The IM Research Field in view of a "rational choice" paradigm and an "institutional theory" paradigm

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Abstract

This article studies the field of information management research in the light of the differences between approaches building on a "rational choice" epistemology and (new) institutional approaches. I broaden the definition of what may be included in information management research somewhat so that parts of the research field of Information Seeking and Use (INSU) are included and use literature from organisational theory as well as from political science to explain the differences in epistemology. The first part is devoted to defining the research field, the second part to studying underlying epistemological assumptions. The broader project from which this article is derived is my dissertation on how, and why, voluntary peace organisations in Sweden manage information, where some of the ideas discussed here will be used in a chapter on earlier research.

Keywords: information management research field, epistemology, rational choice perspective, new institutional theory

IM Research

The research field of "information management" (IM) is young and as yet divided as to its major subject, aims and concepts. According to Maceviciute and Wilson, it is a research track that has grown out of librarianship and information science in the late seventies (Maceviciute & Wilson 2002), but that has more and more become a separate field. The numbers of LIS institutions with a separate IM track in education and research or with IM in their institutional titles are still growing (National Agency for Higher Education 2004, 122). IM research is classified as a sub-category of "Research on information Seeking" by Järvelin and Vakkari (1990, 418-19), a placement that not all IM researchers would agree with. The IM community might be called a doubly cross-scientific community that is actively engaged in trying to establish its niche vis-à-vis its cross-scientific parent research communities such as LIS and Management Studies. This explains the large number of articles on the concept "IM" and similar

concepts such as "knowledge management" compared with empirical studies (see for instance Maceviciute and Wilson (2002), Black (2004) and Kirk (1999).

The discussion of exact boundaries both in professional practices and in research questions may seem somewhat barren and sometimes take over the interest in "real" empirical research questions. However, since this clearly is a bone of contention in the information management community, the first part of the article is devoted to a discussion of the identity of information management, in practice and in research. I start with two articles which discuss the status of information management research as a discipline – Wilson and Maceviciute (2002) and Black (2004), and cite some of the other course articles before presenting my own model of the research area.

Maceviciute and Wilson (2002) describe one way of looking at Information Management as an area of interest that is diverse both as to the disciplines in which it is studied and how it is defined as a professional activity in organisations. The authors distinguish between "information management work" and "information management research" and state that information management has been constituted as a research object (which first emerged about four decades ago) around the following questions on information in organisations:

- Information is a resource, the handling of which is associated with recognizable costs and its potential value for the organisation and it ought to be structured and managed

- Most information in an organisation is text-based and this creates a need for integrated information systems that can store and retrieve information in a text-based format

- These information systems need to be designed according to the user's information needs

- Information strategies and policies can be used as tools for consistent information behaviour throughout the organisation.

These areas of interest have since then been studied with contributions from theories and models within economics, management, organisational theory, information systems and LIS, among others. The authors see the clearest gap between the definitions of IM used by IT researchers and computer scientists on the one hand and the concepts used by management and LIS researchers on the other hand.

From the above description of the research field around four major questions it is clear that many different sub-fields of interest can range under the heading of Information Management research – not just the study of how information (behaviour) is managed, as Wilson's (1997; 2002) definition (also used in Wilson & Maceviciute, 2002) suggests:

The application of management principles to the acquisition, organization, control, dissemination and use of information relevant to the effective operation of organizations of all kinds.…Information management deals with the value, quality, ownership, use and security of information in the context of organizational performance.

Whereas this may be a fitting description of the Information Management *profession,* it is, at the same time, too broad and too narrow to cover all research conducted around the key questions mentioned above, as the following categorisation of research subjects found by the authors shows:

- economics of information

- information management practice

- application areas

- information systems and technology

- artificial intelligence

- systems theory

- information policy and strategy

- information use and users

The above list states the categories found in an overview of articles in IM journals from 1989. In the 2002 overview, there are fewer articles on AI and on systems theory, but generally, the authors find that the same categories still hold.

