

I Create; Therefore I Am:

Consumer Creative Activities and Motivation and Why to These Matter to Designers and the Firms they Work With

Nancy Gray*

** Arizona State University, nancy.gray@asu.edu*

This research explores the extent of consumer creativity in the marketplace – proposing why these findings are relevant to designers, providers, marketers, and policy-makers. We ask why consumers create when there are perfectly good creations already available. This study flags an important shift in the role and needs of consumers. We urge designers and organizations to take account of the following findings and framework in building cross-function awareness of the existence of creative consumers, the importance of creative consumers, and how to respond to creative consumers. An understanding of creative consumers is warranted in light of their potential to impact a firm's profitability and new product innovation – for better or worse. We call upon designers and firms to engage equitably with creative consumers to build a mutually beneficial relationship.

Key words: consumers, creativity, co-creativity, design, co-design, firm, and marketing

1. Introduction.

The landscape of industrialism has been turned upside down by people who are no longer content to play the role prescribed by Schumpeter – acting as passive recipients of goods and services that are designed professionally, generated by producers and made available for purchase via suppliers (Schumpeter 1934). Consumers have evolved into a major source of product design and innovation in their own right (von Hippel et al. 2011). In an unprecedented three-nation survey, von Hippel, Ogawa, and de Jong (2012) establish the existence of what von Hippel terms “dark matter” – a force, consumer innovation, that until now has not been measured and not considered of economic value. This phenomenon of consumers as creators (“dark knights”) falls outside the boundaries of marketing orientated value propositions first advanced in 1990 by Kohli and Jaworski, and Narver and Slater. Marketing researchers generally agree that when organizations adopt a market orientation – a business culture in which all employees (designers included) commit to continuously creating superior value for customers – they experience a positive impact on returns (Jaworski and Kohli 1993, Day 1994, and Slater and Narver 1995). Day (1994) argues that successful market-driven organizations are distinctive in their market-sensing and customer-linking capabilities. Accordingly, consumer creative activities are likely in the purview of market-driven organizations and this research is a welcome call to understanding creative consumers. An understanding of consumer creation is warranted in light of the potential for these independent makers to impact the firm profitability – for the better or for the worse and their promise for new product development (NPD), an area of critical importance to most firms.

Ahead we examine a growing body of evidence (Flowers et al. 2012, von Hippel et al. 2012) heralding firms to expand their market orientation to include consumers as reciprocal value creators capable of impacting returns.

We begin by with a brief survey of current research into the phenomenon of creative consumers in the marketplace – examining whether and why their activities are important to designers and other firm stakeholders. Next, drawing on theory from across disciplines, we propose answers to why consumers create when there are perfectly good creations already available. We organize consumers' creative motivation into two broad categories of utilitarian goals and affirmation goals. Utilitarian goals are supported by von Hippel (2005), Flowers et al. (2010) and Giard (2005). Affirmation goals are explored in the works of Csikszentmihalyi and Rochberg-Halton (1981), Belk (1988), Kleine and Baker (2004), Mittal (1989), and Dahl and Moreau (2007). We contribute to academic literature by proposing additional motivations. The first of these is *generative happiness*. This refers to sense of identity, happiness, and well being that a person produces within him or herself by engaging in creative activities (P1). The second extends the work of Belk by theorizing that a consumer's motivation to engage in creative and co-creative activities (design) emanates from the sense of self and personal meaning this activity endows. This effect is more resistant to the wear-out curve (the hedonic treadmill) than that provided by purchasing objects of desire (P2).

2. Shining light on dark matter: The extent of consumer creativity.

A recent, first-of-its-kind, three-nation study demonstrated that consumers are a major source of product innovation within the United Kingdom, the United States, and Japan (von Hippel, Ogawa, and De Jong 2011). Within these nations there are an estimated 18.5 million people engaged in re-purposing, re-designing, or creating new products. This is a number significantly greater than the number of professional consumer product designers working throughout the United Kingdom, the United States, and Japan.

