

# The Wisdom of Consumer Crowds

## Collective Innovation in the Age of Networked Marketing

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Past theories of consumer innovation and creativity were devised before the emergence of the profound collaborative possibilities of technology. With the diffusion of networking technologies, collective consumer innovation is taking on new forms that are transforming the nature of consumption and work and, with it, society and marketing. We theorize, examine, dimensionalize, and organize these forms and processes of online collective consumer innovation. Extending past theories of informationalism, we follow this macro-social paradigm shift into grassroots regions that have irrevocable impacts on business and society. Business and society need categories and procedures to guide their interactions with this powerful and growing phenomenon. We classify and describe four types of online creative consumer communities—Crowds, Hives, Mobs, and Swarms. Collective innovation is produced both as an aggregated byproduct of everyday information consumption and as a result of the efforts of talented and motivated groups of innovative e-tribes.

**Keywords:** *online community; creativity; innovation; technology; consumer co-creation*

According to Hunt's (1981, 7) foundational definition, macromarketing draws our attention not only to the study of marketing systems and their social impact, but also to the marketing consequences of cultural and social change. With even more precision, Fisk (1981) averred that macromarketing focused on improving our knowledge of marketing as a social process of resource mobilization that, among other things, focuses on an understanding of processes of social learning, adoption, and innovation. In this article we follow a long tradition of macromarketing studies that chart the ongoing impact of technological change on cultural, social, and marketing systems (see, e.g., Rassuli and Tippins 1997; Tedlow 1997; Venkatesh 1999; Langenderfer and Kopp 2004) to investigate a relatively recent phenomenon: the gathering of online communities whose innovation are beginning to transform the world of marketing.

In the current social environment, instances and notions of collective consumer action are becoming increasingly recognized as the driving force behind many of the most important online companies (for cogent social theory, see Lévy 1997). The currently popular term "Web 2.0" (popularized by technology publisher

Tim O'Reilly) is based merely on the presumption that the collective, participatory actions of online consumers can contribute to a new form of business organization in which the leisure activities of Web-surfers can result in productive labor that can be exploited as a free resource by industry (see Hagel and Armstrong 1997; Kozinets 1999; Hemetsberger and Reinhardt 2006, 2008; McConnell and Huba 2006; Cova, Kozinets, and Shankar 2007; Füller, Jawecki, and Mühlbacher 2007; Tapscott and Williams 2007). These ideas appear to have profound macromarketing implications.

Online communities have been studied for over a decade as a source of ideas and inspiration for new product development (Kozinets 2002; Prahalad and Ramaswamy 2004; von Hippel 2005). Von Hippel (2005) reports that between 10 percent and 40 percent of users actually contend that they develop and modify products in fields studied to date. However, it is only recently with the advent of new technologically enabled forms of creative collaboration such as the "wiki" and collaborative models like "open source" that consumers have been recognized as full-fledged collective creative forces in their own right (see, e.g., Lévy 1997; Benkler 2006; Jenkins

2006; Tapscott and Williams 2006). In this dynamic environment, consumer acts of creativity are also feeding back into business through word-of-mouth marketing campaigns and sophisticated online systems for aggregating the valuable comments and ideas of consumers.

The new state of information and communications technology (ICT) and consumer collectives in practice comes at a time when marketing as a discipline is undergoing a paradigm shift toward a new service-dominant logic (e.g., Vargo and Lusch 2004). Consumers are increasingly acknowledged in theory and practice as creative agents participating in the co-production of value, not merely as the consumers or users of the value provided by firms or other organizations (cf., Firat and Venkatesh 1995; Venkatesh 1999).

In recent managerial writing, the creativity of networked consumers has been lionized as a rich resource with the potential to be “exploited” by business and managed; it is also suggested that these consumers “surrender their intellectual property right” and have their innovative creations appropriated and “monetized” (e.g., Hagel and Armstrong 1997; Wipperfurth 2005; McConnell and Huba 2006; Tapscott and Williams 2007). Yet we believe that the growing acceptance of these networks also heralds occurrences of great social significance (see also Arvidsson 2008 [this issue]). It is therefore incumbent upon us as macromarketing theorists, if we are to be “systems thinkers concerned about more than just the bottom line” (Kale 2004, 104), to take a broader view of this phenomenon. Traditional distinctions between consumers and producers are breaking down. We believe that it is time to systematize and develop our thoughts about the divergent forms of collaborative online creativity.

What is the nature of collective consumer creativity? Why is it occurring and developing online? What are its essential processes? How can we systematically understand its various aspects? How do they operate? How does this inform our theory about the boundaries and interfaces between production and consumption? Finding answers to these important macromarketing questions forms the basis of this article. In the following sections, we therefore begin by exploring the intersection of creativity and consumption that lies at the heart of this new social form of informationalized innovation. We add theory that underscores its fundamental linkages to both communal and online contexts. We then offer a descriptive typology of four types of online community innovation. The final section discusses our new model’s macromarketing implications for a greater understanding of the impact of this sociocultural change on marketing systems.

## Theories of Collective Consumer Creativity

Anthropology tells us that contemporary and traditional societies thrive or perish based largely on innovation. Innovation has also become one of the most important topics in the contemporary lexicon of managerial behaviors. It is thus unsurprising that large swaths of the social sciences are devoted to learning about innovation. Macromarketing, similar to marketing and consumer research, mysteriously lags behind, perhaps because of the fact that marketers and consumers have not traditionally been viewed as particularly creative. This article is one of a few recent attempts to change this view and shed light on creative consumer behavior by studying the consumer as a creative/productive force (e.g., Firat and Venkatesh 1995; Patton 2002; Burroughs and Mick 2004; Kristensson, Gustafsson, and Archer 2004; Dahl and Moreau 2007).

It is an underlying assertion of this article that the revolutionary changes of what notable social theorist Manuel Castells (1996) terms informationalism have been explored more from the top-down perspective that examines how they affect corporations and governments, and less from a grassroots perspective in which technological facilitation alters the realm of contemporary consumption and, through that alteration, changes society and business. This is a point that Castells (1996) also makes: that there are new strategic sites of networked production where collective sets of productive relations are found, and that the productivity of these networks challenges the traditional “inventor” image of personal virtuosity that attends the psychological representations of creative accomplishment.<sup>1</sup> As Venkatesh (1999, 163) notes, “the essence of the new technologies of communications is the connectivity, but it is connectivity not in the old linear sense but rather in a network context.” The networked context of ICT has enabled a flowering of online communities and their attendant collective production and innovation, a development whose contours, illuminations, and modalities still need to be woven into the fabric of contemporary marketing thought.

## Defining and Developing Consumer Creativity

We begin with a central definition. Creativity, in its general sense, is a complicated concept with multiple and sometimes incompatible definitions. Creativity can be parsimoniously defined as the production, conceptualization, or development of novel, useful ideas, processes, or procedures, or solutions to problems (Amabile 1983, Amabile et. al 2005). Although relatively straightforward to define, consumer creativity as a concept is only dimly

understood (Burroughs and Mick 2004; Moreau and Dahl 2005). Individual creativity is related to self-expression and self-presentation (Schau and Gilly 2003), participation and aesthetics (e.g., Kozinets et al. 2004) and ultimately enhances a positive sense of self (Belk 1988; Csikszentmihalyi 1996; Runco 2004).

