"Blue skies or slippery paths?
Prospects and Pitfalls for Evidence Based Information Practice"

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Outline

1. Background to Evidence Based Information Practice
2. Blue Skies - Prospects
3. Slippery Roads - Pitfalls
4. The Way Ahead?
Background to Evidence
Based Information
Practice
Evidence based information practice is

• “an approach to information practice that promotes the collection, interpretation, and integration of valid, important and applicable user-reported, librarian-observed and research-derived evidence. The best available evidence moderated by user needs and preferences, is applied to improve the quality of professional judgements”. (Booth and Brice, 2004)
Why librarians?

• “As a profession which has the ability to manage the literature of research, librarianship is uniquely placed to model the principles of evidence-based practice, not only as they apply to other disciplines which they serve, but also as they apply to our own professional practice” (Ritchie, 1999)
Crumley and Koufogiannakis (2002):

"Evidence-based librarianship (EBL) is a means to improve the profession of librarianship by asking questions, finding, critically appraising and incorporating research evidence from library science (and other disciplines) into daily practice. It also involves encouraging librarians to conduct research".
A brief chronology - 1


• 1997 - Article in Hypothesis, Research Section of MLA

• 1998-1999 Mini-series in Library Association Record

• 2000 - MLA/CHLA, Vancouver; ICML, London; LIANZA, New Zealand

• 2001 - First EBL Conference, Sheffield

• 2002 – Collaborative articles
Improving Practice Through Research
Current Perspectives, Future Prospects
Evidence Based Librarianship 2003
A brief chronology - 2

- 2003 – Special Issue on Evidence Based Health Information Practice (HILJ)
- 2004 – Evidence Based Practice: a Handbook for Information Professionals
- 2004 – EAHIL Conference Pre-Workshop on Evidence Based Librarianship
- 2005 – Third Evidence Based Librarianship Conference, Brisbane, Australia
The process of evidence-based information practice

“Evidence-Based Librarianship (EBL) provides a process for integrating the best available scientifically generated evidence into making important decisions. The EBL process consists of: formulating a clearly-stated, answerable question on an important issue for our profession; searching both within and outside our published and unpublished literatures for the appropriate research evidence to answer this question; then evaluating both the relevance and the validity of the available evidence to answer the question..... " (Eldredge, 2003)
If it ain’t broke why fix it?

- Listserv: ‘Does anyone out there know how to deal with problem x or y?’
- Reply: ‘Yes, here at Diddly-Squat Library we had the same problem and fixed it by doing yabba-dabba-doo.’
- Listserv: ‘Great – we’ll try the same thing and hope it works for us. Thanks so much.’
- Michael Gorman: “Well, isn’t that careful, reflective and insightful professional practice!”
But we are already doing it!

EBIP is about:

1. Integrating evidence into decision-making
2. Making decision-making explicit
3. Acknowledging uncertainty
So let us consider a worked example...

Adapted with permission from Lisa Cotter & Ingrid Tonnison (From EBL Conference, Brisbane, 2005)
Adding SPICE to a library intranet site: a recipe to enhance usability

Lisa Cotter, Ingrid Tonnison, Suzanne Lewis & Larnich Harije

NORTHERN SYDNEY CENTRAL COAST HEALTH
A Worked Example

• A group of librarians from Australia wish to introduce EBL into their own practice. Several have undertaken the FOLIO e-learning course on EBL (Facilitated Online Learning Interactive Opportunity (FOLIO) http://www.nelh.nhs.uk/folio/). They decide to identify a project that can be tackled using an EBL-based approach.
PROJECT GOALS

- a highly usable library intranet site
- refine the Central Coast Health Library Services Project Management Methodology
- explore evidence based librarianship (EBL)
- share findings with the library community
APPLYING EBL... adding spice!

Focus the Question

Find the evidence

Appraise the Evidence

Evaluate Performance & Disseminate Results
Asking Answerable Questions

“Questions drive the entire EBL process. EBL assigns highest priority to questions with greatest relevance to library practice”.

Eldredge, 2000
DEFINING THE SCOPE

How will they improve their user-unfriendly intranet site?
SPICE up your life!

S – Setting – what is the context for the question?
P – Perspective – who are the users/potential users of the service?
I – Intervention what is being done to them/for them?
C – Comparison -what are your alternatives?
E – Evaluation – how will you measure whether the intervention has succeeded?

“Tell me what you want, what you really, really want”
Focussing the Question

**S** Setting: Central Coast Health Library Services Intranet Site

**P** Perspective: Staff and students who use the Gateway to services & resources

**I** Intervention: Site improvements

**C** Comparison: Original site

**E** Evaluation: Usability (as a determiner of effectiveness)
Focussing the Question

“How can the usability of the Central Coast Health Library Services’ intranet site be improved to enhance the site’s effectiveness as a gateway to the library’s services and resources, for the staff and students of the organisation?”
GATHERING INFORMATION

• What information do they need?

