<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Date</th>
<th>Views</th>
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<tr>
<td>BIOL 4278</td>
<td>Seminar in Biology</td>
<td>Jun 1</td>
<td>295</td>
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<tr>
<td>CSCI 6530</td>
<td>Research Methods in Computer Science</td>
<td>Jun 5</td>
<td>608</td>
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<tr>
<td>LLLS 4345</td>
<td>Survey of Children's Literature</td>
<td>Jun 5</td>
<td>2066</td>
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<tr>
<td>MGMT 5636</td>
<td>Management of Technology</td>
<td>Jun 2</td>
<td>8</td>
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<tr>
<td>SPED 2301</td>
<td>Introduction to Special Populations</td>
<td>Jun 5</td>
<td>917</td>
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<td>WRIT 3307</td>
<td>(Hacker): Advanced Writing</td>
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<td>WRIT 3312</td>
<td>(Basso McCauley): Written Communications in Business</td>
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OUTLINE FOR TODAY

• Purpose of the Literature Review
• Principles of Searching Strategically
• Searching Research Databases & the Library Catalog
• Citing Sources & EndNote
SECTION 1: UNDERSTANDING THE LITERATURE REVIEW
A literature review is part of the published work referencing related research, theory, and background information.

A review of the literature (literature search) may be conducted to:

• understand a topic
• help you form a research question
• provide confirmation of an already existing hypothesis
• analyze and interpret your own data
• gain exposure to past, current, and ongoing research about a subject you are exploring for research of your own
WHAT ARE SOME SOURCES OF SCHOLARLY INFORMATION?

• Peer-reviewed journal articles
• Books
• Reference works (encyclopedia, textbooks)
• Gray literature
  • Reports (government, industry, non-governmental organizations)
  • Theses & dissertations
  • Conference proceedings
• Archives

"Computer Laptop" by Steve Hillebrand, licensed under public domain
“AUTHORITATIVE” INFORMATION:

PEER REVIEW

- A process for establishing **authority** of scholarly research
- **Experts** in the field/discipline review the original ideas to **certify** the accuracy, validity, and value of the results

PERIODICALS (JOURNALS, MAGAZINES)

- Peer-reviewed
- Refereed
- Scholarly
- Academic
- Trade
- Professional
- Practitioner
- Industry
- General
- Popular
ANATOMY OF A SCHOLARLY ARTICLE

- Publication information
- Abstract
- Author information
- Introduction
  - Background
  - Literature Review
  - Related Work
- Methodology
- Results
  - Data
  - Tables/Charts/Plots
- Discussion
- Conclusions
- References
  - Works Cited

[References]


SECTION 2: SEARCHING STRATEGICALLY
SEARCH PROCESS

1. Determine your research question
2. Identify the key concepts
3. Develop a strategy for finding information related to these concepts
4. Make use of database’s limiters & suggested subject terms
5. Organize and cite your sources
1. DETERMINE YOUR RESEARCH QUESTION

One
- What are some ways artificial intelligence is used to prevent or solve crimes?

Two
- How is artificial intelligence used to solve or prevent crimes of spoofing, phishing, identity theft, malware, and in facial recognition and surveillance?

Three
- In what ways is artificial intelligence developed to recognize faces for use in surveillance to prevent or solve crimes?
2. IDENTIFY THE KEY CONCEPTS

In what ways is artificial intelligence developed to recognize faces for use in surveillance to prevent or solve crimes?

- artificial intelligence
- face recognition
- surveillance
In what ways is artificial intelligence developed to recognize faces for use in surveillance to prevent or solve crimes?
3. List alternate keywords, synonyms, and related words

In what ways is artificial intelligence developed to recognize faces for use in surveillance to prevent or solve crimes?

Keywords:
- biometrics
- face detection
- iris recognition
- pattern recognition
ORGANIZING YOUR KEYWORDS

<table>
<thead>
<tr>
<th>Alternate term:</th>
<th>Concept 1: FACE RECOGNITION</th>
<th>Concept 2: ARTIFICIAL INTELLIGENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>biometrics</td>
<td></td>
<td>machine learning</td>
</tr>
<tr>
<td>face detection</td>
<td></td>
<td>neural networks</td>
</tr>
<tr>
<td>iris recognition</td>
<td></td>
<td>intelligent agents</td>
</tr>
</tbody>
</table>
EXERCISE 1:

• On your handout, circle two **key concepts** for the research question:

  *How are data mining methods developed and used for detecting spam?*

• Then, write these key concepts in the top row of the table on your sheet

• Next, Write down 2-3 **alternate terms, synonyms, and related words** for each concept
SECTION 3: RESEARCH DATABASES & LIBRARY CATALOG
SELECTING A DATABASE

Find articles and books

Search

Advanced Search

IEEE

- IEEE Xplore Digital Library
  Engineering and technology articles published by the Institute of Electrical & Electronics Engineers (IEEE)

- ACM Digital Library (Association for Computing Machinery)
  Computing and information technology articles published by the Association for Computing Machinery (ACM)

- INSPEC
  Physics, electronics, computing and engineering article database developed by the Institute of Engineering & Technology (IET)
CONTROLLED VOCABULARY
(ALSO CALLED “TAXONOMY” OR “HIERARCHY” OR “THESAURUS”)

• A list of terms and term relationships designed to
  o organize information about similar subjects
  o assist content authors in consistently classifying/tagging content
  o enable users to find the information they need by translating their language into the language of the information store.

EXERCISE 2:

• Using IEEE Xplore, search for “Data Mining” AND Spam

• Find the article “Friend-in-the-Middle Attacks: Exploiting Social Networking Sites for Spam” from IEEE Internet Computing

• Answer the following questions about the article:
  • What year was it published?
  • How many times has it been cited?
  • What INSPEC: Controlled Indexing subject terms have been assigned to the article?
  • How many articles use the first of these subject terms, “unsolicited email”?
SECTION 4: CITING SOURCES
Too much information?
Ask a Librarian

Stop by the reference desk or schedule a research consultation!

Phone
281-283-3910

Text
281-816-4341

Email
libanswers.uhcl.edu

library@uhcl.edu

In person
Stop by the reference desk or schedule a research consultation!
CSCI 6530: Research Methods in Computer Science: Feedback

Please give us some feedback

Choose your campus
Make a selection

Your student status
Make a selection

Have you had previous library instruction at UHCL or at the Pearland campus?
Make a selection

Open Inspec database, and look up the term **computer crime** in the INSPEC Thesaurus. List 2 of its related terms below. **(required)**

What other keywords could you use when researching **computer crime**? **(required)**