Most studies of consumer creativity thus far take as their focus the individual consumer, perhaps the lone inventor working alone in her garage, or the individual consumer creating a world of imagination from mass culture, turning mass symbols into individualized experiences such as short stories or edited video clips (Firat and Venkatesh 1995). Yet actual studies of lived creative behavior reveal that it is highly collaborative and often more innovatively applied to real-world problems than many theorists previously suspected (see, e.g., Füller, Jawecki, and Mühlbacher 2007; Kozinets 2007; Tapscott and Williams 2007). Indeed, as Langenderer and Kopp (2004, 28) wrote in their comprehensive analysis of online file-sharing, “virtually all creation is based to some extent on the previous creations of others” (see also Lessig 2002). In our conceptualizations, we wish to extend the traditional emphasis on producer communities and their “ecosystem” cultures of social exchange (popular examples are Silicon Valley and Hollywood) to show that the same features are significant as well for consumer communities, which form their own types of microcultures.

Before aggregating up to the collective and cultural level, however, let us briefly examine some more individualized and psychological conceptualizations of creativity. Csikszentmihalyi (1996) suggests that the two main ingredients for creative work are curiosity and drive. While *curiosity* is an ingredient that requires openness, an external focus, and can be circumscribed as a playful urge to discover new and exciting things, *drive* is related to perseverance, hard work, and an inner focus. Both are required for creativity to become actualized. Expressing both qualities simultaneously requires a personality that can combine paradoxical qualities: passion and objectivity, tradition and rebelliousness, play and serious work, and so on. Sternberg’s (1988) related, and cognitively centered, contention is that individual creativity consists of the application and melding of three types of thinking: *synthetic* ability, *analytic* ability, and *practical* ability. Synthetic ability includes generating ideas, but also drawing connections between new, novel, and interesting ideas. Analytical ability refers to critical thinking and appraisal as one analyzes and evaluates thoughts, ideas, and possible solutions. This type of thinking is key to the realm of creative work because not all ideas are good ones, and many need to be sorted out. Practical ability is

the ability to translate abstractions and theories into realistic applications. In this article, we seek ways to understand how prior theorizations of individual creativity can be extended to broaden our understanding of collective creativity as it occurs through online networks.

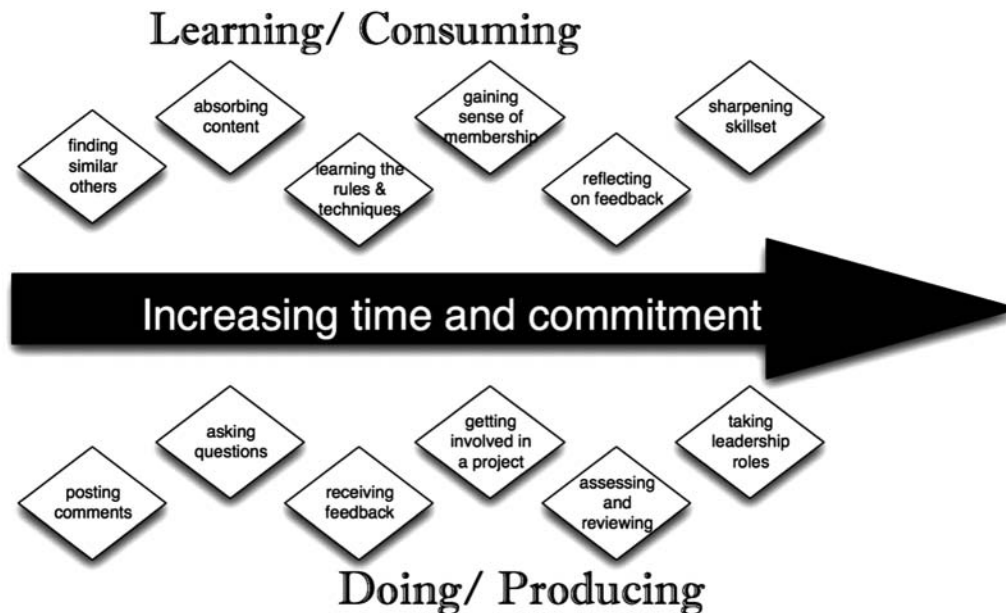
## Collective Consumer Creativity

Collective consumer creativity is qualitatively distinct from individual consumer creativity—it occurs when “social interactions” trigger new interpretations and new discoveries that consumers “thinking alone, could not have generated” (Hargadon and Bechky 2006, 489). According to Hargadon and Bechky (2006), such Eureka-triggering moments of collective consumer creativity are enabled by four sets of interrelated activities: help seeking, help giving, reflective reframing, and reinforcing behavior. These collaborative practices are observable in online communities of consumption as well. Online, their intensity and span outreaches offline collective creativity (Reinhardt and Hemetsberger 2007).

From an evolutionary and ecological perspective, collective consumer creativity seems to be composed of processes of variation and selection (see, e.g., Simonton 1999). That is, more consumers, coming from diverse backgrounds, bringing to bear different experiences, are going to offer a greater variety of ideas to use for ideation, increasing the variance of the ideas proposed as the solution to a particular consumption-related problem. In addition, these consumer groups are also going to bring their increased depth of experience and expertise to bear against the weighting of criteria used for the selection of new ideas. In addition, the consumer group’s talents, networks, and ability to keep one another motivated are likely helpful in developing and realizing the idea, and propagating and promoting it, which is, according to several definitions, the essence of “innovation.” Extending Sternberg’s (1988) individualist focus into the realm of online consumer collectives, we propose that their increased creativity is first rooted in the online context’s enabling of processes of creating more abundant ideas, more efficient reduction and selection of the most valuable novel ideas and solutions, and in some cases at least, greater ease in practically implementing them.

As figure 1 depicts, consumers gradually become engaged in the creative acts of online consumer communities through combinations of individual and contextual factors described in our overview of extant research. In fact, the model we propose calls into question some long-dormant assumptions about what constitutes a creative act. In our processual model, we separate learning from doing, and implicitly separate production of information

Figure 1  
Developmental Progression of Individual to Collective Creativity



from its consumption, yet it becomes clear that in the online space a key practice as apparently straightforward as “reading” text—and the accompanying hypertextual clicking and scrolling—can be both learning and doing, as well as a consumption and a production.

When page views are automatically counted and timed, and the electronic analog of page turning results in data being produced, reading becomes related to clicking, tagging, and registering and is thus indistinguishable in some ways from inscribing. Once the annotations that consumer previously made for themselves or future readers in books, the marginal scrawls they make on the back of photographs, or the clipping and annotating of magazine or newspaper articles become systematized into communications systems, the line between reading and watching, and writing and sharing, becomes ever more blurred.

Quite simply, *consumption of information in the contemporary ICT space of networks becomes inseparable from production*. Although the increasingly blurred divisions between production and consumption have oft-times been fodder for theorizing, particularly of the postmodern variety, these elements of automatic monitoring and recording, tagging, registering, and simplified commenting and forwarding systematize and theoretically develop these statements.

