



Customer relationship management as advertised

Exploiting and sustaining technological momentum

CRM as
advertised

323

Ping Wang

University of Maryland, College Park, Maryland, USA, and

E. Burton Swanson

UCLA Anderson School of Management, Los Angeles, California, USA

Received 19 March 2008

Accepted 28 July 2008

Abstract

Purpose – The paper aims to raise the question: how can a new information technology's (IT's) early momentum toward widespread adoption and eventual institutionalization be sustained? The purpose of the paper is to examine sustaining technological momentum as a form of institutional work and entrepreneurship not widely recognized as such.

Design/methodology/approach – The paper reports a case study of *Business Week's* special advertising section used in 2000-2004 to both exploit and help sustain the momentum of customer relationship management (CRM).

Findings – The study finds that the advertisement section's producers employed it over several years to recurrently produce and disseminate credible discourse advancing CRM, incorporating models for action, and providing fresh meanings to the organizing vision for this technology so as to accentuate its progress and keep it worthy of continued attention. Most significantly, acquired momentum, while problematic to sustain, can nevertheless serve as its own resource, to be continuously reinvested in the form of public discourse which must itself be kept "lively" so that momentum may be extended.

Originality/value – The paper contributes to the institutional explanation of IT diffusion by theorizing the process of sustaining technological momentum as an important institution-building task. In particular, it illuminates the contribution of entrepreneurially produced and disseminated discourse to this process and provides an illustration and analysis of specific forms of institutional work, strategies, and tactics employed in the process. Additionally, the paper suggests that institutional work for sustaining technological momentum differs in certain respects from that needed to launch a technology so as to acquire momentum in the first place.

Keywords Customer relations, Communications technology, Sustainable development, Strategic management, Advertising

Paper type Research paper

Look, I want to keep this thing going. I want to keep it lively (Frank Long).

Introduction

With these words, Frank Long, a consultant for *Business Week*, expressed his aspiration for the series of special advertising sections on customer relationship

The study reported here was supported in part by the Harold and Pauline Price Center for Entrepreneurial Studies and the Information Systems Research Program at UCLA Anderson School. The authors are grateful to Olav Sorenson and Raghu Garud for their comments on earlier versions of the paper. They are especially thankful to those who were interviewed for this research, several of who took a particular interest in the work and offered helpful comments on the manuscript itself.



management (CRM) that he had been producing for the magazine for some four years. Having observed the rise and fall of many new information technologies (ITs), Long had noticed that interest in certain technologies tended to have “longer legs” and thus more enduring opportunities for ad sales and adoptions. But why do some technologies sustain interest toward widespread adoption and eventual institutionalization, affording opportunities that can be exploited, while others do not?

This question has long interested not only practitioners, but also researchers, some of who (David, 1985), have noted that technical superiority and apparent economic benefits do not always lead to widespread adoption and institutionalization. The historian Thomas Hughes argued that technologies, analogous to moving bodies, must in effect initially acquire a kind of momentum toward their wide adoption (Hughes, 1987, 1994). More recently Wang and Swanson (2007) contend that a new information technology does not acquire such momentum by itself, but rather that interested actors, as institutional entrepreneurs, must launch the technology toward this end through discourse, i.e. talking and writing about the technology. Such a discursive process aims to capture and build community attention to the technology. Sometimes early momentum may be achieved through mobilization and legitimization efforts by various players including IT research firms, vendors, consultancies, conference organizers, trade publications, and academics (Wang and Swanson, 2007). However, even a successful launch and early momentum will not guarantee widespread adoption.

Indeed, momentum is often fragile. History offers numerous cases where a technology loses early momentum marked by much enthusiasm and suffers a collapse in its continued diffusion. Several theories purport to explain such technology fads and fashions (Abrahamson, 1996; Bikhchandani *et al.*, 1992; Strang and Macy, 2001). In some cases, however, a technology’s momentum proves to be sustainable, beyond any period of high fashion, such that diffusion continues. Significantly, when momentum can be sustained, the otherwise provisional social, political, and economic arrangements for the technology can coalesce and become supportive institutions, including in particular the market for the technology, in terms of its associated offerings and providers, and prospective organizational uses and users which early on may not be well understood or agreed on by prospective players. Beyond the efforts of would-be providers to push their own products, sustaining early momentum therefore entails continued institution-building to uphold the attention and motivation that would otherwise decay quickly, especially in the face of natural skepticism, implementation difficulties, and resistance to change (Adler, 1981; Jansen, 2004). In particular, continued attention to the technology may be needed, calling for discursive institutional work similar to that needed to launch a new information technology (Lawrence and Suddaby, 2006; Wang and Swanson, 2007). But what particular form might this work take and what strategies and tactics might it pursue?

Addressing this question, we explore here the role of entrepreneurially-produced and disseminated discourse in sustaining momentum for CRM, a high-profile information and marketing technology in today’s business world. Specifically, with a single case, we examine the institutional work associated with *Business Week’s* special advertising sections on CRM over a five-year period. We find that, in the process of exploiting the opportunities already afforded by CRM’s momentum, certain organizational players, at the same time, acted to help sustain this momentum. More

specifically, they seized the opportunity to capitalize on and extend over time the discourse on CRM and its market, so as to attract and retain continuing attention to CRM, thus reinforcing momentum. They accomplished this by employing the ad section as a vehicle for recurrently furthering this discourse, and in the process they provided both continuity and fresh meanings to the organizing vision for CRM (Swanson and Ramiller, 1997), keeping it newsworthy. Thus, we glimpse from the study how a technology's early momentum can be enabled to be "self-sustaining," with more than a little help from its friends.

This study makes several contributions to the research literature. First and foremost, it contributes to the institutional explanation of IT diffusion by theorizing the process of sustaining technological momentum as an important institution-building task. In particular, it illuminates the contribution of entrepreneurially-produced and disseminated discourse to this process and provides an illustration and analysis of specific forms of institutional work, strategies, and tactics employed in the process. In doing so, it suggests one of the (no doubt many) mechanisms of technological momentum itself. Second, extending previous research, it finds that institutional work in sustaining a technology's momentum may differ from that in launching it, involving actors advantageously positioned to exploiting the discursive opportunities presented. On the whole, then, the study yields new insight into the diverse agency involved in propelling new technology along the course of its diffusion and institutional acceptance.

In the sections that follow, we first provide the theory that motivates our study. We then describe our methods and follow this with a narrative account of how *Business Week's* special advertising section on CRM came to be produced. We continue with our analysis of the case and present our findings. We conclude with a discussion of the study's broader implications.

Theoretical background

Technological momentum

Originated from physical sciences, the term momentum has been variously defined and applied in the social sciences to studies of sports (Adler and Adler, 1978), political campaigns (Mutz, 1997), and financial markets (Lee and Swaminathan, 2000). In studying the evolution of technology, Hughes (1987) introduced technological momentum, suggesting that, "technological systems, even after prolonged growth and consolidation, do not become autonomous; they acquire momentum. They have a mass of technical and organizational components; they possess direction, or goals; and they display a rate of growth suggesting velocity" (pp. 76-7). Hughes (1994) argues further that, before a technology acquires momentum, social forces often dominate in determining its design and early diffusion; once momentum is gained, technology will increasingly shape society with deterministic force.

Here we focus specifically on a new information technology's early diffusion, and in particular, on its adoptive momentum, the rate at which it is being acquired by organizations and put to use, a component of momentum more broadly[1]. Since some technologies achieve significant adoption rates while others do not, it is interesting to study how and why this occurs. Recent research suggests that it takes an organizational community to launch a new technology and gain early adoptive momentum (Schoonhoven and Romanelli, 2001). Multiple social actors commonly

shape new technologies, including providers, adopters, consultancies, venture capitalists, government agencies, and universities, all motivated by their own diverse and sometimes competing or conflicting interests (Allen, 2000). Agency is thus distributed across the community's members (Garud and Karnøe, 2003), suggesting that interests must be aligned somehow and actions orchestrated in a common direction, for the technology to gain acceptance and establish a trajectory that can lead to wide adoption and institutionalization.

Institutional entrepreneurship for momentum acquisition

Institutions are "historical accretions of past practices and understandings that set conditions on action" (Barley and Tolbert, 1997, p. 99), illustrated in a technological context by standards (Garud *et al.*, 2002), work practices (Gosain, 2004), pricing conventions (Farjoun, 2002), and, more broadly, the particular market for a technology (Fligstein, 2001). Institutionalizing a technology typically requires that actors adapt existing institutions and/or build new ones to support it. Engaging in such institutional work is termed institutional entrepreneurship, defined as "the activities of actors who have an interest in particular institutional arrangements and who leverage resources to create new institutions or to transform existing ones" (Maguire *et al.*, 2004).

Institutional entrepreneurship has been found characteristic of momentum acquisition for new technologies. It is observed that institutional entrepreneurs help new technologies acquire momentum through two mechanisms – mobilization and legitimation (Wang and Swanson, 2007). Mobilization involves the activities of recruiting participants, stimulating motivations, and marshalling resources (Smelser, 1962). Legitimation is the process of obtaining legitimacy, defined as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995, p. 574). In a study of Sun Microsystems' sponsorship of its Java technology, Garud *et al.* (2002) found that, to establish Java's momentum, Sun mobilized a broad set of partners including systems assemblers, software firms, and component manufacturers with an open systems strategy. Further, to legitimate the Java platform, Sun coined the slogan, "The network is the computer," thus justifying writing software for the internet. However, Sun was studied as the single institutional entrepreneur in this case.

