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## Generation-C: creative consumers in a world of intellectual property rights

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**Abstract:** Generation-C is a generational movement consisting of creative consumers, those who increasingly modify proprietary offerings, and of members of society who in turn use the developments of these creative consumers. It is argued that their respective activities, creating and using modified products, are carried out by an increasing number of people, everyday, without any moral and legal considerations. The resulting controversies associated with existing intellectual property rights are discussed, and suggestions put forward that the future can only bring conflict if such legislation is not changed so that derivative innovations are allowed to flourish. The article concludes with important messages to organisations, intellectual property rights lawyers, owners of property rights, governments and politicians, suggesting they reconsider their respective stances for the good of society.

**Keywords:** creative consumers; lead users; creativity; intellectual property; IP; digital rights; DRM; user generated; UGC; social media; Facebook; Twitter; innovation; product development; generation-C.

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## 1 Introduction

In a *New York Times* commentary, Deresiewicz (2011) argues that youth cultures are signs of the times, and that generational movements can be characterised by two related elements: the emotion a growing number of people valorize, and the social forms they envision. In this sense, the Hippies, exemplified by John Lennon, Janis Joplin, etc., claimed to be all about 'love'. The social forms they imagined for themselves were the commune, the music festival, the liberation movement. Punks like Johnny Rotten were all about rage, with a social programme of nihilistic anarchy that ignored the irony of an organised programme of anarchy. Generation X, with no clear leaders, other than possibly Kurt Cobain, projected the sense of aimlessness and pointlessness of true nihilism, with yet another paradoxical social vision of 'no social vision'. Young people these days, Deresiewicz argues, belong to 'Generation Sell' that is led by the Mark Zuckerbergs of the world, with an ideal social form that is not the commune or the movement or even the individual creator as such; rather it is small business with "no anger, no edge, no ego".

We disagree, and in this paper we discuss how today's youth is involved in far more than just buying and selling. Young people innovate, and a *creative consumer movement* is on the rise as more and more are starting to operate outside the world dominated by traditional mass consumption (Heath and Potter, 2004). Innovations today come from not only orthodox creators (did they ever?), but also users on the margins, unfettered by organisational and institutional constraints. These consumers are free to experiment with radical ideas, and subsequently modify existing products (von Hippel, 1988; von Hippel and von Krogh, 2006), create user-generated advertisements (Berthon et al., 2008), and improve existing services (Shah and Tripsas, 2004). Creative consumers adapt, transform and retransmit proprietary offerings (Berthon et al., 2007), thereby actually creating a whole raft of derivative applications, some of which would never have been imagined by the original inventor. We argue that such creative consumer, their activities, the offerings they produce and the people who consume them, are all governed by intellectual property rights (IPR) that stifle rather than encourage their innovative potential.

In this polemic, we first introduce how creative consumers are everyday innovators who modify increasingly modular proprietary offerings and share their highly resourceful and imaginative discoveries (i.e., processes and products) via the internet. The subsequent section entitled 'likers, friends and followers' articulates the contentious nature of using the offerings of creative consumers that were crafted in violation of existing laws. Next, this paper presents Generation-C as a superset of largely alegal and

amoral individuals who embrace all things digital – creative consumers *and* their respective audiences. Against this backdrop, controversies associated with existing IPR are discussed in the context of Generation-C. The implications, we suggest, are that the future can only bring conflict if IPR legislation is not changed so that derivative innovations are allowed to flourish. This paper concludes with important messages to organisations and IPR lawyers, to owners of property rights, and to governments and politicians to reconsider their stances for the good of society.

### *1.1 The rise of the creative consumer movement*

This rise of the creative consumer movement should not come as a surprise, particularly given the popularly recognised high degree of *malleability* that characterises most new offerings today, especially those of a technological nature. This malleability, which refers to the range of uses each particular technology admits today (Kallinikos, 2002), is no longer just a matter of the *intended malleability*, or how ‘closed’ the technologies are to future changes at the time of production, but rather how creative consumers can actually ‘re-open’ them to change their functionality. The former is constantly decreasing as firms try to use legal means to ‘protect’ their offerings more closely, but the latter, the rising level of *real malleability*, suggests that the functionality of new offerings are increasingly (re)negotiated by the commitments, capabilities, and preoccupations (Kallinikos, 2002) of creative consumers.

