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USE CASE

Data repository for Design Research

Design your e-Infrastructure

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Project owner

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Target audience is the Design Thinking Research Community.

Limited experience with using e-Infrastructures such as (EGI, EUDAT, GEANT, OpenAire).

Objective

On the basis of the experiences gained from planning and hosting the Design Thinking Research Symposium 11 (DTRS11), our objective is to establish a data repository for data storage, -sharing, and -collaboration, for qualitative data (audio, video, txt) for Design Research (humanistic and social sciences).

The next slides will

1. Explain the DTRS11 setup
2. Outline requirements for the new repository.

The 11th Design Thinking Research Symposium (DTRS11)

DTRS11 is hosted by Copenhagen Business School in Copenhagen, Denmark in November 2016.

DTRS11 is an interdisciplinary conference linking international academics with a shared interest in design thinking and design studies coming from a diversity of disciplines, including **psychology, anthropology, linguistics, philosophy, architecture, and design studies.**

Mission

The DTRS11 aims to provide an international forum for pioneering and state-of-the-art research in design thinking focused on the study of design practice from various perspectives, addressing how designers and industries create new products and services.

A shared dataset as common reference

The DTRS11 setup follows in the traditions of previous DTRS conferences and is unique in that a shared video based dataset (TB of video data), covering design practices in an organizational setting, provides a common frame of reference at the conference.

Current use case

Design Thinking Research Symposium 11



The 11th Design Thinking Research Symposium (DTRS11) The DTRS11 will be held at Copenhagen Business School from the **13th to the 15th November 2016**. The DTRS11 follows a long tradition of unique meetings and collaborations amongst international design researchers sharing and synthesizing cross-disciplinary work.

DTRS11 will center around research in design thinking and the study of design practice from a variety of disciplinary perspectives, addressing how designers, teams, industries and communities create new products and services.