Wang and Swanson (2007) examined how multiple actors can come together in institutional entrepreneurship aimed at promoting a new technology. Specifically, they studied the activities of diverse organizational actors seeking to launch a new class of enterprise software – Professional Services Automation (PSA) – such that it finds its market. These actors engaged in community building, mobilizing a variety of other actors and their resources by recognizing leadership and facilitating members' focus on PSA. They further sought to legitimate PSA by developing a coherent vision that incorporated compelling success stories. While PSA failed to gain much momentum, the actors' purposeful engagement is illuminated, in particular in its aim to attract and build favorable attention to the largely unknown technology.

Indeed, it is likely that securing the attention of prospective adopters and other actors is central to achieving early adoptive momentum, as a technology can diffuse only through choices stemming from this attention. Crucially, however, these choices do not explain themselves; they would rather be interpreted by actors in

communicative discourse (Berger and Luckmann, 1967). Discourse is defined as “an interrelated set of texts, and the practices of their production, dissemination, and reception, that brings an object into being” (Phillips and Hardy, 2002, p. 3). Momentum acquisition by means of institutional entrepreneurship is itself substantially a discursive process. Indeed, Phillips *et al.* (2004) contend that all institutions are constructed by the production of texts, rather than directly through actions, because “actions do not easily allow for the multiple readings by multiple individuals that are necessary if ideas for organizing are to be transmitted across time and space. Texts, however, do” (p. 638). The role of discourse in momentum acquisition and in institutionalization, more broadly, is illustrated in Munir and Phillips’ (2005) study of Kodak’s roll-film cameras. As an institutional entrepreneur, Kodak employed a variety of strategies to shape discourse in its advertisements, a vehicle we also focus on in this present study. Although Kodak’s roll-film technology gained great momentum and was eventually institutionalized, transforming photography from a highly specialized activity to an everyday practice, we note that a technology’s acquisition of momentum does not always lead to its institutionalization.

In the case of certain IT, Swanson and Ramiller (1997) argue that an interested community engages in discourse to create and employ a collective vision for applying and diffusing the technology, giving it needed organizational meaning. They define an organizing vision as “a focal community idea for the application of IT in organizations” (p. 460). Similar to a public theory (Strang and Meyer, 1994), an organizing vision serves to identify, characterize, and legitimate an information technology and mobilize actors and their resources for its adoption, implementation, and use. For example, the notion embedded in the organizing vision for open source software (OSS) that organizations should invest time in learning a new software development process mobilized organizational software developers to participate in OSS projects (Elliott and Scacchi, 2008). Swanson and Ramiller (1997) suggest that institutionalization of an information technology depends on the ongoing development of its organizing vision, to reflect the community’s accumulating experience with the new technology. Wang and Swanson (2007), in their study of PSA, probe this development in the launch of PSA, finding that institutional entrepreneurship plays a vital role in mobilization and legitimation, for instance in initiating an authoritative research report defining the new market, and in holding a “first conference” to bring participants together for the first time.

The problem of sustaining momentum

Even where early adoptive momentum is somehow gained, however, it may be broken and lost (Hughes, 1994), such that diffusion wanes and the technology fails to be institutionalized[2]. Theories that explain such collapse point to factors both exogenous and endogenous to the technological community. Historians often attribute lost momentum to exogenous factors or events. Social movement theorists (McAdam *et al.*, 1996) stress that endogenous counter-forces, both technical and social, may arise against a technology. Management fashion theorists (Abrahamson, 1996) draw attention to certain actors (“fashion-setters”) who, under norms of progress, create waves of innovative ideas, each following on a prior one. Rational choice models such as informational cascade (Bikhchandani *et al.*, 1992) and adaptive emulation (Strang

and Macy, 2001) show that imitation-based adoption bandwagons may be intrinsically fragile, a finding confirmed in empirical studies (Rao *et al.*, 2001).

While there are thus multiple reasons to explain a collapse in early adoptive momentum, at least one of them is that the collective attention given to the new technology may be problematic to sustain. In particular, there is evidence from practice (Nelson, 2001) that this attention has its own momentum, which may ramp up quickly if substantial enthusiasm for the technology develops, outstripping actual progress in adoption, implementation, and usage, only to drop off just as suddenly when the inevitable problems set in and become known. Whether the new technology will ever meet the expectations created for it may be called into question (Borup *et al.*, 2006; Brown and Michael, 2003). Some, but not all, new IT will survive this kind of exodus from their own early bandwagons. In addition, attention is a notoriously scarce organizational resource (Simon, 1976) and is likely difficult to sustain for a technology regardless of the rise and fall of momentary fashion.

Still, in some cases, early momentum does prove to be sustainable, such that widespread adoption is achieved and the technology eventually becomes institutionalized, as with enterprise resource planning (ERP) systems in the 1990s (Kumar and van Hilleberg, 2000). How is it that this is accomplished? Drawing from previous research's finding that institutional entrepreneurship characterizes a technology's launching stage (Garud *et al.*, 2002; Wang and Swanson, 2007), we propose here that similar institutional work extends to sustaining acquired momentum in the period that follows. Institutional work refers to the "purposive action of individuals and organizations aimed at creating, maintaining and disrupting institutions" (Lawrence and Suddaby, 2006, p. 215). Institutional work entails more than entrepreneurship. Fundamentally, beyond the efforts of entrepreneurs in the traditional sense to promote their products or services, institutional entrepreneurs strive to create new institutions because they "see in them an opportunity to realize interests that they value highly" (DiMaggio, 1988). Further, Lawrence and Suddaby (2006) argue that "the creation of new institutions requires institutional work on the part of a wide range of actors, both those with the resources and skills to act as entrepreneurs and those whose role is supportive or facilitative of the entrepreneur's endeavors" (p. 217). In the present paper, we view institutional entrepreneurship as more of a collective activity, to which actors with diverse interests attach themselves. We suggest further that certain of institutional work focuses specifically on sustaining the attention given to a technology, and that it does so while itself exploiting this very attention. As we shall therefore see in a case study, acquired momentum, while problematic to sustain, can nevertheless serve as its own resource, to be continuously reinvested so that it may be extended.

We undertake an exploratory case study from which we make this argument, focusing on how certain organizational actors collectively employ public discourse to both exploit and sustain an information technology's momentum. We consider their use of a particular influential discourse vehicle, defined as a means through which actors produce, disseminate, and receive texts. Books, periodicals, meetings, and conferences provide commonplace examples, each serving certain functions and possessing features, which may be manipulated in its engagement. We consider too the substance of the discourse, and in particular, as suggested by Swanson and Ramiller (1997), the development of the organizing vision for the technology. We seek to build on

Wang and Swanson's (2007) finding that coherence of the vision and compelling success stories are important to legitimating and successfully launching a new information technology. Curious as to how such early success is extended, we ask: How may interested actors engage a discourse vehicle and further develop the organizing vision for an information technology, so as to help sustain technological momentum?

As we shall see, the answers to this question yield insights into the process by which technological momentum can in part be sustained. We see too that institutional work and entrepreneurship in sustaining momentum has some important differences from that used to first acquire it.

Methods

In exploring the role of entrepreneurially-produced discourse in sustaining technological momentum, we conducted a single case study (Yin, 2003) to investigate the process by which certain actors utilized *Business Week's* special advertising sections between 2000 and 2004 to promote CRM and thereby help sustain its momentum.

Customer relationship management

We chose to study CRM in part because it had achieved considerable momentum in the late 1990s, becoming a widely recognized type of enterprise application software (see, e.g. Gartner Software Market Definitions), associated with new practices guided by an organizing vision[3]. Worldwide CRM software sales reached \$3.5 billion in 2000, by which time over a quarter of the firms in North America had included CRM in their IT budgets (source: IDC surveys). Siebel Systems, founded in 1993, emerged as the dominant vendor, with a 28 percent market share and 121 percent revenue growth in 2000. Having achieved considerable momentum, the question for CRM in the new millennium was whether and how this momentum could be sustained.

Special advertising sections in Business Week

Interested actors have no doubt employed various discourse vehicles to launch CRM and sustain its momentum. However, because we wanted to understand the micro-dynamics involved in a process that has not to our knowledge been studied, we chose to focus in depth on a single vehicle, *Business Week's* special advertising sections for CRM. Defined by American Society of Magazine Editors (ASME), "[a] special advertising section is a set of advertising pages unified by a theme, accompanied by editorial-like text or by editorial material from another magazine that supports the theme". Such a section consists of a cover and two or more pages paid for by multiple advertisers. ASME requires that the words "advertising", "advertisement", or "special advertising section", appear horizontally at or near the center of the top of every page containing text. Unlike regular ads, special ad sections have editorial-like text, which we will call section articles. Differing from so-called "advertorials" (Goodlad *et al.*, 1997) or "feature advertisements" (Cameron and Haley, 1992) in which the writers are usually dictated by the advertisers, special ad sections typically involve writers chosen independently. We chose to examine *BW's* special ad sections on CRM for three reasons. First, as a mass medium with a business audience, *BW* has an unusually extensive reach (with a circulation of 4.7 million in 2006) and visibility, with obvious implications for CRM's momentum. Second, as we will see, each section involved a

multiplicity of actors representing diverse members of the CRM community. Third, rather than speaking merely to particular vendors' products, the theme of each section was CRM as a technology, our precise interest.

