Workpractice Theory – What it is and Why we need it

Göran Goldkuhl, ggo@ida.liu.se

Department of Computer and Information Science, Linköping University, Sweden
Department of Informatics, Jönköping International Business School, Sweden

Abstract

This is an introduction to the panel "Workpractice Theory as Foundation for IS Research" on the ALOIS*2005 conference. It is also a position statement concerning workpractice theory. It describes the needs for a workpractice theory in information systems research. It describes briefly also the workpractice theory developed by Goldkuhl & Röstlinger. This is an example of a workpractice theory to be used in information systems research.

Keywords: Workpractice, Information Systems Research

1   The need for workpractice theory

Information systems (IS) are contextual phenomena. They are used by people in work contexts. People use IS for communicative purposes. Information systems are mediators for communication between different persons (Goldkuhl & Ågerfalk, 2005). A human actor can say something directed to other persons through an IS. A human can use an IS to be informed about something. He can read messages mediated by the IS that has an origin from other people's communication. The purpose of this kind of technology-mediated communication is to contribute to some work performed. *IS usage is work - contributing to work.*

I think here of the work context of an IS as an organisational context, although other type of contexts are also possible. This means that an IS is always part of what here is called a workpractice (figure 1). If so, what consequences are there for IS research? A question to raise is, if it is possible or adequate to study an information system without taking into account the workpractice context of the IS. This question is raised based on the assumption that the function and content of an IS is determined by features of the workpractice context.
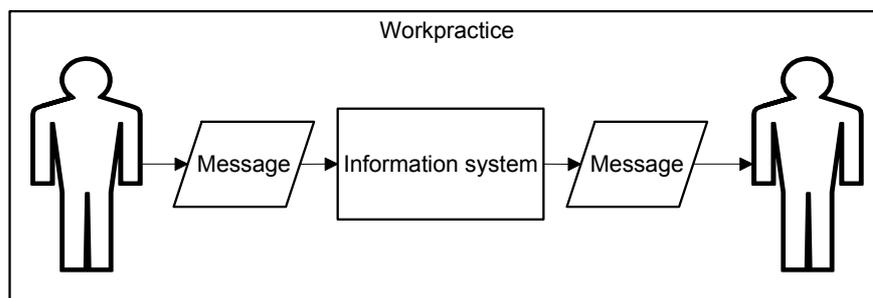

Figure 1: An information system as part of a workpractice

If one excludes the determining factors of the workpractice logic from studies of information systems, there seems to be a great risk to arrive at near-sighted explana-

tions. For example, when studying features of different information systems in a research study, without taking into account the workpractice logic of each system, can give rise to distorted comparisons. To generalise information systems properties excluding the workpractice context means that IS properties are fore-grounded on the expense of practice properties.

I do not claim that all research studies of IS should be workpractice oriented. There might be situations where it is sufficient to have a narrow focus on IS and exclude the workpractice logic. My claim is that many IS studies need to be based on some understanding of the workpractice context.

If so, there is a need for a conceptualisation of what kind of phenomenon a workpractice is. Below I will briefly describe a workpractice theory I have been working on together with my colleague Annie Röstlinger since mid of 90-ies.

2   The constituents of workpractice

A practice conceptualisation is rooted in a pragmatic perspective. In the macro – micro battle within the social sciences (e.g. Cuff & Payne, 1979) pragmatism takes a firm position on the micro side (e.g. Blumer, 1969). Pragmatism emphasises the understanding and description of actions on the social scene. Practice is however not a micro concept in itself. It is rather a kind of holistic concept (macro concept) aiming at bringing different phenomena together under one encompassing notion. Schatzki et al (2001) talk about a practice turn in the social science. Schatzki (2001 p 2) defines practice to be "embodied, materially mediated arrays of human activity centrally organized around shared practical understanding". Human actions are performed within a practice and determined by the practice which they are part of. Goldkuhl & Röstlinger (2002) describes how 'practice' can be considered as a pragmatic macro concept and without falling into the trap of a reified macro concept.

