

Chapter 2

The Internet Is Ancient, Small Steps Are Important, and Four Other Theses About Making Things in a Digital World

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2.1 Introduction

Human beings have been creative, and made things, for many thousands of years. Indeed, the evidence suggests that the first human tools were made almost two million years ago (Donald 2001). Digital technologies and the internet have not initiated creativity, therefore, but they have certainly given creative practices a boost, by enabling several things to be achieved much more simply and quickly: connections between people, distribution of material, conversations about it, collaborations, and opportunities to build on the work of others.

Therefore I would say that the internet is certainly empowering for people who like to make things, share ideas, and learn together. The six theses which I will discuss in this chapter all concern different dimensions of that strength. Before we get going, though, I'd like to directly address how self-conscious one can feel in saying such a thing.

There is, unmistakably, a fundamental divide between those who say positive things about the value of the internet for culture and society and those who are broadly critical or negative. If you read things published in this area, you can't really miss it. The pessimistic ones – which includes a majority of the academic writers – clearly take pride in their 'critical' position, as if they have been really clever to avoid being brainwashed by the pro-internet propaganda (whatever that is), and like to give the impression that their position is risky and iconoclastic, even though it is the most common one in academic circles and the most populist in terms of academic professional kudos. Whilst there is a valuable social role to be occupied by the critic who can observe that 'the emperor has no clothes',¹ I believe that there

¹If you are a stranger to this cultural reference, see https://en.wikipedia.org/wiki/The_Emperor's_New_Clothes

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should still be an expectation that constructive alternatives can be offered. Some critics have made excellent points – Evgeny Morozov has shown that an online presence can make activists more liable to identification and persecution, for instance (Morozov 2011), and has punctured the weirder parts of Silicon Valley ‘solutionism’ (Morozov 2013). Jaron Lanier (2010) makes persuasive points against the Facebook-style ‘template identity’ and certain ideas of collective creativity (although Lanier perhaps does not belong in the ‘pessimistic’ camp anyway, as he is only raising cautionary notes about the development of a creative online life, which he potentially still believes in). Other critics have fewer ideas of their own and are content to make fun of everyday people’s genuine creative efforts (Miller 2009; Curran et al. 2012). These writers suggest that the shift where citizens become media creators, rather than mere consumers, is a waste of time – which I find rather shocking (Gauntlett 2013).

The present book – the book you are reading now, of which this is a chapter – is clearly on the optimistic side of the fence. The blurb sent to me by the editors says things like: ‘This [online] movement is providing a “voice” through which anyone can express to everyone whatever their imagination can create, democratizing innovation and creativity like never before’. The pessimists like to shoot down this kind of statement as recklessly giddy – and indeed the terms ‘anyone’ and ‘everyone’ here are ill-advised – but this optimistic stance is at least preferable to the grim elitism of those who seem to wish we could go back to a world where professional people made professional media which professional researchers knew how to deal with.

The ‘critical’ scholars implicitly sneer at those of us who try to be more constructive and optimistic. Their working assumption is that they are the ones blessed with the intelligence to see through the ‘hype’ about possible uses of the internet. (This ignores the fact that they are often engaged in a different kind of ‘hype’, which is – even less helpfully – in praise of themselves.) As a father of young children, I couldn’t live with myself if I merely stood around moaning about things. It’s certainly true that the dominant internet companies are not angelic and may have regrettable ways of working, but to dismiss the potential of what people can do online because particular providers are problematic is like saying that people shouldn’t have footwear because some sneaker companies use sweatshops.

In spite of all this discord, I think that it is possible to make some strong positive statements about qualities of the internet which it is difficult to disagree with. I present six of them here. Several of them are pragmatic ‘X is better than Y’ statements which I would hope are pretty irrefutable. Let’s see.

2.2 The Statements

1. The internet is ancient (*in other words*: the internet has affordances which connect with ancient, great aspects of humanity).

2. A world with lots of interesting, creative things is always better than a world which offers a small number of popular, smartly finished things.
3. People doing things because they want to is always better than people watching things because they are there.
4. The distribution and funding possibilities of the internet are better than the traditional models.
5. Small steps into a changed world are better than no steps.
6. The digital internet is good, but hands-on physical things are good too.