Not surprisingly, in an age preoccupied with cyber- and homeland security (Kietzmann and Angell, 2010; Angell and Kietzmann, 2006), the authorities, but not the general population, perceive creative consumers as pirates, phreakers, and jailbreakers; ‘spies and thieves’ (Nichols, 2000), who in the eyes of the law modify software to bypass identification checks, exploit security holes or change artefacts for political, financial or other gains, etc. We, on the contrary, believe creative consumers are mostly lead users, user designers, and everyday inventors, who want to improve a product experience, or use it to solve previously unrealised or hand real world problems. This can happen in a wide variety of ways, as for example, when creative consumers maintain the functionality of a particular device but change some of its properties: the functionality of a mobile phone can be improved by enabling the GPS chip that had previously been disabled by the manufacturer. However, such behaviour can also lead to a divergence from the embodied intentionality and technology of the artefacts in use (Orlikowski, 1992, 2000). For instance, when consumers use IKEA shelving units to build a literal ‘catwalk’ for their feline friends just below the entire ceiling of their homes, technology-in-use differs substantially from IKEA’s intention for the product.

Creative consumers add storage to TiVo personal video recorders (TiVoCommunity, 2010), tweak DVR remote controllers so that entire advertisements can be skipped (Wired, 2012), reuse ‘disposable’ digital cameras (Kamera Kevin, 2009), remove top speed limiters for their cars (Lee, 2012), improve video-games (Jeppesen and Molin, 2003), design modchips for their game consoles (XFlak, 2012), control Roomba vacuum cleaners via mobile phones (Wrigleyd84, 2010), and more socially meritorious, re-conceive plastic water bottles to give light to the poorest people in the Philippines living in dwellings without electricity (McGeown, 2011). But of course not all creative consumer innovations are ‘good’ and benefit wider society. Arguably, those who use the lithium in automobile batteries to synthesise crystal meth are also creative consumers.

But the implications of such creativity are a criminal matter, not an issue of the IPR element being discussed here.

Nowadays, not only are offerings increasingly flexible and modular, thereby inviting and admitting the emergence of new ways of human participation (Kallinikos, 2002), but also the propagation of such creative knowledge has changed substantially for creative consumers. Although they still enjoy physical co-presence (e.g., at Hackerspaces like NYC Resistor or A2 Mech Shop, or at Maker Faire with 120,000 attendees in 2012), today's creative consumers, who yesterday were lone unorthodox innovators, now communicate and trade their discoveries differently and more broadly, with the world at their fingertips at the mere click of a mouse. Setup costs are minimal, and there are no barriers to entry.

And what do they trade/sell? Not just 'second hand goods' à la eBay, but reputations, good will, favours, fame, goods, services, etc. This is particularly the case for those 'born digital', who (co)create and freely reveal (von Hippel, 1988) creative innovations across all available functional building blocks of social media (Kietzmann et al., 2011). They have conversations about their activities (e.g., on blogs); build relationships with other creative consumers (e.g., via Twitter); develop a reputation within their communities (e.g., using LinkedIn) or groups (e.g., on Facebook); and share their accomplishments with the world (e.g., via content uploaded to YouTube) (Kietzmann et al., 2012).

