

European HCI Theory uniquely disparate perspective

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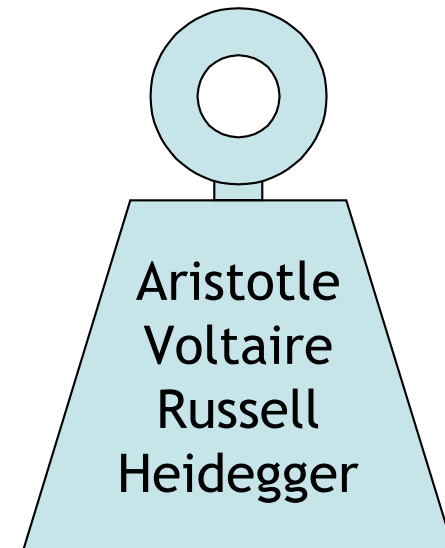
<http://www.hcibook.com/alan/papers/chi2004-euro-theory>



lots of theory (& methods) in europe

Why?

- can't afford to build anything
- weight of history
deep intellectual roots ...
or historical shackles?

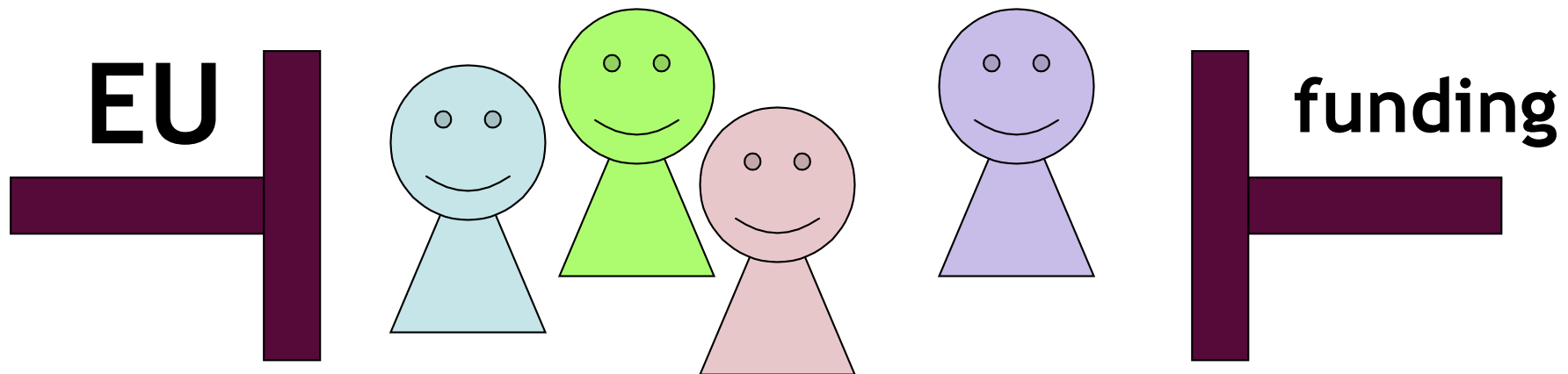


different from ... where?

- Asia, Africa, South America, Antarctica, North America, ...
... or USA :-)
- not just distance
- not just reactions to imperial ACM!
- deep intellectual gulfs

