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You are what you can access: Sharing and collaborative consumption online

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ABSTRACT

Sharing is a phenomenon as old as humankind, while collaborative consumption and the "sharing economy" are phenomena born of the Internet age. This paper compares sharing and collaborative consumption and finds that both are growing in popularity today. Examples are given and an assessment is made of the reasons for the current growth in these practices and their implications for businesses still using traditional models of sales and ownership. The old wisdom that we are what we own, may need modifying to consider forms of possession and uses that do not involve ownership.

1. Introduction

Belk (1988) argues and theorizes that you are what you own. However with the Internet we have many ways to express our identity without ownership (Belk, 2013, in press). Consumer research bears witness to a flurry of recent attention to a group of related business and consumption practices describable as sharing (Belk, 2010), "collaborative consumption" (Botsman & Rogers, 2010), "the mesh" (Gansky, 2010), "commercial sharing systems" (Lamberton & Rose, 2012), "co-production" (Humphreys & Grayson, 2008), "co-creation" (Lanier & Schau, 2007; Prahalad & Ramaswamy, 2004), "prosumption" (Ritzer & Jurgenson, 2010; Toffler, 1980), "product-service systems" (Mont, 2002), "access-based consumption," (Bardhi & Eckhardt, 2012), "consumer participation" (Fitzsimmons, 1985), and "online volunteering" (Postigo, 2003). This attention corresponds to the rise of numerous for-profit and non-profit businesses that are flourishing thanks to the rise of the "sharing economy" (e.g., Lessig, 2008; A. Sacks, 2011). Examples of businesses that fall within one or more of these rubrics are Airbnb, Zipcar, Wikipedia, YouTube, Flickr, Facebook, Freecycle, and Twitter. In a broad sense, the Internet itself is a giant pool of shared content that can be accessed by anyone with an Internet connection, a browser, and a government that allows access to most or all web content.

There are two commonalities in these sharing and collaborative consumption practices: 1) their use of temporary access non-ownership models of utilizing consumer goods and services and 2) their reliance on the Internet, and especially Web 2.0, to bring this about. Web 2.0 "…refers collectively to websites that allow users to contribute content and connect with each other" (Carroll & Romano, 2011, p. 190). This is in contrast to Web 1.0 which primarily involved one-directional provision of information to consumers who did not interact or respond to the web site or to one another.

In this paper I seek to assess the similarities and differences between sharing and collaborative consumption, examine the extent to which various parts of the "sharing economy" truly involve sharing, and explain why these developments have stirred so much attention at this particular time. I further consider the degree to which they challenge traditional business models and the dangers and opportunities they may provide for business. For consumers, I consider how emerging ways of accessing possessions without ownership may influence our sense of self.

2. Materials and methods

This review is conceptual and based on an analysis of both scholarly research on sharing and collaborative consumption and media accounts of the latest developments in these contexts. I also draw on my own prior conceptual (Belk, 2007, 2010) and empirical (Belk & Llamas, 2012) work in studying sharing. I focus primarily on contemporary sharing activity, although the analysis is grounded in an historical and cultural appreciation of the basic practice of sharing.

3. Theory

Rather than a precise definition of sharing, Belk (2010) suggests contrasting the prototypes of sharing (mothering and the pooling and allocation of household resources) with the prototypes of gift giving

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(the exchange by Della and Jim in the O'Henry story "The Gift of the Magi") and of marketplace exchange (buying bread at a store for money). Belk (2007, p. 126) suggests that sharing involves "the act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking something from others for our use." A more succinct definition is provided by Benkler (2004) who sees sharing as "nonreciprocal pro-social behavior."

We share for both functional reasons like survival (Fine, 1980) and as an altruistic act intended as a convenience, courtesy, or kindness to others. We would be churlish indeed to deny someone the time of day, directions to a nearby location, or, if we are among fellow smokers, a light for their cigarette. These patterns of expected behavior have become cultural norms. Nevertheless, sharing is more likely to take place within family, close kin, and friends than among strangers. When sharing is an inclusive act that is likely to make the recipient a part of a pseudo-family and our aggregate extended self (Belk, 1988, 2013), it can be described as "sharing in" (Belk, 2010; Ingold, 1986).

