



# When customers get clever: Managerial approaches to dealing with creative consumers

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## KEYWORDS

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**Abstract** Creative consumers (defined as customers who adapt, modify, or transform a proprietary offering) represent an intriguing paradox for business. On one hand, they can signify a black hole for future revenue, with breach of copyright and intellectual property. On the other hand, they represent a gold mine of ideas and business opportunities. Central to business is the need to *create* and *capture* value, and creative consumers demand a shift in the mindsets and business models of how firms accomplish both. Based upon their attitude and action toward customer innovation, we develop a typology of firms' stances toward creative consumers. We then consider the implications of the stances model for corporate strategy and examine a three-step approach to dealing with creative consumers: awareness, analysis, and response.

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## 1. When customers get clever

What happens when customers get clever? What should a firm do when creative consumers start to modify products, hack code, and adjust services to suit themselves? The following examples illustrate the dilemmas managers face, and the very different strategies firms employ in dealing with the phenomenon:

- Podcasting is the distribution of audio or video files, such as radio programs or music videos,

over the Internet for listening on mobile devices and personal computers. While the idea had been around since the year 2000, podcasting really took off with the 2001 advent of Apple's ubiquitous iPod. Yet, Apple was notoriously slow in capitalizing on the phenomenon, perhaps fearful of the copyright and digital property implications of its devices being used to store and play content. It was not until mid-2005 that Apple began to include podcasting software with its iPod products or make podcasts available on its iTunes website. To many iPod owners (and to fans of podcasting), it seemed that Apple had, at first, discouraged podcasting. At the very least, the company declined to comment on it in the early days of the phenomenon.

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- A member of the creative set, pink-haired computer developer Jose Avila made furniture for his apartment exclusively from Federal Express boxes. When the Tempe, Arizona-based creator displayed pictures of the furniture on his website ([www.fedexfurniture.com](http://www.fedexfurniture.com)), however, the shipping firm promptly overnighed a cease and desist letter demanding that Avila take down the website (Morrissey, 2005). While the request was honored, consumer comments on weblogs persist: “This really brightened my day! The letters are classic lawyer exchange. My husband and I laughed and laughed. Lawyers jousting at windmills...” and “FedEx needs to lighten up. Jose is a bright and innovative young man, and instead of making his life miserable, they should give him a great job. With his kind of thinking, he can only improve the company...the first thing he should do is fire the lawyers” (<http://www.bookofjoe.com/2005/08/fedexfurniture.html>).
- Ron Gremban’s car looks like a typical Toyota Prius hybrid, but in its trunk an additional stack of 18 brick-sized batteries boosts the car’s already high mileage with an extra electrical charge so it can burn even less fuel. An electrical engineer and committed environmentalist, Gremban spent several months and \$3000 tinkering with his car. The additional batteries let him store extra power by plugging the car into a wall outlet at his home, all for about 25 cents. Although the Toyota Motor Corporation initially frowned on people altering their cars, the company now says it may be able to learn from such individuals. “They’re like the hot rodders of yesterday who did everything to soup up their cars. It was all about horsepower and bling-bling, lots of chrome and accessories,” said Cindy Knight, a Toyota spokeswoman (Molloy, 2005).
- In an attempt to create cool new things, the BBC is giving web developers and designers outside the organization access to its content. Called [backstage.bbc.co.uk](http://backstage.bbc.co.uk), this initiative gives people who create computer programs, applications, or graphics the chance to put their stamp on BBC digital content. While the beta stage project is only informal at the moment, it aims to drum up interest and proposals for prototypes. Launched in the summer of 2005, it has already garnered significant interest (<http://news.bbc.co.uk/2/hi/technology/4538111.stm>).

These cases represent four different kinds of customer initiatives in four very different industries, and four different corporate responses to customer inventiveness. The organizations’ reac-

tions range from a simple early ignoring, to a threat of legal action, to a begrudging condescension, to an active embracing of customer creativity. So what is a firm to do?

In this article, we explore the issue of creative consumers, those customers who adapt, modify, or transform a proprietary offering. They represent an intriguing paradox for business. On one front, they can represent a black hole for future revenue. Breach of copyright is rife, and the notion of intellectual property is often treated with cavalier disregard. There is also the distinct possibility that customers who meddle with proprietary products can produce something truly dangerous! On the other hand, creative consumers can be a gold mine of ideas and business prospects, as customers identify opportunities and implementations that become sources of revenue, apart from being significant improvements.

