Learning About the Online Customer:
an interpretive case study of building digital customer relations in online entertainment

Annakarin Nyberg & Ola Henfridsson
Center for Digital Business and Department of Informati!cs, Umesaring; University, Sweden

Abstract: This paper explores the challenges and opportunities involved in building digital customer relations in online entertainment. In doing this, the paper presents an interpretive case study of the release of the Swedish computer game developer Daydream's new on-line game Clusterball. In releasing this game, Daydream intended to bypass three stages – publicists, distributors and retailers – in the computer gaming value chain. With little prior experience of consumers, this bypass required that the company established a platform for learning about and from its entertainment consumers. Our particular interest in this paper is with digital customer relations and how a computer game and its related virtual community can provide opportunities to build such relations for learning about the online customer.

1.   INTRODUCTION

Mediating customer relations over the Internet is becoming more widespread. This tendency can be observed among both e-commerce companies and more traditional retailers and producers. Inspired by visions about blending richness and reach [Evans and Wurster 1999, 2000] and one-to-one marketing [Peppers and Rogers, 1997; Pine 1993], many organizations explore what this digitalisation offers for streamlining as well as improving customer relations.

Even though digital customer relations are increasing in number and scope, the area can be considered relatively unexplored in terms of documented research. Apart from promising research on the general level [see e.g., Orlikowski, 1999], we need more research about the specific nature of the "customer in the machine" [Hughes et al, 1999]. How can we understand digital customer relations? How can we learn about and from the online customer? What are the organizational consequences of

online customer relations? These questions are at the centre of attention in this paper.

Empirically, the paper builds on an interpretive case study [Klein and Myers, 1999; Walsham, 1995] of the process by which the Swedish computer game developer Daydream Software handled their customer relations digitally. In releasing the online game Clusterball, the company intended to bypass three stages – publicists, distributors and retailers – in the computer gaming value chain. With little prior experience of consumers, the bypass attempts required that Daydream established a platform for learning about the customer. In terms of technology, there are two technologies at the centre of attention – the game itself and the Clusterball community. In exploring the role of these technologies in Daydream's attempts to understand and learn about its Clusterball customers, this paper intends to create a better understanding of the nature of digital customer relations and, furthermore, how a computer game and its related virtual community can provide opportunities to build such relations for learning about the customer.

There are several reasons why this is important. Firstly, in view of the discrepancy between the expectations and actual outcomes of many B2C-efforts, one might say that we need to know more about business processes mediated over the Internet. Noting that many B2C-customers are disappointed about the service level offered [Hoffman and Novak, 2000; Nyberg and Lindh, 2000; Reichheld and Schefter, 2000], customer relations seems an extra relevant domain where more knowledge is needed. Secondly, despite initial visions about one-to-one marketing, it seems that many CRM-efforts result in automating the customer relation. In contrast with these discouraging results, our interest is in how "learning about the online customer" can be a two-sided process of the "informating" (Zuboff 1988) kind. More knowledge about how to establish such relations online can be useful for improving the functioning of internetworked organizations (Orlikowski 1999).

This paper is structured as follows. Section two explores the related literature, while section three outlines the research strategy. Section four presents the background to Daydream and their new on-line computer game Clusterball. Section five interprets the case, while section six concludes this paper.

2.   DIGITAL ORGANIZATIONS: RELATED LITERATURE

There is little doubt that the role of information technology (IT) in current organizations is slowly changing. While its traditional role was a supportive one, many researchers have observed how this technology becomes more and more embedded in the core business processes of modern organizations [see e.g., Ciborra et al, 2000, Zuboff, 1988]. Rather than only being used for streamlining already existing processes, new technologies such as CRM-systems and KM-systems are

intended to result in new ways of doing business. In understanding the nature of digital customer relations, therefore, we believe that there are good reasons to look a bit closer at the body of literature exploring the increasingly intertwined nature of information technology and organizations. This literature provides some guidance in our efforts to understand what happens when the role of information technology increasingly lies at core business processes such as sales and customer relations.