Schatzki et al (2001) have a broad view on what can count as a practice. We have delimited ourselves to workpractices. We define a workpractice in the following way: "A workpractice means that some actors make something in favour of some actors, and sometimes against some actors; this acting is initiated by assignments from some actors, and is performed at some time and place and in some manner, and is based on material, immaterial and financial conditions and a workpractice capability which is established and can continuously be changed" (translated from Goldkuhl & Röstlinger, 2004).

Practices consist of actions. This means that actions are elements of practices, however not the only one. To take a physical metaphor; an action is an 'atom' of a practice. An action constitutes together with other elements (actors and objects) a 'molecule' of practice. *A practice consists of constellations of actors, actions and objects*. Such a constellation means that someone (an actor) does something (an action) and this means dealing with one or more objects. Objects can be both symbolic (signs) and material things. An object can be transformed in the action; that is used as a base. It can be the result of an action or it can be an instrument assisting the actor (cf Goldkuhl & Röstlinger 2003ab). An object, when being an instrument, can be directly used by an actor (as a tool) or sometimes an instrument can be an independent 'actant' performing actions (ibid; Latour, 1992). This means that objects have different roles in relation to actions; as:

- Base (used for action)

- Result (produced in action)

- Instrument/tool (mediator of action)

- Instrument/actant (performer of action)

It is important to add that actions are governed by *action dispositions*. Actors possess a *capability* to act. In a practice, actions are often performed in a *manner* established in the practice – "the way to do it". What we call practice manner is known under different labels as collective habits (Dewey, 1922), institutions (Berger & Luckmann, 1966; Scott, 1995), structure (Giddens, 1984), culture (Duranti, 1997) and shared practical understanding (Schatzki, 2001). Action dispositions are not only parts of humans. There can be other carriers (Scott, 1995; Goldkuhl, 2003). Action dispositions may be implemented in artefacts and they may be documented in manuals and descriptions as instructions and reminders.

3   A generic model of workpractices

The workpractice theory has been crystallised into a generic model of workpractice. This model describes different generic workpractice categories and how they are related to each other. The model has emerged over several years and it has been continuously refined (Goldkuhl & Röstlinger, 1999, 2002, 2003ab, 2004; Goldkuhl et al, 2002). The current model can be found in figure 2.

It is a contextualised and relational model. It describes important relations to the environment, i.e. relations to essential actors in the environment. Following the definition above (section 2), the clients are seen as the primary external actors. The workpractice exist in order to satisfy the clients through products. An interest in a specific workpractice should also render an interest in the clients' situation and their use and use effects of products from the workpractice.

The generic workpractice model is an attempt to bring together different perspectives and aspects of a workpractice, however firmly rooted in socio-instrumental pragmatism – SIP (Goldkuhl & Röstlinger, 2003ab; Goldkuhl, 2005); see also section 2 above where contours of SIP have been sketched. The generic model acknowledges a workpractice as a production practice. Raw material (or rather base or pre-products that are the theoretical terms of the model) is transformed by producers into products of the practice. The model also acknowledges the memento of the language/action perspective (e.g. Winograd & Flores, 1986) that practices are initiated and governed by requests and orders, or assignments, which is the theoretical term in the model.