2.2.1 The Internet Is Ancient (In Other Words: The Internet Has Affordances Which Connect with Ancient, Great Aspects of Humanity)

The internet, and the World Wide Web which was built on top of it, are powerful tools for humanity, and connect with ancient ways of doing things. The internet enables humanity to get back onto the track which had been the main story for centuries, where we at least *try* to develop bonds and communities and exchange things largely at a manageable, social level. The industrialism of the late nineteenth and the twentieth centuries, and the broadcast mass media model of communications which peaked in the twentieth century, destroyed this sense of collective engagement with a one-size-fits-all, have-what-you're-given, service-the-masses model. Having gone off down that path – a path associated with political passivity and environmental destruction – it was hard to see a way back. But the internet offers a way of exchanging communications, and goods and services, which is much more like the previous model but on a bigger, broader, and international scale. A lot of it is about *conversation*, but the conversations can happen on a vastly bigger canvas than before. Nevertheless, the conversations can retain focus, because any one conversation is only there for those who want to participate, there are no limits to the number of conversations, and anyone not interested in a conversation can just ignore it – indeed, would not even be aware of it.

Of course, this view is simplistic and romantic in all directions – both overly romantic about the past and the present and crudely dismissive of the twentieth century bit in the middle. Nevertheless, I think it represents a sketch of something genuine – and part of the evidence in its favour is the enthusiasm with which people over the world, from all walks of life, have adopted online communications. The internet could have remained a forum for exchange of information amongst scientists, geeks, and government and military organisations, whilst the majority of people stuck with the mass-market (or even relatively niche) television and movie formats that had already established their popularity. This did not happen.

This argument may also seem to be compromised by the fact that, as has been observed, there are certain internet-based businesses that can be accused of profiting from everyone else's creativity. However, those companies are not necessary or

inevitable for what the internet can do. We could also note that the human capacity for greed is also well documented in ancient texts.

In a 2012 essay about online social networks, Daniel Miller argues that networks such as Facebook offer the possibility of communities which offer ‘something much closer to older traditions of anthropological study of social relations such as kinship studies’ (Miller 2012: 147). Facebook itself has many dubious qualities and is not the best expression of online-social-networking potential, but nevertheless, you can see his point:

Instead of focusing on [social networking sites] as the vanguard of the new, and the rapidity of its global reach [– or on the idea that they represent a trend towards individualism –] it may well be that [social networking sites] are so quickly accepted in places such as Indonesia and Turkey because their main impact is to redress some of the isolating and individualizing impacts of other new technologies and allow people to return to certain kinds of intense and interwoven forms of social relationship that they otherwise feared were being lost. (Miller 2012: 148)

The internet certainly offers the possibility of building social connections, with or without Facebook, and importantly enables people to share ideas through these networks. There is a popular idea of the internet as a platform for an open, sharing culture, where ideas are made available for others to build upon. Over time, of course, some aspects of this open sharing have been closed down and/or replaced by more modern systems aligned with today’s conventional ideas of intellectual property, copyright, and ownership. Nevertheless – or perhaps *because* of this – there remains a strong interest in the idea of the commons, a shared space where things are made available for use by others, of which Wikipedia is a strong and popular example. The Creative Commons licensing system offers creators the opportunity to make their work available with specific prescriptions, for example, that the creator should be credited. The ‘commons’ model connects – indeed, is based upon – ancient notions of communal public space, although the self-serving regimes of the rich and powerful, as well as the casual selfishness of individuals, have historically meant that a thriving commons is difficult to sustain (Hardin 1968). A digital commons is different, of course, as digital resources can be copied and used without depleting and damaging the stock available to everyone else.

The commons is about having free access to resources, so that people can share and build together. This is a valuable dimension of culture. It does not necessarily follow, however, that everything online must be free. In everyday life, we are able to comprehend a library and a bookshop, side by side, without thinking that one cancels out the other, and it is unfair to assume that only the malign or greedy would seek to charge money for things online. For example, Jaron Lanier offers a sensible defence of the right of an artist to make a living by selling their work directly online (2010, 2013). The kind of transaction that Lanier suggests is more like an ancient market, or bazaar, where the producers of diverse goods sell them directly to people – presenting and selling them across their own stall. This kind of trade is much more convivial, and good for the producer, than the twentieth century idea that we should be able to get everything via one ‘supermarket’.

I also like to think that between the poles of the open (free) and the closed (paid for), there might be a compromise position which is known as: reasonably open (inexpensive). When the artist or producer has cut out the ‘middle person’ such as a publisher, they can make the same amount of money by charging far less for the product, as in the argument for ‘Latte-priced ebooks’ (Dunleavy 2012; Gauntlett 2012) which suggests that books can both be cheap for readers and still provide a modest return for their authors.