Originally an incoherent phenomenon, this behaviour has now become systemic. The motives why any individual should bother to take the time and effort to act in this way are many and varied (Hirschman, 1980; von Hippel, 1978). Whatever the reasons, be they philanthropy, vanity or money, the creative consumer movement is growing across the internet. It is advancing not least because its members have anger, an edge, and ego. Some are angry with 'the establishment', which includes profiteers that fix prices at unreasonably high levels. With their actions, for example, by *jailbreaking* mobile phones and installing *homebrew* applications, creative consumers are indirectly rebelling against firms that in effect are curtailing what customers can or are allowed to do with products for which they have paid.<sup>1</sup>

Creative consumers defy brand bullies (Klein, 2000), and they turn their backs on those institutions that they feel should have embraced, not abandoned them (Kan, 2011). They disobey governments that instead of supporting them, facilitate restrictions on their creativity (Kinsella, 2001). And creative consumers certainly have an edge, not only in technological capabilities, but also in their commitment to changing the form or application of what they had previously purchased. For example, considerable skill and effort is required to aggregate content from any number of sources and owners to create *mashups* like DJ Earworm's (2011) United State of Pop. And creative consumers clearly expose their egos when they compete to be the 'pioneers' of hacking into iPhones, win competitions, etc. (e.g., 6,000 hopefuls entered Facebook's 2012 Hacker Cup) (Tweney, 2012). They are at the cutting edge of socio-technical innovation, are proud of their skills, and want the world to know about it.

## 2 Likers, friends and followers

Granted, today's creative consumer movement is mostly self-referential, flying beneath the popular radar. Indeed, the general public may not be overly aware of the creative ways in which everyday offerings can be, and have been, appropriated (or

misappropriated according to owners). Unlike the flower-power movement, the creative consumer movement is not loud. It has no Woodstock, is not featured prominently on CBS News or *Time Magazine*, and has no widely recognised leaders like Beatnik poet Allen Ginsberg or vocal group The Mamas & the Papas to help spread the message. On the contrary, Richard Stallman, the American software freedom activist and author of 'GNU General Public License', the most widely used copyleft/free software license, and James Boyle or Lawrence Lessig, both founding board members of Creative Commons, are not household names. In fact, even Creative Commons itself, which spearheads the 'strictly legal' arm of this movement, has a low profile and yet is regularly berated by large corporations. The work of creative consumers mostly happens on laptops, in small shops, basements or garages; and when creative consumers share their achievements, they do not publish in the *New York Times*. They blog, tweet, post, upload, share and pin.

The internet has changed everything. Throughout the whole of human history, individuals have always taken the tools they were given, only subsequently to innovate, possibly unorthodox and more useful applications. Some eventually spread out to become a new orthodoxy, but usually even this took a long time, simply because in the past the channels for communicating novel ideas/derivative products were slow. Gunpowder was invented in ancient China, but it made little social impact other than as fireworks. Yet gunpowder was instrumental in changing weaponry and warfare. Guns and cannons brought about the end of the medieval European society when knights in shining armour who had held a position of supremacy in battle were no longer safe and when aristocrats could no longer be protected in their previously impenetrable castles and fortresses (Seay, 1995). The steam engine was invented in ancient Greece, where it was a novelty. Yet it stimulated the Industrial Revolution in 18th century Britain. In the past, sheer inertia could block a widespread acceptance of new ideas; and lacking momentum, interest could dissipate and the innovation would fade away.

However with innovations online, no longer restricted to physical transmission, inertia is now less of an obstruction. A novel innovation can 'trend' very quickly, and offering-specific information can go viral, where creative consumer inventions can receive a rapid electronic thumbs up. A video of two highly animated Chinese students in their dorm miming to the Backstreet Boys' song 'I Want It That Way' (Back Dorm Boys, 2005) went viral. It became so popular that the scenario even found its way back into mainstream media as a background scene in an episode of *Heroes*. Electronic word of mouth on social networks means that consumers are no longer passive (Kietzmann and Canhoto, 2013), using products only as the original inventor intended. Creative individuals can now actively and more easily access information on how to experiment, change and tinker.

Although the work of creative consumers is not featured in Billboard's weekly popularity chart 'Top 100 Music Hits', the quality is often so high that distinguishing it from 'professional' productions becomes very difficult. Consider the popular Gotye (2011) song: 'Somebody that I used to know'. It is available in thousands of different versions on YouTube, including a cover version by the amateur band Walk off the Earth (2012), where all five band members play on the same guitar. Their version has attracted an astonishing 145 million views, and is widely recognised as equally good, if not better, than the original song. Interestingly, a parody of their parody also very quickly emerged, in which one member plays five guitars. Such is the nature of the beast.