When I looked at the contents of all the articles of a single journal - *the International Journal of Information Management* – from its start in 1986 to 2004, I found a similar spread of research topics, with an addition of some general articles on management issues and on information management as a research area (definitions, frameworks, curriculum, etc.). The majority of articles in this journal are about the design, implementation, use and management of various information systems and technology. Most of the articles that could be classified as "economics of information" in effect dealt with aspects of e-business. I also made a rough classification of the academic backgrounds of the contributing authors of some of the issues by looking at the titles of their departments and/or professional titles, such as a department of information systems (Lay 1986), or a department of management and organisation (Curry and Stancich 2000). Of course this can only give an approximation, since departments can place themselves across different research areas. Furthermore, several articles have joint authors with different backgrounds, for example, a joint authorship between one author from a department of decision sciences at a school of business administration and an author from a systems administrator in 1992 (Warmouth & Yen 1992), or authors who work in different fields at the same time. Still, it shows a

possible development of the journal from a more practice-based and LIS-based background towards management and systems studies.

academic background authors IJIM
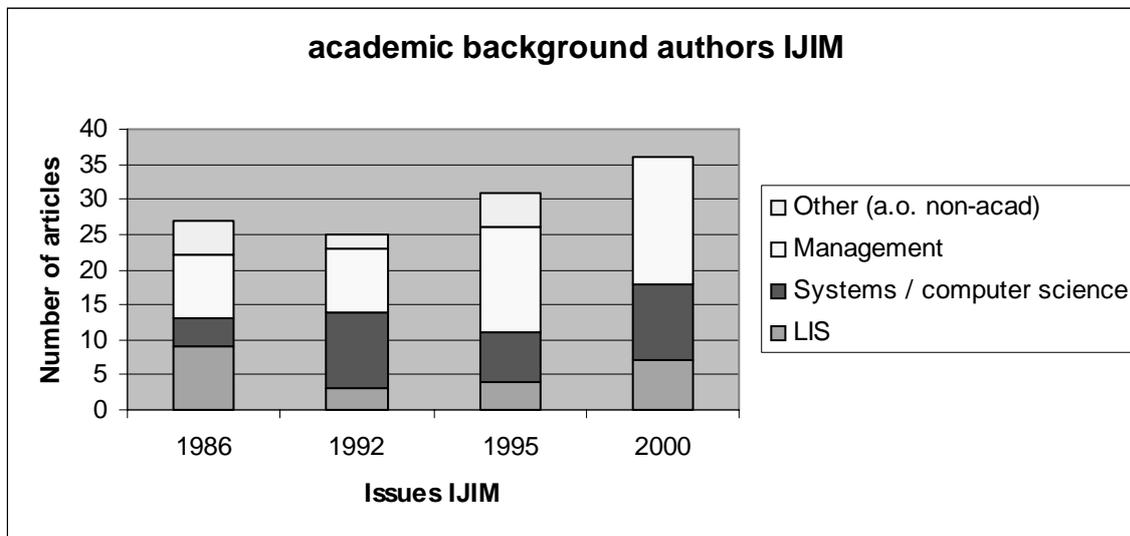
Figur 1 Institutional Background of Authors in IJIM

Both my own findings and the categorization by Wilson and Maceviciute (2002) show that the information management research area spans over several disciplines, of which management studies, computer science, systems science and LIS are most common and deals with a range of different questions that are more or less loosely connected to the actual practice of information management in organisations.

Where Wilson and Maceviciute see research problems at the centre of the information management research area, Black (2004) claims that the most important "rallying point" for a research area striving to be a discipline is a history. He sees information management research as research about a practice – information management – and thus the history of the practice is the history of the discipline (Black 2004, 29). It is perhaps natural then, that his delineation of information management research is narrower than that of Wilson and Maceviciute. And his view of the information management research area is that it is (or ought to be) based in LIS. As it is, he believes that IM research has only a weak claim to being a discipline in its own right because of its lack of a history of its practice.