On the other hand, when sharing involves dividing something between relative strangers or when it is intended as a one-time act such as providing someone with spare change, directions, or the time of day, it is described as "sharing out." Thus the degree of intimacy involved in sharing can vary considerably. But across this continuum, there remains a distinction between non-ownership-based sharing and the transfer of ownership and reciprocal exchange that are involved in both gift giving and marketplace exchange. Furthermore, no debt incurs when partaking of sharing as would be the case with gifts and market transactions.

Borrowing and lending are borderline cases of sharing that generate an expectation that the object or some equivalent will be returned. Sometimes "borrowing" is only a euphemism for requested sharing. If one student asks another, "May I borrow a sheet of paper?" no one expects that the borrower will ever return the sheet of paper. But this act of sharing may forge a small bond between the students so that favors may more readily be exchanged back and forth in the future. On the other hand if someone asks if they can borrow our mobile phone to make a call, we certainly expect them to return it as soon as the call is completed. Lending a mobile phone is a case of sharing out, as is the practice of sharing a ride with someone who is hitchhiking. Although hitchhiking has largely succumbed to fears of "stranger danger," as we will see it is being revived in several different forms with the help of the Internet.

Although Belk (2010) stipulates that we can share intangibles like ideas, values, and time, he excludes simple coincidences like "sharing" a common language, place of birth, or set of experiences, because these are not volitional choices. Two types of sharing that frequently occur are "demand sharing" and "open sharing." Demand sharing is evident when our children ask to be fed, but also when someone asks us for the time of day. Neither can rightly be refused, although the former involves sharing in while the latter involves sharing out. Open sharing is implied when we tell a house guest, "My house is your house." This implies that they can take our food, sit on our furniture, and use our bathroom, all without asking. With family members, such privileges are taken for granted, while for those whom we have invited to temporarily share our home, they need to be established unless there is a long history of such open sharing between the host and guest. Open sharing generally involves sharing in and would be quite uncommon with strangers.

4. Findings: New sharing and pseudo-sharing practices

Having established some of the theoretical premises of sharing, distinctions from gift-giving and marketplace exchange, as well as different types of sharing practices and their relationship effects, I now turn to recent variations on the sharing theme as well as practices that appear to be related, but do not involve true sharing. It is important to make some distinctions, because there are a vast variety of activities that now invoke the term sharing to describe what they involve (Wittel, 2011). After presenting and deconstructing these practices, I will consider implications for businesses, consumers, and the environment.

4.1. Internet-facilitated sharing

The Internet and especially Web 2.0 has brought about many new ways of sharing as well as facilitating older forms of sharing on a larger scale. Grassmuck (in press) calls this "the sharing turn." Starting with Napster, free sharing of digital music and films began to flow between strangers who would download and often upload material via peer-to-peer (P2P) file sharing (Giesler, 2006; Hennig-Thurau, Henning, & Sattler, 2007). This caused the music and film industries to lose substantial sales of CDs and DVDs and provoked them to engage in a series of actions attempting to enforce their intellectual property rights (IPR) through such means as lawsuits, incorporating digital rights management (DRM) software into their products to curb duplication, and putting up fake corrupt files online to fowl download attempts (Giesler, 2008). The resulting "war on sharing" (Aigrain, 2012) has proved largely futile. Even though Napster was shut down (and later reinstituted in legal form as a digital music store), many alternative sites sprung up in its place, including BitTorrent protocol sites like The Pirate Bay, Grokster, Gnutella, and Freenet.

Although iTunes, Rhapsody, Pandora, and Spotify have all succeeded in offering legal downloads or streaming music, and in some cases also films and television programs, a substantial proportion of downloads of films and music as well as software, e-books, and games are illegal, especially among young people. Estimates vary widely and differ from country to country, but there is no doubt that the practice is widespread. In Sweden sentiments in favor of Internet sharing are so strong that The Pirate Bay sharing site has successfully gained seats in Parliament. According to a survey by CBS (2009), 69% of Americans ages 18 to 29 believe that it is okay to share music online always or at least sometimes.

Although most of the non-market sharing sites involve true sharing, BitTorrent trackers require that users balance their uploads and downloads (Aigrain, 2012), making use more like a barter system that can be regarded as a special form of market exchange (Belk, 2010). Slater (2000) found that those exchanging pornographic photos online also kept track of others' balances between uploading and downloading, even though they had initially obtained the photos online for free. Here too we see intrusions of the marketplace exchange ethos into what is in other respects an act of online sharing.

