Users, user studies and human information behaviour

A three-decade perspective on Tom Wilson's "On user studies and information needs"

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Abstract

Purpose – The purpose of this paper is to review Wilson's (1981) seminal article, "On user studies and information needs" (*Journal of Documentation*, 1981, Vol. 37 No. 1, pp. 3-15) as part of a series celebrating the Journal's 60th anniversary.

Design/methodology/approach – This paper adopts a literature-based conceptual analysis, taking Wilson's paper as the starting point, and evaluating the significance of, and later developments in, the issues dealt with in that article.

Findings – Wilson's article has had a significant effect on the development of information science. It dealt with several fundamental issues, including the nature of information itself and of information need, models of information seeking and information behaviour, particularly those based on phenomenological or "whole life" concepts, appropriate research methods for these areas, and the nature of information science as an academic discipline.

Originality/value – The paper provides a perspective on the development of information science over 30 years, with particular emphasis on the study of human information behaviour.

Keywords User studies, Information science, Information research

Paper type Research paper

Introduction

Tom Wilson's article "On user studies and information needs" was published in the first issue of the *Journal of Documentation* in 1981 (Wilson, 1981), and is republished in this issue. It dealt with a subject, which has remained very much, a "live" topic in the information sciences for the intervening 25 years. (It is interesting to note that, of the three other papers in the journal issue, the topics of two of them – the need for better understanding of, on the one hand, citing behaviour, and, on the other, of the rationale for the founding of new journals – also remain relevant. The basis of the fourth paper, use of Colon Classification for retrieving passages to text, appears to belong to the past, but who knows?)

Noting that the investigation of "information needs" had been the subject of both debate and confusion, Wilson stated as the aim of his article:

> ... to attempt to reduce this confusion by devoting attention to the definition of some concepts and by proposing the basis for a theory of the motivations for information seeking behaviour.

"On user studies and information needs" by T.D. Wilson was first published in *Journal of Documentation*, Vol. 37 No. 1, 1981, pp. 3-15. The article has been republished in this issue as part of a series of articles celebrating 60 years of the best in information research in *Journal of Documentation*.

These seem modest aims, appropriate for what is actually a rather short paper. It is striking to note – whether or not the paper did indeed reduce the confusion of terminology and concepts – how its content, and in particular the set of models which it presented, anticipated, and arguably inspired, many of the newer concerns of information research to the present day.

The paper has been cited over 100 times in the journals of the ISI databases, as well as in numerous book chapters, reports and conference proceedings. The great majority of the ISI citations are in English language library/information journals, with a small number in broadcasting and communications sources. Nearly half are in four major sources: *Journal of the American Society for Information Science and Technology*, *Journal of Documentation*, *Information Processing and Management*, and *Library and Information Science Research*. The largest number of citations per year, 11, occurred in 2003 and 2005, showing the continuing interest in the article. Scanning the citing articles shows that some are theoretical and methodological in character, while others report studies of information users and information needs in variety of settings; engineers, Ugandan entrepreneurs, migrant Hispanic farm workers, home Internet users, young people, elderly people, history students, veterinarians, arts administrators, agricultural managers, food consumers, academic researchers, and many others. What seems clear from an examination of the citing papers (and the other documents which cannot be found from a systematic citation search) is that the article has influenced both the theory and the practice of information research.

Wilson began his article by saying that "apart from information retrieval there is virtually no other area of information science that has occasioned as much research effort and writing as "user studies"". At the time the paper was written, there was certainly a strong focus of this topic, with Wilson's department at Sheffield taking a leading role, through its centre for Research in User Studies (Beaulieu, 2003; Wilson, 1994; Roberts and Wilson, 1988). (As a Masters student in that department a few years earlier, I can recall the emphasis placed on studying the state-of-the-art user surveys of the 1960s and 1970s, such as those of Slater (1969), Mote (1971), and Meyer (1971), typically carried out in scientific and industrial settings, and using quantitative methods).