Castells (1996) postulated that the social mode of “informationalism” (as distinct from the prior mode of

industrialism) is oriented toward the achievement of increasing levels of technology development, manifest both through more knowledge accumulated and stored and higher level of processing complexity. Noting its rise in the United States and rapid spread throughout much of the rest of the industrialized world, Castells (1996) sees the rise of informationalism as inextricably tied to the expansion and rejuvenation of capitalism or as some have recently termed it, “techno-capitalism” (Suarez-Villa 2000, see also Venkatesh 1999).

Add to this macrocultural theoretical notion the phenomenon of interest-based and social consumer communities. These cultures, subcultures, groups, and communities blend personal interests in hobbies and consumption activities—often profoundly intertwined with the marketing and consumption concerns of commercial marketplace culture (Kozinets 1999)—with the social need for belonging, differentiation, and identification, and mix in an ongoing quest for relevant and interesting content. In a perpetual loop of learning and doing, aspirant members “research” their sites of interest, absorb the rich stores of information and social and collective knowledge. This is grassroots informationalism; informationalism enacted at the small-scale level of consumer “hobbies” and “interests.”

It is of theoretical interest to learn how and what type of creative activity ensues. Reading, tagging, and short

comments seem, in some contexts, all-pervasive. But when do short comments turn into longer ones? When does a click-through become a rating? When does a rating become a review? And what added value comes from the creation of a short blog rather than a longer set of reviews? A short piece of code to fix a bug in a program? The posting of a set of photos, or some original artwork? A remix? An updated user profile? The contribution of specialized knowledge of lighting to the sequelization of a consumer video? The production and posting of a short how-to or fan video, or a podcast? Anecdotal evidence provided by McConnell and Huba (2006) suggests that only less than 1 to 2 percent of the visitors to a Web site will get involved with a project and create some more formal and extensive form of "content," but the definitions of the term content is, as yet, so informal and fuzzy that we can not precisely specify what this means, or what a particular form of content's value to groups, companies, or society might eventually be.

As figure 1 depicts this dimly specified progression from lower-value content contribution to higher-value content contribution, the involvement process is based on feedback and self-identification, a combination of affective ideological, social motivation, and educational intellectual commitments. Later, some consumers assume leadership roles. They provide feedback, critically evaluating, vetting, and challenging. In a constant process of idea contribution, they advise and mentor the more novice members, aggregate similar contributions, and review and challenge current contributions. In these ways, collective creativity develops and produces "content" that exceeds the value that could be provided by single individuals. Eventually, communities may develop hierarchies of expertise, as we observe within many open-source and fan communities (see, e.g., Kozinets 2001, 2007; Hemetsberger and Reinhardt 2006, 2008; Cova, Kozinets, and Shankar 2007; Füller, Jawecki, and Mühlbacher 2007).

As Amabile (1998) somewhat pessimistically notes, creativity is undermined more often than it is fostered by environmental constraints. Yet consider the environment offered by online communities: cultural, yet optionally anonymous, noncommittal, experimental, playful, educational, collaborative, visual, filled with richness and diversity of content and social and cultural depth, and with a magical opening up of world-creating possibilities and possibilities for belonging (Davis 1998; Kale 2004). This context offers consumers endless things to discover, multiple views to draw upon, various viewpoints to learn from and adapt to, strong social status motivations, and stimulating surroundings that trigger new thoughts and connections. Contemporary centers of creativity are to

be found at cosmopolitan places and spaces of multitude and variety; where popular and high cultures intermingle and constantly form new variants and manifestations of human creativity in an endless process of stimulation, playful intervention, and hard work. In contemporary consumer society, the Internet is widely recognized as one of our most important global crossings (Castells 1996; Lévy 1997; Venkatesh 1999; Lessig 2002; Kale 2004; Layton and Grossbart 2006).

Networks boost variability, and the interactivity of the group context provides an increased abundance of selection mechanisms. Online organizations seem to be in an organizational state of flux, or as Neff and Stark have put it "permanently beta" (Neff and Stark 2003). Unlike physical creations in nonvirtual space, creations in cyberspace are never stable, can have an infinite number of versions, and can be almost immediately customized to the specific needs of a particular consumer, group, or community (cf. Füller, Jawecki, and Mühlbacher 2007; Kozinets 2007). Design and use are more closely connected, and this has profound implications on idea(l)s of usefulness (the users are also designing) and implementation (the creation network is also distributing).

Therefore, ICT in general and online Internet communities specifically provide consumers both with a complex and vast sociocultural environment from which to draw resources and the liminal openness to mediate the riskiness of exploring and exposing new modes of thinking, doing, and being. Online, as noted by Jenkins (e.g., 2006) and Kozinets (e.g., 1999), multifarious forms of consumer enthusiasm turn to the same sorts of creative experimentation among a supporting community of interest as have long existed in the worlds of media fandom.

## Online Creative Consumer Communities

The revolution in consumers' online behavior reflects a qualitative shift in consumer creativity that results in what we term innovation-oriented online consumer communities (herein abbreviated as IOCC). As detailed above, the actual acts of "consumption" of information have been problematized by the contemporary nature of information consumption. Consumers have a particular and shared orientation to products, services, or market categories as qualified, knowledgeable users, and this usage orients them in particular tasteworlds and qualifies them with a particular sort of expertise.

In this article, we therefore use the term "consumer" instead to denote a set of roles and practices traditionally linked with the values, ideologies, and culture of industrial-commercial society—but which are, as we note herein, changing (for more on this point, see also Cova,

Kozinets, and Shankar 2007). We also term them *online creative consumer* communities both to distinguish them from other types of face-to-face community, such as neighborhoods and schools, and other types of online community, such as virtual or dispersed Web-enabled production teams used in industrial or other organizational (nonprofit, governmental) contexts.

Across a number of domains, IOCCs are becoming accepted as commonplace and important. There are many varieties of innovative behavior being conducted and shared by consumers through personal Web sites (Schau and Gilly 2003).<sup>2</sup> As we note above, the existence and impacts of these productive, innovative consumer communities ramify on social, business, and marketing structures. Because they have important and differential effects, it is useful to organize our understanding of their innovative activities. One of the objectives of this article is to contribute categories and a framework to help form a systematic vocabulary for further study of online consumer communities and their innovative practices.

Thus we must contend with a complex reality. How are we to classify and understand the following types of online consumer innovation: writing new texts; refining, altering, and designing products (e.g., Hotspex.com; Niketalk; see Füller, Jawecki, and Mühlbacher 2007); creating original artwork and music; distributing podcasts and vlogs (e.g., iTunes, YouTube); writing reviews; rating others' reviews; rating products; programming and debugging software (e.g., KDE; see Hemetsberger and Reinhardt 2006); taking, editing, tagging, and posting photographs (e.g., Flickr.com); maintaining specialized blogs and vlogs (see Kozinets 2007)?