DTRS11

156 researchers

with access to large dataset working in

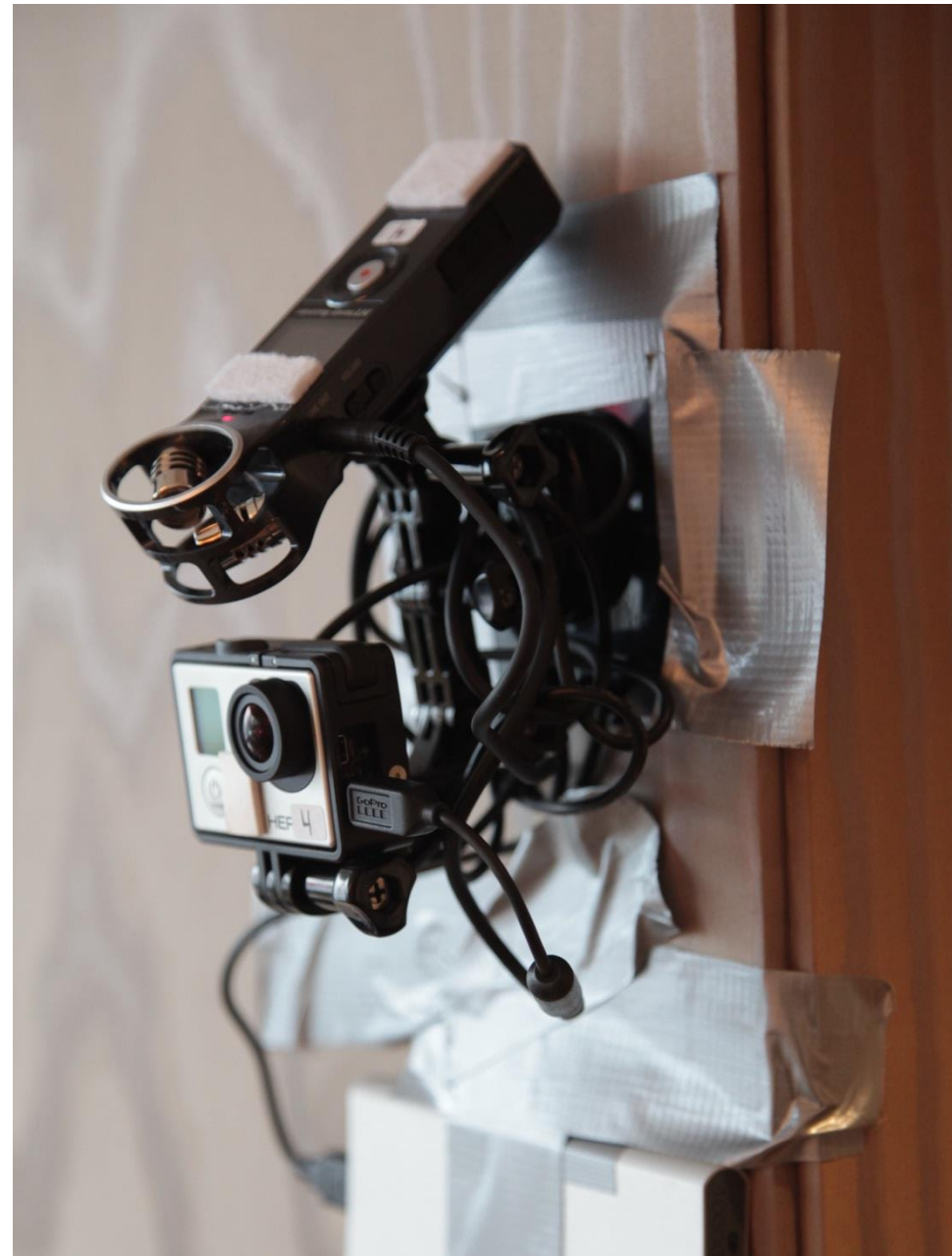
28 research teams

distributed over **5 continents** in

12 countries

 from

40 universities



Data collection: September – December 2015

Data processing: October – January 2016

Access to database: February – December 2016

	2015				2016												2017		
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	
Data collection	█				█														
Data processing		█	█	█	█														
Declare interest				█	█														
Formal commitment				█	█														
Data Distribution					█	█	█	█	█	█	█	█	█	█	█	█			
Research phase					█	█	█	█	█	█	█	█	█	█	█	█			
Submission phase										█	█	█	█	█	█	█			
Review phase											█	█	█	█	█	█			
Registration									█	█	█	█	█	█	█	█			
PhD Workshop																█			
DTRS11 event																█			
Publication phase																	█	█	...

Our role

- Plan, design, coordinate data collection
- Secure informed consent and anonymity
- In-Field data collection
- Select data and design a dataset with multiple entry points of analysis
- Transcribe and segment data
- Collect Data Use Agreements/NDA signatures from researchers
- Upload and arrange data on secure server
- Allow research network access to dataset
- Facilitate publication, review process, journal special issues.



Classified Information, Anonymity and Data use

Informed Consent

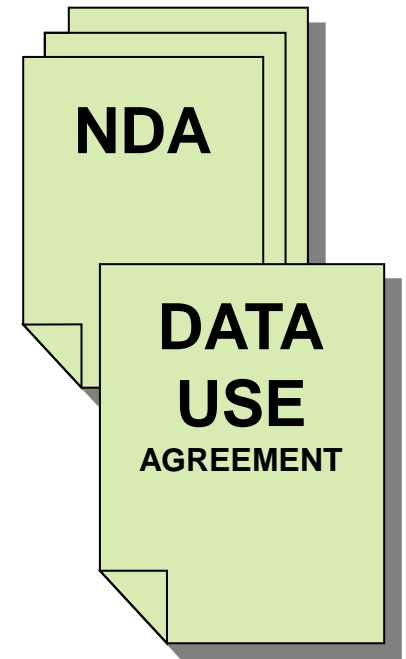
The research setup required written consent from all participants who would appear on video. This was obtained prior to the recordings. All participants on tape signed the Informed Consent information sheet.

