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Managing Customer Relationships in the Social Media Era: Introducing the Social CRM House

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Abstract

CRM has traditionally referred to a company managing relationships with customers. The rise of social media, which has connected and empowered customers, challenges this fundamental raison d'etre. This paper examines how CRM needs to adapt to the rise of social media. The convergence of social media and CRM creates pitfalls and opportunities, which are explored. We organize this discussion around the new "social CRM house," and discuss how social media engagement affects the house's core areas (i.e., acquisition, retention, and termination) and supporting business areas (i.e., people, IT, performance evaluation, metrics and overall marketing strategy). Pitfalls discussed include the organization's lack of control over message diffusion, big and unstructured data sets, privacy, data security, the shortage of qualified manpower, measuring the ROI of social media marketing initiatives, strategies for managing employees, integrating customer touch points, and content marketing.

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Introduction

The rise of social media is challenging the traditional notion of customer relationship management (CRM). In a traditional CRM framework, the organization possesses substantial information about its customers, which it uses to manage its relationships with them (Payne and Frow 2005; Verhoef, Venkatesan, et al. 2010). Reinartz, Krafft, and Hoyer (2004, p 295) define CRM as a process that "entails the systematic and proactive management of relationships as they move from beginning (initiation) to end (termination), with execution across the various customer-facing contact channels." Specifically, the company seeks to leverage customer information in order to maximize customer lifetime value (CLV) and the resulting customer equity (Berger and Nasr 1998; Malthouse 2013; Schulze, Skiera, and Wiesel 2012). For example, an organization might maintain a database of customers and

prospective customers, segmented according to various characteristics, and target different marketing activities to different segments. The organization may choose to invest more resources in certain segments, cross-sell some groups, up-sell others, and focus on reducing the cost of serving others. In such situations, the company is the main actor, addressing passive customers, whose ability to respond to the company's efforts is essentially captured in their purchase behavior.

With the rise of vast social networking platforms, the customer is no longer limited to a passive role in his or her relationship with a company. In addition to having more information about competitive products available anywhere on mobile devices, customers can easily express and distribute their opinions to large audiences, and companies are likely to find it increasingly difficult to manage the messages that customers receive about their products/services (e.g., Schultz, Malthouse, and Pick 2012). The net effect has been to increase the power that consumers have (see Labrecque et al. (2013)). Searls (2012) even suggests that instead of CRM, companies should focus on understanding *vendor relationship management* (VRM), where consumers are managing their

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relationships with vendors rather than the other way around. These developments are potentially detrimental to companies: If customers spread negative messages about a company, they might seriously damage its reputation (see Gensler et al. 2013). However, the emergence of social media also offers companies opportunities to listen to and engage with their customers, and potentially to encourage them to become advocates for their products. The challenge for companies is to identify and take advantage of such opportunities, and to avoid the pitfalls they entail.

This paper examines how CRM needs to adapt to the rise of social media. We consider social media as a group of Internet-based applications that allow the creation and exchange of user generated content (Kaplan and Haenlein 2010). We refer to this emerging model of CRM as "social CRM," a term we borrow from Greenberg (2009). We propose a descriptive framework—the social CRM house—that captures how social media affect CRM and create pitfalls. The CRM house focuses on how different CRM activities—acquisition, retention and termination—are affected by levels of engagement.

After reviewing the literature on the intersection of social media and CRM, we will discuss what we mean by levels of customer engagement and will explore how it affects traditional CRM activities. We will then discuss the elements of the "social CRM house" and the pitfalls associated with it, and will propose research questions that might assist companies in navigating these pitfalls.

Conceptual Background on CRM and Social Media

Although social CRM is still a relatively new domain, numerous studies have begun to emerge along the border between CRM and social media. We group these articles into two broad categories.

The first group consists of research that defines ways of incorporating social effects when looking into traditional CRM problems. Some researchers, for example, have begun to explore social effects in customer churn. Understanding and predicting churn has always been integral to CRM (Neslin et al. 2006; Malthouse 2009). Recent studies by Nitzan and Libai (2011) and Haenlein (2013) add social effects to the question of churn, seeking to identify conditions under which groups of customers are likely to churn together. Other research that fits into this group looks into the impact of value assortativity in seeding and new customer acquisition. Haenlein and Libai (2013), for example, expand on studies of seeding strategies (Hinz et al. 2011) by taking into account the possibility that customers in the seeded base might be heterogeneous in their value contributions to the firm.

