Knotworking in Academic Libraries: Two Case Studies from the University of Helsinki

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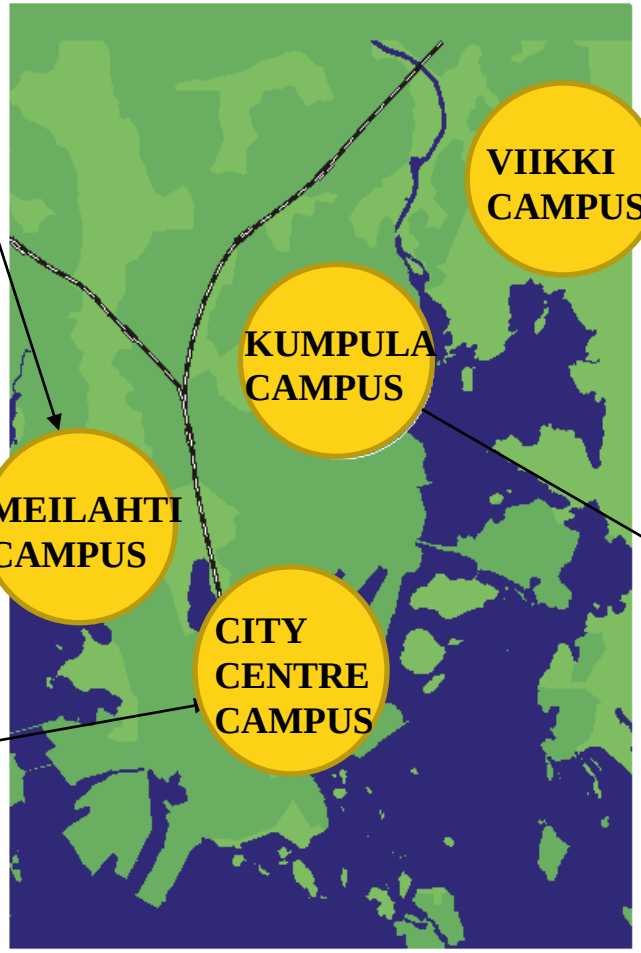
Helsinki University Library -
The largest multidisciplinary university library in Finland

HELSINKI UNIVERSITY LIBRARY

provides information and services across a number of disciplines at four university campuses

Medicine

Meilahti Campus Library Terkko



Agroforestry, Biosciences, Pharmacy, Environmental sciences, Veterinary medicine

Viikki Campus Library

Humanities and Social sciences

Helsinki University Library
-Centralised services
-City Centre Campus Library

The National Library

Science

Kumpula Campus Library

HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

The New City Centre Campus Library building 2012

New Demands

- Helsinki University Library aspires to be one of the leading multidisciplinary research university libraries in the world by 2020 by developing
  - integrated library structure
  - expertise of librarians across disciplines and campus boundaries
  - new cooperation between library and research communities

Researchers´ new needs

- Organizing, archiving, restoring huge amounts of research data and as well as reconceptualizing publishing processes
- Detailed description of research data and a plan of their life span
- Regular international evaluations of research

➢ Researchers need new kinds of support services

Aim of the Project

To manage proactively the big changes in library as well as in teaching and research

- **Knotworking and Change Laboratory** are new **tools** to help the library
  - by modelling, testing in practice and evaluating requirements of a new kind of partnership model
  - by getting knowledge on the library development process

    including the need of space for the new library building process

  - to produce rich data in collective problem-solving and collective learning which the change management requires

Knotworking

- Knotworking is a pulsating movement of tying, untying, and retying together otherwise separate and loose activity systems
- No individual or organisation has the control of coordinating the activity
- Knotworking is different from teams and network organisations which are understood as stable entities

(Engeström, Y., Engeström, R. & Vähäaho, T.,1999)

Expansive learning

- In expansive learning participants of the activity system redefine their object of activity
- In this context, librarians need to redefine the object of their work in order to serve better the research groups
- The method used is the Change Laboratory

The Change Laboratory

- CL includes sessions 5-10 weekly, follow-up period
- Mirror material (interviews before and discussions during the sessions) to stimulate the discussion and development actions
- Aim is to continue knotworking way of working after formal sessions