Secrecy Agreement & NDA

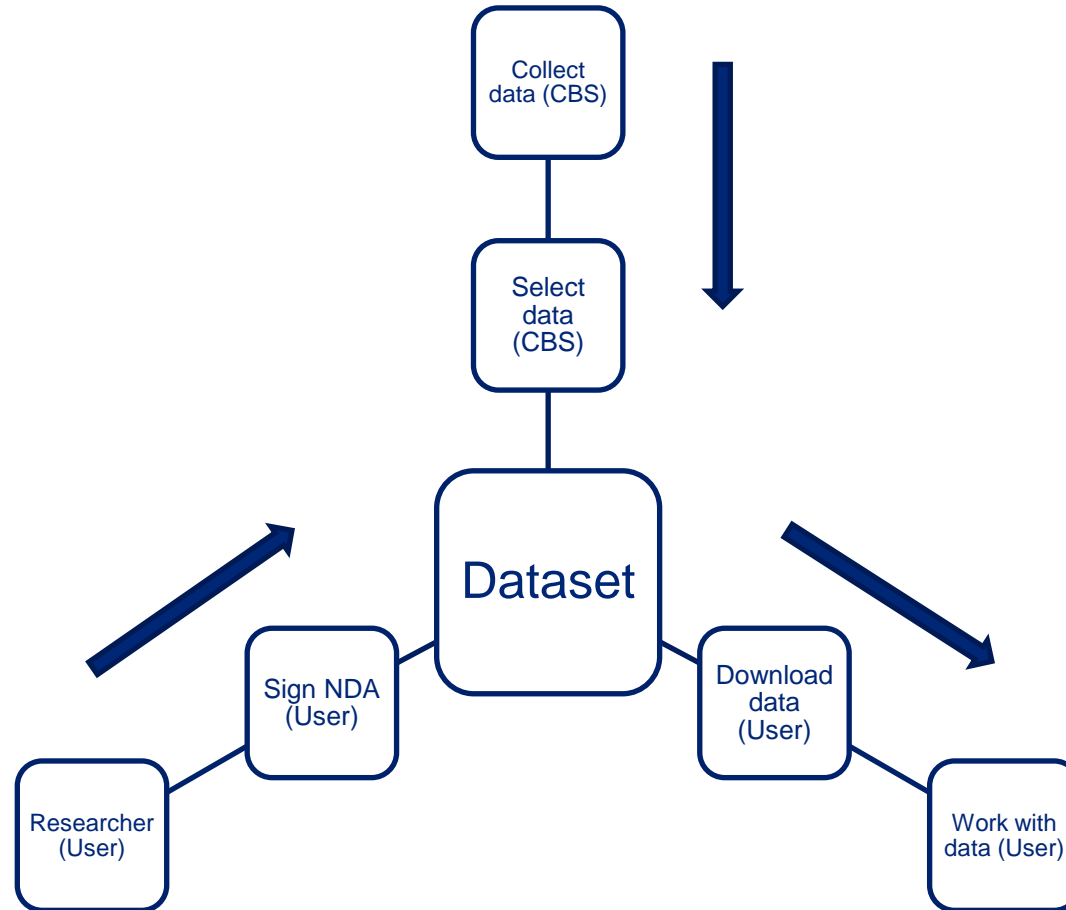
Before getting access to the videos and materials collected at the case company, each DTRS11 enrolled researcher signed a 'Secrecy Agreement' and a company NDA. These documents was signed by every person getting access to the videos through the password secure server.

Published research

The conference participants are entitled to publish articles and conference papers on the basis of the videos, sound recordings, notes and other information derived from the dataset, provided the publications do not contain company secret information.