As early as in the beginning of the nineties, Orlikowski and Robey (1991) observed how information technology enables and restricts organizational structuring; Ciborra and Lanzara (1994) noted how the design and use of IT is enabled as well as restricted by so-called formative contexts; and Orlikowski and Gash (1994) outlined how key actors' assumptions were important for understanding information systems in organizations. This body of research was important in that it documented and explored the increasingly embedded nature of IT and organizations. Later on, in refining the research within this area, the IS community has adopted new approaches such as actor-network theory [see e.g., Hanseth and Monteiro, 1997; Walsham, 1996; Walsham and Sahay, 1999]. This refinement could be seen as an adaptation to the increasingly complex character of the intertwining between non-human actors such as standards, software, and hardware and human actors.

In view of the emerging number of digital organizations, i.e., organizations that mediate most of their business processes over the Internet, various researchers have searched for good labels for these organizations. Research and exploration around the concept virtual organizations have been around for some years now [Davidow and Malone, 1992; Hedberg et al, 1997], while inter-networked organizations [Orlikowski, 1999] and cybermediaries [Jin and Robey, 1999] are recent terms used to describe and explore this kind of organizations. Despite labels used, Orlikowski's (1999) exploration of how internetworked technologies such as email, web publishing tools, intra-nets, extranets, and hypertext systems in general influence organizations in ways not easily understood and predicted gives a good view of the complexity involved in digital organizations. So, "why are organizations investing in internetworking", Orlikowski (1999, p. 5) asks, suggesting that the core questions concern how open organizations should be with their stakeholders. Needless to say, internetworking implies openness, a notion that most organizations adhere to. However, implementing this openness in terms of making workers, work processes, and so on, public knowledge is another issue.

The two sections following the research strategy section present a case study where a certain degree of openness was intended in the customer-company relation for learning about and from the customer. The case study will show how digital customer relations are characterized by transparency and time and place independency, and, furthermore, it shows how these characteristics can lead to both organizational opportunities and consequences. These observations can be useful for any company in digitalizing its customer relations for improving their ability to learn from and about the customer.

3.   RESEARCH STRATEGY

This study can be broadly described as an interpretive case study [Klein and Myers, 1999; Walsham, 1995]. Interpretive case studies are valuable for tracing assumptions, interpretations and problems of involved actors. The involved actors are important here, because the IS researcher's understanding of the studied phenomenon is created through the meanings that these actors associate with it [Orlikowski and Baroudi, 1991]. In seeking such understanding, however, the IS researcher needs to be involved in the daily activities taking place at the researched site.

Between January 2000 and October 2000, in-depth studies of the planning, design, and release of the technologies associated with Daydream's on-line computer game Clusterball have been conducted by a team of three researchers (of which two are the authors). The ten-month study can be divided into three phases. Between January and March, we took part in meetings and discussions and we also spent time to learn about the employees, their assignments and working routines. As a result, we got a notion of the every day work at Daydream that was useful in going from observing the company into a more active participation. In March 2000, we started to take more active part in the process. Two complete working places were set up for two of the members of the research team and, starting in April, half time was spent at Daydream Software for participant observation. From April to September 2000, we conducted 600 hours of participant observation. During this phase, we were, to some extent, intervening in the studied process. For instance, we took responsibility for things such as evaluating the company's web sites and creating customer scenarios intended to support the initial utilization of the CRM-database. October was spent verifying and complementing the data collected.

Two things guided the choice of research site. Firstly, Daydream represents leading practice in that they almost exclusively use information technologies such as CRM-technologies and virtual communities to handle their customer relations. To fruitfully explore, assess and predict the nature of digital customer relations, it can be considered important to study the organizational or social contexts in which new technologies for doing that are tried out. Secondly, we had very good access to this company, which is an important factor when conducting interpretive studies. We gained this access through Daydream's CEO, who introduced us to special problems associated with customers in the computer gaming industry.

3.1   Data sources

The data sources were of different kinds: participant observation, interventions, website data, meeting protocols, e-mail correspondence, press releases, and field notes. We kept diaries of 600 hours of participant observation at the company. Everything that happened during a working day was written down and commented.

These notes have been important tools in the data analysis. In particular, they have been useful for reconstruct the process in terms of events and dates. Website data was an important source of data. For instance, at one of the web sites – shareholders' corner – shareholders could express their thoughts about the company and discuss the commercial potential of its products with other shareholders. Another example is the public forum, a community in which the Clusterball players could discuss the game. These kinds of information were important to understand what challenges the company was facing in terms of customer relations. Being a company quotated on the stock market, Daydream also issued press releases covering their present status to shareholders, the media and other interested parties. Another way of communicating these messages were through two types of e-mails, the "scoreboard" and the "devarea". The e-mails were sent to people registered in Daydream's CRM-database. The scoreboard and the devarea contain information about the current and future products and the daily work related to those.

