Digital Scholarship Trends in Academic Library

Creating new areas of engagement & partnership

Trending Topic

Time to Adoption for Digital Scholarship Technologies : One year or less

NMC Horizon Report > 2017 Library Edition

Home > Vol 77, No 6 (2016) > ACRL Research Planning and Review Committee

2016 top trends in academic libraries: A review of the trends and issues affecting academic libraries in higher education

Every other year, the ACRL Research Planning and Review Committee produces a document on top trends in higher education as they relate to academic librarianship. The 2016 Top Trends report discusses research data services, digital scholarship, collection assessment trends, content provider mergers, evidence of learning, new directions with the ACRL Framework for Information Literacy, altmetrics, emerging staff positions, and open educational resources.

Research data services (RDS)

The latest survey of U.S. and Canadian college and research libraries reports that the number of libraries offering research data services has remained flat.[1] This is somewhat unexpected, based on responses to the survey conducted by David Fearon[2] in which nearly a quarter of respondents indicated plans to offer a range of data services. Consistent with previous surveys, Carol Tenopir et al. found that RDS are more common in four-year and research universities than two-year institutions. Many libraries currently providing RDS have taken a traditional approach by offering informational and consultative services that align with existing liaison and reference roles, far fewer are offering technical services.

Data policies and data management plans

Following through on the 2013 OSTP Memorandum,[3] many federal funding agencies released their Public Access Plans in 2015. An informal group of library-based data specialists created a comparison chart of these plans, available in Figshare.[4] Jennifer Thoegersen compares the policy elements in federal funding agency plans and the Interagency Working Group on Digital Data (IWGDD) report,[5] while Kristin Briney analyzed institutional research data policies. Supporting faculty and administrators in navigating these policies is an important opportunity for libraries.[6]

### Professional development for librarians providing RDS

Most libraries are shifting existing staff into data positions rather than hiring new data librarians, creating a growing demand for professional development opportunities.[7] The range of professional development opportunities for librarians to educate themselves in good data practices increased throughout 2015 and will continue to grow in 2016, chiefly as a result of two initiatives. The first includes two NIH BD2K awards to develop a MOOC[8] and two curricula for teaching research data management.[9] The second is the creation of an ACRL Research Data Management Roadshow, which will take the form of a day-long workshop designed for library administrators, subject liaisons, and other specialists.

Digital scholarship

To advance the educational and research processes, libraries are developing digital scholarship centers, often in partnership with other campus units. These centers extend traditional methods of research by applying new technologies, such as GIS data, visualization, and big data across the curriculum. Digital asset management, digital preservation, training, consultations, and tools for digital scholarship are among the suite of services and resources provided. Alix Keener identifies challenges associated with creating space for collaborative research relationships in digital scholarship: the role of librarians as collaborators/service providers, program planning for diverse constituencies, and continuous skill development.[10] ACRL's Digital

Evolving in a Changing Environment

- Library will play an important role as the research, learning & publishing environment change

NTU Library → Office of Information, Knowledge & Library Services
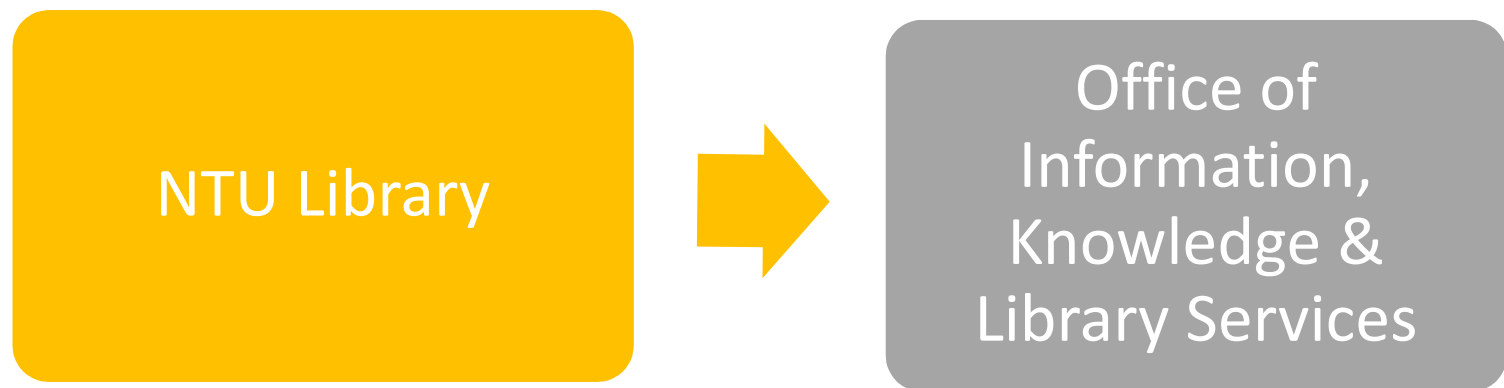
1. Led by a Deputy Associate Provost to deepen integration with other research & teaching units
2. Create a more agile organizational structure
3. Encourage research collaboration

