From human vending machines to lateral thinking: Helpful theories and models for school librarians

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This paper provides a transdisciplinary perspective on the work of the school-based information professional. In particular, it explores various ideas originating outside LIS but which have special relevance to intermediaries operating in educational environments for young people. The material is discussed in relation to four key issues: the challenge of endowing information literacy instruction with credibility in the eyes of students and school staff, the problem of learners following formulaic patterns in their attempts to find information, interaction between the intermediary and youngsters using the library and priorities for the professional attempting to meet clients’ information needs. The article concludes by briefly highlighting the overall value of each of the theories and models.

Introduction

In previous eras, the knowledge required of the school-based intermediary was for the most part restricted to library and information science. Over the last twenty years, however, as the remit of such individuals has expanded from providing “information skills” instruction in the context of library tools and resources to fostering more widely relevant “information literacy” and, to justify their existence, libraries have been expected to demonstrate a more fundamental role within the life of the school, commentators have increasingly stressed the need for information professionals to gain a greater awareness of matters pertaining to education. Tilke (2002), in fact, cites education as one of three key areas in which the school librarian should be well versed; predictably, librarianship itself and technology form the others. Two separate strands can be identified in relation to the knowledge of education that an intermediary may be expected to exhibit. Whilst Markless et al (2009) draw attention to how the professional should be cognizant of “educational issues” (p. 80), the American Association of School Librarians and the Association for Educational Communications and Technology (1998) indicate that the librarian’s role as an educator necessitates that they be “knowledgeable about current research on teaching and learning and skilled in applying its findings to a variety of situations” (p. 4). For Anne-Marie Tarter, who was, until her recent retirement, one of the foremost school librarians in Britain, a continuing ability to stay abreast of educational initiatives and their implications for their own professional practice is integral to the future development of this type of information professional. She writes, “school librarians will have to continue to navigate through constant changes in the educational
beyond traditional LIS territory, Yet, for all the efforts of such experts to encourage practitioners to enhance and diversify their librarians environment” if they are to maximize opportunities to promote the value of information literacy (Hyams & Tarter, 2010, p. 30).

Another perspective, which emphasizes the importance of the intermediary venturing beyond traditional LIS territory, is taken by Webb and Powis (2005). They highlight the need for librarians to familiarize themselves with theories associated with psychology, as well as education. Yet, for all the efforts of such experts to encourage practitioners to enhance and diversify their personal knowledge bases, significant theories and models originating outside LIS continue to go unnoticed by information professionals in schools, even though they are of considerable pertinence to them and their duties. This article explores some of the appropriate work and comments on its relevance to school library contexts. Readers may then reflect on how far it may be applied to their own situations.

The paper continues a theme that two of the authors have recently addressed elsewhere. In an earlier piece, they discussed ways in which the overall area of information literacy/information behavior may be regarded as transdisciplinary (Shenton & Hay-Gibson, in press b). Concentrating on one of the four characteristics of transdisciplinarity they identified in that article, namely that increased understanding of phenomena in a particular field may be gained from the use of ideas and perspectives associated with other disciplines, this new paper scrutinizes literature from outside LIS that includes but is not restricted to material pertinent to information literacy/information behavior, and notes its relevance to the work of the information professional. The paper draws especially heavily on an excellent volume by Boshears and Albrecht (1977) who discuss dozens of models that they feel may be useful to facilitators of learning. On occasion, these authors add insights and interpretations that extend the territory of the models beyond that covered by their originators. Several of the theories and models summarized here could in themselves easily have formed the subjects of individual articles. The aim in this piece is to present no more than an outline. As Brier (2008) explains, “In transdisciplinary work, it is best to dig into subject areas only to the depth that is necessary to build one’s transdisciplinary framework or else you will drown in the details” (p. 6).