The study of users' information needs has a long history (Urquhart, 1948; Fishenden, 1965; Wilson, 1994). By 1980, the field was burgeoning in interest and publication, but lacking clear foundations of method and conceptual framework. Wilson's article must be seen against that background. (As is usually the case, the ideas were formed some time before; Wilson (2005) notes that the 1981 paper had its origin in a seminar presentation at the University of Maryland in 1971.)

Wilson divided his paper into three main sections, dealing respectively with "information", "user studies", "information needs", and "consequences".

Information
In the section on information, he identified an initial difficulty with the idea of information need; information itself, which he described as a "troublesome concept", with no agreed definition, and a failure even to choose a definition appropriate to the level and purpose of the research being undertaken. It is difficult to think that the situation has improved much in the intervening years. Indeed, it may even have worsened, as the term "information" is used ever more widely as a central concept in

the physical and biological sciences (Bawden, 2001, 2005). Within the information sciences, the recent appearance of two special issues of leading journals devoted to the philosophy of information (Hjørland, 2005; Herold, 2004) attests to the continuing debate on the concept. But it may be that, precisely because of the wider scope for using the information concept, researchers are better at distinguishing the best sense of the meaning of the word for their purpose, as Wilson urged.

Although Wilson did not offer a specific solution to this problem in the 1981, he later, in Wilson (2003) proposed that the information concept should be dealt with at different integrative levels. Though the value of the theory of integrative levels for the information sciences is not an entirely novel concept – see, for example, Hucksby (1972) – for an early suggestion of its application to knowledge organisation – Wilson's idea that integration be achieved through a phenomenological approach to information behaviour seems worthy of adoption and development by other theorists.

User studies

Turning to user studies, Wilson presented a model of information behaviour, in the original, which he modestly described as "a way of thinking about the field" of user studies. This – and two other models presented in the article – are the first of a number of conceptual models, which Wilson has presented, to aid the understanding of various aspects of human information behaviour. Although he may not have been the first to make use of this kind of conceptual model in the information sciences, this model, and its successors, have played a major role in popularising this approach to understanding the concepts and inter-relationships of the subject (Wilson, 1997, 1999, 2005; Jarvelin and Wilson, 2003). Cronin (2001) describes the relation between the 1981 models and more recent offerings in these terms: "the relatively simple schemata of the early 1980s have given way to more sophisticated attempts to model macro behaviours". No doubt true; yet with increasing sophistication comes a plethora of variants and modifications. One of the strengths of Wilson's 1981 proposals – and, I believe, the reason they are still widely cited – is that their relative simplicity enables a consensus understanding rare in the field. The same is surely true of Wilson (1999) representation of the relation between human information behaviour, information seeking and information retrieval; simple indeed, but with the power to bring clarity where there was none before. Certainly these models are forming the basis for education and training for these subjects (see, for example, Bawden et al., 2005).

This first 1981 model is, according to Wilson (2005) the most referred to of the models in the set, though he does not regard it as the "key" model. The most immediately notable thing about this model (apart from a nostalgia-inducing reference to Prestel, a videotex system, much in vogue at the time) is the inclusion of information providers such as estate agents or car salesrooms, and to informal information systems in general. Inclusion of such sources is now an intrinsic part of any study of information seeking, so that it may be difficult to recall that this is a very clear break with past practice. It is, of course, essential to the study of "everyday life" information seeking (Case, 2002; McKechnie, 2003; Savolainen, 2005).

Also featuring in this model is the idea of "information exchange", a recognition of the fact that information flow is rarely one way. Again, this may be commonly accepted today – see, for example, Marcella and Baxter (2005) and Talja and Hansen (2006) – but it a considerable break from the linear "information provider –

information user" picture which used to dominate the perceptions of the information professions.

This model was later presented in a varied form (Wilson, 1999), and – with the other 1981 models – used as the basis for a revised and general model of information behaviour (Wilson and Walsh, 1996; Wilson, 1999). This family of models have proved valuable in allowing the inclusion for personal and psychological factors, as well as the context of information seeking (see, for example, Heimström (2005).