Data collection

Our data were collected from two sources: the archived *Business Week* issues and our interviews with participants. We first took notice of the special ad section on CRM in *BW*'s April 28, 2003 issue, which provoked our curiosity and interest. Commencing our research, we retrieved all five previously published CRM sections, the first one having appeared in July 2000. As our data collection continued until October 2004, three more sections were published by then. In total, nine CRM sections (including all pages for ads and section articles) constitute our main archival data. *Business Week* still archives all section articles on its web site (see Table I).

In late 2003, we identified participants in the CRM sections for interviews. We were able to conduct eight half-hour telephone interviews with the producer of the sections, *Business Week*'s director for special ad sections, the producer of the sections, two (out of the three) writers of the section articles, and representatives from two (out of the 30) advertisers, plus two advertising agencies. Our interview protocol included general questions (e.g. How did you become aware of CRM? How did you become aware of the CRM sections in *BW*? How would you describe your role in producing the CRM sections?), as well as specific ones tailored for the informants (e.g. Do you have a template that you find useful for writing these sections? Why did you choose to purchase ad pages in the sections, as opposed to stand-alone ad pages?). All interviews were recorded and transcribed.

To ensure validity of the data, we asked our informants to clarify certain of their interview statements by e-mail. We also cross-validated asserted facts, using sources such as news archives (e.g. Factiva and LexisNexis) and books on CRM (e.g. Greenberg, 2004). For reliability, following Yin (2003), we developed a case study protocol (containing an overview of our study, data collection procedures, research questions, interview protocol, and an outline of our case study report). We sought feedback to the case study protocol from colleagues, who suggested additional interview questions and alternative data sources. Further, we built a case database composed of archival and interview data. Finally, we asked our informants to review a draft of our paper, which we then revised accordingly.

Publication date	URL (accessed on July 21, 2008)
July 3, 2000	www.businessweek.com/adsections/care/relationship/crm_index.htm
April 30, 2001	www.businessweek.com/adsections/care/crm/crm_index.htm
October 22, 2001	www.businessweek.com/adsections/crm/index.html
April 29, 2002	www.businessweek.com/adsections/2002/crm/crm.htm
October 21, 2002	www.businessweek.com/adsections/2002/crm/crm2.htm
April 28, 2003	www.businessweek.com/adsections/2003/pdf/0428_crm.pdf
December 8, 2003	www.businessweek.com/adsections/2003/pdf/0349crm.pdf
May 24, 2004	www.businessweek.com/adsections/2004/pdf/0421_crm.pdf
October 18, 2004	www.businessweek.com/adsections/2004/pdf/0442crm.pdf

Table I.
URLs for the special ad sections on CRM in *Business Week*

Data analysis

We analyzed our data in three steps. First, linking pieces of data from various sources, we constructed a detailed story (presented in the next section) about the process by which participants came to produce the nine CRM ad sections. In this step, we employed the narrative strategy (Langley, 1999) to make sense of our raw data (part of the interview data are themselves narrative). Second, we coded the archival and interview data and identified instances where characteristics of the discourse vehicle and aspects of the organizing vision for CRM are related to our research question. This theory-informed open coding process generated ten characteristics of the discourse vehicle (participant reputation, editorial objectivity, quality of work, expert opinion, research result, success story, pitfall, tip, regularity, and repeated content) and six aspects of the CRM organizing vision (evolution of technology, progress, underlying technology, business imperative, CRM function, and adopter segment). In the final step, we evaluated the relevance of these characteristics and aspects to actors' efforts to sustain momentum for CRM. Comparing commonalities and differences using coded instances, we identified five strategies (three for engaging the discourse vehicle and two for shaping the organizing vision) that actors employed to sustain momentum. Before addressing these, it will be helpful to present our narrative of how the sections came to be produced, so as to set the stage and illuminate the nature of the institutional work from that specific context.

CRM as advertised in *Business Week*

In the summer of 1999, Frank Long was asked by a friend to help the Peppers and Rogers Group (P&R) launch a new magazine. With over 25 years media sales experience, Long had just founded his own firm – International Media Associates – to represent publishers in selling advertisements. He learned that P&R was a consulting firm founded in 1993 to promote “one-to-one marketing”, also increasingly called “customer relationship management”. One initiative taken by P&R to “ramp up” its consulting practice was the issuance of a new magazine: *1to1 Magazine*. P&R hired Long to develop and implement an ad sales plan for the new magazine. In November 1999, the first issue of *1to1 Magazine* was released.

Around the same time, another friend asked Long whether he would be interested in producing some special advertising sections on technology-related topics for *Business Week*, given his experience in technology ad sales and previous ten-year employment at *BW*. Long agreed to take the job and began looking for interesting topics. While working on *1to1 Magazine*, he learned much about CRM and thought it would be interesting for a special ad section. So he sent a proposal to his friend at *BW*, suggesting that CRM was an opportunity to attract new advertisers. Long's proposal was soon approved.

Business Week publishes special advertising sections regularly in all of its editions in North America, Europe, and Asia, maintaining a 50-50 ad-ed ratio. That is, for every page of paid advertising, there is a page of section article. Section topics are diverse, including regional interests and travel, financial and real estate investments, information technologies, conferences and events, industry trends, and business education. Advertisers, in addition to the ad pages published, usually receive a link from *BW*'s special ad sections' web site, together with customized reprints of the section for their own promotional use.

To produce the sections, *Business Week's* director of “worldwide special advertising sections” outsources the task to a number of “special project consultants”, each covering one or two specialty areas. Each consultant has his/her own, usually small, production unit, with office staff and writers who work on a section-by-section basis. The design of the sections is subcontracted to various design shops. Thus, Frank Long became one of the consultants and undertook the responsibility for producing *BW's* technology-related special ad sections.

Looking for a writer for the first CRM section, Long found CRMGuru.com, among other sources, to be “a very active, high-quality web portal dedicated to CRM”. Hence he invited CRMGuru.com’s founder and editor, Bob Thompson, to write the CRM section. Thompson, formerly with IBM, had founded a consulting firm in 1998 to specialize in an emerging sub-field of CRM – Partner Relationship Management (PRM). He quickly earned a reputation as a leading PRM consultant. Long’s invitation reminded Thompson that *Business Week* reaches a large business audience, the one he himself would like to reach. Thompson signed up.

Given that CRM had by then become a broad concept, Thompson chose customer loyalty as the specific theme for the section. He showed a temporary title and preliminary outline to Long, who liked both and included them in a four-page promotional brochure for selling the section to advertisers. As Long sought advertisers, Thompson began the writing process aided by freelance writer David Sims. Sims laid the groundwork by interviewing a number of CRM thought leaders, analysts, adopters, and vendors, and gathering secondary data such as research reports, books, and articles about CRM. Thompson then worked with Sims to refine the outline and develop the flow. Both wrote parts of the copy and then edited it through about a dozen drafts, doing so with both a target publication date and target length in mind. The section was originally scheduled to appear in the June 19, 2000 issue. The ad sales went much better than expected. “We actually could have sold more and had to close because it was getting too big”, Long said. By May 22, the ad close date, 18 advertisers had signed up, each purchasing a full page on average, allowing Thompson and Sims to extend their copy to 18 pages of article text. After a two-week delay, the first special ad section on CRM, with a record 36-page size for technology-related topics, appeared in *BW's* July 3, 2000 issue.

Titled “Customer relationship management: if profit is the point, loyalty is the key”, the section article began with the value of a customer to a company. Then CRM was defined:

Customer Relationship Management (CRM) is a business strategy to select and manage customers to maximize their long-term value to an enterprise. CRM requires a customer-centric business philosophy to support effective marketing, sales, and service processes across direct and indirect customer interaction channels. CRM software applications can enable effective Customer Relationship Management, provided that an enterprise has the right strategy, leadership, and culture.

Next, the authors argued that keeping customers is profitable but harder to do in the internet economy. They described how CRM applications effectively serve a company’s important users and key functions to achieve the “Holy Grail of CRM” – customer loyalty. They then laid out seven “best principles to practice” as well as adoption options, and included a section on PRM, Thompson’s specialty. They ended with some “hot trends” pertinent to CRM’s future evolution. The 18 advertisers in the

section were all CRM technology providers. They included four large well-known vendors – EDS, NCR, Oracle, and SAS, and 14 startups, which Frank Long suspected purchased the ads with their venture money.

The record size of the first CRM section and the \$1.3 million revenue it generated were a huge success for its producers and *Business Week*. Subsequently, Frank Long continued producing ad sections for *BW* on a variety of technology-related topics. Writer Bob Thompson's biography, his firm, and CRMGuru.com appeared in the section, providing him sought-for visibility. A few advertisers were so happy with their ad responses that they asked *BW* if another CRM section was planned. Later that year, *BW*'s special ad sections welcomed a new director – Stacy Sass McAnulty. For 2001, McAnulty scheduled two CRM sections (in April and October), continuing Long's engagement as section producer.