To organize this mass of diverse behaviors, our theory model construction is based on a close and grounded reading of our collective online fieldwork among a number of communities, including coffee connoisseurs; Star Trek, Star Wars, Xena, Tom Petty, and X-Files fans; online automobile communities; brand bloggers; cereal monogamists; Second Life and MySpace participants; the KDE project; Slashdot, Free Beer and Open food projects; and sites of consumer designers, such as Niketalk, skibuilders, and casemodders, Apple Newton users; and online communities specifically dedicated to brands such as Jones Soda, Garmin, Stri-vection, Lomo, and Holga.

### Dimensionalizing Online Community Innovation

We sought a model that would adequately perform the function of organizing the diverse practices of online consumer behavior. Prior research and thought have noted the phenomenon of online consumer collective innovation,

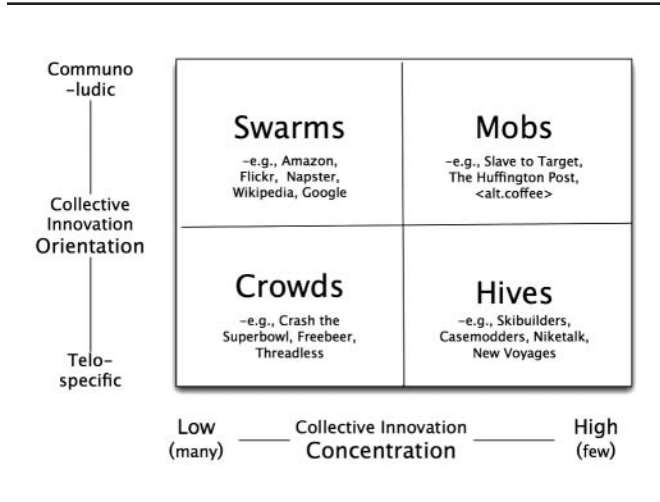
but has not revealed the divergent ways in which ICT is used to organize it. We have based our usage of two particular axes on a novel extension of extant theory. We base our typology on the past findings of Kozinets (1999, 2001, 2007), Hemetsberger and Reinhardt (2006), and Muñoz and Schau (2005), who have all emphasized the communal and ludic orientation of online communities. For the other dimension, we consider the extent of the collective nature of the online community, basing this on our own observations as well as the individual–collective creativity theory cited above. These two dimensions of collective online consumer innovation thus appropriately reflect, hybridize, and extend both the online community and the innovation–creativity scholarly literatures.

The first dimension concerns itself with the *collective innovation orientation* of the community, that is, how the community is oriented toward its own innovative productions. From our observations, some of the communities and teams tend to be goal focused, to be oriented fairly deliberately toward particular innovative outcomes and to reaching generally delimited goals that pertain to particular creations. We term this type of goal-related focus a *Telo-specific orientation*. Other communities and teams are innovative as a sort of byproduct of their other online activities. These online activities often are related to lifestyles, interests, and hobbies, or simply the pursuit of general consumption interests such as shopping. The useful innovations are produced not necessarily as an innovative contribution, but simply as a part of the normal routine of being involved in online communities pertaining to these interests. We term this type of orientation a *Communo-ludic orientation*.

The second dimension is *collective innovation concentration* of the community, which assesses the concentration of innovative contribution among the community. In some communities, only a few individual consumers (or even a single consumer) contribute the vast majority of the work required to realize an innovative accomplishment. In other communities, the contribution is spread among a large number of contributors, many of whom contribute quite modestly to the project, but whose aggregate contribution may end up adding significant value. We term the former category of few consumers to be a *high* collective innovation concentration because the innovative contribution is concentrated among relatively few contributors. The latter category of many consumers is accordingly termed a *low* collective innovation concentration because the contribution of innovations is dispersed among a larger relative base of contributors.

Our categories do not consider the commercial orientation of those groups, although this could in future become an important way to differentiate groups.

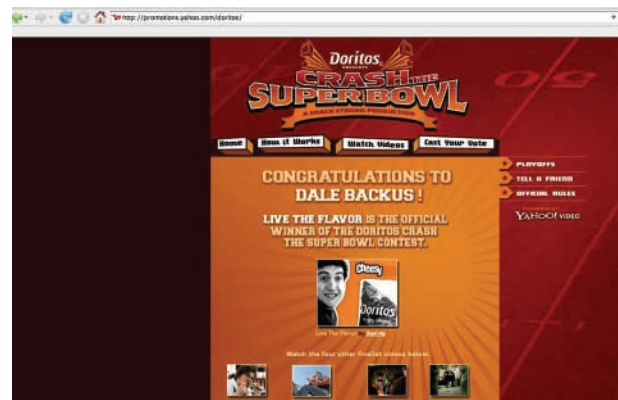
**Figure 2**  
**Typology of Online Creative Consumer Communities**



Orientation and concentration cut across types of communal creativity that are commercially based and those that are explicitly noncommercial. Whether an online community is organized by a company for commercial gain or not does indeed seem to be another important and useful distinguishing factor, and could easily be added at some point into this model (even to the point of terming, say, more communal contexts to be “Blue” variants of these types and more commercial contexts to be “Green”; we would then have both Blue Hives, and Green Hives, and so on). We have not done so for the sake of parsimony. In general, each category type could be either self-organized and nonprofit or corporately planned and profit generating, or even hybrids of these forms.

The two-dimensional structure yields four ideal types of creative online consumer community, as portrayed in figure 2: Crowds, Hives, Mobs, and Swarms. Derivations of these terms have been deployed inconsistently in popular idiom and, although we do source a number of those usages, our categorizations are not entirely consistent with such commonplace derivations as flash mobs and “smart-mobs” (Rheingold 2000), “swarm intelligence” (Bonabeau and Meyer 2001), and “crowdsourcing” (Howe 2006). In addition, it is quite important to remember that the ideal types we present herein are useful simplifications of reality. They are intended to take a complex (and often apparently uniform) set of real-world phenomena and reduce their complexity sufficiently to elaborate and appreciate the differences between them (see Hekman 1983). In this case, they draw our attention to the many nuances and subtle differences between online consumer communities and their innovative practices. However, these types should not be

**Figure 3**  
**A Crowd Innovative Community: Frito-Lay’s Crash the Super Bowl Contest**



confused with the actual phenomenon itself. Although we may follow conventional social theory practice in categorizing particular types of innovation as belonging to one type or another, we also simultaneously complicate the model by noting the many particular aspects, linkages, overlaps, and boundary conditions of this dynamic real-world phenomenon of collective innovation. We proceed now to discuss each of these types in turn.

### *Crowds*

The first major category of online contribution is that of Crowds. This is the term we give to large, organized groups who gather or are gathered together specifically to plan, manage, and/or complete particular tractable and well defined projects. What differentiates Crowds is the generally lower concentration of collective innovation—it is dispersed among a number of contributors—and their intentional collaboration in a particular project. Crowds tend to emphasize a particular project, or bounded set of projects. They are organized, focused, and purposive. They are centered on the achievement of a particular objective, after which they usually disband. Often, they manifest an emergent collaborativeness; for example, creating a single video, entering a particular contest, petitioning or boycotting for a particular organizational outcome, or erecting or even hacking a particular Web site.