Another memento - that actions are mediated as claimed in activity theory (e.g. Wertsch, 1998) - is also followed. Instruments and procedural and descriptive knowledge are important parts in an action. Workpractices are also normative practices governed by norms and judgements. They are usually also economic, based on the flow of money. They are places for continual learning. These different aspects are integrated into one model. This kind of integration of different aspects is made possible through the generic constellation of actor – action – object as described above. Confer e.g. Goldkuhl & Röstlinger (2003ab) for more thorough descriptions of this foundation in socio-instrumental pragmatism.
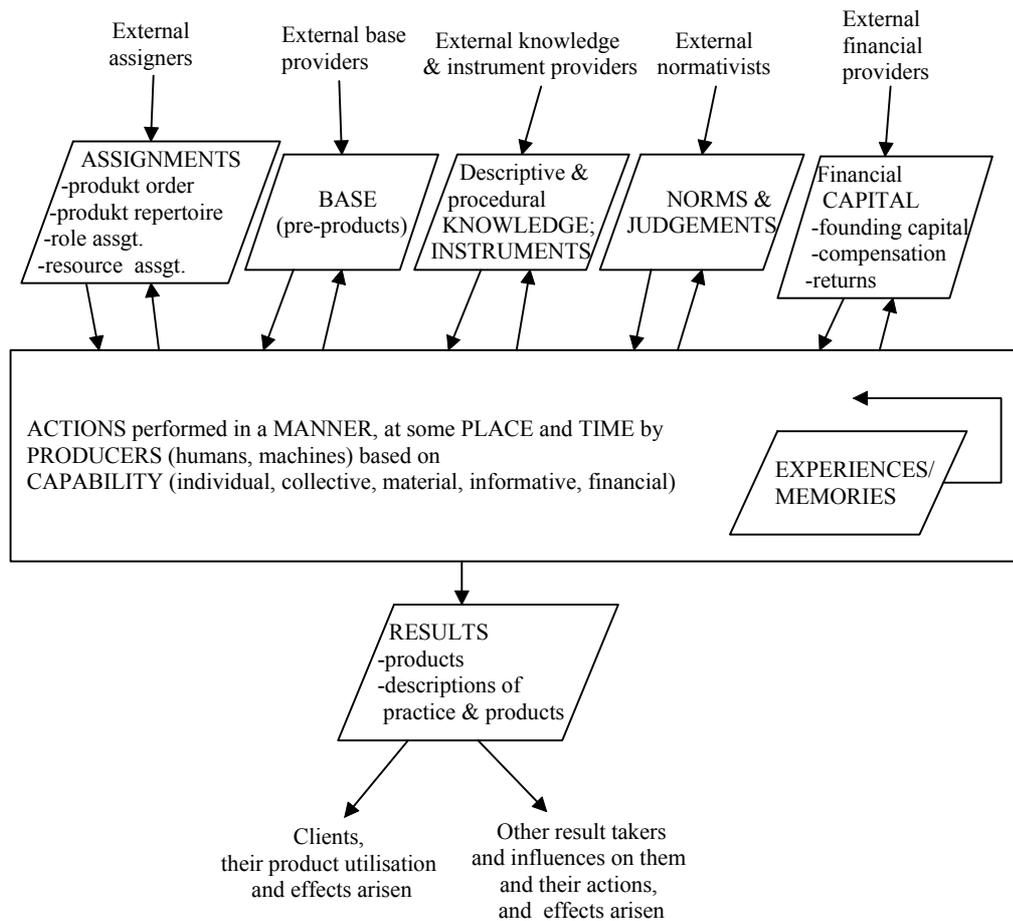
Figure 2: The generic model of a workpractice

Information systems are seen as instruments in workpractices. As an instrument, an IS assists producers to perform actions. Such instruments will also be artificial producers functioning as 'actants' and performers of actions (Goldkuhl & Ågerfalk, 2005). The action dispositions of such instruments/actants, are created by humans and embodied in the software governing the systems' action (ibid). The character and features of information systems - as workpractice instruments - will be determined by needs and features of the workpractice.

4   Conclusions

The workpractice theory briefly sketched above is one possible answer to the quest for such a theoretical foundation for IS research. It is not the only one. There are several authors who have written about practice-founded IS research, e.g. Clarke (2003), Orlikowski (2000), Wynn (1991). There have been other labels aiming at similar types of conceptualisation like activity (Nardi, 1996), human activity system (Checkland, 1981) and work system (Alter, 2002).

There are different questions to address: 1) The need for a practice foundation in IS research. Is there such a need? What will have happen if one dismisses this claim?

2) What should be a proper practice conceptualisation for IS research? Which are the alternatives. How should they be compared and assessed? 3) How shall a practice conceptualisation be used in IS research? What is the role of it? How is it epistemologically related to other knowledge objects in the research process?