In support of their creative efforts, citizens within these countries spent, in aggregate, an amount in the billions of dollars. In the U.K., the amount that consumers spent annually on their personal product development initiatives was 2.3 times larger (114%) than the annual consumer product R&D spending of all U.K. companies combined. In the U.S. and Japan consumers spent a lesser, but still significant amount on their innovations – 33% (U.S.) and 13% (Japan) of what commercial enterprises invested in consumer-product R&D. (von Hippel, Ogawa, and De Jong 2011).

The von Hippel et al. study (2011) found consumer-innovators significantly more educated (bachelor's, master's or Ph.D. degree), to have education in science, engineering, or some other technical field, and to be male. The authors attribute this skew to the subject matter studied and argue for the generality on the results. It is reasonable that research focusing on quilting, garment making, creating flies for fishing, or decoys for hunting, would also reveal significant consumer creative contributions within their respective fields, albeit within a very different gender and age distribution.

Other important findings of the von Hippel study, also reported in earlier research (Shah 2000, Prügl and Schreier 2006, Raasch et al. 2008), are as follows: first, consumers rarely protect their innovations from imitators (only 2% of those sampled in the UK, 9% in the US, and 0% in Japan); second, the majority of consumer products are never adopted by other consumers or producers; and third, the remaining number of products that are adopted by others is significant. These discoveries point to an untapped reservoir of creative product innovation that has been largely unnoticed by makers of consumer products. We see this in a study by Flowers et al. (2010) who find that widespread creation and modification of consumer products was initiated solely by the consumers themselves.

Yes, independent of producers – not “co-created” by users and firms working together, nor as “lead users” as defined by von Hippel (2005).

It is important to note that not all organizations and researchers are convinced of the value of turning to consumers as creators of new and useful products. Bennet and Cooper (1981) contend that truly creative ideas are, most of the time, out of the scope of the normal consumer experience. Schulze and Hoegl write that it is unlikely that buyers will be able to describe future products and to make the “big leaps to novel product ideas” (2008, p. 1744). Even von Hippel and Schrage (2007) expressed an earlier skepticism toward the value of consumers to redefine innovation, stating, “Ingenious leading-edge users, not everyday consumers or profit-focused producers, are becoming the economic engines that drive innovation.” Other less formal arguments in the business press include: Is it possible that a consumer would have asked for the internet? or ATMs, digital photography, and the iPod? The central question is whether consumers can conceivably request products for which there is no precedent. Writing for *Fast Company*, Jens Skibsted argues that user-led innovation cannot create breakthroughs and believes companies should lead their users, not the other way around. He considers successful new products an outcome of the visionary work of a handful of extraordinary people. “These creative people will feel limited and bored, not inspired, if they have to start out a creative process with a lot of user knowledge. Their inspiration comes from a multiple of sources and is highly individual.” (Skibsted 2012).

3. Creative consumer exemplars.

An exemplar of consumer as creator of new products is Gary Fischer. As a young cyclist in the early 1970s, Gary decided it would be great fun for him and his friends to ride their bikes over the rough terrain of Marin County, California. They found using the bicycles currently available to them in the marketplace difficult and dangerous. In response, Gary and friends made their own equipment by combining older, stronger bicycle frames with balloon tires and motorcycle lever-operated drum brakes. They deemed these “clunkers” (Penning 1988), and a \$1.4 billion industry was born (National Bicycle Dealers Association 2011). By the 1990s major bicycle manufacturers and part suppliers were producing mountain bike specific frames and components. Now there are over 68 major manufacturers of mountain bikes, and an uncounted number of independent frame builders such as Form Cycles (Arizona). Thousands of manufactured, specially designed mountain biking products are available for purchase – all that a mountain biking enthusiast could hope for. Or, maybe not.

In a 2005 survey, Luthje et al. found that a significant number of the mountain bikers they surveyed (38% of the 287 respondents) reported having developed one or more ideas for new or improved mountain bikes or equipment. Of these, 40.5% built and personally used a prototype of their idea, and 9.1% reported that other mountain bikers were using their creation. Roughly parallel numbers were found in four other sports: sailplane flying, canyoning, bordercrossing, and cycling by individuals with disabilities (Franke and Shah 2002).

