Advanced Human-Computer Interaction
Week 5: Literature Review

Tracy Maniapoto

- Topic 1 - Finding Information
- Topic 2 - Reading Effectively
- Topic 3 - Writing Effectively
- Topic 4 - Presentation Skills

Lecture Learning Outcomes

On completion of this lecture, students will be able to:

- *Identify keywords in your topic or research question*
- *Search for literature reviews, key studies and seminal works in your field*
- *Learn an approach to reading literature*
- *Write ideas and questions from your readings*
- *Learn an approach to presenting your literature review*

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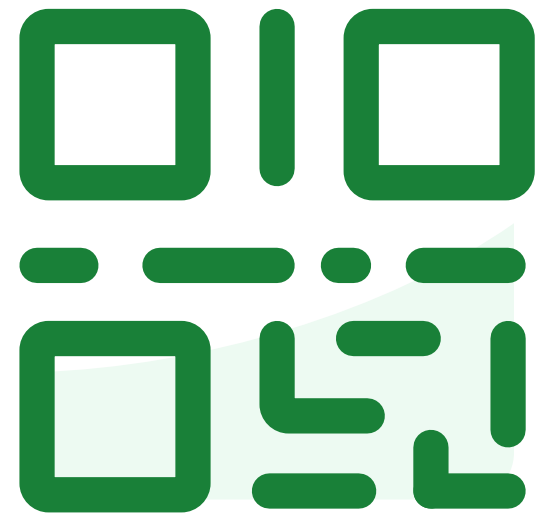
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ⓘ Start presenting to display the joining instructions on this slide.

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How do you find academic information?

Start presenting to display the poll results on this slide.

How do you find academic information?

- I google it
- I search the library website
- I ask friends and family
- I ask ChatGPT

Why do you need a literature review?

- Learn more about your topic
- Discover what is already known
- Identify gaps in research
- Learn about research methods in your field
- Understand where your contribution sits in your field

Topic Selection   Conceptualise   Search   Evaluate   Filter   Appraise   Write

A **literature review**:

- Provides a subjective summary of literature on a topic
- Includes a detailed search strategy
- Can be produced by a single person, open to bias
- Weeks or months to produce

A **systematic review**:

- Brings together results of studies to answer a specific question
- Involves a detailed protocol for searching eg: PICO
- Usually involves 3 or more people to eliminate bias
- Months or years to produce

Assignment - literature review:

- Topic will be the same topic area as the topic selected for your group project
- Your literature review will focus on 2 (two) articles
- Both articles must be from HCI publications
- Ideally each group member must choose different articles to cover the adequate breadth of your topic
- Articles should be recent if possible and from 2010 onwards
- Articles must be peer-refereed
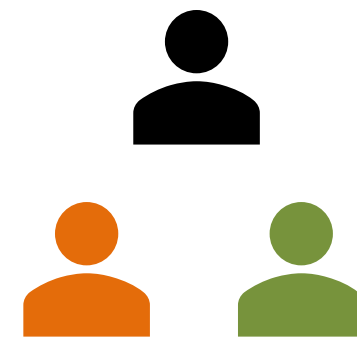
Slides   Notes   Peer Workshop   Video

Advanced Human-Computer Interaction
Topic 1: Finding Information

5
MINS

Identify Keywords: What are the keywords or topics in the sentences below?
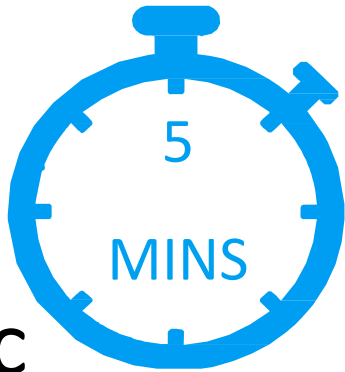
Can immunotherapy be used to treat peanut allergy in children?