The modern business environment provides unprecedented opportunities for customers to get clever. The Internet permits the rapid dissemination and communication of customer innovations. Hobby programmers delight in improvising and improving carefully written code. Modular products, which embody high levels of reconfigurability, and inexpensive hardware (particularly in the form of computer chips and storage media) enable enthusiasts to tinker with technologies. Businesses need to both *create* and *capture* value. The dilemma is that creative consumers demand a shift in the managerial mindsets and business models of how firms accomplish these two feats. We provide a framework for thinking about the phenomenon, which also enables managers to identify their own corporate stance toward customer creativity, in order to be able to develop strategies for dealing with this.

## 2. Clever customers are not lead users

We define the creative consumer as an individual or group who adapts, modifies, or transforms a proprietary offering, such as a product or service. As a phenomenon, the creative consumer has a long and illustrious history; indeed, it is as old as products and services themselves. The automobile serves as an excellent example of a product that, since its inception, has existed in a generally symbiotic relationship with creative consumers. The early Model T Ford was regularly adapted by farmers as a power source for driving generators, mills, and lathes. In the 1960s, motor racing team BRM modified a jet engine to power a successful Le Mans racecar; today, thousands of ‘petrol

heads' reprogram the engine management chips on their turbo cars to extract (sometimes fatal) amounts of extra horsepower! While the phenomenon of the creative consumer is old, it has received somewhat limited inspection by researchers and business leaders. Only recently has it begun to gain attention in the serious management literature. For example, [Mollick \(2005\)](#) refers to creative consumers as "underground innovators" (p. 21). While the author provides an excellent framework by which to understand and categorize these individuals, he leaves the reader guessing concerning what management should do about creative consumers, apart from encouraging them.

The related concept of 'lead user' has been the primary focus of management and researcher attention. The notion of the lead user was developed some 20 years ago by [von Hippel \(1986\)](#), who defined them as users whose current strong needs will become general in a marketplace months or years in the future. Since lead users often try to fulfill the need they experience, they can provide new product concept and design data, as well. In totality, the lead user is (1) a user of a novel or enhanced product who (2) faces needs that will be general in a marketplace, but faces them months or years before the bulk of that marketplace encounters them, and who (3) is positioned to benefit significantly from obtaining a solution ([von Hippel, 1986, 2005](#)).

There has been a significant stream of research into these specific types of customers, directed at identifying lead users ([Urban & von Hippel, 1988](#)); incorporating them into product design research and gathering and analyzing their data ([von Hippel, 1989](#)); comparing the lead user approach to more traditional new product development techniques ([Herstatt & von Hippel, 1992](#)); the characteristics of innovation, innovators, and innovation sharing in lead user environments ([Morrison, Roberts, & von Hippel, 2000](#)); performance assessment of the lead user approach (Lilien, Morrison, Searls, Sonnack, & von Hippel, 2002); and the development of a construct of 'lead usership,' defined as 'leading edge status' ([Morrison, Roberts, & Midgley, 2004](#)). There have also been reports in the practitioner press of how the lead user approach is structured and applied in eminent firms, such as Johnson & Johnson ([Luthje & Herstatt, 2004](#)) and 3M ([von Hippel, Thomke, & Sonnack, 1999](#)).

It is important to note, however, that the two terms 'creative consumer' and 'lead user' are far from synonymous. If we compare and contrast the concepts of creative consumer and lead user, the following four observations can be made:

- (1) Creative consumers work with *all types of offerings*, not just novel or enhanced products (the focus of the lead user). Creative consumers sometimes work with old, and even the simplest, de-featured products. For example, although Apple ceased production of its unsuccessful Newton PDA in the mid-1990s, there still exists today an active community that continues to find ways to change the product's functionality, write software for it, and share their observations and experiences with others ([Muniz & Schau, 2005](#)).
- (2) Creative consumers *do not necessarily face needs that will become general*; rather, they often work on personal interests that can remain personal, or expand in use to a subset of users. For example, consumers who use their car alternators to generate electricity for their homes are likely to remain a minority subset! Indeed, the notion of 'will become general' is potentially a major problem for managers working with lead users; managers have to identify those users they think will encounter needs that will become general. They also need to monitor and act upon the exploits and advice of these users, while noting that lead users can all too often mislead, a point well articulated in the work of [Christensen and Bower \(1996\)](#) and [Christensen \(1997\)](#). Moreover, creative consumers often innovate from a love of experimentation and creativity, not to solve some specific need. In other words, while a creative consumer's innovation can fulfill instrumental needs, it (the innovation) is not necessarily driven by a need.
- (3) Creative consumers *need not benefit directly from their innovations*, although they may obviously benefit indirectly through thanks, peer recognition, and so forth. This is often referred to as "symbolic capital" ([Bourdieu, 1977](#)). Conversely to economic capital, the more one 'gives away,' the more symbolic capital one accumulates in the form of prestige, status, and reputation. BMW now gathers the ideas of its customers and invites the most inspired among them to meet with its engineers in Munich on a regular basis. Joerg Reimann, the firm's marketing innovation management head, is quoted as saying, "They were so happy to be invited by us, and that our technical experts were interested in their ideas. They didn't want any money" ("The Rise of the Creative Consumer," 2005, p. 75). Others may be the primary beneficiaries; this process can be conscious (a consumer adapts or

modifies a product for the benefit of another consumer or group) or serendipitous (a consumer, while playing around with a product, produces a modification, which is adopted by other consumers). The open source software community is replete with examples. For instance, volunteers have created a very viable alternative to Microsoft Windows in the operating system Linux, with no personal reward other than the kudos of friends and users, and, of course, the challenge of solving a problem.

- (4) Firms tend to use a formal and disciplined process to find, screen, and select lead users. For example, [von Hippel et al. \(1999\)](#) describe how 3M involved many medical specialists in different environments, in a strict four-stage process to develop a new disposable surgical draping product. In contrast, *creative consumers rarely ask permission to experiment with a firm's offering*, and critically it is they who select the product, the firm, and the innovation. They certainly do not observe a formal process. Whereas the firm remains in control with lead users, the situation is reversed with creative consumers; this lack of control over the creative consumer can represent major challenges to some firms.

Lead users garnered managerial attention in the 1970s and 1980s because they were seen as a viable means of reducing the risks and costs involved in new product development. The creative consumer phenomenon has only been given attention more recently because a confluence of factors has pushed it to the fore. These factors include the advent of the Internet, which allows connections between creative consumers and dissemination of their ideas; the programmability and malleability of software and components which have evolved in the last two decades; and an overall cultural shift toward customization and individualization ([Peppers & Rogers, 1993](#)).

While creative consumers and lead users are two distinct groups of customers, there is potential for an overlap between them, especially when management incorporates and adapts their ideas into offerings. Creative consumers are generally more difficult to manage, because their innovations tend to be more idiosyncratic and stochastic than lead user efforts, which are more focused and controlled by the firm. Moreover, creative consumers are usually independent of the organization. Lead users, on the other hand, are contacted by, communicated to, and the process of their interaction with the firm controlled by, the organiza-

tion. In short, creative consumers represent an important and overlooked group. The reasons for treating them strategically include:

- (1) They exist, and are here to stay. As the technology in products becomes more and more digitized, atomized, and interconnected, the potential for consumers to re-program, adapt, modify, and transform offerings also becomes greater. In simple terms, this phenomenon is growing and will continue to grow.
- (2) Creative consumers are a rich source of innovation; indeed, they are a hothouse of imaginative ideas that the firm might not have the resources or the time to cultivate by itself. They offer an alternative to formal product development programs, which survey consumer needs and preferences, and then design and manufacture corresponding product offerings. Creative consumers will simply innovate for firms, but are unlikely to tell them about it. Thus, the challenge for firms involves recognizing that creative consumers exist, identifying their actions, and understanding how to capture and create value from them. Ignoring or mismanaging creative consumers can lead to failure. At the very least, it may give customers the impression that what they say and do does not matter to the firm. At a more serious level, the firm may lose out on innovative ideas and the revenues these can represent. At worst, firms could find that competitors do identify and exploit the innovations that customers develop on the firm's offerings.
- (3) Recognizing and utilizing creative consumers is a form of outsourcing, whereby the process of new product development is informally contracted out to the market. In a self-governing manner, this enterprise is able to extend the life cycles of existing products by overcoming the boundary between design production and design consumption. The cost benefits are potentially much better than 'in-house' innovation, but a significant risk is posed in that the R&D is done in public. Therefore, without appropriate processes for capturing value from creative consumers, there is no guarantee that the firm that originally developed the product will be the one that can successfully appropriate the value created by the creative consumer. There exists a substantial risk that competitors might be able to capitalize on the opportunities identified by creative consum-