The product categories of consumer created products extend well beyond sporting equipment – ranging from apparel to ceiling fans, from customizing their vehicles to brewing their own beer, and even building their own micro-computers and writing their own software to run on these systems. In the LEGO building community, 25% of participants engage in creating novel models (Antorini 2007).

3.1 Consumers and companies co-designing.

A few companies like Threadless Ts, have leveraged the consumer creativity phenomenon by establishing strategies that turn the front end of new product development entirely over to users. They even market their

products as such – displaying the consumer designer’s name on the tag inside the T-shirt – “Threadless – by [consumer name]. LEGO is another example. This famous Danish firm has invited members of its community to create products that are sold commercially with “designed by LEGO fans” displayed on the box (Schreier et al. 2012). Other examples include Nespresso, an operating unit of the Nestle Group based in Lausanne, Switzerland. Nespresso issued a call for consumers to join a design contest exploring the evolution of coffee culture or to tackle the theme of “coffee unplugged.” These invited ideas are not limited to the machines only. Nespresso encourages participants to “combine design with function and simplicity of use, to break free of conventional thinking and let their imaginations run wild.” (www.nespresso.com/uk/en/pages/coffee-machine-design 2011)

Major manufacturers of hard goods are also tapping into consumer creativity. The BMW Urban Driving Experience Challenge offered \$30,000 and a trip to BMW headquarters in Munich, Germany to meet its director of R&D to the individual whose design best met the challenge of improving driving in the future urban environment. The competition website reads, “This is your chance to define and design next-generation mobility solutions for life in the ‘Mega-Cities’ of the year 2025 and beyond”. In response, BMW enthusiasts from all over the world submitted nearly 3,500 individual boards – contributing over 400 innovative feature concepts. The winners were announced on December 21, 2012 (www.localmotors.com/bmw 2012)

The above evidence supports the existence of consumer creativity, signals that it is a significant economic force, and points out how some firms and organizations are benefiting from engaging with these consumers in new product development. The body of literature on consumer creativity and innovation continues to grow; however, this is still scant research exploring the question of why consumers create (when there are perfectly good creations already available in the marketplace). Why do consumers care so little about protecting their intellectual property and even give it away freely? Especially when companies like Threadless T’s, LEGO, Nespresso, and BMW are benefiting financially from customer new-product innovation. What value, what benefit do consumers receive from their creative efforts? We turn next to addressing these questions.

4. Matters of Motivation: Why consumers create.

Design and marketing researchers are not alone in their interest in what drives consumer creativity. For more than 50 years psychologists and other researchers have investigated creativity in search of a more detailed understanding of creative personalities, perspectives, methodologies, and social context. More recently the issue of why individuals engage in creative activities has risen in prominence. Runco et al. (1997) asked 143 people engaged in creative research to rank topics of importance for future creativity study. Participants ranked “motivation or drive” as number two out of the thirty-three research arenas (“actual creative behaviors” ranked number one). In this same study creativity researchers reported that they considered “behaviors reflecting motivation” as the most critical determinant of individual creative achievement.

A widening circle of studies is demonstrating that motivation may be the most important antecedent to an individual’s creative contribution to our cultural domain (Collins & Amabile 1999, Runco 2004). There is, however, little consensus among these researchers as to what sparks creativity and what suppresses it. The dominant theory in the creativity literature today is that of intrinsic motivation. Social psychologists have elevated this proposition to the status of a “principle” (Hennessey, 2010). The Intrinsic Motivation Principle of Creativity

holds that intrinsic motivation is a positive and essential contributor to creative performance, and extrinsic motivation is almost always detrimental (Amabile 1996, Deci & Ryan 1985).

Returning to the business and marketing literature, Flowers et al. (2010) found that 34% of people innovate because of the need for the item created, 32% because of their enjoyment of the process and the meaning they derived from it. These results indicate a split between those who create for utilitarian reasons and those whose motivations are more nuanced in nature.

