the path



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

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