The internet, then, forms the basis for a new set of technologies, which enable people to converse, exchange, share, and trade in ways which are closer to ancient and traditional ways of interacting than the monolithic technologies of the previous century, such as television and supermarkets. Even when conducted via proprietary platforms (such as Google services, Pinterest, or Etsy) – which they often are, but don’t have to be – these exchanges are still much more healthy than the one-way, mass-market kinds of product and communication that had otherwise become the norm.

2.2.2 A World with Lots of Interesting, Creative Things Is Always Better than a World Which Offers a Small Number of Popular, Smartly Finished Things

The slightly longer formulation of this is: ‘An ocean of interesting, creative things, regardless of their professionalism or audience size, is always better than a small box of popular, smartly finished things’. Let me explain.

Way back in 2006, Chris Anderson published *The Long Tail*, which became a successful and much-cited analysis of one of the big differences that the internet makes. ‘The long tail’, you may recall, refers to the kind of graph where the vertical axis represents popularity (measured as number of readers, or viewers, or sales) and the horizontal axis represents a row of particular items (such as specific books, songs, videos, blog posts, or whatever). When these items are sorted by popularity, there is typically a peak of popular items on the left – that’s the ‘hits’ – and then the graph quickly curves down and along to an apparently infinite number of little-loved, not-very-popular items bobbling along the bottom of the graph – which is the long tail.

Much of Anderson’s book was concerned with highlighting the striking difference in what you can sell when you’re not limited to shelf space in a physical shop. So whilst a physical bookshop might offer, say, 20,000 titles – all the current best-sellers, some classics, and a scattering of everything else – an online bookshop could have literally millions of titles on sale. Apple’s iTunes did the same for music, Netflix for movies, and so on. Anderson highlighted the fact that although any single item in the long tail was apparently not-very-successful – in physical shop terms, it was *literally* a waste of space – when all these long tail items were taken together, they added up to a huge market. The demand for obscure and back-catalogue

music, films, or books is such that these non-hits (or at least, not *current* hits) represent ‘a market as big as, if not bigger than, the hits themselves’ (2007: 8).

Sold as a ‘business’ book, *The Long Tail* left readers with the memorable insight that in the new digital economy, businesses could cater to fans of all kinds of things and still make a profit. Whilst it would still be good to have big successes, the emphasis would shift from a focus solely on mass-market, ‘lowest common denominator’ hits to a broader and rational support for making available *anything* that someone, somewhere, might want, because that business was as good as any other kind of business.

This was all interesting and, at the time, a revolutionary observation (although, as Anderson acknowledges, it was basically the insight that Jeff Bezos of Amazon had had a decade earlier). But perhaps the most important *cultural* point of *The Long Tail* was lost on most readers at the time – including me.

What *now* seems really striking is that you can forget about big media altogether. The point is not ‘the long tail is also quite interesting’. The point is that the long tail is *everything* that is most interesting – it’s genuinely rich and interesting and wonderful. The things with big audiences aren’t the successful siblings of everything else – they’re in a different category. But they’re not in a *better* category.

One of the errors made by critics such as Natalie Fenton (2012) is to look at online media through a traditional media lens, where size of audience is a key measure of significance. Comparing the online presence of established media brands, such as CNN and the BBC, with home-made sites made by amateur enthusiasts in their spare time, Fenton unsurprisingly finds that the former have much bigger audiences (pp. 134–5). Rather more surprisingly, she concludes from this that self-made media is a waste of time, made by deluded narcissists (I paraphrase, but that *is* what she says – see Fenton 2012: 135). Even if we ignore that extreme misanthropic view, the old-media lens nevertheless tells us that a typical article on the BBC website, read by a million people, is important, whereas a number of blogs that are only read by 500 people each are basically irrelevant.

But what, we might ask, if there are lots of these blogs – what if there are 10,000 of them? The old-media lens says, 10,000 times nothing is still nothing – they’re still irrelevant, they’re just too small. However, if we take a more contemporary view, where small pebbles can add up to something significant alongside the big boulders (to borrow a metaphor from Leadbeater 2008), the 10,000 blogs read by only 500 people have an ‘audience’ – to use a now-clumsy term – that add up to five million people, five times our example BBC number. In terms of which *single* source has the most power, clearly the BBC wins. But in terms of a diverse and interesting hubbub, the BBC can’t compete. And if you look on the production side – who made the thing and the difference it made in *their* own lives – in the BBC case you are likely to have two or three employees who have contributed to the production of a webpage, because it is their job to do so – in terms of human engagement and excitement, that’s pretty close to nothing. Compare that with the 10,000 people who are so engaged with a subject, so passionate about it, that they have bothered to create a diverse array of original content about it, and that’s really powerful in itself before we have even started to think about the ‘audience’.