The second category of research looks into the monetary consequences of social interactions or word-of-mouth, broadly referred to as "social value" (Libai, Muller, and Peres 2013). These studies include research on referral behavior and reference value (Kumar, Petersen, and Leone 2010; Schmitt, Skiera, and Van den Bulte 2011) as well as research that compares customers acquired through word-of-mouth to those acquired through other channels (Trusov, Bucklin, and Pauwels 2009; Villanueva, Yoo, and Hanssens 2008). Articles in this group range from analytical work (Zubcsek and Sarvary 2011) to case studies that illustrate

successful firm behaviors (Kumar et al. 2013). Together, they have led to a broader understanding of the concept of customer value: Such value is no longer limited to purchase-based CLV but also includes social elements, such as the value of customer influence, referrals and knowledge (Kumar et al. 2010; Weinberg and Berger 2011).

Combined, this research reveals the limitations of the traditional CRM approach, which views the customer as an individual decision-maker who generates value for the company through consumption and purchase behavior. In the presence of social media, consumers can contribute to firm growth in a multitude of ways. To take advantage of this potential, companies need to transition from a traditional view of CRM to a social-CRM perspective. Yet this transformation generates numerous challenges, which we will discuss in the following sections.

Introducing the Concept of Social CRM

We propose a framework, the social CRM house, to understand how social media affect CRM. To construct this framework, we first conceptualize how social media and traditional CRM interact to form social CRM. Specifically, we propose that social media influence the degree to which customers can engage with a company, and that the customer's level of engagement both affects and is affected by the company's approach to each of the three components of traditional CRM—acquisition, maintenance, and termination. The interaction between customer engagement (i.e., social media) and the three components of CRM is represented in the center of Fig. 1 (item 1, indicated by a "1" with a box around it). Drawing from this conceptualization of social CRM, a company can develop its social-CRM strategy (item 2).

We assume that social CRM is built on a foundation of insights that companies derive by analyzing large quantities of data about their customers, made available by social media (items 3 and 4). Item 3 includes the "raw materials" of various data sources and the information technology required to gather, store, analyze, and use the data. The raw materials must be processed before they can be actionable, and item 4 consists of the processes of extracting value from the databases.

The success of a strategy is driven by the people who "inhabit" the house, i.e., the company's employees (item 5). Finally, it is necessary to identify appropriate means of measuring the performance of each component (item 6). Each element of the social CRM house creates pitfalls, which the company must avoid.

Dimensions of Social CRM

We conceptualize social CRM as being composed of two dimensions: a CRM dimension and a social media dimension. The CRM dimension comprises the three basic components of the traditional CRM process: relationship initiation (acquisition), maintenance (retention), and termination. We attempt to identify the ways in which the emergence of social media influences each component, but do not attempt to distinguish between specific types of social media, as the social media space is evolving rapidly, and new applications are continually introduced into the market.

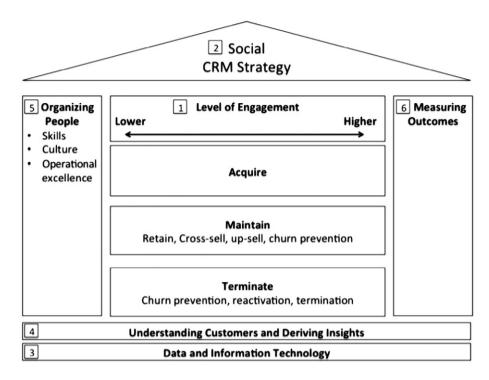


Fig. 1. Social CRM house.

As discussed above, the traditional model of CRM assumes that customers are passive, responding to a company's actions primarily through their purchasing behavior. We propose that a fundamental way in which social media might affect CRM is by allowing customers to become active participants in the relationship, by providing them with opportunities to engage with the firm. When a user generates content related to a specific brand, he or she is *engaging* with the company.

While scholars do not agree on the precise definition of customer engagement (e.g., see Bijmolt et al. 2010; Brodie et al. 2011; Verhoef, Reinartz, and Krafft 2010), all agree that there are varying degrees of engagement, which fall on a continuum ranging from very low to intensely high levels. Scholars disagree on the focus and scope of the engagement construct, with some focusing on the psychological state of the consumer (e.g., Algesheimer, Dholakia, and Herrman 2005; Calder and Malthouse 2009; Calder, Malthouse, and Schaedel 2009; Malthouse and Calder 2011), others focusing on the non-purchase activities of customers (e.g., Van Doorn et al. 2010 such as writing reviews or blogs, and others including both (e.g., Brodie et al. 2011; Wirtz et al. 2013). For convenience, rather than refer to the full continuum of engagement, we differentiate between two levels of engagement: lower engagement, which describes situations in which consumers either only passively consume content or use very basic forms of feedback (e.g., "liking" a page on Facebook); and higher engagement, which describes cases in which consumers actively process the role of the brand in their lives or participate in various forms of co-creation, such as writing reviews or creating videos showcasing the product.

