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INFORMATION LITERACY RESEARCH: DIMENSIONS OF THE EMERGING COLLECTIVE CONSCIOUSNESS

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Abstract

Information literacy researchers are beginning to develop a collective consciousness, a consciousness that represents the newly appearing territory of information literacy research. This paper analyses the information literacy research territory as it is represented by the emerging collective consciousness of information literacy researchers. Five dimensions of the collective consciousness are proposed: 1) the sectoral location of the research, 2) ways of seeing information literacy, 3) 'what' is being investigated; that is the research object, 4) 'how' the object is being investigated; that is the research approaches and paradigms, and 5) disciplinary influences. These dimensions are used to: 1) reveal the character of the information literacy research territory which is in early stages of construction; 2) show how different kinds of research approaches can shed different kinds of light on the object of research; and 3) demonstrate how the five dimensions work together in the development of new studies.

Information literacy research is still in its infancy. The number of studies that identify themselves as belonging to the domain is still relatively small, and the research endeavour is somewhat scattered. Nevertheless material that reviews information literacy research already exists, with some recent contributions emanating from the United States[12] and Australia [345].

Possibly because the number of studies completed is still small, the agenda is ill defined and suitable theoretical frameworks are only just beginning to be explored. Nonetheless, studies that have been completed to date are revealing important insights into the nature of information literacy and its research potential. They are also drawing upon a range of 'user' or 'people-oriented' theoretical frameworks, which are making possible outcomes that are highly relevant to professional practice. Some of these studies are using existing disciplinary bases, such as information seeking and use research, or educational research. Overall, the territory is expanding, and directions are being established which will potentially make information literacy research a significant source of knowledge for information professionals and educators.

Some readers may be asking at this point: what constitutes information literacy research? One answer is that information literacy research is 'constituted', by those engaged in the work. Information literacy researchers see their research as belonging to the information literacy domain or 'territory', and, as they widen the scope of that research, they construct the domain. This paper attempts an analysis of the domain, as it appears to have been constructed so far, but is not intended to be a comprehensive review of the research territory. It proposes a way of representing dimensions of the collective consciousness that are emerging, revealing the expanding research territory and attempting to show how different research approaches or theoretical frameworks can shed different kinds of light on the object of research.

The domain of information literacy research, like any other research territory, could be seen as being continuously constructed by researchers participating in the endeavour. Taken together, the existing territories of information literacy research could be said to represent the collective consciousness[6] of information literacy researchers. According to Bowden and Marton, the collective consciousness comprises both 'what is common and what is complementary'. It emerges when different people are conscious of the same phenomenon – or object of knowledge and are conscious

to a greater or lesser extent of each others ways of seeing, experiencing and thinking about the phenomenon [7]. Clearly, the collective consciousness of information literacy researchers is just beginning to emerge, the research domain is only beginning to be constructed. It is a fragile territory as well as an emerging one, because the idea upon which it rests is relatively new, and the language used to describe it is uncertain. Despite this, information literacy research is already an interesting and important domain, comprising multiple perspectives. Bringing these differences and complementarities into the open, in the hope of enriching the collective consciousness[8], is a primary purpose of this paper.

A number of things need to be said about the selection of materials used here. First, the sources have been selected partly to demonstrate how information literacy researchers are constructing the domain, and partly to develop a picture that would be of particular interest to the higher education sector. Secondly, I have considered only research that is explicitly marked as related to 'information literacy', for example through the use of the terminology in papers or the presentation of the work at some information literacy forum. Clearly it is through acts of this kind that researchers associate themselves with the domain. Thirdly, while other research may be highly relevant, for example research into more generalised 'generic skills', and may indeed be part of the collective consciousness, we cannot learn from it about the collective consciousness of information literacy research. Fourthly, the examples used are intended only to be representative, not a comprehensive listing of information literacy research.

Phases of Information Literacy Research

An analysis of the territories of information literacy research should begin with a review of its history. Since the early 1990s, some significant shifts have emerged that lead me to propose four phases in the early construction of the research territory. These phases represent patterns and general developments. Each phase also represents an expansion of the domain.