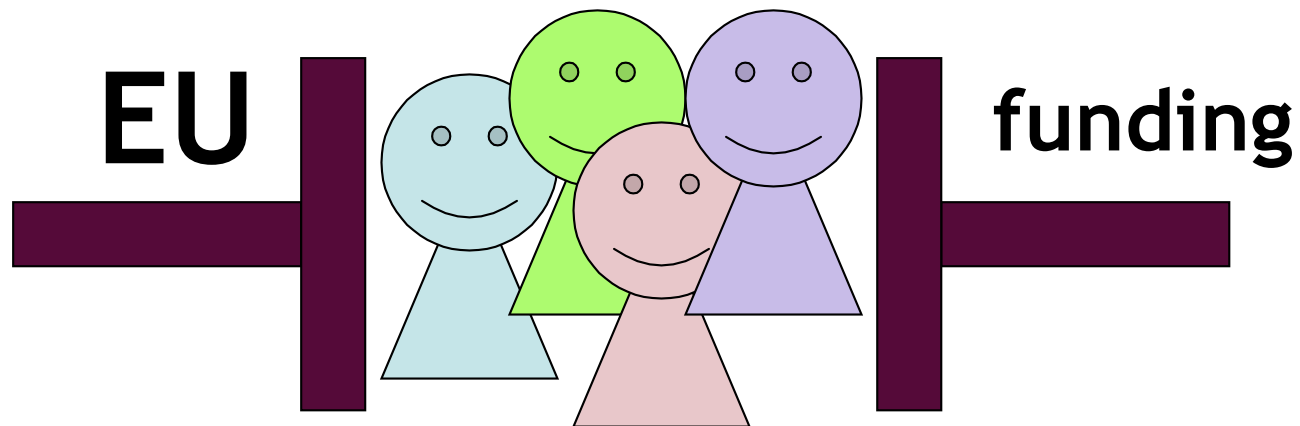
close yet far

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



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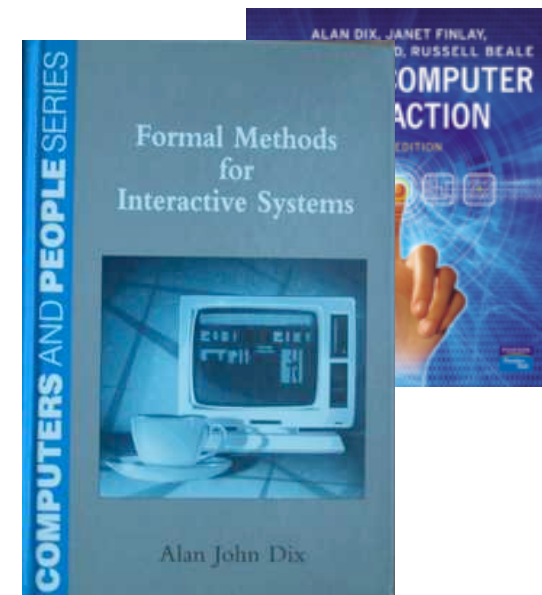
what theory?

- lots of soft stuff
 - participatory design
 - activity theory
- lots of hard stuff
 - 'methodology'
 - formal methods

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.

the danger

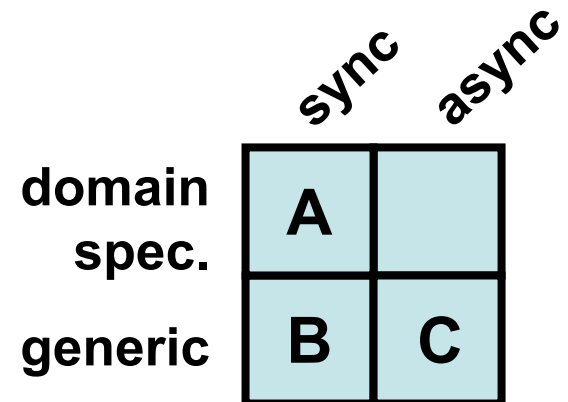
- loss of roots
- intellectual decoupage
- professional practice passed off as academic

importance of HCI

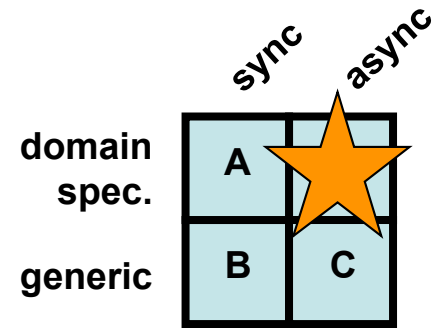
- late 20th and 21st century
... technology meets people
- so where is our own theory and methods?
- some ... MHP, Norman, Inf. Foraging Theory ...
... but enough?
- do we need it anyway?

a little story ...

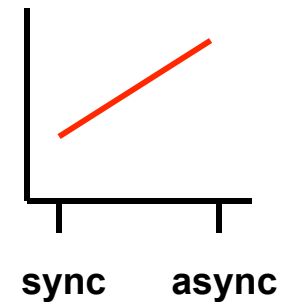
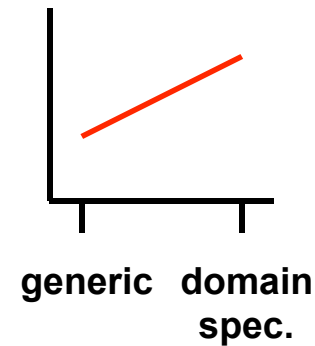
- BIG ACM sponsored conference
- 'good' empirical paper
- looking at collaborative support for a task X
- three pieces of software:
 - A - domain specific software, synchronous
 - B - generic software, synchronous
 - C - generic software, asynchronous



experiment



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

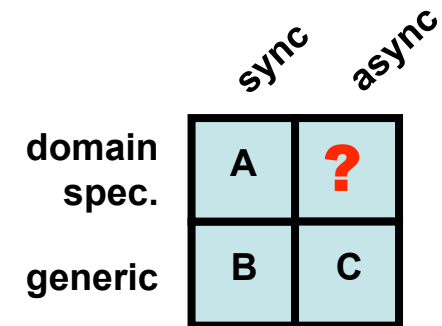


- so really want asynchronous domain specific

what's wrong with that?

interaction effects

- gap is interesting to study
- not necessarily good to implement

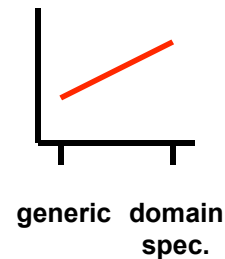


more important ...

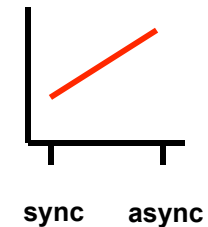
if you blinked at the wrong moment ...

NOT independent variables

- three different pieces of software
- like experiment on 3 people!
- say system B was just bad



B < A



B < C

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