In other cases, creative consumers masquerade their work as 'original', and offer it for sale to the public. Even sales models can be appropriated. For example, DJ Girl Talk

sells his bastard-pop album 'Feed the Animals', with digital mashups of 322 mostly unauthorised samples from such disparate artists as Kenny Loggins, Eminem and Megadeath, through Coldplay's 'pay-what-you-want' business model (Illegal Art, 2012). He also performs 'his' material for a fee at live clubs. Similar to the Gotye story above, it was not long before other creative consumers developed derivate innovations. Mills (2008) produced a music video (viewed 3 million times) for Girl Talk's audio album by editing scenes from the corresponding music videos; students at Concordia University in Montréal rotoscoped a concert video for Girl Talk that was viewed more than 2 million times (Ahhhhnth, 2007).

Popular music is the one area where the creative consumer revolution has become mainstream, so much so that it is perceived as the norm. The population at large seems to care very little whether or not Girl Talk has explicit permission from the original content owners (he does not). In their appetite for high quality innovation, people 'like, friend and follow' the artist, and buy his 'new (re)production' without any prior thought of ownership. The fact that Girl Talk's album was number four on Time's Top 10 Albums of 2008 (Tyrangiel, 2008), while simultaneously being dubbed "a lawsuit waiting to happen" [Walker, (2008), p.1] in the *New York Times Magazine*, only goes to illustrate the lack of awareness, plain ignorance, disregard or even deep seated ill-will and antipathy of the public towards IPR. The promise of a creative, high quality product coupled with the convenience of accessing many types of user-generated content online at low or no cost seems to outweigh the difficulty of pondering moral (is this right or wrong?) and legal (is this allowed or not?) considerations. The increasing fandom of creative consumers and their adapted, modified or transformed proprietary offerings suggests that ignoring the principles of morality and legality is widely accepted.

### 3 Generation-C

The list of viable creative consumer inventions can only increase as more people become aware of, and join 'Generation-C' (Nielsen, 2012). To us, Generation-C includes everyone who embraces all things digital. These can be *digital natives* (Prensky, 2001) who are now coming of age, start university, join the workforce and bring with them their unique combination of creative consumer skills and consumption preferences, but also older members of society with similar psychographics.

Figure 1 Generation-C (see online version for colours)



We define Generation-C as:

“Constantly connected citizens – creative, capable, content-centric, community-oriented – who collectively communicate, collaborate, copy, co-develop, combine, contribute and consume common content.”

‘Copyright’ is deliberately omitted from this list of C-words that matter to members, while ‘common’ and ‘community-oriented’ are placed at its heart. The point is clear, whether physical or digital products, music, brands or services, members of Generation-C (i.e., creative consumers who adapt, modify or transform proprietary offerings, *and* those who in turn use their work) are a community that does not concern itself with the legal fine print. Together, creative consumers and their audiences belong to a generation that is, consciously or not, focused on a new type of freedom, a new approach to the ‘Commons’.

This Commons refers to any resource over which the general population feels it has certain long-standing and unalienable ‘rights’. The problem is these resources are usually entangled with privately and government owned property, and the grey area of overlap is highly problematic (Hardin, 1968). Traditionally the Commons referred to the use of land, although nowadays it involves the use of tangible and intangible assets. These common rights were not written into law, but were the result of compromises made over centuries, often involving an uneasy truce between on the one side official state-recognised ‘owners’, with commoners on the other. This truce occurred because the ‘owners’ of the property, both private and state, saw no potential for income generation from the property, or in the way commoners used it. Hence, the owners saw no point in confronting the commoners. But all that can very quickly change should a new opportunity suddenly appear that adds value to the previously valueless property. When new prospects for income generation arise, it is suddenly of great interest for the owners and an opportunity to change long-standing agreements about the commons. This is illustrated by the fact that the UK Government charges a 20% value added tax on e-books, but paper books continue to be VAT-free.