In defining customer engagement, it is import to distinguish it from its consequences. For example, simply clicking a "like" button is a lower form of customer engagement, since it requires very little processing of the brand meaning. Yet a customer's "like" might be observed by a large circle of friends and even move the friends to purchase. Alternatively, a consumer who posts a lengthy, thoughtful review of a restaurant or music album on a website displays a higher level of engagement, even if the effects of the review on others are low, e.g., probably because there is a low level of mutual trust among visitors or because the website on which the review appears has few visitors. An example of the latter situation is Pepsi Max's "Crash the Super Bowl" competition in 2011 that builds upon the concept of idea markets (Soukhoroukova, Spann, and Skiera 2012). In this competition, consumers were invited to create videos showing why they loved Pepsi Max. Winning videos were awarded a cash prize and were screened during the 2011 Super Bowl. Consumers who participated in the competition were highly engaged, even if non-winning submissions were not viewed by many others.

The two dimensions we define for social CRM create a two (social media: lower engagement, higher engagement) by three (CRM: acquisition, retention, termination) comparison, which forms the foundation of the following discussion. The two dimensions are shown in the center of Fig. 1 (item 1). There is no dividing line between lower and higher engagement because doing so would suggest two levels of engagement and would contradict our point that the level of engagement forms a continuum. We claim that a company should determine its CRM strategy according to the level of engagement that customers are likely to show and the CRM objectives that the company would like to achieve. Customer engagement is endogenous in that it is affected by the company's contact points, and the nature of engagement then affects future contact points. In what follows, we break down how each component of CRM might interact with

social media, under each level of consumer engagement (i.e., lower or higher).

Lower Customer Engagement

Acquisition

Many companies that seek to enlist social media in their customer acquisition efforts begin by uploading advertising spots on YouTube, running promotions on Facebook, or providing information about their products on Wikipedia. Customers with lower levels of engagement might simply consume such information, or they might interact with it by "liking" it or sharing it (e.g., on Facebook, YouTube or Twitter). These actions can help companies to create awareness and change attitudes among prospective customers, thereby contributing to the acquisition of new customers (see the previous subsection on the consequences of engagement). Yet these types of promotional activities do not make full use of the specific interactive characteristics of social media applications and do not actively engage customers in supporting the company's marketing activities, which is why they are described as lower customer engagement.

An advantage of relying on social media activities such as those mentioned above is that companies can build on the basic processes they are already familiar with from planning more traditional marketing activities (e.g., showing advertising on TV, placing banner advertisements on a portal and providing information on the corporate webpage). This familiarity reduces risk, especially for companies that are new to the social media space. In fact, from an organizational perspective, the main difference between such promotions and their traditional counterparts is perhaps the ability to improve targeting. Yet although improved targeting might be sufficient motivation for a company to engage in such actions, they represent only a first step towards the use of social CRM.

Retention

In a similar spirit, companies can incorporate social media into their efforts to retain existing customers and to maintain ongoing relationships with them. Facebook brand pages, for example, have been shown to be effective in influencing brand evaluations among the customers who "like" them (De Vries, Gensler, and Leeflang 2012; Naylor, Lamberton, and West 2012), and the same applies to flagship brand stores in virtual worlds (Haenlein and Kaplan 2009a). This ability to retain customers is of particular importance for industries in which companies cannot easily identify their existing end-customer bases, such as fast-moving consumer goods, or in which companies depend heavily on indirect distribution. Yet, as in the examples discussed with regard to acquisition, although these activities rely on some form of customer engagement, such as liking a brand page, they are still very limited in terms of the extent to which they encourage customers to participate in the company's retention initiatives.

Termination

Relationship termination can be initiated either by the customer or by the company. In cases of customer-initiated termination, companies can use information from social media to improve their ability to spot clients who are likely to leave. They can also include this information in models predicting churn. A company can then target such consumers in special retention campaigns, which might enable it to prevent a ripple effect, in which social contacts of churning customers also decide to leave the company (Nitzan and Libai 2011).

In cases of company-initiated termination, the company is less likely to take action to retain churning consumers, as it has already made a conscious decision to separate from them—for example, because they yield low or negative profitability (Haenlein and Kaplan 2009b; Haenlein, Kaplan, and Schoder 2006) or have a negative impact on employee motivation (Walsh 2011). Social media can be helpful in this context since they allow firms to identify customers who should not be abandoned because of the special social contacts they might maintain with other customers that are desirable for the firm. For example, a clothing retailer that mails catalogs to active customers may have a customer who has not purchased recently, but comments favorably on the brand in social media with a large number of followers. The customer's large value of recency would ordinarily indicate that the retailer should stop investing marketing resources (e.g., mailing catalogs), but the influence this customer has on others implies that the retailer should continue to mail her.

