



Hazy, Crazy, Lazy Days are Over time for designers to think

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unlikely bed fellows?



- different market
- different technology
- different constraints



ideas!

incongruity + analysis
= innovation



outline

- the past
 - let it all hang loose
- the future
 - transformative technology
- the present
 - but looking forward



user focus

- from
 - want to use the computer
- through
 - want to do things using the computer
- to
 - want to do things



the past

if a computer were a restaurant



- 1960s & early 70s
 - rather inferior pizza delivery service
- late 70s and early 80s
 - mind your Ps and Qs and stick to the menu
- late 80s and 90s
 - there's the kitchen, get on with it

interaction focus



language

command/menu based

action

GUI

interaction?

the screen



let it all hang out!

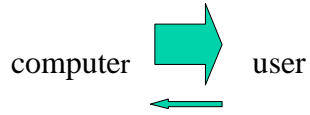
don't think what's needed?
 when its needed?

just put it all there ...
 ... and let the user decide

bandwidth



(mobile/broadband difference?)



use screen to trade bandwidth?

trade bandwidth? - NO!



information per click $\sim \log(\text{nos buttons})$

Fitts' law - time $\sim \log(\text{area target/area screen})$

\Rightarrow input bandwidth approx constant

real screen gains



relevant actions - screen changes
changing contextual 'alphabet' = bigger bandwidth

rapid eye movement
how much can YOU see?
the eye is interactive!

the future

PopuNet

everywhere

everyone

everywhen

products for PopuNet?

what are they? ...

... I wish I knew!

include:

- e-shopping (rather than e-buying)
- sharing
- fun!



everywhere technology - thrift is in



- space: mobile - small screen
TV - use screen for more important
⇒ can't squander screen space
- time: consumers want to live their lives
if it takes time, they won't do it
⇒ can't squander user's time

everywhere technology - thrift is in



- space: can't squander screen space
- time: can't squander user's time
- ⇒ contextual interfaces
offering the right thing when its needed

the present

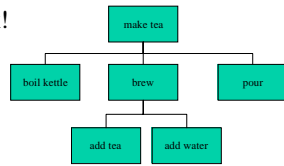
- understanding context
- static and dynamic
- appropriate intelligence



static context



- understand the task!

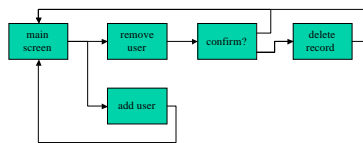


- traditional task analysis - what is done
- now want - what needs to be known

what needs to be known?



look at flow chart

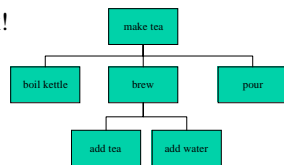


decision = information need

static context



- understand the task!



- traditional task analysis - what is done
- now want - what needs to be known

dynamic context



aQtive onCue

- watches while the user works
context = clipboard
- suggests web services
- and desktop applications



appropriate intelligence



- simple heuristics
- right much of the time
- valuable when its right
- no cost when its wrong!
⇒ appropriate interaction

e.g. Excel Σ button, but not ...

more ...



- me:
 - cyberspace, mobile etc.
<http://www.hiraeth.com/alan/topics/>
 - PopuNet
<http://www.hiraeth.com/magisoft/PopuNET/>
- aQtive:
 - theoretical background and use in research
<http://www.aqtive.com/community/research/>
 - aQtive home (including cracker link)
<http://www.aqtive.com/>