ers. That alone might be reason enough for the firm not to ignore the phenomenon.

### 3. Consumer creativity does not equal creative consumers

Consumer researchers have certainly not ignored customer creativity; indeed, they have defined it and identified its traits, antecedents, and consequences. The problem is that almost all of the research has been done at a conceptual level. While this is laudable from a scholarly perspective, it tells managers little about how customers tinker with their products and what happens as a result. It also gives them very little advice about what they should do. 'Consumer creativity' (the study of consumer problem solving and creativity traits) and 'creative consumers' (the reality of how consumers adapt, modify, or transform proprietary offerings) are related but still very different phenomena.

There is a strong stream of research in the consumer behavior literature that has focused on consumer creativity. This work was pioneered by Hirschman (1980, 1983), who defined consumer creativity as the problem-solving capability that may be applied toward consumption-related problems. The focus of consumer researchers has tended to be on the behavioral traits of creative consumers, and especially the factors that influence the process of consumer creativity. For example, Moreau and Dahl (2005) have studied, in an experimental setting, how input and time constraints influence the way in which consumers process information during a creative task and how those processes, in turn, influence the creativity of the solution. Also using experiments, Burroughs and Mick (2004) have investigated the antecedents and consequences of creativity in a consumption context. The authors find that both situational factors (i.e., time constraints, situational involvement) and person factors (i.e., locus of control, metaphorical thinking ability) affect creative consumption, and that there is also interaction between these variables. These research efforts are laudable, yet they shed little light on what managers in firms should be doing to become aware of customer creativity, how they should define their attitudes toward it, and what actions they should take to either encourage or discourage it.

In summary, the important notion of lead users has received considerable research attention and application in practice. However, while lead users and creative consumers have some things in common, they are not synonymous. Studying lead

users alone does not provide comprehensive answers to firms that wish to become aware of consumer creativity, to develop a stance toward it, and to be able to formulate and implement action plans regarding it. Similarly, the study of consumer creativity by marketing psychologists, mostly in laboratory settings using student samples, yields many important insights into what motivates consumer creativity and the environmental conditions that enhance it. The work, however, is not that helpful to practicing managers. It certainly does not tell them what to do about creative consumers. Having defined and established the importance of the creative consumer, we now go on to explore the stances that firms adopt toward to this important group; stances which, as we will see, range from non-management, to mismanagement, to proactive management.

### 4. Stances: Of Treks and Wars

The two landmark *stars* of modern-day science fiction, *Star Trek* and *Star Wars*, provide contrasting examples of how organizations deal with the problems and dilemmas posed by creative consumers, those customers who want to get a little too involved for comfort. *Star Trek* (which started as a television series) and *Star Wars* (the ongoing movie saga) have both had a major impact on contemporary culture. Yet, one is languishing while the other thrives (Borland, 2005).

*Star Trek's* battalions of fans saw the Internet as a wonderful galaxy in which to indulge their love of the show, its icons, and legends. They built websites, published online stories, and created and distributed amateur movies based on the *Star Trek* mythology and characters. In response, *Star Trek's* copyright owner, Viacom, vigorously pursued these fans by releasing warning statements in the press, issuing legal writs, and closing down websites. Viacom was determined to protect and control its intellectual property at all costs, and it seems the company has succeeded more than it might have intended. In 2006, for the first time in over 20 years, there will be no cinematic reprise for the *Starship Enterprise*.

