Leveraging the Web for Customer Engagement: A Case Study of BT’s Debatescape

Wanda Orlikowski and Simon Thompson

May 2010

CISR WP No. 380

© 2009 Massachusetts Institute of Technology. All rights reserved.

- **Research Article**: a completed research article drawing on one or more CISR research projects that presents management frameworks, findings and recommendations.

- **Research Summary**: a summary of a research project with preliminary findings.

- **Research Briefings**: a collection of short executive summaries of key findings from research projects.

- **Case Study**: an in-depth description of a firm’s approach to an IT management issue (intended for MBA and executive education).

- **Technical Research Report**: a traditional academically rigorous research paper with detailed methodology, analysis, findings and references.
Title: Leveraging the Web for Customer Engagement: A Case Study of BT’s Debatescape

Author: Wanda Orlikowski and Simon Thompson

Date: April 2010

Abstract: Web 2.0 technologies offer a number of capabilities that can help companies do business in new ways. Leveraging those capabilities, however, requires experimentation to learn what strategies, approaches, and applications work and don’t work, and which can generate sustainable business benefits. One area of experimentation is in the use of social media to engage with external customers, particularly coupling these media with CRM capabilities. In this case study, we describe BT’s experiences with social CRM, showing how innovating business practices with Web 2.0 technologies can yield a range of business benefits.

Keywords: Business Innovation; CRM; Social Media; Technology Experiments; Web 2.0

9 Pages
Social Media and Customer Engagement

Realizing the business value of Web 2.0 technologies is an uncertain and challenging endeavor and many organizations are engaging in a variety of experiments to learn what strategies, approaches, and applications work and don’t work, and which may help them generate sustainable business benefits. One such arena of experimentation is the use of social media to engage with external customers. Blogger Brian Solis notes that this application of Web 2.0 technologies reflects the growing recognition that “social media has slowly evolved not only as a new content publishing, sharing, and discovery medium, but more importantly as a peer-to-peer looking glass into the real world conversations that affect the perception, engagement, and overall direction of brands.”

One way for companies to leverage social media for customer engagement is to couple social media with customer relationship management (CRM) capabilities. Companies are increasingly realizing that as interactions within social media expand (and likely accelerate as the millennial generation comes of age), there is an increased probability that such interactions will concern specific company products and services, and be read by many people around the world. As a recent article in The New York Times observed, “A Twitter post can in theory be seen by millions, and thus packs more punch than an e-mail message or a phone call to a store.”

One of the companies on the forefront of experimenting with social CRM is BT Group plc (BT), the world’s oldest communications company, founded as Great Britain’s General Post Office in 1868, and privatized in 1981. Today, BT is one of the world’s leading providers of communications solutions and services, operating in more than 170 countries. In this study, we describe BT’s innovation with social CRM, showing how ongoing experimentation and careful attention to the

---

multiple potentialities of Web 2.0 technologies can help build a business case for investing in these technologies to engage with customers.

Using Social CRM at BT

Customer relationship management is a critical activity for BT Retail, the main line of business that interacts with direct customers, both residential customers (BT Consumer) and commercial ones (BT Business). In the past few years, Customer Service within BT Retail has launched a number of initiatives that leverage web tools to reach customers, including enhanced website offerings, dedicated discussion forums, and online community portals. Using web tools to reach customers is part of a broader vision to build what Nader Azarmi, BT’s Chief Technologist for Intelligent Systems Research, calls “the predictive enterprise.” Such a vision recognizes that there is considerable intelligence in the interactions that people are having online in various communities about the company and its offerings. This intelligence, as Azarmi notes, “is very valuable. And we need to somehow understand and capture and incorporate that into our decision making and act upon that.”

Aligning with this vision, scientists within BT Research have been focusing on social media and recently have developed a customer service infrastructure—known as Debatescape—that allows support agents to interact with and assist customers who are posting on third party forums, blogs, and Twitter. Debatescape provides a channel to customers that harnesses Web 2.0 tools to deliver on BT’s philosophy that it wants to interact with its customers wherever they are, with whatever media they are using.