Precursors [1980s] The seeds of information literacy research were sown by the information skills and bibliographic instruction movements of the 1980s. Work reported in these years revolved around the notions of information skills, or bibliographic instruction, rather than information literacy and occurred across the educational system. Model development was an important focus, the source of many of the skills and process models presently used. Probably the most influential investigation from this period on future information literacy researchers, was Carol Kuhlthau's[9] exploration of students' experiences of information use when working on assignments in libraries. Her adoption of naturalistic research approaches, including the use of student diaries for data gathering, led eventually to the construction of a model describing the process of learning from information, and to the description of information literacy as a 'way of learning'[10]. This pattern of using a so called 'alternative' approach, drawn from educational research was to be adopted by a number of information literacy researchers in subsequent phases.

At the end of this time, in 1989, the notion of information literacy research was established. The ALA Presidential Committee on Information Literacy's final report[11] suggested a territory of research that would be of interest to educators and state decision-makers. This potential territory pointed already to the need to move into workplace and community settings as well as educational institutions.

Experimental [1990-1995]: In the early, experimental years for information literacy research school and tertiary based research appeared. As a result of the term 'information literacy' becoming prominent in 1989, a few researchers began to see themselves as dealing with information literacy. These tended to be scattered geographically, and to work relatively independently of each other.

The most notable study from this period would be Christina Doyle's[12] investigation of definitions of information literacy. Her Delphi study, commissioned by the National Forum for Information Literacy, gained consensus from a range of people and led to a definition and descriptions that are still widely used.

Also during this time, Ochs and her colleagues in the United States, surveyed employers about skills desirable in university graduates[13]; and Bjorner[14], in Sweden, developed an information literacy curriculum from a database of interviews. In Australia, Bruce[15] used the phenomenographic approach to investigate postgraduate students' varying conceptions of the literature review; and Todd[16] established a link between information literacy skills and student learning in New South Wales schools. Thus we saw the beginning of interest in the meaning of information literacy, and in needs associated with workplace and educational programs. In Australia, discussion of the research agenda continued, with several recommendations being made for workplaces and education at the first national information literacy conference.[17]

Exploratory: [1995- 1999] During these years information literacy became progressively more important in educational agendas, as a result of the advocacy of librarians and its prominence in several government reports. Concurrently, there was an increased emphasis on research associated with a widening range of approaches. The period is marked by the identification and exploration of different paradigms for IL research (for example, cognitivist, constitutionalist, constructivist, and critical theory), and the offering of multiple research agendas. While most research was conducted within, and for, the educational sector, interest in workplace-based research[18,19] began to emerge. Other researchers working with participants from the educational sector began to consider wider implications; for example for information technology[20], community[21], and learning organisations[22]. As a rule, most studies had relatively few participants. Exceptions to this are a survey of students in five South African Universities completed as part of the Infolit project[23], a survey of curriculum integration in the United States[24], and a similar Australian survey by the Council of Australian University Librarians[25]. Towards the end of this phase, a follow up to the ALA Final Report lists a small number of completed research projects, and in Australia the need for information literacy research is asserted as a priority for the library and information profession[26].

Some of the studies belonging to this period will be discussed in subsequent sections. At this stage it is worth noting that information literacy researchers appear to have begun to locate themselves, broadly speaking, within the social sciences tradition. Specific individuals would associate themselves more closely with colleagues from disciplines such as information science, communications or education. Further, many are steering away from positivist paradigms, recognising the contextual nature of information literacy and attempting to gain understanding from various forms of interpretation rather than measurement. Research-in-practice (conducted by or with practitioners), applied research (addressing problems pertinent to practice) and pure research (investigating the nature of phenomena) are all featured in this phase

Evolving: **[2000-]** The projected pattern for future years can only be based on conjecture, and the patterns of more established fields of research. Likely trajectories include the development of a community of researchers and research teams; growth in research beyond the educational sector, particularly the workplace and community; attention to a wider variation of cultural settings, and a firmer, more consolidated, research agenda. Greater interaction between researchers should facilitate not only shared visions for future investigations, but may lead to collaborations, allowing problem solving and analysis from multiple perspectives. Given the present research climate, funding opportunities will drive the research undertaken. This is likely to mean that partnerships between researchers and practitioners will be encouraged, and the majority of research will be applied, or some form of research in practice.

