The Search for Indicators of Information Literacy: Lessons for MIL Indicators

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A Disclaimer:

This paper

➢ Is forward looking and argues for a response to the emerging knowledge society;

➢ Refers to developments in European and other developed nations

➢ assumes that other countries will strive to emulate these conditions, and hence

➢ the focus is on information and communication using electronic platforms

An Assumption for debate:

We need to conceptualise MIL, as a new concept, not as two merged constructs because:

- MIL addresses the implications of:
    a) merging technologies, and
    b) mass higher education, and
    c) consequential changes in civil society.

New technologies and the future

- All forms of information will be accessed primarily using electronic platforms. For instance: Newspaper circulation is in decline and e-journals are replacing print.

- Electronic platforms impact on what is accessible and how information is conveyed. For instance: Twitter limits the number of characters in a message; and publisher data bases require pay to use.

Twitter affects how information is conveyed:

- 'a real-time information network that connects you to the latest stories, ideas, opinions and news about what you find [interesting](#). Simply find the accounts you find most compelling and follow the conversations'.

- 'At the heart of Twitter are small bursts of information called [Tweets](#). Each Tweet is 140 characters long, but don't let the small size fool you—you can discover a lot in a little space'.

Changing Society

In developed societies

- Universal secondary education and mass higher education leads to increasing numbers of autonomous learners;

- Do it yourself (DIY) society leads to people booking their flights, researching their own medical conditions, and broadcasting their own knowledge.

Thinking MIL

Most of us come with years researching Information Science or Media Studies. These disciplines have different values and cultures.

For example: Information Literacy emphasises ethical use of information; whereas journalism requires protection of sources but leaking of private information for public good.

Is 'ownership' of MIL contested by two camps. We need to integrate the constructs, not 'win'

Levels of Knowledge – a cautionary tale

In educational psychology at least four levels of knowledge have been identified (Perry, Belenki)

- Received knowledge
- Multiple knowledge
- Categorised knowledge
- Constructed knowledge

Levels of Knowledge – examples

- Received knowledge – from a respected or authoritative source

- Multiple knowledge - take the view last heard

- Categorised knowledge - classify information and make a choice between the options

- Constructed knowledge – create a solution appropriate to specific context

Levels of Knowledge – a cautionary tale

Some people operate with received knowledge all of the time

Some people operate at different levels of knowledge some of the time

No-one operates with constructed knowledge all of the time.

Question: What do we mean when we say the goal of LLL is to become autonomous learners?

Lessons from research into IL indicators

- Review the standards written by experts; - Indicators are only as good as the standards;

- Indirect evidence is insensitive to effects of policy changes;

- Civil society depends on values and attitudes, as well as knowledge and skills. Hence, it is what people do (and why), not what they know that matters.

Reviewing Standards: An Example

- In the 1st Edition of the Australian and New Zealand Information Literacy Standards storing information was in element 4 (with recording and organising information) but in practice it belonged in element 6 along with copyright and dissemination.

- Likewise values and attitudes toward use of information became an umbrella statement in 2nd edition because it pervades all elements of practice.

Indirect evidence of MIL – is it sufficient?

Examples of indirect evidence of MIL include:

- Level of Education;

- Self-report of use of information sources;

- Secondary analysis of other indicators.

Each may correlate with MIL indicators to some extent but indirect evidence is unreliable, invalid, or insensitive to MIL policy changes.

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Why is Level of Education an unreliable indicator of MIL?

A common ordering of levels of education.

➢ Tertiary education

➢ Vocational Education

➢ Completed Secondary education

➢ Part secondary education

➢ Completed primary schooling

➢ Part primary schooling

➢ No formal education

Issues with the use of levels of education

- Is this an ordinal scale?

For instance what is the relative value of completing secondary schooling and completing a short vocational course?

- How much variability is there in attainment within each level?

For instance, how different are information skills achieved in a short vocational course compared to an advanced vocational diploma?

More issues with use of level of education

- To what extent is MIL included in different courses at the same level?

For instance compare the Bachelor of Teaching taught with a MIL focus and another with no overt MIL assessment.

- How do you identify the effect of a policy change on MIL competencies?

For instance the effect of implementing a universal MIL curriculum in primary schools.

Why is self-report an unreliable indicator of MIL?

What counts as a self report indicator of MIL?

- Is it the number of sources that is important?

- Is the frequency of use of information sources that counts?

- Is it how the information is used?

- To what extent is transmission of information evidence of creating new knowledge?

- Is information used accurately or misunderstood?

What is secondary analysis?

Secondary analysis occurs when data collected for one purpose is used to investigate a different issue. For example, a traffic survey might be used to estimate the contribution of traffic to pollution levels.

The advantage is that information is obtained without the cost of a new survey.

If the original data is reliable, then it remains reliable for the new use – but it is only useful if the data is valid when applied to the new purpose.

Is Secondary Analysis likely to work for MIL Indicators?

A case study is presented of the validity of items identified for indicators of Information Literacy.

The research was based on evidence of overlap in definitions of Information literacy with:

a) Media literacy;

b) Problem solving;

c) ICT skills;

d) Health surveys

Methods for Validity Study

Household surveys identified:

- LAMP (Literacy Assessment Monitoring Programme) background survey ;

- ALLS (Adult Lifelong Learning Skills) – problem solving section (note PIAAC unavailable);

- Demographic and Health Surveys;

- OECD ICT skills survey

Validation methodology

- Experts reviewed understanding of IL

- Practice examples used to develop consistency

- Items assessed by individuals for relevance to IL, and then assigned to elements from standard, and level of difficulty

- results compared and differences reviewed

- Items with agreement accepted.

Findings –
insufficient coverage of IL

IL Level	Information Literacy Element				
	Awareness	Locate and Evaluate	Store/retrieve	Use information	Create communicate knowledge
1	1	18			
2		2		4	
3				1	3
4					

Recommendations for MIL Indicators

- Subject the MIL Standards to field research by systematic observation of good practice;

- Relate indicators to UNESCO MIL curriculum as well as to standards;

- Define the target audience for indicators

- Foster collaboration between countries to learn about cultural and other ambiguities and bias.

- Control the copyright of the indicators

How to follow up

Further Information and contact details:

(note programme details are incorrect)

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