

Knowledge and policy decisions: concept management for the organisations

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Abstract

Eventual problems of knowledge transfer and sharing are usually dependent on a variety of factors. The troubles may be a consequence of a lack of trust, willingness to cooperate, difficulties in communication or a lack of a shared frame of reference. The last mentioned problem has been identified to be an especially prominent issue in the interface between expert and policy work. The findings of the present investigation on this precise issue suggests that a central source of difficulties may be a discrepancy of the critical concepts, which form the basis of the core knowledge, which is attempted to be shared. This study proposes the adoption of explicit *concept management* as a framework to manage and anticipate forthcoming changes of the central concepts, which are critical to the sharing of knowledge and the success of an organisation. The study is based on a qualitative empirical investigation conducted in Finland and in Sweden in the context of cultural heritage administration professionals.

Keywords: knowledge, policy work, concept, knowledge sharing

1 Introduction

Decision making and policy issues have long been acknowledged to be difficult subjects to support with evidence based on the experiences of the researchers and experts, and practitioners [21]. One recognised issue is that the complex and contextual nature of the policy work makes it difficult to support with formally structured factual data [24]. Besides the infrastructural issues, the problems relate to the cooperation of contributing and utilising communities [15]. The question is, how to apply practitioners' and researchers' knowledge to

policy contexts. Earlier studies suggest that to succeed, the applying requires a thorough mutual understanding of how the different stakeholders operate with the knowledge and how they conceptualise and articulate it (ref. e.g. studies on social capital [34] and articulation work [28]).

The present study discusses the specific issue of sharing a conceptual understanding in the context of applying and communicating research information and knowledge to the policy work. The questions discussed are 1) where knowledge sharing fails in the first place and 2) what is that the different communities (i.e. researchers, policy makers) find difficult to communicate and understand in their mutual communication.

The findings of the study suggest that a central source of the difficulties may be discrepancy of the critical concepts, which form the basis of the core knowledge. The study proposes the adoption of explicit *concept management* as a framework for managing and anticipating forthcoming changes of the concepts, which are critical to the knowledge sharing and the success of an organisation. The study is based on a qualitative empirical investigation of archaeological cultural heritage management work discussed in detail in [14]. The empirical study consist of altogether 25 thematic interviews with cultural heritage professionals from Finland and Sweden.

2 Literature overview

The inherent problems of using research information as a basis for decision making have been acknowledged widely in the literature. The difficulties have evoked critical views on both researchers and the decision makers. Decision makers have labelled research as an academic tinkering with little practical relevance. Correspondingly researchers have been critical towards the decision makers, who they suggest have tended to assume research results as a basis for policy making only sporadically and with a considerable delay spanning over several years or even decades [11].

Depending on the context, the majority of the problems may be related to the incompatibility of the expert information, researchers' knowledge and the knowledge that could benefit the decision making tasks: "research is not a retail store" as Lomas underlines [18]. The variety of target audiences, disciplinary perspectives, relevant questions and research approaches used in empirical studies make the scholarly literature difficult to use in decision making. The key messages become obscured in the reports and the fitting situations of application for the results remain vague [16]. Depending on the 'wheres', 'whens' and 'whys' of the research projects, the reports provide often contradictory or seemingly contradictory results [27]. Moreover, a large part of the studies are not intended to provide direct answers to the questions of the decision makers, but to provide a basis for a future applied research [18].

The principal issues may be traced down to the disparity of the intellectual processes in research and decision making [18]. Another significant factor is the dissimilarity of the contexts of the processes. Both Weiss and Lavis have

observed that policy decisions are based often on 'ideas' more than on precise verified data [33][16]. The influence of a particular piece of research on major policy decisions is, on the contrary, rarely very decisive [23]. The researchers are, on the other hand, reluctant to give enough clear and unconditional "key take-away" messages, which would more directly benefit the decision makers [16]. Lomas argues that a lynchpin of the dissonance is that the researchers and the decision makers generally fail to see the processual nature of each other's knowledge work [18]. Research processes are only seldom capable of providing unambiguous answers to direct policy related questions. Correspondingly, the policy decision processes are affected by a spectrum of volatile viewpoints. In order to cope with the complexity, Lavis et al. [16] have summarised the most consistent aspects of knowledge transfer between decision makers and researchers to five questions, which should be emphasised during the communication:

- What should be transferred to the decision makers? (*the message*)
- To whom should research knowledge be transferred? (*the target audience*)
- By whom should research knowledge be transferred? (*the messenger*)
- How should research knowledge be transferred? (*the knowledge-transfer processes and supporting communications infrastructure*)
- With what effect should research knowledge be transferred? (*evaluation*)

According to Lavis et al. the answers to the questions provide an organising framework for knowledge transfer strategy. Based on their study of Canadian research organisations, the authors conclude that the most evident potential for improvement lies in the messages directed to the decision makers (what is communicated), in the development of the knowledge acquiring skills of the decision makers and in the evaluation of the knowledge transfer [16].

3 Empirical study

3.1 Layout and methods

The empirical investigation of the present study was conducted in a qualitative inquiry, which comprised altogether 25 *thematic interviews* [12] of cultural heritage professionals, each averaging 120 minutes in length. The discussion on the different interview themes was informed and structured according to the notions of free form thematic discussion and storytelling in the spirit of 'creative interviewing' [9, 10], active semi-structured interview with an objective of inducing structured reflection in order to inform the interviewer [13], reflection [3, 37 Fig. 3], semi-structured interview [10], and an imagination exercise [29, 177]¹.

¹The imagination exercise was conducted as an oral narrative instead of a written one due to the length of the interview and because in the light of the pilot interview, it seemed that the oral narrative might lead to the capturing of more utterances and a more uninhibited flow of imagination in contrast to a written text.

The informants were archaeologists from Finland and Sweden, who worked in various roles within the cultural heritage sector. Half of the interviewees were directly involved in the cultural heritage administration related duties, while the rest represented the expert and research viewpoint (i.e. explicit or implicit expert information production in contrast to the administrative policy decision making: field archaeologists, museum professionals and academics). Because the roles of the individual informants were mixed the discussion is based on work roles and related knowledge activities instead of individuals.² One interviewee was typically involved simultaneously in several activities such as in field archaeology, academic research and education. The interviews were conducted by the author during the spring and autumn in 2004, digitised, transcribed and analysed using a combination of grounded theory [31][6] and schema based approaches [26, 782-784], which was elaborated in the later stages using writing as an explicit form of inquiry [25]. The interviewees were indicated that the study is about information work and its development in archaeology sector. The interviewer has several years experience on working with archaeologists. Because of this, the interviewees were repeatedly told be explicit about their views to avoid any false assumptions based on the earlier experiences of the interviewer.

The theoretical coding of the data was based on the observations of a likely significance of the recurring patterns of the similarities and dissimilarities in:

1. Formal work duties (e.g. collection management, field work, teaching) and titles (e.g. antiquarian, project researcher, lecturer, researcher)
2. Environments and scenes of work (e.g. museum, archaeological site, university)
3. Objects interacted with (e.g. shovel, computer, collection of finds, literature, pottery)
4. Activity, how its done, its meanings, purposes and values (e.g. to unearth and document an archaeological site, to tell the public about the Bronze Age, to teach archaeology students)

The practical analytical work progressed by constructing a theory on the basis of discernible patterns in the discussion between the interviewer and the interviewee.

The purpose of the interviews was to lay out the work practises of the informants with a special emphasis on the information (and knowledge) related activities. The theoretical foundation of the interviews was based on a free form narrative discussion, which was complemented by a structure provided by a faceted classification of the informants' information interactions [5] and by a framework of information needs [17][20].

The data was analysed using a method based on role theory [1], soft systems methodology [4] and ecological approach [?] based method denoted *information*

²For a cross-comparison of individual information behaviours and work role related information behaviours ref. [14].

work analysis [14]. Altogether seven work roles (field archaeology, antiquarian, academic research, academic teaching, public dissemination, cultural heritage administration and infrastructural development) were identified and described using a combination of root definitions, use case modelling, classification of information interactions [5] and analysis of information horizons [30].