The territories of information literacy research

In this section, I attempt to describe the territory of information literacy research as it is being presently constructed, in terms of some dimensions of information literacy researchers' collective consciousness. There appear to be five dimensions of the emerging collective consciousness that presently mark the territories of information literacy research; with variation in the nature of the research being a result of different interests in each of these dimensions:

- The sectoral location of the research [for example within workplaces, education or community settings].
- Ways of seeing information literacy.
- 'What' is being investigated; that is, the research object.
- 'How' the object is being investigated; that is the research approaches [for example sense-making, phenomenography, action research] and paradigms, [for example behaviourist, constructivist, constitutionalist, cognitivist, critical].
- Disciplinary influences [for example communication, information science, education, information technology].

While many information literacy researchers initially located their work in other territories, such as the different disciplines marking the fifth dimension, by virtue of their common focus on the newly identified phenomenon, they have begun to carve out a space for information literacy research. In some of the historical phases described earlier, significant differences are already discernible in terms of how the research territory is being constructed through these five dimensions. During the experimental phase, the sectoral dimension was dominant, with research largely conducted within the education sector, and disciplinary influences primarily from the field of education. In the exploratory phase the sectoral dimension widens as school and tertiary settings are both represented, workplace research is beginning to appear, as are pointers towards expansion into community settings. Multiple disciplinary influences are evident, and the range of research questions and approaches has widened considerably. We can expect in the future 'evolving' phase, to see changes in all dimensions; for example, increased attention to workplaces and community settings, a greater variety of research questions and strategies as well as influences from a wider range of disciplines such as information technology, business and sociology.

The sectoral location of the research Sectoral locations that have been considered include education, workplace and community settings. Location within the education sector is one of the facets that most research projects reported thus far have in common. Although each of the main institution types are represented, gaps in the territory appear when different educational subcontexts are considered, such as year of study, discipline and culture. In each of these sectors, however, there is considerable unexplored territory that is yet to become part of the collective consciousness. While we may learn something about workplace and community information use from other fields, work has barely begun that specifically takes an information literacy perspective. The possibility of other sectors of interest becoming apparent in the future, such as the 'government' sector, should not be precluded.

Situating research differently has already opened up new ways of understanding information literacy. From an investigation of auditors using information in the workplace, Cheuk[27] produces a two stage model of information literacy in which information consumption and information supply appear as mirror images of each other. She also establishes the importance of collaborative, as opposed to individualistic, approaches to information literacy, confirming findings from an earlier study [28]. As a result of his discourse with workplace managers ,Alistair Mutch [29] reminds us that

information literacy is but one of a number of dimensions involved in successful work practices, and that it may be helpful to consider more of these variables simultaneously. Creating linkages between higher education institutions and workplaces, leads Bruce[30] to propose elements of an information literate organisation that act as enablers to individuals and groups interacting with information. These elements, including environmental scanning, information processing, corporate memory and research and development, raise the importance of the quality of the information environment in supporting information literacy within learning organisations. Within the education sector, examining students' abilities across multiple institutions reveals not only that personal characteristics such as self-confidence influence capabilities; but also that levels of information literacy are influenced by gender, race, disciplinary domain and, potentially, year level. Perhaps not surprisingly, junior undergraduates have a higher level of what are fast becoming prerequisite IT skills, than their more senior counterparts.[31]

Ways of seeing information literacy This dimension refers to the underlying understanding of the phenomenon which is central to the research territory; information literacy itself is seen by the research and scholarly community in varying ways. Some of these ways of seeing are the outcomes of research, other are developed through scholarly reflection. For example, information literacy may be seen as using information technology; as a combination of information and technology skills; as acquiring mental models of information systems; as a process; as an amalgam of skills, attitudes and knowledge; as the ability to learn; or as a complex of ways of experiencing information use.[32] Different ways of seeing have led to different ways of describing information literacy. The most widely accepted description is based on the view that information literacy is an amalgam of skills, attitudes and knowledge, a view which is compatible with the prevailing interpretation of learning in present day education systems:

> Information literacy is the ability to access, evaluate and use information from a variety of sources.[33]

Other descriptions are based on views that information literacy may be interpreted as the ability to learn, or as a complex of ways of experiencing information use. These descriptions are more aligned with seeing learning as a process, or as coming to see the world differently. Thus Carol Kuhlthau [34] concluded that information literacy is not a discrete set of skills, but rather a 'way of learning'. My own research leads me to conclude that information literacy is an appreciation of the complex of ways of interacting with information. It is a way of thinking and reasoning about aspects of subject matter[35].

