Information Literacy Programme
Learn Effective Skills to Obtain Quality Information
Hands-On Workshop for SoC
26 August 2015

Presented by: Stephanie Ng
Computer Science Resource Team
Central Library, NUS Libraries

Hands-on Workshop for SoC
Learn effective skills to obtain quality information!

Through Google and Yahoo search, you are actually just scratching the surface of information world! Is it enough for your research work?

Join us to find out more...

Date: 26 Aug 2015
Time: 3:30 PM to 5:00 PM
Venue: Training Room, Central Library
(Hands-on Workshop)

Outline:
• How to formulate search strategies
• How to use popular database such as ACM and Scopus
• How to retrieve scholarly full text from various sources
• How to cite your references using EndNote

Why should I attend?
• To obtain quality information to support research
• To search information effectively
• To acquire the long-term information literacy skills

Target Audience
Graduate, PIP and UROP students of
School of Computing (SoC)

For Registration:
Click HERE

Find NUS Libraries at: Facebook, Twitter, Instagram, LinkedIn, YouTube
Workshop Outline

1. Effective Skills to Obtain Quality Information
   a. Sources of Information & Evaluation Criteria
   b. Search (Methods, Process, Strategy)

2. Database Search & Hands-On Exercise

3. Retrieve scholarly full-text articles

4. Tips & Tools
   a. Proxy Bookmarklet
   b. Highly Cited and Impactful Journals

5. Cite References using EndNote

Enhanced Library Privileges

- Loan Entitlement

<table>
<thead>
<tr>
<th></th>
<th>Undergraduate Students</th>
<th>Honours &amp; Graduate Students</th>
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<tr>
<td>20 books</td>
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<td>30 books</td>
</tr>
<tr>
<td>30 books</td>
<td>28 days</td>
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</tr>
</tbody>
</table>
Enhanced Library Privileges

Document Delivery Service (DDS)
- Request for article/paper in a journal/book/conference proceeding (not available in NUS Libraries' collection) required for Final Year Project/Master & PhD Theses

Workshop Outline

1. Effective Skills to Obtain Quality Information
   a. Sources of Information & Evaluation Criteria
Research Process

1. Select a topic
2. Conduct comprehensive literature survey
   • Gain sufficient knowledge about the topic
   • Identify problem areas
   • Examine types of analysis in the area of research
   • Decide on the scope of the project
3. Formulate research goal, objectives, and hypotheses
4. Develop experimental design
5. Conduct experiment, analyze data, and draw conclusions
6. Communicate results


2. Conduct comprehensive literature survey
   • Gain sufficient knowledge about the topic
   • Identify problem areas
   • Examine types of analysis in the area of research
   • Decide on the scope of the project

6. Communicate results

### References in FYP Report

**Citation Style: American Psychological Association (APA)**

#### 3.2.1 Journal articles

#### 3.2.2 Books or a report

#### 3.2.3 Conference paper

### Sources of Information

Watch video (2 min. 46 sec) at [http://youtu.be/tBZjWAAbk5E](http://youtu.be/tBZjWAAbk5E)
How Do I locate Theses & Dissertation?

- **No** FYP Dissertation in Library

- Master’s and PhD Theses
  - NUS
    - ScholarBank@NUS
  - Non-NUS
    - ProQuest Dissertations & Theses Global Database

Which Databases for SoC?

- Indexes for journals, conference proceedings, authoritative web sources etc.
- Major Computing & Information Systems Databases:
  - ACM Digital Library
  - IEEE Xplore
  - Scopus
  - Computer and Information Systems Abstracts
  - Engineering Village
  - ABI/Inform
  - Business Source Premier
  - Gartner
Subject Guides

- Selective list of materials that are most useful on specific subject areas
  - Databases
  - Journals
  - Reference Sources
  - Theses
  - Standards & Patents

http://libguides.nus.edu.sg/compscience
http://libguides.nus.edu.sg/infosys

Evaluation Criteria

Watch video (2 min. 29 sec) at http://youtu.be/UmzLyyFqR00
Evaluation Criteria

Workshop Outline

1. Effective Skills to Obtain Quality Information
   a. Search (Methods, Process, Strategy)
Search Methods

1. Tracing References
   • Backward Search
     √ References (Reference List)
     √ Author (Prior Works)
   • Forward Search
     √ Citing Articles (Cited By)
     √ Author (Subsequent Works)