A comprehensive analysis of the research data may be found in [14]. Due to the limitations of space, only the findings, which are relevant from the point of view of the present study, will be discussed thoroughly. The most important findings (from the point of view of the present discussion) have been summarised in Table 1. The table summarises the aspects of principal information resources for each work role identified in the study.

3.2 Knowledge in cultural heritage sector

The empirical investigation provided a wealth of material on the knowledge practises in archaeology and in cultural heritage sector in general. The overall layout of knowledge and information practises in the cultural heritage sector resembles a patchwork of sources, channels and actors (illustrated by the 'Focus of interest' in 1). The cultural heritage work combines a variety of information sources and types of information. The administration of cultural heritage assets is partly about the physical maintenance of cultural heritage sites and materials. Partly, the work grasps the issues of intellectual cultural heritage, heritage education and active participation in the on-going debate about the contents and meaning of the notion 'cultural heritage'. As one of the informants put it

“I am doing a wealth of things: submitting opinions, sitting in steering groups, coordinating archaeological excavations, budgeting, supervising excavations, inspections. More rarely I am planning exhibitions and writing publications.”

“My principal duty in the department [as a cultural heritage administrator] is the conservation of sites and monuments. I need information about coming land use projects, where are [archaeological] sites, what are they like. Then I need to estimate the value of the affected sites, whether they need to be conserved and in which circumstances. It is an exception that I actually have the information. In practise I need to look at old maps and begin to think whether I have time to visit the place or is there someone else who could [in order to conduct a small scale research].” (Finnish informant, primary work role: *cultural heritage administration*)

In a large enough organisation, there is possibility for specialisation. Individuals may specialise themselves in late Iron Age culture while another is an expert of medieval archaeology (Two Swedish informants, *antiquarian*), but this seems to be an exception rather than a commonplace according to the empirical study. There is a noticeable disparity between the knowledge and information catered by the principal information producers (i.e. content professionals, e.g.

Work role	Focus of interest	Principal transmitter	Information	Specificity of information	Quantity of objects	Mode of access
Field archaeology	Site	Investigation report	Descriptive	Specific	Set	Search/browse
Antiquarian	Artefact	Collections database	Descriptive	Specific	Database	Search/browse
Public dissemination	Subject	General literature	Affective	General	Set	(General level) browse
Academic research	(varies)	(varies)	(varies)	Specific	Set	Search/browse
Academic teaching	Subject	General literature	Summarising	General	Set	Browse
Cultural heritage administration	Site	Investigation report	Evaluative	Specific	Database	Search
Infrastructural development	Method	Technical literature	Evaluative	Specific	Set	Browse

Table 1: Aspects of work role specific information sources.

archaeologists, historians, art historians) and the knowledge needed during the management of the heritage assets. The documentation of the heritage sites is typically centred around physical details, visual aspects and quantifiable data. It is written and produced by researchers for researchers ([14], ref. also [32]). Archaeological field work data tends to be descriptive rather than evaluative (Swedish informant, *cultural heritage administration*; Finnish informant, *field archaeology*). The first priority is to secure as much relevant information for the coming generations of researchers not to make value judgments (Finnish informant, *field archaeology*). Interpretations and valuations tend to be cautious to a degree, which renders them very difficult to use in the management process. One of the informants made an explicit point of the need for more explicit evaluation:

“The biggest problem is that this person, who has written about this site, that he or she has not spoken out, whether the site is a cultural heritage site or not.” (Finnish informant, *cultural heritage administration*)

Another informant indicated that she tended to look at the written documents and later call an appropriate expert she knew in order to get a tentative evaluation (Swedish informant, primary work roles: *antiquarian, cultural heritage administration*).

