

When Portals Collide

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Examples, Terms and Visions

Definitions

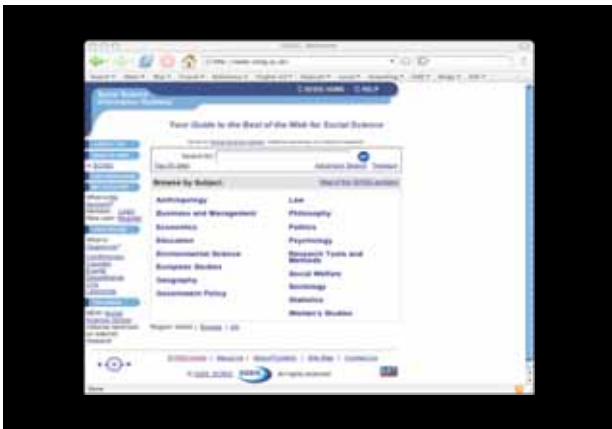
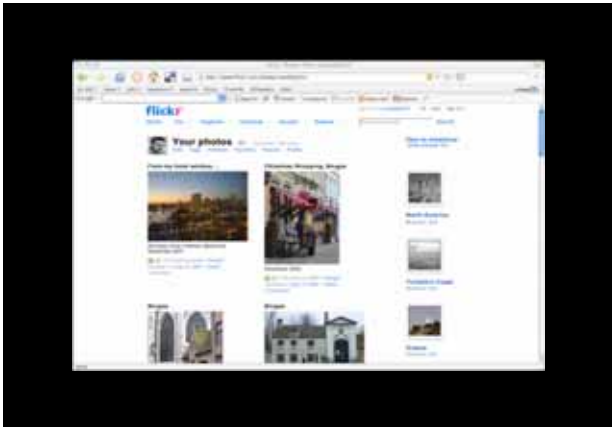
portal¹ | 'pɔːtl | | ,pɔːdl | |,pɔːt(ə)|
noun

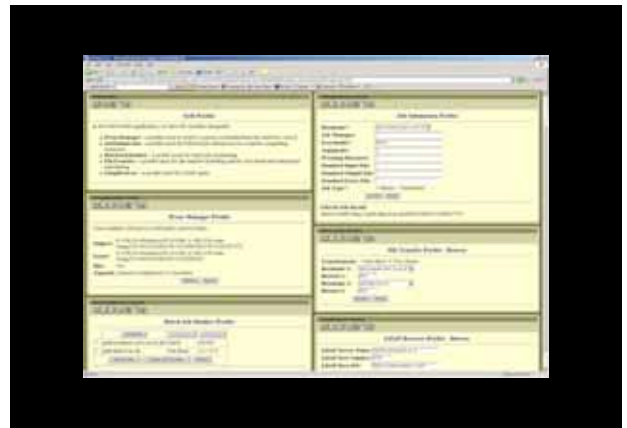
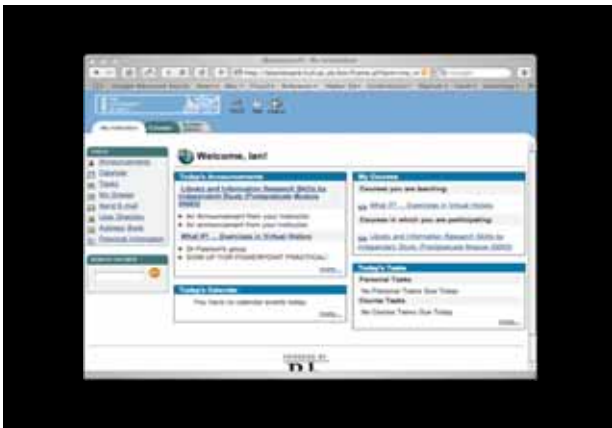
1 a doorway, gate, or other entrance, esp. a large and elaborate one.

2 **Computing** an Internet site providing access or links to other sites.

ORIGIN late Middle English : from Old French, from medieval Latin *portale*, neuter (used as a noun) of *portalis* 'like a gate,' from Latin *porta* 'door, gate.'







• **3 University of Hull working definition:** "A thin layer which aggregates, integrates, personalizes, and presents information, transactions and applications to the user seamlessly and securely, according to their role, location and preferences, independent of browser, platform or device."

- Portal vision enables**
- A framework or platform for:
 - Personalised and customised content, tools & apps
 - "Pushed" by institution
 - "Pulled" by individual or group
 - Contextualised and re-contextualised by purpose
 - Irrespective of origin (internal or external)
 - Transformation - device or accessibility
 - Self-service and *enabler* in addition to *provider*



Historical

Origins ...

- Institutional / Administrative Portals
 - In North America
 - c1998 - In-house and/or Lotus Notes based
 - c 2000/2001 - uPortal (UBC, Delaware)
 - 2006 - 800 instances of uPortal worldwide
 - (and other commercial products)
- Focus on SSO and self-service administrative apps

Development ...