While illegal music and film downloading has received the greatest amount of media attention and the most opposition by the music and film industries, there are a number of other sorts of sharing that have been initiated or facilitated by the Internet. YouTube asks us "What do you have to share?" and expects users to freely upload videos that they have made or mashups that they have created from other video content (John, 2013). Although those who put up popular videos can receive some compensation, the vast majority of content provision is uncompensated. This non-compensation is more fully the case with photo sharing sites like Flickr and social media sites like Facebook and Twitter as well as interest-sharing sites like Pinterest, ratings services like Tripadvisor and Angie's List, among bloggers, and in ratings given to books and movies on digital commerce sites like Amazon.com. It is not that these sites themselves are non-profit. The sites gain revenues through online selling and advertising, as do search engines like Google that facilitate accessing the vast archive of shared online information. But the overwhelming majority of users of these sites and those who put up much of the information that is able to be accessed online are freely sharing information, ratings, photos, and videos without compensation. Other examples include open source software like the Linux kernel that are collectively developed with volunteer labor and made freely available to whoever wants to use them as long as they credit the source (e.g., Hemetsberger, in press). Wikipedia is another example of a useful source of information (in this case, encyclopedic information) created with volunteer labor and usable by anyone at no cost other than having Internet access (Reagle, 2010).

The transfer or use of material goods between consumers is another type of Internet-facilitated sharing (Belk & Llamas, 2012). EBay and many of the classified advertising sites like craigslist and Kijiji offer goods for sale, but there are many others that provide free goods shared with whoever responds to the listing. Examples include Freecycle and Really Really Free Stuff (e.g., Arsel & Dobsha, 2011; McCartney, 2012; Willer, Flynn, & Zak, 2012). In other cases there are physical repositories of sharable goods like home and garden tool libraries or children's toy libraries that use online listings to reserve and keep track of such goods within a neighborhood (e.g., Ozanne & Ballantine, 2010). One example, the Sharehood (see www.thesharehood.org), was started in a neighborhood in Melbourne, Australia by Michael Green. He needed to use a washing machine and knew that between him and the nearest laundromat there were dozens of homes with washing machines sitting idle. So he started an online sharing service where neighbors could list the things they had available (e.g., electric drills, bicycles, sewing machines) and others could reserve and use them at no cost. The service not only has saved the neighborhood from having many redundant possessions, but also has fostered more importantly a strong sense of community. It has since spread to other cities and countries as have many other such local sharing organizations.

4.2. Collaborative consumption

In order to specify what collaborative consumption is, it is necessary to first dismiss two miss-specifications. Felson and Speath (1978) define acts of collaborative consumption as "those events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others" (p. 614). They include examples of speaking on the telephone, drinking beer with friends, and even having sex while using birth control products. Although it focuses on joint activities involving consumption, this definition is too broad and is not sufficiently focused on the acquisition and distribution of the resource. It relies instead on the mere fact of coordinated consumption. For example, if the people drinking beer together each pay for their own beers, they are coordinating their consumption at a particular time and place, but the consumption act is one of marketplace exchange. If one of them bought a pitcher of beer for consumption by the group, this would be sharing because it involves "the act and process of distributing what is ours to others for their use" (Belk, 2007, p. 126).

If there are two of us and we do not want an entire pitcher of beer, but also do not want to pay the inflated price of buying beer by the glass, we might convince a couple at another table to split a pitcher of beer with us, with each table paying half the cost and receiving half the beer. This agreement involves collaborative consumption in which we have jointly arranged both the acquisition and distribution of the product. According to Felson and Speath's (1978) definition, if a group of people came together to watch a football game, this would constitute collaborative consumption. But since these fans have not caused the event distribution to happen (the game would be played at this time and place regardless of whether or not they bought tickets), nor have they coordinated its acquisition (e.g., getting a group discount by buying their tickets together), this too would not be collaborative consumption as I am using the term.

A second use of "collaborative consumption" that I find to be miss-specified is that of Botsman and Rogers (2010, p. xv) who see the concept as including "traditional sharing, bartering, lending, trading, renting, gifting, and swapping." This view is also too broad and mixes marketplace exchange, gift giving, and sharing. They more accurately delineate the concept of collaborative consumption when they describe how Joe Gebbia, Brian Chesky, and Nathan Blecharcyzk conceptualized Airbnb.com, the application that allows people to buy and sell the use of a room or home, with the transaction facilitated by the Internet and providing a fee to the company:

> On a whiteboard in their apartment they drew a spectrum. On one side they wrote "hotels" and on the other they scribbled rental listings such as craigslist, youth hostels, and nonmonetary travel exchanges such as CouchSurfing that help people travel by creating a network of couches available to sleep on for free. (Botsman & Rogers, 2010, p. x)

The middle ground, which should include craigslist and youth hostels as well as Airbnb, exemplifies collaborative consumption in that it includes people coordinating acquisition and distribution of a resource for a fee.