The cautiousness of the researchers may be explained by several factors. Scholarly viewpoint tends to underline the uncertainty of interpretations (Swedish informant, *field archaeology*). This emphasis seems to make researchers reluctant to take an absolute position and to keep that basically everything archaeological is valuable (Swedish informant, *field archaeology*), even if a basic need to make choices was acknowledged by all informants. The problem seems to relate to the difference of the frameworks of reference between the cultural heritage administration and the information production (i.e. research). Administrators duty is to balance between community development needs and the needs to conserve archaeological heritage while researchers may concentrate solely on the sites and their significance. The administrators who were involved, for instance, in on-going graduate studies or had recently been involved in research work, were acknowledgeable of the paradox and its problematic nature (Two Swedish informant, *field archaeology* and *infrastructural development*).

The conceptual unclarity of the communication makes it difficult to reach a working level of knowledge sharing and transfer. The informants indicated in several instances how

“it is somewhat unclear, well, also to us, what is considered to be a heritage site and what isn't.” (Finnish informant, *field archaeology*)

The problem was indicated to be especially difficult when the archaeological objects were not previously known to the cultural heritage administrator. A Finnish informant (*antiquarian, cultural heritage administration*) stated that international illegal trade of antiquities causes especially significant problems.

The personal expertise of Nordic cultural heritage administrators only seldom cover, for instance, eastern or African material culture. There are few available experts and the existing literature does not give explicit indications on how to track down the provenance of an individual object or determine its significance, it is difficult to find an appropriate expert.

3.3 The landscape of cultural heritage management

The cultural heritage management professionals interviewed for the present study might be argued to represent a transitional form of decision making. Formally, the cultural heritage managers represent a bureaucracy, which is implementing national and international policies. To accomplish this task they use third party expert information as a reference for the resolutions. The multiplicity of the duties inscribed in the work descriptions cause, however, the cultural heritage managers to perform in a variety of roles besides the management of the cultural heritage. Their common co-affiliations to university departments as graduate students and lecturers widen the frames of reference of the subjects of this study. In practise, the informants represent an amalgam of being subject and policy experts, and civil servants responsible of executing the policies (ref. 3.2). The only focal viewpoint within the scope of cultural heritage management and its societal impact, which remains outside the direct scope of the cultural heritage managers, is the interest of the landowners and developers. The mediating nature of the managers is, however, reflected in their rather express sensitivity to the needs of the community development (Two Finnish informants, One Swedish informant, *cultural heritage administration*).

The framework, in which the cultural heritage managers operate may be illustrated by mapping the key factors of the process to the model of policy processes introduced by Sabatier [27]. The model perceives policy change as a function of three sets of factors: 1) the interaction of competing advocacy coalitions within a policy community, 2) external changes (e.g. socioeconomic conditions) and 3) the effects of stable system parameters (e.g. basic social structure or the constitutional rules) [27]. The most consistent of these factors (from the knowledge management point of view), which appeared in the material of the present study, are summarised in Table 2 on page 9.

The major stakeholders of the policy process comprise the general public, developers (and landowners), cultural heritage experts (e.g. archaeologists, historians and art historians), policy makers and the cultural heritage managers, who are responsible of the implementation of the policies [14]. The principal external factors, which seemed to affect the cultural heritage management work and consequently the character of the knowledge work, centre around the issues of public economy and the socioeconomic valuation of the cultural heritage in the society. The generally perceived importance of the cultural heritage (or the maintenance of ties to the mutual past) and the existence of the (broadly speaking) present kind of national and international societal structures may be kept as relatively stable parameters in the process.

Factor	Manifestation in the context of the present study
1) Advocacy coalitions	The public, developers, experts, cultural heritage managers , policy makers
2) External changes	Economic means to nurture the cultural heritage, socioeconomic valuations of the cultural heritage and the subsequent general political sympathies towards the preservation of the cultural heritage
3) Stable parameters	Perceived general importance of the cultural heritage (or the antiquities), the existence of nation states and international organisations (in some form)