Consider the recent “Crash the Super Bowl!” computer-generated advertising campaign conducted in 2007 by Pepsico Frito-Lay (see figure 3). In this innovative campaign, teams of consumers were encouraged by the company to design their own thirty-second ads for Doritos to

exhibit during the thirty-first Super Bowl. The aspiring advertisers' works were judged and the best ones were exhibited online, and then voted on by a consumer audience and again on the Web (again utilizing collective intelligence). Centered on a particular "project," that of designing enticing advertising for the Doritos brand to exhibit to a mass audience, a range of different teams gathered together, followed some simple rules, and contributed their creative output. However, Pepsico may have underestimated the amount of consumer innovation applied to the project, because the consumer teams did not stop after they had filmed, edited, and submitted their projects. Indeed, many of the contenders set up blogs, Web pages, and YouTube links, and began organizing voting campaigns to entice and persuade consumers to vote for their offering, becoming run almost like mini-political campaigns. Of course, once winners were decided, the teams had no *raison d'être* and dispersed.

Some Crowds may engage in resistant activities, but their primary focus is on achieving particular ends for personal enjoyment. Consider the radical macromarketing challenges posed by the idea of communal production and communally made and distributed (non)brands. Free Beer (<http://www.freebeer.org/blog/>), an outcropping of the Vores Beer project originating in Denmark, is the initiative of a group of people who believe in 'open sourcing,' and decided to open-source their community-made recipe of free beer. The goal? To spread the idea of a do-it-yourself unbranded beer. Flowing from this initiative, a range of imitative breweries manufacturing "free" (i.e., untrademarked) beer popped up in Italy, Denmark, and California. This move to greater and greater levels of authenticity could be seen as a logical extension of the microbreweries movement that has often been written about by pop business theorists. But consider this. What happens to the innovative activities of marketing and research and development departments of corporations in the face of open and communally-led innovations such as these? This is truly an open question—one increasingly pondered by cutting-edge business thinkers (e.g., Jenkins 2006; Cova, Kozinets, and Shankar 2007; Tapscott and Williams 2007).

We also see a business model based on crowds manifesting in the rapidly growing area of *crowdsourcing*.

Simply defined, crowdsourcing represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer-production (when the job is performed collaboratively), but is also often undertaken by sole

individuals. The crucial prerequisite is the use of the open call format and the large network of potential laborers. (Howe 2006)

A now-classic example of the phenomenon of crowdsourcing is the Web site Threadless ([threadless.com](http://threadless.com); see figure 4). Threadless is a T-shirt company, but the way that it outsources its designs makes it very different from other T-shirt companies like the Gap and American Apparel. Threadless has a Web site which has a continuous open call to any artistically ambitious consumers. They are invited to submit original T-shirt designs to the Web site and will be accompanied by a photograph of someone posing in a T-shirt with the design on it. The designs and photos are then posted on the Threadless Web site, where members of the site's community vote for their favorite designs on a scale of one to five (they can also tick a box that says "I'd buy it: tell me if it wins"). The top-rated designs are then produced in limited quantities and the designs are purchased by Web site members and visitors (a physical Threadless store opened in 2007 on North Broadway in Chicago). Threadless's design model is highly successful; Threadless profits from its deployment of the intelligence of crowds, which handle the creative design and assessment of the designs (not to mention the all-important stoking of the fires of desire to purchase), leaving the company to focus solely on matters of production and distribution.

### *Hives*

Hives refer to online communities whose members contribute a relatively greater amount to the community, but who also produce innovations specifically to respond to particular challenges or to meet particular project goals. These groups might include groups that produce episodic videos on YouTube or episodic podcasts shared on iTunes that gain mass audiences. The self-organizing, industrious, diligent qualities of these groups and their intention to reach high and produce "quality product" tends to be their hallmark.

As Cova, Kozinets, and Shankar (2007) write, these groups pose a fascinating alternative to the current production models in effect in society. Some produce goods that are of such high quality as to be indistinguishable from commercial offerings. However, the productions of the Hive are intermixed with complex intellectual-property, distributive, and collective-power issues that come into play. These issues have important theoretical implications for the consumer communities that are growing in power. Some of these issues have already been explored, for example in Langenderfer and Kopp's (2004) comprehensive analysis of

Figure 4  
Another Crowd: The Threadless Crowdsourcing Site

The screenshot shows the Threadless website interface. At the top, the navigation menu includes 'Shop', 'Participate' (highlighted with a red circle), 'Info', and 'Login/Join'. Below this are links for 'Submit Ideas', 'Score Designs', 'Loves Promos', 'Street Team', and 'Blog Forum'. A shopping cart icon shows '0 items in your cart' with a 'Checkout' button. A 'Howdy, stranger' message is visible. A 'Join the Newsletter!' section includes a 'Sign Up' button. The main content area features a 'Grand Prize Winner!' announcement with two featured designs: 'Runnin' Rhino' by Allan Faustino and 'Away From Home' by Ryan Lin. Below these are three more designs: 'An Elephant Never Forgets...TO KILL!' by Joel Coeks, 'Nonsense' by Victor Manuel Moral, and 'Time To Babysit' by Scott Ferguson. A '12 random submissions' section shows a grid of various designs. A 'New tee-riffic photos!' section displays photos of people wearing their designs. At the bottom right, there is a promotion for a 'Rock out with a new custom guitar!' featuring a custom Epiphone guitar with a Threadless design.

unauthorized online file-sharing and its ramifications on intellectual property rights and protection, in Rassuli and Tippins' (1997) study of the early stages of the CD-Rom book industry (which will no doubt be dramatically altered by recent hardware entries such as Amazon's Kindle e-book reader), or in Hemetsberger's (2007) analysis of the open-source movement. The free and open-source communities, for instance, have devised specific licenses to protect the "creations of the commons" from becoming appropriated by corporations. They applied a radical Web-specific logic, protecting openness and innovation, but also attempting to outmaneuver intellectual property rights that seem, in many cases, to favor large corporations with access to massive amounts of capital (Demil and Lecocq 2006). If they are successful and continue to gain in influence, such models of innovation outside the stream of traditional R&D departments and intellectual property rights laws may have

profound implications on society as a whole, as well as marketing practice. Just as distributed processing allows a network of computers to work together on the same project, so too might we find "distributed presumption" producing products and services for creative communal consumption.

Hives, in general, are centers of skills and excellence. They are often a smaller, whimsical bunch of well-educated "bobos" (bohemian bourgeoisie whose wide-ranging educational capacities far outweigh their ability to apply them in their occupational lives; see Brooks 2005). These bobos simply enjoy socializing over an ambitious project, testing and building their abilities, meeting a challenge. This goes beyond what we have traditionally conceptualized as "leisure," which is why it so confounds our conceptualizations of "consumption." They take their endeavors seriously. This is a different type of work that is playful, but also serious.