4. BACKGROUND AND CONTEXT TO THE CLUSTERBALL CASE

4.1 Daydream – the company

Daydream Software is a Swedish computer game developer that has attracted a lot of attention over the years. In 1996, the company was introduced at the Swedish stock market and the expectations on the small company were high. Daydream employs about 65 persons (November 2000) and constitutes one of the global actors on the computer gaming market, which is renowned for fierce competition, emerging trends, and shifting customer behaviour. Over the years, the computer gaming industry has experienced rapid growth and innovation. Datamonitor (1999) expects, for instance, the US and European market to grow around 15% annually between 1998 and 2003. Because of rapid diffusion of personal computers in combination with increasing capacity of game consoles such as the Playstation™, the industry has been able to continuously deliver more advanced graphics and technical features. In view of this development, it is not surprising that the computer gaming market is considered a very competitive one, where small misjudgements about its future direction can erode market leadership. In times when virtual commerce and entertainment tend to converge, there are many possible future scenarios of the computer gaming market. Among these scenarios, the on-line game distributed, played and paid for over the Internet is one model that many believe in.

4.2   Clusterball – the game

Out of the three released computer games, Daydream's third game Clusterball was made available on the Clusterball community website in July 2000. Clusterball is an on-line computer game that allows an infinite number of geographically dispersed players to play against each other. As part of Daydream's non-violence strategy, the game is marketed as a sports game, in which the player flies a ship with which he or she can pick balls from designated places diffused in a 3D-landscape. Besides being rated as a good computer game in the press, the game also creates new opportunities to learn about the customers. The downloading process, for instance, enables learning about the customers through the gathering of customer information. As the first venue of the game is downloaded, Daydream does not gather any information about its customers, nor do they charge anything. The venue is for free. The second venue is received after the gamer has filled out a form of registration. This procedure can be considered as a non-monetary payment. The registration form includes two types of questions; optional questions, like what hardware or software the gamer use, and compulsory questions, like the gamers nationality, age, sex and e-mail address. If a gamer admits to the gathering of personal related data, it will get access to the Clusterball community, which non-registered gamers do not. The registration process is the first step in the direction of getting to know the gamers, and eventually, of creating relations. If the gamer finds the game appealing and wants more than two venues, these venues have to be bought.

All data that is gathered via the registration, the game, or other game related events, is registered in a customer relationship management database (CRM-database). In combination with database management tools, the database is used to analyse the data and to segment gamers into suitable groups. The groups are formed due to what messages that is communicated. The CRM-database and the database management tools, makes it possible to manage and to analyse large amounts of data in ways that would not have been possible otherwise.

4.3   Clusterball – the community

As a step in the endeavour to affiliate the Clusterball games to the game and the company, Daydream has developed a virtual community (Hagel and Armstrong 1997). The community is built upon a set of common interests – computer gaming in general, and Clusterball in particular. The shared interests are also a basic condition for the very existence of the community. The community is available at the Clusterball web site (www.clusterball.com) to which everybody gets access. However, it is only registered gamers who have access to the virtual community.

The community can be considered as a potential source of knowledge about the customers. Within the community, gamers are exchanging ideas and are able to

comment on, for example, the game, its participants, or the company. Every now and then, for reasons like aggressive or flaming de-bates, or for congratulating successful Clusterball gamers, Daydream employees take part in the discussions. The community also renders the possibility to help each other; it creates an affinity to the other customers and to Daydream as well. The discussions are a valuable source through which Daydream can get hold of ideas or positive and negative critique regarding the company or the game. The community, in combination with the CRM-database, creates good opportunities to track the gamers in what way they are using the offered online services. Based upon this, Daydream can learn about the gamers and get an understanding of how needs best will be satisfied.

5. THE CLUSTERBALL CASE: ORGANIZATIONAL CHALLENGES IN LEARNING ABOUT THE ONLINE CUSTOMER

This section outlines the challenge that Daydream was confronted in their attempts to bypass three stages of the computer gaming value chain, and how this required the company to learn about the online customer. The section shows how visions about CRM-database management, virtual communities, and online gaming were put into practice in the context of the on-line computer game Clusterball.

