The Personal Information Environment beyond the Personal Computer

Alan Dix

Talis & Lancaster University

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today I am not talking about ...

• intelligent internet interfaces
• visualisation and sampling
• situated displays, eCampus, small device – large display interactions
• fun and games, virtual crackers, artistic performance, slow time
• physicality and product design
• creativity and Bad Ideas
• modelling dreams and regret
... or even lots of lights

http://www.hcibook.com/alan/projects/firefly/
I am talking about ...

personal information environment
... basically the personal OS!

how it could/should be in the future

do not have all / any of the answers
but maybe a few directions
WIMP is over 30!

Xerox Star 1981

Mac OS Lion 2011

http://www.aresluna.org/attached/usability/articles/biurkonaekranie/pics/xerox
http://www.apple.com/macosx/
... some things changing

Apple iOS

Windows 8 start screen

http://en.wikipedia.org/wiki/iOS
http://www.aqtive.net/
classic model

screen/pointer/k’board for input/output

local CPU for computation

local disk for storage
different packages

laptop

processor in screen

but same model

touch input

soft keyboard
different models
Google model

Browser

local I/O & comp

local cache

(Google) cloud for storage
web apps model

Browser

local I/O & comp

app 1

app 2

app 3

app 1 cloud

app 2 cloud

app 3 cloud
Apple iOS model

local I/O & comp

iPhone

app 1

app 2

app 3

app 1 cloud

app 2 cloud

app 3 cloud
Amazon model

Silk Browser

local computation

cloud computation

web
issues
new kinds

volume

fragmentation
fragmentation

new kinds

volume
fragmentation – PIM literature  
(Personal Information Management)

long-standing issue
  – email, files, contacts, web bookmarks
  – separate structures
  – yet clearly linked  (e.g. file arrives by email)

need for integration
  – loads of prototypes (e.g. Boardman)
  – also Semantic Desktop work
  – but none have become widely used 😞
... and the web

fragmentation gets worse ....

web versions of desktop apps:
  – email, docs, contacts, calendar

but also new
  – Flickr, Facebook images, DropBox, del.icio.us

each managed by their own web apps
fragmentation

new kinds

volume
new types of information

social networking
  mostly ephemeral: tweets, FaceBook posts, etc.
  but also social graph itself (friends list):
end-user content
  e.g. YouTube, blogs, Amazon reviews, comments
mostly managed as timestream or tags
increasing ‘serious’ use
  may become point of record for contracts, etc.
plus ...
  sensors, information appliances, internet of things
fragmentation

new kinds

volume
volume

for traditional data:
  I have 200,000 files, 2000 email folders ...

for ‘new’ data:
  I have nearly 700 blog posts and over 2000 web ‘snips’
  plus all the data stored about us!

UK Memories for Life
  ‘Grand Challenge’
approaches
(some) key components:

**people**
e.g. friends, email address
vodfone360 (no more!)

**functions**
e.g. edit photo
traditional applications

**things**
e.g. car
embedded interfaces

**docs/info**
e.g. file, photo
open doc

**project/activity**
e.g. write paper, do PhD
Jones’ KFTF

**task**
e.g. book flight
(some) iPhone apps
... but relationships complex

e.g. study of PIM use (Matjaz Klun)

standard PIM systems:

    people – projects – documents

Matjaz asked users to do their own mind map:

    people – documents – projects
maybe no integration

separate web/cloud apps
separate phone apps
separate household devices

nothing linked
extending the traditional OS

bringing resources into the ‘file system’
  e.g. DropBox, iDisk/iCloud

new OS/app styles:
  e.g. Windows 8 ‘Photo Feedr’ (?MS cloud only?)

![Photo Feedr Home](image)
web-based interactions

the Google option!

but ...

web apps very ‘siloed’ few connections
need to bring desktop disks into the web
none seem satisfactory

need new approach ...

but what?

I don’t know ... but ...
(some) (high level) requirements

where matters:
  audience: Flickr, iPhone, Facebook
  reliability: cloud, personal disk
when matters:
  disconnection still an issue!
what matters
  it is still my photo wherever it is
(some) enabling technologies

synchronisation
  – for replication / caching
  – why can’t Apple get it right!

GLOIs – globally accessible local URIs
  – so that we can talk about desktop things
  – email messages, single contexts, etc.

meta-data
  – maybe not have all our data, but know about it
the future – what next?
plus ...

come to

Tiree Tech Wave

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