Wilson's (2002) article for the *International Encyclopedia of Information and Library Science* concentrates more on information management practice. Starting from the definition cited above, the author discusses key activities, concepts and competences for the practicing of information management in organisations. Among these are traditional library and archive skills, information technology and management tools such as strategic planning, costing and marketing. A curriculum leading to an

information management profession would therefore include education and training in these areas. A fourth article focusing on an effort to define the IM area is Kirk (1999). Kirk concentrates on the practice of information management rather than on the research area. It is interesting to notice that both Kirk (1999) and Choo (1996), on trying to describe the role of information and information management in organisations, seem to refer more to research from organisational studies and management studies than to research that places itself in an IM research area. This indicates that either there are quite few empirical studies and/ or theories within the IM field itself as yet, or that their authors have problems communicating their results, even to other researchers in the same field.

I summarise the discussions on information management and information management research in a simple model where I distinguish three levels. Both Maceviciute and Wilson (2002) and my own study of the *International Journal of Information Management* mentioned above are descriptive in nature, looking at what is published until today in IM journals. But one can also examine the field and the research questions more conceptually and describe what could be included in information management research, which is what my model tries to show.
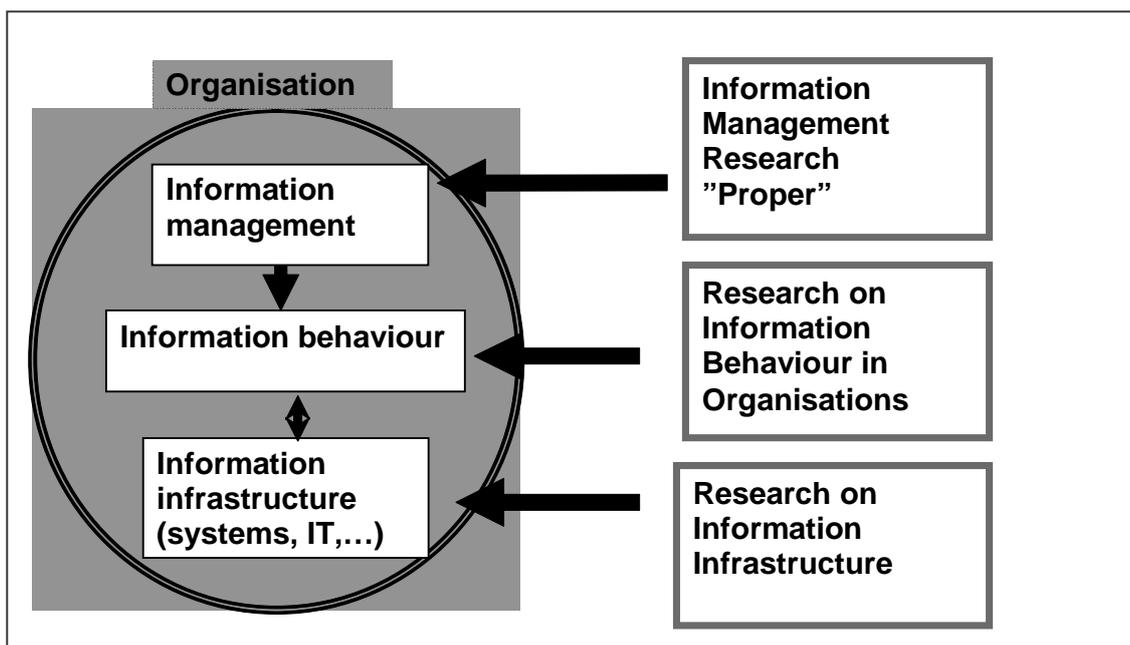
By "information management" I mean "the application of management principles" to information behaviour – the cycle of "the acquisition, organization, control, dissemination and use of information relevant to the effective operation of organizations of all kinds" (Wilson 2002) by individuals at different levels in the organisations, as well as their attitudes towards information (information culture) and the information infrastructure, which I define as tangible systems and tools that support information behaviour in the organisation.

