Reevaluating Value:

New forms of value resulting from advances in digital technologies - specifically as related to photographic images.

by Dave Kemp

> *"The word VALUE, it is to be observed, has two different meanings, and sometimes expresses the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called 'value in use;' the other, 'value in exchange.' The things which have the greatest value in use have frequently little or no value in exchange; and on the contrary, those which have the greatest value in exchange have frequently little or no value in use. Nothing is more useful than water: but it will purchase scarce any thing; scarce any thing can be had in exchange for it. A diamond, on the contrary, has scarce any value in use; but a very great quantity of other goods may frequently be had in exchange for it."*
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> Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations,* 1776, bk. I, ch. 4.13.

The notion of value has always been an ambiguous and somewhat arbitrary metric applied to goods, services, and property. Even so, standards of value are firmly established and rigidly held through the actions of laws, policy, markets and public perception. Advancements in digital technologies have presented challenges to these standards and complicated the public understanding of value through the creation of property without physical presence and the ease at which digital goods can be duplicated and distributed as exact copies. The common response to these challenges has been to increase the power and extent of law and to outlaw any new technologies that challenge traditional notions of property and ownership. Such increases in legal restrictions can have devastating effects on the freedom of a society particularly with regard to creative and cultural production. Fortunately, certain cultures associated with these same digital technologies have indirectly evolved new modes of production, new notions of value and entirely new forms property. Recently these new notions have begun to move out of the exclusive realm

of the computer geek and into the mainstream. This emergence can be observed in a number of fields, but is most pronounced in the production and distribution of creative content such as music, film, literature and photographic images.

Massively multiplayer online role-playing games (MMORPGs) such as *Everquest* and *Ultima Online* represent some of the most extreme cases of digital technologies complicating norms related to value. Virtual items such as gold, swords and iron ingots acquired within the games are sold through eBay for "real" currency. Once a deal is made, players make arrangements to have their online avatars (characters in the video game) meet and complete the transaction. Particular value is placed on special hard-to-find, rare items (including seemingly mundane objects like potted plants, blood puddles and cow manure) although real estate (castles, houses, windmills, etc.) and high-level avatar identities also change hands through such transactions.

This form of trade has grown to such a degree that these online worlds have developed thriving economies on par with the economies of real nations. In his paper *Vitual Worlds: A First-Hand of Market and Society on the Cyberian Frontier,* economic theorist Edward Castronova calculates the GNP of Norrath (the virtual world of the Everquest MMORPG) to be 135 million, making it the 77th richest nation in the world and "richer than than many important countries, including China and India" (Castronova, 2001, p. 34) even though it doesn't really exist in a physical sense.

With such flourishing economies many players have found they are able to augment their "real" income through work performed in these virtual worlds and in some cases players are able to entirely support themselves through income generated from the buying and selling of virtual items; however, as with any such cases where there is money to be made, there are those who

will find ways to take advantage of the system. An article in Wired magazine (Dibbell, 2003) noted that a company called Black Snow Interactive set up the first virtual sweatshop in Tijuana, Mexico. Taking advantage of unskilled, ultra-low paid workers, Black Snow had their employees play *Ultima Online* and *Dark Age of Camelot* MMORPGs in an assembly-line like manner acquiring virtual gold and producing high-ranking characters to be sold on eBay. Black Snow produced a significant profit in this manner until they were eventually shut down by the Federal Trade Commission with charges relating to a separate business venture.

In June of 2003 with the launch of a new MMORPG called *Project Entropia* the idea of a virtual economy was taken a step further. The *Project Entropia* economy functions using the Project Entropia Dollar (PED) where 10 PED are equivalent to 1 US dollar. Players are able to add to their avatar's wealth through credit card payments and conversely can convert PED back into US dollars thereby earning "real money while playing an online computer game" (Project Entropia website, 2005a). In October 2005 the avatar Jon "Neverdie" Jacobs purchased a virtual space port for $100,000 US. Viewing it as a sound investment Jacobs plans to establish the Club Neverdie resort and generate income from its "1000 Apartment complex, Commercial Space Ship Docking, Themed Shopping Mall, Mega Stadium for championship sporting events, Nightclub with multiple Dance floors, Live Amphitheater, lounges, and 10 Hunting Biodomes." (Project Entropia website, 2005b).