So as to avoid repetition across this article and previous publications by Shenton (A.K.) or Shenton (A.K.) and Hay-Gibson, in the main it does not cover themes that they have addressed in LIS papers already, such as how a Johari Window framework may be employed to model information needs (Shenton, 2007a), the way in which the language of intermediaries and young library users can be understood in terms of elaborated and restricted linguistic codes (Shenton, 2009c), the relevance to information-seeking of search image concepts from anthropology (Shenton, 2009a) and the application of existing models from systems thinking and narrative recursion to represent information behavior (Shenton and Hay-Gibson, 2011; Shenton and Hay-Gibson, in press a). Similarly, the paper ignores work in which other writers have made links between LIS and theories from beyond our discipline. Such material includes, for example, Walter’s analysis of how children’s information needs may be understood in terms of Maslow’s hierarchy of human needs (Walter, 1994).

**The Credibility Challenge**

One of the most fundamental matters for the intermediary faced with the task of promoting information literacy lies in convincing youngsters that this is an area with which they should be concerned. There is evidence to suggest that even within librarianship there is a school of thought that information literacy receives too high a profile (Williams, 2006). One strategy lies in demonstrating the contribution that information can make when the individual is confronted with a wide range of scenarios. The intermediary can draw inspiration in this respect from the “helps” listed by Dervin (1983, p. 17), the “classes of information use” identified by Taylor (1991, p. 229) and the “information intents” put forward by Todd (2005, p. 201), illustrating each of the various abstractions with concrete examples appropriate to the students. Work from writers beyond LIS can also serve to illuminate the value of information literacy by directing attention to circumstances in which it has a key role to play. In discussing the application of creative problem solving, de Bono (1970) identifies three barriers that librarians would unhesitatingly recognize might be overcome by a learner whose information literacy is well developed:

- a) circumstances in which the person is not aware of the need to give attention to a particular situation – de Bono (1970) refers to this as “the problem of no problem” (p. 58);
b) circumstances in which the individual lacks either some of the information required to solve a defined problem or the skills necessary to deal with the material involved;

c) circumstances in which the person is unable to rearrange the available information so as to achieve an effective outcome.

These issues highlight the importance of three crucial dimensions of information behavior, coverage of which should form a priority for information literacy instruction. Specifically,

(a) can be remedied by instilling skills in identifying an information need;

(b) can be remedied by instruction and practice in the appropriate information-seeking action;

(c) can be remedied by training in effective information use;

Wilson (2009) suggests that “theories in relation to the information user did not appear until the 1980s” (p. 99), so the fact that de Bono was writing about these problems as early as 1970 may well surprise many readers. Although some of his ideas were soon developed further by his contemporaries outside LIS and a few other authors were writing along similar lines in the first half of the 1970s, it is striking that it was not until subsequent years that several of his concepts came to be discussed in detail by the leading authorities on information behavior and information literacy. Drawing on the work of de Bono (1970), Boshear and Albrecht (1977) note how an individual who is aware of a problem situation but lacks the information necessary to deal with it strives to reduce their uncertainty. Around the same time Atkin (1973) wrote, a “need for information is a function of extrinsic uncertainty produced by a perceived discrepancy between the individual’s current level of certainty about important environmental objects and a criterion state he seeks to achieve” (p. 206) but it was much later that the work of Kuhlthau (1993) and Wilson (1999) scrutinized in some detail the part that uncertainty plays in information-seeking. Furthermore, comparisons can be made between de Bono’s argument that situations exist where a person has in their possession sufficient information but must restructure their insight in order to solve a particular problem and Bruce’s premise in relation to “the knowledge extension conception” of information literacy that information literate people acquire “novel ideas” from the knowledge with which they work or devise “creative solutions” (Bruce, 1997, pp. 15, 16). Despite all this foreshadowing, de Bono’s ideas and their implications for information behavior are still largely unrecognized in our discipline. He not cited at all in either of two well-regarded information behavior textbooks – the works of Fisher, Erdelez and McKechnie (2005) and Case (2007).

The lack of attention given in LIS literature to de Bono’s work should not lead to information professionals neglecting his ideas. On the contrary, since his background lies outside LIS, his independence, allied to his considerable reputation as an academic, may prove important in the intermediary’s efforts to “sell” the notion of information literacy to others beyond the pupil community, such as members of their school’s senior management.

