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Towards organizational excellence: exploring culture, information and organizational hierarchies

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Abstract

This paper presents the cultural results of a three-year study into the concept of information fulfilment, and considers the impact of culture on levels of information fulfilment and how this can help to achieve organizational excellence. Ethnographic studies were undertaken within higher education institutions in four countries, by examining each organization's shape and comparing it with the rate of achievement of information fulfilment. The social and symbolic meanings that underpinned the culture of information in the chosen institutions are presented here. The chosen cultural frameworks are presented followed by a section of "raw data" from the ethnographic field. Culture impacted significantly in all the studies, and each study had its own unique character and provided rich insights into the culture and contexts of the fields. The relationships between the cultures and the levels of information fulfilment are reported with a view to helping build KM systems that deliver higher levels of information fulfilment.

1. Introduction

The achievement of organizational excellence is rare – yet this is ultimately what most organizations strive toward. This can only be achieved where the use of information and the information system that underpins that use has been both carefully designed and carefully implemented. Questions around how people feel (an emotion) about information they need at work -are rarely asked. This paper is based around these questions of emotion and feelings concerning information fulfilment. Levels of information fulfilment are affected by cultural factors, which differ between institutions, and to understand this relationship it is necessary to bring together aspects of information seeking and to establish what kinds of relationships can be found between types of organization structure and levels of information fulfilment, while taking into account cultural differences. This paper focuses upon the impact of culture on levels of information fulfilment, through presentation and analysis of the cultural results of a three-year study into the concept of information fulfilment, using case studies of higher education institutions in four countries.

Between 2002 and 2005, a funded research project explored issues surrounding organization structures, and examined levels of information fulfilment in microsubstantive settings, within institutions in Poland, Hungary, Russia and the UK. Interpretive ethnographic studies were undertaken by examining each organization's structure (e.g. bureaucratic, matrix etc.) and comparing this with the level of information

fulfilment achieved. It is the social and symbolic meanings that underpinned the culture of information in the chosen institutions that form the basis of this paper. By understanding how cultural factors can affect information fulfilment it becomes possible to see what determines whether a KM system is hailed a success or branded a failure by those who use it, and how to build KM systems associated with high levels of information fulfilment.

The impact of culture on levels of information fulfilment is considered throughout six stages. First, a discussion is presented of the relationship between information fulfilment and knowledge management. Second, a review is given of the place of information fulfilment in established information models. This is followed by the third section, which contains a discussion of the cultural frameworks used to underpin each of the institutions. The fourth part of the paper allows for analysis of the way in which the term was interpreted and used in each of the cultural environments. The fifth part of the paper presents an assessment of the impact of the cultures on the levels of information fulfilment. Finally, the paper closes with a discussion regarding the building of knowledge management systems that can be designed to encourage and achieve high levels of information fulfilment.

2. Discussion of the relationship between information fulfilment and KM

Information systems utilize the available technology in order to undertake particular parts of the information management process - including careful planning of the way in which the information flows within the organization structure - resulting in overall improved control of the way in which the information is managed. Due to the continuous nature of change in the external environment of an organization, it is critical that managers of the organization are able to respond quickly to these changes by making prompt good quality decisions. To enhance this process, an area of research within information management known as “information seeking”, or more properly as “information seeking behavior”, examines the ways in which people find the information they require. Information seeking can itself be defined as a study of how and where people look for solutions to information problems.

One of the major purposes of information in organizations is to allow members of that organization to fulfil the duties of their role. This is done by having the correct information, in the correct format, at an appropriate time. Each person within the organization needs complete information fulfilment, i.e. to consider that “all their information needs are truly satisfied, which will allow them to complete any task associated with their role”. [Burke, 2005] The challenge is not only to provide sufficient information but also to avoid a situation in which bureaucratic complexity leads to information overload, in which users “satisfice”. [Simon, 1957]

Knowledge management, on the other hand, can be defined in a number of ways. Building on earlier approaches of data management and information management, it adds

a higher level of complexity with the inclusion of meaning, networking, collaboration and business process improvement. KM employs techniques to manage the common base of organizational knowledge and encourage its sharing and re-use. According to Civi (xxx) it is a business process through which firms create and use their institutional or collective knowledge. This can take many forms, but will often include the identification and mapping of intellectual assets within an organization, the generation of new knowledge for competitive advantage, making large amounts of corporate information accessible, sharing of best practices, and related technology, such as intranets and groupware. [Barclay and Murray, 97] Therefore, it may be loosely defined as a way of storing information in a manner that is easily retrievable.