Higher Customer Engagement

Acquisition and Retention

If customers are more engaged with a company through social media channels, the company no longer has full control over the messages to which its consumers are exposed (see Kumar and Rajan 2012 for a related discussion in the context of social coupons). For example, whereas customers with low levels of engagement might simply consume or share "company-approved" promotions, a highly engaged customer might choose to distribute an independent review of the company's product or reveal promotional offers that the company might prefer not to expose to a wide audience.

One implication of this phenomenon is that, among highly engaged populations, acquisition activities cannot be isolated from retention activities. For example, if a company decides to send a certain type of acquisition promotion to prospects who meet specific criteria, it cannot rule out the possibility that these individuals will share that information with current clients who do not meet the criteria. Such clients might demand to receive the same benefits, threatening to leave the company if it does not comply. Under certain conditions, a company might even encourage this type of behavior, in the hope that its message becomes "viral" (Kaplan and Haenlein 2011b). A common strategy for achieving this goal is to carefully select the customers who receive the message in the first place (Hinz et al. 2011), e.g., by targeting customers with a particularly high number of social contacts (Iyengar, Van den Bulte, and Valente 2011; Libai, Muller, and Peres 2013) or customers who are financially attractive (Haenlein and Libai 2013).

The inability to separate retention from acquisition represents one of the largest differences between traditional and social CRM. Over the past decade, marketing scientists have developed sophisticated approaches to help companies allocate fixed marketing budgets between retention and acquisition activities (Blattberg and Deighton 1996; Reinartz, Thomas, and Kumar 2005). Within social CRM such a separation is no longer worthwhile, since marketing activities are likely to reach current and potential customers of the company at the same time. This development forces companies to reconsider basic techniques that they use in the separate management of acquisition and retention activities, such as providing new customers with more attractive offers than are available for current customers. Coordinating across acquisition and retention silos likely represents a major challenge for companies in the short term, but may ultimately improve customer satisfaction, loyalty, and profitability.

Termination

Higher levels of customer engagement make relationship termination more challenging, especially when it is initiated by the company. Divested customers are particularly likely to react negatively to termination by spreading negative word-of-mouth (Haenlein and Kaplan 2010, 2012). This negative word-of-mouth may lead to the loss of customers that the company would like to maintain, especially in a competitive environment (Libai, Muller, and Peres 2013) and in the worst case to collective actions such as consumer boycotts (Klein, Smith, and John 2004). Companies should take account of such (indirect) divestment costs when deciding which customers to keep and which ones to "fire."

Developing a Social CRM Strategy—the Roof of the Social CRM House

We will now discuss the components of the social-CRM house in detail, beginning with the roof of the house, social-CRM strategy, and then proceeding with data and information technology as the foundation of the house, and finally the house's pillars, namely organization of people and the measuring of outcomes. In this section we build on our conceptualization of social CRM and discuss key considerations that a company should take into account in developing a social-CRM strategy, which is the roof the social-CRM house (item 2 in Fig. 1). We further identify potential pitfalls to successful strategy development and propose research questions that can assist companies in avoiding these pitfalls.

Value Fusion

The traditional objective of CRM has been to maximize CLV, which is the discounted sum of expected future profits derived from the relationship with the customer. As discussed above, since the emergence of social media, the index of CLV no longer fully captures a customer's value contribution to the company. In addition, CLV measures the future value that *the company* derives from its relationship with the client. While there is nothing wrong with maximizing profits, an exclusive focus on profit to the company seems misguided in a world of empowered consumers with increasing access to competitors' products. We suggest that the strategic objective of social CRM should include multiple forms of value to the company, including CLV, customer referral value (CRV) (Kumar et al. 2010), customer influence effect

(CIE), customer influence value (CIV) (Kumar et al. 2013), as well as value to the consumer. The organization may need to consider value to other stakeholders as well, such as society or other relevant communities because digital media have enabled networked consumers to disseminate negative word-of-mouth beyond what traditional watch-dog journalism could.

Larivière et al. (2013) give examples of how a joint focus on the value derived both by the company and by the consumer called value fusion—can produce an interaction in which both parties benefit. They give five case studies ranging from Wikicrimes to crowdfunding to various types of mobile apps. Another example of value fusion that is more closely linked to social CRM is using data harvested from social environments for marketing purposes, which is related to privacy issues discussed below. Suppose, for example, that a music retailer implements a system that deduces preferences of individual customers in its database. Based on what customers write in reviews or say in other public forums, along with other observable phenomena such as browsing history, it deduces that a customer likes a certain band. Value-fusion strategies would use this information to maximize value to both the company and customer. For example, it could send an email letting the customer know that this band is about to release a new album. This contact has a clear value to the company because it could produce a sale. A randomized, controlled test would enable the company to know the precise value generated by the email.