So the really key thing about the ‘long tail’ is not exactly about the size of markets, but rather that it describes an ocean of independent amateur activity that’s as *big* as (or bigger than) the produce of the mainstream and professional brands – and richer as well as wider, with a thousand independent ideas for every one professional message. This is why a world with lots of interesting creative things is always better than a world which offers a small number of popular smartly finished things. The implication of critics such as Fenton (2012) is that the wealth of interesting creative things are, at best, a distraction from the important arena of professional products with larger audiences, where we should, presumably, focus our demands for better and more critical media content (or something). But the implication that you can’t trust ordinary people to do good things themselves, or that it’s pointless because nobody is listening, is unreasonably nihilistic. The ocean of independent amateur activity is where the interesting and powerful stuff is to be found.

2.2.3 People Doing Things Because They Want to Is Always Better than People Watching Things Because They Are There

After *Making is Connecting* was published in spring 2011, I did a number of talks about it in different places, enlivened by a swooshy Prezi presentation with some pictures and a few words which sought to remind me of central points from the book that I wanted to highlight. I was about half way through this ‘tour’ when it suddenly struck me that I should add a bit in the middle which summarised the spirit of so much of what the book was saying: the words ‘*because we want to*’.² People creating music videos for YouTube, or making puppets by hand, or writing a blog about environmental politics, or setting up a free library on a street corner – all of these are people doing stuff just *because they want to*.

This is obvious, but important, in part because it relates to the category error made by critics when they talk about the exploitation of digital labour. The exploitation of labour is a useful Marxist concept which – in simple terms – describes the situation where someone does work, which they wouldn’t be doing if they weren’t doing it for the money, but their employer sells the product of this work on for *more* money and keeps the difference. This is exploitation in the straightforward technical sense – the employer ‘exploits’ the difference between cost *x* (the amount they have to pay a worker to get them to do the work) and cost *y* (the amount they can sell the fruits of that work for) – and it may well also feel like exploitation in the negative personal sense – where the worker feels frustrated and miserable at this shoddy situation.

Most amateur making is not at all like this, because it is done by people ‘because we want to’: because they have a message or meaning that they wish to share with

²Unintentionally influenced, perhaps, by the 1999 Billie Piper #1 pop hit of the same name.

others and a desire to make their mark on the world in some way. Therefore, their effort is not ‘labour’ at all in the Marxist sense, and so they cannot be ‘exploited’ in the manner of a supermarket employee. Nevertheless, of course, the vast amounts of online creative work produced in this way *are* exploited, en masse, to make a profit for the companies that host them – but this is an exploitation of aggregated content, rather than of individual workers, because they are not *working* in that sense.

The desire of people making things because they want to is much better understood as part of a human need to shape our environment to our own needs and preferences (Illich 1973), as part of a resistance to being positioned as a consumer (Gauntlett 2011), and as a central plank of human happiness – as economist Richard Layard says, summarising piles of data on human activities and satisfactions: ‘Prod any happy person and you will find a project’ (Layard 2006: 73).

This self-motivated activity is not *brought about* by the internet, but the ways in which the internet enables people to share creative things, and have conversations around them, work as a significant boost to amateur creativity (Gauntlett et al. 2012). This helps to foster an environment which is more about being a maker and a thinker, less about being an ‘audience’ and a consumer, and this can only be a good thing.

2.2.4 The Distribution and Funding Possibilities of the Internet Are Better than the Traditional Models

As a word, ‘distribution’ doesn’t sound like something to get excited about. But distribution is just a word for how we get stuff to people, and, as suggested above, the internet is an incredibly efficient way of getting stuff to people – anything you can transport digitally anyway: brilliant for songs, videos, or stories, although not so good for actual cats or bananas. The delightfulness of this efficiency is especially noticeable to anyone who has tried to distribute physical publications or products themselves (Gauntlett 2000: 13).

For things that can be conveyed digitally, such as texts, videos, poems, pictures, and songs, we now have remarkably simple tools for getting them out and about. There is still the big problem of getting people to look at your stuff. That’s not to be underestimated – but it’s not the killer blow that some critics (Fenton 2012, again, and others) seem to think it is. The online world offers many ways of drawing attention to your interesting stuff, and building networks around it, or having communities talk about it.

