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Ethical Values In Internet Commerce - A Business Process Model

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ABSTRACT

Due to many advantages Internet commerce has grown rapidly and will continue to do so in the future. This will cause some ethical problems in areas such as personal integrity, security and social impact. It is important to realize the value of protecting ethical values in these areas because no company will survive in the long run without a reasonable profit and companies will enter Internet commerce to earn profit. The profit is generated through value added processes, business processes where the customers are required to pay for the added value created by the process. The total quality that the customer will value consists of the factors right product, right features, right time, right price, right support and personal experience. This paper is presenting arguments for how ethical values could be included in a value added process as part of the customer's personal experience. In the end a business process model is presented where ethical considerations are imbedded.

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CONTENT

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1. INTRODUCTION

Internet commerce is part of the area *electronic commerce* which includes many different techniques. A technique where it is possible for two business partners to send messages directly between their administrative systems is called EDI, Electronic Data Interchange. Another technique is called EDA, Electronic Data Access, where the information interchange is limited to the possibility for a business partner to access the system of the supplier to see if the merchandise is in stock before placing an order [Fredholm, Peter 1997]. For many years companies have been using file transfer to send orders to business partners. That is also a form of electronic commerce. Internet is however the best channel to reach end-consumers, and this paper will focus on electronic commerce on Internet where the customer is end-consumer. The aim of this paper is to provide a conceptual understanding of how a business process could include ethical values as something that increases the value created by the business process. This understanding is enhanced by a business process model.

First Internet commerce is discussed from the perspective strengths, weaknesses, present state and predictions for the future. Under heading 3 some general aspects of computer ethics are discussed. Chapter 4 deals with ethical problems in Internet commerce where three main areas for concern are identified. In chapter 5 the concept *Business Process* is discussed and in the following chapter a business process model that can be used for Internet commerce is presented.

2. INTERNET COMMERCE

There are many advantages with Internet commerce. Dahl & Lesnick [1996] have identified the following benefits: marketing and commerce are accepted on Internet, better customer service, low costs, simple technique, simple and fast updating of products and prices, global exposure, simple search, possibilities for vendors to look at competitors to compare offers and the easiness to test new products. Fredholm [1997] also identifies some major advantages

with Internet commerce: low costs, accuracy, short lead times, geographic distances are irrelevant, reduced storage, more qualified planning through more complete information. There are such advantages that attract business providers to use Internet as a marketplace for their commerce.

The global exposure leads to global marketing and Bergstrand – Wallin [1995] have identified some difficulties in that area: longer and more complex transport processes, different currencies, different languages, different documents, different solutions.

Nevertheless the advantages seem to dominate. Internet commerce has rapidly grown to become a vibrant marketplace for buyers and vendors [Ernst&Young, 1999]. Many customers will also require that possibility and we have now reached a critical mass of buyers and sellers that will make electronic commerce on Internet a part of the everyday life [Fredholm 1997].

Ernst&Young [1999] performed in September 1998 a study concerning Internet shopping. The result of this study was.

	1997	1998
- Proportion of households that have used Internet online shopping:	7%	10%
- Proportion of retailers selling online to consumers	12%	39%
- Proportion of retailers planning to sell online to consumers	22%	37%
- Proportion of manufacturers selling online to consumers	9%	15%
- Proportion of manufacturers planning to sell online to consumers	12%	28%

The proportion of retailers already selling online or planning to sell online has more than doubled from 34% 1997 to 76 % 1998. The corresponding proportion for manufacturers has about doubled from 21% 1997 to 43% 1998. The items most frequently purchased online are computer-related products, books, clothing, recorded music, gifts and consumer electronics [Ernst&Young, 1999].

Internet commerce will continue to grow due to the great advantages that the technique offers. It has become a necessity for many companies since the savings might be strategically important for the ability to compete on the market. Retailers predict that the percentage of their revenue for Internet commerce will be 9% in three years to be compared with today's percentage of 1%. Manufacturers predict 7% of their revenue for Internet commerce in three years. This fast growth may have a great impact on the market and can, as will be discussed later in the paper, create some ethical problems for involved parties to consider.