Debatescape was motivated by the realization that BT was increasingly missing out on an important aspect of customer contact. Graeme Stoker (General Manager of Digital Care at BT Consumer) recalls,

"We have come to acknowledge that there was a lot of discussion about ourselves and our products and services going on outside of the BT domain all over the big bad Internet, and traditionally BT has been very much of the opinion that if customers wanted to talk to us, they’d come to us. And a few of us have—over the past probably about a year or so—been trying to force the opinion that actually, we should be taking ourselves to where our customers are and therefore engage with them on their terms and their preferred location as opposed to waiting for them to come to us. So we were trying to find a way to, I guess, firstly, identify what our customers were saying, and where they were saying things, and then secondly, to find a way to interact with them in those domains, but importantly to keep all of the interactions manageable from within a customer service environment here.

The Debatescape infrastructure was thus designed to offer service to customers posting to a variety of social media sites. Two problems had to be overcome to develop this infrastructure: the first was to find all of these customers who were expressing their “pain” on the web and then focus attention on them; and the second was to develop a process that operationalized the problem resolution and made it traceable and scalable.

The Debatescape technology that was built by a team within BT Research uses RSS feeds, open application programming interfaces (APIs), and content-scraping tools to obtain and pool user-generated content from online forums, blogs, and social networking sites such as Twitter, Facebook, and YouTube. Using a natural language analyzer, Debatescape sorts and classifies the content into various categories, and then transfers the actionable events to designated customer service agents in either BT Consumer or BT Business. These agents then take action on the customers’ questions or problems and post their resolutions or responses to Debatescape which then streams these replies back to the originating sites with the appropriate BT credentials (see Exhibit 1).

Debatescape has been running within BT Retail since February 2009, and as we discuss below, experiences to date suggest that things have been going reasonably well. We interviewed
key business leaders from both BT Consumer and BT Business to understand their experiences so far, and to learn how they justify engaging with social media in their customer service operations.

**Justifying Social CRM**

Based on our interviews, it is apparent that the business case for investing in social media has been justified in various ways. To help make sense of the multiple criteria being used, we found it useful to categorize these in terms of the Shareholder Value matrix developed by Hart and Milstein.\(^5\) The matrix is defined by two dimensions that represent the two primary tensions faced by any organization: realizing short-term results while also creating conditions for future growth; and cultivating core internal capabilities while also remaining open to fresh perspectives and emerging technologies from the outside. These two dimensions produce four quadrants representing the four distinct performance elements that are crucial to generating shareholder value over time: cost, reputation, innovation, and growth (see Exhibit 2).

**Cost**

The performance dimensions in the bottom left quadrant of the matrix focus attention internally and on near-term results. Business value is generated through achieving operational efficiencies. For BT, social CRM represents a potentially cheaper, easier, and quicker way to interact with customers. Traditionally, most customer contact in companies such as BT is via the voice channel. And servicing customers this way is expensive. The web based infrastructure and flexible resourcing model that have been adopted to facilitate social media support in BT are perceived to be more efficient by BT, but quantifying this has proven difficult.

Similarly, reaching out to customers early may stop them from escalating matters to the Chairman or CEO. High-level escalation is considerably more expensive to deal with than normal complaints, so avoiding such practices can be particularly valuable.

An additional arena of cost reductions arises through leveraging responses in social media. That is, once a customer question has been answered publicly, others with similar problems may benefit, thus decreasing overall interactions with BT service agents. As Jonathan Denison (General Manager for Systems and Innovation at BT Business) observed,

> The hope is that once you have answered a question in public, when someone then searches for the problem using Google, they may find the answer.

The use of social media in BT is still in trial mode, but the initial results are promising. In BT Business, for example, ten weeks of Debatescape usage has generated an estimated ROI of 181%; that is, use of the technology has cost £105K but produced £190K in returns. In addition, there have been some retention benefits. Jonathan Denison (BT Business) indicated that:

> We’ve seen quite a bit of evidence of customers saying they’re going to go to the competition or they’re really unhappy with BT and then we’ve surveyed them after we’ve been in touch with them and helped resolve the problem, and a lot of customers are saying that they’re less likely now to move away from BT, so we think we can prove a reduction in churn.

