Discovering quality information: The information landscape

September 2018
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>2</td>
</tr>
<tr>
<td>What are the different types of information?</td>
<td>3</td>
</tr>
<tr>
<td>Academic books</td>
<td>3</td>
</tr>
<tr>
<td>Journal articles</td>
<td>3</td>
</tr>
<tr>
<td>Technical reports</td>
<td>3</td>
</tr>
<tr>
<td>Conference papers</td>
<td>4</td>
</tr>
<tr>
<td>Standards and patents</td>
<td>4</td>
</tr>
<tr>
<td>Newspaper articles</td>
<td>4</td>
</tr>
<tr>
<td>Web sites and videos</td>
<td>4</td>
</tr>
<tr>
<td>Data and statistics</td>
<td>4</td>
</tr>
<tr>
<td>Peer review</td>
<td>5</td>
</tr>
<tr>
<td>Google and Google Scholar</td>
<td>6</td>
</tr>
<tr>
<td>Summary</td>
<td>7</td>
</tr>
<tr>
<td>Types of information – how much do you know?</td>
<td>8</td>
</tr>
<tr>
<td>Next steps</td>
<td>9</td>
</tr>
</tbody>
</table>
Introduction

This material is all about the different types of information you may need to use whilst studying at Cranfield. You will then be able to choose the most appropriate kind of information to be successful in your work. It also explains how and why you should use the Library’s online resources alongside Google.

Please work through this material and do the quiz before coming along to your Discovering Quality Information session, which you will find in your course timetable. After you’ve finished, you will know about the different types of information you will need to use for your studies at Cranfield, and when they are useful. This means that in the face-to-face session we’ll be able to concentrate on learning how to search our resources effectively.

It should take you no longer than about 15 minutes to complete.

After you've finished, you will know about the different types of information you will need to use for your studies at Cranfield, and when they are useful.
What are the different types of information?

Not all of the information that you will need is freely available on Google. There are several different types of information that you may need to use.

Don’t worry if you don’t know what some of these types of information are. It is unlikely you’ll need to use all of them all of the time. And your Information Specialist is here to help you find your way!

Academic books

These are great sources, especially if you are new to a subject area. They are quite general and good for background information.

Journal articles

These are published regularly within specialist journals. They are the main means by which academics publish their research findings, and they are key sources to use when doing your own research and for your assignments. They provide the detailed in-depth research that you will need to use once you have done some background reading. You can be assured that you are using high quality information when you use journal articles as they have been peer-reviewed. You will find out more about peer review later.

Technical reports

Often written by employees of companies for the sponsors of research projects. They are good for finding out about the progress or results of technical research.
Conference papers
These are detailed papers written to support a presentation to an expert audience of people working in industry or academia and are good for getting the latest research results and progress.

Standards and patents

Standards
An agreed way of doing something, whether it’s making a product or managing a process. They are produced by national or international organisations e.g. British Standards.

Patents
Granted to an individual who has invented something new. It protects the rights of the inventor, but also contains a detailed description of the invention, so they can be useful if you need to design a component.

Newspaper articles
Aimed at a general audience and usually brief and up to date – but only if you are looking at a recently written article!

Web sites and videos

Web sites
These can be created very easily by anyone, on any topic. You can find out about almost anything, but remember that you need to evaluate information that you find before you decide to use it.

Video
Videos are very effective when you are learning a new practical skill e.g. programming in Arduino.

Data and statistics
Many organisations and researchers publish data and statistics for others to reuse and refer to.
Discovering quality information: The information landscape

Peer review

What is it and why is it important?
You will need to refer to peer reviewed information in your work. Peer reviewed journal articles have undergone rigorous review by panels of experts in the subject. They read the article to look for errors and flawed thinking, and to check that it makes a new contribution to existing knowledge.

But what is a journal article?
Researchers write-up their work as papers, which are published as journal articles collected together in journals. Journals specialise in particular areas of research, and are published regularly, for example monthly.

So how do I find peer reviewed journal articles?
You can use the Library’s specialist resources to find the articles you need. We will talk more about these later on.
Google and Google Scholar

But what about Google?
Google makes us lazy. Too often we are happy to use the information that is the quickest and easiest to find. It may be ‘good enough’, but is it the best?

