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Understanding Business Processes on the basis of Habermas’ Theory of Communicative Action

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Abstract

The OER-paradigm for understanding organisations and business processes, rooted in Habermas’ theory of Communicative Action is introduced. Based on the OER-paradigm, the DEMO methodology for modelling, (re)designing and (re)engineering business processes is developed. A business process is conceived as a molecular structure of atomic building blocks, the DEMO business transactions.

Introduction

This paper introduces the notion of business processes, as envisioned by a group of researchers at Delft University of Technology, participating in the research program DEMO (Dynamic Essential Modelling of Organisations). DEMO incorporates a way of thinking about organisation and technology that has originated from a deep dissatisfaction with the ways of thinking about information systems and business processes, as incorporated in almost all approaches to Business Process Re-engineering (cf. e.g. Hammer, Champy, 1993] and [Davenport, 1993]). These current ways of thinking fail to explain coherently and precisely how organisation and ICT are interrelated. They fail to provide assistance in articulating what is essential and invariant about the business processes and what are more or less incidental ways of doing. This is what seems to be needed: separating ‘essence’ from ‘technology’, while at the same time recognising that organisations are social systems, of which the elements are social individuals that act and interact with authority and responsibility, and that business processes are structures of this acting and interacting. This new way of thinking has got the name ‘OER-paradigm’ (‘OER’ is a Dutch word meaning primal, original, essential). It fits in the so-called Language/Action Perspective, or L/A Perspective for short. The theoretical foundation of this perspective is constituted by Speech Acts Theory [Austin 1962], [Searle 1969], and the Theory of Communicative Action [Habermas 1981]. The pioneer of the L/A Perspective is undoubtedly Fernando Flores [Flores and Ludlow 1980], [Winograd and Flores 1986]. Contrary to the prevailing notion that communication is exchanging sentences, expressing some proposition with regard to the world, the L/A Perspective assumes that communication is a kind of action in that it creates commitments between the communicating parties. To communicate then is to perform language acts [Searle 1969] or communicative acts [Habermas 1981]. Three workshops have been held up to now focussing on the L/A Perspective [Dignum e.a. 1996], [Dignum and Dietz 1997], [Goldkuhl, Lind, Seigerroth 1998]. These proceedings contain several papers concerning DEMO. Some other relevant papers are [Dietz 1994] and [Van Reijswoud, 1996].

Communication

In the OER-paradigm, communication is defined to be the sharing of mental states or thoughts between social individuals or subjects. The unit of communication consists of the sharing of one thought between two subjects, and is called the communicative act. A thought is defined as a triple $<I,F,T>$ where $I$ is the illocutionary kind, $F$ is a fact, i.e. an elementary state of affairs, in some world, and $T$ denotes the time period in which $F$ is the case (or should be, depending on the kind of $I$). $T$ has several default values, depending on $I$. As an example of a communicative act, let us assume that someone, the guest (G) for short, addresses a reception employee (E) of a hotel and utters the next sentence:

“Do you have suites?”

The illocutionary kind $I$ of the formulated thought is the question, the fact $F$ is ‘the hotel does have suites’, and the time period $T$ is a not clearly specified (default) period, most probably ‘now and in the near future’. In order to denote complete communicative acts, the so-called OER-notation $<L:I:A:F:T>$ is developed. The OER-notation of the example act above is:

$<G : \text{question} : E : \text{the hotel does have suites} : \text{now and in the near future}>$

The reply by the hotel employee to this question could be:

“Yes, we do.”

The OER-notation of this communicative act is:

$<E : \text{assertion} : G : \text{the hotel does have suites} : \text{now and in the near future}>$

The OER-paradigm distinguishes six illocutionary kinds: question, assertion, request, promise, statement and acceptance. Figure 1 exhibits these illocutionary kinds, as

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well as how they are related to the categories as distinguished by Searle and Habermas. The classification of Habermas differs from that of Searle because of the different philosophical stances they take regarding the interrelationships between communicating subjects, and between subjects and the world to which the facts belong. These stances are extensively discussed in [Dietz and Widdershoven 1991]. It is evident from figure 1 that the illocutionary kinds can be explained fully by Habermas’ Theory of Communicative Action, while Searle’s Speech Act Theory fails to make the (for us important) distinctions between questions and requests on the one hand, and between assertions and statements on the other hand.

![Figure 1 The illocutionary categories of the OER-paradigm](image)

The figure also shows that according to the OER-paradigm, expressions of psychological or emotional states (expressiva and expressives) are excluded. Although these expressions constitute the indispensable ‘lubricant in the organisational machinery’, they appear not to be directly related to the business.

The distinction between constativa and regulativa should be understood as follows: in every communicative act all three validity claims (truth, justice and sincerity) are present, however the dominant claim in constativa is the claim to truth, and the dominant claim in regulativa is the claim to justice. ‘Just’ here means what is socially correct, what is valid given the current social norms and values.