In managing the *Star Wars* franchise, Lucasfilm has preferred to tread a fine line between incorporating creative fans and still controlling its intellectual property through regulation. For example, a partnership with AtomFilms sponsors an official contest for independent filmmakers who create works based upon *Star Wars*. Further, *Star Wars Galaxies*, a massively popular multi-player game presented as a venture between LucasArts

and Sony, permits the design team to solicit players' feedback. Thus, Lucasfilm both recognizes and attempts to manage consumer creativity. In the hiatus between the culmination of the first trilogy of films and the second, more drawn-out, triplet of movies, the *Star Wars* fan base has burgeoned. For the franchise and its fans, the *Force* lives on.

## 5. Firms' stances toward creative consumers

As mentioned previously, firms adopt a range of stances toward creative consumers. Some see them as threatening and try to prevent them from being innovative with their products; others see them as an opportunity and actively facilitate consumers' creativity. In considering firms' reactions to this phenomenon, it is useful to differentiate using two axes: a firm's *attitude* toward, and its *action* on, consumer innovation. Attitude toward consumer innovation is a firm's *espoused* policy or philosophy regarding the phenomenon in principle; it can range from positive to negative. The espoused philosophy typically reflects the mental mindset of top management, but can also range from a subtle form of politicking to poor organizational communication. Action on consumer innovation comprises what a firm does once the phenomenon has actually been detected. This can range from *active* to *passive*.

These two axes delineate a four-fold typology of firm postures to consumer innovation: discourage, resist, encourage, and enable. The four stances are illustrated with examples in Fig. 1, and are outlined below.

Firms' actions toward creative customers	<b>Active</b>	<b>Resist:</b> Actively restrain customer creativity *e.g., Sony AiboPet, FedEx	<b>Enable:</b> Actively facilitate customer innovation *e.g., Valve Software, BBC
	<b>Passive</b>	<b>Discourage:</b> But <i>de facto</i> tolerate/ignore *e.g., Sony PSP, Apple Podcasting, Nintendo Gameboy	<b>Encourage:</b> But don't actively facilitate *e.g., Skypecasting, Toyota
		<b>Negative</b>	<b>Positive</b>
		Firms' attitude toward creative customers	

Figure 1 Firms' stances toward creative consumers.

### 5.1. Discourage

In ignoring the podcasting phenomenon in its infancy, Apple's espoused policy was, very evidently, one that did not welcome independent customer involvement in their offering. While the firm did not choose to prosecute or to resort to legal means in its efforts to thwart innovative customer use of its products, Apple, in the early stages, did little to facilitate the practice. In all likelihood, this was because the firm was still pondering the legal ramifications of using its iPod device to broadcast digital content. Subsequently, this position has evolved into a more proactive stance, with iPod players being shipped with legally approved podcasting subscriptions and downloads as part of the iTunes package. We refer to this first stance as *discourage*. Under this stance, a firm's attitude toward consumer innovation is negative, but its actions are *de facto* passive. In this instance, firms verbally berate consumer innovation but take no overt action, which can range from ignorance, to reluctant tolerance, to an unreceptive internal reaction. *Discourage* is the default or initial stance for many firms, and examples are legion. For instance, after Sony released the PSP (Portable Play Station) game player, consumers soon began hacking the proprietary operating system so that they could surf the Web, check emails, and run retro- and other non-proprietary games on the device. Sony's reaction was swift condemnation, but other than making crystal clear their attitude toward the innovation, they took no further action (Hellweg, 2005). Similarly, hackers have turned Nintendo's Gameboy console into a computerized musical instrument that can be used to play surprisingly complex music. Nintendo would not comment on the trend (Kushner, 2006).

### 5.2. Resist

FedEx not only disapproved of Jose Avila's furniture construction methods and materials, it acted directly by serving him with legal instructions to desist and take down his website. This is an example of what we term the *resist* stance. What distinguishes this stance from the discourage posture is that, while the firm's attitude toward consumer innovation is still negative, the firm's responses are active. Thus, firms that adopt a resist stance verbally berate consumer innovation and back that sentiment up with punitive action. The firm actively seeks to minimize or eliminate consumer innovations. A long-established embodiment of resistance is invalidation of warranty. In the past, the Ford Motor Company refused to honor

warranties on vehicles that they suspected had been adapted for alternative farming applications. Many Model T owners were farmers, who used the power of the car, transferred through the rear axle, to drive small milling and threshing machines, and other agricultural equipment. Nowadays, as will be seen in a later example, Ford is more open to customer creativity. From warrantee invalidation, firms then move on to taking proactive legal steps against innovating consumers. AiboPet is a rather expensive (around \$2000) robot dog, marketed by Sony, which can perform a number of pre-programmed tricks, such as following its owner around and responding to voice commands. Sony initially sued consumers who had hacked the AiboPet operating system to make their cyberpets dance, jive, and perform a wide host of 'unauthorized' actions (Kohler, 2005).