3. COMPUTER ETHICS

Computing has an impact on almost every aspect of our lives [Gotterbarn, 1995]. Computer professionals have specific roles that carry special rights and responsibilities [Johnson, 1995]. The roles are important since they possess a specialized knowledge that gives the professionals an enormous power through the control they have over the knowledge and its use [Brien, 1998]. The unprofessionals are at the total mercy of the professionals. To create an acceptable environment, it is necessary for all involved parties to feel confident and to experience an atmosphere of trust. To trust something is to have certain expectations of a desired behavior, or at least that it does not diminish the well-being of the truster [ibid]. Therefore computing creates some special ethical considerations.

Ethical thinking is nothing new. Plato, for example talked about the *good life* as early as 2400 years ago. He believed that an action was right or wrong in itself. [Forester & Morrison, 1994] That thought was developed by Immanuel Kant 2200 years later when he presented a *deontological* theory: right or wrong depends on the intrinsic character of the action [Johnson, 1985]. If an action is based on a sense of duty it is right; if it is based on self-interest it is wrong.

4. ETHICAL PROBLEMS IN INTERNET COMMERCE

4.1 General

Internet commerce may create some ethical problems for involved parties to consider. Retailers and manufacturers have identified difficulties in alleviating consumer concerns for security and privacy [Ernst&Young]. Some problems may have a social impact since they may influence our social environment. Ethical problems within these categories will be discussed in this paper from a deontological point of view.

4.2 Integrity

Personal integrity is closely related to our different relationships with people. Depending on the social relationship with other people our behavior towards them differ. If something interferes with the way we organize our relationships with other people it may make it difficult to maintain the relationships. James Rachels [1995] sees this as one of the most important reasons why we value privacy. The problem is severe. John Barlow [1995] claims that computer technology has not only created a new medium but a new marketplace, where the society will be quite different from what we are used to.

Personal integrity deals with problems related to the fact that it is easy to obtain information about how Internet users behave on Internet, which sites they visit, which pages they access, which documents they download etc. Some personal information is also easy to obtain. Sometimes the user is aware of the fact that the information is collected, sometimes not. If the customers don't trust the media, they will not feel comfortable with its use.

Computerized record keeping has opened a new dimension of possibilities. Not that record keeping in itself is something new. People have been keeping records for thousands of years. What makes the ethical debate focus on record keeping is the amount of information stored about each individual, how easy it is to access the information and how it can be used for purposes never intended. Internet commerce creates possibilities to gather information about customers without their consent or even knowledge. The stored information could be used to invade the customer's private life. The deontological standpoint is never to put any human being at risk and to put the human value first. Individuals are of value and must be treated according to this [Johnson, 1985]. If therefore, somebody gathers information that could be used to expose a person and violate his or her personal integrity, it is ethically wrong. Any action based on self-interest of the actor is wrong, and it could be argued, that information gathering of customer behavior on Internet is ruled by the self-interest of the vendor, unless the customers are fully aware of it and has given their consent. In that case the action could be regarded as a mutual interest for customers and vendor and therefore ethically right.

There is in no way possible to fully predict what a human being might suffer if his or her personal integrity is at jeopardy. To preserve personal integrity is therefore a major ethical

concern seen from a deontological point of view. Some professional bodies and organizations are aware of the problem with computing and personal integrity. There are a number of ethical codes and pledges of honor where the concern of privacy and private lives or personal confidentiality is one of the most important aspects [Barroso & Weckert, 1998]. One example of such a code was presented by Donald Gotterbarn, [1998] at the Ethicomp 98 in Rotterdam. It has been developed by IEEE/CS and ACM. Principle 3.12 [ibid, page 249] deals with the responsibility for software engineers in relation to their product. It states: "Work to develop software and related documents that respect the privacy of those who will be affected by that software."

4.3 Security

Security problems will arise when unauthorized access to the content of Internet communication may occur. That could be customer orders or economical transactions. One possible technique to solve that problem is SET (Secure Electronic Transaction) developed by Visa and Mastercard together with other companies such as Microsoft and Netscape. The idea is to create an environment where the economical Internet transactions are safe. SET consists of two parts: a digital wallet and a certificate.

