European HCI Theory
uniquely disparate perspective

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lots of theory (& methods) in europe

Why?
- can’t afford to build anything
- weight of history
depth intellectual roots … or historical shackles?

Aristotle
Voltaire
Russell
Heidegger

different from … where?
- Asia, Africa, South America, Antarctica,
  North America, …
  … or USA : -)
- not just distance
  not just reactions to imperial ACM!
- deep intellectual gulfs

close yet far
- differences within Europe
  - intellectual style
  - academic structures: hierarchical v.s. flat
  - stability
  - disciplinary boundaries

what theory?
- lots of soft stuff
  - participatory design
  - activity theory
- lots of hard stuff
  - ‘methodology’
  - formal methods

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EU funding

EU funding
formal methods in HCI

• why?
  - formal traditions of southern Europe, engineering credibility, last decade’s fashion, solid foundations?
• lots around … see DSVIS especially
• the “York School”
  - 1984 Alvey project, EU Amodeus
  - my first book!, lots more …
• and now …
  - ubiquity, time, location, …

P.S. tutorial @ AVi in Gallipoli!

need for theory

• Rise of postmodernism
• Anti-intellectualism
• ….

changing expertise

in the past …

psychologists
computer scientists etc.

who do HCi

now …

HCI people

who use

psychology

computing etc.

domain spec.

generic

A

B

C

the danger

• loss of roots
• Intellectual decoupage
• professional practice passed off as academic

importance of HCI

• late 20th and 21st century … technology meets people

• so where is our own theory and methods?
• some … MHP, Norman, Inf. Foraging Theory …
  … but enough?
• do we need it anyway?

a little story …

• BIG ACM sponsored conference
• ‘good’ empirical paper
• looking at collaborative support for a task X
• three pieces of software:
  - A: domain specific software, synchronous
  - B: generic software, synchronous
  - C: generic software, asynchronous
experiment

- reasonable nos. subjects in each condition
- quality measures
- significant results $p<0.05$
  - domain spec. > generic
  - asynchronous > synchronous
- so really want asynchronous domain specific

what's wrong with that?

interaction effects
- gap is interesting to study
  - not necessarily good to implement
- more important ...
  - if you blinked at the wrong moment ...

NOT independent variables
- three different pieces of software
  - like experiment on 3 people!
  - say system B was just bad

can we fix it?

- borrowed psych method
  - ... but method embodies assumptions
  - single simple cause, controlled environment
- HCI needs ecologically valid exp.
  - multiple causes, open situations
- what to do?
  - understand assumptions and modify
- both and ...
  - quantitative - what is true end to end - phenomena
  - qualitative and anecdotal - why - mechanism

so ...

- HCI needs theoretical and methodological foundations
- European HCI community ...
  - ... in unique position to develop it