These benefits are expected to increase as the interactions with customers evolve over time. Jonathan Denison (BT Business) added,

> On Twitter for example, we’ve seen a shift from customers saying things about BT, and us jumping in to help them, to customers suggesting to other customers that they contact us, to then customers, themselves, just directly coming to us via the medium. So, it’s changing extremely quickly.

---


**Reputation**

This performance dimension in the bottom right quadrant of the matrix focuses on the near-term, and concentrates on relations with external stakeholders such as customers and suppliers. Without appropriate attention to these stakeholders and their concerns, the firm’s legitimacy and efficacy in operating may be challenged. To the extent that social media sites are increasingly where customers are showing up and having discussions about products and services, then these online forums represent a potentially serious reputation risk—and opportunity—for any company.

Recognizing the power of social media to influence BT’s reputation was a primary influence in the development of *Debatescape*, which was designed to allow BT to participate in online conversations instead of simply leaving customers to express negative opinions about BT products or services publically. The technology was motivated by a sense that the company’s voice was absent from the online conversations, and what emerged was a recognition that BT needs to be part of the conversations, balancing the debate with their side of the story. *Debatescape* was thus designed to be an engine that facilitates a corporate presence in the online conversations. As one of the lead developers of *Debatescape* explained,

> The idea is that we can project an authentic image of our operations onto the debate.... We have no ownership on these debates and we can’t shut them down, but can we balance the debate with the real story? ... And in fact, if somebody searches Google, they find all these incidents where people are simply saying, ‘Well, it’s awful, I can’t get this to work’ and someone from BT is saying, ‘Can I help?’ and ‘Here’s how I’ll help,’ and that provides a very powerful message, I think, of the perception of the company, projecting authenticity into the debate.

Reputational justification for using social CRM thus focuses on connecting with external stakeholders in a way that enhances a company’s reputation, legitimacy, identity, and brand. It is increasingly seen as imperative for any business that provides customer service. Graeme Stoker (BT Consumer) observed, “We just can’t afford not to be in this space.” At stake is the perception of the company and its reputation in the market place. He explained,

> We have to drag ourselves from being, you know, BT the old-fashioned, traditional, incumbent telco—big, lots of customer service problems, the company everybody likes to bash over the head—to being a progressive, customer demand-led organization.

Traditionally, the assumption in customer service has been that “if customers wanted to talk to us, they’ll come to us.” But in the light of social media, this assumption requires some updating, and BT Consumer has realized that its reputation can be enhanced by engaging more directly with its customers on social media sites.

Early results on the BT Consumer side suggest that positive word of mouth is being generated through the use of *Debatescape*. Brooke Molinaroli (Head of Digital Care Design, BT Retail Customer Services) reports that to date there have been approximately 23,000 interactions with customers using *Debatescape* over a nine-month period. Typically the team has been responding within three to four hours of the original posting. On a rolling three-month basis, approximately 50% of these users report being “extremely” to “very satisfied” with the interaction. Importantly, many of these users post back to the forums to indicate their satisfaction, thus helping BT’s brand image. A recent comment on Twitter noted: “This is great how good Twitter is; I said I was upset being cut off & there BT was, wanting to help. Hats off for BT.” Furthermore, some customers are sharing their positive experiences on other sites. For example, a recent posting on silicon.com read: “The last time I had a problem with my BT broadband line at home, I mentioned it on Twitter. Within minutes, BT—which is on Twitter, too—was asking me about the problem. That’s an example of great customer service.”

---

Innovation

This performance dimension in the top left quadrant of the matrix is focused internally but concerns longer-term operational effectiveness. It is intended to help focus attention on the development of skills, capabilities, and practices that will ready the firm to perform successfully in the future. As a new medium of interaction and one that is growing rapidly in usage and functionality, social media offer some powerful and pioneering capabilities that may be harnessed to improve customer service. Two particularly interesting and novel characteristics are the asynchronicity and persistence that come with the use of social media to do CRM.