How then can the two areas of information fulfilment and knowledge management be linked? Even technology-based KM systems must take into account the psychological and social needs of the users. [Dougherty, 1999] Without KM there can be no true information fulfilment and without information fulfilment the purpose of a KM system is pointless and without a “raison d’être”. The information system must therefore be designed to ensure that the end user is able to function effectively within the organization and can access all the information necessary to complete a task.

3. Review of Information Fulfilment in established information models

There has been a variety of information models proposed, most notably those by Wilson and Ellis (Wilson & Spink, 1981; Wilson 1987; 1999, Ellis, 1989; 1993, Ellis, Cox and Hall, 1993) whose ideas are concerned with modelling the sequence of events from the initial information seeking to information finding, and what was then regarded as the final phase of seeking, known as “information satisfaction”. However, there had been little research published that linked the ultimate part of the information seeking process, i.e. the level of fulfilment experienced by those members of an organization who actually use the information at the end of the entire information seeking process. Papers have been published on specific aspects of information seeking such as “Uncertainty” (Ingression, 1996; Kuhlthau, 1993) “Serendipity” (Rice et. al., 1991; Foster, 2003) and “Browsing” (Levine, 1969). Models such as that proposed by Kuhlthau (1991) have considered the emotional aspects of information seeking and proposed six stages: initiation, selection, exploration, formulation, collection, and presentation. Kuhlthau also presented a final stage of “relief, satisfaction and a sense of direction”, but again no mention of fulfilment of information needs.

Jarvelin and Wilson (2003) provide a synthesis of the literature containing analysis of information seeking in a place of employment. [Auster and Choo, 1994; Fabritius, 1998; Herner and Herner, 1967; Siatra, 1998; Timko and Loynes, 1989; Wilson and Strearfield, 1980] These studies included a wide range of contexts, from prairie farmers to news reading, and a comparative study of electronic seeking in Greek and British universities. Other studies of information seeking within workplaces have included Bawden (1997) on midwifery, Cobbletick (1996) on artists, Futas & Vidor (xxx) on business managers

using libraries, Gorman (1995) and Lundeen et.al.(1994) on doctors and others in the medical profession and Nichols and Martin (1997) on the information seeking behavior of journalists.

The aim of the entire Information Fulfilment project has been to bring together aspects of information seeking and to establish what kinds of relationships can be found between levels of information fulfilment and types of organization structures, taking into account the cultural differences in each of the case studies. As established earlier, the aim of this paper is specifically to consider one aspect of the project - the impact of culture on levels of information fulfilment. The influence of cultural values and norms is critical for several reasons: for a system to be actively used, for a system to encourage information storing and information seeking, and for a system that will ultimately give true information fulfilment to the user.

The paper has now set into context the relationship between Information Fulfilment and Knowledge Management and considered the literature, and thus the place of Information Fulfilment in established information models. Having established this important background, the next part of the paper will concentrate on the cultural issues of the project.

4. Cultural frameworks

The studies took place in radically different cultures, which affected the chosen research approach (ethnography) and thus the outcome of each of the studies. It was important to find cultural frameworks that could be used to assist with the analysis of each of the studies. As it was difficult to identify a single cultural framework that would encapsulate the myriad of issues arising within each of the ethnographies, the following five frameworks were chosen, as they represent different perspectives of culture. The frameworks chosen were from the mid 1980's before the "fall" of communism, which have a very appropriate fit to the reality of organizational cultures found in the universities observed..

The first cultural framework is that put forward by Kets de Vries and Miller (1984) whose work linked neurotic styles with organizational functioning. They identified what they saw as five common neurotic styles taken from the psychiatric discipline and then discussed the parallels within organizational behaviors, strategy, culture, structure and behavior. The five cultural styles are:

Paranoia. An emphasis on an organization's intelligence, worry and mistrust that nothing is quite as it seems, that others have power. An atmosphere of secrecy is likely to operate within this culture.