Consider the sudden emphasis on IPR in respect of the digitisation of popular music. Previously, it was not uncommon to leave a cherished collection of vinyl records to the beneficiaries of a will. However, with digitised music this particular instance of the Commons was soon enclosed, and rights rescinded. The rumour that Bruce Willis of Die Hard fame is actually in a battle with Apple over passing on his digital music collection, for which he paid tens of thousands of dollars (Evans, 2012; Wetzel, 2012), raises important issues for Generation-C. It is no longer possible/legal to bequeath a music collection of legally purchased iTunes downloads to anyone. Recall the difference between ‘paid-for’ and ‘owned’ mentioned in a previous footnote: Apple terms stipulate that a buyer has personally only paid to license the music, implying that on death the contract is terminated. “The music industry isn’t really about music: it’s about formats and distribution” (Evans, 2012). In the recent past, making a ‘mixed tape’ for a loved-one has also been quite *common* and accepted by the owners, but sharing playlists or mashups of digital content online is a whole different matter. Previously, widely-accepted Common rights over music were suddenly enclosed, and what once was free now incurs often substantial payment. When the American Society of Composers, Authors and Publishers tried to collect royalties from girl scouts for campfire sing-along of ‘row, row, row your boat’ (Bannon, 1996), creative consumers with their ‘commons sense’ lost any remaining faith that the ‘system’ would represent their interests.

In its amorality and alegality, Generation-C is anti-regime, against intellectual property laws, a mostly unorganised subculture that, in its activities, deviates from the traditionally accepted law-abiding values of society. But the laws of a society are not its norms, and laws must eventually reflect those norms if a society is to remain cohesive. The goal of Generation-C is an expansion of the Commons. The emotion creative consumers valorise is curiosity and creativity, and the social form they envisage is one of openness and sharing in a community. When members of Generation-C create or consume user-generated content, they help drive forward a quiet Commons revolution to society's norms, rooted in the opposition to overly restrictive so-called fair-use agreements, to corporate End User License Agreements (EULAs), and to governmental IPR legislation.

#### **4 IPR: the beginning or the end of innovation?**

Paradoxically, the same rules and laws that creative consumers bend or break when they innovate are claimed to exist primarily to promote innovation and the creation of new works. However, these laws are based on the main tenet that those who create the *original invention* have a moral right to *exclusive ownership*, and that when these innovations are protected, society as a whole benefits.

Interestingly, the current IPR legislation in most countries does not require for the rights-holders to exploit their property to maximise its utility for everyone. This means the development of certain innovations can be blocked: holders of old technology buy up the new patents so they can kill off research, and continue profiting from their old patents. The operating strategy of some holding companies, pejoratively known as 'patent trolls', is to collect an IPR portfolio, and then sue all and sundry for infringements, while doing little to develop the inventions themselves. In essence they have created a monopsony among developers: a market where there is only one purchaser – themselves. That is why some countries, for example, France, require that the invention be exploited, and threaten to revoke and re-enclose the property rights, awarding a license to others wishing to take advantage of the protected invention.

Kay (2006) in his essay 'Innovation demands a far-sighted view of copyright', argues "historically, intellectual property has played only a minor role in the promotion of scientific innovation or creative effort". Mercer and Kinsella (2001), American intellectual property lawyers and libertarian legal theorists support that IPR "are a burden to marketplace transactions, and discourage business startups". Heller and Eisenberg (1998), law professors at Columbia Law School and leading authorities on property, argue that IPR are becoming so fragmented that, effectively, no one can take advantage of them because it becomes impossible to track down all the holders. As a result, rights to just one single artefact may require permissions to every one of a whole bundle of property rights. Accordingly, litigation surrounding IPR is going to provide a huge and increasing overhead on *every* firm, *every* individual, and limit hugely the potential value of innovation for *everyone*.

