### The University of Hong Kong Libraries

#### Library Course:
**Journal Impact Factor**

<table>
<thead>
<tr>
<th>Section I : Basic concepts</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citing article VS Cited article</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section II : ISI Journal Citation Reports (JCR)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) General Introduction</td>
<td>3</td>
</tr>
<tr>
<td>(B) Exercises</td>
<td></td>
</tr>
<tr>
<td>1 — Analyze a group of journals</td>
<td>4-5</td>
</tr>
<tr>
<td>2 — Exporting data</td>
<td>6</td>
</tr>
<tr>
<td>3 — Analyze a particular journal</td>
<td>7-12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section III : Journal Performance Indicators (JPI)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) General Introduction</td>
<td>13</td>
</tr>
<tr>
<td>(B) Exercises</td>
<td></td>
</tr>
<tr>
<td>4 — Analyze a particular journal</td>
<td>14-15</td>
</tr>
<tr>
<td>5 — Analyze a group of journals</td>
<td>16-17</td>
</tr>
<tr>
<td>6 — Exporting data</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section IV : JCR vs JPI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A comparison of JCR and JPI</td>
<td>19</td>
</tr>
</tbody>
</table>
**Section I : Basic concepts**

**Citing article VS Cited article**

**Citing article 1**

Tracking Regional Anthropogenic Air Pollution: A Case Study in Israel

**Citing article 2**

Vertical distribution of physical and chemical properties of haze particles in the Dead Sea valley

**Citing article 3**

Urban-scale variability of ambient particulate matter attributes

**Cited Article**


For articles published in the *Journal* of Geophysical Research, the more they are cited by others, the higher the journal impact factor.

For this article by Wanger, the more this article is cited, the higher the number of cited references.
Section II: 
ISI Journal Citation Reports (JCR)

Access HKU Libraries Homepage at http://lib.hku.hk
> Electronic Resources
> Browse by Format
> Citation Reports
> ISI Journal Citation Reports

The Interface

1. Two editions:
   1. Science
   2. Social Sciences

2. Year coverage:
   HKUL subscription covers from 1998 to 2006

3. Search options:
   - View a group of journals by
     - Subject category
     - Publisher
     - Country/Territory
   - Search for a specific journal
   - View all journals

Select a JCR edition and year:

- JCR Science Edition 2006
- JCR Social Sciences Edition 2006

Select an option:

- View a group of journals by Subject Category
- Search for a specific journal
- View all journals

Submit
EXERCISE 1
Analyse a Group of Journals

Learning Objectives:

Through this exercise, you should be able to:
1. Have an overview as to the coverage of JCR (e.g. number of journals, subject coverage, geographic coverage).
2. Have a brief idea as to the implications of impact factor.
3. Sort the journal list by impact factor.
4. Retrieve a list of journals by subject category/place of publication.

1. How many journals?

Hint: From the JCR welcome page, select:
1. The appropriate edition and year
2. “View all journals”

<table>
<thead>
<tr>
<th>Year</th>
<th>Science Edition</th>
<th>Social Sciences Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 1998 edition</td>
<td></td>
<td>1679</td>
</tr>
<tr>
<td>b) 2006 edition</td>
<td></td>
<td>1768</td>
</tr>
</tbody>
</table>

Thoughts & ideas ...

1. There are more journals in the
   - A. Science edition
   - B. Social Sciences edition

2. Over the years, the number of journals in JCR has
   - A. Increased
   - B. Decreased
   - C. No change

2. Journal with the highest impact factor?

Hint: On the Journal Summary List:
1. Open the pull-down menu for “Sorted By”
2. Select “Impact Factor”
3. Click on the “Sort Again” button.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Journal title</td>
<td>Behavioral and brain sciences</td>
<td></td>
</tr>
<tr>
<td>b) Impact Factor</td>
<td>14.964</td>
<td></td>
</tr>
</tbody>
</table>

Thoughts & ideas ...