Avoidant. characterized by a lack of control and power. Avoidance of conflict, just doing the job, agreeing to changes with little or no consultation.

Charismatic. An emphasis on strong leadership skills, success, a penchant for drama and a need to be followed by a cohort of supporters.

Bureaucratic. A culture which is rule bound, rigid and detailed.

Schizoid. A culture which suffers from a leadership vacuum – a culture in which members are withdrawn and detached – no excitement or enthusiasm.

This cultural framework emphasizes the negative aspects of a culture, yet it is a realistic view of organizations held by many. It is an inflexible, cynical view, but nevertheless useful in identifying problems – and hopefully solutions.

The second of the five frameworks is that devised by Mitroff and Kilmann (1975) who base their cultural analysis in that of the four main personality types identified by that of C.G. Jung. Jung identified two types of decision making “sensing” and “thinking” found in managers. He postulated that “thinking” types use logic as reason whilst “sensing” types use personal considerations as reasons for decisions. The two types were further subdivided into four categories, as follows:

Sensation thinking, where work roles are impersonal and authoritarian; *Intuitive thinking*, where work roles are flexible and goal driven; *Intuitive feeling*, when the role is seen as that of caring and decentralized and *Sensation feeling*, where the culture is “homelike”

and relationship driven. While there is a danger in this model of overgeneralizing Jung's work, this is a useful analytical framework where a culture is much politicized and there are contradictory personalities working within an unstable environment.

The third framework was posited by Sethia and Von Gilnow in 1985. They identified two important criteria that help to define an organization's culture – its concern for its people and its concern for performance of its members. Within these levels they identified the four cultures of *Caring*, *Apathetic*, *Integrative*, and *Exacting*. The apathetic culture shows little concern for people, whereas the integrative culture is the ideal culture, which gives equal weight to both people and performance. Finally the exacting culture is centered on performance and has little regard for people.

This cultural framework allows for analysis in an environment where there may be motivational issues. It is a useful model but does not allow for any issues related to leadership which would be likely to be present in the kind of environment Sethia and Von Gilnow describe.

The fourth framework deals with more traditional views of culture and is based on ideas put forward by Deal and Kennedy (1982). They identified five elements of culture: an *organizational environment* which, for example, can lead to a strong ingrained culture or to a lacklustre ambiguous culture; the *core beliefs* of the culture; the *heroes of the culture* e.g. the key champions who can act as role models; the *folklore, myths, rites and rituals*

of culture; and finally the importance of the *cultural network*, the informal communication which takes place within the organization.

This culture can be seen as dangerous as it does not allow for change. Although people will change as they leave and join the organization, the stories and the myths are likely to remain and grow, resulting in either organizational stagnation, or, if the stories and beliefs are positive rather than negative then the organization may flourish. However this is a high risk culture as the organization needs to adapt to the environment rather than rely for values on rites and rituals

The fifth framework is that proposed by and Jaeger (1978) who classify cultures into three distinct types: types A, J and Z. Type As exist in a culture which is strongly controlled, but allows some element of decision making. Type J was identified in cultures which had “tribal control” with general decision making as a group and Type Z was about “tribal decision making” and decision making in a patient and consenting way.

This model assumes that the culture is based on two issues – personality types and decision making. Whilst this is useful in categorizing the “appropriate” people to make “good” decisions it does not allow for the values and beliefs systems which for example, Deal and Kennedy identify in their model. This fifth culture is useful but has limitations in that it does not (nor does it aspire to) cover all the intangible aspects of culture.

Although each of the frameworks has limitations they provided a useful way of extending the analysis of each of the organizations used in the ethnographies. It was not an easy decision to “categorize” each organization, but by using these models it was possible to at least propose an idea of the type of organizational culture in which the “actors” were immersed.

5. The Cultural Environments

This section will now present the cultural findings from three of the case studies. Within each of the studies there is a brief discussion of the way in which information fulfilment was translated, as inevitably the translation and the understanding varied in each country and it was vital to establish a common understanding and definition. This is followed by a reproduction of the original field notes and a discussion of which cultural framework seemed to best fit the organization.