These ways of seeing are themselves fundamental to the development of information literacy research. They are likely to be influenced by, as well as to influence, variation in the other dimensions. Interpreting information literacy as skills or attributes may lead to particular kinds of investigations, whilst interpreting information literacy as ways of experiencing information use is usually associated with different kinds of investigations. These ideas are developed further, in relation to the other dimensions discussed below.

'What' is being investigated This dimension refers to the researcher's focus of attention, and information literacy researchers have already found many. Primary foci thus far have been information users and their skills and/or attributes. The first major study into information literacy, that of Christina Doyle, could be said to have formulated, at that time, a representation of the collective consciousness of information literacy 'experts' and advocates. By using the Delphi Technique[36], however, her attention was given to identifying consensus in the field, rather than variation; much of the development of her work revolved around the construction of sets of attributes for information literate persons. The formulation, or existence of attributes lead naturally to the investigation of those, or similar attributes amongst particular user populations. Thus we have user needs and attributes analyses, such as those conducted by Brown[37], Sayed[38], Hepworth [39], and

Genoni and Partridge[40] that served to identify user profiles, which may then drive the development of information literacy programs.

Another group of foci that take different forms, is the investigation of *experiences* and *perceptions* relating to information literacy. Some investigations of experiences include: the experience of information literacy processes in the workplace[41], students' experiences of learning through information seeking and use[42], experiences of information literacy[43], experiences of using thesauri in the online environment[44]. Investigations of perceptions are also available including: students' perceptions of information skills[45], and faculty attitudes towards information literacy in science and engineering[46]. Through examining the relation between information seeking and use, Limberg has established that particular ways of seeing the information seeking and use process lead to qualitatively different learning outcomes. She shows us, for example, that experiencing information seeking as finding facts or 'the right answer' leads to diminished and fragmentary learning outcomes. On the other hand, experiencing information seeking as an aid to understanding, providing different perspectives on the topic, leads to more powerful learning outcomes[47].

A research object very different from *experience*, is peoples' *knowledge structures*. These are the structures of knowledge located inside the mind. Through a study of knowledge structures, Todd[48] shows that seventeen year old school girls, from different cultural backgrounds, use information about the drug heroin with varying intentions. These include to 'get a complete picture' (of heroin, its use and impacts), to 'get a changed picture', to 'get a clearer picture', to 'get a verified picture' and to 'get a position in a picture'. These different intentions were associated with several different kinds of changes to the girls' knowledge structures, which were mostly achieved through adding ideas, or facts, into pre-existing 'information sets' about heroin, which remained structurally the same. In some cases new information was inserted in such a way as to change the structure of their pre-existing mental models[49]. Although focussing on different research objects, Limberg and Todd both show that the learner's intention, when engaging with information, has an impact on learning outcomes.

While the above relate to information users and their attributes or experiences, programs and curriculum issues are forming another potential research focus. In the United States, a national survey of more than 3000 participating colleges and universities measured the extent of curriculum integration into post-secondary institutions.[50] A perennial problem faced by educators is that of assessment for IL education. How does one appropriately assess learning in this domain? This has been the focus of attention for Ralph Catts, and others at the University of Central Queensland[51]. Penny Moore[52] has been exploring using staff development processes as a vehicle for fostering curriculum integration and creating collaboration between teachers and librarians. She has identified several factors influencing professional development and the implementation of IL education in primary schools. These factors broadly divided between 'teacher knowledge and perceptions', and 'student knowledge and management of learning' are likely to be of interest in other sectors and could usefully be researched in new contexts.