A related, but perhaps more tangible complication of value norms is presented in an article by William Pesek Jr. titled "Would you rather own Google or Indonesia" (Pesek, 2005). In the article Pesek describes:

> “In April, Google Inc. surpassed Indonesia's entire stock market in value. Think about it. A seven-year-old company that produces no physical products is now more valuable than the equity of Southeast Asia's biggest economy. Indonesia is an archipelago of some 18,000 islands holding natural resources --including oil -- that make the world's richest nations salivate. Google is, well, an Internet search tool.”

Pesek uses Google’s market cap value for the comparison which may raise some debate about Pesek’s claim since market cap is based on expected future growth and therefore not really a reflection of intrinsic value. However, market cap is still a standard by which value is commonly measured and many people including Pesek are uncomfortable and confused by the idea that an essentially virtual company could in any way be viewed as more valuable than a country of 235 million people with a history going back thousands of years.

This type of discomfort and confusion is common in situations where new technologies challenge pre-existing notions of value, ownership and property. In *Free Culture: The Nature and Future of Creativity,* Stanford Law Professor, Lawrence Lessig uses the invention of the airplane as a new technology that once challenged notions of property. Traditionally it was understood that one’s claim to land extended down to the centre of the earth and up to infinity. This meant that any airplane flying overhead would be trespassing on the owner’s property and hence could be charged and/or sued. This was tried in court in the case of United States vs. Causby, 1946 when Thomas Lee and Tinie Causby sued the Government of the United States claiming that military aircraft were trespassing on their property and that the noise was disturbing their chickens (apparently the distressed chickens were flying into walls and killing themselves). Obviously such issues have since been resolved and a new understanding of land

claims evolved, but, if they had not, the old laws could have essentially eliminated the potential for air travel to develop to its current state.

Lessig's particular concern relates specifically to copyright laws. Over time these laws have become increasingly strict and long lasting, moving away from their original purpose as stated in the United States constitution "to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."(United States Constitution, article I, section 8 clause 8). New digital formats (that can be copied without generational degradation), internet-based peer-to-peer sharing and fears of lost sales resulting from the distribution of pirated content have only aggravated the tendency to gain an even tighter hold on copyrights. In recent years, lobbying on the part of companies such as Disney Inc., the Recording Industry Association of America (RIAA) and the Motion Picture Association of America (MPAA) as well as individuals like Mary Bono (Sonny Bono's window) have resulted in addendums to copyright laws including the Sonny Bono Copyright Term Extension Act (1998) and the Digital Millennium Copyright Act (1998). The end result (in the United States) is copyright that is automatically applied to any and all content, that will remain in effect for the life of the author plus 75 years (or 95 years in the case of corporate held copyright) and is applied retroactively to pre-existing copyright which means that no content from 1923 onward will enter the public domain until 2019. Additionally, the Digital Millennium Copyright Act makes possession of any technology that could potentially be used to circumvent copyright protection measures illegal.

These changes effectively destroy the entire notion of the public domain. The public domain represents the common cultural and intellectual heritage of a society. Without content in the public domain, a society does not have an accessible history and as a result, much