The success of the first CRM section was probably not a surprise if one considers the bigger picture. The internet technology boom peaked in 1999 and 2000. As a category of internet applications, CRM enjoyed a 100 percent growth in software sales in 2000 (source: Giga Group). Among the CRM market leaders, PeopleSoft was originally a major ERP vendor. In December 1999, PeopleSoft acquired a leading CRM vendor Vantive and aimed to establish its "strong hold" in CRM by re-writing Vantive's CRM applications for itself. A year later, PeopleSoft was ready to launch PeopleSoft CRM, with a massive multi-channel marketing campaign.

When Frank Long contacted PeopleSoft to solicit advertising in *Business Week*'s second CRM section scheduled for April 2001, the timing was perfect: PeopleSoft wanted to reach business users, *BW*'s audience, to promote its new product line, and it had an ample marketing budget. It purchased a full page to advertise its CRM call center application. Other new advertisers included CRM vendors Avaya and Siemens ICN, and the consultancy Accenture. Avaya and Accenture purchased two pages each. Among the 18 advertisers for the first CRM section, only four returned for the second section, partly because, in Long's interpretation, "those venture dollars that were supporting the marketing programs of these smaller companies were not available anymore". Still, the ten ad pages and 11 text pages constituted a sizable 21-page section in *BW*'s April 30, 2001 issue, titled "CRM and the internet: Leading edge strategies for a multi-channel world". Building on the first section's theme, Long and Thompson focused the second section on earning loyalty from online CRM customers in particular.

About six months later, the third CRM special ad section appeared as planned. This time, eight advertisers participated, half having participated in the previous section. New advertisers included Siebel Systems, the leading CRM vendor, and JD Edwards, another major ERP vendor now launching a CRM product line. This time, Thompson and Sims emphasized internet-enabled CRM applications as collaboration tools to enable partners, customers, and firms to work together in a mutually beneficial "relationship network".

The collaboration theme continued into the next CRM section, published in April 2002. As the US economy fell into recession and CRM's market growth slowed, this fourth CRM section shrank to 16 pages with seven advertisers. As writer Thompson was paid on a per-page basis, and needed to pay Sims with a portion of this, with fewer pages, he found writing the sections less worthwhile, and asked out of writing them. Long searched for a new writer.

Through a friend, Long got to know Alyssa Dver, a Boston-based writer specializing in CRM. Apart from her writing, Dver is also the chief marketing officer of SEDONA, a CRM vendor for small and midsize businesses. As a writer, Dver writes prolifically, mostly white papers and articles on CRM and software product management for industry journals. Impressed by her writings, Long proposed to engage her to write the special ad section articles for *BW*. When hearing of this, *BW*'s Stacy Sass McAnulty at first had reservations, as Dver's affiliation with SEDONA might make it awkward to sell the section to other CRM vendors. Still, McAnulty and Long engaged Dver to write a first special ad section article on Real-Time Enterprise (RTE) published in December 2002. Being very satisfied with this work, they then retained her to write future section articles for both CRM and RTE.

In the meantime, Thompson and Sims finished the fifth and their last CRM section in October 2002. While the ten-page section attracted only five paid advertisers, the authors covered a new frontier – Analytical CRM (also called Customer Analytics). They pointed out that “the emphasis of CRM has shifted from operational efficiency to customer analytics,” which analyzes data to identify and retain profitable customers.

The fifth section also included an announcement for the CRM Leadership Summit, organized by DCI, to be held in San Francisco a week later. DCI is a large technology event organizing company. In early 2002, while DCI was launching its first conference on RTE scheduled for late that year, a staff member approached Frank Long and said, “Your guys (i.e. *Business Week*) should do a section (on RTE) and we should work something out here”. Indeed, a two-year partnership between DCI and *BW* was “worked out”, where DCI helped *BW* promote its special ad sections by providing DCI's extensive exhibitor lists, and in exchange, *BW* gave DCI a small free section space (1/3 of a page) to advertise DCI's conferences. Additionally, *BW* became the media co-sponsor for the conferences and would exhibit and distribute its ad sections to conference attendees. Although originated in the RTE context, the partnership also applied to other topics of mutual interest such as wireless technologies and CRM.

Taking over the CRM sections, Alyssa Dver was aware of the controversy at that time about CRM “failing”, reflecting declining CRM software sales and implementation horror stories. Accordingly, she proposed that the section article feature lessons learned and important new trends. After some refinement, Dver titled the section “CRM: the good. The bad. The future”. The April 2003 section, the first written by Dver, attracted six paid advertisers and carried a boxed case study for each. Dver wrote that firms were showing very positive CRM results and that CRM had been “resurrected” with improved software and a plethora of value added services.

Since this sixth section, *Business Week* has published three more CRM sections, all written by Dver. The December 2003 section featured marketing automation, the fastest growing CRM segment. The May 2004 section called attention to CRM in small and midsize businesses. The October 2004 section addressed pre- and post-sales customer service.

Analysis and findings

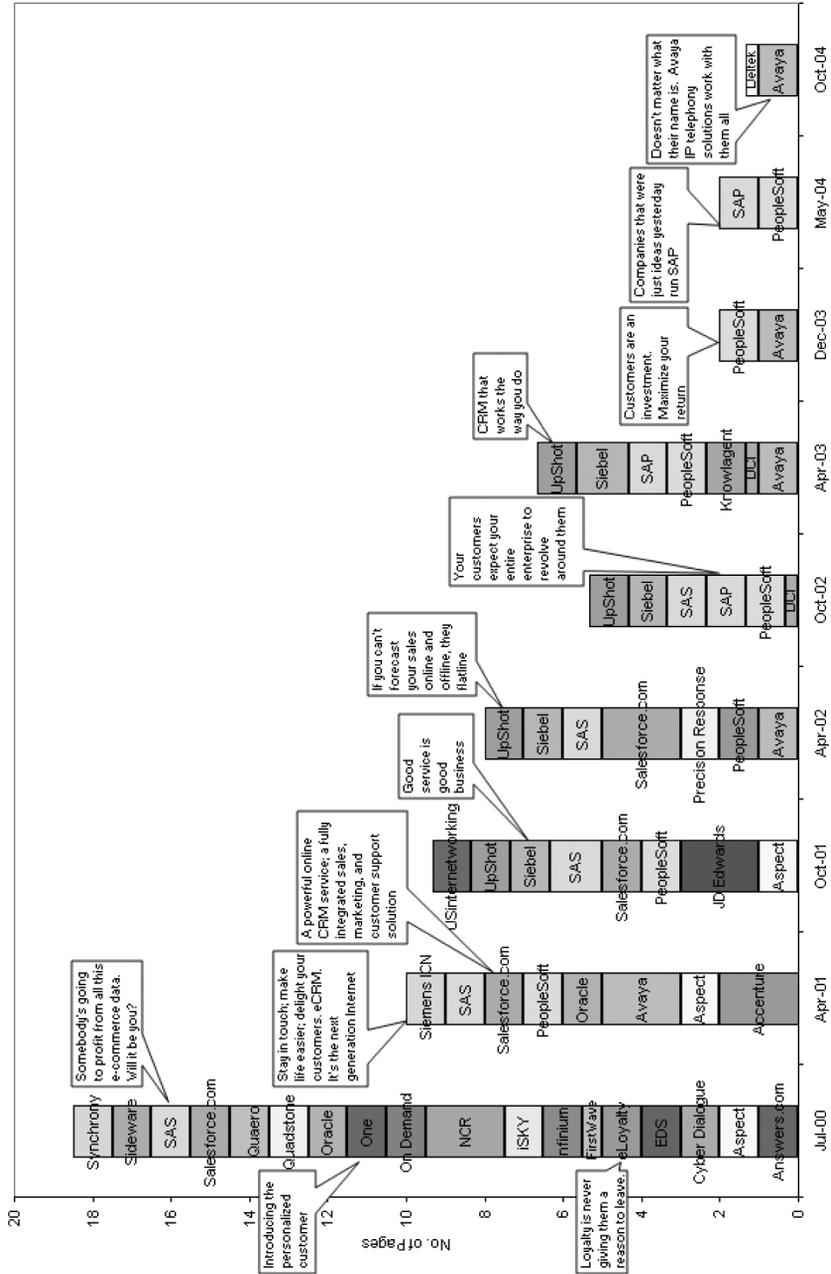
From the narrative, we observe how various actors playing different roles came together to produce *Business Week*'s special advertising sections for CRM. We see too the work to build the market institution for CRM via these sections, not as the activity of one or more traditional vendors, but through the opportunistic initiative of several

otherwise peripheral CRM players such as freelance writers and conference organizers. We see how Frank Long took the primary entrepreneurial role in recruiting others, including *BW*, to the collective effort. We note that Long and his writers, Bob Thompson and Alyssa Dyer, all had CRM backgrounds to bring to their endeavor. While their own interests and aims together with those of other participants varied, with regard to the special advertising sections on behalf of CRM, they were highly coincident, aligned in part by design but also through chance and business circumstance[4]. This coincidence derived in part from CRM's acquired momentum and the different opportunities that this afforded for so long as it could be extended. We see how our CRM players with different interests were attracted to their collective effort, acting to help sustain momentum, even while they were primarily engaged in exploiting it, a finding which we elaborate on next. From the timeline of the narrative, we also observe how the CRM discourse played out in the special advertising sections, 2000-2004, as attention to CRM was both exploited and sustained.