The value-fusion questions are whether and how the email benefits the customer. The customer may value knowing about the new album and buy it to produce a hedonic value. He may tell his friends about it, producing a social value. The email, however, could also create negative value. It could be perceived as spam, which might cause the customer to opt out of emails and stop buying from the retailer (reducing CLV). The customer could also think that his privacy had been violated, complain about the email and privacy violation in social media, and ultimately create a crisis for the company.

Future theoretical and empirical studies can explore how social CRM might influence multiple value objectives, as well as means of quantifying this influence and translating these measurements into managerial recommendations. For example, generic measures such as customer satisfaction might reflect the value derived by the consumer, but are often not diagnostic. To overcome this pitfall, it is necessary to develop more specific measures of antecedents to satisfaction, such as the extent to which the value proposition is being delivered.

Content Marketing Strategy

Traditional communication strategies have focused on having a positioning statement, creating ads to communicate the positioning, and delivering the ads to passive consumers through paid media, both mass and direct. As consumers find new ways to shut out and avoid such traditional advertising messages, e.g., because they no longer have to sit through everything that is put in front of their faces, can block CRM contacts with do-not-call lists or spam filters, or because they can filter the content that appeals to them,

companies must develop new communication strategies that can accommodate in-bound messages (Malthouse 2007) and create value for individual consumers beyond advertising (Halligan and Shah 2009). Companies can use these strategies to gather data on their consumers and thereby enhance their ability to manage consumer relationships.

One emerging area for marketing is in providing engaging content. Consider, for example, technology companies such as Microsoft and Dell, which maintain high-traffic websites. It seems reasonable to assume that a substantial fraction—perhaps a majority—of visitors does not come to the website looking for marketing messages. Rather, they are coming for content that gives them news about, and support for, the products they already own. A website designed by traditional marketers to sell products would provide little value to such visitors, and they would look elsewhere to find information that more closely resembles the articles in computer magazines than paid ads. Content may come from employees of the company in the form of supplementary documentation, white papers, blogs, and the like. Content may also come from other consumers (e.g., one consumer posts a problem and another provides a solution), and the company must enable and manage such co-creation.

Consumer packaged goods companies such as Kraft and Procter & Gamble have also begun to experiment with content. Kraft, for example, offers a website, kraftrecipes.com, and a mobile app, the iFood Assistant, which offer tips, ideas, recipes, shopping lists, and videos demonstrating how to cook with certain recipes. Kraft asks users to sign up for weekly emails and mobile alerts, and therefore has a database of customers with whom it must manage relationships, which illustrates how content marketing requires CRM and analytical skills. Procter & Gamble is also experimenting with content. Its current offerings include My Fire Hydrant, which is a blog and social media forum about dogs, and lifegoesstrong.com, a content portal for mid-lifers.

These are all examples of companies that have historically not been in the media industry and that are now creating and distributing useful, media-like content. These companies' overt goal is to attract an audience by providing content they value, while their ultimate goal is to sell more products or services in the future.

These activities create a new gray area between marketing and journalism or entertainment. For example, computer or cooking magazines and websites routinely critique products and mention those from more than one company. Their mission is to acquire an audience (that may pay for content and can be sold to advertisers), and doing so may require them to criticize certain products and recommend others. In the case of a content-based website run by a company, this approach might conflict with the website's ultimate purpose: selling the company's products.

Under this backdrop, a list of research questions emerges: To what extent should a company's website offer honest criticism of its products and mention those of a competitor? How does a company moderate and edit the discussions taking place among consumers on its website, especially when the discussion is critical of the products or company? There are also many research questions around how best to create engaging content and manage co-creation with customers. Peck and Malthouse (2011) discuss journalistic strategies and approaches for creating

engaging content. Gu and Ye (forthcoming) study how management responses on a third-party online review website may positively influence customer satisfaction. Kim, Wang, and Malthouse (2013) discuss strategies for responding to negative word-of-mouth.

Foundation of the Social CRM House: Data and Information Technology

Data and the insights derived from it are the foundation of the social-CRM house. The recent World Economic Forum declared data to be a new class of economic asset (World Economic Forum 2012), and marketing executives are no strangers to this concept. Data—their collection, analysis, and application—form the nuts and bolts of social CRM strategies. In particular, the vast quantities of data made available by social media enable companies to derive insights about their customers and to act on them. McAfee and Brynjolfsson (2012) argue that "big data" enable companies to make decisions on the basis of evidence rather than rely solely on intuition. In order do so, however, senior executives must first learn to ask the right questions and to embrace this approach to decision-making.