My definition of collaborative consumption differs only slightly from this one. Collaborative consumption is people coordinating the acquisition and distribution of a resource for a fee or other compensation. By including other compensation, the definition also encompasses bartering, trading, and swapping, which involve giving and receiving non-monetary compensation. But this definition of collaborative consumption excludes sharing activities like those of CouchSurfing because there is no compensation involved. In fact CouchSurfing.org specifically prohibits it.

The definition also excludes gift giving which involves a permanent transfer of ownership. For example, if very generous parents gave their child the title to a condominium apartment, this is a gift rather than collaborative consumption, sharing, or marketplace exchange. The ground that collaborative consumption occupies is a middle ground between sharing and marketplace exchange, with elements of both. Zipcar.com (Bardhi & Eckhardt, 2012) and many other.com "sharing" organizations offer collaborative consumption opportunities. Elsewhere I (Belk, in press) call the transactions on these faux sharing commercial ventures "pseudo-sharing" in that they often take on a vocabulary of sharing (e.g., "car sharing"), but are more accurately short-term rental activities.

Although Bardhi and Eckhardt (2012) conflate collaborative consumption and sharing in their concept of "access-based consumption," they accurately describe the domain and motivation of collaborative consumption in observing that: "Instead of buying and owning things, consumers want access to goods and prefer to pay for the experience of temporarily accessing them" (p. 881). Collaborative consumption is the subset of Bardhi and Eckhardt's (2012) notion of access-based consumption that they call market-mediated access. As the following subsections demonstrate, collaborative consumption is a rapidly growing phenomenon with several variants.

4.2.1. A collaborative consumption example: Transportation

Zipcar is a commercial "car sharing" organization with a fleet of automobiles in North American and some European cities. Participants who pay a yearly fee can reserve cars online and unlock and operate them with a membership card that they receive. After use for a few hours the vehicle is returned to the original location. Users need not worry about fuel, insurance, parking fees, or maintenance. If fuel is needed there is a credit card in the car. A number of late model cars and vans are available. Since the vehicle currently needs to be returned to the location where it was picked up, the service is not as flexible as the short-term bicycle sharing programs in many cities in which there are many drop-off points in various parts of the city. Perhaps in the future with autonomous self-driving cars, they will come to us rather than us having to go to them.

Such short-term "car sharing" has become quite popular and Avis has acquired Zipcar recently. The practice has also caught the attention of automobile manufacturers who are offering their own car sharing programs, including Daimler Benz's (Mercedes') Car2Go, BMW's DriveNow, Volkswagon's Quicar, and Peugeot's Mu (Firnkorn & Müller, 2012; Wüst, 2011). The details are handled by smartphone. Why would auto companies facilitate practices that seem to encourage short-term rental rather than ownership of their cars? One reason is that young people are apparently losing their interest in car ownership as being important to their self-definition. They find car purchase, maintenance, and parking to be prohibitively expensive and increasingly would rather not have the hassle.

The flight from the suburbs to the city is another factor. Car ownership makes no sense for an increasing number of people; the auto companies see short-term rental as a way to still be involved in serving their transportation needs (Nelson, 2013; Rosenthal, 2013; Wohlsen, 2013).

General Motors' P2P acquisition, Relay Rides, also puts together car owners who wish to rent their cars for a few hours and those who wish to use them. Rather than offer their own fleet of cars to those who want to use them on a short term basis, the use of existing owners' cars avoids having to maintain and store the cars, and a blanket insurance policy covers the owner-rented car while in use. The strategy attempts to keep a foot in the door and offer a service facilitated by their OnStar system of communication among GM car owners.