1. Is CA: A cancer journal for clinicians the BEST journal of all?
   - A. Yes
   - B. No
   - C. Not sure
3. **Journal with the highest impact factor within a subject category?**

*Hint*: From the JCR welcome page, select “View a group of journals by Subject Category”.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Discipline</td>
<td>Civil Engineering</td>
<td>Economics</td>
</tr>
<tr>
<td>b) Total number of journals</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>c) Journal with the highest impact factor</td>
<td>Journal of economic literature</td>
<td></td>
</tr>
<tr>
<td>d) Impact Factor</td>
<td></td>
<td>4.667</td>
</tr>
</tbody>
</table>

**Thoughts & ideas ...**

1. In 2006, did *Journal of economic literature* perform twice as good as the *Journal of hydrology*?
   - A. Yes
   - B. No
   - C. Not sure

2. Would it be advisable to publish in the *Journal of hydrology* if my research topic is related to water pollution?
   - A. Yes
   - B. No
   - C. Not sure

“Using quantitative citation data to measure impact is meaningful only in the context of journals in the same general discipline. For example, smaller fields like crystallography do not generate as many articles or citations as do larger fields such as biotechnology or genetics. Likewise, in some areas, particularly in the arts and humanities, it may take a relatively long time for an article to attract a meaningful number of citations. But in other areas, such as the life sciences, it is not unusual for citations to accrue rapidly and peak after two or three years.”

~ http://scientific.thomson.com/free/essays/selectionofmaterial/journalselection/

4. **Number of journals by country or territory?**

*Hint*: From the JCR welcome page, select “View a group of journals by Country/ territory”.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) China</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>b) Germany</td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>c) United States</td>
<td></td>
<td>988</td>
</tr>
</tbody>
</table>

**Thoughts & ideas ...**

1. Does JCR cover all journals worldwide?
   - A. Yes
   - B. No
   - C. Not sure
EXERCISE 2
Exporting data from JCR

Learning Objectives:

Through this exercise, you should be able to find:

1. Mark journal records which you consider as relevant.
2. Export the results to a file and then open it using Excel.
3. Format the results for printing.

1. (a) Click on the checkbox to mark individual titles, or click on Mark All to select all titles.
   (b) Click on Update Marked List

2. Once all titles you need have been marked, click on Marked List.

3. Select either Save to File or Format for Print.
   (Note: For Save to File, the file is text delimited and can be opened with Excel.)
EXERCISE 3
Analyze a Particular Journal

Learning Objectives:

Through this exercise, you should be able to:

1. Search for a particular journal in JCR.
2. Retrieve data for a journal.
3. Explain how to come up with the following data
   - Impact Factor
   - Immediacy Index
   - Cited Half Life
   - Citing Half Life
4. Show the impact factor trends over the past 5 years.
5. Perform comparative analysis with other journals in the same subject category.
6. Display and get articles published in that journal.

1. Locate the journal, Biological Conservation (ISSN: 0006-3207) in 2006 JCR
2. Retrieve 2006 data

Click on the journal title to display the full record

(A) Impact Factor

Definition: The average number of times articles from the journal published in the past two years have been cited in the JCR year.

Which means: What is the “average performance”?

Calculation:

\[ \text{Cites in 2006 to articles published in 2004 and 2005} \]
\[ \text{Number of articles published in 2004 and 2005} \]

(B) Immediacy Index

Definition: The immediacy index is the average number of times an article is cited in the year it is published.

Which means: How “hot” are the articles? — the speed with which citations of a specific journal appear in the published literature, and helps to identify journals in emerging areas of research.

Calculation:

\[ \text{Cites to current articles} \]
\[ \text{Number of recent articles} \]
(C) Cited Half Life

Definition: The median age of the articles that were cited in the JCR year.

Which means: Do others cite old or new articles from this journal?

Calculation:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td># Cites from 2006</td>
<td>261</td>
<td>814</td>
<td>976</td>
<td>921</td>
<td>806</td>
<td>704</td>
<td>636</td>
<td>494</td>
<td>375</td>
<td>290</td>
<td>2538</td>
</tr>
<tr>
<td>Cumulative %</td>
<td>2.29</td>
<td>11.59</td>
<td>22.75</td>
<td>33.27</td>
<td>42.49</td>
<td>50.53</td>
<td>57.79</td>
<td>63.43</td>
<td>67.71</td>
<td>71.02</td>
<td>100</td>
</tr>
</tbody>
</table>

Cited half life is ________ (which means articles published in Biological Conservation between 2001-2006 (inclusive) account for 50% of all citations to articles from this journal in 2006.)