Asynchronicity. A disadvantage of the voice channel is that it requires both the customer and the service agent to interact synchronously. With social media, interactions can be managed asynchronously. Customers can post a problem on a forum and while they get on with their lives, the customer service agents can be resolving their issue. For some customer problems (e.g., those requiring troubleshooting), synchronicity will continue to be necessary, but for a large number of other issues or queries, customers’ time may be freed up when they use social media to engage with service centers.

Persistence. As interactions on social media sites are textual, an automatic record of each interaction exchanged between a customer and a service agent is generated and archived. Such ongoing documentation of online conversations produces a visible, searchable, growing, and persistent repository of questions and resolutions, while also increasing the transparency and thus the accountability of all the parties involved in the conversations.

Growth

This performance dimension in the top right quadrant of the matrix is focused on the future and looks externally to a firm’s relations with its various outside stakeholders. It seeks to identify the growth trajectory that will allow the firm to move into new markets, build new products and technologies, and develop new relations with (potentially different) customers and suppliers.

For BT, social media offer the potential to be an important new channel through which the company can learn about its customers, build loyalty, and grow sales. Jonathan Denison (BT Business) observed,

We definitely feel as if engagement with customers and trying to find different ways to engage with customers both from a sales point of view and from a marketing point of view and the one-to-one nature of the social media stuff is going to grow and will become increasingly important.

Such growth is likely to be slow as the majority of BT Retail customers are still interacting with the company via the telephone. But increasingly the company is encouraging its customers to use the BT website, to access FAQs, to use the online BT forums, and to chat online with customer agents. Customers engaging with BT online are also the customers that are likely to engage with the company through Debatescape. Over time, the number of customers who will seek customer support through online forums and social media is likely to increase, and by investing in Debatescape and online customer service agent skills at this early stage, BT is positioning the company to be ready to engage with many more customers via a range of different social media sites in the future.

Challenges of Social CRM

Working with social media has proven to be somewhat challenging, largely because this is a new way of working and interacting with customers, and effective norms, practices, and assessment criteria are still unsettled and being defined. Four primary challenges were evident in our interviews with the managers at BT: skills and mindset; speed and visibility; unpredictability and vulnerability; and system growth and status.

Skills and Mindset

Given the public and textual nature of social media, the skills and mindset required by service agents dealing with customers in this novel way will have to change. New practices
and norms of interaction more appropriate for the new medium have to be developed. Jonathan Denison (BT Business) explained,

*The main hurdles have really been around getting our advisors to the right way of thinking. So, understanding the style and tone to use and understanding the language that’s most appropriate for the medium, that’s been the biggest challenge because we’ve come from a very stable environment. ... So much is different. I mean the obvious thing is just the style of the conversation. A lot of companies had a very formal customer service culture... whereas in this kind of medium, people just expect it to be fast and kind of quick and short but friendly and also human.*

Another set of issues concerns cross-training and being multi-skilled. Online customer service agents tend to need more general expertise than specialist knowledge. As Graeme Stoker (BT Consumer) observed,

*Given the nature of what we’re doing [on Debatescape], the [agents] have to be jacks of all trades. Whatever the customer’s problem is, they need to be able to pick it up, take ownership of it, and resolve it.*

Similarly, Jonathan Denison (BT Business) noted,

*And you’re also making sure that the advisors are really trained to be able to counter anything that comes their way... Whether it’s a query about the broadband product or a PR query or a general enquiry about their bill, we need to make sure that the team is equipped to handle that in the most appropriate way. So that’s been a big difference.*

*Speed and Visibility*

Interacting on social media is very public and tends to be rapid, so the expectations of speed and responsiveness, as well as tone of voice and politeness become accentuated and exacerbated. Jonathan Denison (BT Business) commented,

*I think what is new as well is just how quick it is. And it’s also very, very upfront, do you know what I mean? You’re there and sometimes it’s very public when people are saying things... As you know, social media is one of those things where bad things go viral very quickly, so you sort of have to have more impetus and that does put a different kind of pressure on the situation.*

Graeme Stoker (BT Consumer) similarly observed that “As volumes have grown, we’ve really had to make sure that an important piece is just sort of the whole speed and responsiveness. In other channels, [the response] ‘Let me pass you on to someone else or I’ll get back to you later, or I’ll phone you tomorrow’ may work, but that doesn't really cut it [in social media].”