2. Searching by Keywords
   • Keyword Search
   • Thesaurus Search

Search Methods: Tracing References

Tracing references listed in the reference list or a bibliography of a research paper

• Backward Search
  √ References (Reference List) : tracing the bibliography/references of the paper, to understand the origins of paper that you are reading
  √ Author (Prior Works) : tracing the papers published by the author(s) prior of the paper that you are reading

• Forward Search
  √ Citing Articles (Cited By) : tracing papers who cited the paper that you are reading
  √ Author (Subsequent Works) : tracing the papers published by the author(s) after the paper that you are reading
Example: Tracing Reference

- Backward Search: Referenced 79 research papers
- Forward Search: Cited by 52 research papers
Search Methods: Searching by Keywords

- **Keyword Search**
  Keywords or terms used to describe your topic are entered into a search box. *e.g.* **author keywords, indexed keywords, abstract and controlled terms**

- **Thesaurus Search**
  Terms or Controlled Vocabulary of a Thesaurus are used to search, *e.g.* **synonyms, broader terms, narrower terms and related terms**

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Search Strategy

Watch video (4 min 30 sec) at [http://youtu.be/TKLB6D06sKs](http://youtu.be/TKLB6D06sKs)
Search Process

What are you looking for?
- I want any information on the Utilization of biofuel for environment sustainability

Identify keywords
- Utilization
- Biofuel
- environment sustainability

Identify search engine/databases
- FindMore@NUSL
- Academic databases eg ACM, Scopus, IEEE Xplore etc

Apply Search Techniques
- Broaden/narrow search
- Advanced search techniques

Look at results
- Apply evaluation criteria

Satisfied?
- NO

End
- Get full-text
- Subscribe to alerts

YES

Change search techniques

Search Strategy

utilization AND biofuel AND environmental sustainability

utilization OR use* OR apply* OR employ* AND (biofuel OR biomass OR bioenergy) AND (*environmental sustainability*)
Example search topic: **Software Engineering Applications in Mobile Computing**

1. Identify key concepts and keywords
2. List down keywords and synonyms for each concept

<table>
<thead>
<tr>
<th>Concept 1</th>
<th>Concept 2</th>
<th>Concept 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>software engineering</td>
<td>applications</td>
<td>mobile computing</td>
</tr>
<tr>
<td>practices</td>
<td>mobile programming</td>
<td></td>
</tr>
<tr>
<td>principles</td>
<td>mobile applications</td>
<td></td>
</tr>
<tr>
<td>methodologies</td>
<td></td>
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</tr>
</tbody>
</table>

3. Add in Boolean Operators “AND” & “OR”

(“software engineering”) AND (applications OR practices OR principles OR methodologies) AND (“mobile computing” OR “mobile programming” OR “mobile applications”))
Workshop Outline

2. Database Search & Hands-On Exercise
   a. ACM Digital Library
   b. Scopus

ACM Digital Library

- Developed & owned by Association for Computing Machinery (ACM), the ACM Digital Library, is a comprehensive collection of full-text articles and bibliographic records covering the fields of computing and information technology from 1954 to present.

- Full-text coverage include journals, peer-reviewed articles, conference proceedings, magazines, ACM Special Interest Groups (SIG) newsletters, multimedia titles, and third-party content with selected archives.
ACM Digital Library

Subject Coverage

<table>
<thead>
<tr>
<th>Artificial Intelligence</th>
<th>Concurrency</th>
<th>Security</th>
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<tbody>
<tr>
<td>Cloud Computing</td>
<td>Networks</td>
<td>Parallel Computing</td>
</tr>
<tr>
<td>Graphics</td>
<td>Reliability</td>
<td>Modeling</td>
</tr>
<tr>
<td>Data Mining</td>
<td>Optimization</td>
<td>Object-Oriented</td>
</tr>
<tr>
<td>Databases</td>
<td>High Performance Computing</td>
<td>Software Development</td>
</tr>
<tr>
<td>Embedded Systems</td>
<td>Web Bioinformatics</td>
<td>Software Quality</td>
</tr>
<tr>
<td>Human Computer Interaction</td>
<td>Compilers</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>Mobility</td>
<td>Computer Architecture</td>
<td>Wireless Computing</td>
</tr>
<tr>
<td>Open Source</td>
<td>Data Structures</td>
<td>Project Management</td>
</tr>
<tr>
<td>Programming</td>
<td>Computer Graphics</td>
<td>Distributed Computing</td>
</tr>
</tbody>
</table>

