Why can't I find what I'm looking for?

A child faces a series of potential pitfalls when searching for information online. This can be the 'awareness barrier', 'fake images' or 'blended memory'. **Andrew Shenton** explains.

Although it is frequently taken for granted that using the World Wide Web for the purpose of 'finding out' is one of life's less taxing challenges, there has always been a multitude of pitfalls that can affect an individual attempting to locate information in order to satisfy a particular need, especially when the seeker is young and unfamiliar with the demands of the process.

Many of the potential problems stem in some way from uncertainty, ignorance or misconception. For example, a significant issue highlighted by Durrance is that the person may not know whether the material they need

is available.[1] Over twenty-five years later, Świgoń, in attempting to present a 'complete list of information limits' (p. 364), would cite evidence from other writers when drawing attention to a closely related – although even more fundamental – problem, i.e. it may be that the person cannot be sure that the relevant material actually exists. There is, in Świgoń's words, an 'unawareness barrier' (p. 369).[2]

We can also identify variations on the central concerns of Durrance and Świgoń. Much is often made of the fact that youngsters tend to struggle either to recognise their needs for information or to formulate statements of them.[3] According to Walter, "With their more limited experience of the world, children lack the frame of reference to articulate many of their most pressing information needs" (p. 113).[4] On some occasions, they do have a sound understanding of these needs and can convey them perfectly adequately but their naïvety gives rise to other problems. In particular, they may fail to realise that man's knowledge of the world around him is insufficient to provide a satisfactory answer to the question that preoccupies them.

In previous work, I have written how one young inquirer whom I interviewed, Ian, was disappointed when he learnt that only a general indication was available when he was hoping to find out the precise number of stars there were in the galaxy.[5] In short, the problem here was not one of uncertainty as to the existence or availability of the desired information; rather, the expectation that it did exist was erroneous. An adult is more likely, of course, to appreciate from the outset that there remain grave limitations in our knowledge of the universe and, indeed, with regard to many areas. Ian's error well illustrates an observation I have made when presenting, with my colleague Naomi-Hay-Gibson, a new model of how young people find information – in some circumstances, 'initial assumptions driving the action taken may have been based on misapprehensions' (p. 69).[6]

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Untrustworthy Search Images

There are various other information-related problems that emerge once false beliefs have taken root in a child's mind. One arises when unsoundly based search images are involved. A search image is created when, after interactions with an information entity, an individual acquires a mental picture of the source or its contents and they draw on this at a later time when aiming to locate material necessary to meet a certain need.[7] The seeker may, for example, comb a familiar book for a specific diagram, guided by a mind's eye recollection of the illustration. It may well be, however, that the image is insufficiently clear or detailed for the action taken to be as efficient as the individual would wish. Crucial details may be missing and the person may be forced to resort to the age old perspective in relation to the desired information 'I'll know it when I see it', thereby adopting a stance that is more reactive than proactive. In extreme cases, the search image may simply be inaccurate.

Blended Memory

One cause of unsound search images is the phenomenon of blended memory, as discussed by Robinson.[8] For years, teachers of English Literature have experienced the problem that, if pupils study the text of a play and then watch a dramatised version, they may fail to detect creative additions that are not in the text itself, and their overall understanding of the play effectively becomes a hybrid (or 'blend') derived from material found in two different sources. Few would dispute that watching an adaptation of a set play can provide a powerful 'hook' to motivate pupils but the blended memory that can result causes concern when learners are required to answer examination questions pertaining to the text.

The situation is exacerbated, of course, when several sources are involved – the play may not only be read but different versions may be seen on television, at a cinema and in a theatre. One means of countering the possibility that confusion will arise is to issue youngsters who are viewing the production with a copy of the play's text and ask them to annotate the pages in order to record textual/dramatic discrepancies while they are watching the play unfold. This action provides a highly regimented form of 'source monitoring', and when the notes that have been created are used subsequently for revision or the preparation of assignments they help the individual to remember that what they watched was not entirely faithful to the play's text. If the learner becomes too immersed in the task of compiling such a record, however, there is a danger that they will miss out on much of the pleasure that is to be derived from simply watching the production.

In many quarters, there is a tendency to associate 'information' with facts and processed data but various commentators remind us that the word may also be applied to fiction. Chen and Hernon, for example, indicate that 'information' can be considered to encompass 'imaginative works of mind' (p. 5),[9] and, in a similar vein, Poston-Anderson and Edwards write that the concept includes any 'imaginative message' (p. 25).[10] An especially broad stance is taken by Bates, who believes that 'information' embraces virtually anything that is sought in a library, and she specifically mentions novels in this connection.[11] If we accept, then, that fiction is subsumed within the term 'information', the blended memory problem can constitute a barrier to the effective and efficient seeking of information when using works of literature.