*Unpredictability and Vulnerability*

A third challenge mentioned by the BT managers in managing social CRM is the unpredictability of the workflow and the vulnerability that comes from working in a new and relatively unproven way. Jonathan Denison (BT Business) explained,

*One of the things which my operational colleagues have found difficult is the unpredictability of it. So, if you think about it, we’ve come from an environment which has been stable over many years—we know exactly when calls/emails are going to come in; we know when they’ll peak; we know exactly how we need to resource it; we know exactly what coverage we need, at what time of what day, etc., etc., etc.—to something which is completely unknown and that really has unsettled our operational management colleagues. ... And all these things that you do in call centers and in customer service environments, all of a sudden the rulebook’s been thrown out the window.*

With respect to vulnerability, the BT Consumer staff recently encountered firsthand the “bleeding-edge” of contemporary social media when they discovered that one of the social networking sites that that was being used to interact with customers had suspended BT’s
account. Brooke Molinaroli (BT Retail Customer Services) noted,

You quickly realize how vulnerable and fragile this whole thing is. So basically, it was about 6:30 on Wednesday night, and we’re making our plans to leave, and all of a sudden one of the advisors said, ‘Oh my God, Brooke, come here, come here.’ And she clicked on the social media site and basically it said, ‘We have suspended your account due to suspicious activity.’

As it turned out, this suspension had been an error made on the side of the social media site and BT’s account was restored in under a day. But not before this error had produced considerable anxiety within BT Consumer, generating many hours of frantic activity through the night trying to reach the social media site’s employees so that they would restore the account.

This incident highlights the tenuous nature of current social CRM technology. Debatescape operates on a cloud infrastructure that BT does not control or own. For BT managers to suddenly realize that they have no input or influence over the operation of a critical part of their service infrastructure is a real culture shock. BT has no SLAs with social media sites that are a core part of the service it is running. Some of the social media sites that Debatescape relies on do not have contact centers or people to call that can provide 24/7 support. This increases BT’s exposure and risk.

Graeme Stoker (BT Consumer) observed another vulnerability having to do with customer interaction on social media sites, one akin to customer poaching. He explained,

One of our competitors started seeing the customers that we were posting to, where they were saying that they were having problems with our service, and one of our competitors started writing to them and trying to encourage them to move over to them.... Our reaction was ‘That’s interesting. How do we respond to that?’ In the end we decided not to respond. We just carried on and tried to satisfy the customers and decided not to do the same to their customers... It didn’t fit with our brand image.”

**System Growth and Status**

Finally, a significant challenge currently being experienced by the Debatescape team is how to scale the system and transition it from pilot status to operational system. Initially, Debatescape and social CRM at BT were seen as part of the experimental innovation activity that BT, like many large companies, invests in within its corporate R&D program. However, the system rapidly became perceived as ‘business as usual’ for the staff managing and executing customer care through its channel. As dependence on the system grew, the expectations of performance and reliability also developed. When the Debatescape trial was started, it was possible to take the system down for an upgrade and most of the users barely noticed the interruption. After six months, if the system becomes unresponsive because of excessive load or becomes unavailable at any time of the day or night, the users notice right away and start complaining within minutes. The growth and scale of such systems pose a couple of implications that require careful consideration.