DTRS11 User Interaction



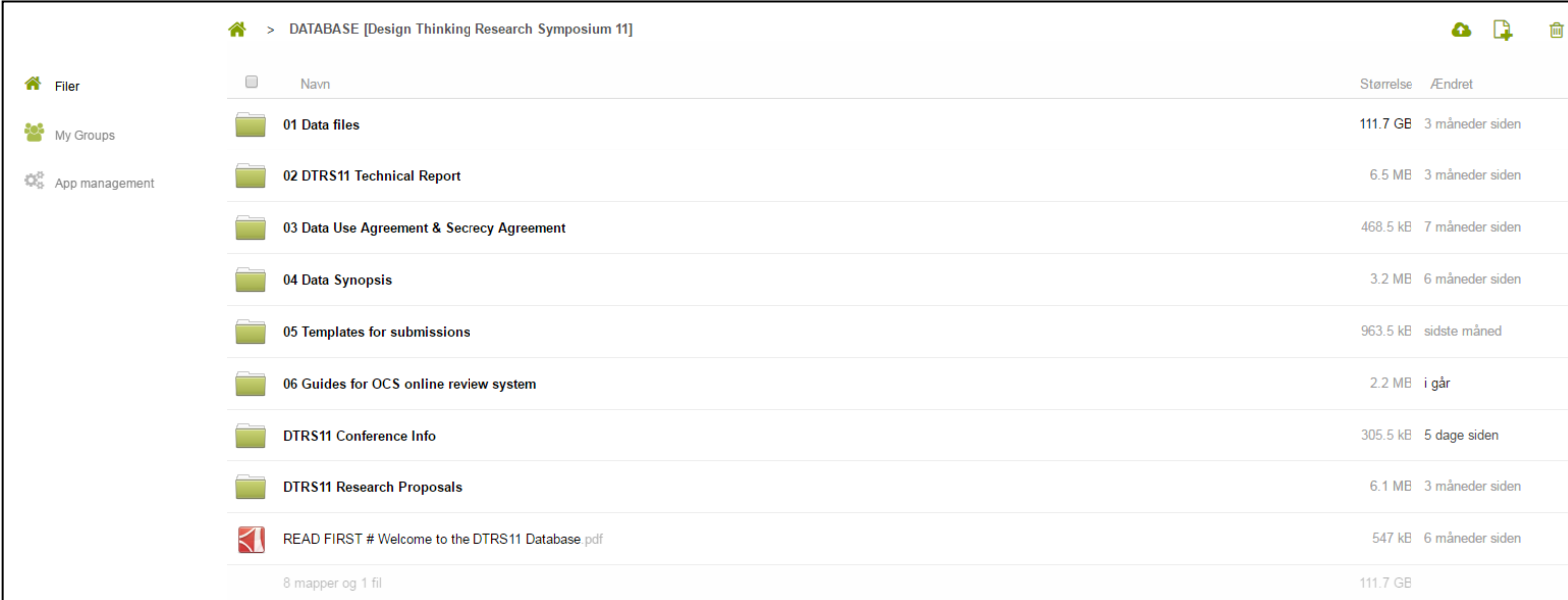
Current Data Storage

data.deic.dk is an online data storage and synchronization service provided by the Danish e-Infrastructure Cooperation (DeIC), specifically aimed at researchers and scientists at Danish academic institutions.

The service is primarily intended for working with and sharing active research data as well as for safekeeping of large datasets.



- Secure server (data.deic.dk)
- Access to database through link with password (link only)
- Preview of files (not playback of video)
- Fast download of single files (not folders)
- Create separate folders and differentiate access
- Backup of data



The screenshot displays a file management interface for a directory named 'DATABASE [Design Thinking Research Symposium 11]'. The interface includes a sidebar with navigation options like 'Filer', 'My Groups', and 'App management'. The main area shows a list of folders and one file with columns for 'Navn', 'Størrelse', and '/Endret'. The folders are numbered 01 through 06, and the file is 'READ FIRST # Welcome to the DTRS11 Database.pdf'. The total size of the directory is 111.7 GB.

Navn	Størrelse	/Endret
01 Data files	111.7 GB	3 måneder siden
02 DTRS11 Technical Report	6.5 MB	3 måneder siden
03 Data Use Agreement & Secrecy Agreement	468.5 kB	7 måneder siden
04 Data Synopsis	3.2 MB	6 måneder siden
05 Templates for submissions	963.5 kB	sidste måned
06 Guides for OCS online review system	2.2 MB	i går
DTRS11 Conference Info	305.5 kB	5 dage siden
DTRS11 Research Proposals	6.1 MB	3 måneder siden
READ FIRST # Welcome to the DTRS11 Database.pdf	547 kB	6 måneder siden

8 mapper og 1 fil 111.7 GB

Requirements for the new repository – upscaling the setup

Frontstage: webpage description of database content

Backstage: Dropbox like interaction, and ease-of-use (data storage; organized in project teams with users with varying rights; easy synchronization; flexible use).

But adding some crucial elements (compared to Dropbox):

- 1) Storage of potentially classified and personal data according to EU legislation (e.g., storage on European soil).
- 2) Extensive flexibility for managing individual rights to access various data files and projects (e.g., NDA signatures for certain files, data use agreements for certain folders, supervisor co-signature for certain access rights etc).
- 3) Automatic rights handling. For example, maintaining data restrictions on certain files for 5 years, after which it becomes available to the wider public.
- 4) Collaborative workspaces, allowing for team based and cross-team collaboration on data analysis. Including annotation of videos; sharing of transcription tasks; sharing of coding and analysis tasks and files.
- 5) Tacking individual contributions and activities over time.
- 6) Allowing for opening certain video data to wider audiences, e.g., for teaching purposes (potentially with a much larger audience).
- 7) Associate files and folders with research output through stable links.
- 8) Fulfill requirements for a stable data repository.

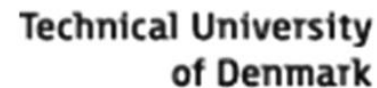
Requirements (continued)

- Large scale data storage (TB of data per project, 70+ projects)
- Audience: mainly researchers (building to 1000), but with larger audiences for select downsized files (e.g., for teaching).
- Open science, but with heavy emphasis on individual data file restrictions (NDA, use agreement), and how those restrictions may change over time.
- Editing and sharing of ongoing data processing, analysis and results
- Metadata records allowing searching across data
- Rough timing: 2017 funding, designing; 2018 Building, collecting, testing; 2019 fully operational, further collection.

Questions we would like to get answered today!

- Which existing platforms comes closest to meeting our current specifications?
- What needs to be developed beyond existing systems?
- What else is technically possible/available that may meaningfully supplement our system, in your recommendation?
- What are the main legal challenges for such a system?
- What, in your opinion, are the really hard nuts to crack for such a system?
- Price range (for funding purposes)?

DTRS11 Sponsors



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Innovation Fund Denmark invests in cultivating and translating ideas, knowledge and technology for the benefit of Danish Society.