Mercedes also offers another service called car2gether which puts together car owners and those seeking to hitch a ride between two locales. Besides generating favorable press, the car-reducing, congestion-reducing, environmentally friendly strategy also offers a way to make car ownership more attractive to users who can then earn part of the cost of car ownership by offering others rides. Not only do the car companies facilitate such ride sharing, so do independent sites such as Uber, Local Motion, Zimride, Spride, Getaround, Lyft, Sidecar, blablacar, and many others that have sprung up in various cities in order to reduce traffic, reduce pollution, save money, and create efficiencies greater than those of the old model of single drivers driving an hour or two a day and searching for limited and expensive parking spaces for their vehicle while they work, shop, visit, or consume entertainment.

Some true sharing sites also offer transportation services. San Francisco offers hundreds of "casual car pool" locations throughout the San Francisco Bay area, generally near public transportation stops. Those seeking rides wait at these locations and drivers stop by offering rides to different locations. After picking up a passenger the driver can then use the high occupancy vehicle lane and get to their desired location more quickly. Similarly there are cooperative car sharing organizations like Majorna in Goteborg, Sweden in which members pitch in to buy, maintain, and schedule the use of their small fleet of cars (Jonsson, 2007).

If the fears that drove hitchhiking out of common practice were those of dangerous strangers driving or seeking rides, one way around this is through reputation systems. Just as when buyers and sellers rate each other after eBay purchases, San Francisco ride sharers and many other such services help to build trust in particular people, and distrust of others, through online ratings after the fact. In addition testimonials, putting up photos and videos of people and the cars to be shared or collaboratively consumed all help to build a reputational economy making transactions between strangers safer and less uncertain (Masum & Tovey, 2011; A. Sacks, 2011, D. Sacks, 2011; Solove, 2007). Even people and cars with strange or unpleasant smells are flagged on the web site for the casual car pool. Companies like TrustCloud are attempting to offer reputational ratings that can be used across different collaborative consumption sites (A. Sacks, 2011, D. Sacks, 2011).

4.2.2. Other collaborative consumption ventures

Many additional collaborative consumption organizations fit in a variety of categories of goods and services as diverse as P2P lending, crowd funding, shared Wi-Fi, community supported agriculture, skill barter banks, car repair, child care, and catering (see Botsman and Rogers, 2010; Leadbeater, 2009; Slee, 2013). What they have in common is an Internet facilitated ability to help people find things that we once had to buy or rent or lease for days or years at a time (Cheshire, Walters, & Rosenblatt, 2010; Durgee & O'Connor, 1995). One Toronto-based car sharing organization called AutoShare transforms the old home pro-ownership question, "Why rent when you can buy?" into an updated equivalent within the emerging sharing economy, "Why own when you can rent by the hour?" To the extent that we adopt this ideology we may be moving toward the situation that my fore-title highlights, "You are what you can access". And with short term rental becoming more common, we are increasingly uncertain whether or not another consumer owns the car, house, handbag, jewelry, mobile phone, or dress that we see them using.

This perspective is not to say that collaborative consumption and sharing are without problems. The music and film industries vigorously opposed online sharing of their products. The publishing industry and online book sellers have been somewhat less aggressive, but still take various DRM precautions to forestall duplication of their e-books. Hotels are pressuring municipalities to enforce hotel or bed and breakfast regulations on those who would offer short-term rental services through the likes of Airbnb, HouseTrip, Windu, and 9flats to rent all or a portion of their home.

The same is true of restaurants that feel threatened by "private kitchen" offerings, where people buy a meal in someone else's home, and want them to be inspected for the same health and safety standards that the restaurants must obey. Some banks rail against P2P lending and crowd funding. Whether or not these reactions are wise and effective in resisting the sharing economy is an open question. Clearly they were not in the case of music and film. The final section that follows considers whether business strategists should feel threatened by the sharing economy and what problems and opportunities this economy may create for them.

5. Discussion: Business implications

Successful new sharing ventures are likely to shake established industries to the extent that sharing and collaborative consumption result in fewer purchases or facilitate a shift from individual ownership to shared ownership or short-term rental (Boesler, 2013). Flight and fight are two knee-jerk reactions to disruptive technologies. Flight would constitute such actions as diversifying out of the industry, while fight reactions are exemplified by those exhibited by the music, film, and publishing industries by invoking IPR to attempt to stave off the sharing economy. The results of these fights have been poor and keep these industries from embracing new technologies and profiting from them.