There are more points for disapproval. Many critics of IPR today (e.g., Richard Stallman, Lawrence Lessig) argue that there is an inherent difference between physical products and intellectual/digital ones, and that they ought not to be combined into a single term or legal construct. The foundation of the critics' argument is that copies of intellectual works, especially when in digital format, do not reduce the quality or



enjoyment of the original, whereas this is the case if a physical product is altered. Others are more concerned with digital right management/fair use/fair dealing legislation and how copyright exceptions are “radically out of line with the needs of the modern information society” (Copyright for Creativity, 2010). Paradoxically most owners of property rights also agree that physical and intellectual products are different, but only because they want to extend, not decrease, the enclosure of Common rights to include intellectual property. They know they cannot charge for longstanding free Commons rights on physical products, but have no such compunction about digital products, as with the VAT on e-books.

Critics also believe that if inventors restrict what can be done with their work, in effect banning derivative works, then they are limiting its potential, and cutting off all future revenue streams that perversely is against their own interests. Should ownership be exclusive, and novel inventions derived from existing offerings that would benefit society banned? Musical variations, such as Rachmaninoff’s ‘Rhapsody on a Theme of Paganini’ would not have been composed in today’s climate. And who could argue that George Harrison’s ‘My Sweet Lord’ was not a novel, innovative contribution to music, although it was adjudged to be a ‘subconscious copy’ [Badham, (2002), p.191] of ‘He’s So Fine’ performed by The Chiffons in the US courts?

## 5 Implications

Today’s copyrights, trademarks, patents, industrial design rights, etc., exist precisely to disallow any type of *derivative innovation* by creative consumers. This is particularly worrisome since as there can be no going back in time to engineer sensible compromises for IPR, the future can only bring conflict. The degree of interconnectedness among Generation-C and those who follow can only increase, and the present structure of IPR legislation will drive future generations to display even greater alegal characteristics. The children of Generation-C will grow up not questioning the moral nature of their actions, having no choice other than to operate outside of the law. If the owners of property rights manage to get government backing for continued legal intimidation of innovators, then there will only be passive use of these products or creative consumers will move to jurisdictions that are not so restrictive. However, some other jurisdictions will choose not be so restrictive, and as a result of such innovation arbitrage, the centre of gravity of technological innovation will move elsewhere. In particular the USA will lose its pre-eminence.

This also has huge implications for democracy. For if a government criminalises all but a chosen elite, then the government itself will lose any claim on democratic legitimacy. Be that as it may, government always supports those coherent groupings that raise the most money for its coffers. Today’s professional politicians are on the side of large organisations, but they will quickly change side the moment they see greater advantage elsewhere. Remember how British parliamentarians suddenly turned on Rupert Murdoch the moment they thought he had been mortally wounded in the wake of the News of the World phone hacking scandal. In the context of innovation, governments presently favour the owners of intellectual property over the unorganised innovators in the general population. However, government is always looking for new sources of revenue, as it needs innovators and entrepreneurs to generate an infusion of new products

to create new money. Strict enforcement of IPR will destroy this community of innovators, driving some abroad to invigorate foreign business.

The creators of old and new money, in this case the owners of the IPR and creative consumers, are often in conflict, with the government acting as arbitrator. The basis of that arbitration is not fairness or morality, but the rents that each group can offer up to the state's money supply. For example, by the early 19th century, landowners were the UK Government's 'rentiers' of choice, but a new and more powerful group was in the ascendancy: the industrialists. The turning point of that particular battle came in 1846 in England with the repeal of the Corn Laws. The Corn Laws were import tariffs introduced in 1815 to protect English corn growers from cheap foreign imports. Particularly in times of famine, this meant that industrialists and the urban middle-classes had to pay higher wages just so their workers could afford to buy bread. The state was in effect subsidising the landowners with the transfer of indirect taxation onto the industrialists and middle classes, the wealthy of the 19th century England. With the Repeal, the industrialists were set free to make enormous fortunes for the benefit of all. The ensuing rise of free trade, and the associated tax collection, of course also benefitted the government, which had basically swapped sides. The economy of England changed forever. Replace the dispute over Corn Laws with that over IPR, and we find the arguments are exactly the same. What goes around, comes around.