(D) Citing Half Life

Definition: The median age of articles cited by the journal in the JCR year.

Which means: Are articles in this journal citing old or new publications?

Calculation:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td># Cites from 2006</td>
<td>228</td>
<td>1189</td>
<td>1846</td>
<td>1748</td>
<td>1819</td>
<td>1620</td>
<td>1519</td>
<td>1337</td>
<td>1173</td>
<td>983</td>
<td>8403</td>
</tr>
<tr>
<td>Cumulative %</td>
<td>1.03</td>
<td>6.47</td>
<td>14.92</td>
<td>22.91</td>
<td>31.23</td>
<td>38.64</td>
<td>45.59</td>
<td>51.70</td>
<td>57.07</td>
<td>61.57</td>
<td>100</td>
</tr>
</tbody>
</table>

Citing half life is ________ (which means 50% of all articles cited by articles in Biological Conservation in 2006 were published between 1999 and 2006 [inclusive].)
3. Trends over the past 5 years

![Impact Factor Trend Graph: BIOLOGICAL CONSERVATION](image)

**Thoughts & ideas ...**

Has the impact factor for *Biological Conservation* increased or decreased over the past 5 years?

- A. Increased
- B. Decreased
4. Comparative data

**Biological Conservation**

<table>
<thead>
<tr>
<th>Mark</th>
<th>Journal Title</th>
<th>ISSN</th>
<th>Total Cites</th>
<th>Impact Factor</th>
<th>Immediacy Index</th>
<th>Articles</th>
<th>Cited Half-Life</th>
<th>Citing Half-Life</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BIOLOGICAL CONSERV</td>
<td>0006-5597</td>
<td>8759</td>
<td></td>
<td></td>
<td>362</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Journal Information**

- Full Journal Title: BIOLOGICAL CONSERV
- ISD Abbreviation: Biol. Conserv.
- ISI Abbreviation: BIOLOGICAL CONSERV
- ISSN: 0006-5597
- Issues/Year: 14
- Language: MULTI-LANGUAGE
- Journal Country/Territory: ENGLAND
- Publisher: ELSEVIER SCI LTD
- Publisher Address: THE BOULEVARD, LANGFORD LANE, KIDINGTON, OXFORD OX5 1GB, OXON, ENGLAND
- Subject Categories: BIODIVERSITY CONSERVATION, ENVIRONMENTAL SCIENCES

**Additional Links**

- View Journal Summary List
- View Category Data

**Thoughts & ideas …**

Of the 114 journals under Ecology, what is the ranking for Biological Conservation by impact factor? _______________

**VIEW CATEGORY DATA**

**Category: Ecology**

<table>
<thead>
<tr>
<th>Total Cites</th>
<th>Impact Factor</th>
<th>Aggregate Impact Factor</th>
<th>Aggregate Immediacy Index</th>
<th>Aggregate Cited Half-Life</th>
<th>Aggregate Citing Half-Life</th>
<th># Journals</th>
<th>Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>405351</td>
<td>1.462</td>
<td>0.139</td>
<td>0.1</td>
<td>8.1</td>
<td>8.8</td>
<td>14</td>
<td>11976</td>
</tr>
</tbody>
</table>

**Thoughts & ideas …**

1. Aggregate impact factor for **Ecology** = 
2. Impact factor for **Biological Conservation** = 
3. Is Biological Conservation performing better than the aggregate impact factor?
   - A. Yes
   - B. No
5. Get articles published in this journal

Journal: BIOLOGICAL CONSERVATION

<table>
<thead>
<tr>
<th>Mark</th>
<th>Journal Title</th>
<th>ISSN</th>
<th>Total Cites</th>
<th>Impact Factor</th>
<th>Immediate Index</th>
<th>Articles</th>
<th>Cited Half-life</th>
<th>Citing Half-life</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BIOL CONSERV</td>
<td>0006-3207</td>
<td>8759</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cited Journal: Citing Journal: Source Data