*Can **immunotherapy** be used to treat **peanut allergy** in **children**?*

Environmental impact of refuse dumps in Auckland?

***Environmental impact** of **refuse dumps** in **Auckland**?*

ACTIVITY: Write down your own research question and identify keywords or topics

5 MINS

Identify Keywords: Add synonyms or alternative phrases to research question / topic

RQ: Can immunotherapy be used to treat peanut allergy in children?

	Topic 1	Topic 2	Topic 3
Keywords →	Immunotherapy	Peanut allergy	Children
Synonyms ↓	Therapy	Allergy	Child

Identify Keywords: Add synonyms or alternative phrases to research question / topic

RQ: Can immunotherapy be used to treat peanut allergy in children?

	Topic 1	Topic 2	Topic 3
Keywords →	Immunotherapy	Peanut allergy	Children
Synonyms ↓	Therapy	Allergy	Child
	Treatment	Food Allergy	Infant
		Nut Allergy	Preschool Child
		Hypersensitivity	

Search for literature: Add synonyms or alternative phrases to research question / topic

RQ: Can immunotherapy be used to treat peanut allergy in children?

	Topic 1		Topic 2		Topic 3
Keywords →		AND		AND	
Synonyms ↓	OR		OR		OR
	OR		OR		OR
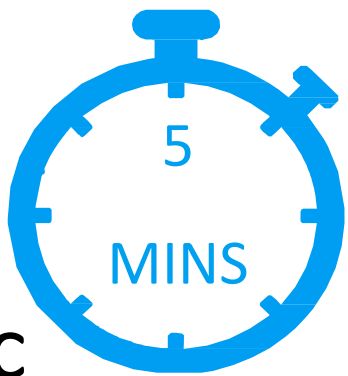
5 MINS

Identify Keywords: Add synonyms or alternative phrases to research question / topic

RQ: Can immunotherapy be used to treat peanut allergy in children?

	Topic 1		Topic 2		Topic 3
Keywords →	Immunotherapy	AND	Peanut Allergy	AND	Children
Synonyms ↓	OR		OR		OR
	Therapy		Allergy		Child
	OR		OR		OR
	Treatment		Food Allergy		Infant

Computer Science – HCI example

Too broad: Human-Computer Interaction

Too narrow: How does Human-Computer Interaction impact productivity of construction professionals with tablets on site?

Just right: "Human-Computer Interaction" and "construction professionals"

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General information ✕

HCI Specific ✔

Google
Library Databases
Librarian
Physical Books

Google Scholar
Author homepages
Research Groups
Relevant Conferences
Relevant Journals

ACM Digital Library
Web of Science
Scopus
Science Direct
IEEExplore

Assignment - literature review:

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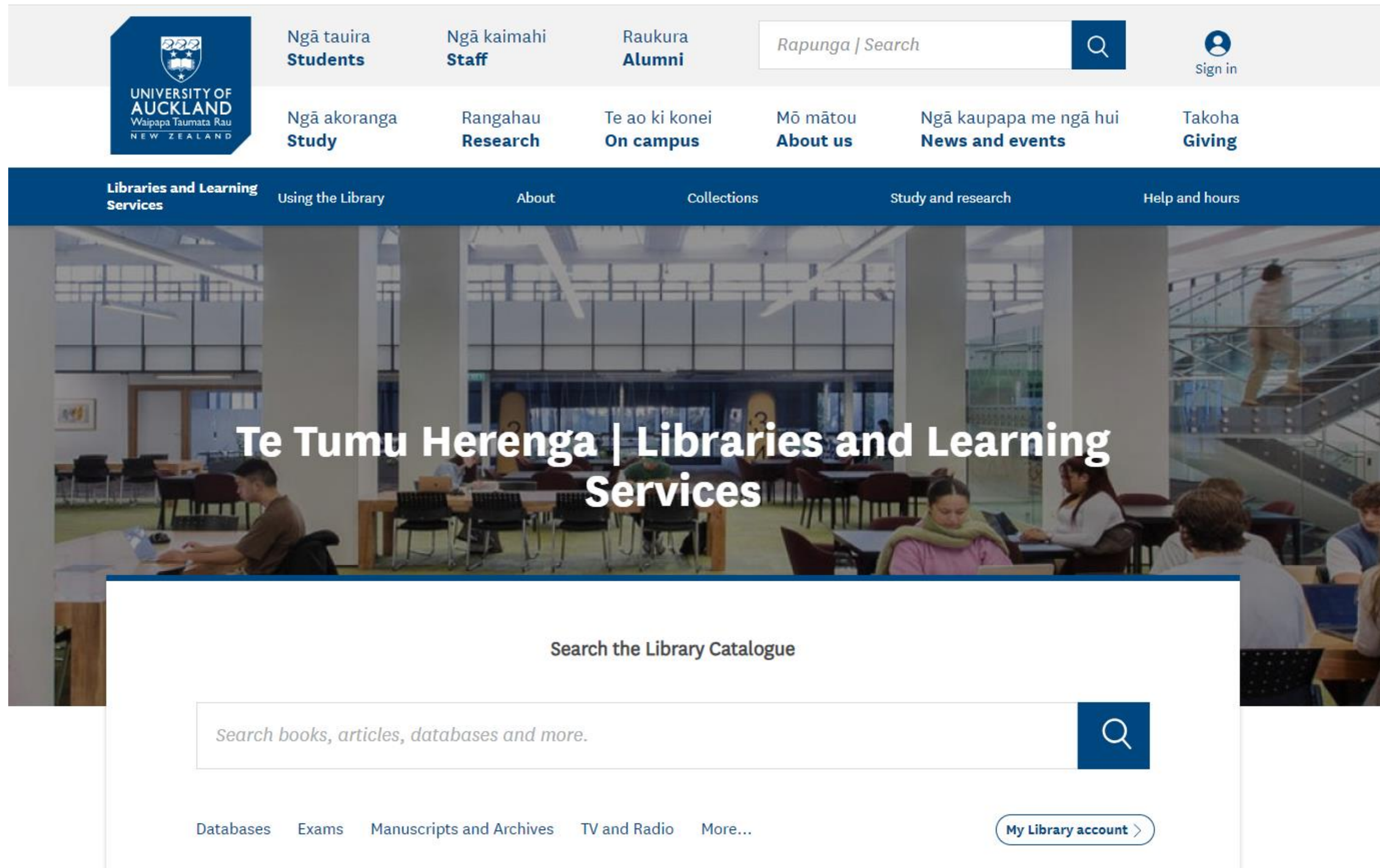- Articles must be peer-refereed
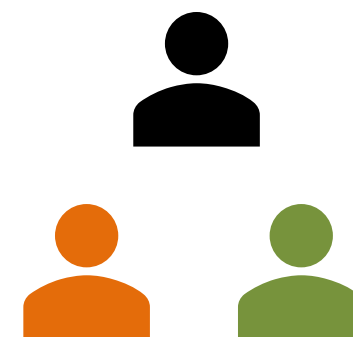
Slides   Notes   Peer Workshop   Video

Finding information: Navigating the Library Website: library.auckland.ac.nz

Finding information: What makes a good article?

Assignment - literature review:

- Is it an HCI publication?
- Is it from 2010 onwards?
- Articles must be peer-refereed?
- Has it been cited? How many times?
- Are the cited publications relevant?
- Has the author published on this topic before?
- Are the authors part of a larger research group?
- …… ?

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MINS

Finding information: Navigating the Library Website: library.auckland.ac.nz

Think Pair Share:

In pairs, use your concepts table and search one of the databases listed below and find one article that is suitable for your topic

- ACM Digital Library
- IEEE Xplore

Record EVERYTHING you do
(search terms, results, cites, cited by etc)