**Figure 5**  
**A Hive Innovative Community:**  
**The Skibuilders Site**



Sites such as skibuilders.com or casemodder.de help us to illustrate this complex and, we feel, crucial, point about the new forms of work/play at the juncture of production/consumption. Skibuilders.com (see figure 5) is the home of people who like to tinker and make their own skis, post the pictures on the community site, and answer questions that demand considerable expertise in ski technology. “Casemodders” are computer users who turn their computer cases into unique pieces of art such as gingerbread houses, women’s figures, microwave ovens, even figures from manga (see figure 6). They exhibit them online and in person at gatherings and engage in extensive discourse and documentation about their creations (for a comprehensive and visually impressive overview of their activities and motivations see Füller and Gebauer 2007).

On sites, such as Niketalk or SourceForge, where collectives of consumers/users self-select, get organized around a common interest, develop rules, hierarchies, and workflow applications to invent new shoe designs and software from scratch, we can also see the networking, systematization, high individual contributions, and project-focus of Hive (Kozinets 2007). Füller, Mühlbacher and Jawecki (2007) have reported about creative “fans” of Nike shoes that have set up “Niketalk,” a site completely independent of the Nike Corporation. Contributors share their new shoe designs, evaluate and criticize them, and set up design contests; some contributors have even become employed by Nike as shoe

designers. Thousands of open-source software projects that are hosted on SourceForge encompass user collectives who passionately share and develop source code to a myriad of different software applications in a highly organized manner, and with highly sophisticated workflow applications that coordinate the rapid exchange and the many contributions of the Hive. Similarly, the Star Trek fans who film, create, edit, and distribute their own unique, high-quality Star Trek episodes and share them with other fans via the Internet (such as Star Trek: New Voyages at startreknewvoyages.com) are manifesting these remarkable Hive properties of project-orientation and high individual contribution.

Many smaller free and open-source software projects are also Hives, characterized by congregations of expertise as well as a high degree of novelty and usefulness. Usually Hive sites have many different forum topics including sections for expert talk, exhibiting creations, and/or providing downloads. The sites provide forums for education, enculturation, organization, and cross-pollination. Hive workers are characterized by curiosity, a strong desire to gain expertise and be recognized for that ability, highly passionate labor, and careful and interest-based self-presentation. Many long-term members of Hives become enthusiastic perfectionists, the type of artist who creates a range of digital and material creations. It is in this way that the Hive provides a close, fairly tight-knit community of worker-players an outlet and a forum for their passionate prosumption interests. They become educated and contributing members of a microculture that produces, in an ongoing way, communally desirable and often valuable products and services.

### *Mobs*

The third type of online creative consumer community is Mobs. Mobs also have a high concentration of innovation contribution, but these contributions are oriented to a communo-ludic spirit of communal play and lifestyle exchange. Mobs are often based around the contributions of specialists who speak to relatively homogenous affinity or interest groups. These productive individuals serve as a type of expert—“sources” (Kozinets and Hemetsberger 2008)—who create content for the consumption of affinity groups similar in terms of interests and/or lifestyle, for example, single fathers, registered massage therapists, or nineteenth-century coin collectors.

Of course, Mobs are not always the efforts of individuals. Collaborations are popular and include collaborative postings, cross-links, call-outs, and invitations to feedback. However, because of their higher concentration of innovation contributions, the creative control and

Figure 6  
Another Hive: The Case-Modders Site

The screenshot shows the Casemodder.de website. At the top, there is a navigation bar with links for news, forum, artikel, how2s, galerie, modding tagebücher, and impressum. Below this is a 'Willkommen im Casemodder.de' section with a welcome message and a 'Hauptforen' table. The 'Hauptforen' table lists various forums with their respective post counts, topic counts, and the latest post. Below this is a 'GC Casemod Masters' table with a single entry for 'Allgemein'.

Foren	Beiträge	Themen	Letzter Beitrag
<b>Casemodding</b> Alles rund ums Casemodding - Fragen und Ideen (Benutzer im Forum aktiv: 0)	47219	3243	Wie weit soll Plexi einragen von <a href="#">TravelMate</a> 22.12.2007 16:16
<b>Präsentationen</b> Hier könnt ihr eure neuesten Werke vorstellen (Benutzer im Forum aktiv: 0)	35737	858	Tagebuch Wustels CNC Fräsmaschine von <a href="#">Bender</a> Heute, 02:30
<b>Elektrik und Elektronik</b> Schaltungen, Lüftersteuerungen, LCDs ... - alles, was mit Strom zu tun hat (Benutzer im Forum aktiv: 0)	19859	1825	230V Halogenspots von <a href="#">Sivc</a> 24.12.2007 09:40
<b>Hardware, Kühlung und Overclocking</b> Hardware allgemein, Kühlung, Overclocking, Hilfe, Tipps und Tricks (Benutzer im Forum aktiv: 0)	54195	5096	Hardwareempfehlungen für REU3 von <a href="#">Shag-Domi</a> 25.12.2007 13:38
<b>Casemodder.de</b> Kritik, Wünsche usw. zu unserer Seite und zu diesem Forum (Benutzer im Forum aktiv: 0)	18326	652	Hardware Übertaktungsergebnisse von <a href="#">L...</a> von <a href="#">Zente</a> von <a href="#">Mott</a> 25.12.2007 20:54
<b>Tauschbörse</b> Tauschbörse (Benutzer im Forum aktiv: 0)	44090	6250	Suche: Maxtor DiamondMax Plus 9 80GB von <a href="#">Funsogger</a> 25.12.2007 23:22
<b>Off Topic</b> Hier kommt alles rein was sonst nirgendwo passt. (Benutzer im Forum aktiv: 1)	96094	7134	Offizieller Dialcamthread von <a href="#">Cryss</a> Heute, 14:28

Foren	Beiträge	Themen	Letzter Beitrag
<b>Allgemein</b> The Best of the Best oder Diskussions?	706	78	Musik -> Commodore Partv von <a href="#">Thehozen</a>

scope in a Mob is more individualistic in orientation. The communities gather around sources, generally inspired by the contributions of one prolific source, or a small cadre of contributors. The sources tend to be a type of inspirational leader for the Mob, and tend to write and post about whatever they find interesting on that particular day or time. So consider, for example, the political orientation of the influential blog “The Huffington Report.” Although it is focused on a variety of changing, often celebrity, contributors, it is oriented around the political interests of its co-founder and Editor-in-Chief, Arianna Huffington.

The journalistic contributions of Mobs have already been widely noted in the press and in some academic literature (e.g., Kozinets 2005, 2007; Pitt et al. 2006). Much of the value of the contribution of Mobs and their sources lies in linking authentic voices to commercial creations (lifestyles, consumption pursuits, brands) and in their independence from, or provision of alternatives to, mass and mainstream media channels. Many Mobs tend toward exhibitionistic and interest-based lifestyle presentations. Consider, for example, the “Slave to Target” brand blog (slavetotarget.blogspot.com), in which women “Target lovers” (in some cases, self-described “endcap whores”) describe their “red cart romance” and how they must “hide Target bags from

their husbands,” “make up excuses to go to Target,” and “feel simply orgasmic” at the thought of shopping at Target. They produce multitudes of stories about Target shopping, products, and specials to educate the acolyte and delight the devotee—in the process creating not merely “content,” but stories, values, emotions, meanings, and culture (see also the “Barq’s Man’s Blog With Bite” in Kozinets 2007).