A sequence of to and fro communicative acts between two subjects is called a conversation. We distinguish between informative and performative conversations. Informative conversations are conversations in which only questions and assertions occur. An example of an informative conversation between G and E is the combination of the two utterances:

\[ G : \text{Do you have suites?} \]
\[ E : \text{Yes, we do} \]

Performative conversations are conversations in which only requests, promises, statements and acceptances occur. Two subtypes are distinguished: actagenic and factagenic. An actagenic conversation is a conversation in which the request and the promise are the main illocutionary kinds. An example in the hotel situation is:

\[ G : \text{I’d like to have a suite for 3 nights starting January the 3rd} \]
\[ E : \text{Let me see ... yes, I can arrange that for you} \]

The OER-notation of this conversation (in which ‘asap’ means ‘as soon as possible’) is:

\[ < G : \text{request : E : a suite is reserved for G from January 3 till January 6 : asap} > \]
\[ < E : \text{promise : G : a suite is reserved for G from January 3 till January 6 : asap} > \]

The result of this actagenic conversation is that E has committed him/her-self to make the agreed upon reservation. An example of a corresponding factagenic conversation is:

\[ E : \text{Madame, I have reserved a suite for you for 3 nights starting January the 3rd} \]
\[ G : \text{Thank you very much} \]

The OER-notation of this conversation is:

\[ < E : \text{statement : G : a suite is reserved for G from January 3 till January 6 : asap} > \]
\[ < G : \text{acceptance : E : a suite is reserved for G from January 3 till January 6 : asap} > \]

The example conversations show that the real meaning of a sentence can not be deduced from a grammatical analysis of the sentence, because it depends heavily on the context (of other sentences) in which it is uttered. Therefore, attempts to analyse conversations linguistically are only partly helpful, as we have demonstrated in [Steuten, Dietz, 1998].

**Action**

By executing objective actions, the members of an organisation fulfill the mission of the organisation. The nature of an objective action can be material or immaterial. Examples of material actions are all manufacturing actions in the production of goods as well as all storage and transportation actions. Examples of immaterial (objective) actions are the judgement by a court to condemn someone, the decision to grant an insurance claim, and appointing someone to be president. By executing intersubjective actions, subjects enter into and comply with commitments. In doing so, they initiate and coordinate the execution of objective actions. All intersubjective actions fall into the category of regulativa (cf. figure 1). In order to abstract from the particular subject that performs an action and to concentrate on the functional or organisational role of the subject in performing that action, the notion of actor is introduced. An actor role can be fulfilled by a number of subjects (concurrently as well as collectively), and a subject may fulfill concurrently a number of actor roles.
In correspondence with the distinction between objective and intersubjective actions, the OER-paradigm distinguishes between two worlds in which each of these kinds of actions have effect: the object world and the intersubject world respectively. Objective actions and their related intersubjective actions appear to occur in a particular pattern, called the (business) transaction, as illustrated by figure 2. It consists of three phases: the order phase or O-phase, the execution phase or E-phase, and the result phase or R-phase (Note. The three letters O, E and R constitute the word OER). A transaction is carried through by two actors, who alternately perform actions. The one who starts the transaction and eventually completes it, is called the initiator (A1 in figure 2), the other one, who actually performs the objective action, is called the executor (A2 in figure 2).

The order phase is an actagenic conversation, and the result phase is a factagenic conversation. Both conversations consist of communicative (= intersubjective) actions, having as effect a transition in the intersubject world (ISW). These actions are executed alternately by the initiator and the executor of the transaction. In between the two conversations, the objective action is executed, by the executor of the transaction. The effect of this action is a transition in the object world (OW). Because events in the object world are principally not knowable to the initiator (and to other actors) as long as they are not stated by the executor, transaction status 3 is coloured grey. This principal position is important. On the one hand it stresses the supremacy of events in the intersubject world. On the other hand it allows material and immaterial objective actions (and resulting facts) to be dealt with in the same manner. For immaterial facts it is obvious that they cannot be said to exist unless they are stated and subsequently accepted, and thus that they come into existence at the moment of acceptance, i.e. when reaching transaction status 5. Although at first sight, and intuitively, material facts seem to come into existence in status 3, this appears not to be the case on closer observation. In every organisation with material objective actions (like manufacturing or transporting firms), one can find the actual existence of a factagenic conversation in which mutual agreement is reached about the creation of a new fact in the object world.

**Figure 2  The business transaction**

Modelling business processes is a prerequisite for (re)designing and (re)engineering them, and understanding business processes is a prerequisite for modelling them. Current approaches to modelling business processes however do not embody an appropriate understanding of the notion of business process, and consequently do not provide an effective help. The presented OER-paradigm (and the DEMO methodology built on it) does offer an appropriate understanding. One of the roots of this paradigm is Habermas’ Theory of Communicative Action. The essence of an organisation lies in the entering into and the complying with commitments by authorised and responsible subjects. This constitutes the working principle of any organisation. The OER-transaction is the elementary building block of every business process, irrespective of the nature of the business, i.e. of the kind of the objective actions (material or immaterial). At the same time it becomes clear that a business process differs fundamentally from a production or a logistic process, and that so-called information intensive organisations (banks, insurance companies etc.) do have business processes like all other organisations, they only don’t have logistic processes.

**References**


