Defining Multilingual Information Literacy (MLIL) in the Workplace: Implications for academic libraries in the US and Canada

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Agenda

- Overview of MLIA
- Definition of MLIL
- Results from a study carried out at a Canadian University
- Initiatives at Kent State University
- Implications for Academic Libraries
The Problem

Digital Divide

Language Barriers
# Dominance of English

<table>
<thead>
<tr>
<th>Content Language</th>
<th>% of Websites</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>54.4%</td>
</tr>
<tr>
<td>Russian</td>
<td>5.9%</td>
</tr>
<tr>
<td>German</td>
<td>5.7%</td>
</tr>
<tr>
<td>Japanese</td>
<td>5.0%</td>
</tr>
<tr>
<td>Spanish, Castilian</td>
<td>4.6%</td>
</tr>
<tr>
<td>French</td>
<td>3.9%</td>
</tr>
<tr>
<td>Chinese</td>
<td>2.8%</td>
</tr>
<tr>
<td>Portuguese</td>
<td>2.5%</td>
</tr>
<tr>
<td>Italian</td>
<td>2.0%</td>
</tr>
<tr>
<td>Polish</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Source: Web Technology Surveys
Internet Users & Languages

Top Ten Languages in the Internet
2015 Q2 - in millions of users

- English: 851.6
- Chinese: 704.5
- Spanish: 245.2
- Arabic: 155.6
- Portuguese: 131.6
- Japanese: 114.9
- Russia: 103.1
- Malay: 93.9
- French: 92.3
- German: 83.7
- All the rest: 693.9

Estimated total Internet users are 3,270,490,584 on June 30, 2015
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In its broadest sense refers to accessing, querying and retrieving information from collections in any language. (Peters, Braschler & Clough, 2012)
Multilingual Information Literacy

- Multilingual information literacy: Ability to find, read, evaluate and use information regardless of what language it is written in. [Adapted from ALA’s previous IL definition]

- Difference between multilingually information literate and multilingual information literate
Cross Language Information Retrieval (CLIR)

- A branch of IR devoted to overcoming language boundaries. It refers specifically to systems that are used to query a multilingual collection in one language and retrieve documents in other languages or in another language.
# MLIA Tools

<table>
<thead>
<tr>
<th>MLIA Tool</th>
<th>IR Stage</th>
<th>Functionality</th>
</tr>
</thead>
</table>
| Machine translation               | Query formulation
Assessing relevance
Query reformulation/adaptation
Reading results
Browsing support                   | Formulate Query
Translate terms.
Read information retrieved         |
| MLIR                              | Query formulation
Query reformulation and adaptation
Assessing relevance
Reading results
Browsing support                   | Information retrieval &
Use
Support for more users             |
| Localization/Internationalization | Browsing support
Reading information retrieved                                   | Increase understanding
Adaptation to different cultures/regions                                 |
<table>
<thead>
<tr>
<th>MLIA Tool</th>
<th>IR Stage</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multilingual interface</strong></td>
<td>Query formulation</td>
<td>System Adaptation</td>
</tr>
<tr>
<td></td>
<td>Assessing Relevance</td>
<td>Interpret/understand</td>
</tr>
<tr>
<td></td>
<td>Query reformulation and adaptation</td>
<td>bibliographic information.</td>
</tr>
<tr>
<td>Virtual keyboard</td>
<td>Query entry</td>
<td>Non-roman alphabets or specializations</td>
</tr>
<tr>
<td></td>
<td>Query Reformulation and adaptation</td>
<td>characters and diacritics.</td>
</tr>
<tr>
<td>Multilingual thesauri</td>
<td>Query formulation</td>
<td>controlled vocabulary</td>
</tr>
<tr>
<td></td>
<td>Query Reformulation and adaptation</td>
<td>more effective terms, narrow or expand their search.</td>
</tr>
<tr>
<td>Online bi/multilingual</td>
<td>Query formulation</td>
<td>Term selection</td>
</tr>
<tr>
<td>dictionaries</td>
<td>Query reformulation and adaptation, Reading results</td>
<td>Translation of terms &amp; retrieved information</td>
</tr>
<tr>
<td>CLIR search options</td>
<td>Query formulation,</td>
<td>Keywords/ Terms to use</td>
</tr>
<tr>
<td></td>
<td>Query reformulation</td>
<td>More information</td>
</tr>
</tbody>
</table>
Research Questions

1) What role do linguistic determinants play in online information searching?