Different Definitions

Digital scholarship is the use of digital evidence, methods of inquiry, research, publication and preservation to achieve scholarly and research goals.

Digital Scholarship is defined as any scholarly activity that makes extensive use of one or more of the new possibilities for teaching and research opened up by the unique affordances of digital media. These include, but not limited to, <u>new forms of collaboration, new forms of publication and new methods for visualizing and analyzing data</u>.

The Chartered Institute of Library and Information Professionals (CILIP) defines digital scholarship as the implementation of technology to support the access, retrieval, and application of knowledge. Products of digital scholarship can include <u>digital media, websites, archives of scholarly information, and digital exhibits</u>.

Multiple Interpretations (Weller)

Digital scholarship is ...

1. Building a digital collection of information for further study and analysis

2. Creating appropriate tools for collection building

3. Creating appropriate tools for analysis and study of collections

4. Using digital collections and analytical tools to generate new intellectual products

5. Creating authoring tools for these new intellectual products

MARTIN WELLER

THE DIGITAL SCHOLAR

HOW TECHNOLOGY IS TRANSFORMING SCHOLARLY PRACTICE

BLOOMSBURY
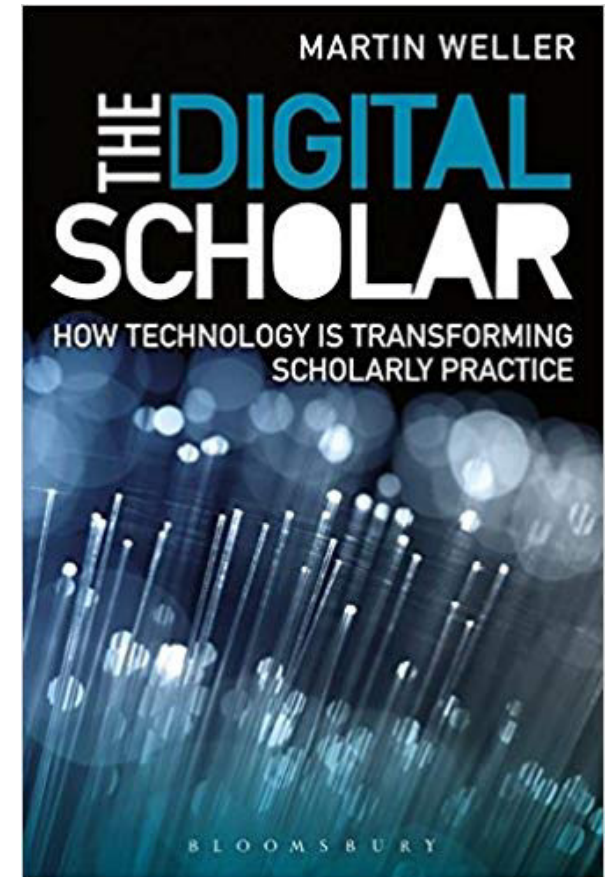
In a digital, networked and open world, scholarly practices has been transformed in many ways. The rate of change has been accelerated by the popular support for open access and social media platforms.