4.1 Utilitarian reasons.

We find that von Hippel, by and large, associates consumer motivation for engaging in creative activity with utilitarian goals. In *Democratizing Innovation* (2005), he sums up the question of why people develop or modify products by suggesting; one, that this is a way for consumer to achieve exactly what they want; and two, “because they can.” An antecedent to consumer creativity is a gap in the market between what a consumer wants and what is available to them. This gap is likely to occur when manufacturers design for the needs of the many. This can leave heterogeneous consumers dissatisfied. Frank and von Hippel (2003b), in their study of people using the security features of Apache web server software, found that these individuals had a very high heterogeneity of need as well as a high willingness to pay to get precisely what they want. Within their sample, nineteen percent of users reprogrammed Apache to more closely match their needs and were significantly more satisfied with the results.

Von Hippel’s reasoning of “because they can” is becoming increasingly sound as the result of two factors: first, the improving design capabilities by consumers fostered by readily available and affordable hardware and software; and second, the ability of consumers to connect with others with similar interest and knowledge through forums and users groups, both online and offline. Here consumers can talk about their ideas, share tools, and collaborate on projects.

This utilitarian construct is also represented in user/designer/maker triad theorized by Giard (2005). Giard proposes that all humans are *homo faber*—humans as makers—and this has been manifest by our earliest ancestors who made stone tools to the recent case of a consumer who created an automatic feeder so her pet diabetic dog could receive medications on-schedule. Early in human history individuals performed all three roles – using the products they designed and made. Today it is rare to find all three embodied in one person. In keeping with the Schumpeterian view of the consumer introduced at the being of this study, Giard’s framework establishes the norm as one in which the person who uses a product (such as a toothbrush), is separate from the person who designed the product (Michael Graves), and those who manufactured it (suppliers for Target). In a perfect market environment there should be no need for users to design or make products. However, as demonstrated in the von Hippel et al. study (2011) a significant number of consumers forgo the established channels to make and use products they created. This suggests that consumer motivation for acting as user/designer/maker may be more complex than achieving a utilitarian goal.

4.2 Beyond utility.

We begin to find motivations that are affirming in nature in the studies of Csikszentmihalyi and Rochberg-Halton (1981), Belk (1988), Kleine and Baker (2004), and Mittal (1989). Here there is evidence that a self-credited product not only has instrumental value but also (additional) psychological value for its originator.

A study by Dahl and Moreau (2007) examines why consumers enjoy constrained creative activities. The results of their qualitative interview offer a broad understanding of the motivations underlying creative pursuits across a wide domain of activities (scrapbooking, modeling, cooking, jewelry making, sewing, carpentry, and quilting). Dahl and Moreau (2007) found that their subjects were motivated by their desire for personal accomplishment – a goal they met by fulfilling their need for competence and autonomy. The Dahl and Moreau study also identified additional motivations: learning, self-identity, public accomplishment, community, and engagement/relaxation.

Jaussi et al. (2007) hypothesize that individuals will engage in behaviors that reaffirm identities that are important to them. They report that people for whom creativity is central to their self-definition will seek out opportunities to be creative out of a desire to maintain positive self-regard. Furthermore, those who see creativity as important tend to engage in creative efforts both inside and outside work to reaffirm this identity. In this instance the psychological value is one of identity and a sense of self-definition.

This leads us to Belk (1998) and his highly cited essay “Possessions and the Extended Self”. This work captured the interest of consumer researchers by suggesting the possibility that people purchase products to define and represent that they are to themselves and to others. Belk’s theory of the extended self has infiltrated consumer research and is now an important driver in experimental and survey-based studies. Belk (1998) brings an extensive body of work to light in support of his conceptualization that consumers use possessions to extend, expand, and strengthen their sense of self. He includes literature from psychology, consumer research, psychoanalytic theory, material and popular culture studies, feminist studies, history, medicine, anthropology, and sociology (p. 145). Much of Belk’s conceptualization of why we desire possessions stems from the work of Sartre (1943). This French philosopher contends that our purchases and possessions are our only means of knowing who we are. Accordingly, we make purchases to enlarge our sense of self – to ascertain a sense of identity. When an item that we have been contemplating becomes a possession the who-we-were becomes merged with who-we-are-not-yet to become who-we-are. Sartre also considers possessions important identifiers of who we are to those around us. People will first associate what we own with who we are and then attribute to us the characteristics of the product or (if our we are more familiar to the viewer) our characteristics onto the product. Either way, how others view what we own acts as a mirror to us of whom we are.