One of the advantages of this model is the clear division between practice and research. I think it is important to at least conceptually distinguish between the practice of information management and information management research, for instance by not abbreviating IM research as just "information management". This is not always done – in a publication from The National Agency of Higher Education (2004), the authors state that the term "information management" has replaced "information science" in the title of many departments, and that they themselves do not differentiate between information management as research or as practice (The National Agency of Higher Education 2004, 123-124).

The model concentrates on empirical research and does not leave explicit room for the discussions of concepts and definitions that abound. On the other hand, it may include some of the research that has traditionally been defined within other LIS sub-fields. Research on professional information seeking and use or on task complexity in the context of information seeking, for instance, has been defined within the "Information Seeking and Use" (INSU) community and research on collaboration has been defined as an area in itself, but both can be included in IM research if they treat information use in an organisational context. Also some of the research within information systems, or IR studies, that deal with organisations, can be included as a part of IM research in this model. What, more than anything else, seems to define a study's affiliation is the department that the researcher belongs to and the conferences and journals that the study is communicated through. But these aspects can form impenetrable boundaries that hinder the communication of the results. There is a risk that useful research that is conducted in a research community outside IM research is not found by IM researchers – and the other way around; that useful IM research is not used by other groups in the LIS community.

Epistemological assumptions behind IM research

Wilson and Maceviciute (2002) find that a large majority of IM studies are conducted within "the modernist paradigm which sees the world as predictable and controllable". They note one or two exceptions to the rule in connection with an increasing interest in organisational culture and an understanding that one model cannot be adapted to different cultures. The modernist paradigm can also be called a "rational choice" paradigm, which has been contrasted to an institutionalist perspective where (institutional) context is of the utmost importance in understanding organisational information behaviour. In this part of the paper I will outline some characteristics of both perspectives in general and applied to the IM research area and discuss some of the advantages and disadvantages of both positions.

According to several authors in sociology and organisational studies, a major characteristic of both new and classic institutional theories is that they form an alternative to theories of "rational choice" (Olsen 1988; Rothstein 1998; DiMaggio

& Powell 1991; Audunson 2005). Audunson (2005) traces early institutional theories to Weber's description of the norms and values in a capitalist and protestant society. He found that it was characteristic for early institutional theories to focus on formal laws and rules, and that they were holistic in their aims to describe whole systems (like the whole state). Furthermore, these theories asserted that structures determine actors rather than the other way around. These traits were predominant in most social science theory (see also Olsen 1988 on political science) including LIS until the 1970's, according to Audunson. It wasn't until the 1960's for most of the social sciences, or until the 1970's for LIS, that there was a reaction in the form of a turn towards behaviourism and different forms of "rational theories". There are differences between different disciplines and different national formations; within sociology, for instance the "rational man" assumption was never as dominant as in organisational studies (Höglund – seminar discussion 2005-06-14).

Both the "rational choice" and the (new and classic) institutional approaches are loose conglomerates of internally divergent theories in many different disciplines, which share some common epistemological assumptions. Audunson (2005) sees the following common traits in the rational choice approaches:

- Methodological individualism
- Belief in conscious and rational subjects
- Belief that to act rationally always means to strive for the maximation of one's self-interest
- Belief in exogeneous preferences (rather than preferences on the basis of a logic of appropriation)
- A "black box" attitude towards both individuals and systems
- Not normative in the way the earlier institutional theories were normative.

The trait that is most distinguishing for rational choice theories may be their belief that rational behaviour is always aimed at maximising one's individual self-interests, and thus not context-dependent. This is often seen as "intuitively true" in popular debates for instance, but it is also the trait that later institutional theory has reacted most against.

