#AIIP23

EVIDENCE BASED INFORMATION WORK #AIIP23 TUESDAY 2ND MAY 2023

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- Evidence based information work
- Dangerous data: Analytics and information behaviour in the commercial world
- Analyzing the interaction of the challenges of big data usage in a cloud computing environment
- Netnography and instagram community: An empirical study

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Opinion: Time for strategic knowledge management

EVIDENCE BASED INFORMATION WORK

Business Information review (Sage Journals)

 Business Information Review is the only journal devoted entirely to the practice of business information provision. Its content is especially tailored to the needs of business information professionals - whether information managers, librarians, knowledge managers, researchers, analysts, consultants, print or electronic publishers. Its readers are to be found in the corporate sector, in government agencies and other public institutions, in private consultancy, and in universities and business schools.

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EVIDENCE BASED INFORMATION WORK

Overview of presentation: evidenced based approaches have an important role to play in information work, but the pace of contemporary professional practice requires a synthesis of evidence-based approaches and traditional skills and experience.

- The problem of business information
- 2. Well-grounded decision-making

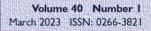
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- Understanding evidence based practice
- Evidence based practice in information work
- Synthesising evidence and experience



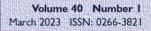
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- . The problem of business information:
 - Information and data have become integral to contemporary business practices.
 - "many businesses are developing new business models specifically designed to create additional business value by extracting, refining and ultimately capitalizing on data" (Brownlow et al, 2015).



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1. The problem of business information:

- Proliferation: digital information is proliferating at an alarming rate.
- Information and value: as information proliferates, its unit value in business contexts perhaps declines.
- Cognitive overhead: the additional difficulties that arise in trying to assimilate significant volumes of information

2. Well-grounded decision making:

The **value** of information in commercial contexts often derives from the difference it makes to decision making.

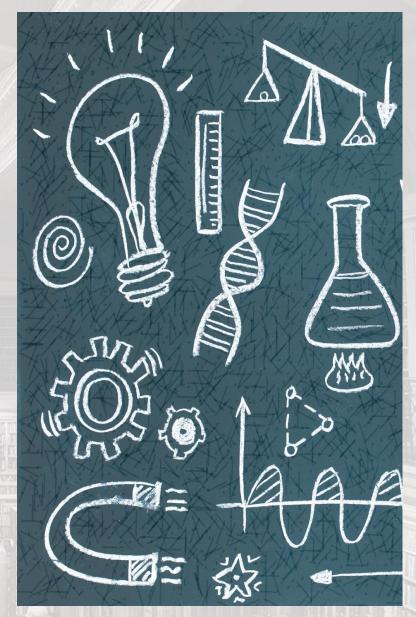
This depends both on information that is accurate, timely, and reliable, but also on the appropriate use of information in the workplace.

Unfortunately sometimes our decision-making processes go wrong.



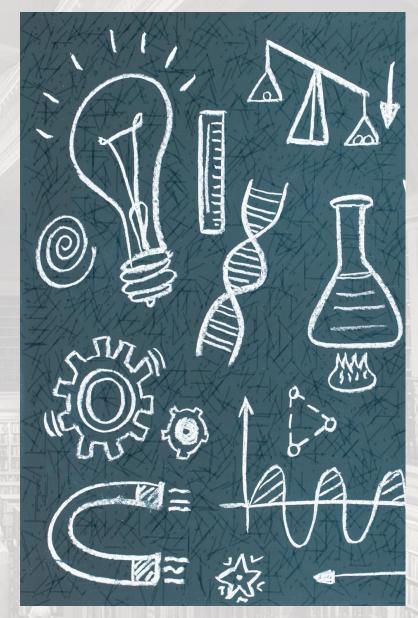
2. Well-grounded decision making: cognitive bias

- **Definition:** unconscious thought-patterns that "affect how humans search for and process information" (Behimehr & Jamali, 2020).
- **Dunning-Kruger effect**: the tendency for those with a low level of expertise, knowledge or ability to over-estimate their ability or understanding (Dunning, 2011)
- Availability bias: the tendency to over-estimate the significance of evidence that is more *available*, and under-estimate the significance of evidence that is harder to come by.
- **Confirmation bias:** the tendency to seek out and over-estimate the significance of information that re-enforces a pre-existing belief, and overlook, downplay or under-estimate the significance of information that confounds that belief