• How do you measure usability, and/or effectiveness

• What makes a good intranet site?
Find Evidence

- User reported/Librarian observed
  - online survey
  - comments & suggestions
- Research derived evidence
  - literature review
Matching Research Designs to Your Question

“The wording and content of the questions determine what kinds of research designs are needed to secure answers”.

Eldredge, 2000
SELECTING RESOURCES

• Case studies of usability testing
• Evidence-based guidelines
• Raward Library Usability Analysis Tool
• Effectiveness versus usability
Appraise Evidence

• They appraised
  - Quality of article
  - Level of evidence
  - Contextual relevance

• They asked
  - Is this a study we can use/adapt?
  - Is the study valid/reliable/applicable?
STUDY DESIGN

• They found
  – Guidelines
  – Checklists
  – Case studies
  – Theory/commentary

• How would they use these to design their study?
Using Research In Practice

• Evidence that is Directly Applicable
• Evidence that needs to be Locally Validated
• Evidence that Improves Understanding
  (Koufogiannakis and Crumley, 2004)

Plus

• Evidence that may inform our Choice of Methodologies, Tools or Instruments
  (Booth, 2003)
Applying the results

- **DIRECTLY**
  - Raward’s Usability Analysis Tool for library Websites

- **DERIVATION**
  - Usability testing

- **CONDITIONALLY**
  - Research-Based Web Design & Usability Guidelines

- **ENLIGHTENMENT**
  - Theoretical discussion, commentaries
  - Examination of other sites
Final important steps

Apply results in practice

- range of behavioural and educational interventions to facilitate culture of change

Evaluate your performance

- Audit
- Accreditation
- Ongoing evaluation alongside innovation (compare health services research)
CLOSING THE PROJECT

• Review project outcomes
• Project report
• Launch the new site
Evaluating Performance & Disseminating Results

• Evaluating
  - Performance applying the EBL process
  - Impact of changes made

• Disseminating
  - Conference proceedings
  - Publication of project report
  - EBL journal from 2006
OUTCOMES

- Customised project methodology incorporating principles of EBL
- Workshop series
- Implementing EBL into daily practice
Blue Skies - Prospects
The conference is a place for all library and information professionals regardless of their specialisation who are interested in learning how to harness evidence to establish best practice and to make informed decisions and in doing so ensure excellence in library and information services. The theme of the conference challenges us to rethink and refine the way in which we work as library and information professionals in the twenty first century.”
Third EBL Conference

• 16-19th October 2005 in Australia

• Multisectoral – extended beyond healthcare

Midterm Report Card

- Practice guidelines: C
- EBL journal/newsletter: B+
- More systematic reviews: B
- Register of rigorous studies: C-
- International Collaboration: C-
  /International collaboration: B-
- More RCTs: D
- Critical appraisal checklists: C--
Tipping points

- Increase the knowledge base
  - Production
  - Dissemination and access
- Improve the skills base
  - The curriculum
  - Mainstream and remedial
- Mobilise the community
  - Conferences, meetings, etc
  - Knowledge management
- Embed in policy and planning
  - Global framework - local action
Slippery Roads - Pitfalls
EBL versus EBIP – Google Wars!

Evidence based librarianship – 15,600 hits

Evidence based information practice – 175 hits
Pitfalls

• “Islandisation” versus Integration (cp. EBHC)
• Production versus consumption (EBE)
• Evidence Based Medicine Revisited versus Reinvented (EBMan)
• “Traditional” forms of evidence versus “new forms” of evidence (cp. EBSC)
• Supporting others’ practice versus our own practice (cp. EBE)
• Autonomy versus sponsorship (EBHC)
• Bandwagon versus stepping stone (EB Everything!)
Islandisation versus Integration

• “a few years ago somebody counted the number of library associations that exist in Canada alone, and the number was something staggering like 104. And this is just associations in Canada.”

Three librarians - a dozen interest groups!

Do we take EBIP forward as sectors or as a profession?
“My only disappointment would be that EBL is currently still stuck in health sciences librarianship, and therefore librarians outside health sciences may disassociate themselves from the movement because of this”

[Brice, Booth, Crumley, Koufogiannakis, & Eldredge, 2004]
Production versus consumption

- “spending so much time on the “D bit” of R&D means that I have little time for research [evidence production]”
  [Brice, Booth, Crumley, Koufogiannakis, & Eldredge, 2004]

- “the dual problems of the split between the producers of research and the consumers of evidence and the time lag between the completion of a research study and its eventual publication. This is similar to the knowledge-transfer problem from academia to industry/government/public policy applications. There is no easy way to solve these problems, although the idea of practitioner research journals could help”.
  [West, 2003]
Evidence Based Medicine Revisited versus Reinvented

- "the key to applying evidence-based principles is to be sure to ask the right questions, and I have not been convinced that the questions that are most important to librarianship are the kinds of questions that are amenable to the sort of rigorous investigation that EBL, it has seemed to me, calls for".

