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Training school students in information evaluation: Reviewing the past, establishing the present and considering the future

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Abstract

The importance of the skill of source evaluation within information literacy (IL) has grown hugely in the last fifty years and now few aspects of IL receive greater attention. It was subject to little coverage in the early days but today a multitude of specialist appraisal tools have been devised to help users make assessments of the material they encounter, at a time when the information to which people are exposed differs more than ever in terms of its types, originators and calibre. Many of the evaluation frameworks, though, are variations on a theme. In the future, we may make progress by encouraging young people to develop their own mental models for appraising information, after they have explored disparate frameworks that have emerged from the ideas of writers who have taken particular interest in contrasting types of material.

Keywords
information literacy; secondary education; source evaluation; teaching frameworks; UK

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1. The past – Stage one: An era of embedded construction

Over the past fifty years, the profile of source evaluation has changed more dramatically than that of most processes associated with information literacy (IL). In the 1970s and 1980s, when IL as we know it today was scarcely more than *bibliographic instruction*, *library user education* or merely one component within a broader *study skills* course, training in appraising information materials attracted relatively little coverage. It was generally assumed that information would be sought largely in library environments, where the materials available had been purposely selected by the information professional and the books that were stocked had been subjected to some degree of quality control. As Nicholas says, in a library:

somebody's gathered information together around certain sorts of principles and it's all been vetted and you know when you enter that place… all of that's solid, because the information intermediary has organised it for you or the publisher gives it a stamp (Malik, 2009).

Nevertheless, in discussing the skills that should be applied by students in a school library, Trigg (1981) put forward a series associated with establishing the *relevance and veracity* of the items they might consult (p. 304), and, around the same time, Freeman (1982), in highlighting the commonly followed SQ3R model, recommended that youngsters ask themselves various questions when reading the text within a book, e.g.:

- What evidence does the author produce to support their argument?
- When looking at the examples given, can the reader identify any of their own to the contrary?
- Are there flaws in the writer's argument?
- Are individual chapters convincing?

Other educators situated source evaluation within the wider territory of higher order reading skills. Tibbitts (1992), for example, refers to the importance of *analysing* when pointing out the need for *reflective reading* (p. 15).

Perhaps because his background lay in education, rather than librarianship, Marland (1981) played a key role in shifting IL beyond the confines of the library. In his seminal *information skills curriculum*, Marland outlines nine steps "inherent in any finding out activity" (p. 30). The fourth – that of examining, selecting and rejecting individual items – sets down nine criteria that should be considered and is concerned with sources as diverse as museum exhibits, subject experts, television programmes and slide sets, in addition to such conventional library material as reference books, monographs, newspapers and periodicals. Although Marland was not alone at the time in advocating a series of stages pivotal to young people finding and using information effectively – Paterson (1981) offered a comparable model in his *checklist of information skills* – it is his work that proved most influential. Writing in the mid-1990s, Rogers (1994) believed that Marland's report "provided a major impetus to thinking about and the development of information skills in schools. For more than a decade, it has been the key reference point for researchers, teachers and librarians interested in this aspect of the curriculum" (p. vii).

2. The present – Stage two: Increasing specialisation

The arrival of the World Wide Web in homes, schools and libraries inspired a new wave of frameworks relating to the evaluation of sources, and the emergence of what we now know as social media, in particular, has massively increased the amount of information available, as well as the number and diversity of originators. The task of distinguishing between worthwhile content and material that should be discarded became one of the greatest challenges for young people engaged in academic work involving finding and using information. By this point the term, *information literacy* was well established in information science circles and the days when source evaluation was deemed to merit no more than one element within a wider model of the investigative process were starting to disappear. The appraisal of information was now recognised as an issue of sufficient importance to deserve separate and specialist

consideration. New frameworks for this purpose began to be devised and some were widely adopted. The best known include the 5Ws (Schrock, 2009), the CRAAP Test (California State University, 2010), the RADAR model (Mandalios, 2013) and IF I APPLY (Phillips, 2019).

Typically, the models that have arisen tend to be variations on a theme and are characterised by more similarities than differences. The currency of the work, the purpose behind its publication, the standing of the writer, the overall authority of the source and the relevance of the item to the user's need/situation are commonly cited as criteria for thought. Information evaluation frameworks have not won universal approval, however. Walton (2017), for example, is critical of how they are "highly normative and suffused with assumptions about the very nature of what constitutes good quality information" (p. 146). There is the danger, too, that if one particular model is applied repeatedly, its use by students becomes somewhat mechanical and the individual fails to engage with the source at the level intended by the teacher (Shenton, 2021). Moreover, in real world situations, consideration of one issue may naturally lead to thinking about another but the bulleted arrangement of many frameworks can all too easily result in each factor being addressed in isolation from the others.

3. A way ahead – Stage three: Purposeful diversification

Over ten years ago, Herring (2011) proposed that students may be allowed "to develop their own models of information literacy rather than have them imposed on them" (p. 87). Here in 2024, we may well wonder how far such a possibility has been realised. Clearly, some degree of imposition is essential at an early stage so as to provide learners with a solid grounding in good practice but, when a single IL framework is applied in every situation, this can lead to monotony and stagnation in the learning experience, and an approach showing greater flexibility or a range of perspectives may be more effective.