2) How much are bi/multilingual system users aware of, and in the habit of using MLIA tools?

3) How does the availability and use of multilingual information access tools affect the information searching behavior of bi/multilingual academic users?
Research Questions

4) How well do current MLIR systems meet the expectations and needs of bi/multilingual academic users?

5) What are the perspectives of current academic librarians, and students on Multilingual Information Literacy?
Methodology: Three Phases

• Mixed Methods:
  • Web survey
  • Lab-based user experiment
  • Focus group discussions (students) & Interviews (Librarians)
Web survey investigations

- Language choices of the users in online information searching.
- Factors influencing these choices.
- Factors influencing satisfaction with results.
- Linguistic challenges /coping mechanisms.
- Library services desired.
Results - Linguistic Help

- In finding more effective terms
- In thinking up terms
- In writing Correct Spelling
- In finding more effective terms
- In interpreting search results
- In determining relevance of each document
- In translating whole document

No. of Students
Results - Library services

More library Instruction

- Translation services
- More Library Instruction
- Online Tutorials
- Multilingual Library Guides
- Chat Reference
- Multilingual search Options

No. of Students

Translation Services
Findings- Web survey

- Language proficiency as a factor.
- Language barriers- alleviated by machine translation
- Language barriers- query formulation stage
- MLIA tools such as CLIR, multilingual thesauri, multilingual interfaces could be useful
- Appropriate Library Instruction-desirable
Experiment

- Watched MLIA tools video
- Involved students searching for information on Google and Worldcat
- Shopping Task and Academic search
- Search instructions given in native language and English
- Searches were captured using Camtasia Studio
- Post experiment questionnaire
MLIA Tools

- 31 Students participated
- 5 Languages used
  - Chinese, French, German, Korean, Spanish
- MLIA tools
  - Multilingual Interface
  - Limit by Language
  - CLIR (Cross Language Information Retrieval)
  - Virtual Keyboards
  - Machine Translation
Results - CLIR search - Chinese
Findings- Experiment

• Diversity in use of MLIA tools
  ◦ By language
  ◦ Type/No. of MLIA tools

• Chi square tests
  ◦ Significant relationships- Language task was stated in & MLIA tool use
  ◦ No relationship- system and MLIA tool use

• Independent t-test: difference in time spent
  ◦ Less time with MLIA tool use
Focus Group Discussions/Interviews

- FGDs- 19 students
- Interviews -8 Instruction Librarians
- Awareness / use of MLIA Tools
- Library Instruction- awareness/topics
- Preparation in providing BI
- Strategies helpful for BI
- Encounters with LEP users
Results - FGD

- MLIA tool used most - Google Translate
- Emerging themes
  - Academics/ Research
  - Culture
  - Power & politics
- Most had not attended Information Literacy (IL) instruction class
Results - MLIL Encounter

- Specialized IL instruction
- Provided in a non-English language

Challenges
  - Department/Liaison assignment
  - University priorities
  - Library jargon
  - Other languages
Findings (FGDs & Interviews)

- **Lack of Awareness**
  - Librarians - Needs of this group of users
  - Students - Library services
  - Both - solutions - e.g. MLIA tools