Journal Information:
- Full Title: BIOLOGICAL CONSERVATION
- IS0 Abbrev. Title: BIOL. Conserv.
- JCR Abbrev. Title: BIOL CONSERV
- ISSN: 0006-3207
- Issues/Year: 14
- Language: MULTI-LANGUAGE
- Publisher Address: ELSEVIER SCI LTD
- Publisher: ELSEVIER
- Country/Territory: ENGLAND
- Subject Categories: BIODIVERSITY CONSERVATION
  - ECOSYSTEMS
  - ENVIRONMENTAL SCIENCES

Additional Links:
- GO TO CC CONNECT
  - Current Contents Connect
  - Go to Current Contents Connect and display the table of contents for the latest issue published

Thoughts & ideas ...

What can you get from Current Contents Connect?
- Table of contents of the latest issue published
- Table of contents for previous issues published
- Direct link to full text articles if HKUL holds a subscription

HOLDINGS: Check library holdings in Dragon (HKUL Catalogue)

- JOURNAL: Biological Conservation
  - Main Library Serials: S 574 863 C7 v.51 no.1-4 1995 LIB USE ONLY
  - Main Library Serials: S 574 863 C7 v.52 no.1-4 1996 LIB USE ONLY
  - Main Library Serials: S 574 863 C7 1999 LIB USE ONLY

There are additional copies/volumes of this item

- E-JOURNAL: Biological Conservation / ESDS Electronic Resource
  - New York, NY: ScienceDirect

Thoughts & ideas ...

What is the HKUL subscription for this journal?

(A) Print journal
- From vol ___ (Year ___)
- To vol ___ (Year ___)

(B) E-journal
- From vol ___ (Year ___)
- To vol ___ (Year ___)
Section III: Journal Performance Indicators (JPI)

1. Access
   HKU Libraries Homepage at http://lib.hku.hk
   > Electronic Resources
   > Browse by Format
   > Citation Reports
   > Journal Performance Indicators

2. The Interface

   Search by **journal name**

   Search by **other criteria**, e.g. category, publisher, country, keyword, language

   **Note:**
   To run JPI on your own PC, download and install the Winframe helper application at http://www.lib.hku.hk/winframe/

   **Journal Info:** Get more information about the journal, e.g. publisher, ISSN.

   **Specify Analysis:** Get the citation impact and other data for the selected journal(s).
EXERCISE 4
Analyze a Journal in JPI

Learning Objectives:

Through this exercise, you should be able to:

1. Locate a journal in JPI
2. Find the analysis data for this journal, including:
   (a) Annual citation impact
   (b) Percentage of papers cited.

1. Locate the journal, *Chaucer Review*

   1. Enter the first word of the journal name, *Chaucer.*
   2. Click on the journal name to select the title.
   3. Click on Specify Analysis

**Note:**
1. More than one journal title can be selected for the analysis.
2. To remove a title from the analysis, highlight the journal title and then click on Remove Journal.
2. **Select the type of analysis**

**Example 1**: Find the **annual citation impact** for *Chaucer Review*.

**Example 2**: Find the **percentage of the papers** in *Chaucer Review* which have been **cited** in the **cumulative 25 years** from 1981 to 2005.

**Findings…**

The **citation impact** for *Chaucer Review* in:

- 1985 is __________
- 2005 is __________

**Findings…**

The **percentage cited papers** in *Chaucer Review* from 1981 to 2005 is __________

**Set Thresholds** is useful when the analysis involves a list of journals. It allows you to set minimum limits, e.g., number of papers, citations and impact.
EXERCISE 5
Analysis of Journals in a Category (JPI)

Learning Objectives:

Through this exercise, you should be able to:

1. Specify a subject category or subject categories for analysis.
2. Perform comparative data analysis for journals in a subject category.

