

Final Year Projects
Lecture 4:
Searching the Literature

One of the sources for this lecture,
and a useful person to know

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Overview

1. Why is this important?
2. What exactly do you need to know?
3. Where should you be looking?
4. How are you going to find it?
5. Finding it
6. Is it what you need - do you need more?
7. Recording your sources
8. Communicating your work

Why is this important? (1)

- As part of your project you will need to produce
 - Written reports
 - Answers to questions
 - Oral presentations
 - Your ‘project artefact’
 - Anything else? ...
- In each case you will be expected to demonstrate an appropriate grasp of the context within which your work sits ... and that means you should have knowledge of the relevant literature

Why is this important? (2)

- It is important that you can convince us
 - that you know what you are talking about
 - that you understand what you have done, and how it is related to the rest of your degree
 - that you understand the *quality* and the *relevance* of what you have done
- In order to do these things you need to demonstrate knowledge *beyond* the narrow confines of the problem you have addressed

Why is this important? (3)

- There are **three** kinds of information that you might want to include in your project:
 - ‘generally accepted’ information
 - information about work that can be attributed to specific people other than yourself
 - information about *your own* work
- It is important to give credit to those whose ideas have inspired you, and upon whose work yours is based
- It is also important to identify *your own contribution*, so that you can gain credit for what you have done

Why is this important? (4)

- You will need to learn new things, use the things you learn, and write about them
- *Some* of what goes into your project may be based on *your own* ideas – but you need to check that someone else hasn’t *already* had the *same* idea, because
 - you get credit for having *found* the other person’s work
 - claiming someone else’s work for yourself is cheating
- Where your work is based on your own ideas it is important to be able to show that those ideas have a solid foundation in existing knowledge and practice

What exactly do you need to know? (1)

- When searching for sources of information to help with your project it is important to start off by asking yourself "what do I need to know?"
- Think ...
 - *Why* are you searching the literature?
 - *What* are you trying to find out?
 - *How* will you know when you’ve found something useful?
 - *What* do you intend to use the information for?

What exactly do you need to know? (2)

- Examine the problem you are trying to address for your project
 - what is the *scope* of the work?
 - what *topic areas* are important?
 - what *concepts* will you need to understand/investigate?
 - what *terminology* will you need to know/use?
 - are there any *concepts* you will need to follow up by *reading around the subject*?
 - how up-to-date does the information need to be?
 - should you be using academic, technical or commercial sources?

What exactly do you need to know? (3)

- All (academic) reading is directed towards a *purpose*
 - Make sure you are clear about the purpose of your literature search
 - Make sure you keep that purpose in mind when selecting sources of information that you will read in detail
 - Make sure you keep it in mind when reading
- It's a good idea to write a list of questions to which you need answers, and use that list
 - to help you define search terms
 - to guide your selection of information sources
 - to guide your reading of the sources you find

Where should you be looking?

- LRC for books and journals
- Information databases (accessible via StudyNET) for journal articles, standards, design data, and so on ...
- The WWW for commercial and technical information, study skills, and so on ...
- Other libraries and organisations for specialised information ...

How are you going to find it?

Choose the right search tool ...

- StudyNet > Learning Resources
 - UH Journals website, Information databases, Voyager
- Voyager > Keyword search
 - Books, journals, newspapers, information databases, etc
- Information databases
 - Journal articles and papers, standards, design data
- Google
 - Companies, products, services, markets, other libraries
- Google Scholar
 - Increasing (but still limited) access to academic publications

Sources of Information (1)

- Look for *reliable* information
 - process of peer review
 - material that has been edited and/or approved by a known publisher, or other reputable organization
 - material found in the LRC is *mostly* reliable
- If you are in doubt about the reliability of information
 - check the source thoroughly
 - use your common sense
 - ask your tutor
 - do not use the information

Sources of Information (2)

- Paper based sources are still useful, and are often the best place to start (most reliable at the top of the list):
 - Books
 - Journals
 - Conference Proceedings
 - Official Reports
 - Magazines / Newspapers
 - Commercial Publications (user manuals, technical manuals, business reports, etcetera)
 - Course Materials

Sources of Information (3)

- On-line sources have their attractions, but should be used with care (most reliable at the top of the list):
 - web-based journals
 - e-books
 - *official* government web sites
 - *official* company web sites
 - *official* institutional (e.g. university) web sites
 - Wikipedia
 - *personal* web sites

Finding Information Sources

- Use StudyNet > Learning Resources to connect to the service to search
 - Voyager, information database, Google (Scholar)
 - Information database may require login authentication, which may be either by UH IP address or by Athens password (details of Athens usage available from the LRC)
- Use obvious search terms first
- Use initial / overview information sources to help you identify better search terms
- Consider the usefulness of each source listed in the search results
- Find out if the sources listed are available to you

Choosing amongst sources

- Search result will be a list of sources
 - only some of them will be genuinely useful
 - how should you choose between them?
- Adopt a hierarchical approach
 - select those articles with titles that are clearly relevant to your problem
 - where possible, skim the abstract / summary of each article with a relevant title to select those for which you will obtain the full text
 - skim the full text articles to determine which you will read in detail
 - only return to articles of uncertain relevance if the others don't contain the information you need

Have you got what you need?

- Use the list of questions you need answered to help you review what you have found
 - Do you have enough sources to answer all of your questions?
- Do you need more information now?
 - What is still needed?
 - How you will find it?
- Will you need more information later in the course of your project?
 - What questions will you need to answer?
 - How will you get hold of the information you need?

Recording your sources

AS YOU GO ALONG you should

- Record full bibliographic information for all resources that you use
- Note why any resource was useful
- Make notes that identify key points in each piece you read
- Organize what you find
- Compile a Bibliography / Reference List