5.1 A note on ethnographic field notes

It is worth considering here the view posited by Atkinson (1992) on ethnographic field notes i.e. that they “should first be constructed through the ethnographers gaze - as what the researcher sees is how the field is defined; second, that the field is then reconstituted through his or her ability to construct a text and finally that the ethnography is reconstituted and recontextualized through the readers work of interpretation and contextualisation.” This problem of interpretation and contextualization is - otherwise known as assumptions – on the part of the both the researcher and the reader inevitably

mean that two “world views” are likely to be part of the ethnography. However, given that this is a known issue and a consideration that will be taken into account by both parties then through this professional awareness a certain degree of objectivity was able to be maintained. The originality of the ethnography is therefore of critical importance - and a sample of the raw (condensed) field notes are reproduced below in order to give a flavour of the location and atmosphere of the study. This was vital, vibrant part of the ethnography and the text has been deliberately preserved as originally written in note format. The headings used are based on suggestions by Spradley (1980) and Milofsky & Schneider (2003): fieldwork period, local commitments, description of the setting, the community and the atmosphere, the people, and the overall analysis of the culture.

5.2. Russian Cultural Environment

The Russian University had strong traditional and historical associations, and in order to put into context the cultural elements it is useful to say a few words about what was understood by the term Information fulfilment within the Russian field. The term “information fulfilment” was translated by members of the Russian organization as “Pol’naia nuzhnaia Informatsiia” (Complete needed information). Most organizational members responded in a very serious, indignant manner that the term meant “having everything that they need to be a ‘proper’ student or staff member”. When questioned further on the term “proper student” they defined this as being correct, punctual, and having the complete set of necessary documents to complete their tasks. Others were

more nonchalant and guessed that the term meant “knowing everything” – just getting what they needed to do their jobs/studies. Discussion took place and an agreement was then reached on a definition of the term.

Having established a common definition of Information Fulfilment, time was spent in the field collecting relevant data. Out of the chosen five cultural frameworks, the two which seemed to best fit the Russian study were those of Mitroff and Kilmann (1975)

“Sensation – Thinking Roles” – whereby work roles are seen as impersonal and authoritarian (which leads to a powerless and rigid organization culture) and Kets de Vries’ (1984) cultural “Paranoia” typology where there is an emphasis on organizational intelligence, combined with an atmosphere of fear and mistrust that “nothing is at it seems.” Although the culture had been stagnant for a long time there were signs that things were changing and there was evidence of hope/wishes for more flexibility in the future.

From the evidence in the cultural sample and the time spent undertaking the participant observation both the cultural framework offered by Mitroff and Kilmann (1975) and the one offered by Kets deVries (1984) seemed to present a good fit. The sense of a rigid bureaucratic organization structure coupled with the sense of awe of powerful figures (supervisors, heads, deans etc) created a culture that was tense and typified by Kets de Vries’ cultural paranoia. However, the constant discussions regarding the name change of the University and the desire to increase cooperation with western Universities were two

tangible signs of the push towards change which may help to move the University towards a more flexible culture in the future.

5.3 Polish Cultural Environment

The Polish translation of the term information fulfilment was stated as “dostarczenie informacji”, meaning the literal delivery of information. About 60% responded that the term meant for them, “being able to attend work/ classes”, “knowing where to go at what time”, “knowing what work to complete”, and “knowing what they had to do in order to undertake tasks”. It was interesting to note that the term “knowing” was used extensively in the Polish study. Although there were no direct references to knowledge management, it was clear that a knowledge management framework of some kind was used, albeit on a collegiate basis. Others commented that to them the term “information fulfilment” meant “being organized” and “fulfilling the duties set by the University”. Again, after discussion, a common ground was established as to the definition of information fulfilment.

Having established the definition the next stage was to consider the cultural issues. The importance of the “atmosphere” of the University, the emotional issues, the attitudes of the staff and students, were important parts of the Polish ethnography and a sample of the collected raw data evidencing this is given below. Ritual and ceremony held important roles in this University. Oil paintings of past and present Rectors were hung on walls and

previous Rectors were also displayed in the form of magnificent bronze busts. Treasures of the University such as gold wine goblets, antique astronomical models, tapestries, rare books, solid gold sceptres were prevalent and were displayed in the University Museum. The wealth of the University was significant in this setting.