1. Select journals under a subject category

2. Select Asian Studies from the list

3. Click on Select All

4. Click on Specify Analysis
2. Select the type of analysis

Example: Find the relative impact of Chaucer Review over the past 5 years.

Findings...

Which journal(s) perform above average?

- Art Asia
- Artibus A
- Asian folk
- Asian music
- Asian Philo
**EXERCISE 6**
**Exporting Results (JPI)**

**Learning Objectives:**
Through this exercise, you should be able to:

1. Mark journal records which you consider as relevant.
2. Export the results to Excel.

---

<table>
<thead>
<tr>
<th>Rank</th>
<th>Journal</th>
<th>Category</th>
<th>Year</th>
<th>Roll Tap</th>
<th>Impact</th>
<th>Impact Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ART ASIA</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.08</td>
<td>0.04</td>
<td>0.51</td>
</tr>
<tr>
<td>2</td>
<td>ARTIBUS A</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>1.37</td>
<td>0.79</td>
<td>0.51</td>
</tr>
<tr>
<td>3</td>
<td>ASIAN FOLK</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>1.12</td>
<td>0.57</td>
<td>0.51</td>
</tr>
<tr>
<td>4</td>
<td>ASIAN MUSIC</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>1.69</td>
<td>0.86</td>
<td>0.51</td>
</tr>
<tr>
<td>5</td>
<td>ASIAN PHILO</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.36</td>
<td>0.49</td>
<td>0.51</td>
</tr>
<tr>
<td>6</td>
<td>ASIAN THEAT</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>1.21</td>
<td>0.62</td>
<td>0.51</td>
</tr>
<tr>
<td>7</td>
<td>B AM SCHOI</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.06</td>
<td>0.03</td>
<td>0.51</td>
</tr>
<tr>
<td>8</td>
<td>B SCHOIEN</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>1.53</td>
<td>0.68</td>
<td>0.51</td>
</tr>
<tr>
<td>9</td>
<td>CENT ASIA I</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.04</td>
<td>0.04</td>
<td>0.51</td>
</tr>
<tr>
<td>10</td>
<td>CHIN LIT</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.00</td>
<td>0.00</td>
<td>0.51</td>
</tr>
<tr>
<td>11</td>
<td>CHIN ST PH</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.14</td>
<td>0.07</td>
<td>0.51</td>
</tr>
<tr>
<td>12</td>
<td>CHIN STUD</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.16</td>
<td>0.08</td>
<td>0.51</td>
</tr>
<tr>
<td>13</td>
<td>E BUDHAES</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.23</td>
<td>0.23</td>
<td>0.51</td>
</tr>
<tr>
<td>14</td>
<td>E BUDDHIST</td>
<td>Asian Studies</td>
<td>81-85</td>
<td>0.65</td>
<td>0.23</td>
<td>0.51</td>
</tr>
</tbody>
</table>

---

1. Drag the pointer until all the rows and columns you need are highlighted.
2. Click on Clip.
3. Paste it to Excel or Word.
Section IV: 
JCR vs JPI

Learning Objectives:

Through this exercise, you should be able to:

1. Appreciate the major features and differences between JCR and JPI.
2. Decide on which database to use according to your needs.

<table>
<thead>
<tr>
<th>Access</th>
<th>ISI Journal Citation Reports</th>
<th>Journal Performance Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HKUL Homepage</td>
<td>HKUL Homepage</td>
</tr>
<tr>
<td></td>
<td>&gt; Electronic Resources</td>
<td>&gt; Electronic Resources</td>
</tr>
<tr>
<td></td>
<td>&gt; Browse by Format</td>
<td>&gt; Browse by Format</td>
</tr>
<tr>
<td></td>
<td>&gt; Citation Reports</td>
<td>&gt; Citation Reports</td>
</tr>
</tbody>
</table>

| No. of journals | >7,400 | >10,000 |

| Time coverage | Annual; 1994 - | 26 year cumulative; 1981-2005 |

| Subject coverage | Science | Social Sciences |

| Major data | Impact Factor | Citation Impact |

| Formula | Citations received over the past 2 years ÷ Total papers published over the past 2 years | Total citations received ÷ total papers published |