Momentum for CRM

Importantly, whether CRM's adoptive momentum in 2000 was sustainable was then uncertain. Following the burst of the dot-com bubble, CRM software sales dropped nearly 40 percent in the next three years (Rigby and Ledingham, 2004), during which analysts reported that 55-70 percent of CRM implementation projects failed (Greenberg, 2004). By 2003, however, CRM's decline seemed to have abated. Software sales were forecasted to grow again (source: Gartner Dataquest). According to a 2003 survey by Bain & Company (cited in Rigby and Ledingham, 2004), CRM adopters reported increased satisfaction with their investments and 82 percent of those surveyed reported that they had or planned that year to deploy CRM.

Interestingly, CRM's adoptive momentum in 2000-2004 as indicated by the software sales data roughly paralleled the size of the CRM ad sections in *Business Week*. As CRM sales declined after 2000, the size of the CRM sections also shrank until April 2003, when both software sales and the ad section temporarily regained some ground. In a September 2003 interview, reflecting on the past four years of producing CRM sections, Frank Long said, "CRM ended up having longer legs than we thought. I thought maybe we could get it run two sections a year for a year or two. But here we are still going with it". Agreeing, *BW*'s Stacy Sass McAnulty remarked, "CRM has managed I think to hold its ground a little bit better than some other technology areas". Despite these and other evidences that CRM's momentum may have been sustained for a few years, everyone understood at the time that CRM's adoptive momentum and the attention given it would not last forever. McAnulty pointed out that "(the CRM section) has definitely gotten smaller over time". In fact, each of the last three sections had but two advertisers. Figure 1 shows the pattern of ad pages over the nine sections. Since October 2004, there have been no further CRM sections, as of the date of the present version of this paper. As the market growth for CRM and its adoptive momentum slows down, the momentum for the sections themselves has apparently run out[5]. As CRM became increasingly institutionalized, attention would inevitably turn to another new "cutting edge" technology with momentum that lends itself to similar exploitation.



Note: Randomly selected ad titles are shown in bubbles for illustration only

Figure 1. Numbers of advertisement pages in *Business Week's* special ad sections on CRM

Exploiting momentum

While it has lasted, CRM's momentum has thus afforded opportunities for many involved with the technology, including vendors, adopters, consultants, and mass media. In contributing to *Business Week's* CRM sections, participants pursued their own opportunities, our interview data revealed. Thus, Bob Thompson joined the effort in part to express his ideas freely to *BW's* readers, saying, "I also run CRMguru.com and I saw (writing for *BW*) as a good vehicle to explain and evangelize for CRM, which is what I enjoy doing. *Business Week* reaches a large business audience, which is the audience we'd like to reach". Alyssa Dver saw writing for *BW* as useful for building up her credentials, saying, "It (writing for *BW*) is just a great credential. And whether it's an advertising section or part of the editorial stuff, I can just thumb the *Business Week* magazine and show them my writing. That's a very big help to gain credibility".

For *BW's* Stacy Sass McNulty, the ad sales for the CRM sections needed to go well. In recent years, magazines have seen their market share of advertising revenue drop relative to other outlets. Editors and managers have looked for new ways to sell ads and rediscovered the special ad sections. According to TNS Media Intelligence/CMR and the Publishers Information Bureau, special-section pages increased 22.7 percent between 1997 and 2002, while total advertising pages decreased slightly (Carr, 2003). McNulty explained the role of special ad sections: "We may have advertisers that normally would not advertise in *Business Week*, perhaps because of cost, on a regular basis. But they might come in to the CRM section twice a year because it's a way for them to get a broader business audience for their product or service by participating in paying for a special ad section that would cover their industry". Obvious here is *BW's* entrepreneurial intent to expand its advertiser base. Also highlighted here is *BW's* institutional role in helping a new technology assert its arrival as an "industry"[6].

Pursuing their own coincident interests, participants thus came together to produce each CRM section, invoking routines particular to their work. Collectively, they selected the topic, prepared the promotional brochure, sold the ads, researched and wrote the article, designed and published the section, and distributed reprints. As their routines were interdependent, so were the participants. For example, the writer usually came up with a specific topic and the producer helped evaluate the prospect of the topic in selling ads. According to the number of ad pages sold, the writer then had to extend or shorten the section article. According to writer Dver, the process could be frustrating: "Even if you have a great article on a great topic, you are really at the mercy of the sales people. The reality is that sometimes you get lucky and sometimes you don't with these sections". However, not all chose to stay the course, given their interests. For example, with declining ad sales limiting article space, the original writer Thompson thought writing the articles less worthwhile and dropped out. SAS Institute, a five-time advertiser, ended its participation in 2003 for a different reason. Laura Wilson, Director of Advertising Strategy, said in an e-mail, "CRM is now a mainstream topic and covered frequently – we are now needing to educate the public on other ideas that are newer". For SAS, CRM had become an everyday idea, one needing no further promotion. Others, however, still sought to collectively sustain CRM's momentum.

Accordingly, we consider more specifically how these interested actors used the special ad section for this purpose. We consider first the engagement of the ad section

as a discourse vehicle, and then the organizing vision for CRM as communicated through the vehicle, identifying the strategies and tactics employed in each case.

Sustaining momentum through a discourse vehicle

We found that the actors in our case used three strategies in engaging the ad section vehicle to sustain CRM's momentum:

- (1) provide for credible discourse;
- (2) incorporate models for action; and
- (3) arrange for recurrent engagement.

Each strategy employed several tactics.

Provide for credible discourse. In promoting CRM, participants faced the challenge of keeping varied interests aligned. It was important that they not appear merely self-interested. The vehicle they operated, *BW's* special ad section, was imperfect. On the one hand, as McAnulty said, "there's always that perception because if it says 'special advertising section', then it is just paid-for dribble from the advertisers". On the other hand, the project-based production often relying on contingent personnel makes it difficult to maintain objectivity. For example, Dyer was serving as the chief marketing officer for a CRM vendor while writing the CRM sections for *Business Week*. Her first-hand experience with CRM helped her make knowledgeable comments on the nature of the CRM market and its future, but the very experience possibly discounted her comments as biased. Not surprisingly, we found that providing for credibility was a priority, facilitated by five tactics.

First, reputable contributors were recruited to produce the sections, as with writer Thompson, already known as a CRM authority. Second, contributors emulated editorial objectivity. Although *BW* does not allow advertisers to dictate article content, it does concede to some that the writer will include case studies or executive opinions obtained from them. To appear reasonably objective, said Long, it was necessary to weave this material seamlessly into the article content. Third, participants sought to ensure high quality of work in their own efforts, in particular in writing the articles to *BW's* standards, according to Long and McAnulty. Fourth, section writers frequently cited expert opinions. In total, the nine CRM ad sections cited various experts 102 times, with direct quotes used to directly conveyed credibility. Fifth, the writers referenced research results. The findings of nearly 30 research studies, most conducted by industry/market research firms, such as Gartner, were reported in the nine sections. The credibility induced from these tactics, we argue, helped compensate partially for the biases of the discourse vehicle and facilitated the continued legitimation and mobilization for CRM.

Incorporate models for action. Over the years 2000-2004, the CRM sections became a forum for the writers, advertisers (embedded explicitly or implicated), and experts cited to offer a variety of models for CRM's adoption, implementation, and utilization. They accomplished this by:

- telling success stories;
- providing tips; and
- identifying pitfalls.

In the nine CRM sections, nearly 30 success stories were told, in more or less detail, structured simply as follows: a real organization implemented a CRM package, in part or whole, and achieved major benefits. Recent research confirms the facilitating effect of success stories on the legitimization of innovations (Strang and Macy, 2001). The key mechanism is that managers tend to consider the innovations adopted by their organizations' successful peers as legitimate practices to imitate. Beyond success stories, certain lessons learned by successful CRM adopters were incorporated, providing guidance to those who would follow in their footsteps. These were represented by numerous tips and pitfalls identified in the CRM sections, suggesting appealing models for action that could be updated periodically.

Arrange for recurrent engagement. After the first CRM section in 2000, director McNulty thought that CRM was "such a strong section that there was probably enough demand out there to do it twice a year". Thereafter, *Business Week* published the CRM sections biannually, thus demonstrating that CRM's momentum was sustainable in the context of the special ad sections themselves, and further giving a boost to CRM's momentum more broadly. Importantly, the recurrent engagement of the sections allowed participants to regularize their own activities and capitalize on their own up-front investments. They used two tactics.