4.3 Object of desire.

Belk (1998) contrasts Sartre’s views with those of Karl Marx. For Marx, doing, and particularly working, is central to existence and self-worth. Marx views possessions as a false path to happiness through “commodity fetishism”– a consumer’s worship of goods and the belief that goods have magical powers to bring happiness (Marx 1978). This has led to an expectation that happiness lies in the next purchase or “I would be happy if I could just have...” Marx contends that real happiness is a result of doing meaningful work that is properly rewarded (Marx 1978). This means that we should live to work rather than work to live (Dyke 1981).

Belk, Wallendorf, and Sherry (1989) do find support for Marx’s “commodity fetishism” in consumers who believe in the existence of quintessential objects, defining them as unique, magically desirable, wonderful, authentic, and unequivocally right. Objects of desire, then, are consumed as symbolic signifiers of identity, lifestyle and taste and are means to meet emotional needs such as assertion, reassurance and affiliation. Does this equate to happiness? For some, this may be true. For others, not so much.

Some consumers purchase luxury products believing that encounters with these beautiful objects will positively influence their quality of life and enable them to satisfy higher needs (Yalch and Brunel 1996). Some define themselves in part by the significance that design plays in their life – they see themselves as connoisseurs who derive very real benefits from possessing beautiful objects (Csikszentmihalyi and Robinson 1990). These findings can be viewed as lending support for Belk's view of possessions as mediators of our existential goals of meaning and happiness.

Belk's dominant paradigm has not taken into account contingencies of a consumer affect and actions. While we believe that "we are what we have is perhaps the most basic and powerful fact of consumer behavior" (Belk 1988, p. 139), it is important to understand the limits of this conceptualization of how consumers construct their social and personal experiences.

4.4 A fragmented self: Freedom or a black hole?

Recent research has examined the difficulties consumers face in building and maintaining a coherent sense of self as a result of the overwhelming choices they face in defining themselves. As such it is difficult to discover one's true preferences for representing the self – privately and to others. Postmodernist researchers Firat and Venkatesh (1995) view consumers as possessing a "fragmented and multiple sense of self with no need to reconcile identity contradictions to produce a unified experience" (p. 260). Firat and Venkatesh (1995) see this fragmentation as a positive development because it represents "freedom from . . . having to seek centered connections or an authentic self" (233).

In contrast, Cushman's (1990) empty-self critique views identity as a black hole into which consumers relentlessly feeds objects but which never fills up. Cushman attributes the problem to a poor fit between consumers' continued desire for a coherent view of themselves and the absence of social and cultural support in the endeavor due to a "significant absence of community, tradition, and shared meaning. The individual experiences these social absences and their consequences 'interiorly' as a lack of personal conviction and worth, and it embodies the absences as a chronic, undifferentiated emotional hunger" (p. 600). As a result people resort to engaging in lifestyle consumption over and over again — attempting to identify and master the lifestyle and accouterments that will bring fulfillment.

Closely related to Cushman's empty-self critique is the theory of the hedonic treadmill (Brickman & Campbell 1997). Because as humans we adapt so rapidly to change, any happiness we receive from our gains is ephemeral. We are required to purchase again and again in order to maintain our sense of joy in possessions.

And all the while we guess wrong – committing systematic errors in judgment – when it comes to determining what it is that will make us happy (Gilbert 2006). A study by Diener and Lucas (1999) found that the per capita income of United States citizens had doubled over the past 50 years, but their happiness levels remained level. What we purchase today that brings us a sense of well-being and accomplishment will leave us feeling nothing tomorrow and might even spiral down into an abyss of disappointment (Schooler et al. 2004). Scitovsky (1976) accuses industrial societies (the U.S. in particular) of creating a "joyless economy". In his social science meta-analysis, Frank (1999) writes, "increases in our stocks of material goods produce virtually no measurable gains in our psychological or physical well-being. Bigger houses and faster cars, it seems, don't make us any happier" (p. 6). So the pursuit of happiness through material gain will leave us less satisfied with life, less happy, more depressed, paranoid, and narcissistic. Are such bleak outcomes inevitable?