Let us consider the following scenario. After seeing a stage version of a play, a pupil returns to the text with the aim of locating that section in which a particular incident took place or certain dialogue can be found. Clearly, if the relevant part is to be pinpointed, the material in question must exist in the text itself and not simply be remembered by the individual as a result of watching the dramatised version. It is not inconceivable that mistakes may be made in these circumstances.

> "It may be, for example, that more detail needs to be added or the material already set down must be placed in a wider context and both can be achieved by 'mining' the source content around the information that has been used"

Robinson explains how a similar situation may apply in reverse.[8] Let us explore another exemplar scenario, here modelled on Robinson's ideas. A particular television serial makes a deep impression on a youngster watching it in the early 1970s. Since there were no home video cassette recorders at that time and the serial was not repeated, the child is unable to watch it again until over a decade later when the work becomes available via a commercially-released VHS video cassette. In the meantime, however, they have read a novelisation, which, unbeknownst to the youngster, differs quite significantly in content from what was seen on television. Watching the VHS tape of the serial years after viewing the original, broadcast version and intent on checking certain details, the youngster is unsuccessful in finding the confirmation they had expected because their recollection is, in fact, a blended memory consisting of elements drawn from both the television serial and the tie-in book.

Implications for Wider Information Behaviour

It is possible to reinterpret the challenge that emerges from blended memory in terms that relate to other situations where an individual interacts with information. If a pupil is tackling an involved assignment demanding the consultation of a range of sources, it may well be the case that, after completing the first draft, the learner has gained a reasonable comprehension of the subject at the heart of the work, although they cannot recall precisely which individual sources have contributed particular information that has led to their new-found understanding. This deficiency is a serious shortcoming if the youngster has to return to the appropriate material in order to write a second draft. It may be, for example, that more detail needs to be added or the material already set down must be placed in a wider context and both can be achieved by 'mining' the source content around the information that has been used.

Obviously, the existence within the assignment text of references associated with instances where quotations have been employed or where material has been paraphrased, affords a direct avenue back to the sources consulted. Tarter outlines how a pupil's work can provide 'a route map for someone else' studying a similar area (p. 28),[12] and effective referencing can also serve as an invaluable aide-mémoire for the same individual when developing further their own assignment submission.

There may, however, be occasions where material that has been 'used' less directly or explicitly and is remembered just dimly needs to be revisited as well. Here, there may be no in-text citations within the assignment to serve as a guide, and the only assistance that the document offers the individual is to be found in the bibliography. It is thus important for the pupil to implement, as the assignment is being prepared, a strategy that will ultimately allow them to trace the knowledge they are accumulating back to specific sources.

The approach may involve compiling notes on each source or highlighting significant portions on photocopies/printouts. A cross-referencing system may be introduced in order to forge links between related information found in different places. All these actions also help to counter the danger that information which has seemingly been 'remembered' from a particular source has actually been constructed by the individual subjectively from fragments found in different places. This notion that information may constitute personally created sense is consistent with Dervin's argument that 'information' can pertain to internal, as well as external, reality.[13]

Qualitative investigators attach a significant priority to the maintenance of a rigorous audit trail when conducting their research. Pickard notes how this strategy means offering a systematic presentation of the material that has been gathered so that the research process is made transparent to the reader of the final document.[14] A similar concern with traceability may be considered a hallmark of effective information use and, therefore, a high level of information literacy.

Ways Forward

So as to combat the potential problems associated with 'blended memory' it is important that learners accept four key principles:

- Although work in relation to many academic assignments involves the key stages of identifying what information is required, looking for it and then putting the appropriate material that has been found to use in a way that satisfies the need, these phases do not always proceed in a clear, sequential manner. It may be, for example, that, even when the learner believes that their work is nearing completion, they realise that it is necessary to go back to the literature in order to add more material on a particular matter.
- The revisiting process is often simplified if the learner keeps records of which information has come from which sources. The recording process may embrace the making of notes, the annotation of printouts and photocopies, and the addition of cross-references.
- Such records should include the full bibliographic citation of the work that has been consulted. This enables the pupil to locate the source in question as speedily as possible and, when incorporated into the final assignment, the references help the reader to assess the soundness of the learner's arguments.
- It is unwise for the pupil to assume that, at some point in the future, they will be able to remember accurately and in detail, without documentary assistance, the origin of particular information that is found in the work that has been produced.

Whilst these principles can be justified on the basis that they amount to good academic practice, 'selling' them to pupils through reference to specific scenarios, like situations where blended memory can cause confusion, may strengthen the educator's hand by giving them added weight.

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