Traditional Research & Teaching Support Roles in NTU Library

- Select, develop and promote collection of books and AV resources

- Conduct Information Literacy classes

- Provide reference enquiry service

…. are also Changing

- Select, develop and promote collection of books and AV resources
- Conduct Information Literacy classes
- Provide reference enquiry service

- Create **Digital Collections**
- Provide **Digital Publishing**
- More focus on **Digital/Data Literacy**
- Offer **Data Management Services**
- Meet **demand for data sources**, especially for Text-mining
- Track social impact of research with **Altmetrics**
- Contribute to **Digital Humanities projects**

New trends
In Digital
Scholarship

Create Digital Collections

- Researchers are collecting & creating a lot of data, photographs, digitalised images, interviews, audio recordings, video clips etc.

- Showcase as well as to share other types of research output as mentioned above

- Content for these digital collections can come from a variety of sources.

Create Digital Collections - Digitisation

https://blogs.ntu.edu.sg/adm-portfolio/

ADM
PORTFOLIO

ADM
PORTFOLIO

PROJECTS

CLEAR S...

KEYWORD SEARCH   ADVANCED SEARCH

YEAR   MAJOR   PROJECT TYPE   SUBMISSION TYPE
All years   All majors   All types   All types

WORK TYPE   SUBJECT   MATERIAL   TECHNIQUE
All work types

FILTER PROJECTS

PROJECTS
STUDENTS
FACULTY
WALL (BETA)
ADM GRADSHOW 2017
CONTACT
ABOUT

711 PROJECTS FOUND.

THE INTERNET

PHOTOGRAPHY &
DIGITAL IMAGING

PROJECT TYPE
Final Year Project (FYP)

SUBMISSION TYPE
Individual Project

CREATOR(S)
Donovan Quek Zhao Long

SUPERVISOR(S)
Elke Reinhuber

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EDIT

Home → Projects → Rhythm of the Woods

RHYTHM OF THE WOODS

DIGITAL
ANIMATION

...reserved.

PROJECT TYPE
Final Year Project (FYP)

SUBMISSION TYPE
Group Project

CREATOR(S)

SUPERVISOR(S)
Hans-Martin Rall

WORK TYPE
Animation (Stop motion)

DIMENSIONS / DURATION
1:40

UPLOADED ON BEHALF BY

SUBMITTED ON
23 March 2018

UPDATED ON
26 March 2018

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Copyright. All rights reserved.

SHARE
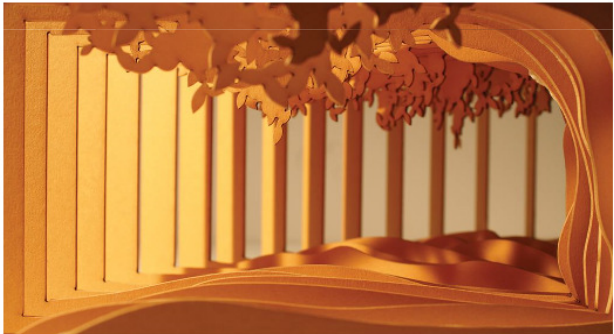
ABSTRACT OR SUMMARY OF PROJECT

Rhythm of the Woods, inspired by Yusuke Oono's 360° book, celebrates the cyclical balance of Mother Nature through the ...ivities of little forest animals. Lighthearted and simple, the film brings the pages to life through animation. The ripple ... actions of the little woodland creatures resonates with Nature. The 360° concept of coming back in a full ...rting and ending with the same animal – portrays the connection to Nature's rhythms, and realigning life ... habits with the cycles of the universe.

LINK(S) TO FYP REPORT IN DR-NTU (RESTRICTED TO NTU ACCESS)

Create Digital Collections

Organising and geotagging research data –> a searchable database of Photographs taken during fieldwork

Create Digital Collections – Crowdsource

Sharing educational resources about the historical contexts of scientific and technical issues related to the triple earthquake, tsunami, and nuclear disasters in Japan.