- National Portals
 - UK example - Subject Portals Project
- Every vendor has a portal ...
 - Library, Learning Management, ERP, etc...
- Research Portals
 - Gridsphere and grid portlets within uPortal
 - Research Admin - JISC EVIE, ELVIE Projects
 - OST - "Virtual Research Communities"

Current State

Scorecard so far ... (minus)

- Heavily marked by point of origin - the "silo" issue
 - "Soft" - do processes and providers join up?
 - "Hard" - does technology join up?
- Customisation proves problematic in practice
 - Awkward first generation portal frameworks
 - Support issues
- Often technology-led and designed

Scorecard so far (plus)

- Widespread adoption - experience and capacity
- Integration issues are being addressed - examples
 - MyLibrary (Notre Dame) & uPortal
 - JISC CREE project - user views and RD portlets
 - The portal and the LMS; Sakai & uPortal
- Emergent common specifications & standards support these directions

CREE Project

- Project focus: the context of user search behaviour
 - How users search, and might want to search
 - Where from? Does context make a difference?
 - How, and where, do users want to see results?
- Re-purposing existing RD tools in portlets
 - JAFER (Oxford) & ADS z39.50 tools
 - GetRef Bibliographic search (EDINA)
 - Including GetCopy OpenURL resolver

User survey and focus groups

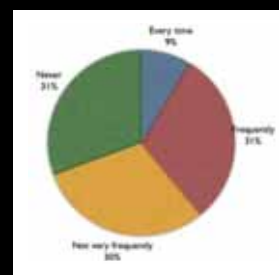


Patterns of behaviour

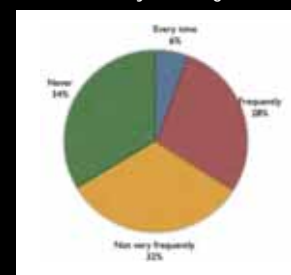
- c4000 responses - variety of user types
- 85% used Internet search tools daily
 - 61% used them daily for learning, teaching, research
- 67% used subject-specific resources
- 68% used local library catalogue at least weekly
 - 54% used other library catalogues at least monthly

Context of search use ... VLE/LMS

... Internet search tools



... Library catalogue



The Portal and the VLE/LMS

- LMS represents tightly bundled macro services
 - Some learning specific, some generic
 - eg assessment, threaded discussion
- Unbundle and assemble in a portal framework
 - Increased flexibility
- Opportunities
 - For customisation by learner
 - Re-contextualise with other tools

Drawn together in a small example ...



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Portal Standards

- Early portal frameworks used proprietary specs
 - eg uPortal "iChannel" specification
- Being superseded by 2 common specs
 - JSR168/286 defines a common portlet wrapper
 - From Java Community Process
 - Web Services for Remote Portlets (WSRP/2)
 - From OASIS

WSRP & WSRP2

- Enables inter-portal/portlet communication
- Run application on remote portal in local portlet
- Flexible "look & feel"/branding
 - local portal or remote portal
- Potential to be consumed by other clients
- Incorporates SAML layer for security

Portal Standards

- Considerable potential and promise BUT
 - Complex
 - Producer at origination, consumer at receiving point
 - Relatively immature and still evolving
 - Under-tested - particularly between frameworks
- Essential for internal and external federation

Current state summary

- Rich sets of portlets currently available for
 - Resource discovery, Grid access etc
- Commercial and OSS providers adopting standards
- Richer, Ajax-like elements improving user experience
- Deconstructing monoliths - Sakai & uPortal
- Deployment becoming part of larger, architectural considerations

Service Oriented Architecture

- "SOA can ... be regarded as a style of Information Systems architecture that enables the creation of applications that are built by combining loosely coupled and interoperable services"
 - Usually based on Web Services standards
- Portal is not inherently Service Oriented
 - But trajectory of adopting institutions fits well - eg UBC
- Best regarded as an emerging approach, rather than a "solution"

Some lessons from the story so far ...

- Portal technical dependencies
 - Open interfaces from integration/aggregation targets
 - Content management (esp. web CM, if web content is being integrated)
 - Identity management (inter/intra institutional)
- Understand portal / application boundaries
 - Delivering coherent access to what is needed
- Frequently, process - and process redesign - is more important than technology
 - Reinforces emerging architectural perspective

Futures?

User expectations and political imperatives

Web 2.0 / Participatory Web

- Shorthand - I prefer "participatory web" :)
- Parallels between portal and Web 2.0 approaches
 - Both assume the web as a platform
 - "The transition of websites from isolated information silos to sources of content and functionality" (Wikipedia)
 - Coherent view of an institution via the web
- User customisation and control

Expectations and threats

- Learners (and teachers) will carry new expectations
 - Use and integration of externally hosted tools
 - "I want my del.icio.us bookmarks *there*"
 - New demands of traditional institutional systems:
 - "Why doesn't my VLE/LMS have tool x?"
 - "Why doesn't my Library Catalogue work like Amazon?"
- Users may simply not use institutional systems, or be able to integrate them with their preferred practice

Challenges

- Cultural shift implied by increased user control
 - Balancing institutional push and user pull in the context of external content
 - A portal is only effective when it is used!
- Secure permeability and agile development
- Portal may offer a logical place to begin
 - RSS, iFramed external sites, moving towards use of WS*
 - Moving beyond simple integration challenging

Political imperatives

- Supporting the non-traditional learner
 - Remote access, hosted access (UK, typically in FE)
 - "Joining up" experiences for the lifelong learner
 - Providing a "personalised" learner experience
- Supporting distributed research
 - OST "Virtual Research Communities"
- Involves multiple institutions, multiple sectors
 - Federating services
 - Metaportal "owned" by multiple institutions