This negative view of material possession also has deep roots in classic literature. Jesus declared that “one’s life does not consist in the abundance of possessions” (Luke 12:15, New King James Version) and Aristotle proclaimed, “Men fancy that external good are the cause of happiness...leisure of itself gives pleasure and happiness and enjoyment in life” (trans. 1996). The second part of this quote opens the possibility of escape from the hedonic treadmill, a way to move upstream in our pursuit of well-being. Nicolao (2009) refers to this as the *experience recommendation* – a term he grounds in the work of Hume (1737), Scitovsky (1976) and Frank (1985) which advances the idea that people will be happier if they spend their money on experiences such the theater, concerts, and vacations as opposed to “worthless toys and gewgaws” (Hume 1737, Nicolao 2009).

So are Sartre and Belk in error, and Marx’s view confirmed? Not necessarily. Aristotle, in *Nicomachean Ethics*, suggests that happiness is a result of engaging in activities that promote one’s highest potentials. These activities may include, but are certainly are not limited to a Marxist view. Recent longitudinal studies in psychology have examined whether volitional activity can produce and enhance well being. Lyubomirsky et al. (2005) theorize the three primary factors causally affect a person’s happiness level – their set point, life circumstance, and intentional activity. Genetics (the set point) account for 50% (Braungart et al. 1992, Lykkend and Tellegen 1996), circumstances are assessed at 10% (Argyle 1999, Deiner et al. 1999), and the remaining 40% is related to intentional activity. This supports the volitional efforts as a promising way to longitudinal increases in happiness.

4.5 Happy does it. New whys.

Gilbert (2006) hypothesizes that happiness can be synthesized. He quotes Sir Thomas Brown (1642), “I am the happiest man alive. I have that in me that can convert poverty to riches, adversity to prosperity. I am more invulnerable than Achilles; fortune hath not one place to hit me.” Gilbert holds the view that human beings have a systematic, mostly non-conscious cognitive process that helps us change our views of the world, so we can feel better about the world and situations in that we find ourselves in. This process allows us to synthesize happiness and differs from natural happiness. The happiness we get when we get what we wanted is natural happiness. When we don’t get what we want we make synthetic happiness (Gilbert 2006). Shakespeare makes hyperbolic reference to this idea – “Tis nothing good or bad, but thinking makes it so.” According to Gilbert, synthetic happiness is the only happiness that is chronic. However, it is not contagious. We cannot receive it from anyone or anything or any experience – it comes from within as a product of our minds.

Drawing on Csikszentmihalyi and Rochberg-Halton (1981), Belk (1988, p. 144) explains, “[We] invest ‘psychic energy’ in an object to which we have directed our efforts, time, and attention. This energy and its products are regarded as a part of self because they have grown or emerged from the self.” Thus, one’s own accomplishment is embodied in the object endogenous to the process. This sense of accomplishment fills a deeply embedded human need for mastery (competence) and efficacy (Furby 1991, Williams and DeSteno 2008).

Postulate one argues that if consumers move beyond investing ‘psychic’ energy and toward investing physical energy – engaging in volitional activities that result in the creation of a product or experience – then they will discover the sense of self, well being, and happiness they seek. This effect is more resistant to the wear out curve (the hedonic treadmill) than that provided by purchasing objects of desire because it is grounded in action.

P1: By engaging in creative activities consumers find the sense of identity, happiness, and well being, or *generative happiness* that eluded them when they sought to generate happiness through the purchase of products and services.

Postulate two extends the work of Belk by theorizing that a consumer's motivation to engage in creative and co-creative activities (design) emanates from the sense of self and personal meaning this activity endows.

P2: A consumer's motivation to engage in creative and co-creative activities (design) emanates from the sense of self and personal meaning this activity endows. This effect is more resistant to the wear out curve (the hedonic treadmill) than that provided by purchasing objects of desire.

We reason that consumers care little about protecting their intellectual property because they are not motivated by financial gain. For many consumers the happiness and self that creativity activity generates is ample reward.