First, functionality that is introduced into a system during its trial phase in the belief that it would be used occasionally and out of normal operational hours can become critical to the actual operation of the system. The customer contact centers that introduced Debatescape had well-established patterns of shift work and a 24/7 culture, and Debatescape was rapidly appropriated into this way of working. This meant effectively that there were no “off hours” for additional functionality as operations were necessarily impacted as a result. For example, running reports and doing backups within Debatescape both caused problems in this regard, imposing either substantial database overhead (in the case of system reporting) or substantial bandwidth overhead (in the case of backups). Second, a pilot team that is not funded to provide 24/7 coverage can quickly become overstretched in the always-on social media world. Debatescape achieved 99.36% availability during its first nine months of
operation, but despite this there were many complaints about outages and slow response times.

Transitioning an experimental pilot system to operational status can be very difficult as the final requirements and shape of the system are necessarily unknown at the start of the development. In the case of social media, there was an explosion of interest that generated a wave of support leading to systems such as Debatescape. Some social media systems have clear revenue generation propositions and companies find they can easily fund and support such systems through the revenues produced. Cost saving and customer service initiatives, however, are more difficult to manage and justify as it takes time for their contributions to be visible and accessible to the organization. And where such initiatives are unexpectedly heavily utilized, additional funding may be needed sooner than anticipated. Corporate funding for innovation activities are often fully allocated within a particular reporting period, thus more money can often only be found at the cost of stopping other activities. Yet, underfunding an innovative pilot can compromise its potential success and undercut the lessons learned from the initiative.

As the opportunities and environment around Debatescape have evolved, so have BT’s plans for it. At the time of writing, there are a number of options under consideration such as integrating the system into the corporate infrastructure, selling the intellectual property rights to a third party, or licensing it to a third party. Even as these opportunities are being deliberated, the team running Debatescape is still required to deliver effective 24/7 service with the resources that were allocated when the activity began. How to effectively transition from experimental pilot status to a fully-supported system without disrupting the value currently being generated is thus a significant challenge.

Conclusion

While BT is continuing to learn from its initial implementation of Debatescape, the focus, design, operations, and results offer interesting and important insights into the business opportunities and challenges of using social media to interact directly with customers. In particular, the initiative we have described here suggests that social media have the potential to provide business benefits along all four of the dimensions of shareholder value—cost, reputation, innovation, and growth. Of course, the emergent nature of Web 2.0 technologies, the rising demographic of “digital natives” (the millennial generation), and the press of shifting business practices suggest that these benefits will change over time. There is considerable evolution and change likely in this space for some time, so experimenting with social media and learning how to effectively leverage the web for customer engagement must be ongoing.
Exhibit 1
Architecture of Debatescape

Exhibit 2
Shareholder Value Framework (from Hart and Milstein, 2003)
MIT Sloan CISR Mission

MIT CISR, founded in 1974, has a strong track record of delivering practical, empirical research findings on how firms generate business value from IT. MIT CISR disseminates this research via electronic research briefings, working papers, research workshops and executive education. Our research portfolio includes but is not limited to the following topics:

- IT Governance
- Enterprise Architecture
- IT-Related Risk Management
- IT Portfolios and IT Savvy
- IT Leadership
- IT Management Oversight
- IT Unit Design
- IT-Enabled Business Agility
- IT Innovation
- Business Transformation and Change Management

In July of 2008, Jeanne W. Ross succeeded Peter Weill as the director of CISR. Peter Weill became chairman of CISR, with a focus on globalizing MIT CISR research and delivery. Drs. George Westerman, Stephanie L. Woerner, and Anne Quaadgras are full time CISR research scientists. MIT CISR is co-located with MIT Sloan’s Center for Digital Business and Center for Collective Intelligence to facilitate collaboration between researchers and faculty.

MIT CISR is funded by Research Patrons and Sponsors and we gratefully acknowledge their financial support and their many contributions to our work.

Contact Information

Center for Information Systems Research
MIT Sloan School of Management
5 Cambridge Center, NE25, 7th Floor
Cambridge, MA 02142
Telephone: 617-253-2348
Facsimile: 617-253-4424
Email: cisr@mit.edu
http://cisr.mit.edu

Mission and Contact Information as of March 2010.