In terms of how creative work is funded or can be financially supported and then exchanged, first of all, we should acknowledge that it’s nice that much of this can just be done for free. You can make your own animation, video, song, or blog post in your ‘spare time’, and it doesn’t really cost anything. That’s wonderful. (Admittedly there are some costs of equipment and internet access, but these are costs which have *already* been borne by a substantial proportion of the population

in developed countries.) Second, we should acknowledge that we might imagine a post-capitalist vision of our society, which may enable all kinds of collectively supported creative activity with no cost to the individual (and no profit made by companies putting adverts on it), but we won't spend time on that here because frankly it's not going to materialise any time soon. So then third, it's interesting to look at the disruptive ways of funding larger-scale creative projects which are emerging within the present system – notably the crowdfunding platforms such as Kickstarter and Indiegogo.

Indiegogo was launched in 2008; Kickstarter came along a year later, with a then-unique all-or-nothing model which seemed to make quality outputs more likely: if a project couldn't raise its desired total within a set period (normally 30 or 60 days), then it wouldn't be funded at all and no money would change hands. Kickstarter has gathered media attention for certain high-profile fundraises – such as the creators of cult TV series *Veronica Mars* hitting their target of \$2 million for a movie version in 10 h, in March 2013 (and raising \$5.7 million over their 30 day period)³ – but the founders of the site are keen to emphasise that it is primarily a community for small-scale artists and projects. Interviewed in *Fast Company* magazine (Chafkin 2013), Kickstarter co-founder Yancey Strickler suggests that, unlike Indiegogo which will more or less accept any project, Kickstarter is a more carefully curated enterprise:

The thing is, if [blockbuster movie director] Michael Bay came along and wanted to do a Kickstarter we'd probably tell him, please don't. I would never want to scare the girl who wants to do a \$500 lithography project, 'cause that's why we started this thing. We think we have a moral obligation to her.

The makers of *Indie Game: The Movie* (2012) offer an interesting account of their Kickstarter-funded production, and DIY approach to movie distribution, in a series of blog posts (as well as showing in some cinemas, the film was available DRM-free from their own website, and to download from platforms such as iTunes, and was the first to be distributed via the video game platform, Steam).⁴ They discuss how they were inspired by Louis C.K., a stand-up comic who took a commercial risk by releasing his stand-up show *Live at the Beacon Theater* (2011) as an inexpensive, DRM-free download from his own website. As he explained in a blog post 4 days after its release (Szekely 2011):

The experiment was: if I put out a brand new standup special at a drastically low price (\$5 [£3.25, €3.75]) and make it as easy as possible to buy, download and enjoy, free of any restrictions, will everyone just go and steal it? Will they pay for it? And how much money can be made by an individual in this manner?

³The *Veronica Mars Movie Project* page on Kickstarter: <http://www.kickstarter.com/projects/559914737/the-veronica-mars-movie-project>. Actor and director Zach Braff was inspired by this and raised \$3.1 million for his feature film *Wish I Was Here* a month later (<http://www.kickstarter.com/projects/1869987317/wish-i-was-here-1>). Spike Lee also launched a fundraising effort in July 2013, raising \$1.4 million for his next film project (<http://www.kickstarter.com/projects/spikelee/the-newest-hottest-spike-lee-joint>).

⁴See all details at <http://www.indiegamethemovie.com/news/2012/10/31/indie-game-the-movie-the-case-study.html>

The success of this DIY release (which took \$1 million in 12 days⁵) seemed to establish an impressive precedent: however, a sensible amateur might think, ‘well that worked for the already-established comedian, Louis C.K. – but I’m not Louis C.K.’. In a blog post entitled ‘We’re not Louis C.K. – and you can be too!’,⁶ the makers of *Indie Game: The Movie* discuss this reservation, from the standpoint that they managed to have a successful DIY-released movie without already being well-known movie makers. As they point out: ‘Even Louis C.K. wasn’t “Louis C.K.” until he was “Louis C.K.”’. Nevertheless, they note that they, like him, did work very hard, establishing their skills and their contacts over a number of years, building up the position which would enable their eventual success. So, on the one hand, it is obviously the case that not everyone can spontaneously generate a big DIY hit. But it *is* the case that new online platforms enable crowdfunding and DIY distribution opportunities which help talented and dedicated people to break through without having to gain the support of others already embedded in mainstream media businesses.⁷

Of course, the potential of online crowdfunding goes beyond individual creators wishing to realise their publishing or film projects. A really notable tool that was made possible by Kickstarter is MaKey MaKey, ‘An Invention Kit for Everyone’, which enables children and adults to use everyday objects as input devices for a computer, and so use food, cutlery, or pets as interfaces for the internet. A popular

⁵Details at <https://buy.louisck.net/news/a-statement-from-louis-c-k> and <https://buy.louisck.net/news/another-statement-from-louis-c-k>