Meet demand for data sources

- In Digital Humanities, researchers look for patterns in a large collections

- Eg. Instead of studying Shakespeare's works, analyse all the literature written during Victorian period to identify "common themes"

- Advice on data sources, licensing, copyright etc.

Meeting demand for new data sources

Providing access to Primary Sources/Digital Collections eg. NTU researchers can leverage Gale Digital Scholar Lab to do text-mining and visualise their data

Gale Primary Sources

START AT THE SOURCE

No other resource gives you more insights from more perspectives. *Gale Primary Sources* allows you to discover original, firsthand content — meticulously cross-referenced to bring facts into focus and information to life in remarkable new ways.

Image from "Map of the World, with the Most Recent Discoveries 1803." Maps of the World. Cartographic Selections from the American Antiquarian Society Primary Source Media. Nineteenth Century Collections Online.
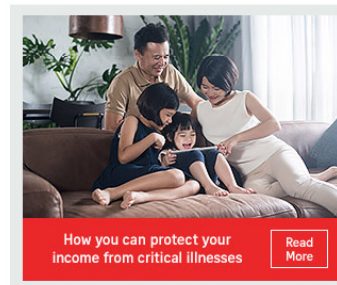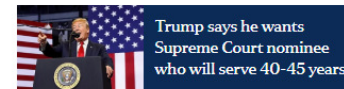
More focus on Digital/Data Literacy

"I believe data is the new currency," said Dr. Vivian Balakrishnan, Singapore Minister for Foreign Affairs and Minister-in-charge of the Smart Nation programme

10,000 public servants to receive data science training under GovTech-NUS tie-up

1 of 3   Minister-in-charge of the Smart Nation Initiative Vivian Balakrishnan said that one of the priorities of the Government is for the public sector to use data and digital tools effectively. PHOTO: GOVTECH

PUBLISHED MAR 29, 2017, 10:00 AM SGT | UPDATED MAR 29, 2017, 11:52 AM

ST VIDEOS

Trump says he wants Supreme Court nominee who will serve 40-45 years

Gunman attacks newsroom in Maryland, killing five people

Chinese tourists fined

Data Literacy – Library Programmes

Conduct short Lunchtime Talks on fake news, data/information literacy

Provide One-to-One Project Consultation on web scraping and data viz

WORKSHOP & SEMINAR SERIES

Digital Publishing
Data Visualisation
Design for Non-Designers
Presentation Tools & Source

(W) Workshop Series
(S) Seminar Series

Seats are limited. If you are unable to register for any of these sessions, leave your contact details at http://bit.ly/registerdss.

You will be notified when we conduct future sessions.

For enquiries, please contact askds@ntu.edu.sg.

POSTPONED - TBC
Register your interest at http://bit.ly/registerdsss

CREATING WEB GIS APP WITH ARCGIS (W)
2.30pm- 3.30pm | Library Seminar Room, LWNL L4
Register: http://bit.ly/dssiws01

31 OCT Tuesday

BUILDING ONLINE EXHIBITIONS WITH OMEKA (S)
2.30pm- 3.30pm | Library Seminar Room, LWNL L4
Register: http://bit.ly/dssiss01

2 NOV Thursday

POSTER PERFECT : DESIGN TIPS FOR YOUR POSTER (S)
2.30pm- 3.30pm | Library Seminar Room, LWNL L4
Register: http://bit.ly/dssiss02

3 NOV Friday

DESIGNING AND CREATING YOUR RESEARCH WEBSITE WITH BLOGS@NTU (S)
2.30pm- 3.30pm | Library Seminar Room, LWNL L4
Register: http://bit.ly/dssiss03

10 NOV Friday

EXPERIENCING INFORMATION WITH A/P BIJU DHANAPALAN (W)
2.00pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiws03

TELLING STORIES WITH STORYMAPJS (W)
4.00pm- 5.00pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiws04

13 NOV Monday

JAZZING UP YOUR PRESENTATION WITH PREZI (W)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiws05