**Formulaic Information Seeking**

A major concern of many information professionals working with young people is their observed tendency to go immediately to the World Wide Web when faced with virtually any situation that demands the finding of information, to select a particular search engine and enter at once a basic key word or phrase. One of the authors has remarked on this pattern in a previous article (Shenton, 2007b), and there is considerable evidence from elsewhere in the literature to show that the inclination is widespread. In November 2008, newspaper headlines were made in Britain when the fiction author, Susan Hill, wrote of her dismay at the e-mails she received from “dozens of students” who displayed “an ignorance of any sort of ability to look beyond Google” (Paton, 2008). Reliance on this search engine is now so great that it is perhaps not surprising that Julien and Barker (2009) conclude that the teenage participants in their research project “see Google as being ‘the’ Internet, and they use these two terms interchangeably, seeing them to be one and the same thing” (p. 14). The seemingly automatic response of young people to go straightaway to the Web and Google in particular is indicative of the rigid mindset noted by Dervin (1992), “given this gap, then this tactic” (p. 66).

The action is also, however, consistent with broader human behavior that goes far beyond information-seeking situations and this segment of the population. Similarities can be identified between the actions reported here and the human vending machine theory discussed by Boshear
and Albrecht (1977). The formulaic information-seeking behavior so often in evidence may be equated with what the authors term, a “signal reaction” – “an immediate, unthinking response to a provocation” (p. 249), which here takes the form of a situation demanding an information input. Johnson (1946) explains signal responses using similar language. To him, they are “abnormally prompt, unreflective, and pathologically consistent. We become hoop-jumpers, responding faithfully and in set patterns… We can be depended upon like so many trained seals” (Johnson, 1946, p. 181). Although the examples of this reaction addressed by Bosheer and Albrecht (1977) emphasize an emotional aspect that may well be absent from the scenarios witnessed by the intermediary, the authors’ fundamental argument that “an individual…automatically ‘vends’ a programmed response whenever someone provides the proper ‘coin’” will doubtless strike a chord with many readers knowledgeable in the information-seeking behavior of young people (p. 249). In extreme cases, information-seekers who have been successful in following a certain course of action in the past may even “consciously or unconsciously change their perception of the nature of their information need or problem situation to conform to the purpose or expectations” of the familiar source (Allen, 1996, pp. 140-41).

Negative conceptualizations of habits are in stark contrast to the optimistic perspective of O’Connor and Seymour (2002), who write of their liberating potential. They see how learning may involve “consciously mastering small pieces of behaviour, and combining them into larger and larger chunks, so they become habitual and unconscious. We form habits so we are free to notice other things” (p. 6). As the ideas of authors like Johnson (1946) emphasize, however, the danger emerges that all too often the habit becomes enslaving and no such wider thought takes place. Formulaic information-seeking may be regarded as the ultimate manifestation of what de Bono (1971) terms “vertical” thinking, with the individual “proceeding step by step” along a line of thought and giving no consideration to formulating a new strategy (p. 13). Again, though, such behavior may be thought to offer at least some benefits. Even de Bono (1971), one of the foremost advocates of alternative strategies, concedes that without vertical thinking “every action… would have to be intensely analysed and carefully considered – nothing could ever be taken for granted… confused by self-consciousness, everyone would be incapacitated by complexity” (p. 13). There are obviously many information-seeking situations where a tried and trusted sequence can be applied with little thought. For example, where the same information want or need repeats frequently, such as a desire to see the latest sports results, clearly many information-seeking situations where a tried and trusted sequence can be applied with little thought.

Reflection and Thinking Beyond Formulaic Information Seeking

It may be that the favored form of information-seeking action has become so engrained that the individual involved is not aware of their inclination. Various approaches can be suggested to help learners take on a reflective attitude in their own information seeking. One lies in adopting principles from neuro-linguistic programming (NLP), which its co-developers, Bandler and Grinder (1990) believe offers a method of describing “any human activity in a detailed way that allows you to make many deep and lasting changes quickly and easily” (p. ii). Molden and Hutchinson (2008) explore how an individual’s approach to life is determined by their values. In terms of information behavior, these can be revealed to the person by asking them to cast their mind back to a typical instance in which they sought information and their identifying the factors that made them adopt the particular form of action chosen. Other information needs of a range of kinds may be investigated and patterns detected in the factors shaping the subsequent action taken by the youngster. The information professional may be able to draw attention to how, in some of these situations, an alternative course of action may have satisfied the same criteria and indeed possibly others more effectively.