⁶See <http://www.indiegamethemovie.com/news/2012/11/19/were-not-louis-ck.html>

⁷A simple way of thinking about the economics of this kind of thing was offered by Kevin Kelly in 2008, in a blog post entitled ‘1,000 True Fans’. Kelly suggests that a creator ‘needs to acquire only 1,000 True Fans to make a living’. A ‘True Fan’ is defined as ‘someone who will purchase anything and everything you produce’. Kelly explains:

Assume conservatively that your True Fans will each spend one day’s wages per year in support of what you do. That ‘one-day-wage’ is an average, because of course your truest fans will spend a lot more than that. Let’s peg that per diem each True Fan spends at \$100 per year. If you have 1,000 fans that sums up to \$100,000 per year, which minus some modest expenses, is a living for most folks.

This sounds promising, although in subsequent posts (‘The Reality of Depending on True Fans’ and ‘The Case Against 1,000 True Fans’) Kelly had to admit that for artists bumping along at this level of success, with no security and a rather continuous need to generate products or ticket sales to avoid the drift into poverty, this is an uncomfortable existence. Conversely, as one commenter said:

In the old environment most musicians weren’t making any money anyway or had debts to the record companies. And they did not have control over rights [to their own work]. At least some things have changed for the better now. (‘Max’, 11 May 2010)

Certainly, a lot of comments on these posts referred to the pleasure of *control* over an artistic career, and ‘making a living’ from it, with a meaningful connection to some people who love the work, even if the artist is not having big hits.

example is the ‘banana piano’, a music keyboard made from a row of bananas.⁸ Furthermore, as Matthew Hollow (2013: 70) notes, platforms such as Kickstarter can support community-focused social projects as well:

For civil society activists and others concerned with local welfare issues, the emergence of these new [crowdfunding platforms] has been hugely significant: It has opened up a new source of funding when governments and businesses around the world are cutting back on their spending as a result of the on-going financial crisis. [As well as artists and filmmakers, a] number of local civic initiatives also have received substantial backing from funders on online [crowdfunding platforms]. For instance, when... Kickstarter launched in the UK in October 2012, the first project to successfully reach its funding goal was a student-led architecture project to design a new pavilion for a park owned by The National Trust conservation charity.

This section was entitled ‘The distribution and funding possibilities of the internet are better than the traditional models’. In this kind of case, of course, the ‘traditional models’ – decent state funding for civic services and amenities – could well be preferable (although the crowdfunded solutions offer a working alternative where otherwise there is none). For individual people, though – or amateur groups, or an innovative duo, say – the Kickstarter model is a powerful new way of making things happen where otherwise they simply wouldn’t happen.

2.2.5 *Small Steps into a Changed World Are Better than No Steps*

In the second thesis, we have already discussed the value of having a vibrant culture of ‘interesting, creative things, regardless of their professionalism or audience size’ – where the value was in terms of the array of cultural items available to people in the world. This fifth thesis emphasises the value of making things, no matter how small, for an audience, no matter how small, for the creators *themselves*. My research for *Making is Connecting* (2011) and for other reports (Gauntlett et al. 2011, 2012; Gauntlett and Thomsen 2013) has clarified for me the significance of people taking a step, however small, into the world of making, and the sharing of that making.

Making things is not a rare or elite activity, of course. Everyone makes things: as children, when creative activity is common, and as adults, when preparing a meal, or setting up a new home, or fixing something in an inventive way. But the act of consciously making something as a maker, and deliberately offering it to be seen by others, may be slightly different. In a talk called ‘Six Amazing Things About

⁸MaKey MaKey is described on its Kickstarter page as ‘a simple Invention Kit for Beginners and Experts doing art, engineering, and everything inbetween’, and in June 2012, the project exceeded its fundraising target by 2,272 % (with \$568,106 pledged against a mere \$25,000 goal). See <http://www.kickstarter.com/projects/joylabs/makey-makey-an-invention-kit-for-everyone> and <http://www.makeymakey.com>

Making' that I presented with Mitch Resnick of MIT at the Fourth World Maker Faire in New York, September 2013, I said⁹:

When you are a maker yourself – when you make something and put it into the world – I think that this changes your relationship to the world, to your environment, the people around you, and the stuff in the world.

“Often we're expected to be participating in the world, but essentially using stuff made by other people, and consuming stuff – or being active fans of – things made by other people.”

When you make things yourself, you break that expectation. You step into the world more actively. I think it's about taking a step. It doesn't matter what you've made, whether it's as good or effective or neat as something made by someone else or made by a company. Just the fact is, you've made a thing and put it into the world. So you're making your mark, and you've taken that active step. You're making a difference. It's fine if it's a tiny difference or if it's only noticed by one person. It's the step you've made. It's a great step.

