

Dissemination or Publication?

Some consequences from smudging
the boundaries between research
data and research papers

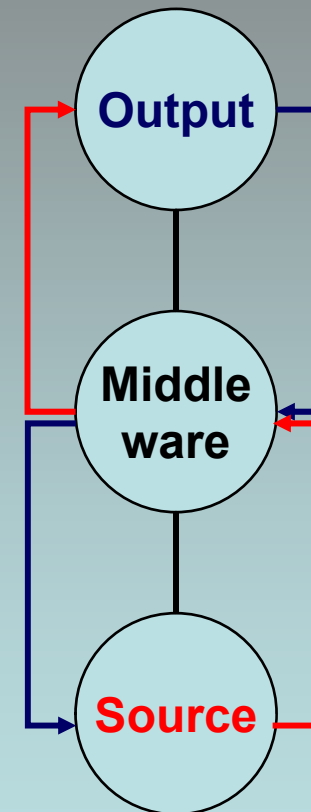
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StORe guide

- Vision and defining features
- Relationship with scholarly publishing
- StORe in an e-Science landscape
- How StORe works
- What else might be in StORe

The StORe vision

- Seamless transport from research data to research publications and vice versa
- Bi-directional links proven in social science e-research but capable of export to other disciplines



StORe middleware – defining features

Web 2.0 approach, similar to FOAF web services such as Flickr or MySpace, gives control to the researcher

- Permanent links between publications and underlying data
- Federations of institutional repositories and data archives
- Simple process for assignment of metadata
- Searchable metadata assigned at collection level inherited by items within the collection
- Collection owners to add individual items with titles as minimum additional metadata
- Owners to determine which items are public / private
- Owners to form collaborations with colleagues / 'friends'
- Owners to select items for deposit and for publication

To publish

- The production and dissemination of literature or information
- The activity of making information available for public view
- Traditionally, the distribution of printed works
- Recently expanded to include electronic resources – e.g. the electronic versions of books and periodicals, as well as websites and blogs
- Includes development, acquisition, marketing, production (printing and its electronic equivalents) and distribution

Traditional scholarly publication

- Hypothesis
- Undertake research/experiment
- *Produce/manage data*
- Select and organise evidence
- Write/assemble paper
- Submit to peer review
- Apply revisions and produce final draft
- Publish

Making e-data public

- Hypothesis
- Undertake research/experiment
- *Produce data/commence data curation*
- *Publish data* ←
- Select and organise evidence
- Write/assemble paper
- Submit to peer review
- Apply revisions and produce final draft
- Publish paper ←
- Activate data-publication links

[Peer review of data?]

Two-way links - benefits and risks

Opportunities to

- Explore a deeper level of detail
- Validate experiments (*viz Chang's nightmare*)
- Track the use and improvement of research output
- Identify collaborators
- Confirm completeness of information searches
- Supplement published papers

Potential risks from

- Uncertainty of peer review
- Premature dissemination
- Subversion of scholarly paper
- Scavenging
- Lack of interpretative data

Current trends

- Big science
 - Astronomy: Virtual Observatory
 - Biosciences: the Wellcome mandate
- Federations and consortia
 - IRIScotland
 - EU policy: global knowledge economy ($\frac{2}{3}$ of €50billion FP7 funding for 'Cooperation')
- StORe pilot (UKDA/LSE)

How StORe works

The StORe pilot demonstrator

- Allows publication only if data has been deposited or identified
- Groups items (data and publications) as projects
- Accepts projects based on either primary or secondary analysis
 - Primary analysis creates new data
 - Secondary analysis is based on existing data and may or may not create new data
- Source repository - the UK Data Archive
- Output repository - the LSE's Research Articles Online
- Pilot federation - includes a test institutional repository at the University of Essex