Today, so many writers from diverse backgrounds and standpoints are concerned with issues associated with the evaluation of information that an eclectic educator has no shortage of material upon which they can draw, in order to create their own models, rather than simply fall back on those already in existence. Their new schemas may be used in different circumstances so as to meet the teacher's particular needs when devising a certain assignment or they may be introduced at various points in a course to enrich the teaching programme, with the student ultimately formulating their own. This may take the form of a meta-model that draws on elements from several of the frameworks already seen. Let us briefly explore some options for the educator. In order to sample the diversity of possibilities and contexts in which concerns surrounding the quality of information have emerged, one instance will be taken from three separate perspectives.

a) A prose perspective

The *Four As* is a text protocol that has been used by adult professionals in order to guide the scrutiny of sources by colleagues and then facilitate a fruitful discussion subsequently (National School Reform Faculty, 2015). It has been applied successfully for staff development purposes in schools, notably at Whitley Bay High, in north-eastern England. Table 1 shows how the original *Four As* questions on the left can be reworked to form prompts that students may be asked to consider when evaluating a source. With both parties – teachers and their charges – taking a comparable approach when reading information materials, such congruence can forge a unity across an organisation, although if the recasting of the four questions follows a similar

pattern to the example shown here, the original Four As become lost. Nevertheless, in this instance, new ones (i.e. Attitude – Accept – Alternative – Appropriate) have taken their place.

Table 1: Reorientation of the *Four As*

The Original Four As	The New Student-Oriented Criteria
What *assumptions* does the author of the text hold?	Is the author's overall *attitude* to the subject obvious from the source?
What do you *agree* with in the text?	What in the source would you support or at least be prepared to *accept*?
What do you want to *argue* with in the text?	What can be challenged or open to *alternative* interpretation?
What parts of the text do you *aspire* to?	Which parts of the source would seem especially *appropriate* for your purposes or useful?

b) A visual perspective

Much has been written about the so-called hoax of Cottingley, where, in 1917, two cousins claimed they had photographed their encounters with fairies. The pictures were famously deemed to be genuine by no less a judge than Sir Arthur Conan Doyle (Conan Doyle, 1920). The deception continues to fascinate today and the question of why they were accepted as real in some quarters is still frequently asked. Although limited in that they are contextualised on the basis of this one set of pictures and Conan Doyle's reaction to them, the ideas suggested by Harford (2022a) can serve as inspiration for the design of a framework for inculcating in students a mindset of proactive scepticism. The prompts could be as follows:

- What questions come to mind on seeing the information? What might you want to know more about?
- Does the information appeal to a particular emotional response within you?
- Are you finding yourself jumping to a hasty conclusion when you should give the material more thought?
- How credible are those providing the information?

This framework differs from many of those that have been designed to help their users to evaluate information. Most tend to stress the intrinsic characteristics of either the source itself or those responsible for it. Here, though, we are as much concerned with the personal situation of the recipient of the information.

c) A statistical perspective

In exploring the trustworthiness of figures relating to the conflict between Russia and Ukraine in 2022, especially in terms of troop numbers, casualties and other losses, Henry Boyd, a research fellow for defence and military analysis at the International Institute for Strategic Studies, urged the public to subject statistics to "basic source analysis" (Harford, 2022b). Speaking on the Radio Four programme, *More or Less* (Harford, 2022b), Boyd isolates the key questions as follows:

- What is the purpose that lies behind the decision to put the information in the public domain?
- Where does the information originate? This may not necessarily be the person or body reporting it.
- How complete or partial is the information?
- What incentive has the provider to misrepresent the facts in order to construct a favourable narrative?

The second matter can be widened to address the problem of second-hand information, whereby the reader relies on the author of the source at hand to give us an accurate picture of what was said by the writer whose material they are reporting. This cannot, of course, be assumed and the wisest course of action lies in tracking down and consulting the original item, if it is available.

In addition to drawing ideas from various information evaluation frameworks offered to them, students may be encouraged to experiment with the rigorous imposition of source type and quality criteria. For example, Sixth Formers undertaking a major independent learning assignment may choose to accept for use no materials other than monographs or papers in scholarly journals that have been peer reviewed.

4. Final thoughts

The field of IL has changed massively in the past fifty years and the importance attached to the evaluation of source material has increased greatly during this time, especially with the emergence of the World Wide Web and social media. There are now many frameworks for appraising information, although most share fundamental similarities and few are particularly distinctive. If students are to be provided with a rich and diverse learning experience and are to develop for themselves a truly multi-faceted personal model for evaluating material, much depends on the willingness of the educator to embrace the range of opportunities that have arisen as the result of a plethora of diverse parties now being interested in the quality of information. Some of their frameworks relate to the modern world and the challenges posed by new technology; others, such as the work of Harford (2022a), pertain to far older material which continues to intrigue. Whilst we should be cognisant of new issues in the evaluation of information that are raised by innovation, we must accept, too, the ongoing relevance of many of the longstanding questions posed by tools which are well established.

Declarations

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