The psychotherapist Nossrat Peseschkian notes that the search for meaning in life is always 'a path of small steps'. This leads, he says, to a common paradox, 'that we must strive for something that we already carry within us' (1985: xi) – but it is only unlocked through a process of taking a small step, and developing confidence and stability, before taking the next.

The importance of small steps into a changed world is also a notion suggested by the phrase 'the personal is political', popular in feminist movements since the late 1960s, and sometimes attributed to Carol Hanisch or Shulamith Firestone.¹⁰ 'The personal is political' highlights the obvious but often overlooked fact that real change begins in homes, and workplaces, in the terrain of everyday life; that slogans or manifestos are empty if not backed up by efforts, however modest, to change one's actual practices. The notion also reminds us that such personal changes are not trivial, but are crucial, and are the bedrock of everything else. Better to be the person who tries to make ethical changes in everyday life, even if those choices only affect one or two people, than to be the one who broadcasts political messages of fairness and equality to a large audience but who is not fair and ethical in everyday life.

Therefore, 'small steps into a changed world are better than no steps': in terms of 'X is better than Y' arguments, this one is so easily defended that it might seem pointless. But small steps are easily derided by those who imagine that they are concerned with bigger things. The surly critics that I noted in the introduction to this chapter may dismiss the significance of little actions, preferring to call instead for vast changes to the social structure. But lots of little things can add up to something very big indeed. When lots of people take the step into being active makers and sharers, it alters the character of that group previously thought of as the 'masses' –

⁹This quotation is from the notes I made in advance, rather than what was actually said. The video of the talk can be seen at: http://fora.tv/2013/09/22/six_amazing_things_about_making

¹⁰Discussion of the origins of the phrase can be found at http://womenshistory.about.com/od/feminism/a/consciousness_raising.htm

or the ‘audience’ – and moves us from a world of ‘reception’ to one of creativity, exchange, inspiration, and conversation.

2.2.6 *The Digital Internet Is Good, but Hands-on Physical Things Are Good Too*

The excitement about the internet’s capacity to distribute material, build networks, and make connections can at times lead to a sense that human creativity only really found its feet in the mid-1990s. Of course, that is obviously far from being the case, as was noted at the very start of this chapter. It is surely preferable to see continuity between today’s creative practices and those of earlier times and continuity between what people do in the digital realm and what they do in the physical world.

Services that make connections between the ‘virtual’ and ‘real’ worlds have turned out to be offering something that people want. As Dougald Hine (2009) has noted, the entirely virtual world of Second Life was somewhat popular in the mid-2000s, but never quite took off, because most people didn’t really dream of swapping their physical existence for a cyberspace avatar.¹¹ Meanwhile, much simpler technologies, such as Twitter and Meetup.com, which enable people to build quite straightforward conversations and relationships with people whom they might actually have met or can plan to meet, have been more successful. Hine was a co-founder of the School of Everything, which connects people who want to learn something with people who want to share their knowledge. Hine sees the School of Everything ‘as part of a larger shift in the way people are using the web, away from spending more and more of our lives in front of screens, towards making things happen in the real world’ (Hine 2008).

The rise of craft and maker communities (Levine and Heimerl 2008; Gauntlett 2011) offers a clear example – or rather a vast and diverse *range* of examples – of people who like to do ‘real world’ things but whose activity has been given a substantial boost by the opportunity to connect, organise, share ideas, and inspire each other online. There is much evidence of this. A study of online DIY community participants by Stacey Kuznetsov and Eric Paulos (2010) obtained 2,600 responses to an online survey about their motivations and practices (which means it was a self-selected sample of enthusiasts, of course, but 2,600 is a remarkable number of people willing to share their experiences).¹² The responses indicated a strong ethos of ‘open sharing, learning, and creativity’ rather than desire for profit or self-promotion. Over 90 % of respondents said that they participated in DIY communities by posting questions, comments, and answers. They did this frequently and diligently: almost half of the participants responded to others’ questions, and posted comments

¹¹ This bit about Dougald Hine and the School of Everything is a summary of some material that previously appeared in Gauntlett (2011).

¹² This bit about the Kuznetsov and Paulos study draws on an account of the study that I first wrote in Gauntlett et al. (2012).

or questions, on a daily or weekly basis. The online interactions did not remain purely ‘virtual’, with one third of the respondents attending in-person meetings and over a quarter presenting their work in person at least several times a year. The other respondents used the internet to inspire and share their real-world making activities, even if they were not meeting up with other people in person.