'How' the object is being investigated A number of the studies mentioned above employ a well articulated theoretical framework and provide the research and practitioner community with new ways of thinking about important aspects of information literacy. Examples of such studies include:
- Bonnie Cheuk's[53] use of sensemaking to investigate the experience of IL in the workplace;
- Louise Limberg's[54] use of phenomenography to determine varying ways of experiencing the information seeking and use process;
- Christine Bruce's[55] phenomenographic exploration of people's varying experience of information literacy;
- Ross Todd's[56] cognitive analysis of adolescent girls' use of heroin information; and

- Natalie Radomski's[57] use of action research to explore the contribution of information literacy education to the University of Ballarat.

It is important to note that the same research object may be investigated from different theoretical perspectives. For example, Cheuk and Limberg attend to *experience*, but they use different methods and frameworks. Possible theoretical lenses that could be of use to the field have clearly been teasing these information literacy researchers. Consequently, various attempts have already been made to spell out useful directions. Todd[58] explores the cognitivist approach, Mutch[59] explores critical realism, Bruce[60] articulates the relational approach, and Cheuk claims to be working within a constructivist paradigm. While there is not space in this paper to examine each of these perspectives and their differences, details are available from the texts of these authors. I will, however, for the sake of providing examples, touch on two approaches, 'critical' and relational research which are of significant interest the higher education community, and comment on the use of particular research tools, such as surveys.

Research driven by critical theory is intended to be empowering, emancipatory and participatory and is likely to be of considerable interest to practitioners. Like many other research approaches, 'critical' research is recognisable through the philosophies and views underpinning it. Crotty[61] describes 'critical inquiry' as research that seeks to challenge, rather than simply to understand; and as research that seeks to bring about change, rather than to accept the status quo. Investigations of this kind are usually undertaken by people directly involved in information literacy programs, or in collaboration with them. The researchers collaboratively subject some aspect of their situation to rigorous scrutiny, and seek new knowledge, new ways of doing things as a result. Action research, one approach driven by critical theory, has been used for developing information literacy programs in higher education[62]. It has also been used as a framework for evaluating information literacy instruction in the University of Queensland Physical Sciences and Engineering Library.[63]

Relational research, specifically phenomenography, seeks to uncover significant differences, or variation in people's ways of seeing aspects of the world. This is achieved through attending to variation in what is called the 'relation' between people and the phenomenon of interest. This relational, or 'constitutionalist' approach has considerable potential for information science in general[64], and is likely to provide a useful framework for new directions in information literacy research. The approach[65] [66]has widespread acceptance amongst researchers interested in higher education; and research outcomes are based on views of learning that are slowly gaining favour amongst lecturers. Phenomenographic studies have already been conducted in the school sector and interest amongst higher education information professionals is beginning to appear. At least two major insights for information literacy have already been articulated. First, that information literacy may be interpreted as 'coming to experience the effective use of information in new and increasingly complex ways';[67] and second, that different ways of experiencing information seeking and use leads to significantly different kinds of substantive learning outcomes[68].

The 'Seven Faces' of information literacy described by Bruce, and the different approaches to information seeking identified by Limberg, provide fundamental, and compatible, components of an initial understanding provided by the relational framework. Further work may involve replication of these studies in different settings or the application of the approach to new phenomena of relevance to information literacy. As relational researchers are primarily interested in uncovering the different ways of seeing particular parts of the world, pointing to a plethora of information literacy research opportunities within the educational sector and beyond [69]

Quite different from research approaches and methods are research tools. The same tool, for example 'interviews', may be associated with different methods. Research tools, such as surveys or

interviews, therefore, may be used for a range of purposes. They are not value free; and are likely to reflect particular views of information literacy and learning. Using the '*Seven Faces of Information Literacy*' as a guide, suggests that surveys of users may be analysed to identify the scope of information literacy that is being attended to by the survey. For example, is it confined to examining use of information technology and information sources, or does it extend to exploring information process and control? To what extent does the researcher attend to the latter three faces of information literacy, based on knowledge construction and critical thinking, insight development, and information ethics or wisdom. Is it made clear why a particular view of information literacy is being adopted? Views of learning will also reflect question formulation. Interest in demonstrable technical skills usually leads to frequency counts, while interest in students' ways of thinking may lead to questions based on perceptions and attitudes, or to questions that will prompt them to reveal their ways of structuring the world.