Molden and Hutchinson (2008) also present a series of dichotomous metaprograms, which provide the source of core motivation and behavior patterns. Any information-seeker who adheres
to a similar course of action for finding material regardless of the need may be said to exhibit a pronounced *sameness* pattern. Returning to an issue discussed earlier, the intermediary can use discussion of such a metaprogram to show how, where a repetitive information-seeking task is involved, the behavior may be successful, but explain how it restricts the ability of the individual to think in terms of new strategies and tools other than the familiar. Referring to concrete examples, the intermediary may elucidate how sources and approaches that have not previously been considered can be especially useful in particular circumstances.

Limiting beliefs may impose a further constraint to the individual. Spohrer (2007) envisions these as doubts about one’s own ability but they can also involve wider perceptions about the world. In an information context, a youngster seduced by the kind of hype surrounding electronic materials noted by Pickard (2004) and influenced by the behavior and ideas of peers around them, may, for example, regard the World Wide Web as a gateway to all knowledge, feel that its ease of use is unrivalled, assume paper materials form a poor substitute and underestimate their own skills in exploiting traditional resources. The role of the information specialist in these circumstances lies in helping the individual to challenge such beliefs, in encouraging the adoption of others that are more empowering and facilitating the learner’s integration of the alternative beliefs into their mainstream thinking.

There are, of course, other methods that may be used to inculcate a reflective orientation. Learners may be asked to complete a pro forma that requires that they note general conclusions about their information-seeking tendencies in response to prompts. This approach has been taken by one of the authors working with Masters students studying information and library management at Northumbria University (2003). Learners tackling a module devoted to information storage and retrieval were asked to fill in an “information-seeking profile” sheet (p. 23), whose cues were based on issues raised by Ellis and his colleagues in relation to their categories of information behavior (Ellis, 1989; Ellis, Cox, & Hall, 1993; Ellis & Haugan, 1997). The pro forma is essentially a composite, retrospective version of the kind of planning frameworks that are commonplace and well established. As long ago as the early 1980s, Coles, Shepherd and White (1982) were writing of the value of such a “project skeleton” or “project backbone” and offered their own (p. 203). In addition to encouraging learners to reflect on the actions they actually undertook, a pro forma of the Ellis-inspired type can alert them to factors of which they should be aware but which have hitherto gone unaddressed by them.

Researchers such as Pitts (1994) maintain that an adaptable, problem-solving mind-set is crucial to information-seeking success and many writers share such a perspective on information literacy. Eisenberg (2008), for example, describes the Big6 Skills approach that he has devised with Berkowitz as “information problem-solving” (p. 41), and, in her report to the National Forum on Information Literacy, Doyle (1992) declares that, in demonstrating competency “in the process of information literacy in order to become self-motivated, independent learners”, students will have to “apply problem solving skills regularly in school and personal areas” (p. 14). If one accepts the primacy of problem solving as an ingredient within information literacy then lateral thinking of the kind explored by de Bono (1971) would appear to be highly important. Its central features include:

- a flexibility of mind;
- the adoption of an unconventional position in relation to the situation faced;
- consideration of the problem in question from several viewpoints;
- an appreciation that a solution may be formulated in various ways.

Not only can lateral thinking be advocated when teaching information literacy; in a previous piece one of the authors has described instances of what he terms “inferential information-seeking”, which include at least a measure of this sideways approach to problem solving (Shenton, 2009b). Here, people take steps to find information via circuitous methods which deliver material that is broadly related to the need but may not be immediately usable, and those accessing what is received may have to expend considerable cognitive effort in applying it directly to their own situations (p. 353).