First, participants carefully regularized the schedule for engaging the discourse vehicle. This schedule, announced in *BW's* editorial and advertising calendar, in turn determined how often ad section producers could tell the CRM story, suggesting too that CRM was a sustained, ongoing venture. Second, participants serialized the contents of the sections. In writing a new section, the writers neither repeated everything from the previous section, nor conceived everything from scratch. Each section addressed new developments while maintaining coherent ties to previous sections, suggesting that CRM was itself progressing in a to-be-continued way. Together, regular schedule and serial contents are effective mobilization tools for recruiting participants and marshalling resources.

Sustaining momentum through the organizing vision

We found that the actors, in addressing the organizing vision for CRM within the special ad sections, implemented two strategies supportive of sustaining CRM's momentum:

- (1) accentuate the evolution and progress of the technology; and
- (2) identify specific new developments of the technology.

The former addresses whether a category of technology evolves and the latter describes *how* exactly it evolves. We discuss these strategies and their tactics next.

Accentuate the evolution and progress of the technology. One threat to technological momentum is the perception, held by, for instance, SAS' Laura Wilson, that the focal technology has already become commonplace and thus there is no need to promote it anymore[7]. Such a perception demobilizes the community, driving members out in search of newer, more exciting technologies. To rebut this "nothing-is-new-and-let's-move-on" argument, section producers used two tactics, speaking to the technology's evolution and emphasizing the progress made and still foreseen. As writer Thompson remarked to us, "What we call CRM today is going to look very different five or ten years from now because there is always a leading edge to what's going on in the industry . . . There

is a long rich future to CRM, but it's not going to be just doing what we are doing today. It'll always be something new over time". In support of this view, the writers provided historical evidence in all nine sections. The second section contained the most detailed review, tracing CRM from its origins in contact management to the development of integrated application suites accessible from the web. Thus, CRM's organizing vision was shown to be adaptable, community members were kept interested, and new prospects recruited. Expectations were created as to "what's new", "what's the latest", and "what's next" (Brown and Michael, 2003). An effective story line appealing to both credibility and novelty was continuously reworked and extended (Barry and Elmes, 1997), continuously mobilizing actors and activities in a vibrant and dynamic community.

Identify new developments of the technology. Producers of the special ad sections intuitively sensed the community's need to know the newest. Writer Dver remarked: "I don't want to write a generic CRM thing. I've done that. I've read a thousand of them . . . It's not an interest to the readers. So I always try to come up with something that is very new (that) hasn't been covered at the time". To identify and incorporate new developments, section producers invoked four tactics, each addressing a dimension along which CRM had purportedly evolved.

First, section producers identified new technologies underlying the focal technology. Thus, writer Thompson wrote in the first section about the shift to web-based technologies and discussed in the second section new tools to support online customers. Second, producers identified new business functions served by the technology. In 2003, the latest emphasis was shifted from customer service to marketing, addressed by writer Dver in the seventh section. Third, producers identified new functionality in demand for CRM. To support marketing effectiveness, the need for a more analytical CRM, as opposed to the efficiency-enhancing operational CRM, was discussed in the first section. Fourth, producers identified new adopter segments. Having observed that most large firms had already adopted CRM's core modules, section producers focused on small and midsize enterprises (SMEs) in the eighth section.

And so, section producers were socially shaping the boundaries and configuration of the CRM technology (MacKenzie and Wajcman, 1999), delineating new development space where it could continue to maintain its momentum. While such new development may still be path dependent (David, 1985), the path taken is by no means fixed; as illustrated here, institutional workers may act to help redirect a technology's path, where needed to sustain momentum.

Discussion and conclusion

In summary, from our case, over some five years, certain organizational players exploited CRM's momentum for their own purposes and, at the same time, made noticeable efforts to keep CRM "lively". To do so, they worked to shape both the form and content of the discourse about CRM. Specifically, they engaged *Business Week's* special ad section as a vehicle for recurrently producing and spreading seemingly credible and prescriptive discourse advancing CRM, and articulated an evolving organizing vision for the technology and its market. In examining these institutional efforts, we have theorized them into a set of strategies for sustaining technological momentum through public discourse. Table II summarizes these strategies and their respective tactics, already discussed.

Focus	Strategy	Aim	Tactic	Analysis/illustration
Discourse vehicle, e.g. <i>BW</i> 's special ad section	Provide for credible discourse	Gain trust from current and prospective members of the community	Recruit reputable contributor Emulate editorial objectivity Ensure high quality of work Cite expert opinion	Frank Long recruited Bob Thompson. "Bob, was a, is a real insider. He's a CRM insider. He's certainly one of the most well known people in the industry" (Long, interview) "We weave (advertiser's opinion or case study) into the text (so) that it doesn't look like its pay-for-play type of advertorial" (Long, interview) "We write it to a high standard. It could just as easily be interpreted as <i>BW</i> editorial if it didn't say it's a special advertising section." (Long, interview) "The internet as a sales channel represents only a fraction of the internet's value to business. The real potential lies in its ability to transform relationships within the traditional supplier-vendor-customer chain" (Michael Dell, quoted in the second and third sections) "Jupiter Research's recent study found that 70 percent of a sample [of] 2,000 American shoppers decided to spend less money in a retailer's bricks operation, if they were dissatisfied with their clicks experience." (second section)
	Incorporate models for action	Motivate current and prospective members. Help them make progress	Reference research result Tell success stories Identify pitfalls	"iFleet . . . uses Knowlagent's call center and e-learning solution to improve the efficiency and effectiveness of the company's contact center . . . Within a few months of its new program, iFleet reduced the cost per call by 10 percent . . ." (sixth section) "According to Insight Technology Group's Jim Dickie, after studying hundreds of CRM projects, buying technology before you have developed your CRM business goals can lead to disaster. It's a common pitfall" (first section)
	Arrange for recurrent engagement	Renew attention periodically Routinely speak to progress	Provide tips Regularize schedule Serialize contents	"Successful CRM requires the entire company to be in sync . . .; therefore individual departments cannot drive these initiatives. CRM must be managed – not just sponsored – by senior management" (sixth section) After the first CRM section, <i>BW</i> published the sections biannually Each section addressed some new development while maintaining coherent ties to previous sections

(continued)

Table II.
Institutional work for sustaining technological momentum through public discourse

Table II.

Focus	Strategy	Aim	Tactic	Analysis/illustration
Organizing vision, e.g. for CRM	Accentuate evolution and progress of the technology	Hold attention to novel change Retain confidence in technology	Speak to technology's evolution Emphasize progress made and foreseen	"Technology will evolve while technical and organizational challenges are overcome. Much will change in the years ahead, but one thing is certain: CRM is a journey, not a destination, and customers have their hands on the road map and the steering wheel" (first section) "A decade ago, CRM technology started from humble beginnings – contact managers. These computer-based Rolodexes rapidly evolved into robust Sales Force Automation (SFA) systems designed to not only organize customer contact information but to streamline the sales process itself" (second section) "The underlying technology has shifted rapidly from client/sever to web-based." (first section)
	Identify specific new developments of the technology	Direct or redirect progress Identify new paths and trajectories	Identify new underlying technology Identify new business function served Identify new functionality of technology Identify new adopter segment	"Industry consulting firm Gartner Group sees the marketing segment to be the fastest growing part of the CRM market, . . ." (seventh section) "A lot of the stuff we've done has been focused on efficiency, like giving the sales rep more time to make average sales calls. We're realizing the issue is really effectiveness. I need my average rep to make great calls" (consultant quoted in first section, speaking to need for a more analytical CRM) The entire eighth section, titled "CRM: big business in small and midsize enterprises" featured CRM in SMEs

Together, the identified strategies and tactics illuminate the dynamic capacities of both the discourse vehicle and the associated organizing vision for the discursive task at hand. In the case of the vehicle, we see that it is employed as a distinctive communication genre (Yates and Orlikowski, 1992) enabling the ongoing development and linking of texts that both interpret and provide models for actions sustaining momentum toward institutionalization (Phillips *et al.*, 2004). In the case of the organizing vision, we see that it can be highly adaptive to changing circumstances; indeed it can speak to these, and is thus robust to the task of telling a compelling story of continued adoption and progress, also aimed at sustaining momentum. To our knowledge, these particular insights into dynamic discourse capacities for sustaining technological momentum are new to the literature.

It remains to engage the broader implications of our study. We begin by acknowledging the obvious limitations of our findings, which come from a single case, addressing one technology, CRM, featured in one discourse vehicle, *Business Week's* special advertising section, over the time period 2000-2004. Clearly, even with broader implications, our findings may reflect the particularities of this case. First, given our choice of CRM, the findings are more likely to apply to similar IT, so-called enterprise application software, in particular, where organizing visions are known to be important to the technology's adoption and diffusion (Swanson and Ramiller, 1997). Second, given our focus on *BW's* special ad section, the findings no doubt apply more to similar discourse vehicles, most immediately to other publications' special ad sections, but perhaps also to other promotional campaigns, such as industry trade shows, making use of comparable media. Finally, the findings may reflect in part our selection of the 2000-2004 period and its position relative to the bursting of the dot.com bubble in 2000, although we do not ourselves see that the strategies and tactics identified in Table II reflect this historical context.