How StORe works

Research Articles Online (Output)	University of Essex (Institutional)			UKDA (Source)
LSE's Own Site	LSE collaborations	Researchers Area	UKDA collaborations	Own Site
Peer-reviewed items in own house style, additional metadata and ID	Items for review <i>(have IDs of data used and data produced)</i> LSE approves <i>(ID added as part of process)</i>	Items	Items for review <i>(have IDs of data used)</i> UKDA verifies <i>(acquisition number added)</i> and approves <i>(ID added)</i>	Value-added items in own house style, additional metadata and ID

How StORe works

PRESENT SEARCH is across metadata in Essex

- Find an article and you can
 - find the associated data
 - move to the official versions at LSE or UKDA
 - list all articles and related items of the author
- Find data and you can
 - find all articles associated with them
 - e-mail data owner to request access to approved but embargoed/private data

How StORe works

EXAMPLE FUTURE

Essex as multi-disciplined institutional repository in large federation of

- source & output repositories plus
- StORe-enabled institutional repositories at other HE/FE institutions

Providing

- local searches in institutional repositories
- cross-Federation access to all repositories
- individual institutional search indexes merged at the StORe portal

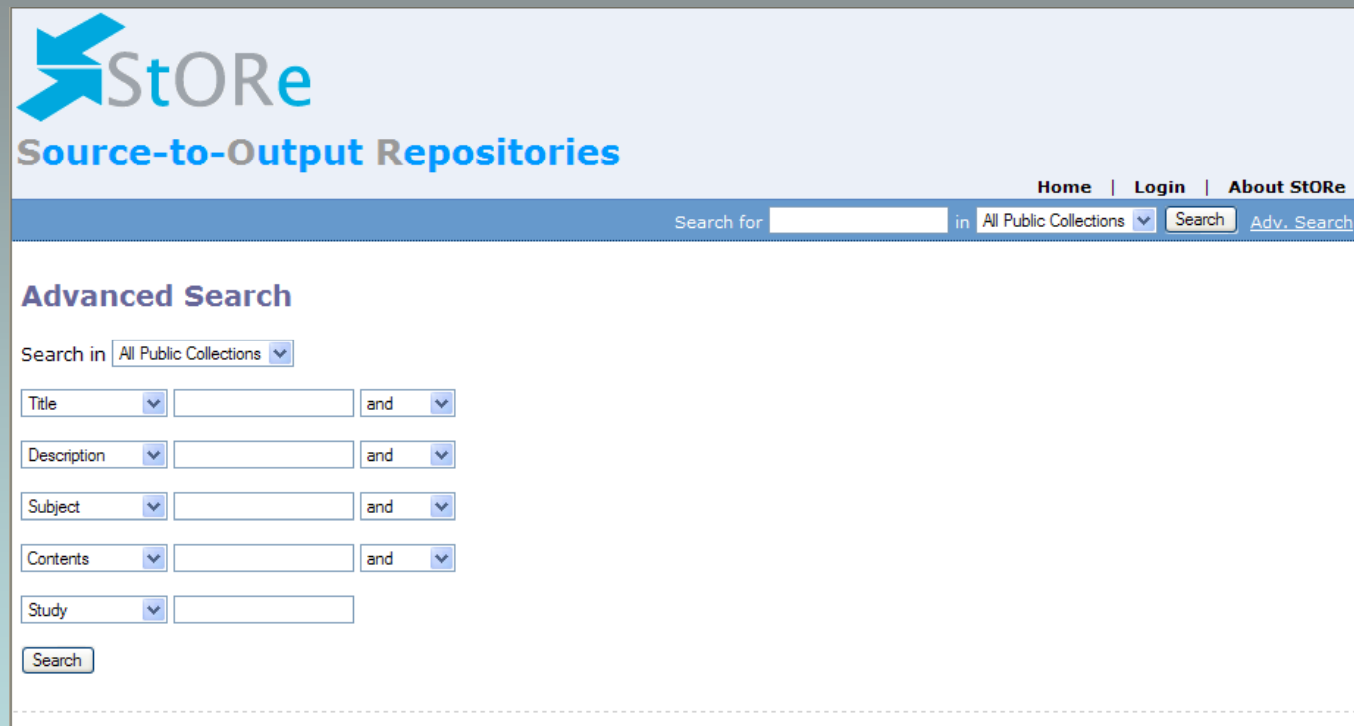
How StORe works

A user can search across all or specific collections without being logged in, using a simple Google-type search...