The digital wallet is a place where the information about the actual card is stored, such as digital ID, card number and expiration date. The wallet is protected by a password. A certificate is proof that the ID connected with the card has been validated by the card-issuing bank. It tells the vendor that the person using SET is the legitimate owner of the card. The vendor also needs a certificate to operate. In that way, SET provides a system of locks and keys along with certificates and encryption to ensure safe transactions. [MasterCard, 1999]

Insufficient security may lead to unauthorized access to personal records and economical transactions. In this case, it is not the vendor who could use the information obtained in this way, but any person who can gain access to the information. Deontologically it is of course wrong to make use of information acquired in that way. It is therefore the duty of the vendor to protect the customer as much as possible. Therefore, from a deontological point of view, it is right to apply the best possible security for the customer and wrong not to do so. It is also right that in case of economical loss, the vendor should accept responsibility. That attitude can also be seen in some cases, as for example the Internet bookstore Amazon, that covers the customer part of the damage caused by unauthorized use of credit-card information as long as the customer has behaved according to the instructions [Amazon, 1999]. Again, if the customers don't trust the media they will hesitate to use it.

4.4 Social Impact

Internet commerce may have an extensive social impact on the society. Manufacturer can sell directly to end-customers all over the world which means that whole-salers and shops will be run over. Vendors in countries with low costs, low governmental fees and low taxes can easily put lower prices on their products than competitors in countries with other conditions. Unemployment could be a result and the service to customers in some areas could be endangered. What will happen in the third world is an open question. Some believe that these countries will be further behind when it comes to economic development, others argue that it is possible for these countries to pass a couple of steps in the development and take full advantage of electronic commerce from the beginning. Nevertheless the industrial society has a special responsibility to consider the effects of Internet commerce for the third world countries.

Even if in deontological theories it is the character of the action that decides whether it is right or wrong, it is necessary also to look at consequences for different people. It is wrong to use other people for one's own benefit. Immanuel Kant has composed a rule, the 'categorical imperative'[Johnson, 1985, pg 17]: "Never treat another human being merely as a means but always as an end in himself or herself." Therefore it is wrong to threaten others' quality of life for one's own happiness. That would be acting in self-interest. Instead it can be seen as the duty of Internet actors not to endanger other people's quality of life but use their competence to, at the best of their ability, increase the well-being and standard of living for other people. This is also observed in the ethical code mentioned above [Gotterbarn, 1998, page 248]: "Principle 1.02: Approve software only if they have a well-founded belief that it is safe, meets specifications, has passed appropriate tests, and does not diminish quality of life or harm the environment." It is my belief that companies following a high ethical standard as far as social impact is concerned will benefit from a good reputation in the same way as companies protecting the physical environment.

5 Business Processes

5.1 Value Added Processes

Companies will enter Internet commerce to earn profit and no company will survive in the long run without a reasonable profit. That profit is generated through business processes which are value added processes. The customers are supposed to pay for the added value created by the business process. The customer is therefore the most important factor for the survival of the company and should therefore be focused when discussing business processes. The total quality that the customer will value consists of the following factors: right product, right features, right time, right price, right support and his personal experience. It is the customer who decides when to buy, what product and from which distributor. [Bergstrand – Wallin, 1995] The distributors must therefore use their communication skills in such a way that they appear to the customer as the best alternative. A company that follows explicit ethical principles can be experienced as possessing an extra attraction.

5.2 Business Processes Communication

In a business process an aim is to use communication to create a good relationship to the customer and to value the customer satisfaction. Meaningful communication means that the sender and the receiver must share a mutual opinion of what the message means and be aware under what conditions the message is valid [Habermas, 1984]. But a relationship is created not so much by what is said as by the expectation of behavior [Littlejohn, 1992]. The vendors must therefore do their best to create reasonable and attractive expectations. Internet commerce means communication and Internet is a new communication channel [Dahl & Lesnick, 1996]. Using a new communication channel means that the vendors must consider the use of communication so that a good but true impression is created.

A successful business process requires that the vendor and the customer have the same understanding of certain critical concepts. Such understandings are built up by different schemata to a mental model [Lind, 1991]. Different people will create different schemata depending on differences in perception, experience and attitudes. The ideal situation occurs, when the vendor and the customer have such similarities in their schemata that they share expectations about the vital parts of the business situation [Lind, B.,1998]. If the vendor knows the background, attitudes, frame of reference and knowledge of the customer it may

well be possible to create such an impression with the customer. But Internet commerce means communicating with a large group of people, widely spread when it comes to geography, culture and knowledge, and then certain care must be taken to create the desired impression. The same is valid for all media communication and media communicators therefore often use polarization to achieve their goal. [Lind, 1994] This is a very blunt communication instrument and therefore it is even more important to evaluate the created impression.