Tools such as surveys can sometimes reveal interesting educational dilemmas, but may not give us sufficient insight to enable useful action. Take the example of a survey of law students conducted recently in Queensland[70] . These students were asked to focus on a common legal research task and indicate what actions they would take to deal with it from a fixed set of responses. Students who claimed to be successful information users in many areas were unable to select useful responses for dealing with the information problem. Thus, a disparity between students' self perceptions of their abilities and their actual performance became evident. The survey results also suggested that skills instruction in the use of technology and information resources does not appear to effectively enable all students to solve unfamiliar information problems, such as those they may encounter in professional practice. What we cannot do from survey results like these, is to identify any differences in respondents' ways of seeing the problem and ways of approaching it, from an informational perspective. We cannot understand where students' learning difficulties may lie. Clearer insights could possibly be gained from asking students to say, without the structure of multiple choice questions, how they would interpret, and go about tackling, the particular problem at hand.

Disciplinary influences In the disciplinary dimension, IL researchers have already been considerably influenced by fields such as communication, information science, and education. What forms have these influences taken? The first major influence has been theoretical; the range of theoretical positions being explored has already been noted, and each of these has been derived from another discipline. The second has been in the kinds of related research studies that inform the research, thus researchers are more likely to attend closely to studies belonging to the field(s) that influence them, than to related research from other fields. Such studies will become part of the collective consciousness as they are highlighted in communications with other researchers, including publication. Citation analysis may be one way of exploring this possibility further. Thirdly, ongoing developments in the disciplinary sector will influence directions for information literacy research. For example, the emphasis on graduate attributes and generic skills in higher education may, for political reasons, lead to some information literacy research being conducted under these labels.

Educational research, from whatever theoretical perspective, has clearly been the dominant disciplinary influence, with less but possibly strengthening influences from the information science and communication fields, particularly through the application of sense-making[71] methods. How we see the information literacy research territory in relation to other disciplines will undoubtedly influence its continued development. In its short history, information literacy research appears to have already begun to look further afield, developing a need to communicate with, for example, the business and information technology communities. The extent to which this has been done is marginal, however, and suggests that opening discourse in these areas may lead to other influences

on the research field. Further questions need to be asked about where information literacy research belongs in relation to other disciplines. Is it fundamentally information science research, or is it fundamentally educational research, or both? Which other disciplines should we be looking to in expanding the territory? And what are the implications of the different answers, both politically for information literacy programs and for research directions?

The interplay of the different dimensions

How could the different dimensions of information literacy research work together in the development of new studies? This is difficult to demonstrate in areas that are relatively under researched, leading me to focus on possible developments in the educational sector. Take, for example, the apparently simple question of the impact of information literacy education on learning, recently resurrected by Bundy[72]. The same question is phrased differently by the National Forum for Information Literacy: How to measure the effectiveness of information literacy programs on an individual's performance?[73] How would the interplay of the different dimensions of the research territory affect researching this question?

All dimensions do have a bearing on the question. Even if the research is primarily for the educational sector, that should not preclude investigations in other sectors to illuminate what learners should be learning. For example, we may wish to ask whether learning strategies based on IL models developed in the community or workplace have a different kind of impact on learning?

When examining what should be investigated and how, we would need to engage with questions about what it means to learn to be information literate and what the outcomes of learning should be? Both these questions would be answered differently depending upon the theoretical position taken in the research. And these theoretical positions may well be influenced by the disciplines with which we discourse. If we believe that learning is about seeing the world in particular ways, then one important aspect of learning to be information literate is coming to see information literacy in particular ways and being able to reflect upon our own ways of working with information in relation to those. In this scenario, what will be subject to research is people's ways of seeing or experiencing information literacy, and associated phenomena.[74] We may also want to explore the interrelation between particular ways of experiencing information literacy and learning substantive material. Similarly, if we wish to ask whether particular ways of using information are related to particular ways of coming to understand issues or phenomena being studied, then like Louise Limberg we need to study further the relation between the two in the relevant contexts.