The Key Players

Library Pilots

Viikki Campus Library

City Centre Campus Library

Centre for Properties and Facilities

-Financier

Participating research groups

City centre Campus

Cognitive Science
Finnish Language
Communication Law
Gender Studies

Viikki Campus

Peatland Ecology
Cyanobacteria

CRADLE researchers

Conducting the project (5)

The Change Laboratory

Research sites

Viikki Campus

- 1) Peatland ecology and 2) the Cyanobacteria Group
- 15 library professionals across organisational levels participated in 6 sessions in 2009-2010
- Unified campus, research groups more defined, neighbouring disciplines together
- Structural change merged 4 faculty libraries into Campus Library and new building in 1999

City Centre Campus

- 1) Cognitive science 2) Communication Law 3) Finnish Language 4) Gender Studies
- 18 library professionals across organisational levels participating in 9 sessions in 2010-2011
- No culture for research groups: definition of a research group elusive.
- Structural change merged 5 faculty libraries and undergraduate library in 2010
- New library building in 2012

Viikki: Co-creation of Data Management Plan 1/4

- The imminent need of a Cyanobacteria researcher to draw up a data management plan for a grant application
- The co-creation in mail-dialoques and in larger meetings with the librarians on issues as the shape of the data, the space needed for the preservation of the data, the metadata, the copyright and data security
- A learning process for librarians as well
- Drawing the flow-chart made the researcher think over her research plan and to improve it in terms of overlaps and vulnerabilities

The Flow-chart of the Syanobacteria Data Management Plan 2/4

Data management

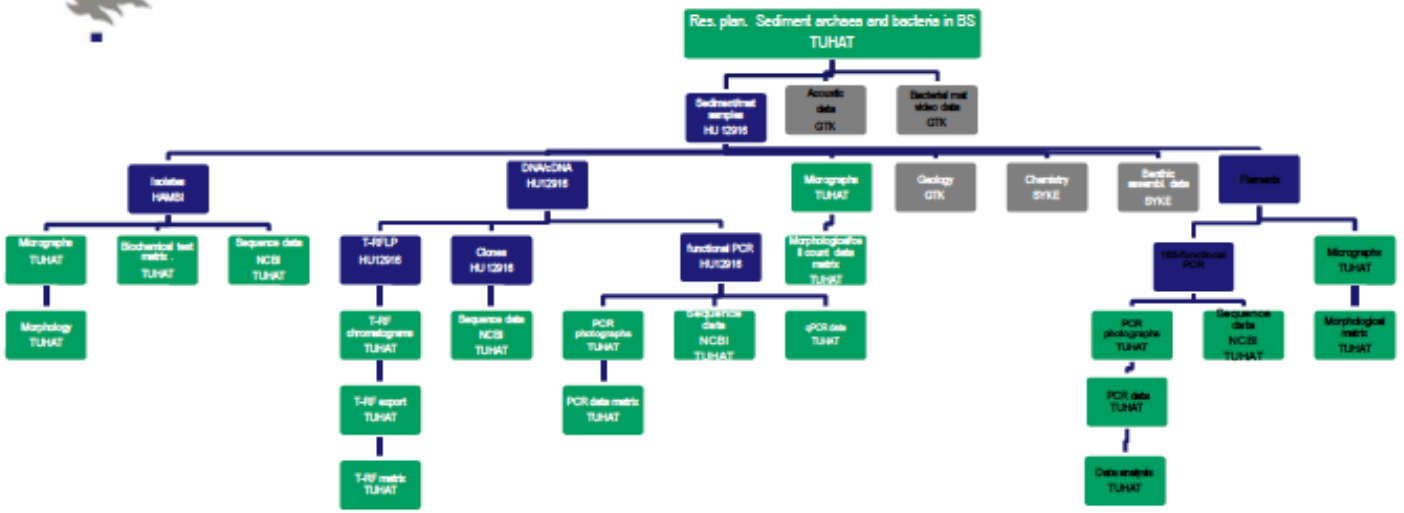


Figure. Flow chart of data. The data, statistical and metadata files are deposited in the TUHAT data archive. Blue=actual samples, green=digital data, gray=data deposited in another institution than University of Helsinki. HAMBI= culture collection of University of Helsinki, NCBI= National Center for Biotechnology Information , HU12916=freeser of Univeristy of Helsinki, GTK=geological Survey of FInland, SYKE=SYKE Marine research Centre, TUHAT=data archive of University of Helsinki.