The Mob also tends to be oriented in a general way toward a fairly narrow set of extant interests, categories, ideological vectors, or lifestyle concerns. Their specific focus lends them particular value, especially to marketers who are able to capitalize on the value of segmentation, and the insights that come from understanding the unique needs of various segments. Mobs may offer very high (specific, customized, targeted) value for some individuals, or the members of specific cultures or communities, because they offer much more targeted content than some of the other IOCCs. Because of this, Mobs have important social and macromarketing implications and have been featured in research techniques such as “netnography” (Kozinets 2002) as a rich source of important “data.” In one early illustration, for example, the alt.coffee newsgroup’s postings were studied as a source of ideas for marketing innovations (Kozinets 2002). Many online communities can, and have, been

conceptualized similarly, as rich sources of data that can illuminate consumer realities and serve as a source of innovative ideas.

### *Swarms*

Finally, Swarms is the moniker we give to the amassed collections of often-multitudinous yet individually small individual contributions that occur as a part of more natural or free-flowing cultural or communal practices. These types of communities and their contributions are most strongly associated with activity in the Web 2.0 world. This type of activity can even be automatic or near-automatic, as in rating or tagging (see Benckler 2006; Smith 2008). It can involve consumers individually and in aggregate posting commenting on or adding feedback to an already created work such as a message thread, posting, or blog. Within the types of online community we are calling Swarms, the value-added of most individual contributions may be quite low, but the aggregate value of the high collective quantity and quality of contributions will be very high. There are still often committed cores of individuals operating under a type of Pareto rule. Yet one of the most powerful aspects of Swarms is the strength of their sheer numbers, and the types of infrastructure set up to capture their collective contributions.

The swarm economy has been detailed by Bonabeau and Meyer (2001) who find these forms of self-organized collective behavior directly related to complexity theory. That is, highly adaptive and complex solutions can emerge when large numbers of slightly diverse individuals with different expertise follow simple rules in pursuit of their objectives. Because it is true that the larger the network, the higher the aggregate value of the creative contributions, the Swarm's IOCC contributions are the easiest to conceptualize (via network economics), to systematize (through software systems), and to monetize.

Indeed, theory about Swarms has driven popular business thinking about the Internet. As O'Reilly (2005) has written, "The central principle behind the success of the giants born in the Web 1.0 era who have survived to lead the Web 2.0 era appears to be this, that they have embraced the power of the web to harness collective intelligence." Yet this is a particular kind of collective intelligence: the collective intelligence of relatively larger groups, doing relatively invisible informational labor, unaware for the most part that their online activities are, en masse, contributing value to the capital ventures of corporations.

These types of consumer-led material contributions include four particular actions we identify. First is hyperlinking, where aggregates of online consumers create

common webs of connections that can be used by search engines such as Google PageRank to determine and rank popularity. Next is flocking to common ground, such as eBay's provision of an extensive site that aggregates an entire nation of consumers and sellers so vast that it would be impossible to achieve in any physical manner and also impossible for a new entrant to duplicate. Third is rating or ranking, as evidenced by Amazon.com or Netflix.com's use of a rating system in which the site's consumers act in a range of different ways to enhance the online experience, and then go to a second-order in which they rate the raters. The fourth activity is tagging. The term "folksonomy"—held in opposition to top-down taxonomy—has been developed to describe the type of grassroots classification that arises from collective categorization using open-ended choices of keywords or tags. This is used by Web sites such as del.icio.us and Flickr. So, for example, a picture of a little baby can be tagged as "baby" and "cute," thus allowing more natural and intuitive future searching.

In each of these examples, small actions by individuals—hyperlinking, going to a popular Web site or portal, rating or commenting, and tagging—all have dramatic innovative effects when aggregated by software, site, and competitive marketing strategy. All have become signature elements of the companies that have managed to create value and viable business models from the activities of Swarms, a specific kind of innovative online consumer community.

## Discussion

"O wonder!

How many goodly creatures are there here!

How beauteous mankind is!

O brave new world

That has such people in't!"

—William Shakespeare (The Tempest, Act V, Scene I)

### **From Consumers to Innovative Prosumers, Multipliers, and Inno-Tribes**

We join with many scholars in exploring the transformation of our "brave new world" of wondrously and increasingly powerful and active innovative consumer communities. To begin to understand the social transformation, we can start with Tedlow's (1997) examination of the "democracy of desire" and the historical roots of "mass market America." Tedlow (1997) charts the rise of George Eastman and Kodak, who transformed picture-taking from an expensive, technologically complex craft into a very simply process, making it accessible to a mass

market. At the same time Kodak was performing this magical transformation with the photography industry, the same thing was happening to numerous industries in the late nineteenth-century United States. In the late twentieth century, the same sort of radical democratization of many information-laden industries took place (see Lévy 1997; Benckler 2006). Photography, writing, journalism, visual arts, music, and video creation and editing were all powerfully transformed. Those transformations continue to this date, a flattening of consumer learning curves with an annual battering by Moore's Law. They were further democratized by the instantiation of a network that allowed not only participation, but sharing. So on top of mass participation and innovation, we have collaboration, interactive communities, and emergent "innotribes" (Kozinets 2007). Although Tedlow (1997) talks about a "democracy of desire," his inference is that this is a desire to be a good consumer, someone who is acted on by the market, barely changing the market or its offerings. Dealing as he does in the nineteenth and early twentieth century and the Age of Consumption, he never extends this to the ancient striving to collectively create. More recently, this urge has been transformed by the presence of accessible and global opportunities to be creative, innovative, active creators, participants and networked collaborators in a web of collective intelligence.

Recently, consumer researchers have struggled to devise new terms for the creative, active, participatory community member they saw involving themselves with the materials and practices of commercial culture. The term consumer seems hopelessly outdated and weighted with a baggage of passivity and isolation that is increasingly untenable. Some have sought to revive the old term of "prosumer" (Kozinets 2007), others have coined new terms such as "multipliers" (McCracken 2005). As Henry Jenkins (2007, 361) asserts, the creative worlds of the fan-like consumer are "everywhere and all the time, a central part of the everyday lives of consumers operating in a networked society."

It is our assertion in this article that the creative activity of these online communities is overlapping and in many ways identical to the types of consumption collectivities that marketers and consumer researchers are interested in, whether termed cultures of consumption, consumption microcultures, or brand communities. We also begin to see fan communities and IOCCs both as sets of interrelated practices, ideological positions, and cultural logics. Therefore, there is considerable overlap in marketing and consumer research studies of consumer communities, brand communities, and the fan studies taking place in media and cultural studies (as Jenkins 2007 has recently noted).

What we begin to see when we bridge the individual creator with the collective context in which she is embedded is a combination of self- and collectively-sustained curiosity and drive. IOCCs combine work and play, passion and profit, adult-like rules and the childlike wonder of play. Being engaged in passionate work with a group of supportive others (even if they are virtual others), brings back some of the intimate feelings we enjoyed in childhood when we were deeply immersed in play: intimacy with ourselves and our capacities alongside closeness with friends to share our passion. In an attempt to overcome the utilitarian notion of work and creativity, many of these IOCCs reaestheticize their creations and re-enchant creative labor in a way that is not typically found in the many mundane jobs which the typical industrial and postindustrial information economy offers (for a more critical perspective on the production and appropriation of creative labor, see Bonsu and Darmody 2008 [this issue]).