### 5.3. Encourage

While Toyota was favorably disposed toward the experimentation of Ron Gremban on his new Prius, the firm did nothing to actively assist him either financially or materially. It was content to sit on the sidelines and observe. This third stance is the *encourage* position. Under this stance, the firm's attitude toward consumer innovation is primarily positive, but its actions are, again, *de facto* passive. The firm verbally lauds and applauds consumer innovation, but takes no overt action to facilitate it. This stance is a positive but 'hands-off' approach to the phenomenon. Examples of the encourage position are becoming increasingly common. For instance, Skype, the Voice-Over Internet Protocol (VOIP) pioneer, recently made it known that it was delighted with the innovation of Skypecasting, a synchronized combination of podcasting and live VOIP broadcast. While Skype applauded this clever use of its service, the company has made no modifications to the software to facilitate and further encourage the phenomenon (Biever, 2005).

### 5.4. Enable

When the BBC became aware that users were appropriating and employing its content, the organization decided to follow classic words of wisdom: If you can't beat them, join them. Not only did the BBC demonstrate its positive attitude by making content freely available, it also actively facilitated the use of this content through the provision of software and other tools. The fourth stance is *enable*. While the enable stance shares with the encourage stance a positive attitude

toward consumer innovation, it differentiates itself in that the firm's posture is overtly active. In this instance, firms cheer consumer innovation and back words with deeds to actively help consumers innovate with their products. This is very much a 'hands-on,' positive approach to the phenomenon, one which can be seen amongst leaders in the gaming industry. Faced with consumers hacking into the encrypted software of their popular game, Half-Life, Valve Software took the overt, positive action of releasing the code to the community. The result was the creation of Counter-Strike, the most played online game in the Internet's history (Hellweg, 2005). The Ford Motor Company also seems to have changed its stance since the days of the Model T and is working with individuals such as Chip Foose, who enjoyed such success modifying Ford Mustangs that he started his own business, Foose Design. Beyond being supported by Ford, Foose's modified cars are displayed by the auto-maker at motor shows and are sold through selected Ford dealers (Sawyer, 2005).

## 6. Which to choose?

It would be ideal if there was 'one correct' stance in the matrix (see Fig. 1); that would make it simple to follow and easy to implement. Like most important and complex issues in management, however, there is no simple and easy solution. Rather than provide straightforward answers, the matrix should, instead, prompt a series of questions that will require a firm to evaluate whether it has the appropriate stance for the set of environmental circumstances under which it operates. Legal, branding, and strategic considerations will be paramount, as well as a consideration of the resources available.

There may be good reasons to follow a discourage stance. For example, when a firm is not positive toward a particular form of consumer creativity (perhaps for good reason) but wishes to avoid the bad publicity that acting like a bully might cause, it can adopt a discourage posture. In situations in which the consequences of consumer creativity could be more severe, however, the firm might actively resist. It is not clear why FedEx has resisted Jose Avila, and the publicity surrounding the case has, indeed, made the firm appear to be tyrannical. It could be, though, that the firm simply wishes to avoid possible litigation that might result from injuries caused by furniture that was not intended to serve that function. There are also cases in which brand protection is paramount. In the case of Mattel, Inc. versus Susanne Pitt, the

makers of the Barbie doll sued a woman who had transformed a child's toy into an adult parody: "Dominatrix Barbie" (Mattel, Inc. v. Pitt, 2002). Firms that follow the encourage stance might do so because, while they support the process, they do not wish to spoil the spontaneity of consumers' creativity efforts by getting too involved; rather, they would prefer to observe passively and cheer from the sidelines. Finally, in the case of firms adopting an enable stance, the intention is to engage and promote creative consumers as much as possible, and to benefit from the innovations that flow from this.