6 An Ethically Related Business Process Model for Internet Commerce

6.1 Starting Point

A model is "a simplified representation of a system which illustrates certain aspects of the system, aspects which are relevant to the purpose of the model" [Lind, 1995]. The purpose of the model presented here is to illustrate an Internet business process with communication flow and activities within different stages of the process. Its aim is to create an understanding of when and how ethical aspects could be brought into the process. In the model the customer has a role of partner rather than a competitor.

Goldkuhl [1997] has developed an archetype business process model in the six phases Business Prerequisites, Exposure and Contact Search, Contact Establishment and Proposal, Contractual, Fulfillment, and Completion phases. This model is general and does not include any stages and activities especially related to Internet commerce. With Goldkuhl's model as a starting point, a new model designed for Internet commerce has been developed, with additional phases and activities and enhanced with evaluation procedures. The model has a communication focus, where the vendor's aim is to make the customer interested and create an appropriate impression.

6.2 Internet Strategy

A business process is a chain of activities which leads to a result which has a substantial value to the customer [Lind & Goldkuhl, 1997]. The study about Internet shopping presented by Ernst&Young [1999] has shown that in the leaders, Internet strategy more often drives business strategy than for other companies. A business process for Internet shopping should therefore include early stages where the Internet strategy is formed as a basis for the business strategy.

6.3 Value Added Ethics

The problems concerning personal integrity and security must be solved for Internet commerce to work in the long run. People will not feel safe in their purchase situation with such problems present and customers will definitely value a vendor, where the personal integrity is protected and the transactions are safe. Social impact is something that influences our social environment in the same way as pollution influences our physical environment. Today companies with products that are regarded as environmentally safe benefit from a good reputation. It is reasonable to believe that companies with an ethical policy which reduces unwanted social impact will gain the same kind of benefit. For added value, a business process for Internet commerce should therefore include activities where ethical consequences for integrity, security and social impact are evaluated. A process with ethical considerations embedded will be called an Ethically Related Business Process (ERBP).

6.1 Phases and Activities

The model is illustrated in picture 1.

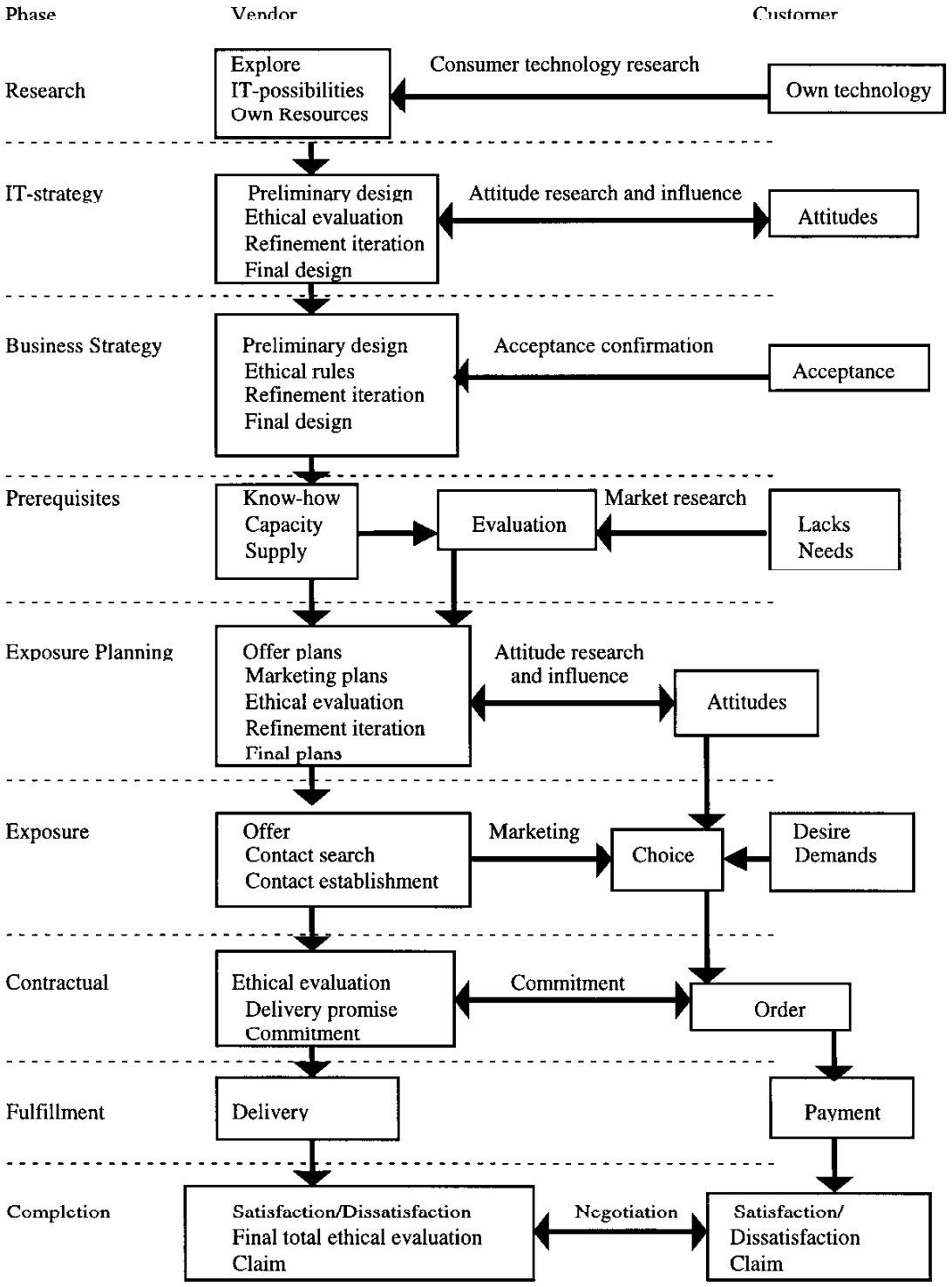
In the *Research phase* the vendors explore the current and prospective IT-possibilities. They also evaluate the technology available to the customers as well as their own resources. From that a preliminary design for an *IT-strategy* is formed as the first step in the next phase. That strategy is ethically evaluated based on customer attitudes. The vendors also consider different ways to influence these attitudes. The evaluation will result in a design refinement which will again be evaluated. This iteration will go on until the evaluation is satisfactory. The vendors have now reached a final IT strategy design. Ethical valuation here as in the following phases is concerned with the three ethical problems identified above: personal integrity, security and social impact.