In describing his motivations for developing this more general model, Wilson (2005) remarks that "curiously, the models presented in the 1981 paper, although frequently cited, were not elaborated upon to any significant extent by other researchers". This, to my mind, illustrates a rather general problem in the development of theory in the information sciences. Many researchers seem to prefer to develop their own models or frameworks from scratch, rather than to test and develop established models. This may reflect a humanistic, rather than scientific approach to the subject, or may simply be a result of the number of possible external sources (psychology, ethnology, communication theory, sociology, etc.) from which valid-seeming information models may be drawn. Or, taking a cynical stance, it may simply be a measure of the extra academic kudos to be gained from developing and publishing one's own model, rather than validating and improving someone else's.

Information needs
Turning to information needs, Wilson reminded his readers that progress towards a theoretical understanding of the idea of an idea of an "information need' had been slow, and gave some reasons for this. In explaining them, generated another conceptual model for the context of information seeking – in the original. This, he suggests (Wilson, 2005) is the "key model" of the paper, though the one least referred to. The idea of information behaviour in context proved to be a particularly fruitful one in the 1990s, evidenced by a series of influential biannual conferences on Information Seeking in Context (Vakkari et al., 1997; Hoglund and Wilson, 2001). It is notable that a high proportion of such papers cite Wilson, 1981 article, explicitly or implicitly recognising it as a seminal document for the "information in context" approach. Savolainen (1992) identifies it as the earliest of a number of articles suggesting a refocusing of information research on "individual actors seeking and using information in practical contexts". Wilson, 1994 quotes several reviews to show that the beginning of a move towards "more person-centred" studies in information behaviour is generally attributed to his 1981 article, together with independent work by Belkin and Dervin.

Also notable in Wilson's second 1981 model is the presence of the "user's life world". This – although Wilson did not develop it as such here – is an early example of a philosophical concept, which has great significance for the understanding of information behaviour. It is a subtle concept, which has been expressed and understood in various ways, and there is no agreement on which is most useful, although this kind of viewpoint underlies much of the "information in context" approach to research (Vakkari, 1997). It may be seen, and related to the concerns of information science research, in Wittgenstein's "forms of life" (Blair, 2006) and Bourdieu's *habitus* (Savolainen, 2005).

Wilson (2002a) that – although it was not explicitly mentioned – his 1981 paper was strongly influenced by his reading of the work of Alfred Schutz, a

phenomenological sociologist, which he discovered in 1973 or 1974. Schutz'
phenomenology stems from the philosophical tradition of Husserl and Heidegger.
(Perhaps it is because phenomenology was not named as an influence in the 1981 paper
– and most readers would not be sufficiently *au fait* with the topic to recognise its
influence – that Wilson notes in his 1994 review that he had been identified with the
cognitive approach to information behaviour, whereas his view was
"phenomenological in character".)

Vakkari (1997) noted that phenomenology was among the "buzzwords' at a
conference in 1991, but that interest had fallen away five years later. Nor does the topic
appear in a recent, and generally comprehensive, overview of theories and method in
information behaviour research (Fisher *et al.*, 2005). However, apart from Wilson
(2002b), there remains general interest in the perspective for the information sciences
(see, for example, Budd, 2005; Marcella and Baxter, 2005). While this particular
philosophical approach has not gained universal acceptance – and, indeed, seems to
have suffered the fate of several philosophical approaches, in achieving something of a
"fad" status in information science circles, before being displaced by something else –
this general viewpoint now seems firmly established as an indispensable foundation
for information research.

The conclusion which Wilson drew at the end of this discussion was expressed in a
third conceptual model – in the original – for information needs and seeking, later
extended (Wilson, 1994) to incorporate Ellis' model of the information seeking process,
and this extension later presented in a simplified form (Wilson, 1999). This conclusion
is that it may be best to avoid speaking of information needs at all, and to speak rather
of information seeking to enable the satisfaction of other needs, whether for food,
shelter, money, status, learning, and so on. This suggestion does not seem to have fully
heeded; the term "information need/s" is found in the titles and abstracts of over 600
articles in the *Library and Information Science Abstracts* database between 200 and
2005. Nonetheless, there is now undoubtedly a general acceptance that the acquiring of
information is not, for the most part, an end in itself. An understanding of the use to
which it is to be put – in other words, the "true" need – is essential for a full
comprehension of any form of information seeking.