5. Why should organizations and designers care what creative consumers do and think?

Does the extent of consumer creativity point to a “new user-centered innovation paradigm?” (von Hippel et al. 2011). Or is it unwise and even dangerous for firms to take consumer creativity seriously? We argue in favor of the former, acknowledging the existence and value of the “dark matter” of consumer creativity. Beyond this we emphasize that it is important for market-oriented organizations to ask what is needed to support these independent innovators in their efforts.

One reason organizations and designer should value happy creative consumers is that they bring with them a novel way of viewing the world. When immersed in the present designers are not likely to create and develop novel ideas that are distinct from what they know. Eric von Hippel, in *The Sources of Innovation* (2005), finds that subjects familiar with a complicated problem-solving strategy are unlikely to devise a different method. Another finding, even more closely related to design: people who use an object or see it used in a familiar way are strongly blocked from using that object in a novel way. Furthermore, the more recently objects or problem-solving strategies have been used in a familiar way, the more difficult individuals find it to employ them in a novel way. What this means is that designers who are constrained by the familiar are not well positioned to accurately and objectively evaluate novel product attributes, let alone engage in innovating new ones. Engaging consumers in the creative process – paying attention to what they are doing and providing co-design opportunities – opens expansive opportunities for designers and the firms they work with for new product development.

Designers and those they work with can gain real intelligence on what people really want and need by paying attention to what people are creating. When a consumer develops a product prototype that is novel, he or she is demonstrating a gap in the marketplace. Given the cost of market research, prototyping, and testing it seems unwise to ignore or (worse) frustrate people's creative endeavors. So looking to creative consumers for ideas can reduce costs and speed time to market and increase the likelihood of market success. Wise designers and companies will want to put in place processes for discovering what people are creating.

6. Come design with me.

One way for designers and firms to connect with creative consumers is by encouraging creative consumers to come to them. This starts with taking a more nuanced approach to copyright and patent enforcement. Consumers are not likely to participate with organizations that legally attack product modification efforts. Instead, companies should support consumer creativity – perhaps by giving them materials! Firms can invite people to participate in

online forums with in-house designers and peers from around the globe. Von Hippel (2005) suggests providing people with design “toolkits” and software that encourage and facilitate their efforts.

Also, give credit where credit is due. No matter how much happiness a person finds being part of a company’s design process, per Thomke and von Hippel (2002, 74) ‘when companies relinquish a fundamental task – such as designing a new product – to customers, the two parties must redefine their relationship.’ A situation in which a consumer performs work that enables a firm to enjoy increased profits seems quite a different value proposition than one in which a consumer performs work of for their own purposes. So when a consumer creates a product that a firm sells in the marketplace, his or her labor has created value for the company. As such, it is incumbent on the firm to determine what consumers deem ample compensation in exchange for their efforts. and to provide this. Some companies such as LEGO do this, but too many others do not. Because in many instances creative consumers do not patent their inventions and do not assert their intellectual property rights (von Hippel et al. 2012) it is easy for companies to get away with taking credit. This is unwise in a world in which consumers are actively communicating with one another through the internet. Such a slight may be widely proclaimed – much to the detriment of a firm’s reputation. It is best to create a business model that allows consumers inventors to share in the “fruits of their labor” and receive due compensation for their intellectual property.

7. In conclusion

In a perfect market environment there should be no need for consumers to design or make products. However, as demonstrated in the von Hippel et al. study (2012), consumers are not merely acting as passive recipients of goods and services that are generated by producers and made available for purchase via suppliers. Consumers have evolved into a major source of product design and innovation in their own right (von Hippel et al. 2011). We have presented new insights into what motivates consumers to engage in activities by integrating the work of Belk (1988) on the extended self, von Hippel’s lead user investigations (1986), and Dahl and Moreau (2007), and others scholars in organizational behavior, business strategy, and sociology. We have suggested that, beyond utilitarian goals, creative consumers are motivated by the sense of meaning and happiness that engaging in creative activity provides. We argue that an understanding of consumer creation is warranted in light of the potential for these independent makers to impact the firm profitability – for the better or for the worse. These individuals hold promise for new product development (NPD), an area of critical importance to most firms. In sum, the path to meaning and happiness for consumers often not by way of designed goods they purchase, but by what they create.

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