Even in the pre-"big data" era, companies strived to collect as much information as possible about their customers. From membership cards, to browser cookies, to click stream analysis, various forms of technologies have been adopted in CRM (Guadagni and Little 1983; Moe and Fader 2004). Now, with the advent of social media, companies can access disparate and enormous new sources of data on their customers, and potentially on their "friends." This may give companies a sense of empowerment, and businesses in many industries are investing resources to capture such data. Yet this frenzied digital "enclosure movement," in which companies explore and conquer uncharted territories with their digital strategies, is characterized by several pitfalls.

The Adequate Level of Social Media Data Generalization

Although the analysis of social media data can provide valuable insights for marketing research purposes, companies should use it as a form of exploratory research akin to a focus group or in-depth interview, where the goal is to identify hypotheses and directions for further investigation. Such data provide a great opportunity for companies. By reading customer reviews and blogs, brand managers gain insights into how customers are using their products and how they think about them that could produce more effective CRM contact points (Kaplan and Haenlein 2011a). In the past they would have to commission usage studies or focus groups for such information.

Except in perhaps a few situations, it should *not* be thought of as descriptive research, where the goal is to derive conclusions that can be projected to a larger population. Consumers contributing to social media may not represent the larger population of targeted consumers of a product, and, as with a focus group, the ideas they express in social media are influenced by what others are saying or writing.

For example, suppose that five consumers are complaining loudly on a social media site about some feature of a product. This information alone does not enable a brand manager to infer the fraction of all consumers having the problem. The manager does not know whether those complaining are aberrant, or whether they are representative of the entire customer base. Consequently, one must exercise caution when extending some insight drawn from social media data. Before acting on such insights it is advisable to confirm them with additional descriptive research or to use causal designs. For example, a customer review might suggest new creative for an email ad. The new ad, however, should be tested against a control.

A related issue is that much, if not most, of the data gathered from social media are from convenience samples. Even though sample sizes may be large, estimates made from a biased sampling procedure have uncertain usefulness. For example, if we are trying to estimate the mean of some variable, but the sampling procedure over-represents those with large values, then a large sample will produce a precise (tiny standard error) estimate of the wrong quantity (the true mean plus the bias).

Weighing Data Richness and Consumer Privacy Interests

Social media CRM entails linking disparate sources of data. When a company begins to combine data, topics such as privacy and security take on heightened significance. For example, the privacy policies governing one data source may not align with those from another. The customer may have given permission for a data field to be used in some specific way, and it might not be clear whether the field may be legally used for another purpose. A company that uses data for purposes for which it has not been explicitly authorized can erode its customers' trust and even create backlash against itself. On the other hand, when customers allow a company to track sensitive information and perceive that the company is using in the information to their benefit, they may trust the organization more and seek a stronger relationship in the future.

There is a parallel discussion over privacy with governments' uses of data, such as the National Security Agency (NSA). The importance of privacy and security will likely increase as technology enables collecting more information on customers, e.g., mobile location, and methods of matching a customer across databases improve (see Peltier, Milne, and Phelps 2009 for a survey of privacy-related marketing issues).

Unstructured Data

Another problem is that much of the data generated in the social CRM process—e.g., text comments—is unstructured. There are some studies that relate positive, neutral and negative comments to consumers' product evaluation (Berger, Sorensen, and Rasmussen 2010; Kim and Gupta 2012). Other papers show how online feedback can reveal actionable strategies (Gerdes, Stringam, and Brookshire 2008; Pullman, McGuire, and Cleveland 2005). Bonifield and Cole (2007) study how negative WOM affects responses in a service failure context. But, our existing paradigm of managing data may not be capable of

dealing with the growing amount of unstructured data. To address this challenge, there is a need for improvements in naturallanguage processing, pattern recognition and machine learning.

The ability to process unstructured data can improve CRM programs in many ways. Comments in social media can produce insights regarding new products, unanticipated benefits or uses of existing products, more effective ways of positioning a product, and better ways to segment existing customers. Variables can be extracted from social media content that flag an interest, emotion, or attitude of the contributor. Such variables can be used in CRM applications to assign customers to segments, alert the company that it needs to respond to a trigger event, or be used in predictive analytics models estimating CLV or response to marketing activities. For example, certain comments on a social media forum may indicate that a customer is dissatisfied. This information may trigger a response from the company, indicate that the customer is part of a certain segment, or enter a model estimating CLV.