Co-creation of the data management plan: timeline 3/4

Change Laboratory session 1	Change Laboratory session 2	Change Laboratory session 3	Training for library staff	Researcher's draft	Librarians' responses	Meeting between librarians and researcher
24.9.2009	6.10.2009.	7.10.2009	8.10.2009	12.10.2009	12.-21.10.2009	22.10.2009
A librarian mentions the requirement of a data management plan	*Interventionist reminds about the DMP *A researcher suggests her upcoming application as pilot *General confusion of the contents	*Interventionist reminds A researcher states a deadline for application *A researcher and a librarian agree to clarify the nature of the data, gaps and vulnerabilities *Librarians, library director and the researcher agree on a date to meet	Two librarians attend a seminar on the contents of DMP	The researcher sends the librarians a draft of the DMP by email	Librarians ask the researcher to specify a number of points by email	The researcher, librarians and library director meet to discuss details of the DMP

Co-creation of Data Management Plan 4/4

- Aim: to produce a common model which had been tested by two cases. The other case did not occur in lack of the time needed from the researcher.
- The library produced a web-site to guide researchers to prepare a data management plan with suitable links to important references
- The web-site has been expanded to serve several disciplines

City Centre Campus: Co-creation of a Quick-reference Guide 1/4

- the practices in storing, coding, and describing data are random, and they vary from researcher to another

- ”this [random practices in storing data] may lead to not being able to use perfectly valid data due to serious shortcomings in the storing practices” (By the Head of the group)

Highlights of the Cognitive Science research group 2/4

There are no shared practices of storing data:

- Researcher 1: Yes, we store them [data] on several different computers.
- Researcher 3: On numerous computers and each researcher has their own index system that follow no common form (…)
- Researcher 2: We store everything on external hard drives.
- Researcher 3: Yes.
- Researcher 2: So if you want one particular file, then you ask a mate on which drive it is.
- Researcher 3: Yes.
- Researcher 2: And the answer is that it's probably on that drive.
- Researcher 3: Yes.

Highlights of the Cognitive Science research group 3/4

- Researcher 2: And then you look for it: it could be here, it could be there. Before I left for holiday I made back-ups of everything I'm involved in and it took the whole day when I tried to track them [files] there. I mean which computer is used for storing this and that registration and can they be found.

Co-creation of the quick-reference guide: timeline 4/4

Change Laboratory session 2	Change Laboratory session 3	First meeting at the dept. of Cognitive Science	Change Laboratory session 5	Second meeting at the dept. of Cognitive Science	Third meeting at the dept. of Cognitive Science
15.10.2010	22.10.2010	2.11.2010	5.11.2010	16.11.2010	30.11.2010
Discussion about general challenges of storing data specific to Cognitive Science	Researchers: General data management problems too large to be solved here -> solutions to local problems needed	• 4 researchers and 3 librarians •Archiving data as main challenge • Data from one project as an example • Finding common language between librarians and researchers -> new version of the draft	•Library presents ideas for the Quick-reference guide • Researchers of Cognitive Science stress the increasing need for a workable solution to manage data • Library suggests a meeting	• 4 researchers and 2 librarians •The librarians' first draft of the guide as basis for discussion • One researcher criticised a specific guide • Clarifications to access and rights to data -> new version of the draft	• 4 researchers and 2 librarians • The library has contacted CSC and UH ICT to secure new collaboration channels • Discussion about updated draft of the guide • Researchers agree to test the guide

Achievements

1. Service trays

2. Research data issues:
   1) Data management plan
   2) **Quick-reference guide**
   3) Web site

5. New way of working

3. **Strengthening the forming process of the new library**

4. Assistance in strategy creation of the library

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Viikki, City Centre Campus, both

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