PICTURE PERFECT: FINDING AND USING IMAGES FOR YOUR PROJECTS (S)
6.00pm to 7.00pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiss06

14 NOV Tuesday

CLEANING DATA WITH OPENREFINE (S)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiss07

15 NOV Wednesday

POWERPOINT DESIGN AND IDEAS FOR COMMUNICATING RESEARCH (S)
2.00pm- 3.00pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiss08

AN INTRODUCTION TO QGIS (W)
6.00pm to 7.00pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiws02

16 NOV Thursday

TRACKING THE SOCIAL IMPACT OF YOUR RESEARCH (W)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiws06

20 NOV Monday

VISUALISING TIME – BEYOND THE LINE CHART (S)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiss09

21 NOV Tuesday

DESIGNING INFOGRAPHICS: VISUALISING DATA WITH PIKTOCHART (S)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiss10

22 NOV Wednesday

CREATING VIDEO ABSTRACTS FOR YOUR RESEARCH (S)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiss05

FUNDAMENTALS OF DESIGN FOR COMMUNICATING RESEARCH (S)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiss04

23 NOV Thursday

MAKING TIMELINES USING FREE ONLINE TOOLS (W)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiws07

24 NOV Friday

MAPPING YOUR RESEARCH DATA WITH GIS (W)
2.30pm- 3.30pm | Stargate @ LWNL L3
Register: http://bit.ly/dssiws08

New Areas – Use of Digital Humanities tools & Data Visualisation
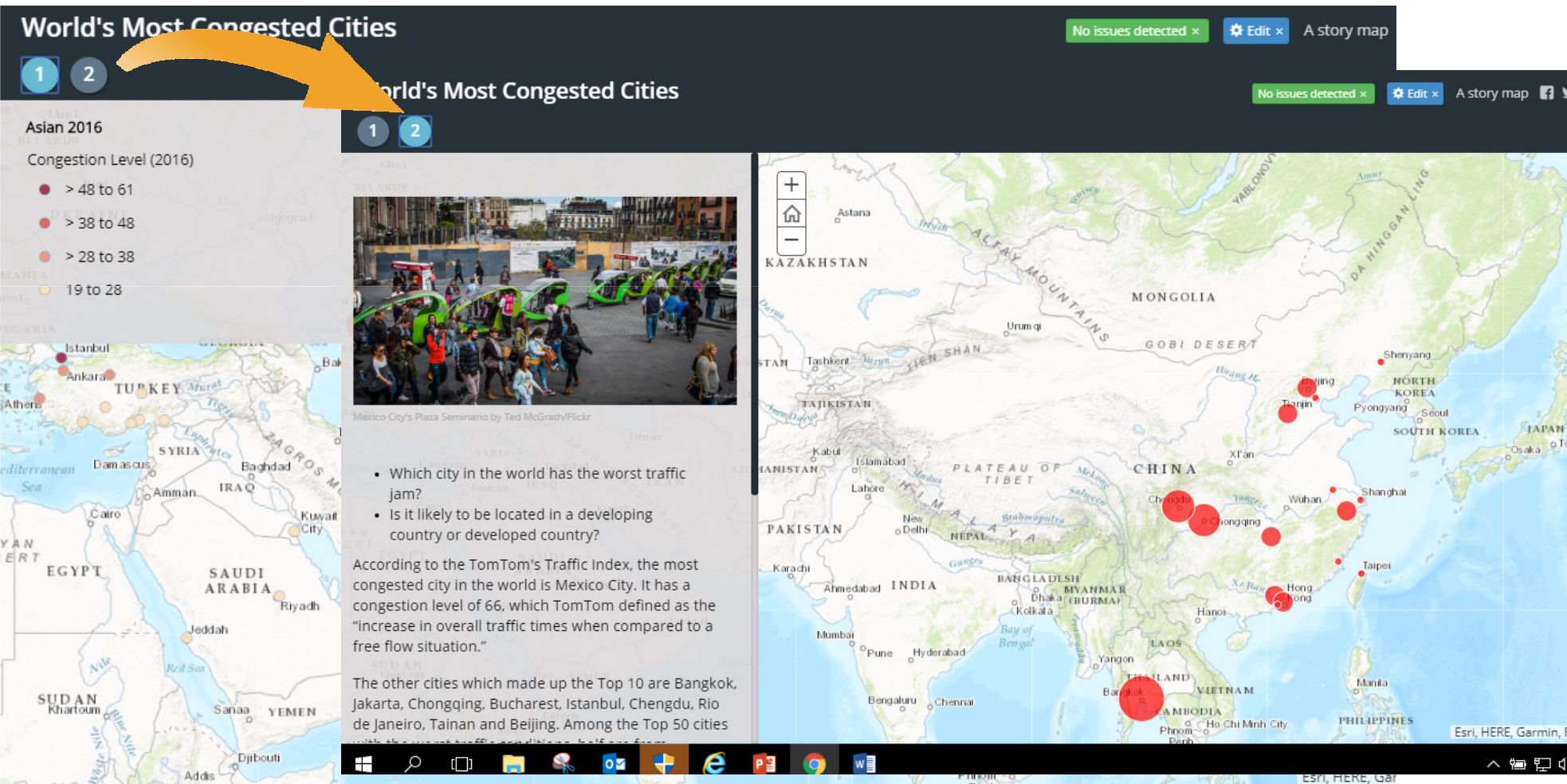
Data Literacy – integrated into Undergrad Research