history and cultural content will be lost or forgotten – plus it will be unavailable for use as source material to base new creative works upon. Ironically, Disney Inc., one of the primary advocates for copyright term extension was founded on work derived from the public domain and continues to use public domain material to this day. Some of Disney's early films such as *Snow White* (1937) and *Cinderella* (1950) were based on Brothers Grimm fairy tales found in the public domain. Similarly, *Fantasia* (1940) made use of classical music by Bach, Tchaikovsky, Beethoven and Schubert; *Pinocchio* (1940) was derived from a novel by the Italian author Carlo Collodi; and *Alice in Wonderland* (1951) from Lewis Carroll's book. Recent productions derived from public domain material include: *Beauty and the Beast* (1991) coming from a traditional folktale, *The Hunchback of Notre Dame* (1996) the novel by Victor Hugo, and *Treasure Planet* (2002) based on Robert Louis Stevenson's novel *Treasure Island* (1883). Had this content not been in the public domain Disney Inc. would have been required to track down the owners of the copyright, use their lawyers to work out an appropriate fee and then pay the owner that fee. For large companies like Disney, this may not pose an insurmountable problem, but for many smaller producers lacking in resources and financial backing, such restrictions could drastically hinder or even halt a project altogether.

To combat these very restrictive copyright conditions, Lessig developed a new way of understanding the value and ownership of creative property through a set of creative content licenses which defined what he named the Creative Commons. These licenses allow a content producer to retain some but not all of the rights associated with their work. In so doing, authors are able to control who uses their work and how it is used. Specific permissions can be defined using parameters such as pure public domain, to allow any use so long as the original author is credited, to disallow commercial uses of the content, to allow free use in developing nations, etc.

The licenses exist in three forms, a simple human-readable form that explains the general idea, a form that contains proper legal language so that the license is legally respected, and a computer readable form (HTML) that can be attached to web content allowing visitors and various search engines to know the usage requirements and restrictions of the content. Recently Yahoo and Google have added Creative Commons licenses as a search field under their advanced search option.

The ideas behind the Creative Commons are not new, but actually evolved in the early days of computer software design. Originally, software was produced by academics and enthusiasts and was free to use and distribute. Users could also freely modify and alter software to suit their individual needs. The trend changed when companies such as Microsoft began charging for software (Campbell, 1996, p. 240 – 244) and making the program code proprietary, thus locking it away from potential modifications. In 1983 Richard Stallman (a computer programmer from MIT) initiated the GNU (a recursive acronym for - GNU's Not Unix) project to develop a free alternative to the UNIX operating system in order to reestablish the cooperative spirit that existed in the earlier days of computing (Stallman, 2002). As part of this project Stallman created the GNU General Public License (GNU GPL) to ensure recipients of the software would be free to run, copy, modify and distribute the GNU operating system so long as any other software built on the GNU platform or using snippets of GNU code also remained free. This was the first in a series of licenses that came to be known as Copyleft (Stallman, 2002).

From the GNU GPL, the Free Software and Open Source Software movements rose. Working collaboratively, large groups of individuals came together to produce a wide variety of software under the GNU GPL to which no one could claim ownership and for which they received no financial compensation. The software included alternative versions of many of the

popular commercially available software packages including the Linux operating system, Mozilla Firefox web browser, OpenOffice (equivalent to MS Office Suite), The Gimp (equivalent to Adobe PhotoShop), Inkscape (equivalent to Adobe Illustrator), etc.

Following the Free Software and Open Source movements, a number of other online, volunteer driven, collective projects began to emerge such as Wikipedia a web-based free content encyclopedia that is free for anyone to read and allows users to create, expand or alter articles; the SETI@home screensaver which allows the under-funded SETI (Search for Extra Terrestrial Intelligence) organization to make use of idle time on millions of individuals' home computers (producing the equivalent computing power of a supercomputer) to analyze vast amounts of radio-telescope data; Project Guttenberg a volunteer effort to digitize literature currently in the public domain and make it available online at no cost; and the Creative Commons series of creative content licenses.

The question now becomes, without monetary compensation, what other forms of value are present to motivate individuals to participate in this type of activity. In the essay *Coase's Penguin, or Linux and The Nature of the Firm*, professor of Law at the New York University School of Law, Yochai Benkler refers to this form of working as "commons-based peer production" (Benkler, 2000, p 369) and describes it as an entirely new mode of economic production distinct from firm and market production.