### **From Groups to Crowds, Hives, Mobs, and Swarms: Theory-Building**

It is worth considering that the boundaries between these four types of online creative consumer community are somewhat fluid. The categories are not intended to be entirely orthogonal or exhaustive. There may be other types of online creative community. Indeed, we would expect many other types to evolve as technology continues to offer increased opportunities for consumers to communicate and collaborate.

Smaller groups like Mobs can grow into or spin off Hives, or can turn into larger groups like Crowds or Swarms. For example, through an aggregating function, and with the addition of organizing intelligence, Mobs can become organized into Swarms. The collective value of Mobs' contributions considered en masse across the Internet is enormous. Think of the many food and restaurant review sites that are contributed by various Mobs. Web sites and services such as Technorati and Google blogs (even regular search engines such as Google and Yahoo!) capture much of the value of these sites and increase their general appeal by aggregating them and making them searchable.

Oftentimes these categories overlap in particular Web sites whose value combines various elements of contribution of the different online consumer communities. Consider Amazon's rating system. It first allows people to write a qualitative review of the book that can be read by later users of the site and then asks them to rate the book. These contributions are made by a small subset of the site's total users—some estimate that approximately

one percent of a site's visitors contribute this sort of substantial content creation (McConnell and Huba 2006). In effect, these active commentators are acting as a type of Mob, providing communo-ludic information to others who share similar interests. The ratings are aggregated for users. Then, users of the site can rate the usefulness of that individual consumer's review, in an activity much more like a Swarm. Netflix reviews work in almost exactly parallel fashion. Threadless combines the skilled design creations of a Mob-like group of T-shirt artists with the more Swarm-like ratings of members of the user community. Frito-Lay's Crash the Super Bowl contest combined the efforts of talented amateur filmmakers with later ratings by the user community.

There seems to be a pattern in these sites, which we term *Elicitation-Evaluation*. A Mob-like effort of the innovative few at content creation is first encouraged—either through user engagement, such as interest in an avocation at Amazon, or through inducements, such as money and glory at the Frito-Lay's contest, to free T-shirts at Threadless. Then, the wider community is encouraged to sort through these efforts to determine the best ones. Through tagging, ranking, and rating practices these winners rise quickly to the top of the pile. The process is not only efficient, but also democratic. It smacks of participation, ideological sincerity, and authenticity. In *Elicitation-Evaluation* we thus see a pattern of first-order and higher-order innovative contributions by a type of Mob combining with second-order, aggregative, and much less work-intensive rankings by a much larger Swarm group. The contributions of the first group are extremely valuable, and a relatively scarce resource. Without them, the contributions of the second, much larger group, would be impossible. Our conceptualization helps to reveal some of these patterns, whose management may have profound importance to society, businesses, and other organizations.

### From Consumption to a New Form of Work

Our typology and theorization link to organizational network theory and suggest that we cease theorizing particular kinds of online consumer creation as a type of leisure activity or a playground for unsatisfied and bored individuals. Instead, we can see them as continuing in the working tradition of organized work networks, art studios, factories, and even the medieval craft guilds. IOCCs contain their own versions of masters, apprentices, and journeymen. These are most evident in Hives and Crowds, where knowledge sharing, provision and reception of feedback, challenges of long-standing assumptions about “the nature of things,” and collective

reflection are essential prerequisites for creativity and therefore supported. Internet technology provides such platforms for knowledge exchange and file sharing.

In few other places can John Average simply ask a prominent expert for help and get a near-instant answer. In few other places can the average consumer find detailed products such as technology or software reverse-engineered, explained, and reviewed by dozens or hundreds of self-proclaimed experts. The guild system provides customers with some assurance of quality, because guild members engage in evaluations of each other's products. Similarly, online creative work is constantly challenged by evaluations from peers and from the public in an attempt to produce top quality work. Creative online cultures, like the open-source movement, establish a type of peer review system. The peer review system combines a source of institutional power with a caring oeuvre. It is an aspect of socialization that underpins IOCCs of all types.

What are the implications of these altered understandings for our theories of consumers, communities, and creativity? In summary, our framework considers different forms of collective consumer creativity and implies that marketers must address different forms of IOCCs differently. For example, whereas Hives tend to contain a more whimsical bunch of highly interactive and active creatives, Mobs are more individualistic and content-oriented and like contributing their work without much interference from others. In general, collective creativity is fostered not only by the individualistic acts of “help-giving,” “help-seeking,” “collective reframing,” and “reinforcing” (cf. Hargadon and Bechky 2006), but also by communal notions of membership formation, enculturation, shared values, ideologies, hierarchy and status, collective political action, and the shared base of grounded knowledge.

Companies might think of themselves not as “managers of communal creativity” but as part of the cultural fabric of an ongoing community. Individual creativity can be collectively fostered through the communal provision of high degrees of visibility, support, information, and opportunities for contribution. Collective creativity needs appropriate enabling technology and the complex social and cultural fabric of community. In the networked world, individual efforts shade effortlessly into collective creativity. Business, consumer culture, and wider society are being transformed in their wake. However, these new developments will require new approaches and procedures, developments that a sound marketing, consumer, and macromarketing understanding can help guide into being.

Given that IOCCs add value to society and to organizations, and that there are various opportunities for consumer

communities to add this value, it is important that societies and organizations realize this. They must begin to systematize the ways that online consumer communities respond to their invitations to participate. These invitations can be overt, such as contests, or formats that lead to high visibility and status, or subtle, such as delicate system architectures that measure clickstreams or amount of time spent on particular pages. Rather than appeal to what O'Reilly (2005) terms "volunteerism" and McConnell and Huba (2006) and Tapscott and Williams (2007) also seem to largely consider a limitless free resource or volunteer consumer army, we agree with Cova, Kozinets, and Shankar (2007) that online consumer tribes should be increasingly considered fiscal partners in the process of innovation.

In addition, it has become obvious through much of the above-cited research that the interests of these online communities often trend toward the ethical, the sustainable, even the activist. Communities hold considerable promise to serve as a counterbalance to corporations, in particular, when those corporations are seen to be acting abusively, unethically, or irresponsibly. What happens when this counterbalancing takes place not only in the realm of information exchange, protest and boycott, but also in the arena of counter-production, branding, and service offerings? Through innovations in intellectual property rights management as well as collaborative efforts that link organizational and business communities with consumer communities, we are already beginning to see new architectures of participation emerge that may help to equitably and sustainably realize the many social and economic advantages that will come from tapping the wisdom of Crowds. And Swarms, Mobs, and Hives.

## Notes

1. We are grateful to one of the editors for suggesting and elaborating this point.

2. In fact, almost all of Schau and Gilly's (2003) work on personal Web spaces and representation has direct application to a range of other technological forms, such as blogs (which are a dynamic extension of the previously more static personal Web page).

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