The oblique nature of inferential information-seeking, with its deviation from the rigid structure of its vertical counterpart, the taking up of a position that may, to an onlooker, appear
idiosyncratic and the seeker’s efforts to establish a clear connection between the stance that is favored and the nature of the problem in question all bring to mind a more lateral perspective. It is possible, of course, that, as well as alerting learners to the value of lateral thinking, information literacy instruction can serve to increase the effectiveness of those students already inclined in this direction. Once the individual has identified a path that may be possible, de Bono (1971) urges that it is rigorously examined. This may be one area on which such teaching concentrates.

In addition to aligning formulaic information seeking to vertical thinking, we can interpret it as symptomatic of the “robotlike thinking” described by Boshear and Albrecht (1977, p. 229). They maintain that this is characterized by rigidity and overly patterned, mechanistic, and stereotyped processes. Like Eason and Shenton (1988) and advocates of NLP, Boshear and Albrecht (1977) are concerned that, when certain approaches are taken habitually, the individual’s ability to deal with new experiences becomes limited. The authors contrast “robotlike” tendencies with “cybernetic thinking” marked by cognizance of novel ideas, a receptive attitude to unfamiliar information and a willingness to learn and adapt to new experiences. Again, if the intermediary is keen to extend methods of finding and using information beyond those typically in evidence, they may wish to give thought to how these principles may be fostered in their information literacy programs. Readers who subscribe to the value of cybernetics and understand the concept in the terms presented by the International Dictionary of Education (1977) will note there are implications here, too, for the development of a problem-solving outlook. In one of the definitions that the book offers, cybernetics is defined as a means of ensuring that an activity is “positively directed towards a prescribed goal by constant re-balancing of...subactivities using feedback” (International Dictionary of Education, 1977, p. 96). Thus an intermediary who is intent on putting cybernetic principles into practice will train their charges in assuming a flexible posture when finding information, taking note of the initial results obtained from a search and making adjustments to their actions as appropriate in order to secure an ultimately successful outcome.

**Contact Between the Intermediary and the Inquirer**

After reading the literature that deals specifically with the subject in LIS, the information professional can learn much about their direct exchanges with inquirers from material in other fields dealing with one-to-one workplace interactions. The ideas of Sperry and Hess (1974) with regard to “contact counseling” are especially relevant in this respect. Dennison and Shenton (1987) define contact counseling as “the attempt made by senior members of staff, in the short period of time available, to help colleagues with problems of all types, without setting up prolonged or elaborate counselling procedures” (p. 136). Clearly, such a scenario differs from the reference interviews to which librarians are accustomed in that contact counseling involves staff in the same organization but there are marked similarities, too. In each case, the duration of the direct interaction between the two parties is likely to be reasonably brief and the issues in question may be very varied. Sperry and Hess (1974) delineate three steps in the contact counseling process.

a) **Keying.** Here the manager strives to “read” the colleague by employing a suitable frame of reference and interpreting their verbal language and non-verbal messages.

b) **Responding.** This is based on what the manager has learnt already through keying. They make sense of the individual’s problem according to their own frame of reference, reacting appropriately.

c) **Guiding.** The authors are concerned in this stage with the technique that the manager employs to motivate or help the employee to change their behavior.

It takes little imagination on the part of the information professional to recast these dimensions in ways that are more meaningful to their own work in the reference interview. Keying may be seen as relating to the early phase of the process, in which an appropriate relationship is established with the inquirer and the information problem is presented in that person’s terms. Sperry and Hess (1974) particularly emphasize the need for careful listening at this stage. It is easy for librarians who have already received queries on a similar subject on various recent occasions to assume when they hear certain words or phrases from a new inquirer that this person’s information need is identical, but close attention to their articulations may reveal unexpected differences. The authors also note the value of considering such factors as

- the physical arrangement of the seating and desk;
- the distance between the two parties and the degree of personal space expected by the person;
• the extent to which the environment is quiet and interruption-free;
• eye contact and the gestures made by the individual.