Acknowledgements

References

ALTER S (2002) The work system method for understanding information systems and information system research, *Communications of AIS*, 9, 90-104

BERGER P L, LUCKMANN T (1966) *The social construction of reality*, Doubleday & Co, Garden City

BLUMER H (1969) *Symbolic interactionism: perspective and method*, University of California Press, Berkeley

CHECKLAND P (1981) *Systems thinking, Systems practice*, John Wiley, Chichester

CLARKE R (2003) The discursive organisation of action and language in workpractice descriptions, in *Proc of the International workshop on Action in Language, Organisations and Information Systems* (ALOIS-2003), Linköping University

CUFF EC, PAYNE GCF (Ed, 1979) *Perspectives in sociology*, George Allen & Unwin

DEWEY J (1922) *Human nature and conduct*, Henry Holt & Co, New York

DURANTI A (1997) *Linguistic anthropology*, Cambridge University Press, Cambridge

GIDDENS A (1984) *The constitution of society. Outline of the theory of structuration*, Polity Press, Cambridge

GOLDKUHL G (2003) Patterns of change and action: a socio-pragmatic perspective on organisational change, In SUNDGREN B, MÅRTENSSON P, MÄHRING M, NILSSON K (Eds, 2003) *Exploring Patterns in Information Management: Concepts and Perspectives for Understanding IT-Related Change*, Stockholm School of Economics, Stockholm

GOLDKUHL G (2005) Socio-Instrumental Pragmatism: A Theoretical Synthesis for Pragmatic Conceptualisation in Information Systems, in *Proceedings of the 3rd Intl Conf on Action in Language, Organisations and Information Systems (ALOIS)*, University of Limerick

GOLDKUHL G, ÅGERFALK PJ (2005) IT Artefacts as Socio-Pragmatic Instruments: Reconciling the Pragmatic, Social, Semiotic and Technical, forthcoming in *International Journal of Technology and Human Interaction*

GOLDKUHL G, RÖSTLINGER A (1999) Expanding the scope: From language action to generic practice, in *Proceedings of the 4th Intl Workshop on the Language Action Perspective* (LAP99), Jönköping International Business School

GOLDKUHL G, RÖSTLINGER A (2002) The practices of knowledge – investigating functions and sources, in *Proc of the 3rd European Conference on Knowledge Management* (3ECKM), Dublin

GOLDKUHL G, RÖSTLINGER A (2003a) Towards an integral understanding of organisations and information systems: Convergence of three theories, in GAZENDAM HWM, JORNA RJ, CIJSOUW RS (Eds, 2003) *Dynamics and Change in Organizations. Studies in Organizational Semiotics*, Kluwer, Boston

GOLDKUHL G, RÖSTLINGER A (2003b) The significance of workpractice diagnosis: Socio-pragmatic ontology and epistemology of change analysis, in *Proc of the International workshop on Action in Language, Organisations and Information Systems* (ALOIS-2003), Linköping University

GOLDKUHL G, RÖSTLINGER A (2004) *Praktikbegreppet - en praktikgenerisk modell som grund för teoriutveckling och verksamhetsutveckling*, [In Swedish: The practice notion], Department of Computer and Information Science, Linköping University

GOLDKUHL G, RÖSTLINGER A, BRAF E (2002) Organisations as practice systems – integrating knowledge, signs, artefacts and action, in LIU K et al (Eds, 2002) *Organisational Semiotics: Evolving a science of information systems*, Kluwer, Boston

LATOUR B (1992) Technology is society made durable, in LAW (ed, 1992) *A sociology of monsters: Essays on power, technology and domination*, Routledge& Kegan Paul, London

NARDI BA (Ed, 1996) *Context and consciousness. Activity theory and human-computer interaction*, MIT Press, Cambridge

ORLIKOWSKI WJ (2000) Using technology and constituting structures: a practice lens for studying technology in organizations, *Organization Science*, 11 (4), pp 404-428

SCHATZKI TR (2001) Introduction: Practice theory, in SCHATZKI TR, KNORR CETINA K, VON SAVIGNY E (Eds, 2001) *The practice turn in contemporary theory*, Routledge, London

SCHATZKI TR, KNORR CETINA K, VON SAVIGNY E (Eds, 2001) *The practice turn in contemporary theory*, Routledge, London

SCOTT W R (1995) *Institutions and organizations*, Sage, Thousand Oaks

WERTSCH J V (1998) *Mind as action*, Oxford University Press, New York

WINOGRAD T, FLORES F (1986) *Understanding computers and cognition: A new foundation for design*, Ablex, Norwood

WYNN E (1991) Taking practice seriously, in GREENBAUM J, KYNG, M (Eds, 1991) *Design at work: Cooperative design of computer systems*, Lawrence Erlbaum, Hillsdale