Starting your research

- Literature review & search techniques
- Social Research Networks
- Data management
- Specialised databases

Visualising research data

- Infographics
- Data cleaning & extracting
- Geospatial and digital maps
- Gephi, data viz and interactive charts

Communicating your research

- Tips for poster design
- Copyright & writing up your research
- Showcasing & tracking your research online
- Powerpoint, Prezi & other presentation tools

URECA is the acronym for Undergraduate Research Experience on CAmpus, a university-wide programme to cultivate a research culture among the most able undergraduates. OIKLS works with the URECA Office to

(1) Enhance URECA students' research fundamentals and skills (e.g. capability for data analytics etc.).

(2) Create better capability to communicate or present their URECA research effectively.

(3) Develop URECA students' research experience portfolio to prepare for postgraduate studies or career in research.

Offer Data Management Services

- Setting up and running a Data repository
- Store final/ working data
- Data Management Plan
- General advice on copyright, privacy, data sharing

Offer Data Management Services

Launch of Data Repository using Dataverse in Nov 2017 to capture working and final data of faculty to support research integrity and data reuse.

OIKLS works actively with faculty to offer a suite of services supporting various parts of the Research Cycle, from writing data management plan to creating digital projects and archiving research output.

Example of a dataset record

Provide Digital Publishing

Establish a new 2-person University Online Publishing team to explore digital publishing