- **Divergences**
  - Language issues vs IL issues
  - Topics

- **Convergences**
  - Need for IL instruction
Results - Library services

No. of Students

Translation Services

More library Instruction

Translation services

More Library Instruction

Online Tutorials

Multilingual Library Guides

Chat Reference

Multilingual search Options
In their own words: FGD Quotes

- *I like the cross language tool; I didn’t know it was existing before this morning, actually*”

- “*The cross language tool was particularly interesting.*”
In their own words- FGD Quotes

• “Especially if you do academic research. You just search everything in English but then who knows maybe there’s something out in your language or in French or something, that you need to double check, maybe, if something is existing. Although you’ll not really understand the article, you can ask a professional translator or something. So that you will know that this research really does exist.”
Stakeholders in MLIL

- IR System Designers
- Online Information Service Providers
- Translators
- Librarians
Implications- Librarians

- Specialized Information Literacy Instruction (SILI)
- Personalized Information Literacy Instruction (PILI)
- Liaison librarians- dedicated to serving this student population
- Multilingual collections & services
- Promote use of MLIA tools
MLIL Initiatives

• ALA’s multilingual glossary of library terms
  ◦ Covers 7 languages- English, Arabic, Chinese, French, Japanese, Korean, Spanish
    ◦ Multilingual Glossary
Initiatives at Kent State University

- **Staff Hiring & Training**
  - Global Education Librarian
  - Intercultural Faculty and Scholars
  - ACIREMA
  - Cultural cafe
Initiatives at Kent State University

- Google Translate widget
- Library Guides
  - International Students LibGuide
- Outreach
  - ISO
  - IS Reception Dinner
  - Integration efforts - Mentorship, Stress Free
  - Committees - ESL Advisory, ISSIC
- Information Literacy
  - Translation of important documents - Plagiarism
  - SILI - use of MLIA tools
什么是抄袭？
抄袭就是引用他人的话或观点时不注明原作者，好像这些是自己的话或自己的观点。抄袭可能是故意，也可能不是故意。

比如：
- 没有注明词、句或观点的出处
- 没有注明插图、图像、照片和音频资料的出处
- 没有参考书目或者伪造参考书目
- 直接引用的原文没有加引号
- 两门课提交同一篇论文
- 不正当合作：让其他人代写论文，或者代他人写论文
- 花钱雇人代写论文或代考
السرقة الأدبية هي عبارة عن استخدام شخص للكلمات وأفكار شخص آخر، كما لو كانت له، وبدون الإشارة إلى أو ذكر المصدر الأصلي لهذه الكلمات والأفكار. وقد تحدث السرقة الأدبية بشكل مقصود أو غير مقصود.

أمثلة:
- عدم ذكر مصادر الكلمات أو الجمل أو الأفكار المستخدمة في النص.
- عدم ذكر مصادر الرسوم التوضيحية والصور والتسجيلات الصوتية.
- عدم إدراج قائمة بالمراجع المستخدمة أو القيام بتزوير قائمة المراجع.
- عدم وضع علامات الاقتباس (" ") حول الأقتباسات المباشرة من المصدر.
- تسلم نفس البحث أو المقالة لمصادر أو مادتين مختلفتين.

Translated by Dr. Said M. Shiyab
Language & Politics - Quebec

Quebec PM - Phillipe Couillard

François Legault

Source: The National Post
“There are two angles when it comes to language: expression and comprehension. Here’s a little challenge for him; go to the London and New York financial circles and pitch your remarkable economic plan … in French only.”

- Quebec Premier- Philippe Couillard
Vive la difference!

- Embrace language diversity
- Emphasize access across languages
- Provide more MLIA tools
- Teach and Encourage use of MLIA Tools
- Improvements in machine translation
- Become Multilingual Information Literate!
Join the GILN- www.giln.org

- Reducing IL Divide/ No user left unserved
  - Collaborations
  - MLIA initiatives
  - Love for Libraries
    - Biblio-tourisme
    - Libriotote Corner
  - Services for multicultural populations
    - International Students
    - Refugees
Thank You

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