## 7. Capturing and creating value from creative consumers

Creative consumers comprise a more general category of offering innovators than lead users. When creative consumers innovate, they either benefit from their innovation in terms of new functionality and new applications, or they simply enjoy the thrill and challenge of experimenting with and altering a firm's offerings. They do not merely buy and obediently use products or watch other consumers struggle with product inadequacies. They have a curiosity that drives them to become participants in the evolution and destiny of the offering. Predicting and identifying creative consumer activity may be difficult, but a typology based on possible firm stances and actions toward customer innovation can help in the diagnosis and formulation of strategy. What's a firm to do? We suggest three things: be aware, analyze, and respond.

### 7.1. Awareness, analysis, and response

Ironically, many firms are blissfully unaware that consumers are modifying their products. Although, with the advent of the Internet, this ignorance is becoming less common, it is still widespread. Consider, for example, P2P networks. Peer-to-peer (or P2P) computer networks rely on the computing power and bandwidth of the participants in the network, rather than concentrating it in a relatively low number of servers. Such networks are useful for many purposes. Sharing content files containing audio, video, data, or anything in digital format is very common; real-time data, such as telephony traffic, is also passed using P2P technology programs. Successor to Napster, the music file sharing program Kazaa was quickly adapted by enthusiasts to transform the open protocol (whereby anyone with the software could

link and join the network) into a series of closed protocols (whereby outsiders were excluded and membership was closed). Thus arose the "Darknet" phenomenon, a burgeoning parallel universe of invisible networks, of which the original protagonists of the P2P movement were idyllically ignorant. The first task of management, therefore, is to be aware. They may take the first step by asking themselves: "Are consumers adapting our offerings, and in what ways?"

Once managers are aware that their offerings are being adapted by consumers, they should analyze the phenomenon. This is where the matrix outlined in Fig. 1 is essential. Relevant questions the firm must ponder include: "What are the implications for the firm?", "Should our attitude be positive or negative?", and "Should we pursue a hands-off approach or actively engage with the phenomenon?"

Finally, as soon as management is aware of the phenomenon and has analyzed it extensively, a response is required. The response should be unambiguous and send appropriate messages to all stakeholders. Employees and shareholders will want to know that while their intellectual capital and other assets are being protected, they also would not run the risk that the firm will make a public relations fool of itself by antagonizing the media and appearing to be an unfeeling bully. The public at large is entitled to having its concerns for safety considered by responsible management, when technology tinkerers threaten to get out of hand. Creative customers might want to know when their genuine efforts are rightfully applauded and appreciated. When their inventiveness is regarded as harmful and threatening, they also need to be informed in no uncertain terms of the consequences of their behavior.

## 8. Final thoughts

Traditionally, firms have paid little attention to the phenomenon of creative consumers, but we propose that this can no longer be the case. The creative consumer is likely to be an increasingly important force for change and innovation in many markets. Consequently, firms must enhance awareness of their creative consumers, analyze their impact, and formulate an appropriate response. We have provided an initial framework for carrying out this strategic analysis. As firms have varying situational factors, strategies, and offerings, their response to creative consumers will also vary. Managers should therefore recognize that Fig. 1 is not a "one-size-fits-all" set of four solutions, but

rather a framework for (1) understanding that creative consumers exist, and (2) for developing an appropriate strategic response based on the specifics of their context. Moreover, as technology, markets, and consumers evolve, there is likely to be a migration between stances. Responding to the threats and opportunities of creative consumers will require firms to manage a three-way fit between:

- (1) A specific stance toward creative consumers;
- (2) The relative ability and desire of consumers to adapt, modify, and transform their products; and
- (3) The firm's ability to scan, track, and control consumer-produced innovations.

Firms that are able to master this fit and proceed to collaborate with creative consumers will discover an innovation and marketing capability that integrates consumers into their organization, one that presents enormous potential to successfully co-develop and even share intellectual property.