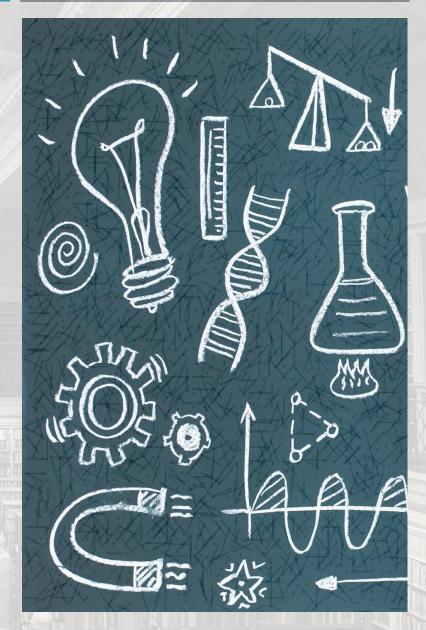
2. Well-grounded decision making: information behaviours

- **Definition:** the habits individuals develop in their use of information, or the "complex human information-related processes that are embedded within an individual's everyday social and life processes with evolutionary and developmental foundations" (Spink & Heinstrom, 2011: xvii).
- **Principle of least effort:** "With respect to information seeking, the principle of least effort postulates that the information seeker chooses a course of action that will involve most convenient search method for information seeking. The user will apply the searching tools that are most familiar and easy to use so as to find results. This happens in spite of the user having proficiency in technical searching" (Tubachi, 2018)



2. Well-grounded decision making: information behaviours: Mooer's law

"If you have information, you must first read it, which is not always easy. You must then try to understand it. To do this, you may have to think about it. The information may require you to make decisions about it or other information. The decisions may require action in the way of a troublesome program of work, or trips or painful interviews. Understanding the information may show that your work was wrong, or that your boss was wrong, or may show that your work was needless. Having information, you must be careful not to lose it. If nothing else, information piles up on your desk—unread. It is a nuisance to have it come to you. It is uncomfortable to have to do anything about it. Finally, if you do try to use the information properly, you may be accused of puttering instead of working. Then in the end, the incorporation of the information into the work you do may often not be noticed or appreciated" (cited by Moore, 1996).





3. Understanding evidence based practice (EBP)

 Originated in medicine in the 1970s to improve clinical judgements by applying systematic approaches to identifying and evaluating the best available evidence to mitigate bias. Associated with systematic reviews.

Through the 1990s and 2000s evidenced-based approaches have been applied to a wide range of professional fields including education, librarianship, social work, and management.



- 3. Understanding evidence based practice
 - Evidence-based practice is a systematic approach to mitigating the things that can go wrong in decision-making.
 - Based in the assumption that "good-quality decisions should be based on a combination of critical thinking and the best available evidence" (Barends et al, 2014)
 - Emphasis on scientific method for establishing the evidential value.

4. Evidence based information work

"A process for integrating the **best available scientifically-generated evidence** into making important decisions. EBL seeks to combine the use of the best available research evidence with a pragmatic perspective developed from working experiences in librarianship. EBL actively supports increasing the proportion of more rigorous applied research studies so the results can be available for making informed decisions" (Eldridge, 2006).

Predicates that information work should be a) based on good evidence; and b) that evidence should be of a high quality.



- 4. Evidence based information work: uses
 - Collection management
 - User engagement and education
 - Business research
 - Competitive intelligence
 - Information strategy / policy



4. Evidence based information work: process





4. Evidence based information work: evidential value

Quality of evidence

Summaries

Systematic reviews

Large cohort and controlled studies

Case studies; small cohort studies; qualitative research

Professional opinion; case studies; background data; editorials; theoretical papers

Volume of evidence



- 4. Evidence based information work: process
 - Evidence-based approaches are closely aligned with core skills of library and information professionals.
 - Particularly: defining problem statement and conducting comprehensive literature searches.



4. Evidence based information work: evidential problems

Information science / librarianship does not have the large evidential base characteristic of medicine.

In particular research in information science / librarianship rarely utilises large cohorts / quantitative methods assumed in EBP. There is not the same tradition of systemic reviews. Greater use of small-scale studies, case studies and qualitative research.

Where is the best available evidence?



4. Evidence based information work: professional problems

- Rapid pace of commercial information work
- The advantages of EBP approaches may be outweighed by the disadvantages of the process.
- Do we always have time to understand what the best available evidence is?





5. Synthesising evidence and experience

Problem statement: while evidence-based practice is undeniably a powerful solution to mitigating the influence of unconscious bias in our decision-making, the nature of contemporary information work means it is rarely a practical solution.



5. Synthesising evidence and experience

The value of EBP is not necessarily as a systematic process, but as a way of reflecting on what constitutes evidence and good decision making.

 While the evidential basis of decision-making is important, just as important is our ability to critically reflect on our professional work.



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Business Information review (Sage Journals)

We welcome contributions from established and new writers; get in touch!

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 Future themes: professional development; AI and information work.

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References: do please contact me if you would like more information on this topic.

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