> "This phenomenon, called free software or open source software, involves thousands or even tens of thousands of programmers contributing to large and small scale projects, where the central organizing principle is that the software remains free of most constraints on copying and use common to proprietary materials. No one "owns" the

> software in the traditional sense of being able to command how it is used or developed, or to control its disposition. The result has been the emergence of a vibrant, innovative and productive collaboration, whose participants are not organized in firms and do not choose their projects in response to price signals [as with market driven production]." (Benkler, 2000, p 369)

Benkler goes on to describe particular advantages and efficiencies of this form of production and more importantly the factors motivating participants to produce something that they do not own and from which they receive no monetary compensation for their efforts. The formula R = M + H + SP is used to describe all of the factors that could possibly motivate an individual to do work. R is the overall reward, M is monetary rewards, H is intrinsic hedonic rewards (e.g. the pure pleasure or sense of accomplishment one may experience through creation) and SP is socio-psychological rewards (respect of peers, increased social status, etc.). As an example Benkler applies this formula to the act of sexual intercourse to see how these factors work. M is a fee (as in the case of prostitution), H is an orgasm, and SP is love. He also uses the example of making and serving dinner which can be done for "any combination of a fee, the pleasure of cooking, and companionship" (Benkler, 2000, p. 423). From this one can see that many factors come into play when motivating effort. In the case of commons-based peer production much of the motivation derives from a joy of producing, making use of one's skills, respect for having these skills by their peers, and a sense that one is doing something good for society. In addition, Benkler notes that most people who participate in commons-based peer production generally have other employment that fills the monetary M variable in the equation, but may lack in hedonic H and socio-psychological SP. By combining financially gainful employment with

commons-based peer production in this way, many individuals are able to meet monetary needs required for subsistence and achieve the meaning and purpose required to make one's life complete.

A particularly interesting aspect of commons-based peer production is that even if an individual chooses to take advantage of the freely available products (software) without any direct contribution to the project, they are in fact still making a contribution to the overall value of the project and increasing the level of reward for more direct participants (the programmers). Eric von Hippel and Georg von Krogh describe the effects of "free riders" on what they refer to as the "private-collective" model in the open source software movement

> "Informal observation in the field of open source software development suggests that contributors actually regard free riders as an asset. Free riders that adopt open source code without contributing to it nonetheless increase the "market share" and importance of the project that may help set de facto standards." (von Hippel, 2003, p. 218)

By increasing the "market share" and importance of the project free riders will not only gain the benefits of the free software, but also increase the hedonic (H) and socio-psychological (SP) rewards (from Benkler's equation) of the software developers. In the long run, this becomes a situation where everybody wins - except of course the competing commercial software companies.

For many, the appealing aspects of this form of production is that it acknowledges and appreciates other more intangible forms of value beyond focusing strictly on the monetary. Another way of looking at this form of production would be to view it as a reemergence of "gift

economies" found in the traditional societies of aboriginal people in Polynesia and the west coast of North America. In his book, *The Gift: The Form and Reason for Exchange in Archaic Societies*, anthropologist Marcel Mauss explains that gift economies are based on the giving of gifts with the expectation and obligation that the gift be returned and thus forming strong social ties. If a gift is not accepted or not reciprocated, the non-participant loses in honor and social status and as stated by Mauss, "To refuse to give, to fail to invite, just as to refuse to accept, is tantamount to declaring war; it is to reject the bond of alliance and commonality." (Mauss, 1950, p. 13) The most extreme example of gift giving is observed in the Potlatch ceremony of the Haida and Kwakiutl First Nations people of west-coast North America. In the ceremony useful items such as food, furs, canoes, clothing, blankets, baskets, tools and copper were given away in order to increase the honor and prestige of the giver. At times the giving would become so competitive that items and property were destroyed in order to gain more honor.