The question of how to meaningfully connect digital and physical tools and experiences has been central to my work with the LEGO Group and the LEGO Foundation (Ackermann et al. 2009, Ackermann et al. 2010; Gauntlett et al. 2011, 2012; Gauntlett and Thomsen 2013). This research concerns broad trends in learning, play, and creativity, although it has an obvious starting point in the fact the LEGO bricks themselves offer an engaging hands-on experience which is not easily mirrored in the digital world. (For sure, for well over a decade, there have been several computer programs, games, and online tools which simulate LEGO building, but the experience is not really the same as picking up a ‘random’ selection of LEGO pieces and putting them together.)

In *Systematic Creativity in the Digital Realm* (Ackermann et al. 2010), we highlighted ways in which play forms a bridge between the virtual and physical worlds. Most striking of these was ‘one reality’ – the sense in which the notion of two worlds dissolves – and there is a seamless shift between things experienced as physical and those experienced as digital. These connections could be strengthened by stories and storytelling, as well as other meaningful people and shared interests (p. 77). In *The Future of Play* (Gauntlett et al. 2011), we prescribed an ‘expanded playfield’ in which there would be more room for free play, exploration, and tinkering; an expansion of adult play, in both home and work contexts; and a blending of digital and physical tools (pp. 71–73). The role for an organisation such as LEGO would be in co-creating collaborative ‘ecosystems’, helping enthusiasts to connect with others and build things together, without the company getting in the way (p. 69). The subsequent study, *The Future of Learning* (Gauntlett et al. 2012), developed these themes in the area of education, offering a vision where digital tools are used to weave together and magnify real-world learning experiences and to add a valuable layer of social interaction and creative inspiration. Most recently, *Cultures of Creativity* (Gauntlett and Thomsen 2013) suggested that creative tools should be available in everyday life which would support people to shift from the role of ‘consumer’ to that of ‘designer’ – facilitated by what Gerhard Fischer describes as ‘a shift from consumer cultures, specialized in producing finished artifacts to be consumed passively, to cultures of participation, in which all people are provided with the means to participate and to contribute actively in personally meaningful problems’ (2013: 76). These tools are likely to make use of the internet’s affordances for social connection and inspiration.

Above all, this integration of online and physical practices of making, exploring, and sharing can be seen as an archetype of ‘open design’, the movement persuasively advocated in the book *Open Design Now* (Van Abel et al. 2011). Open design, as the name suggests, describes a participatory sphere of sharing, exchange, and collaboration across a broad range of design processes. To some extent, *Open Design Now* is reasonably keen to preserve a role for the professional designer –

albeit in a rich, collaborative relationship with ‘everyone’ (a term used on the back cover, which seems preferable) or with ‘users’ (as in the chapter by Stappers et al. 2011, which seems to preserve some of the sense of ‘us and them’). After the back cover has asserted that ‘We have entered the era of design by everyone’, it goes on to say: ‘And the good news is: this is the best thing ever for professional designers’. This may be the case, but I would say that one of the most interesting dimensions of open design is the shift from a world where ‘design’ is something done by professionals, who are consulted by their clients, to a world where ‘design’ is the process where people work together – sharing ideas and inspiration, both online and offline – to create better things, processes, or networks. Indeed you could say that one of the most significant impacts of the internet on culture and society was this broadening and opening up of creative practices – not just that creative materials, tools, and conversations are now more accessible but rather that they become more central to everyday life, break down old hierarchies, and help to build a world where everyone is more creatively engaged.

2.3 Conclusion

This chapter began by noting an academic resistance to the view that the internet may have changed anything for the better and then set out six ways in which the internet *has* changed things for the better, in the sphere of people making and communicating. (Of course, the impact of the internet has actually reached many more areas than those mentioned here, with substantial shifts in the conduct of politics, protest, economics, news, entertainment, and war, to name but a few.) When saying that ‘the internet’ can have changed something, it is always important to stress that the internet – a vast bundle of non-sentient cables and processors – couldn’t have done this on its own. We are really talking about how people use technologies, for particular purposes of their own designs. Transformations take place within, and as part of, social relationships and everyday life. It can be easy to be negative and take a cynical stance to changes associated with new technologies and new businesses, but this is insufficient and usually rather self-serving. As I hope the six theses here have shown, there are clear reasons to be positive about the role that online connections can make in people’s lives – especially when integrated with everyday physical experience. And small steps can lead into a new world, which is less about consumption and more about conviviality, conversation, and creativity.

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