Table 2: The framework of the cultural heritage management policy process

4 Concepts as a knowledge gap in the decision making process

The existence of extreme viewpoints of the utility of research knowledge in the policy making processes in the earlier literature can be seen as an indication of the complexity of communicating and sharing knowledge between the two communities (research and policy making) of interest. However, unlike in the example of Healy et al. [11] in the environment sector, the fusion of the roles of the cultural heritage management professionals as subject and policy experts might be expected to make the competing advocacy coalitions less visible in an everyday knowledge work. The embeddedness of the standpoints seems to increase the complexity of the knowledge sharing in the cultural heritage management work, because an individual acts both as a expert and as a policy maker. In practise, the cultural heritage managers need entirely different kind of information and a dissimilar knowledge basis for the decisions on the area of their personal expertise than on an area, in which they are knowledgeable only in general terms (A Finnish and a Swedish informant, *cultural heritage administration*). Yet according to the present findings, the administrators do not seem to adjust their behaviour accordingly with their expertise on the matter. It seems to be more common that they process information as if they were experts also in the matters beyond their personal research interests.

The incompatibilities of the information, which is used to mediate the knowledge, is clearly deepening the gap between cultural heritage professionals and cultural heritage administrators. A more explicit focus on the central aspects of the knowledge transfer, would undoubtedly improve the communication. The present rather technical and detail oriented paradigm of the cultural heritage

documentation would benefit of a clearer consideration of the issues of usage contexts and of a clearer explication of the message. There is also room for the improvement of the infrastructures (including the work practises and information systems) to support the augmentation of the focus of the information work to support the sharing of the knowledge.

Besides the bridge itself (i.e. the information used in the sharing and transfer of knowledge), the findings of the present study suggest of the salience of considering the positions of the two ends (i.e. the sources and the audiences of the knowledge assets). Even though the audiences and the purposes of the communication would be clearly expressed, the message does not necessarily imply the same issue for the mediator and the audience.

The most interesting observation in the studied material is that the knowledge transfer is hindered significantly often, not because of the complexity or unsuitability of the knowledge, but the lack of shared concepts and terms. The notion of cultural heritage itself has proved to be problematic to communicate between the different stakeholders. It is difficult to communicate what the cultural heritage is, what needs to be reported to the heritage authorities and what is less significant. Similarly to the 'cultural heritage', the varying degrees of certainty cause similar complications. A site of a 'possible' or 'probable' heritage value may be interpreted in different manner by the various parties even within the same community of advocacy (i.e. the developers or the cultural heritage managers). A site of 'possible' interest may be equally well seen as a site, which is unlikely to be interesting.

“A good report of an inspection on an archaeological site offers a clear opinion whether the site is of archaeological interest or not. Far too often the interpretation is too vague to serve any real purpose.”
(Finnish informant, *cultural heritage administration*)

“Many archaeological surveys are conducted by people who are experts in prehistorical archaeology. Due to their lack of concern in historical era sites and monuments, these are left out from the reports. Historical sites are not seen as sites of primary 'archaeological' interest like the older ones.” (Finnish informant, *cultural heritage administration*)

The observation on the perceived significance of the shared concepts is in accordance with the observation of Landry that the more focal issue of knowledge sharing between researchers and decision makers is how they behave, not the research product itself [15]. In the knowledge sharing process, the concepts are functioning as 'carriers of knowledge', but more significantly, they are a premiss for the interaction and an expression of an embedded information and knowledge behaviour. The way of perceiving, for instance, the concept of cultural heritage, is directly reflected to the stakeholder's behaviour on the matters relating to the concept.

5 Concept management for organisations

The notion of *concept management* has been utilised in terminology work for some time to denote the activity of actively researching, tracking and enforcing the use of standard concepts [19]. The notion of managing concepts has been discussed also with a reference to the brands as “brand concept management”, where the focus is on managing the symbolic or functional association of a brand with customers [22]. Bleeker et al. refer to the concept management as the “deliberate activity of introducing, evolving and retiring concepts” [2] with a special reference to the software development. In that particular context it is important that a concept used in the development of an ICT system match with the real world concepts and the match persists throughout the entire life-cycle of the system [2].

