



Developing and Applying Principles for Discovery and Access for the UK Data Service

PASIG Conference
12 September 2017

Katherine McNeill
Associate Director for Access
UK Data Service, UK Data Archive
University of Essex



What is the UK Data Archive?

- Acquires, curates and provides access to the UK's largest collection of social and economic data
- Based at the University of Essex
- Celebrating our 50th Anniversary
- Major projects in partnership:
 - UK Data Service (UKDS): unified access to social, economic & population data across the UK
 - Administrative Data Service: coordinating service of the Administrative Data Research Network
 - Support for the Big Data Network



What is the UK Data Service (UKDS)?

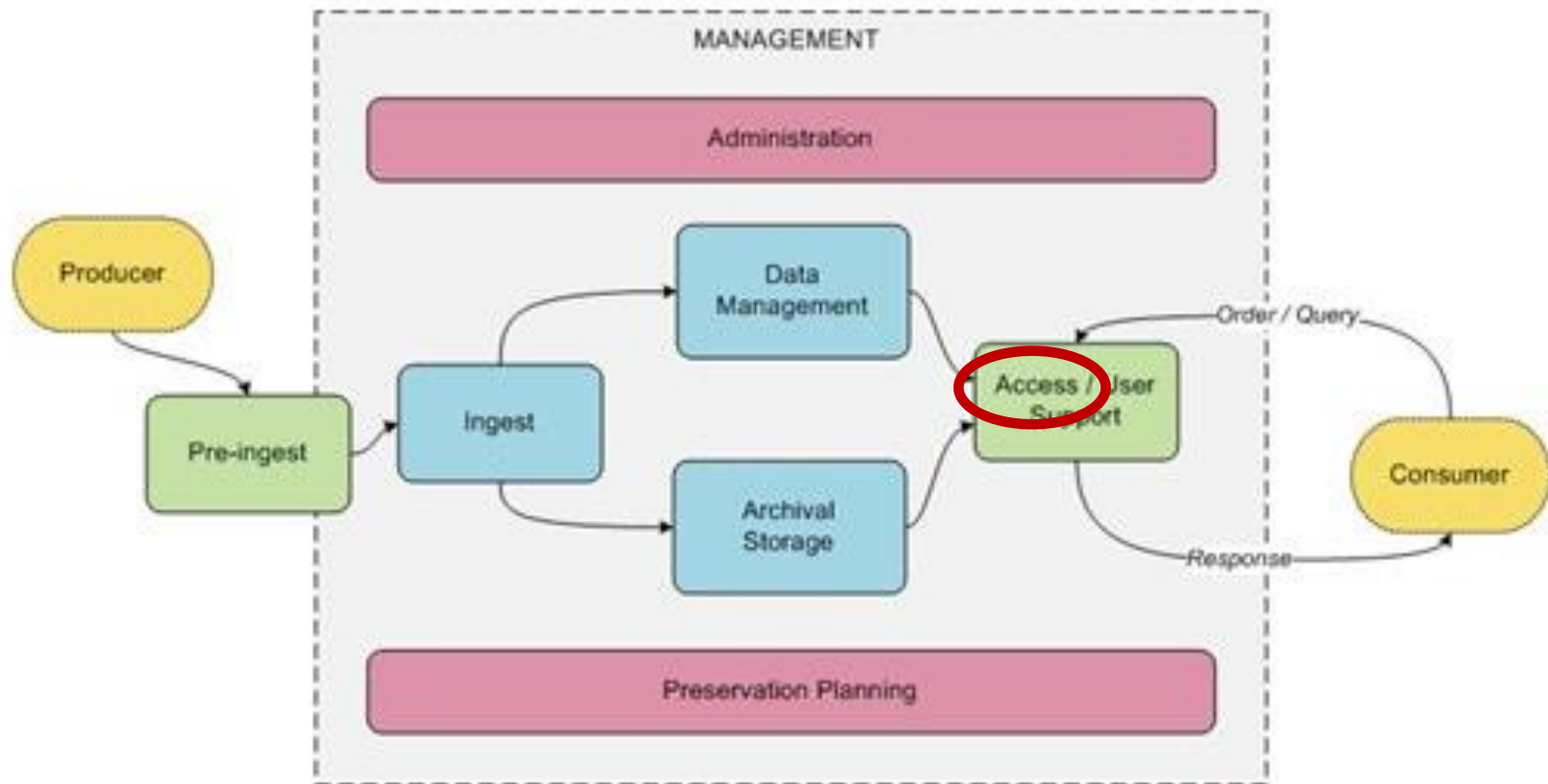
- Funded by ESRC, provides unified access to the UK's largest collection of social, economic & population data
- **Access** to/preservation of high-quality local, regional, national and international social and economic data for secondary research and teaching
- **Support** for policy-relevant research in the higher education, public and commercial sectors
- **Guidance** and training for the development of skills in data discovery, use, and management
- **Development** of best practice in digital preservation and sharing and sharing of expertise with international data providers



UKDS Partner Institutions



Functions organized around OAIS



Access (includes discovery)

- Designing systems and functionalities for discovery and access
- Services to facilitate discovery (including thesauri and controlled vocabularies)
- Pipeline of metadata through our system to facilitate discovery
- Managing administration of access to safeguarded/controlled data
- Facilitating work across sites and teams to consider how to evolve our systems in line with user needs



Current access and discovery context

- Central catalogue for discovering our data (Discover)
- Points to a diverse set of access points:
 - Method of access (download and/or online analysis)
 - Level of access (open, safeguarded, or controlled)
 - Topic (e.g., specialized tools for Census data)
- Technology team developing next-generation data repository (which will improve variable-level access)
- Ongoing need to improve and evolve our systems to meet user needs and new opportunities, in a *strategic* and *user-led* manner