To avoid misinterpretation of such variables, analysts should treat them as they would treat demographic and interest variables from data providers. For example, the variable "subscribes to *Fishing* magazine" suggests that a person has an interest in fishing, but many people who do not subscribe may nevertheless also have an interest in fishing. Likewise, someone who has not commented on a social media forum to express dissatisfaction with a product may still be dissatisfied.

How to Gain Social Network Data

Social CRM relies on consumers' use of social media platforms, where consumers interact with one another. Although these interactions constitute a rich source of data, they create challenges to companies aiming to devise marketing strategies. First, companies have yet to identify effective means of administering marketing strategies that are fine-tuned for each individual. Without the means to implement personalized marketing CRM strategies, the value of the knowledge of social network structures cannot be fully realized.

Second, data that customers distribute through social media are, by definition, out of the control of companies. A manager using traditional marketing tools usually has a good grasp of the process, and therefore the outcome, of a marketing campaign. With social media marketing, individuals' social networks play an important role in shaping the messages. Once a manager implements the first step of the campaign, the path it takes can be highly unpredictable. In addition to the potential of negative marketing outcomes, in many situations, it is difficult to evaluate the outcome at all. Due to limitations in various social media platforms, data beyond the first-degree ties of individuals seeded by the marketing campaigns can be impossible to obtain. While social media command centers that track what is being said about a company in social media quickly give the marketer critical information, the organization loses substantial control of the messages that are being communicated (Hennig-Thurau et al. 2010).

Social Media Data Are Fast

The development of new information technologies provides companies with the capability to process data in real time. Real-time processing is based on predefined variables and models in IT systems. When market conditions change, the assumptions used to create such models may no longer hold. Data-supported, real-time models must be carefully monitored to ensure their validity under unpredictable market conditions. There is also a need for systems that enable the fast aggregation and analysis of such data.

The Pillars of the Social CRM House: Organizing People and the Measurement of Outcomes

A company's employees are at the core of the success of any CRM strategy. To tap the full potential of CRM in the context of social media, companies need to adopt a holistic approach to organizational change and to revolutionize the mindsets of its employees. We argue that three key factors are necessary for success in this domain: an empowering culture, relevant skillsets, and operational excellence (Fig. 1, item 5). We develop a rationale for these factors, and call for research to explore their influence on social CRM success (see also Weinberg et al. (2013) for discussion of organizational issues).

Empowering Culture

A company must foster a culture that enables employees to break out of outdated mindsets and free themselves from traditional organizational norms and hierarchical structures. Employees in CRM-related departments must consider other customer contact points, especially social media. Employees must "live and breathe" social media in order for it to become an active and integral part of an organization. To achieve such a culture, top-level executives should encourage the use of social media as well as promote an atmosphere in which hierarchical distinctions among organization members are relaxed. As Hinz et al. (2011) have shown, leaders who actively participate and engage in social media tend to have a strong influence on their peers and colleagues. By fully living a social media culture, employees can function as spokespeople for the company in CRM activities and can promote diffusion and proliferation of social media throughout all levels and across all functions of the organization. Google, Zappos, and IBM are examples of companies that champion a social media culture.

Employee Skills

Beginning with the process of recruitment, and continuing through employee education and successful retention, companies must identify, attract and develop people whose skillsets are relevant to the world of social media and its heavy reliance on data analysis (see below for further elaboration on this point). Specifically, companies must ensure that they have access to data scientists—a concept referred to as "creative creatives," developed by big data experts Bloching, Luck, and Ramge (2012). The skillset of a data scientist includes, in addition to a fundamental comprehension of social media tools (Davenport and Patil 2012), a specific balance of three types of intelligence: scientific, interpretive, and business. Scientific intelligence refers to skills and knowledge relating to statistical and optimization methods, tools and IT infrastructures to compile, organize, aggregate and store data. Interpretive intelligence implies analytical and

perceptive skills to ask the right questions, set up hypotheses and analyze scenarios while fully understanding the nature of data generated and maintaining a focus on the company's ultimate objectives. Business intelligence refers to the skills to extract business-relevant information from data-based and analytical insights (i.e., identify customer needs, opportunities for revenue generation or impact on bottom line).

A shortfall in human resources has two implications for social CRM, which relies on deriving insights from data to improve relationships with customers. First, tremendous data may be left unprocessed due to the lack of qualified professionals in the work force. This deficit might serve as a motivation for MBA programs to teach more analytical and IT skills, and for analytical programs to teach more about marketing and business. A program can differentiate itself by offering a combination of the three skillsets. Second, unqualified professionals may misinterpret data and misuse it in marketing campaigns. In this regard, the saying that "if you torture the data long enough it will confess" becomes a genuine concern in social media CRM initiatives. This danger creates an opportunity for the development of analytics software that provides extensive coaching and support to novice users.