If, on the other hand, we believe that learning is about being able to demonstrate particular skills, then learning to be information literate is about being able to demonstrate a particular skill set, and that is what will be assessed. It is likely, in this scenario, that researchers would seek to measure the relationship between 'levels of information competence', or demonstrated skills and the grades that students achieve. Alternatively, again, if we adopt a cognitive view of learning, and consequently a cognitive approach to information literacy research, we may choose to study knowledge structures, during or after different kinds of learning experiences. Thus, all four dimensions of the information literacy research territory have a bearing on any research question that may be raised, and will influence the further expansion and development of that territory. I would also suggest that the simultaneous presence of all the dimensions in the development of projects may be one indicator of the quality of the project. Bowden and Marton[75] propose that high quality learning is usually about being able to focus simultaneously on the multiple dimensions relevant to understanding some phenomenon. If we take research to be a form of learning, then we can reach a similar conclusion about various aspects of research.

Future development of the research territory?

Information literacy research is presently in a highly creative position. Because the research territory is only just beginning to emerge, there is likely to be ongoing discussion and debate about what avenues should be followed and which approaches should be adopted. These are all based on different ways of seeing the territory, and different ways of attending to the object of research. Accepting these differences as complementary will provide the basis for continued expansion and construction of the territory, and will lay a foundation for individuals and groups with different perspectives to begin to work together on critical questions, problems and issues.

What will be investigated, and possibly what will not be investigated, will inevitably result from the interplay of the values and world views of the researchers, and the politics of the investigations. Pragmatic questions that may drive the agenda include: Who might be interested in the outcomes? What data sources are available? What will the potential beneficiaries of the research outcomes be interested in? Who will fund the research?

Present research outcomes already point to the need for closer attention to the relationship between information literacy and learning, cultural influences, and gender influences in all sectors. Categorising research that remains to be undertaken is a separate project. However, research already complete appears to be establishing general directions that may apply across sectors, for example studies about:

- The nature of knowledge, information and IL in different cultures;
- IL experiences of individuals and groups;
- What motivates people to walk the IL path?;
- Barriers to the implementation of IL programs;
- Strategies for helping individuals and communities to become information literate.[76]

The American Library Association suggests that the most pressing agendas are:
- How best to benchmark information literacy abilities and progress
- How to measure the effectiveness of information literacy programs on performance, and
- How information literacy is manifested in workplace settings and the degree to which it enhances productivity.[77]

Why are we not moving more rapidly beyond the educational sector? Perhaps one means of facilitating this expansion of the territory could well come through talking about it, with and to, groups outside our normal networks. Communicating with employers, employees, managers, community workers, the general public – children, parents, grandparents and others with a vested interest in using the information environment, could well change the way we see the territory; just as talking with information users provides us with new understandings of the ways in which they interact with information.

Conclusions
IL researchers are only just beginning to develop a collective consciousness, a consciousness which represents the emerging research territory. Clearly, the territory is expanding and we do not know what constitutes the unexplored areas until we start moving out into those spaces. The IL research territory does not exist, however, separately from the work of researchers and others interested in IL research. We, through, our human acts, construct that territory and allow it to emerge in our collective consciousness. As that collective consciousness grows, and we begin to better understand each others' ways of looking at and working within the territories of IL research our understanding of information literacy as a unique phenomenon should also grow. Essentially all contributors to the

research collective are exploring different parts of the whole, or approaching the phenomenon in unique ways, which lead to particular kinds of contributions.

My search for understanding the information literacy research territory has led me to engage with its history, the different ways of approaching information literacy research and some of the assumptions or 'invisible constraints' that we have imposed. It is a task that I have undertaken in some trepidation, for the outcome is a joint construction only in so far as other researchers have communicated with me, and with each other, through publication, conference attendance and e-mail. A group of researchers deliberating these issues together may arrive at different understandings. Nevertheless, the writing proposes a particular understanding of the emerging collective consciousness.

In summary, it is clear that the research community worldwide is part of a global research community that is recognising the importance of interdisciplinary and cross-cultural investigations. Researchers are also responding to demand for more outward looking research, thus we see an emerging focus on workplace and everyday life, a focus that may enable us to contribute to those sectors. The dimensions of information literacy research are not numerous, but they are sufficient to lend a complexity to the territory that exists, and an uncertainty to its future appearance. Nevertheless, the present character of information literacy research suggests that it will continue to be exciting and relevant, and that it will make contributions to many fields beyond those which served as its cradle.

Acknowledgments

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