

# Connecting academia with data literacy: The development of three data labs at Copenhagen University Library



## WHY?

Academic libraries have been supporting information literacy in academia for many years, but new technological possibilities require a new skill set – data literacy. Today harvesting gigabytes of data from social media platforms, embedded sensors or open data repositories is no longer the exclusive domain of professors. First-year students have access to almost unlimited amounts of data, and the possibilities for visualizing this data, actually the necessity of visualizing huge datasets are unprecedented.

## WHAT?

To meet this inherent demand for data literacy, Copenhagen University Library has established three Data Labs at the faculty libraries for Humanities, Social Sciences and Natural & Health Sciences. The Data Labs are open platforms for supporting data literacy within studies and research through tutorials, workshops, and events on digital methods in the diverse subjects.

## HOW?

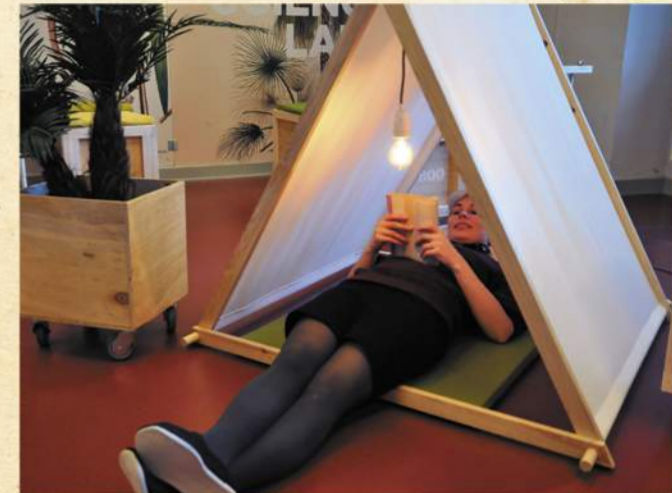
The data labs connects academia with digital methods and skills with events and workshops and by connecting the different scholarly subjects with relevant software and hardware. We are trying to capture the whole data workflow from harvesting (e.g. NVivo, TCAT and Netvizz), cleaning (SPSS and OpenRefine), Analysing (NVivo, Stata, SAS, SPSS and Excel) and Visualizing (Gephi). The Labs also provide relevant hardware like 3D scanners and powerful workstations.



## THE DATA LAB AS SPACE

Different approaches have been taken in the physical setup. The Digital Social Science Lab has worked specifically with the decoration of the lab and has created a mobile and aesthetic learning environment which functions as an alternative to the traditional lecture hall or class room and also provides "otherspaces" like a tent with a turntable. The other data labs have taken a more traditional approach with basic furnishing.

The impression so far is, that students respond better to unconventional interior design.



## CASE:

*The data lab as network hub: creating a digital social scientific community*

Digital Social Science Lab (DSSL) at the Faculty Library of Social Sciences is not only a physical space, but also a conceptual platform, which acts as a network hub - connecting students and researchers interested in digital methods across subjects and institutions. The Library takes a facilitating role in that process by creating a social environment around DSSL, where digital skills can be distributed between peers. "Digital Methods Session" is a series of student-2-student-based events, where students can share their experiences with digital methods and tools and inspire and enlighten each other. Here you can e.g. meet sociology student Rasmus, who scraped 2,4 million posts from online forums about the shady crypto market to show how the political discourse has declined over time in this domain - using algorithmic topic modelling to analyse the giant corpus of text. The interdisciplinary of these sessions are a really important aspect in order to create a unique learning context with a broad range of perspectives, and to give the students a possibility to network with likeminded people with DSSL as the facilitating platform.

## OUTREACH

Connecting with the scholarly environment has had mixed results. Some subjects have eagerly grasped the opportunity to use the physical facilities for their own purposes. Other subjects have viewed the initiative with some scepticism. Especially the natural sciences have questioned the qualifications of the library in regards to data sciences. The initiative have however been uniformly well received – the need for improving the data literacy of students is universally recognized.

## SKILLS

The concept is both to provide access to establish a user driven community in the data labs, but also to support digital methods through own library instructions. Data sciences are a fairly new concept in academic libraries, and the skill set needed is not necessarily present in the current staff. A key to success in establishing the data labs has therefore been development of new competencies and skills in programming, data abstraction and visualization. No single information specialist is expected to be able to perform scientifically valid statistical analyses or visualizations of data. But a basic level of skills, adequate for harvesting simple data, cleaning, processing and graphing them is required.