[Plutchak, 2005]

Homogeneity/heterogeneity – more alike than different or more different than alike?
“Traditional” versus “new forms” of evidence

• “Evidence-based librarianship is a developing trend and provides an opportunity for librarians to implement practices that are based on the best available evidence of what works from the research and best practices literature”.

U.S. Special Libraries Association

• Systematic reviews of qualitative research
  – Systematic reviews of single case studies
• Benchmarking data from LIBQUAL, SERVQUAL etcetera
“We have many articles; we do not have a body of evidence”.

Scott Plutchak
Then Editor of *Journal of the Medical Library Association*
Supporting others’ practice versus our own practice

• “an inevitable confusion between librarians supporting evidence based practice and librarians practising evidence based practice. Such confusion becomes increasingly unhelpful as the distinction between these becomes blurred”

[Booth & Brice, 2003]
Autonomy versus sponsorship

EBL-SEVERE

EBL CPD Toolkit

• New CRISTAL Checklist – Appraising a study of a Virtual Library

Welcome to the International EBL site sponsored by philanthropic commercial benefactors

Venue for 2007 EBL Conference is confirmed as

Poorlywhite Publishing

Weekly Journal Club

October 2006

• New RCT of Book Drops

• Cohort study
Bandwagon versus stepping stone

• “I sometimes flinch when I realize how casually and inaccurately some colleagues have used the EBL term. Situations like this present a challenge to all of us to ensure we are communicating clearly and as to wide an audience as possible as to what we mean by EBL”

[Brice, Booth, Crumley, Koufogiannakis, & Eldredge, 2004]
The Way Ahead?
"Prediction is very difficult, especially about the future."

- Niels Bohr
Implementing Research in Practice
- The challenge

• "The key to evidence-based information practice is the ongoing development and application of information science research".

• "Individual.... librarians must apply the results of research routinely to library and information service practice, to the development of information policy, and to other information issues important to.... institutions

Using Scientific Evidence to Improve Information Practice: The Research Policy Statement of the Medical Library Association
Challenges for EBI P

• Quality of the evidence
• Dispersion of evidence sources (e.g. education, management, computer science)
• Skills in conducting research
• Skills in disseminating research
• Skills in interpreting research
• Time!
“When did you last search for evidence to support your own practice?”
Evidence Based Practitioner

- Subscribes to key health information journals out of their own pocket
- Email alerting service
- Stay after-hours to conduct a literature search
- "Slip" photocopy requests into the system
- Read and appraise the evidence
- Summarise findings in report to library committee
- Report discussed at monthly team meeting
- Task group set up to explore feasibility.
- Six quarterly meetings
- Implementation group produce draft local guidance.

Booth, 2004b
Evidence Based Organisation

- Current awareness service
- Relevant items instantly printed out for future reading.
- Selection process triggers request for critically appraised summaries
- Email from Accreditation and Standards Agency to audit compliance
- International Research Register.
- Scope of Professional Practice department sends through a new updated international guideline
- Library's Guidelines Implementation Group reviews evidence at their weekly virtual team meeting
- Map against database of integrated service pathways
- Affected pathways flagged for attention
- Action plan formulated

Booth, 2004b
Issues for Organisations

• Inclusion in job descriptions
• Inclusion in performance review
• Journal Clubs
• Support to Evidence Based Organisations
• Production of guidelines
The future ....

- More examples of practical work based research in practice
- A joint international statement of policy and intent (cp. Sicily Statement)
- Standardisation on the term “Evidence Based Library and Information Practice”
- Dissemination via an Evidence Based Journal
- A Fourth International Conference (2007)
New Journal

http://ejournals.library.ualberta.ca/index.php/EBLIP
The future of EBP

“the long-term future of evidence based information practice probably lies not in a single-minded focus on research-derived evidence but in a more encompassing approach that embodies reflective practice....the ability to critically analyse, make informed judgements and direct actions can be triggered by any number of catalysts, of which research evidence may be just one....”

Booth (2003).
Evidence Based (Reflective) Practitioner

Six generic characteristics of an evidence based (reflective) practitioner (Hopayian & Hooper, 2003):

1. Constantly questioning;
2. Sceptical of current practice;
3. Listens to and values other people’s perspectives
4. Aware of the validity and limitations of their own knowledge
5. Possesses a level of knowledge of evidence based practice appropriate to their own situation;
EBI P RIP!

• “It thus seems likely that ultimately evidence based practice will contribute to a toolbox from which the reflective practitioner will occasionally draw. The ultimate objective of evidence based information practice is thus to write itself out of existence!”

Booth (2003).
Are you ready to meet the challenge?

- To identify important answerable questions from your practice
- To rapidly review the evidence for answers to these questions
- To make changes to your practice
- To evaluate those changes
- To share the lessons learnt

"Blue skies or slippery paths?"
Any Questions or Comments?
More questions than answers?


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- Hopayian K & Hooper, L (2003). Steps towards a matrix... [link to document]