When you do a search it is common to find hundreds of thousands, or even millions of results! How can you choose the best results from so many? Most people will only look at the first few pages of results, so you may miss the perfect bit of information. It is not clear how Google ranks the search results in your list – it may be that the most useful piece of information is buried far down the results list.

You may find information that is not appropriate for an academic piece of work, so you need to evaluate carefully before you decide to make use of information you find via Google.

Often information is temporary. It may move, disappear, or change. This makes it difficult for anybody reading your work to follow up your sources.

Why all the bubbles?
Have you heard of the filter bubble? It’s what happens when search algorithms guess what you would like to see based on information about you, such as your location, what you have clicked on in the past and your search history. Google uses your location and past history to show you what it thinks you want to see. The Library’s resources do not do this.

You can see the filter bubble in action when Facebook shows you the friends you interact with most, and hides others from you, or shows you adverts based on searches that you have done. If you want to try a search tool that doesn’t track you, try duckduckgo.com

But what about Google Scholar?
You may have heard of Google Scholar, which is the academic part of Google. It is easy to search and very good for finding free open access versions of articles.

But it is not clear what it contains and what is missing. You will find a lot of results – how many results will you look through? You may miss the perfect article that is on the eighth page!
So where else can I search to find scholarly information?

Use the Library’s resources to search for scholarly information – primarily peer reviewed journal articles and conference papers published worldwide. This is the kind of information that you are expected to read and refer to throughout your studies.

The Library’s resources are comprehensive – you don’t need to worry about missing information as they cover all key journal articles and conferences.

There are no hidden search algorithms so you can choose the order in which your search results are displayed, and there is no filter bubble either.

You will need to work a bit harder to find useful results, but there are some techniques you can use to make your search efficient and effective.

Check your timetable to find out when your ‘Discovering Quality Information’ training session is taking place, and come along to learn about these techniques and get the chance to try them. You can also ask your information specialist for help.

Our advice

Our advice is to use Google alongside the Library’s resources, then you will get the best of both worlds!

Summary

• There are many different types of information you may need to use, depending upon the research you are doing. If you are unsure please ask your information specialist for help.

• You are expected to refer to peer reviewed information in your work, as it is usually high quality. Journal articles are the most common form of peer reviewed information.

• Google and Google Scholar are useful tools, but it’s best to use them alongside the library’s resources.
Discovering quality information:
The information landscape

Copyright © Cranfield University

Types of information – how much do you know?

Please have a go at this quiz. You can make as many attempts as you like and you can refer back to the material if you don’t know the answer. We won’t be checking your results, but we hope that you will have a go to test your understanding before coming along to your Discovering Quality Information session.

**Question 1/6:**

Academic books...

Which of the following completes the sentence?

- Are written to support a presentation to a technical audience.
- Are always up to date.
- Are good for background information on a subject area.
- Provide the latest research peer reviewed by experts.

**Question 2/6:**

If you need to find out an agreed way of doing something, search for a ...

Select the correct answer below.

- Patent
- Standard

**Question 3/6:**

Match the correct statements to complete the sentence.

Many journal articles are...

- peer reviewed
- only available in print format

...and contain information about...

- the latest research in a subject.
- new products in an industry.

**Question 4/6:**

The name for the idea that search engines track you and show you what they think you want to see is the ...

Select the correct answer below.

- Bubble sorter.
- Bubble filter.
- Findings filter.
Question 5/6:

The name of the search engine that doesn’t track you is ...

Select the correct answer to the right.

- swanswango.org
- goosegoosego.com
- duckduckgo.com

Question 6/6:

Match the statements on the left to the descriptions on the right below. Make a note of your answers and then click the ‘Show correct answers’ button to see how you did.

1. Text books...
2. Journals...
3. Web sites...
4. Conference papers...
5. Technical reports...

A. Do not always contain reliable and accurate information.
B. Often written by employees of companies for sponsors of research projects.
C. Are good for getting the latest research results and progress.
D. Contain peer reviewed information.
E. Present what is known and accepted about a subject area.

Show correct answers

Next steps

Thank you for spending some time looking at this material. We hope you found it useful and it now means that we can focus on our resources in the Discovering Quality Information session. We look forward to meeting you soon.

Sarah Watson
Information specialist for manufacturing

Emma Turner
Information specialist for aerospace

Heather Woodfield
Information specialist for transport

Clare Humphries
Information specialist for water, energy and environment