OIKLS helping a faculty to host an Open Access Journal entitled Libres, an international refereed e-journal devoted to research and scholarly articles in Library and Information Science
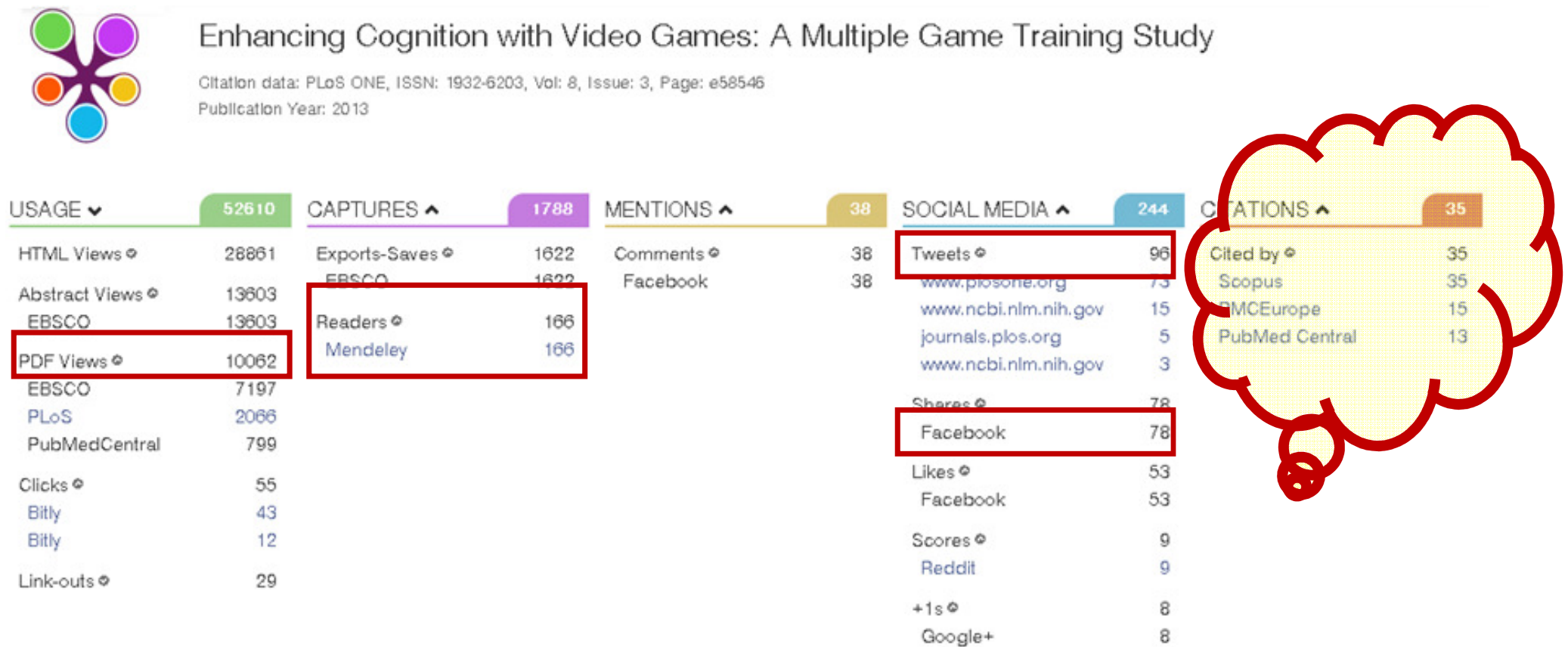
Track social impact of research with Altmetrics

- Many publishers have already provided altmetrics data for their publications.

- Some funding agencies have also asked researchers to provide data to show the social impact of their research.

- Support faculty with tenure and promotion or funding applications by providing article-level metrics.

Track social impact of research with Altmetrics

Article level metrics (altmetrics) generated by PlumX to capture social impact of article

Enhancing Cognition with Video Games: A Multiple Game Training Study

Citation data: PLoS ONE, ISSN: 1932-6203, Vol: 8, Issue: 3, Page: e58546
Publication Year: 2013

| USAGE ✔	52610	CAPTURES ▲	1788	MENTIONS ▲	38	SOCIAL MEDIA ▲	244	CITATIONS ▲	35
HTML Views	28861	Exports-Saves	1622	Comments	38	Tweets	96	Cited by	35
		EBSCO	1622	Facebook	38	www.plosone.org	73	Scopus	35
Abstract Views	13603					www.ncbi.nlm.nih.gov	15	BMCEurope	15
EBSCO	13603	Readers	166			journals.plos.org	5	PubMed Central	13
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EBSCO	7197								
PLoS	2066					Shares	78		
PubMedCentral	799					Facebook	78		
						Likes	53		
Clicks	55					Facebook	53		
Bitly	43								
Bitly	12					Scores	9		
						Reddit	9		
Link-outs	29								
						+1s	8		
						Google+	8		

Contribute to DS/Digital Humanities projects

- Data sources

- Programming, data visualisation, analysis etc.