In contemporary Canadian culture aspects of gift economies are present in certain festive activities. For weddings, one gives a gift with the expectation that when they or their offspring is married, the gift will be reciprocated and in so doing ties between families are strengthened. At Christmas and related holidays gift exchange occurs which is known to bring friends and families closer together and even simple activities such as bringing a bottle of wine for the host of a party can been viewed as traces of a gift economy.

Commons-based peer production is based on a similar type of gift mentality where there is a strong incentive to contribute, participate and reciprocate in exchange for the free content, software, etc. one receives; however, it should be noted that as described by von Hippel and von Krogh in this cases even free riding may be viewed as a form of participation.

Similar to the conclusions drawn by Benkler and the analysis of von Hippel and von Krogh, Mauss views this type of gift economy as superior in many ways to our current economy.

> "within these groups, individuals, even those with strong characteristics, were less sad, less serious, less miserable, and less personal than we are. Externally at least, they were more generous, more liable to give than we are. The law of friendship and contracts, with the gods, came to ensure 'peace' within 'markets' and towns." (Mauss, 1950, p. 81)

The medium of photography both as new technology and as its product - the photographic image - is an interesting case-in-point in the analysis of value. Traditionally photographic images were primarily valued for their use and held little value in exchange. Walter Benjamin describes the forms of value attributed to photographs in the context of artistic value in his influential essay *Art in the Age of Mechanical Reproduction* (Benjamin, 1936). In the essay, Benjamin ascribes two forms of value to artworks, "cult value" and "exhibition value". Cult value is the ritualistic, worshiped, or magical properties associated to "the image object" (the type of value often attributed to a religious icon or relic). Exhibition value is associated with the information contained within the image itself and its ability to communicate with viewers. The term "aura" is also used to further describe the cult value of an artwork and relates to the physical presence of the art object in time and space which reveals evidence of the object's history and "the changes which it may have suffered in physical condition over the years as well as changes in ownership" (Benjamin, 1936, p. 220). Benjamin argues that the aura is present only in the original work of art and not in copies of the original. Photography by its very nature is a copy and hence by this definition cannot have an aura or contain cult value. The only

exception Benjamin acknowledges is the aura associated with a cult of remembrance present is early photographic portraits:

> "The cult of remembrance of loved ones, absent of dead, offers a last refuge for the cult value of the picture. For the last time the aura emanates from early photographs in the fleeting expression of a human face. This is what constitutes their melancholy, incomparable beauty. But as man withdraws from the photographic image, the exhibition value for the first time shows its superiority to the ritual value." (Benjamin, 1936, p. 226)

The emphasis on exhibition value (or value in use) of photographic images was prevalent at the time and much like water in Adam Smith's diamond-water paradox meant that photographs held very little monetary or exchange value. This turned out to be a great benefit to the rise in popularity of photography as a medium. With photographs containing little monetary value, the act of "taking" a photograph was not viewed as an act of theft through removing value from the photographed subject or as a loss of potential revenue on the part of the subject. Had the perception of photographic value been different and laws created to ensure the permission and/or adequate compensation for the subject, photography may not have evolved as it is today. As described by Lawrence Lessig:

> "Photography would have existed. It would have grown in importance over time. Professionals would have continued to use the technology as they did—since professionals could have more easily borne the burdens of the permission system. But the spread of photography to ordinary people would not have occurred. Nothing like that

> growth would have been realized. And certainly, nothing like that growth in a democratic technology of expression would have been realized." (Lessig, 2004, p. 35)

However, perceptions have changed over the years and photographic images are now subject to the same restrictive copyright laws that concern Lessig. Also, the art market has applied Benjamin's notion of aura to vintage photographic prints (photographic objects) and photographic prints produced by famous artists. Such prints are not necessarily "the original", but are at least one of the very few and this rarity produces aura, cult value and monetary value as seen in the 2003 sale of Joseph Philibert Girault de Prangey's photograph *Athènes 1842 T[emple] de J[upiter] Olympien pris de L'Est,* 1842 which sold at Christies auction house for $922,488 (US) ("The Most Valuable Photograph", 2005). In addition, vintage photographic prints have been around long enough to develop a patina and to display evidence of the objects history thereby acquiring aura.