Also (new) institutional theories reacting to the rational choice paradigm have at least as many differences as they have a common epistemological core (Powell & DiMaggio 1991; March & Olsen 1995). For instance, the exact definitions of what "institutions" are vary considerably between different approaches, from sociological macro-institutions such as "Religion" or "Family" (Cohen & Orbuch 1990) to single organisations in organisation theory (Powell & DiMaggio 1991, 11). As Powell and DiMaggio (1991) show, the approaches differ according to the discipline in which they are conceived:

> There are, in fact, many new institutionalisms – in economics, organization theory, political science and public choice, history, and sociology – united by little but a common skepticism towards atomistic accounts of social processes and a common conviction that institutional arrangements and social processes matter (Powell & DiMaggio 1991, 3).

Within organisation theory, which is dominated by theories of a "decidedly rational and materialist cast" (Powell & DiMaggio 1991, 12), all institutional approaches offer an alternative to rational-actor models and view institutionalisation "as a state-dependent process that makes organizations less instrumentally rational by limiting the options they can pursue" (Powell & DiMaggio 1991, 12). Institutional theories also emphasize organisations' relations with their environment as well as organisational cultures as two important influences on development in organisations. The older approaches emphasize the role of individual (hidden) goals and interactions and power conflicts, whereas "new institutionalism" often explores existing explicit and implicit structures and their symbolic roles in legitimating actions in organisations (Powell & DiMaggio 1991, 12-13). The organisational environment in new institutional approaches is often defined as a sector, field, profession, industry, or national society that:

> Penetrate(s) the organization, creating the lenses through which actors view the world and the very categories of structure, action, and thought" (Powell & DiMaggio 1991, 13).

March & Olsen (1995) present their own neo-institutional approach to the study of both organisations and political and social systems. They focus on the following key concepts:

▪ The identity-based logic of appropriateness as an alternative to the idea that the only rationality is in striving to maximize one's own self-interest. Individuals strive to act in ways that they believe are appropriate in certain (institutional) contexts, and fulfil context-specific roles (the role of a father, of a manager, of a "homo academicus" etc.). People will usually want to follow rules as this is the way to establish an identity. People can still strive to maximize their self-interest but this is only one logic among many, which will be appropriate in some institutional contexts but not in others.

▪ Institutions as mediators that complicate simple cause-effect logic through their internal logic and through the lags in "matching environment, multiple equilibria, path dependencies, and interconnected networks of diffusion" that explain the basic inefficiency of history (March & Olsen 1995, 42). This also means that management is about creating possibilities and shaping constraints, not (only) changing external variables like resources etc., and that it is possible to change history through changing institutions, but not to foresee the effects of one's efforts. (Compare Powell & DiMaggio 1991, 12).

▪ Institutions are shaped by and shape individuals. But neither of these relations is straightforward; individuals still have to work actively at translating and coordinating ambiguous institutional rules and norms and expectations for their cognitive and emotional behaviour, in different circumstances. Sometimes their actions and slight changes in how they together make sense of constraints and bide by them will, in time, change the institution too. Sometimes even conscious and planned changes will be absorbed by institutional inertia. Neither structures nor actors have a determining role, which is largely explained by the inherent ambiguity of institutional rules and identities:

As a result, identities and rules assure neither consistency nor simplicity. … Defining an identity and achieving it require energy, thought, and capability. Fulfilling an identity through following appropriate rules involves matching a changing (and often ambiguous) set of contingent rules to a changing (and often ambiguous) set of situations (March & Olsen 1995, 42).

Below I try to sketch how the assumptions that are described in general for the "rational choice paradigm" and the "institutional paradigm" above can be translated into assumptions about management, information and information behaviour around two of the research topics discussed above: research on the management of information resources in organisations ("IMR Proper") and research on information behaviour in organisations. Research on information infrastructure is not within the scope of this article.