5.1 Daydream's challenge

Because Clusterball is distributed, played and paid for over the Internet, the game enables Daydream to bypass three stages – publicists, distributors and retailers – in the value chain. This bypass was a considerable challenge to Daydream as they had little prior experience of selling directly to consumers. The value chain of Daydream's two CD-based games, Safecracker and Traitors gate, included publicists, distributors and retailers and, consequently, these intermediaries also gathered most of the customer-related data. In other words, Daydream needed to build a social and technological platform for learning about their customers.

Needing a more developed understanding of game consumers, Daydream had to deal with the situation and decide how and to what extent they would be able to learn about their customers. As we will see in the following subsections this dealing was far from trivial.

5.2 The pre-release phase (December 1999 - July 2000)

In December 1999, Daydream announced that they were looking for test gamers for Clusterball at the Clusterball website. One criterion for becoming a test gamer

was to fill in a registration form about personal related data. The gamers signed up via the Clusterball website and, as a result of this registration, Daydream found the CRM-database slowly growing in number of players.

In the short run, these players were valuable for finding bugs as well as testing game idea itself. In the longer perspective, they constituted the first customer base on which Daydream could establish an initial understanding about Clusterball. In April 2000, the research team was assigned the responsibility to do initial data analysis the database. As the number of test gamers increased, the need for the database management tools became more obvious. During the 29th of May 2000, a Daydream representative and the researchers attended a course on Power Play. This course was intended to provide a better understanding of the potential of using customer data in marketing and diffusion of the game.

One important issue in learning about the Clusterball customer was to decide what and how much information that would be collected when releasing the game. During a marketing department meeting on May 5, 2000, the issue of how much information the company would be able to collect about the gamers without making them find such gathering too integrity violating was discussed. In view of the fact that the new Clusterball website would be released in the later part of June 2000, this was an important question in need of an answer. At this stage, the problem was not lack of ideas about ways of collecting data, but rather whether one critical market segment, the "hard-core" gamers, would allow any registration. There were some controversies over this issue between the marketing department and the game developers; while the marketers wanted to collect as much information as possible, the game developers were more reluctant to such collecting. Without a decision, however, the web designer would not be able to the place from which the potential Clusterball gamers would get hold of the form of registering,

Shortly before releasing Clusterball, Daydream became aware of the need of organizational changes. The removal of publicists, distributors and retailers was not straightforward; it implied new and changed work practices as Daydream had to build an organization that could handle end customer relations. The release date was set, and changed, quite some times. At this stage, many stakeholders – stockholders, eager gamers, as well as mass media – put Daydream under pressure and the company had to take decisions with little analysis of their consequences. Consequently, it was not unusual for Daydream to reconsider their short-term priorities. Ideas generated at brainstorming sessions on the use of collected customer data, for instance, had to be put on hold despite obvious advantages in using them. Another but related example is the work with the CRM-database and the management tools. Despite that Daydream had both available customer data and educated staff in May; it was not until September 2000 the CRM-database was used for analysing purposes. Up-coming circumstances tended to arise and they made the everyday work unforeseeable and difficult to plan. One additional factor that contributed to the difficulties was that Daydream was dealing with technologies in

new and yet unexplored ways – they had no first movers to copy. Daydream had to learn by trial and error.

5.3   The post-release phase (July 2000-October 2000)

On the 17th of July 2000, Clusterball was released at www. clusterball.com. The game was well received by critics and as the number of Clusterball gamers increased, the Clusterball community began to be more frequently utilized. Realizing that the community was one key source of knowledge Daydream became aware of the need for someone responsible for the forum – a community manager. The "community manager's" main task would be to keep the community going and to communicate and collaborate with the gamers. The involvement and the supervision of the community opened up for new possibilities. The community was valuable since its member's possessed knowledge about the game and about computer gaming in general. By following the discussions in the forum, and to encourage and comment on ideas from gamers, Daydream could trace needs and wishes of their customers. Such needs and wishes were also explicitly asked for:

". . .we at Daydream are listening to what the community wants." ["Lobo" from Daydream in the on-line forum, 2000-09-04.]