Each of these aspects should be borne in mind by the information professional, too. Responding may be seen as a crucial point of transfer since it is here that the intermediary assumes some responsibility for the inquirer’s problem, and seeks to rework the query in terms of what can be delivered, probably – in the first instance – via the practitioner’s own knowledge, that of colleagues or the more formal information sources available in or otherwise accessible through the library (Shenton, 2008). Responding is the phase where, in the language of Taylor (1968), the “formalized” information need evolves into a “compromised” need (p. 182). In the final part of the sequence, both the information professional and the manager are concerned with effecting a satisfactory outcome. However, whilst the former aims to provide information that helps the inquirer to resolve the situation that prompted their approach, Sperry and Hess (1974) are more concerned with behavior modification. Ostensibly, this aspect of the contact counseling model may appear one of the least relevant in an LIS context. Yet, it raises the prospect that, at the point of delivering the required information, the practitioner may also be able to offer some advice or even training in the use of tools or resources that does indeed change the individual’s behavior. In a similar future situation, they may be able to take independent action, and so bypass the need to approach the intermediary.

The term, “transactional analysis”, has become ambiguous in recent times. For many years it was especially associated with the work of Eric Berne, who uses the words to represent his model of interpersonal interaction. Lately, however, it has also been applied to the investigation, by researchers, of data logged by information systems in order to learn more about the behavior of users. Indeed, a paper by Nicholas et al (2008) that addresses this area is indexed by its publisher, Emerald, under the keywords, “transactional analysis” (p. 185). In the present article, it is the longstanding, earlier meaning that is intended. Boshear and Albrecht (1977) report that Berne identifies how any exchange involving two people consists of “transactions” between their respective “ego states” (p. 58), each of which are present in any single individual. The person simply moves between them when interacting with others. The three ego states are those of
• parent, providing the source of “values, opinions, social conscience, rules and regulations” (Boshear & Albrecht, 1977, p. 58);
• adult, which represents the rational thinker, who collects information, assesses alternatives, tests reality, formulates hypotheses and makes decisions;
• child, characterized by feelings and emotional reactions.

Since Berne (1975) suggests that requests for information are of an adult-to-adult transaction type and he categorizes problem solving in the same way (Berne, 1968), it may be concluded that much of the information professional’s work is based around adult-to-adult exchanges. In particular, in view of the close relationship between problem-solving and dealing with issues that require an information input, an intermediary familiar with Berne’s ideas may well believe that adult-to-adult interaction is at the heart of their role in imparting information literacy to learners. If, however, the youngster sees the exchange differently, there is the potential for problems. Harris (1973) states that one of the traits of the adult is to examine the parent’s data and determine whether it should be accepted or rejected. Thus an intermediary who, for example, urges a youngster to go beyond the Web and consult a variety of sources of information, to test the accuracy of information that is found and to assemble their final work from knowledge that they gained from the totality of the material acquired may discover that their wisdom is challenged by the learner, if the recipient of the advice casts themselves as adult and information professional as parent. This kind of transaction is shown in Figure 1. Berne (1968) comments that exchanges in which stimuli and responses cross on a transactional diagram typically result in breakdowns of communication. In Figure 1 the lines do not actually pass over each other but clearly the stimuli and responses are by no means in harmony. In an information literacy context, this disparity may lead to the learner rejecting the intermediary’s arguments and ceasing to engage with the content presented.
Harris (1973) observed:

If parental directives are grounded in reality, the child, through his own Adult, will come to realize integrity... What he tests holds up under testing. The data which he collects in his experimentation and examination begins to constitute some ‘constants’ that he can trust. His findings are supported by what he was taught in the first place (p. 30).

This principle has significant implications for the information literacy instructor. It is inadequate simply to preach to youngsters about the importance of what the educator considers good practice. Learners must be able to appreciate its value for themselves, through both pertinent examples offered by the intermediary and their own experiences.

The Role of the Intermediary in Meeting Information Needs

A seminal treatise by Berger and Luckmann (1967) provides fodder for the information specialist to assess where their priorities should lie in satisfying their students’ information needs. The authors explain how the reality of everyday life involves zones that vary in their closeness and remoteness. One zone is that which contains the world within the individual’s reach – the environment in which they operate directly and over which they may be able to exercise some control. In an adult context, it includes the domain of work. The academic sphere of school is comparable in the youngster’s world. According to Berger and Luckmann, consciousness in the world of work is determined by pragmatism; with regard to the present and the future, the person is concerned with what they are currently doing in it or what they plan to do and, again, this principle can be extended into the young person’s academic life. There are also, however, zones that affect the individual less directly and in which their interest is not so intense or as pressing. In the words of the authors, “I may... be interested in what goes on at Cape Kennedy or in outer space, but this interest is a matter of private, ‘leisure-time’ choice rather than an urgent necessity of my everyday life” (Berger & Luckmann, 1967, p. 36).