As Generation-C becomes more aware of its predicament, and self-organises, then the population as a whole will begin to realise that it is being manipulated with IPR by the powers-that-be, consequently over-paying for products exactly like the UK's 19th century middle classes with the Corn Laws. Then they will either just give up, or more likely we may see both active and passive resistance *à la* Gandhi and the Indian people's rejection of the British Empire. We have already seen some resistance in the recent Occupy demonstrations on Wall Street and around the world. Not surprisingly, governments are not averse to confronting rioters and protesters, who have to congregate in a limited number of easily policed, physical locations. Civil disobedience on a large scale, massive downloading and extensive changing of content are much more difficult and more expensive to tackle. The more the government criminalises this behaviour, the greater the bitterness in the population. In fact, the resulting resentment is far more dangerous than the anger that Deresiewicz yearns for among the youth of today; anger leads to an outburst and catharsis, and short-term damage, it dissipates quickly; resentment is a long-term systemic poison that undermines the viability of controlling society.

The basic message of Generation-C is to rethink IPR before it is too late. *Organisations and IPR lawyers* need to quit hovering like vultures over internet sites and stop insisting that with any 'legitimate' purchase, the buyer has only obtained a license – and that this cannot be shared or sold on. *Owners of property rights* ought to stop demanding that all consumers be passive, using the product exactly as was originally intended, with all properties reverting back to them. Open everything up to innovation. *Governments and politicians* should allow derivative innovations for the 'good of society' and for the benefit of their economies. In fact, derivative applications that spring from a prior innovation should be encouraged, exactly as Kroemer (2001, p.787), the 2000 Nobel Physics Laureate, explains in his 'Lemma of New Technology': "The principal applications of any sufficiently new and innovative technology always have been – and will continue to be – applications created by that technology".

Kroemer is not alone. US medical researcher and virologist Jonas Salk forewent a remarkable personal fortune by not protecting his discovery and development of the first polio vaccine, and rather proclaimed that patenting it “would be like patenting the sun” (Triggle, 2004). He was implying that innovations should be a common good that, hopefully, others will help improve further, which will in turn increase its benefit to the public. It is in everyone’s interest, including the owners of IPR, to put the good of society before short-term profit. Members of Generation-C applaud Salk’s stance; however today, as creative consumers are restricted by IPR at every turn, it seems ‘laughably quaint’ [Dove, (2002), p.425].

## 6 Conclusions

In this article, we introduced Generation-C as a generational movement, consisting of everyone who embraces all things digital: creative consumers *and* their respective audiences. We argue that their combined activities, modifying offerings and consuming these, are signs of the times. The trend towards increasing curiosity and creativity in a community that values openness and sharing, and acts without moral considerations or deliberations of IPR, is gaining momentum, and the future can only bring conflict if IPR legislation is not changed so that derivative innovations are allowed to flourish.

We hope that our discussion was thought-provoking, that it provided fuel for discussions among organisational decision-makers about the degree to which they should protect, or not, their offerings from further changes. We would be delighted if it motivated a dialogue between organisations and creative consumers, for instance about how to design for future innovation. And of course, we’d be thrilled if our article invigorated a debate among policymakers about the importance of IPR vis-à-vis the good of society. Of course, all of these are important areas for future research, and we encourage Generation-C-type studies that take serious the role of creative consumers, the nature of the commons and the impact that intellectual property legislation has – not only on those who modify proprietary products, but on all of us.

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## Notes

- 1 We say ‘paid for’ rather than ‘owned’ because the notion of ownership is subtle and misleading. The fact is no individual ‘owns’ anything. Personal property, the things that ‘belong’ to a person, is nothing more than a government-sanctioned monopoly right to be in possession of those things – a right that is legally enforced through courts in that government’s jurisdiction. That property can be withdrawn at a court’s bidding (Angell, 2008).