The screenshot displays the StORe website interface. At the top left is the StORe logo, consisting of a blue arrow pointing right and the text 'StORe' in a grey sans-serif font. Below the logo is the text 'Source-to-Output Repositories' in a blue sans-serif font. In the top right corner, there are links for 'Home', 'Login', and 'About StORe'. Below these links is a search bar with the text 'Search for' followed by an input field, a dropdown menu set to 'All Public Collections', a 'Search' button, and a link for 'Adv. Search'. The main content area is titled 'StORe' and contains a search bar with the text 'health' and a 'Search' button. Below the search bar is a link for 'Advanced Search'. To the right of the search bar is a dropdown menu with 'All Public Collections' selected, and a list of collection names: 'All Public Collections', 'FAIM', 'Example', 'New Project', 'steves collection', 'LSEforum', 'UKDAforum', 'Forum project', 'Forum Friends', 'Another One', 'LSE Collaboration', 'UKDA Collaboration', and 'StORe'. Below the search bar is a section titled 'Browse Collections' with a list of links: 'FAIM', 'Example', 'New Project', 'steves collection', 'LSEforum', 'UKDAforum', 'Forum project', 'Forum Friends', 'Another One', 'LSE Collaboration', 'UKDA Collaboration', and 'StORe'.

How StORe works

.....or by
employing
more
advanced
options




The screenshot shows the StORe website interface. At the top left is the StORe logo, which consists of a blue stylized arrow pointing right, followed by the text "StORe" in a bold, sans-serif font. Below the logo is the tagline "Source-to-Output Repositories" in a smaller, blue font. To the right of the logo, there are navigation links: "Home", "Login", and "About StORe". Below these links is a search bar with the text "Search for" followed by an input field, and a dropdown menu set to "All Public Collections". To the right of the dropdown is a "Search" button and a link for "Adv. Search". Below the search bar is the "Advanced Search" section. It starts with a dropdown menu set to "All Public Collections". Below this are five rows of search criteria, each with a dropdown menu, an input field, and an "and" dropdown menu. The criteria are: Title, Description, Subject, Contents, and Study. At the bottom of the advanced search section is a "Search" button.

How StORe works

Registered users can also view data within

- Solely owned private or public collections
- Collaborative collections within a federated source or output repository
- Collections to which they are contributor



The screenshot shows the StORe website interface. At the top left is the StORe logo with the tagline 'Source-to-Output Repositories'. To the right of the logo are navigation links: Home, Logout, About StORe, and Administration. Below these is a search bar with a dropdown menu set to 'All Public Collections' and a 'Search' button. A secondary search option 'Adv. Search' is also visible. Below the search bar are several tabs: 'All Collections', 'My Collections', 'Collaborative Collections', 'Approval queue', and 'Profile'. The 'My Collaborative Collections' section is active, displaying a link to 'Create a new collaborative collection' and a table of existing collections.

Collection	Visibility	My Role	Administration
LSEforum	Public	contributor	
UKDAforum	Public	contributor	
Forum Friends	Private	contributor	

Making data public with StORe – parallels with traditional processes

- Data deposit in institutional repositories until accepted by source repository
- Source repository verifies data authenticity
- Publication dependent on data deposit and subject to output repository controls
- Access to non-public objects can be restricted and requires authentication
- Release of data can be embargoed

Implications for scholarly publication

- Regulation
 - not strictly open access
 - extent of ‘publication’ is controlled
- Access control
 - Authentication of users
 - Not based on paying the price
- Researcher rule
- Potential for verifiable research output
- Managed forum for collaborations
- Increased expectation for delivery of research ‘package’

Opportunities for 'small science'

- Role for institutional repositories
- Federations – regional or discipline
- StORe middleware



<http://jiscstore.jot.com/WikiHome/>

Thank you – any questions?