Daydream made use of this potential a number of times. There are several examples of how ideas, expressed and discussed in the forum, became realized in the game. One such example is the pre-chat for gamers who have joined a game. While waiting for the remaining gamers to join, the gamers can communicate with each other. Implemented as a new patch of the game, the pre-chat was released in October 2000, only three months after releasing the game. Another example is the request for individualizing the appearance of the Clusterball ship. This request became an appreciated reality as a ship tutorial was available at the Clusterball community on November 5, 2000.

Not surprisingly, the forum was not only used for exchanging and discussing ideas in a constructive and creative way. Because it provides the opportunity for all registered gamers to act without any particular restrictions, the emergence of undesired discussions cannot be avoided. There are examples of how Daydream's "community manager" has had to intervene and rebuke inappropriate behaviour at times when discussions have became to overheated or aggressive. This type of intervention is a delicate matter, as it is often important to take immediate action without downplay the open and productive atmosphere.

6.   ORGANIZATIONAL ISSUES OF DIGITAL CUSTOMER RELATIONS

On the basis of the case study of Clusterball and the involved technologies for mediating customer relations, we have identified two properties of digital customer relations: time and place independency and transparency. This section of the paper describes these properties and explores their organizational opportunities and consequences (see Table 1).

Table 1. Overview of digital customer relations in the Clusterball case

Properties	Organizational opportunities and consequences	Illustrative examples
Time- and place independency	Co-design	• New patches released based on customer suggestions (e.g., individualized skins and the pre chat opportunity
Transparency	Fast sense-and-respond	• Daydream's appointment of a community member

Firstly, time and place independency can be considered an important property of digital customer relations. As mediating technologies, the game and the community could be utilized independent of time and place, which created good opportunities for gamers to get together and exchange ideas about the game. Time and place independency enabled Daydream to get access to the Clusterball players' collected knowledge and, in the Clusterball case, we can see how Daydream used this knowledge for enabling a sort of co-design of the game. In this regard, there are several examples of how customers were part of the development of Clusterball. As mentioned in section five, the pre chat and the ability to individualize the appearance of the Clusterball ship are illustrative examples. In this way the customer's opinions, interpretations, beliefs, and desires can be part of creating a better game. This co-design suggests changes in the traditional roles of game developers and players, where the border between the customers and the developers are becoming more and more diffuse. The customers are no longer customers in a traditional sense; in line with the "open source" movement, [see e.g., Ljungberg, 2000; Raymond, 1999], they have turned into co-designers of the game.

Secondly, digital customer relations are also characterized by transparency. All members of the Clusterball community can follow and interact within the forum. As a result, Daydream had to be alert to uncomfortable opinions and requests. Animated

activity and members who were eager to discuss distinguished the community. As a result, the possibility to intervene in real-time imposes demands on Daydream to act, or at least, comment topics that arise in the community. Daydream was not only expected to intervene, the company was also expected to act fast. Every now and then, the discussions become heated and, as a consequence, Daydream employees were, more or less, forced to step in and sometimes also to rebuke the actors. Whether the topics were of positive or negative nature, the transparency property requires action to be taken. In the line with Orlikowski's [1999] discussion of internetworked organizations, this openness is something that stretches beyond Daydream's control.

The transparency property imposes demands on fast sense-and-respond to customer behaviour. In view of the transparency of changed attitudes and desires, new ideas and thinking can be turned into practice quickly. As Bradley and Nolan [1998] outline, value in the "network era" requires that sense-and-respond business strategies replace make-and-sell strategies. In the short run, this property cuts both ways. It enables organizations to keep informed to be able to re-configure, but it also undermines some of the stability needed for streamlining business processes.

7.   CONCLUSION

This paper explores the nature of digital customer relations in the context of online entertainment. In particular, the paper takes a closer look at how the Swedish game developer Daydream had to learn about their online customers in the context of releasing its new online game Clusterball. In this specific case, two technologies – the game itself and the Clusterball community website – were involved in the mediation of customer relations. In fact, most of what Daydream knew about their customers was mediated through these technologies; this fact makes this case a useful illustration of what characterizes digital customer relations.

In our efforts to understand the nature of digital customer relations, two properties were identified in the collected data: time and place independency and transparency. We suggest that these properties are important themes in the design, assessment, and improvement of digital organizations.

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