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## References

- Biever, C. (2005). Software killed the radio star. *New Scientist*, 186(2495), 26.
- Borland, J. (2005, May 2). 'Star Wars' and the fracas over fan films. *CNET News.com*. Retrieved from [http://news.com.com/Star+Wars+and+the+fracas+over+fan+films/2008-1008\\_3-5690595.html](http://news.com.com/Star+Wars+and+the+fracas+over+fan+films/2008-1008_3-5690595.html)
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge, England: Cambridge University Press.
- Burroughs, J. E., & Mick, D. G. (2004). Exploring antecedents and consequences of consumer creativity in a problem-solving context. *Journal of Consumer Research*, 31(2), 402-411.
- Christensen, C. (1997). *The innovator's dilemma*. Boston: Harvard Business School Press.
- Christensen, C., & Bower, J. (1996). Customer power, strategic investment, and the failure of leading firms. *Strategic Management Journal*, 17(3), 197-218.
- Hellweg, E. (2005, April 8). Will Sony crack down on PSP hacks? *Technology Review*. Retrieved from [http://www.technologyreview.com/read\\_article.aspx?id=14351&ch=infotech](http://www.technologyreview.com/read_article.aspx?id=14351&ch=infotech)
- Herstatt, C., & von Hippel, E. (1992). From experience: Developing new product concepts via the lead user method: A case study in a 'low tech' field. *The Journal of Product Innovation Management*, 9(3), 213-221.
- Hirschman, E. C. (1980). Innovativeness, novelty seeking, and consumer creativity. *Journal of Consumer Research*, 7(3), 283-195.
- Hirschman, E. C. (1983). Consumer intelligence, creativity, and consciousness: Implications for consumer protection and education. *Journal of Public Policy & Marketing*, 2(1), 153-170.
- Kohler, C. (2005, June 7). PSP hackers go retro. *Wired*. Retrieved from <http://www.wirednews.com/news/games/0,2101,67742,00.html>
- Kushner, D. (2006). Game Boy rock. *Technology Review*, 108(11), 32.
- Lilien, G. L., Morrison, P. D., Searls, K., Sonnack, M., & von Hippel, E. (2002). Performance assessment of the lead user idea-generation process for new product development. *Management Science*, 48(8), 1042-1059.
- Luthje, C., & Herstatt, C. (2004). The lead user method: An outline of empirical findings and issues for future research. *R & D Management*, 34(5), 553-568.
- Mattel, Inc. v. Pitt, 01-1864 LTS (S.D. NY 2002).
- Mollick, E. (2005). Tapping into the underground. *Sloan Management Review*, 46(4), 21-24.
- Molloy, T. (2005, August 11). Engineers modify hybrid cars to get up to 250 mpg. *Associated Press*. Retrieved from <http://www.enn.com/today.html?id=8516>
- Moreau, C. P., & Dahl, D. W. (2005). Designing the solution: The impact of constraints on consumers' creativity. *Journal of Consumer Research*, 32(1), 13-22.
- Morrison, P. D., Roberts, J. H., & Midgley, D. F. (2004). The nature of lead users and measurement of leading edge status. *Research Policy*, 33(2), 351-362.
- Morrison, P. D., Roberts, J. H., & von Hippel, E. (2000). Determinants of user innovation and innovation sharing in a local market. *Management Science*, 46(12), 1513-1527.
- Morrissey, B. (2005). Crowd control: Handing creative to the masses. *Adweek*, 46(37), 10.
- Muniz, A. M., Jr., & Schau, H. J. (2005). Religiosity in the abandoned Apple Newton brand community. *Journal of Consumer Research*, 31(4), 737-747.
- Peppers, D., & Rogers, M. (1993). *One to one future*. New York: Currency.
- Sawyer, C. A. (2005). Chip Foote: Humble genius. *Automotive Design & Production*, 117(4), 38-41.
- The rise of the creative consumer. (2005). The future of innovation. *The Economist*, 374(8417), 75.
- Urban, G. L., & von Hippel, E. (1988). Lead user analyses for the development of new industrial products. *Management Science*, 34(5), 569-582.
- von Hippel, E. (1986). Lead users: A source of novel product concepts. *Management Science*, 32(7), 791-805.
- von Hippel, E. (1989). New product ideas from 'lead users'. *Research Technology Management*, 32(3), 24-27.
- von Hippel, E. (2005). *Democratizing innovation*. Cambridge, MA: MIT Press.
- von Hippel, E., Thomke, S., & Sonnack, M. (1999). Creating breakthroughs at 3M. *Harvard Business Review*, 77(5), 47-55.