ACM Search Demo & Hands-On

- Basic Search
- Advanced Search
- ACM Computing Classification System
Search Strategy

Example search topic: **Software Engineering Applications in Mobile Computing**

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<tr>
<td>methodologies</td>
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<td></td>
</tr>
</tbody>
</table>

Search Statement

(("software engineering") AND (applications OR practices OR principles OR methodologies) AND ("mobile computing" OR “mobile programming” OR “mobile applications”))

ACM: Initial Search

Found 1,894 results. Publications from ACM and Affiliated Organizations: Full-Text collections.

“software engineering” AND applications AND “mobile computing”

1894 hits
ACM: Broaden Search

Searching within "software engineering" AND (applications OR practices) AND "mobile computing" for: "software engineering" AND (applications OR practices) AND "mobile computing"

Found 1,913 hits

ACM: Broaden Search - continue

Searching within "software engineering" AND (applications OR practices OR principles OR methodologies) AND "mobile computing"

Found 1,937 hits
Search within "软件工程" AND (application OR practices OR principles OR methodologies) AND "移动计算" OR "移动编程"

Found 1,979 hits within Publications from ACM and Affiliated Organizations (Full-Text collection)

1979 hits

Search within "软件工程" AND (application OR practices OR principles OR methodologies) AND "移动计算" OR "移动编程"

Found 2,806 hits within Publications from ACM and Affiliated Organizations (Full-Text collection)

2806 hits

Developments in the area of software architecture over the past decade have pushed it to the forefront of a...
Workshop Outline

3. Retrieve scholarly full-text articles
Design and Research on Private Cloud Computing Architecture to Support Smart Grid

Authors: Liguang Zheng, Yanqiang Hu, Chaoqun Yang

Published in: Proceedings of the 2011 Third International Conference on Intelligent Human-Machine Systems and Cybernetics - Volume 02
Pages 159-161
ISBN: 978-1-4577-0874-9
doi:10.1109/ICHMCS.2011.113

In recent years, State Grid Corporation of China has been vigorously promoting smart grid construction, and cloud computing is developing rapidly. Trend of the electric power enterprise informatization construction will be the private cloud computing, which will become the comprehensive platform of smart grid. Comparing private cloud with public cloud, this paper lists differences between them and puts forward an architecture of private cloud computing to support smart grid, expands structure of each layer, and presents concept of private cloud computing operating system and network virtualization. It provides the theoretical reference to build the private cloud computing, thus promotes the construction of the smart grid.
Content Retrieval

Private Cloud Computing: Consolidation, Virtualization, and Service-Oriented Infrastructure
Full Text: ODF, ePub, Join ACM to access this Book
Authors: Stephen R. Street, Nan K. Tan
Publication: Book
Private Cloud Computing: Consolidation, Virtualization, and Service-Oriented Infrastructure
Morgan Kaufmann Publishers Inc. San Francisco, CA, USA ©2011
ISBN: 0123840135 9780123840139

Access to Library Collections

NUS Libraries
E-Resource Discovery Day 2015
FindMore@NUSL
Private Cloud Computing: Consolidation, Virtualization and Service-Oriented Infrastructure
Everything 10 Books 11 Articles
Find More Newspaper articles + Book reviews
Advanced Search
Access to Library Collections

Workshop Outline

2. Database Search & Hands-On Exercise

b. Scopus
Scopus

- Multi-disciplinary: life sciences, physical sciences (include Computer Science, Engineering), health sciences, social sciences and business
- Updated Daily
- Access to FULL TEXT is available only for those journals subscribed by the library
Scopus Search