From the wide range of human needs which may motivate information seeking,
Wilson identified those which arise from work roles as being most likely to be relevant
to the specialised, or formal, information systems with which the information sciences
have traditionally been concerned. He urged that studies should include a specific
consideration of the organisational and cultural environment in which the work role
was performed. Vakkari (1997) pointed to Wilson's article as recommending an
approach, which remained largely unadopted by the late 1990s. (It is ironic to consider
that the sub-branch of the information science, which has most enthusiastically
adopted organisational and cultural perspectives, is knowledge management, about
which Wilson (2002c) has written in less than complimentary terms.)

From work roles, Wilson identified "the performance of particular tasks, and the
processes of planning and decision-making" as being the main generators of
information seeking. In the following section, he identified the fact that any group of
users, typically members of an academic discipline, could be "undertaking widely
different kinds of tasks", negating the possibility of finding any common pattern of
information needs. This foreshadowed the later strong interest in information for

decision-making (see, for example, Higgins, 1999; and Ford, 1999), and – in particular – the current enthusiasm for studies of task-based information seeking and information retrieval (see, for example, Vakkari, 2001, 2003; Spink, 2005; Bystrom, 2005; Wildemuth and Hughes, 2005; and Hansen, 2005).

Consequences

In the concluding section, dealing with "consequences", Wilson identified three particular changes in information research, which could follow a move towards a more holistic view of information needs and users. These were:

- A move towards qualitative research, as an alternative or complement to quantitative methods.
- A narrowing of research focus, for in-depth studies of well-defined groups, to determine the underlying factors of behaviour.
- A widening of the conceptual perspectives of user behaviour, going beyond purely "information" concepts, in particular including ideas from psychology and sociology.

The first of these has certainly come about. It is no exaggeration to say that qualitative research is now the most common approach for information research involving information seeking and use, alone or in conjunction with quantitative methods (see, for example, Gorman and Clayton, 2005; and McCombs and Maylone, 1998). This paradigm shift foreseen by Wilson has come to pass. We might note, however, that as recently as 1998 an author in a practitioner journal had to urge his readers to stop apologising for qualitative research in academic libraries (Biggs, 1998); paradigms shift slowly.

The other two have a less certain acceptance. Certainly one may find examples of such in-depth studies, but they are by no means the norm; nor is it clear that any significant and generally accepted underlying factors have come to light. And, while it is true that concepts and methods from the social sciences have permeated the information science to a greater extent than when this article was written, they are by no means staples of the field. These issues from the article must be regarded as unfinished business.

Wilson went on to argue that information science, according to these considerations, should be regarded as primarily a social science; a view that was then only just beginning to be voiced (Roberts, 1976). This has come about to a certain extent; the social dimension of information, and the value of the investigative methods of the social science, are more clearly recognised than in 1981. However the place of the information sciences in the academic spectrum is far from clear; they are just as often regarded – and placed in university structures – as a branch of informatics or business as of the social science disciplines, while their link with the arts and humanities is far from severed, A recent survey of European LIS departments showed this continuing scatter clearly (Larsen, 2005). Perhaps it would be better, since no agreement seems forthcoming as to what the information science "really" are, to place them as a "field of study" (Hirst, 1974), using a variety of methods and perspectives to address a common focal interest, in this case recorded information.

In concluding his paper, Wilson warned that greater integration of information sciences teaching with that of other subjects, particularly the social sciences, was

necessary, if the role of schools of librarianship and information science were not to be diminished, in providing education for the "new information professional". This diminution seems to have occurred to some extent, in the UK and USA at least. And while some examples of joint courses and shared teaching may be seen, this again seems to be largely unfinished business.

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Further reading

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