- Showcase and document project work and its progress (esp for large projects)

- Publish papers

- Preservation and archiving of work

Contribute to DS/Digital Humanities projects
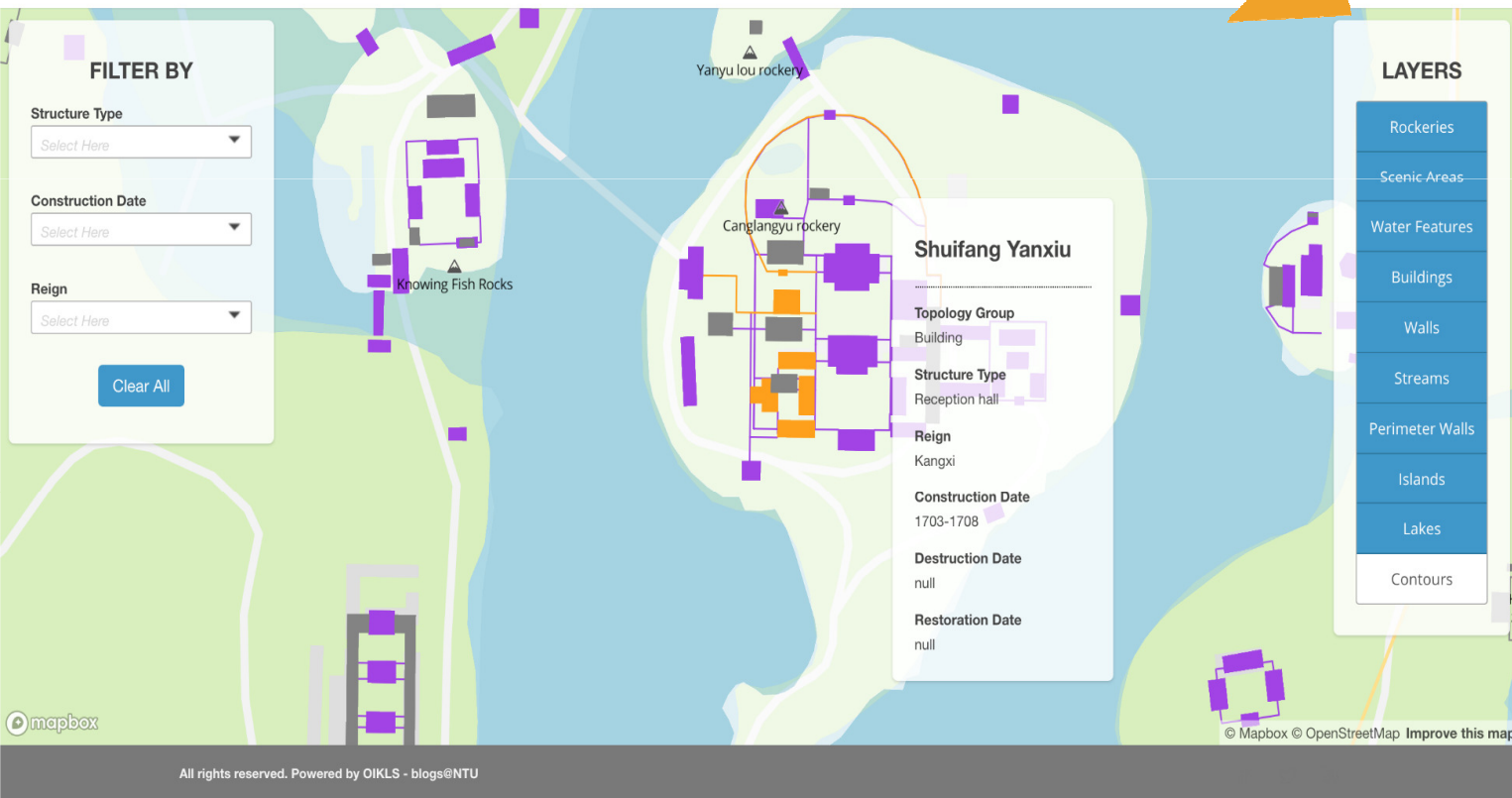
Qing dynasty imperial park, Bishu shanzhuang (translated as the Mountain Estate)

Thank you