On the basis of the findings on the lack of conceptual clarity in cultural heritage work, it is suggested that a concept management approach might serve a purpose in organisational knowledge sharing context. The approach is aimed at underlining the salience of shared concepts in the communication and sharing of knowledge. Unlike the earlier instances of concept management, here the concepts are seen as active participants in the running of an organisation. The most significant concept to be managed are social, rather than related to a specific transaction, physical object or term. The notion of organisational concept management is based on the observation that besides the tangible assets, organisations need to manage actively the intangible concepts and ideas, which form the basis of their *raison d'être* and success. Organisations need to be aware of the concepts and their meanings in the cultural and societal contexts, where the organisations operate. Further, the organisations need to be able to anticipate the changes of the central concepts and ideas.

Within the scope of the present study, some of the key concepts, which would be likely to benefit of the concept management might be, for instance, the notions of *cultural heritage*, *preservation*, *artefact*, *heritage site* and *access* (to the cultural heritage). Compared with some other fields such as many sectors of industry, the domain of cultural heritage is manifestly abstract and is based to a considerable degree on the communication and sharing of concepts. The notion of cultural heritage is manifested in sites and objects, but it serves almost entirely intellectual and emotional needs. Therefore the impact and importance of an effective concept management might be expected to be relatively higher than in the domains, where the material implications are clearer.

In spite of the expected, proportionately higher impact of the concept management activities in intellectual contexts, the validity of the approach is assumed to encompass a variety of contexts. In the industry and services, the management of the key product related concepts is equally important as the management of the cultural heritage is for cultural heritage managers. For example, if the understanding of a social concept of such as “personal computing” or “relaxing” assumed by a manufacturer is significantly different from the understanding and the needs of the customers, the sales are likely to collapse. In another example, the changes in the public understanding of ‘likely threats’

and the sense of the concept 'security', is of a primary relevance in the private security services sector.

Even though the present study implies that the organisational concept management is something new, the basic importance of the conceptual clarity in organisations is a matter of course. All scholarly work is founded on well managed concepts. Similarly, in the cultural heritage sector like in every other field, the central concepts are under a constant, both explicit and implicit, debate driven by the practitioners, theorists, policy makers and the general public. Organisations base their work on the consensual understanding of the social concepts, which are carefully copied to the introductory chapters of the published reports, statements and declarations.

The contribution of the notion of organisational management of concepts is not in introducing an altogether new thing. The central argument supporting the notion is the prevailing theoretical orientation of the practises and discussion covering the concepts and their implications. The meticulous pondering of the concepts is left to the theorists and the high level vision and mission statements. In the practical work, a 'working definition' is assumed and possibly inscribed, but rarely explicitly referred later. The concept management assumes that keeping an awareness of the central conceptual contexts of the organisation, anticipating and actively influencing the coming changes is a matter of organisational efficiency and economy.

The importance of the shared concepts for a functioning sharing of knowledge in an organisation has been underlined earlier by Davenport and Prusak [8, 86] (also [7]). The common definitions of the concepts are a prerequisite for a functioning communication within an organisation. The shared concepts are a necessity, but the definitions are always made at cost of losing some of the flexibility and expressivity of the individual definitions. Therefore, according to Davenport and Prusak, "only the most essential shared terms should be standardised" [8, 86].

The organisational concept management approach does, on the contrary, place more emphasis on the dynamic working of the concepts within the organisation instead of working with (static) definitions and the process of standardisation. The management of the concepts is not merely a task of standardising organisational communication, nor reacting to the changes in the conceptual environment. The approach underlines the significance of the concepts as an active instrument of managing the knowledge processes and the dynamics of the organisational change. It is clear that concept management is not going to be a silver bullet to an organisational success. It represents a measure, which aims to inform strategic organisational management and planning, and to empower the sharing and management of knowledge within and between the relevant communities and contexts of operation.

6 Towards the practise of organisational concept management

The suggested theoretical basis of the organisational concept management approach opens up several alternative avenues of implementation. The two central questions are: 1) what are the most central concepts to the organisations, how to identify and choose them, and 2) how to react to the inevitable changes of the concepts and their meanings and how to influence them. To be successful, the concept management needs to be based on a thorough understanding of the organisation and its operational contexts. The identification and breakdown of the central concepts as well as the choice of the subsequent maintenance measures builds on this knowledge.