Current set of projects

1. Developing a user experience (UX) programme
 - a. Enhance coordination
 - b. Employ systematically across service development
2. Principles for discovery and access
 - a. Opportunity to think strategically at a time of transition
 - b. Guide operational and development decision-making
3. Enhance current discovery portal (Discover Phase 3)
4. Provide input on discovery and access requirements for our next-generation data repository

Principles for Discovery & Access

Short-term



Long-term

Enhance
current
discovery
portal

D&A for
next-
generation
repository

user needs
assessment

User Experience Programme



Process

1. UX: consultant:
 1. upskilling staff
 2. plan for a sustainable, coordinated long-term programme
2. Principles
 - a. Wide consultation with staff at various levels
 - b. Processing results and drafting principles for feedback
3. Current discovery portal/Next-generation repository
 - a. Internal information sources (including staff knowledge)
 - b. Environmental scan
 - c. User survey (launches today)
 - d. Interviews (start this week)
 - e. Development of use cases and requirements



Use case template

1. Use cases by user scenario:

As a.....	I want to....	So that I can...
<i>As a researcher from an institution not using federated access management</i>	<i>Register with the UK Data archive</i>	<i>Access data</i>

2. Current user experience:

CURRENT EXPERIENCE ukdataservice.ac.uk	WAYS CURRENT EXPERIENCE COULD BE BETTER
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3. Writing a requirement based on the use case, prioritising, and noting ideas on how to meet the requirement:

REQUIREMENT	<u>MoSCoW</u>	IDEAS & SUGGESTIONS
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4. Justifying and quantifying the need and priority for the use case:

Use Case Justification	No. Users Requesting
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Initial results: in discovery portal, revisit:

- Relevance ranking
- Searching of variables and datasets together
- Filters
- Subject browsing (& deeper integration with HASSET thesaurus)
- Layout (home, results, catalogue record)
- Clarity of access paths & conditions
- Highlighting usage



Initial results: principles, staff input:

“If I were a UKDS user I’d want...”

able access available better clear clicks compare different
displayed documentation download easy etc filter
grouped help information key locate maybe metadata pane
possible process quality quant queries questions quick
quickly regular relevant resources results
routes save search simple special specific support system
training type usage useful user variables website
work

Initial results: principles, staff input:

“Realistically I think UKDS users will...”



A word cloud of terms related to UKDS user expectations and principles. The words are arranged in a roughly rectangular shape, with some words being significantly larger than others. The colors of the words range from light blue to dark blue. The words include:

- access
- analysis
- assume
- available
- away
- depositor
- discover
- easy
- elsewhere
- expect
- exploratory
- fail
- generally
- give
- google
- help
- info
- information
- institutional
- lab
- locate
- logins
- looking
- manage
- minimum
- necessarily
- outset
- permission
- possible
- processes
- provide
- quick
- quickly
- receive
- reliable
- repurpose
- requests
- response
- search
- secure
- simple
- speedier
- spend
- steps
- straight
- strategies
- terms
- think
- work

Initial results: principles, staff input:

“To provide the best service to users regarding discovery and access, staff (within and across teams) should...”

able assigned better careful colleagues **communicate**
complaint consider customers **develop** disagree **discovery** **effectively** finds
functions gift **helpdesk** helpful important increased join keep **learn** level listen making outreach
ownership partners people problems procedures **provide** quality **queries** revisit
service **skills** **staff** standards survive taught **team** **thesaurus** think
tool training understand **users** work

Initial results: principles, staff input:

“In the realm of discovery and access, what are the UKDS’s biggest *strengths* are...”



A word cloud visualization of responses to the question. The words are arranged in a horizontal, slightly curved layout. The most prominent words are 'access', 'easy', 'knowledge', 'service', 'staff', and 'robust', all in a large, bold, dark blue font. Other words in smaller, lighter blue fonts include 'amount', 'better', 'census', 'collections', 'commitment', 'communication', 'complex', 'datasets', 'diversity', 'eul', 'expertise', 'facility', 'guidance', 'huge', 'in-person', 'institutions', 'interfaces', 'internal', 'large', 'open', 'quality', 'range', 'reliance', 'scope', 'search', 'skills', 'strength', 'system', 'uk-based', 'useful', 'user', 'weakness', and 'wealth'.

access
easy
knowledge
service
staff
robust
amount better census collections commitment communication complex datasets diversity
eul expertise facility guidance huge in-person institutions interfaces internal
large open quality range reliance scope
search skills strength system uk-based useful user weakness
wealth

Initial results: principles, some themes:

- User-driven
- Expectations: what users expect of us, and what we can realistically expect of them
- Perform tasks quickly and easily
- Access relevant data
- Clear information
- Threats and role of other search engines
- Utilize & develop staff skills
- Work & communicate as a team



Next steps

- Complete user studies
- Synthesize information
- Develop requirements, then:
 - Prioritize
 - Select
 - Implement
- Beta testing and future iteration



Conclusion: emerging principles we're already living by in this process

- Be user-led
 - Get user input throughout the product and service design & improvement life cycle
 - Have all system requirements stem from user needs
- Get the input and feedback from staff at all levels, especially those “at the coalface”
- Benefit from the diverse and complementary skills and strengths of different staff members and welcome different points of view
- Use simple systems to address complex problems





Questions

Katherine McNeill

k.mcneill@essex.ac.uk