The framework that best fits this culture (from the chosen five) is that of Deal and Kennedy's (1982) five elements of culture. Their proposition of the five elements of culture, i.e. environment, core beliefs of the culture, the heroes of the cultures, the champions who can act as models, and the importance of folklore and myth, are an appropriate analysis for the culture of the University. The organizational environment is that of a historical, traditional organization that aims to move forward and cater for modern times. The core beliefs of the culture are about "distinctiveness" - in Polish terms about "being special". Education is seen as "special", as a privilege, and the University is "special" due to its long history of survival, which is reflected in the strong sense of Polish pride. The heroes of the culture are based on both historical figures such as Nicholas Copernicus and present figures such as the current University Rector. The champions who act as models for others can be identified as a variety of key staff, and younger staff, in particular, "are put on pedestals" and seen as important as role models for the students. Finally, the importance of folklore is demonstrated by the telling of stories about the University, (in particular the survival of the University over so many hundreds of years and the restoration after WW2), the prestige of being associated with the University and the sense of belonging to an elite group.

The major issues and observations from the Polish fieldwork were the emotional aspects of pride in the University and care about fellow academics; the issues concerning the contradiction between the central control of the University and freedom to initiate new ideas; the value placed on the opinions of colleagues and the need for students to be accepted by their peers. Deal and Kennedy's cultural analysis which is about folklore and heroes fits the setting although there are issues (as analysed above) behind the elements they identify. The sense of pride was strong in Poland and the sense of a huge effort to modernize the country and the particular city where the fieldwork took place. Similar field studies have shown that people in organizations where society is beginning to alter aim to have enthusiasm and take pride in their work (Applebaum, 1981) and this was certainly demonstrated in the Polish study.

5.4 British Cultural Environment

The UK respondents were familiar with the concept concerning "information fulfilment". Nevertheless, it was important that the same discussion took place concerning meaning in order to ensure consistency throughout the entire study.

The cultural framework which most closely matches the British University is that of Ouchi and Jaeger (1978) who analysed culture as primarily being concerned with belonging or not belonging to an identifiable group of people and with types of decision making found in each group. They further classified culture into the three distinct types of control and decision making. Type A organizations had a culture which was

controlling, but allowed some decision making. Type J organizations tended to arise in a culture which had overall “tribal control” and group decision making and Type Z organizations “combined a basic cultural commitment to individualistic values with a highly collective, non –individual pattern of interaction”. Type Z organizations were categorised by decisions made “as an entire tribe”, for the good of all.

A mix of all these types of decision making characteristics was found in the UK study. The holistic decisions made by Senior Management levels could be identified as Type A, whilst Faculty decisions tended to fit into Type J and Departmental decision into Type Z. However this is a neat, “boxed” analysis and on further study of the field it was found that Type Z decisions, although purported to be “for the good of all” were often made to fulfil Faculty requirements that in turn were keen to fulfil senior University requirements. The culture of belonging, the sense of community was strong in the Department and Ouchi and Jaeger’s analysis provides a way of initially identifying a complex culture.

6. Relationship between Culture and Information Fulfilment

Significant further studies were completed in each of the countries and many charts and matrices drawn up which have been reported elsewhere (Burke, 2005). As it is not the intention of the paper to convey the statistical analysis, the results are presented in the paragraphs below in narrative form with an emphasis on the cultural aspects of the results.

6.1 Russia

These results were gained from a study where immersion in the field was classified as “New: New” which allowed for good, relatively easy levels of objectivity. The major issues and observations arising out of the Russian ethnography were the formality and bureaucracy of the context, the significantly low levels of information fulfilment regarding informal academic information together with the suspicion and curiosity that surrounded the study. In addition the two opposite attitudes of optimism and pessimism divided the community. These attitudes were at different ends of the spectrum with little evidence of any “middle” attitudes. Finally all the participants had issues surrounding trust which affected the levels of information fulfilment. This fits with Kets de Vries “Paranoia” typology of the cultural environment.

6.2 Poland

Immersion in the Polish field was Familiar: New – where the researcher was familiar with the University but new to the city and surroundings. These results were interesting, and quite different from those found in the first study. Results showed that both informal and formal academic information score highly in information fulfilment within this structure, but that the social information does not always give high satisfaction, with informal social actually scoring the lowest of all. This is reflective of a culture which was controlled and which has viewed higher education as a “special privilege”. The organization structure was more difficult to identify as there are many layers and

different sections of the University, although all sections report to the central powerful figure of the Rector.