Rational choice approach

Management of information resources in organisations
The major function of information in organisations is to support rational decision making at the management level (Marchand et al. 2001, Kirk 1999). It is clear in all departments what information to seek, store, use etc. in order to best support the organisation's goals, and an a priori (top-down) information strategy can be designed and implemented to support an a priori organisational strategy (Widén-Wulff 2001, Choo 1998). Conflicts are neither necessary nor inevitable. Goals are clear and usually build on profit maximation (Huotari 2001, Choo 1996). The value of information can be calculated (see Repo 1989) and information and knowledge can be managed. Knowledge can be made explicit and shared, for instance through the use of IT (This view is common for most KM literature, for instance Nonaka & Takeuchi 1995).

Information behaviour in organisations

Individuals and their cognitive behaviour are in focus. Information seeking is a rational process with well-defined steps of which the individual is conscious, and which is reiterated in different circumstances. Relevance is objective and stable, information is the answer to a more or less well-defined uncertainty, and the answers can be found. Examples include models on information for decision making that assume a

rational process (assumptions that apply to all Management Information Systems research), or models on information seeking based on task complexity independent of the actual context of the work (Byström 1999).

Institutional approach

Management of information resources in organisations

The structures and routines for sharing, seeking, storing, using information can be value-laden rather than rational and goal-dependent and influenced by the organisational culture(s). Strategies are intertwined with action (Mintzberg 1987/ 1998) and a priori designs will fail if they are not in accordance with existing patterns. Goals and aims of the whole organisation and of information activities within them are different in different institutional contexts and often ambiguous. Information politics are to be expected and dealt with (Davenport et al 1996). It is (almost?) impossible to calculate the value of information because its relevance is so dependent on the context of its use. It is problematic to share the knowledge from one community (of practice) with another, because each community understands information according to its own implicit standards (Brown & Duguid 1998).

Information behaviour in organisations

There are few studies with an institutional approach that place themselves within IM research. Most of the studies claiming an "institutional approach" place themselves in other disciplines such as organisational studies or "information seeking and use", and form exceptions to more contextless "rational choice" studies even there. Of course, as with all models and definitions, my divisions of the research field or of the "different paradigms" are not absolute. There is a grey zone of studies that share several characteristics, and other authors may contend the choices I have made.

Even though I have presented an institutional approach derived from March & Olsen as an alternative in the information management research area which is traditionally dominated by an individualistic, contextless and instrumentally rational paradigm (see Maceviciute & Wilson 2002 quoted above), this does not mean that I reject the "rational choice" approach. This approach often results in models and strategies that are very useful, for instance, in business contexts with more or less unambiguous aims and environments. Even if these models simplify organisational reality in comparison with (new) institutional-approach studies, this very simplification may make it possible for managers to design strategies and act according to them, thereby giving the organisation some well needed guidelines to follow. On the other hand, the preliminary results from my study of information management in voluntary peace organisations suggest that their information behaviour, attitudes and management structures do not match with "rational choice" assumptions. These organisations have fuzzier goals and value-infused authority structures that make both the organisations and their environment much less "controllable". The context-based assumptions behind

institutional approaches can explain their behaviour where rational choice models only could pronounce it as "ineffective" or "irrational". Therefore, I believe that studies in "information management research proper" and "research in information behaviour in organisations" within a (new) institutional paradigm rather than a "rational choice" paradigm will probably prove the most fruitful for my own research.

In this article, I have described the research field of information management with a departure point in some influential IM definitions and ending in a simple model dividing information management practices and information management research. I have also concluded that there seems to be a growing tendency in IM towards management studies when looking at author affiliations. In the second part, I study the epistemological assumptions behind the majority of IM studies and conclude that while most studies have a "rational choice" approach, the field, and especially my own dissertation project, could benefit from an "neo-institutional approach" such as advocated by March & Olsen (1995).

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