• Broaden search using alternative terms and truncation *

pract* => practices, practice, practical, practise, practises, practicing, practising, practised, practiced

methodolog* => methodology, methodologies

Search Statement

(“software engineering”) AND
(appl* OR practi* OR princip* OR metodolog*)
AND (“mobile computing” OR “mobile programming” OR “mobile applications”)}
Scopus Search

(()“software engineering”) AND (applications OR practices OR principles OR methodologies) AND (“mobile computing”)

349 hits

Scopus Search

(()“software engineering”) AND (applications OR practices OR principles OR methodologies) AND (“mobile computing” OR “mobile programming” OR “mobile applications”)

559 hits
Scopus Search

((“software engineering”) AND (appl* OR practi* OR princip* OR methodolog*) AND (“mobile computing” OR “mobile programming” OR “mobile applications”))

584 hits
Review Articles

Review articles are useful because they give a summary of research done

Scopus

So you want to teach an iPhone programming course?

Liles, K.; Strange, T.
Department of Computer and Information Technology, Purdue University, United States

Abstract

According to a Pew Research survey conducted in April and May 2015, an estimated 92 percent of adult Americans now own a mobile phone and nearly 25% of United States adults use mobile apps on their phones. The Apple iPhone was introduced in 2007 and has since been a cultural phenomenon in addition to being a commercial success. According to Apple’s quarterly earnings, over 80 million iPhones have been sold through the end of June 2015. The success of the iPhone can at least partially be attributed to the iPhone ecosystem consisting of mobile device hardware, the iOS operating system, software developer tools, and the App Store - all designed and controlled by Apple. To date, over 800,000 apps are available in the App Store, and Apple has reported that over 1 billion dollars in profit has been paid to iPhone developers. The Department of Computer and Information Technology at Purdue University strives to keep its curricula current and to teach courses using best-of-breed technological tools. For this reason, we developed a course on iPhone application development was offered during the Fall 2010 semester. Our department has been teaching software development for mobile devices since 2002, but the Fall 2010 semester was the first using Apple development tools for iOS devices including the iPhone. In this paper we will discuss our experiences teaching the course. Topics will include statistics, lesson, the selection and purchase Macintosh computers for our mobile computing lab, selection and purchasing of mobile devices, course pedagogy, textbook selection, student assessment, and unexpected problems are presented. Finally, conclusions and lessons learned are addressed.

Scopus: Setting Up a Search Alert
Workshop Outline

3. Retrieve scholarly full-text articles

Retrieving Full-Text Article from Reading List

Item from Reading List:
Zavlanos, M. M., Ribeiro, A., & Pappas, G. J. Network Integrity in Mobile Robotic Networks
*IEEE Transactions on Automatic Control*, 58(1), pp. 3-18, 2013

1) Type in title of article, not journal
2) Click to choose Articles
FindMore@NUSL

- Single search box
- Full text Online - covers NUS library's holdings
e.g. full-text of journal articles, E-Books, newspapers,
dissertations, conference proceedings, industry reports
and more
- Export results to bibliographic management
e.g. EndNote, RefWorks and BibTex
Workshop Outline

Tips & Tools

a. Proxy Bookmarklet
b. Highly Cited and Impactful Journals

Proxy Bookmarklet: Google Scholar
Proxy Bookmarklet

- A bookmark that inserts the NUS Libraries proxy stem into the URL of an article link in your browser to allow access to full-text of journal articles that are within the NUS Libraries' subscription
- Refer to [http://libguides.nus.edu.sg/proxybookmarklet](http://libguides.nus.edu.sg/proxybookmarklet)

Proxy Bookmarklet: Installation on desktop/laptop

Proxy Bookmarklet: link from others sources

- A friend gave you a link to this great article but you were prompted to pay!

From: John
To: Dolly
Subject: For your research paper

Hey! Here the link to the article that I’ve told you about, hope it helps!