6.3 Britain

Immersion in this field was categorised as Native: Familiar which was the most difficult field in which to operate. The limitations placed on the researcher were considered and the interpretative stance of the research was helpful in placing the study within an objective context. The major issues and observations arising out of the British ethnography were the strong sense of community spirit, the success of the informal sources of information, the importance placed on tribal belonging and the contradictions between a sense of pessimism and optimism for the future of the Department. The cultural framework devised by Ouchi and Jaeger (1978) which examined decision making in different levels of the organization provided an interesting analysis between the kind of tribal decisions making which was purported to be “for the good of all” (and which fit within the informal, democratic nature of the organization) and decisions made to fulfil Faculty and University obligations.

7. Conclusion

Culture impacted significantly in all the studies, and notably each study had its own unique character and provided rich insights into the culture and contexts of the fields. In each case, the relationships between the culture and the levels of information fulfilment have been reported. The culture in the organization has an impact on the processes and on

the likelihood of either high or low levels of information fulfilment. By understanding the culture within an organization, information fulfilment can be enhanced by appropriate KM management. KM systems can only transform the workplace, so that workers feel that all their information needs are truly satisfied, allowing them to complete any task associated with their role, if the culture of an organization is fully considered,

Information fulfilment is vital in today's world of information overload. There needs to be a planned strategy which takes into account all the variables which affect information processing, including the design of the organizational structure, consideration of the environment of the industry, and of the different types of information needed by members of the organization. Moreover, the strategist also needs to be involved in the decision making processes surrounding these issues. A robust Knowledge Management system which takes this into account is sorely needed by today's society, and one which is designed to take care of individual cultures would be helpful and very much welcomed in different societies, and at different stages of development in those societies.

Inevitably, this paper is a report of a small section of a much larger project, and has attempted to "separate" the cultural aspects from other aspects of the project. The work, however, continues – recent work has been completed in Hungary and work is planned in Holland and Denmark. It is therefore an evolving project and one which is filled with different patterns, of culture, of information use, and of fulfilment. The patterns within this work have been interesting, fascinating, contradictory and ultimately illuminating,

and it is hoped that through this work organisational excellence can ultimately be achieved.

References

Applebaum, H (1981) *Royal blue: the culture of construction workers*. New York, Holt

Atkinson, P., (1992). Understanding ethnographic texts. *Qualitative research methods*
Vol 25 Sage Publications

Formatted: English U.K.

Auster E. and Choo C.(1994) How senior managers acquire and use information in environmental scanning. *Information Processing and Management* 30 (5) pp607-618

Bawden, D & Kay R. (1997). "Information Behaviour in Nursing Specialties: A Case Study of Midwifery." *Journal of Information Science* 23, 6 : 407-421.

Blumer, H (1969) *Symbolic Interactionism: Perspective and Method* Englewood Cliffs, NJ, Prentice-Hall

Burke, M (2005) Reflections on structures and solutions regarding information fulfilment in organisations. *Proceedings of Information Management Resources Association 2005*, San Diego (CD)

Civi, E (2000) Knowledge management as a competitive asset: a review. *Marketing Intelligence & Planning* 18/4 pp 166-174

Cobbledick, S (1996).The Information-Seeking Behavior of Artists: Exploratory Interviews. *Library Quarterly* 66, (4) pp 343-372.

Deal and Kennedy (1982). Deal, T.E. and Kennedy, A.A. (1982) *Corporate cultures: the rites and rituals of corporate life*. Reading MA., Addison Wesley.

Dougherty, V. (1999) Knowledge is about people, not databases *Industrial and Commercial Training*, 31(7) pp262-266

Ellis, D (1993) Modelling the information seeking patterns of academic researchers: a grounded theory approach. *The Library Quarterly*, 63 (4) 469-486.