This perspective affords some food for thought for school librarians faced with the need to prioritize their services in the face of static or diminishing budgets. Any subscriber to Berger and Luckmann’s stance may well feel that their principal responsibility lies in concentrating on meeting those needs that pertain to the individual’s closest and most intense zones. This may lead

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**Figure 1. A possible transaction emerging from an information literacy training session.**

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to the adoption of a “needs” and “wants” distinction, which is often made by commentators on information behavior, and an emphasis on providing primarily for the former. In some cases, the needs and wants that have been defined by authors correspond very accurately to the zones identified by Berger and Luckmann. In Britain, the stance of the Department of National Heritage (1995), which equates reading needs with those that arise from requirements imposed by the education system, and reading wants with self-interest and the search for enjoyment, is entirely consistent with Berger and Luckmann’s perspective. Yet, contrary arguments must also be acknowledged. Line (1974), for example, holds the opinion that “a recreational need may be just as much a need as an educational need”. Reuter’s conception of an information need likewise embraces “gratifications” (Reuter, 2007, p. 139), and Williams (1965) muddies the waters further by suggesting that “ephemeral writing” can, despite its apparent levity, meet an important need in times of “illness, tension, disturbing growth as in adolescence, and simple fatigue after work” (p. 193).

Conclusions

The purpose of this paper has been to draw the attention of information professionals to pertinent material originating outside LIS and of which they may have hitherto been unaware. Whilst the article has explored the value of this content insofar as implications for the work of the practitioner can be identified, individual readers will wish to determine for themselves how far these implications should be accepted.

It can be seen that there is a wide range of particular ways in which these typologies, models and theories can make a substantial contribution to various aspects of work in LIS. In highlighting the “no problem” situation within his three categories, de Bono (1970, p. 58) raises an issue that frequently receives little coverage in information literacy instruction programs. After having been made aware of it this way, educators may well consider whether they want to make the necessary accommodations to their teaching. Through writing outside the LIS arena about information-related problems, de Bono also provides librarians with ammunition they can use to demonstrate to others the wider value of their information literacy sessions. The same author’s work on lateral thinking, the principles of cybernetic thinking and strategies taken from NLP may all be employed in information literacy instruction to reduce formulaic approaches to finding information. Most fundamentally, as Molden and Hutchinson (2008) recognize, the third provides an important method of alerting learners to their own habitual tendencies. Transactional analysis, when applied to reference interview situations, can alert information professionals to potential causes of problems, and the human vending machine theory helps intermediaries to understand the inclinations of information-seekers in the context of wider patterns of human behavior. Obviously the reader must appreciate that there are significant differences between contact counseling and the reference interviewing of the intermediary, although much of the good practice that Sperry and Hess (1974) advocate in their own area can be applied in a variety of situations that involve the giving of advice, guidance or information one-to-one. The ideas of Berger and Luckmann (1967) may be seen to have a direct relevance to the work of the intermediary, too, here in terms of providing for users’ information needs.

This paper and others written by the authors in recent years should not be assumed to present an exhaustive analysis of useful material beyond LIS but they at least offer a starting point for consideration by the eclectic information professional who is keen to ensure that their practice is underpinned by more than the sound principles of librarianship and information science alone.

References


Shenton, Hay-Gibson, & Shenton From human vending machines


**Author Notes**

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Ken Shenton is a retired head teacher and former management consultant. In the latter role, he was Director of the North East Educational Management Unit (NEEMU), based at Newcastle University in the 1980s. He has helped to create materials for Open University courses and is the joint author of several journal papers. Ken is also the co-writer of Challenges in Educational Management: Principles into Practice. In preparing the book, he investigated various theories and models originating outside education and related them to school management. He has drawn extensively on this and his wider experience as an educational consultant and trainer in his contribution to this paper.