Proxy Bookmarklet: link from others sources

Highly Cited & Impactful Journals

- Journal Citation Reports
Highly Cited & Impactful Journals

ISI Web of Knowledge™

Journal Citation Reports®

Journal Summary List

Journals from: subject categories: COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE; COMPUTER SCIENCE, CYBERNETICS; COMPUTER SCIENCE, HARDWARE & ARCHITECTURE; COMPUTER SCIENCE, INFORMATION SYSTEMS; COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS; COMPUTER SCIENCE, SOFTWARE ENGINEERING; COMPUTER SCIENCE, THEORY & METHODS

Sorted by: Impact Factor

Journals 1 - 20 of 477 (Page 1 of 24)

Rank | Abbreviated Journal Title (linked to journal information) | ISSN | JCR Data | Eigenfactor® Metric
|-----|--------------------------------------------------|------|-----------|------------------|
| 1   | IEEE T FUZZY SYST                              | 1063-6708 | 8.746 | 7.681 | 0.993 | 139 | 6.7 | 0.01282 | 1
| 2   | IEEE COMMUN SURV TUT                           | 1553-877X | 8.606 | 8.615 | 0.790 | 105 | 3.6 | 0.01588 | 3
| 3   | INT J NEURAL SYST                             | 0129-0657 | 6.507 | 4.265 | 0.478 | 46 | 3.7 | 0.00203 | 0

Workshop Outline

Cite References using EndNote
Introduction to EndNote

A software that:
- stores and organizes citations
- inserts citations into a Word article
- format references in a predefined citation style

For more info: [http://libguides.nus.edu.sg/endnote](http://libguides.nus.edu.sg/endnote)

Technical queries (e.g. installation):
- call IT Care at **6516 2080** or email itcare@nus.edu.sg

Workflow

1. Create an EndNote Library
2. Add references to the EndNote Library
3. Manage references: using groups & finding duplicates
4. Insert references in MSWord (Cite While You Write)
5. Change citation style and edit preferences
Add References to the Library

Direct Export  Online Search  Import PDF  Manual Inputting  Import File

EndNote Library

MS Word

Cite While You Write

Direct Export

Scopus

Search  Authors  My List  My Scopus

565 document results

Choose your default reference manager or file type:

EndNote  referee, bibtext, EndNote Nis, BibTeX, Mendeley, Zotero, others

Choose the information to export:

Choose the information you want to export in the reference manager or file type.

Add References to the Library

Direct Export  Online Search  Import PDF  Manual Inputting  Import File

EndNote Library

MS Word

Cite While You Write

Direct Export

Scopus

Search  Authors  My List  My Scopus

565 document results

Choose your default reference manager or file type:

EndNote  referee, bibtext, EndNote Nis, BibTeX, Mendeley, Zotero, others

Choose the information to export:

Choose the information you want to export in the reference manager or file type.
Direct Export

Cite While You Write
Cite While You Write

According to (Berman et al., 2001)

References


EndNote X7 Hands-On Tutorials 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Venue</th>
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<tbody>
<tr>
<td>Mon, 21 Sep</td>
<td>2pm – 4pm</td>
<td>Central Library Training Room</td>
</tr>
<tr>
<td>(Term Break)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tue, 22 Sep</td>
<td>10am – 12pm</td>
<td>Central Library Training Room</td>
</tr>
<tr>
<td>(Term Break)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wed, 23 Sep</td>
<td>2pm – 4pm</td>
<td>HSSML Training Room</td>
</tr>
<tr>
<td>Mon, 28 Sep</td>
<td>2pm – 4pm</td>
<td>Science Library Training Room</td>
</tr>
<tr>
<td>Tue, 29 Sep</td>
<td>10am – 12pm</td>
<td>Medical Library Training Room</td>
</tr>
</tbody>
</table>

• Schedule is tentative and may be subject to changes.
• Registration is required.
• Email with registration instructions will be sent out closer to the respective session date.
Join millions of researchers today
Mendeley streamlines your workflow, saving you time to focus on what is important.

Create a free account
@ www.mendeley.com

Wed, 23 Sep 2015
10 am to 12 noon
(venue to be confirmed)
All are welcome, bring your own laptop

NUS Libraries
E-Resource Discovery Day
17-18 September 2015
@ Central Library, Level 4

Games and Lucky Draws
17 Sep 2015 :: 10 am - 5 pm

Book Sale
17-18 Sep 2015
all proceeds go to NUS Annual Giving Bursary

http://j.mp/erdd2015
Feedback

To help us to improve, please submit the online feedback form


Thank You