Ellis, D& Cox, D & Hall, K (1993) A comparison of the information seeking patterns of researchers in the physical and social sciences. *Journal of Documentation* 49 4 pp356-369

Ellis, D. (1989) "A behavioural approach to information retrieval design." *Journal of Documentation*, 46, 318-338

Fabritius, H. (1998) Information seeking in the newsroom: application of the cognitive framework for analysis of the of the work context. *Information Research* 4 (2) Retrieved 12 Oct 2004 from <http://informationr.net/ir/>

Foster, A., & Ford, N. (2003) Serendipity and information seeking : an empirical study *Journal of Documentation* 59 (3) pp321-340

Futas, E & Vidor,D (1986). How Business Professionals Use Libraries. *Library Journal* 1(11) pp112-121

Gorman, P.(1995). "Information Needs of Physicians." *Journal of the American Society for Information Science* 46, 10 pp 729-736.

Herner, S and Herner,M. (1967) Information needs and uses in science and technology. *Annual Review of Science and technology*, 2 pp1-34

Ingwersen, P. (1996) Cognitive perspectives of information retrieval interaction: elements of a cognitive IR theory, *Journal of Documentation* 51 pp2-50

Jarvelin, K & Wilson, T. D. (2003) On conceptual models for information seeking and retrieval research. *Information Research*. Vol 9 1 Retrieved on 10 Oct 2004 from <http://informationr.net>

Kets de Vries, M.F.R., and Miller, D. (1984) *The Neurotic organisation* San Francisco, Jossey Bass

Kuhlthau C. (1993) A principle of uncertainty for information seeking. *Journal of Information seeking. Journal of Documentation* 49 (4) pp39-55

Kuhlthau, C (1991) Inside the search process: information seeking from the user's perspective. *Journal of the American Society for Information Science.*42 pp361-371

Levine M.M (1969) An essay on browsing . *Research Quarterly* 9 (1) pp35-6

Lundeen, G &, Tenopir, C and Wermager.A (1994) "*Information Needs of Rural Health Care in Hawaii*". *Bulletin of the Medical Library Association* 82 (2) pp197-205

Milofsky,C & Schneider,J (2002) *The field notes manual. Doing ethnography in sociology and anthropology.* Lewisburg,PA, Bucknell Univ Press

Mitroff I and Kilmann R (1975) Stories managers tell: a new tool for organisational story telling. *Management Review* pp18-28

Nicholas, D and Martin,H.(1997)Assessing Information Needs: A Case Study of Journalists." *Aslib Proceedings* 49,(2) pp 43-52

Ouchi, W.G. and Jaeger, A. M. (1978) Type Z organisations: stability in the midst of mobility. *Academy of Management Review* 3 pp18-28

Rice R and Aydin C (1991) Attitudes toward new organisational technology: network proximity as a mechanism for social information processing. *Administrative Science Quarterly* 36 (2) pp219-226

Sethia, N.K. and Von Glinow, M.A. (1985) Arriving at four cultures by managing the reward system. In Kilmann, R.H. et.al.(eds) *Gaining control of the corporate culture*. San Francisco, Jossey Bass pp400-20.

Siatri, R (1998) Information seeking in an electronic environment: a comparative investigation among computer scientists in British and Greek Universities. *Information Research* 4 (2) Retrieved 12 October 2004 from <http://information.net/ir>

Simon, H (1957) *Models of Man – Social and Rational*, New York, John Wiley & Sons

Spradley, J.P., (1980). *Participant Observation*. New York, Holt Rhinehart and Winston

Timko M & Loynes R.M.A. (1989) Market information needs for prairie farmers. *Canadian Journal of Agricultural Economics*, 37 pp.609-627.

Wilson T.D & Spink A (1981) *Uncertainty in information seeking*. Library and Information Commission Research Report 59 ISSN 1466 2949

Wilson T.D (1981) On user studies and information needs. *Journal of Documentation* 37
1 pp3-15

Wilson T.D. (1987) Information behaviour: an interdisciplinary perspective. *Information
Processing and Management*. 33 (4) pp551-572

Wilson T.D. (1999) Models in information behaviour research. *Journal of
Documentation* 55 3 pp249-270

Wilson, T.D. & Streatfield D.R. (1980) *A study of information use in local authority
social services departments*. conducted by Project INNIS Sheffield, University of
Sheffield, School of LIS, occasional paper no 12. Retrieved 12 October 2004 at
<http://informationr.net/tdw>