A further limitation to the present study is that, while it arguably shows that certain institutional players acted not only to exploit CRM's momentum, but also to sustain it, it offers no evidence that momentum was actually affected. We concede this point, but argue that the willingness of advertisers to in effect fund the special sections should be taken at face value as an indication of their belief in the sections' likely influence on CRM purchases and adoptions. Admittedly, much advertising money may be squandered based on mistaken beliefs. Still, it seems reasonable to assume that advertisers tend to be right more often than they are wrong[8].

Of course, when any technology has acquired momentum, it by definition involves many players, and is being widely considered for adoption. At the core of this momentum, we argue, is entrepreneurially-produced and disseminated discourse regarding the technology itself, which both exploits current attention to the technology and seeks to extend it, promoting further adoption. Obviously, no single discourse vehicle, through the attention it commands, will account for but a fraction of any momentum so sustained, but we note that *Business Week*, as a preeminent business publication with a vast global circulation, has substantial face validity as an effective means to spread the word on any new management-related technology, such as CRM.

Notwithstanding its limitations, our study makes several contributions to research on the institutionalization of technological innovations. First, we have examined a largely overlooked stage in a technology's lifecycle, and found sustaining momentum supported in part by certain entrepreneurially initiated institutional work. Much like

launching a new technology to initially acquire momentum in an emerging field (Wang and Swanson, 2007) or transforming an already institutionalized technology in a mature field (Hoffman, 1999), sustaining acquired momentum for a technology is seen to involve institutional work and entrepreneurship, here by multiple actors with different but coincident interests engaging in continued legitimation and mobilization. We find that such work can be more than the strategic activity of but one or a few central actors, such as the technology's purveyors. It can also arise incidentally, where other, more peripheral actors, attracted by early momentum, undertake ventures aligned with furthering the technology's adoption and institutionalization. We thus point the way toward a broader theory of institutional work and entrepreneurship as a useful explanation for the successful diffusion of new technologies. Such a theory would account for entrepreneurial discourse-centered activities of multiple players, some drawn from the market's periphery in pursuit of their own opportunities, over the entire period in which a technology is launched, sustained in its momentum, transformed as may be needed, and more broadly guided toward institutionalization.

Additionally, our study offers a new, differentiated view of the dynamics of institutional work and entrepreneurship in the IT context. By contrasting our findings with previous research, we suggest that institutional work for sustaining technological momentum may take a different form and involve different actors from those needed for, for example, launching a new information technology to acquire momentum in the first place. Most conspicuously, acquired momentum can be exploited in further sustaining it, thus serving as its own resource. The special ad section for CRM in *Business Week* studied here would probably not be entertained for a technology with no momentum whatsoever. More broadly, certain discourse vehicles are simply not practical to engage without acquired momentum. Their affordances are thus not available to those who have few economic resources with which to launch a new technology. Therefore, mobilization for sustaining momentum is likely to marshal resources different from those engaged in mobilization for launching. Moreover, acquired momentum also enables prospective participants already familiar with a technology to be recruited to an endeavor such as the ad section studied here. In launching a new technology, in contrast, participants must typically be introduced to the technology as part of the recruitment. This contrast implies that the target audience of mobilization for sustaining momentum differs from that of mobilization for launching. In addition, the education and interpretation forms of legitimation prominently seen in launching a nascent technology tend to give way to other forms of legitimation such as evolving motivation and rationalization once the momentum of the technology has been acquired.

Among the strategies for engaging a discourse vehicle, arranging for its recurrent use may be easier when momentum already exists. Thus, *BW*'s first CRM special ad section was likely a huge success in part because CRM already had momentum, enabling participants in the section to "ride" this initial success going forward. In contrast, by example, succeeding with a "first conference" in launching a new technology is problematic in the absence of momentum, making the achievement of a conference series more unlikely (Wang and Swanson, 2007).

Among the strategies for shaping a technology's organizing vision, both of those identified here pertain especially to situations where momentum has already been acquired and the challenge is to sustain this momentum. Here a key insight is that the

dynamic character of the technology can be stressed in the vision, in terms of its evolution and progress, such that interest and attention are retained, and sustainability of momentum is suggested by extension. This insight usefully adds to organizing vision theory as originally presented by Swanson and Ramiller (1997). Ironically, the strategy may be used even when those employing the discourse vehicle know that their own endeavor is fated to lose momentum regardless of the eventual institutionalization or collective abandonment of the technology, indeed may already be doing so, and may soon come to an end.

Finally, our findings contribute to the literature in marketing new technologies, which has concerned itself more with how the single firm can “cross the chasm” from early to wide adoption of its products (Moore, 2002), than it has with the means by which the aspiring industry may itself be promoted[9]. Importantly, recent research suggests that competing firms may be able to collectively influence the sales take-off of a product innovation to mutual advantage, and proposes that future research “investigate the nature of firm alliances and collaborations during the formative stages of a new market” (Agarwal and Bayus, 2002). Our own research suggests that such fruitful collaborations can in fact be indirect rather than direct ones, initiated entrepreneurially by certain institutional workers with their own interests in the innovation’s success. Hence, firm alliances, or industry associations, which can be problematic and expensive to organize and maintain in nascent technology fields, may not always be needed to effectively market new technology in the collective interest.

In terms of future research, we make two modest suggestions, in particular. First, beyond studying a single discourse vehicle and its role in sustaining a technology’s momentum, we suggest studying multiple, complementary vehicles employed for this purpose. As but one example, in the case of CRM, it would be interesting to study the discourse in specialized CRM publications or trade journals for particular industries. This might further illuminate how CRM’s momentum has been both exploited and sustained, as each discourse vehicle may be conjectured to have a special role, differentiated from, but interdependent with others, in carrying forth the CRM story.

Second, we suggest studying how a particular discourse vehicle is employed to sustain not just a single technology’s momentum, but also the related momentums for a family of technologies. Again, in the case of *Business Week* and its special advertising section, it would be interesting to study the history of a group of different *BW* sections covering related ITs over a particular time period. This should yield further insights into sustaining technological momentum, as it may be conjectured that any one technology’s momentum is sustainable not by itself alone, but only in conjunction with the momentums of other related technologies.

Notes

1. Another related and important component of technological momentum is implementation momentum, as may be measured by the strength of acceptance by members of each adopting organization (Avgerou, 2000).
2. A recent example was the sudden rise of peer-to-peer (P2P) computing technology, epitomized by the now infamous Napster online music file sharing service. Many firms seriously considered P2P for sharing files, storage, and computing resources as recently as 2001. However, the momentum gathered around P2P then collapsed (Manes, 2002), although the architectural concept continues to be important.

3. Apart from the software itself, the new practices typically require new skills and generate substantial revenues for consultancies that help implement them. CRM as a technology is thus not merely a software product. It incorporates certain essential knowledge work and services, which prosper in proportion to the software revenues themselves.
4. Participants thus came to act on behalf of CRM in large part because their different business interests attracted them to the opportunity to do so, brought about by CRM's early momentum. These interests, including publishing, writing, and advertising, are naturally suited to capitalizing on the ebbs and flows of management attention and discourse. It was thus not accidental that these interests coincided in the present case.
5. Regarding CRM's momentum more broadly, our sense is that as the vision for it continues to be compelling, further broadening its acceptance beyond adoption decisions, sustaining momentum in implementation and use.
6. We note that this role is coincident with *Business Week's* broad editorial interest in disseminating the latest news on innovative management practices and new IT. In fact, *BW* published a regular article on CRM in its February 21, 2000 issue, a sign that CRM had by then achieved early momentum.
7. In fact, SAS has more recently presented its products as applications of Business Intelligence (BI), instead of CRM, even though the underlying technologies for BI and CRM overlap.
8. This said, an important question remains as to the extent of influence on adoptions of special advertising sections such as the one we studied. To our knowledge, from our interviews, this was not systematically assessed by *BW* or others for the CRM sections.
9. A notable exception is research on "marketplace advocacy ads", which seek acceptance for a product or service category by communicating its benefits while addressing concerns about risks (Sinclair and Irani, 2005). For example, the Council for Biotechnology Information (CBI) recently organized a marketplace advocacy ad campaign to promote what CBI called "genetically enhanced crops". Our finding on discourse credibility resonates with insight into the credibility of ad source or sponsor from previous research on issue/advocacy advertising (Fox, 1986).

References

- Abrahamson, E. (1996), "Management fashion", *Academy of Management Review*, Vol. 21 No. 1, pp. 254-85.
- Adler, P. (1981), *Momentum: A Theory of Social Action*, Sage, Beverly Hills, CA and London.
- Adler, P. and Adler, P.A. (1978), "The role of momentum in sport", *Urban Life*, Vol. 7 No. 2, pp. 153-76.
- Agarwal, R. and Bayus, B.L. (2002), "The market evolution and sales takeoff of product innovations", *Management Science*, Vol. 48 No. 8, pp. 1024-41.
- Allen, J.P. (2000), "Information systems as technological innovation", *Information Technology & People*, Vol. 13 No. 3, pp. 210-21.
- Avgerou, C. (2000), "IT and organizational change: an institutionalist perspective", *Information Technology & People*, Vol. 13 No. 4, pp. 234-62.
- Barley, S.R. and Tolbert, P.S. (1997), "Institutionalization and structuration: studying the links between action and institution", *Organization Studies*, Vol. 18 No. 1, pp. 93-117.
- Barry, D. and Elmes, M. (1997), "Strategy retold: toward a narrative view of strategic discourse", *Academy of Management Review*, Vol. 22 No. 2, pp. 429-52.
- Berger, P.L. and Luckmann, T. (1967), *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, Doubleday Anchor, New York, NY.