The IT-strategy is used as a starting point in the *Business Strategy phase* to develop a preliminary business strategy. Together with this strategy, ethical rules are formed and the acceptance of the strategy as well as the rules are sought among the customers. The refinement iteration is performed in the same way as in the IT-strategy phase until an acceptable final design is reached. The Business Strategy is used as a basis in the next step when the vendors' own possibilities in form of know-how, capacity and supply are put against the customers' lacks and needs (the phase *Prerequisites)*. The evaluation of these factors will lead to the phase *Exposure Planning*. Here different marketing plans are drawn up and ethically evaluated towards customer attitudes. Refinement iterations take place until satisfactory final plans are reached.

In the *Exposure phase* the exposure should be ethically indisputable since the activities have been evaluated from an ethical point of view in earlier phases. It is important that the vendor has a clear communication so that the customers experience the special value of choosing this particular vendor. The customers make their choice based on their desires and demands as well as their attitudes towards particular vendors. The choice will result in an order which leads us into the *Contractual phase*. The agreement, contract between the customer and the vendor is subject to a final ethical evaluation and a commitment to deliver under certain conditions is made. For Internet commerce this commitment is normally stated in some kind of "Conditions for Sale". In the *Fulfillment phase* the transaction is fulfilled by payment and delivery.

The last phase in the model is the *Completion Phase*. It deals with the satisfaction of vendors and customers. If either party is dissatisfied, a claim could be made towards the other party.

The different phases are performed with different intervals. The first phases, Research – Business Strategy, are executed when new techniques have been developed and when new business strategies are created. The activities within the phases Prerequisites – Exposure will be performed for each marketing campaign and the last phases Contractual – Completion will concern every single order.



Picture 1: An Ethically Related Business Process Model for Internet Commerce

7. CONCLUSIONS

To create effective business processes it is necessary to obtain a conceptual understanding of the meaning, function and structure of such processes. A business process consists of a number of activities that create a value which the customer is willing to pay for. An activity that is included in the process must therefore be of value to the customer. The discussion in this paper shows that it is possible to add ethical considerations to a business process and thereby increasing the added value created by the process. The model used to illustrate such Ethically Related Business Processes (ERBP) for Internet commerce has enhanced the conceptual understanding of the process. It can be used as a theoretical tool for analysis of business processes for Internet commerce as well as when planning new business processes based on new technologies.

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