The creative destruction of old business models and the adoption of new creative ways of participating is a third strategy. The short-term car rental and ride-sharing efforts by a number of the automobile companies are a case in point. So are music and film streaming as well as video on demand by Netflix, Internet service providers, cable television companies, Apple, Amazon, and various software companies. But by charging for what consumers with some effort may be able to get for free, they are capturing only a portion of the market which has high ethical qualms or those who are cash rich and time poor and who therefore prefer the convenience and safety of paid downloads. These adaptive practices help, but do not fully participate in the disruptive technologies that traditional ownership-based companies are facing.

An alternative adaptive strategy is to provide content for free and find other sources of revenue. Google doesn't charge for its browsers and encourages people and companies to use them at no cost. Their hefty revenues instead come from ad revenues and the ability to target messages to users whose searches are matched with the ad content they receive as banner ads and paid links to commercial sites at the start of a string of search results. Publishers and the music industry have relied on intermediaries to provide revenue sources. Libraries buy e-books and subscriptions to periodicals from publishers and provide them free to patrons. Music distribution services like iTunes, Rhapsody, and Spotify charge for their products or services and rebate royalties to artists and music companies. Copyright services do the same with libraries and other institutions that provide or allow users to make copies of material under copyright.

An additional strategy is to buy up a leading company offering the disruptive technology—Zipcar in the case of Avis. In still other cases the disruptive technology may expand rather than contract the market. Bag Borrow or Steal offers rotating access to designer handbags and accessories for an affordable monthly fee. A consumer spending $50 a month gains access to an endless stream of designer bags, one at a time, whereas it would take years of saving this amount each month in order to afford to purchase even one of the bags. Thus the consumers who lust for such bling would likely not be in the market to purchase the bags. The service is a little like counterfeit goods in this case, except that it offers the real thing. Rent the Runway does something similar with designer dresses, jewelry, and accessories. In this sense these sharing economy alternatives may expand rather than contract the market, just as time share condominiums have done for the second home vacation market.

A final consideration for an existing ownership-based business is to assess the degree to which the disruptive technology represents a permanent versus temporary anomaly in business-as-usual. Many of the sharing and collaborative consumption organizations that currently exist benefitted from the economic collapse that began in 2008 that caused some consumers to lose their homes, cars, and investments and made most everyone more price sensitive. Furthermore it is still unclear whether the twenty-somethings who are now living downtown and getting by without a car by occasionally renting one by the hour will change their ways when they have families. But these sorts of analyses should not lull a firm into complacency.

The digital revolution is still in its infancy and is certain to bring further dramatic changes in the future. Both now and in the future only the company looking to go out of business should put its head in the sand and assume that emerging challenges will just go away. Instead companies should be asking themselves, "How else can the consumer acquire and use the types of goods or services I currently provide and how might I innovate to capitalize on these possibilities?" Global warming, rising fuel and raw material prices, growing pollution, and other anticipatable trends are further stimulants to future sharing and collaborative consumption opportunities. By regarding changing technologies and environmental trends as bringing opportunities rather than threats, forward looking firms can benefit from these disruptive technologies by being on the forefront of delivering them.

6. Conclusions

The average car in North American and Western Europe is in use 8% of the time (D. Sacks, 2011). The average electric drill is used 6 to 13 min over its lifetime (Earth Share, no date). Sharing makes a great deal of practical and economic sense for the consumer, the environment, and the community. It may also make a great deal of sense for businesses that are sufficiently flexible, innovative, and forward thinking. Botsman and Rogers (2010) suggest that collaborative consumption could be as important as the Industrial Revolution in terms of how we think about ownership. Everyday some of the bravest and brightest thinkers are dreaming up the next Internet startup intended to bring its creators a fortune. Against this backdrop it would be folly to ignore sharing and collaborative consumption as alternative ways of consuming and as new business paradigms.

Few industries are exempt from potential disruptive change within the sharing economy. While universities have been slow to embrace online teaching, university academics have long participated in a cornucopia of shared knowledge. Rather than work individually and keep our knowledge secret, we are happy to publish it and give it away to anyone who is interested. This is the open model of science that replaced the medieval scientist trying to keep discoveries secret and thereby condemning fellow scientists to all start from scratch (David, 2005). What then should we make of universities rushing to patent discoveries before allowing them to be published? Surely nothing good. When knowledge and learning are auctioned off to the highest bidder we all stand to lose. Shaking lose of the former wisdom that, "You are what you own" and converting to a new wisdom, "You are what you share," indicates that we just may be entering the post-ownership economy.

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