-
- Bikhchandani, S., Hirshleifer, D. and Welch, I. (1992), "A theory of fads, fashion, custom, and cultural change as informational cascades", *Journal of Political Economy*, Vol. 100 No. 5, pp. 992-1026.
- Borup, M., Brown, N., Konrad, K. and Van Lente, H. (2006), "The sociology of expectations in science and technology", *Technology Analysis and Strategic Management*, Vol. 18 Nos 3/4, pp. 285-98.
- Brown, N. and Michael, M. (2003), "A sociology of expectations: retrospectively prospecting and prospecting retrospectively", *Technology Analysis and Strategic Management*, Vol. 15 No. 1, pp. 3-18.
- Cameron, G.T. and Haley, J.E. (1992), "Feature advertising: policies and attitudes in print media", *Journal of Advertising*, Vol. 21 No. 3, pp. 47-55.
- Carr, D. (2003), "To sell the ads, eager magazines write the copy", *New York Times*, p. C1.
- David, P.A. (1985), "Clio and the economics of QWERTY", *American Economic Review*, Vol. 75 No. 2, pp. 332-7.
- DiMaggio, P.J. (1988), "Interest and agency in institutional theory", in Zucker, L.G. (Ed.), *Institutional Patterns and Organizations: Culture and Environment*, Ballinger, Cambridge, MA, pp. 3-21.
- Elliott, M.S. and Scacchi, W. (2008), "Mobilization of software developers: the free software movement", *Information Technology & People*, Vol. 21 No. 1, pp. 4-33.
- Farjoun, M. (2002), "The dialectics of institutional development in emerging and turbulent fields: the history of pricing conventions in the on-line database industry", *Academy of Management Journal*, Vol. 45 No. 5, pp. 848-74.
- Fligstein, N. (2001), *The Architecture of Markets*, Princeton University Press, Princeton, NJ.
- Fox, K.F.A. (1986), "The measurement of issue/advocacy advertising effects", *Current Issues and Research in Advertising*, Vol. 9 No. 1, pp. 61-92.
- Garud, R. and Karnøe, P. (2003), "Bricolage versus breakthrough: distributed and embedded agency in technology entrepreneurship", *Research Policy*, Vol. 32 No. 2, pp. 277-300.
- Garud, R., Jain, S. and Kumaraswamy, A. (2002), "Institutional entrepreneurship in the sponsorship of common technological standards: the case of Sun Microsystems and Java", *Academy of Management Journal*, Vol. 45 No. 1, pp. 196-214.
- Goodlad, N., Eadie, D.R., Kinnin, H. and Raymond, M. (1997), "Advertorial: creative solution or last resort?", *International Journal of Advertising*, Vol. 16 No. 2, pp. 73-84.
- Gosain, S. (2004), "Enterprise information systems as objects and carriers of institutional forces: the new iron cage?", *Journal of the Association for Information Systems*, Vol. 5 No. 4, pp. 151-82.
- Greenberg, P. (2004), *CRM at the Speed of Light: Essential Customer Strategies for the 21st Century*, McGraw-Hill/Osborne, New York, NY.
- Hoffman, A.J. (1999), "Institutional evolution and change: environmentalism and the US chemical industry", *Academy of Management Journal*, Vol. 42 No. 4, pp. 351-71.
- Hughes, T.P. (1987), "The evolution of large technological systems", in Bijker, W.E., Hughes, T.P. and Pinch, T.J. (Eds), *The Social Construction of Technological Systems*, MIT Press, Cambridge, MA and London, pp. 51-82.
- Hughes, T.P. (1994), "Technological momentum", in Smith, M.R. and Marx, L. (Eds), *Does Technology Drive History? The Dilemma of Technological Determinism*, MIT Press, Cambridge, MA, pp. 101-13.

- Jansen, K.J. (2004), "From persistence to pursuit: a longitudinal examination of momentum during the early stages of strategic change", *Organization Science*, Vol. 15 No. 3, pp. 276-94.
- Kumar, K. and van Hillegersberg, J. (2000), "ERP experiences and evolution", *Communications of the ACM*, Vol. 43 No. 4, pp. 22-6.
- Langley, A. (1999), "Strategies for theorizing from process data", *Academy of Management Review*, Vol. 24 No. 4, pp. 691-710.
- Lawrence, T.B. and Suddaby, R. (2006), "Institutions and institutional work", in Clegg, S.R., Hardy, C., Lawrence, T.B. and Nord, W.R. (Eds), *The Sage Handbook of Organizational Studies*, 2nd ed., Sage, London and Thousand Oaks, CA, pp. 215-54.
- Lee, C.M.C. and Swaminathan, B. (2000), "Price momentum and trading volume", *Journal of Finance*, Vol. 55 No. 5, pp. 2017-69.
- MacKenzie, D.A. and Wajcman, J. (1999), *The Social Shaping of Technology*, 2nd ed., Open University Press, Buckingham and Philadelphia, PA.
- McAdam, D., McCarthy, J.D. and Zald, M.N. (1996), *Comparative Perspectives on Social Movements*, Cambridge University Press, Cambridge and New York, NY.
- Maguire, S., Hardy, C. and Lawrence, T.B. (2004), "Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada", *Academy of Management Journal*, Vol. 47 No. 5, pp. 657-79.
- Manes, A.T. (2002), "The triumph of hype over experience", *Web Services Journal*, Vol. 2 No. 1, p. 66.
- Moore, G.A. (2002), *Crossing the Chasm*, rev ed., HarperCollins, New York, NY.
- Munir, K.A. and Phillips, N. (2005), "The birth of the 'Kodak Moment': Institutional entrepreneurship and the adoption of new technologies", *Organization Studies*, Vol. 26 No. 11, pp. 1665-87.
- Mutz, D.C. (1997), "Mechanisms of momentum: does thinking make it so?", *Journal of Politics*, Vol. 59 No. 1, pp. 104-25.
- Nelson, S. (2001), *The Implications of the 2001 CRM Hype Cycle*, Gartner, Stamford, CT, DF-13-0755.
- Phillips, N. and Hardy, C. (2002), *Discourse Analysis: Investigating Processes of Social Construction*, Sage Publications, Thousand Oaks CA, Vol. 50.
- Phillips, N., Lawrence, T.B. and Hardy, C. (2004), "Discourse and institutions", *Academy of Management Review*, Vol. 29 No. 4, pp. 635-52.
- Rao, H., Greve, H.R. and Davis, G.F. (2001), "Fool's gold: social proof in the initiation and abandonment of coverage by Wall Street analysts", *Administrative Science Quarterly*, Vol. 46 No. 3, pp. 502-26.
- Rigby, D.K. and Ledingham, D. (2004), "CRM done right", *Harvard Business Review*, Vol. 82 No. 11, pp. 118-29.
- Schoonhoven, C.B. and Romanelli, E. (2001), "Emergent themes and the next wave of entrepreneurship research", in Schoonhoven, C.B. and Romanelli, E. (Eds), *The Entrepreneurship Dynamic*, Stanford University Press, Stanford, CA, pp. 383-408.
- Simon, H.A. (1976), *Administrative Behavior*, Free Press, New York, NY.
- Sinclair, J. and Irani, T. (2005), "Advocacy advertising for biotechnology: the effect of public accountability on corporate trust and attitude toward the ad", *Journal of Advertising*, Vol. 34 No. 3, pp. 59-73.
- Smelser, N.J. (1962), *Theory of Collective Behavior*, Free Press, New York, NY.
- Strang, D. and Macy, M.W. (2001), "In search of excellence: fads, success stories, and adaptive emulation", *American Journal of Sociology*, Vol. 107 No. 1, pp. 147-82.

- Strang, D. and Meyer, J.W. (1994), "Institutional condition for diffusion", in Scott, W.R. and Meyer, J.W. (Eds), *Institutional Environments and Organizations: Structural Complexity and Individualism*, Sage, Newbury Park, CA, pp. 100-12.
- Suchman, M. (1995), "Managing legitimacy: strategic and institutional approaches", *Academy of Management Review*, Vol. 20 No. 3, pp. 571-610.
- Swanson, E.B. and Ramiller, N.C. (1997), "The organizing vision in information systems innovation", *Organization Science*, Vol. 8 No. 5, pp. 458-74.
- Wang, P. and Swanson, E.B. (2007), "Launching professional services automation: institutional entrepreneurship for information technology innovations", *Information and Organization*, Vol. 17 No. 2, pp. 59-88.
- Yates, J. and Orlikowski, W.J. (1992), "Genres of organizational communication: a structural approach to studying communication and media", *Academy of Management Review*, Vol. 17 No. 2, pp. 299-326.
- Yin, R.K. (2003), *Case Study Research: Design and Methods*, Vol. 5, 3rd ed., Sage, Thousand Oaks, CA.

Corresponding author

Ping Wang can be contacted at: pwang@umd.edu