The Table 3 on page 14 exemplifies on a general level a possible strategy for summarising the central elements and measures of a concept management initiative. The assumed strategy is based on a breakdown analysis, which identifies the constituting and constructing factors, the matters which are influenced and the principal stakeholders of the concept. The table explicates the factors at the present, an estimation of their respective anticipated future changes, and finally lays out the vision of the organisation considering the desirable future state of affairs. The strategy focusses on the explication of instruments for measuring the present state of affairs, anticipating the forthcoming developments and to fetch the desired changes.

7 Conclusions

The general observation made in the present study is that there is an evident gap between the available information and knowledge needed in the processes of making informed policy decisions. Disquisitions and research reports are rarely capable of providing direct answers to policy oriented questions. Similarly, the policy makers tend to find it difficult to extract the kind of information, which would serve the process of making decisions. The consistent issue is that the research knowledge seems to translate and transfer poorly to the knowledge needed in policy making.

The findings of this study suggest that equivocally understood concepts are a significant obstacle of knowledge sharing in cultural heritage domain. On the basis of this observation, it suggested that a possible approach to bridge this gap of equivocality and to improve the translation of the knowledge could be based on an explicit action of managing the key concepts shared by the researchers and the policy makers. The approach is based on the observation that besides the tangible assets, organisations need to manage actively the intangible concepts and ideas, which form the basis of their *raison d'être* and success. The notion of *organisational concept management* serves as a complementary support strategy to the information sharing and knowledge transfer. Organisations need to be aware of the concepts and their meanings in the cultural and societal contexts, where the organisations operate. Further, the organisations need to be able to

Breakdown of the concept	Current state (measuring instrument)	Anticipated future changes (instruments for measuring the changes)	Vision (instrument of change)
Constructing factors	<ul style="list-style-type: none"> • public opinion (polls, surveys) • expert opinion (consultation, questionnaires) 	<ul style="list-style-type: none"> • internationalisation of culture (investigations, surveys, polls) • macroeconomic resources of preservation (economic indicators) • debate on the sustainability of activity (investigation, polls) 	A more active and reciprocal dialogue between the experts and the general public (e.g. introduction of special events, discussion fora, concept management)
Matters influenced by the concept	<ul style="list-style-type: none"> • heritage sites and objects (surveys, investigations) • community development (surveys, investigations) • conceptions about the past (polls, surveys) • education programmes (surveys) • tourism and cultural activities (surveys) 	No major anticipated changes	A more direct linkage of the heritage resources and their use for public benefit (specification of the focus of the cultural heritage management processes, distribution of information, education, concept management)
Stakeholders	<ul style="list-style-type: none"> • developers • the public • experts • policy experts 	The weight of the voices of the public and the developers may be expected to increase due to the intensification of land use and popular activism (customer and stakeholder feedback, 'market' research, surveys)	A working consensus between the conflicting advocacies (cooperation between the stakeholders, concept management)

Table 3: Elements and measures of a concept management strategy: a partial case of the concept 'heritage'

anticipate the changes of the central concepts and ideas.

Compared with the existing practises of standardising concepts and introducing practicable 'working concepts', the proposed approach is emphatically anticipatory and proactive. The knowledge transfer is consolidated by an active management of the concepts, not by reactively assuming a sketchy and ephemeral definition. In cultural heritage management, the relevant concepts requiring attention comprise, for instance, cultural heritage, site and artefact. In the different sectors of the ICT industry the similar key concepts might be e.g. 'personal computing, 'mobile communication' or 'usability'.

8 Future work

The purpose of the present study has been to report the findings, which indicate the importance of managing concepts and explicating an approach denoted as organisational concept management. The study suggests a preliminary matrix for mapping the conceptual dynamics within the organisational environment. The next steps towards a functioning framework of organisational conceptual management are to make the matrix more specific, develop appropriate instruments for measuring and anticipating the conceptual dynamics, implement the strategies, evaluate their effectiveness and to conduct follow-up studies in order to acquire more information about the concepts and their role in different organisational contexts.

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