As with other media, digital technologies have complicated notions of value with regard to photographic images. A digital image has no physical object to be possessed, owned or sold; there is no original, not even in the form of a negative. All digital copies are equal in value and quality (although depending on how the copy is made it is possible that some copies may be reduced in size or degraded by compression methods such as JPEG) and these copies are easily made and distributed. Finally, there is no chance for a patina of age to occur, thus no chance of the formation of aura. Exhibition value is all that remains and this becomes complicated by restrictive copyright legislation.

Value as related to photographic images becomes a very complicated matter. The value of a photographic image can be perceived in many ways such as its ability to describe an object

or person; serve as a memory trigger for a period of one's life; be used as an advertisement and sell a product; remember a loved one; relay newsworthy events from far away and from time periods long past; provide evidence; sexually stimulate; be humorous; present a view from another way of life; be an object of historical significance; be collected; be beautiful; tell stories; to communicate ideas; etc.. As there is no one way of quantifying the value of a photographic image, a new more flexible method of perceiving overall value is required. Although daunting, this should not prove to be an impossible feat, after all, the reading of a photograph is already accepted as a flexible, floating, multiple-level activity. As explained by Roland Barthes in *Rhetoric of the Image* (Barthes, 1977), the photographic image functions as a "message without a code" and the photograph "corresponds to a decisive mutation of informational economies" (Barthes, 1977, p. 121). If this is true, why can't photographic images (particularly the digital photographic image) also correspond to a mutation of value-based economies and be perceived as having value without a monetary standard.

Following the open source model, photographic images could be valued using Benkler's method of summing other forms of value beyond the monetary and von Hippel and von Krogh's notion that the use of an image increases its value and the overall reward for its creator. Such a perception of photographic value has proven effective in the past as exemplified by Alberto Korda's famous and widely distributed image of Che Guevara titled *Che Guevara at the funeral of the victims of the La Coubre. Colón Cemetery Havana, 1960*. In keeping with his socialist beliefs, Korda originally released the image in the public domain for use by the people. In Korda's words:

> “As a supporter of the ideals for which Che Guevara died, I am not averse to its reproduction by those who wish to propagate his memory and the cause of social justice throughout the world,". (Associate Press, 2000)

Due to the lack of restrictions on the use of Korda’s image, accompanied by the fact that it is a strong image of a historically significant figure, the image of Che has been reproduced countless times on everything from posters and t-shirts to coffee mugs and mouse pads. The image has obtained an incredible amount of exhibition value, possibly becoming one of the most recognizable photographs in the world, known even to those who have no idea who Che Guevara was. However, in 2000 Korda became upset with the way in which his image was being used for marketing purposes, particularly with regard to a campaign for Smirnoff Vodka. As Korda stated “I am categorically against the exploitation of Che's image for the promotion of products such as alcohol, or for any purpose that denigrates the reputation of Che." (Associate Press, 2000). The only way for Korda to gain control of the use of his image, was to obtain copyright, thus making it unavailable for use by anyone for any purpose.

Perhaps if new creative content licenses like those from Lessig’s Creative Commons had been available and widely accepted (a status not yet fully achieved) Korda may have had other options. He may have found ways to maintain some control related to the use of his image while still allowing the freedoms and opportunities afforded by the public domain.

From Korda’s example it can be seen that new ways of perceiving value in photographs are possible. Further evolution in public perception and law are still required, but this is starting to happen. These new ways of perceiving value have the potential to mitigate many of the problems that have arisen due to new digital technologies both in relation to photographic images

and other creative property. Hopefully, rather than concentrating on protecting one's own monetary interests, a more collective, communal approach to understanding value will develop - an approach based on helping others and improving society as a whole, eventually leading to a more meaningful, free and culturally-rich world.

Dave Kemp, 2006

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