Companies might further address the shortfall of data scientists by offering ongoing skill-enhancement programs, drawing on both internal and external resources, to train new employees and develop veteran ones.

Operational Excellence

Operational excellence refers to the setup of harmonized business processes and structures that enable social media to become an integral part of organizational and CRM processes. Most organizations have many touch points besides CRM including traditional out-bound broadcast, print and outdoor advertising, face-to-face interactions with front-line employees, and conversations with call-center representatives, and the number of message delivery channels is continuing to grow. Often these touch points are managed by different silos within an organization. Integration requires companies to countermand the prevailing silo mentality and to encourage integration of information flow and data access as well as performance measures and functional processes. A customary approach towards establishing a common understanding among employees is the definition of guidelines or codes of conduct to be applied in certain situations (i.e. reactions, performance measurements and escalation procedures in the chain of command). This can be done by having a well-defined brand concept and to reinforce the concept with every touch point, including CRM contact points (Calder and Malthouse 2005; Malthouse and Calder 2005).

Measuring Outcomes and KPIs—Pillar of the Social CRM House
In order to evaluate whether its social-CRM framework

is successful, a company must develop key performance indicators (KPIs) to measure the performance of each component of the framework. In what follows we provide guidelines for developing these KPIs (see also Peters et al. (2013) for further discussion).

Overall Social CRM Strategy. CRM programs are evaluated according to their effect on customer equity and CLV (e.g. Blattberg, Malthouse, and Neslin 2009; Gupta 2009). A shorter-term approach to measuring CRM success is to use the company's cash flow or profit as a KPI. Under these approaches, social media measures are generally treated as independent variables, and the company's success measures are treated as dependent variables. An example of a successful measurement approach is that of Tirunillai and Tellis (2012), who analyze how UGC impacts stock market performance.

People. In measuring employees' performance, companies can focus on the efforts made to respond to consumers' concerns that are expressed on social media (e.g., measures of time to respond or the number of replies), or the results, such as the sentiment of the comments of customers or the number of times that a company encountered complaints. These measurements might be expressed either as absolute numbers or on a per-capita basis (e.g., per employee or per dollar spent).

Specific Components of the CRM Process (Acquisition, Maintenance, Retention). When the impact of social media on the success of the CRM process cannot be quantified, companies might use substitute metrics such as the amount of UGC generated in reference to the company (e.g., the number of tweets or retweets), the number of Facebook "likes," or the number of views of videos on platforms such as YouTube. The problem with such measures, however, is that they quantify outputs—what the company has done—rather than outcomes, the effects of what the company has done. Evaluating success based on outputs rather than outcomes can encourage employees to take actions that are unprofitable and counterproductive.

Data and Information Technology. A company should measure the success of its data and information technology infrastructure according to its ability to access data and its ability to merge social media data with data from CRM systems. Unfortunately, many companies are limited in their ability to identify which social media activities attract customers with the highest profitability, or who among their current customers best promotes or supports their products on social media platforms such as Facebook, Twitter or Pinterest.

Overall, organizations are yet to see the return on investment in social CRM. Except for some incidental and anecdotal records of success, there is a significant lack of scientific research in establishing the value of such efforts (Malthouse, Vandenbosch, and Kim 2012). For example, American Express started a new service called "Sync" that allows its cardholders to have access to exclusive offers when they propagate information related to affiliated products/services through social media. While it may not be difficult for American Express to assess how many people use such services, it is difficult to assess the value they create.

In the early days, when the role of information technology in productivity was questioned, Brynjolfsson and Hitt (1998) quoted Robert Solow's statement of the productivity paradox: "You can see the computer age everywhere but in the productivity statistics." In our setting, there is a social media marketing

paradox: We see social media everywhere except in ROI statistics. Given the broad range of available social CRM strategies—ranging from creating a Twitter account all the way to assembling a social media CRM team—companies are faced with the serious challenge of identifying the practices that best serve their interests.

Conclusions

The premise of CRM is that the firm could, and should, manage relationships with its customers to maximize lifetime value, an objective that benefits only the firm. Social media and other new technologies have empowered consumers. Technologies have also enabled consumers to filter out advertising and CRM messages, compare prices with competitors from anywhere with mobile devices, and distribute positive or negative brand messages to a global audience. CRM must evolve if it is to survive in this marketplace, by producing contact points that engage the consumer and provide value to both the company and consumer.

Despite our focus on the various challenges associated with social CRM, we are by no means naysayers with regard to the use of social media in CRM strategies. Rather, we believe that by fully recognizing these challenges, companies and researchers will be better able to address them.

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