The programmed designer

Industry-standard tools – Apple computers, Adobe software – have created astonishing new possibilities for graphic designers. But is this liberation, or a new kind of imprisonment? By John-Patrick Hartnett

Muriel Cooper spent much of her career working at the forefront of computer-aided design as founder of the Visible Language Workshop at MIT, and was concerned throughout with 'the significance of participatory and non-authoritarian communication forms'. In 1989, she concluded the essay 'Computers and Design' with a cautionary note, writing that the 'changes that will be effected by computers and the information revolution are pervasive. Every aspect of every profession and every life will be changed by it. Little of that change to date has been in the hands of the design professions, the educators, or the citizenry. It is imperative that we [...] educate ourselves and participate in the direction of this polymorphous medium.'

While it is clear that computers have had a profound impact upon social and professional life since then, what about the other point – who directs the change? If there was already concern that designers would be excluded from the development of their new digital tools at that early stage in their adoption, what should be said about the way the field of graphic design is largely governed by Apple and Adobe, who wield vast power over the working practices of designers?

Though Apple and Adobe produce different kinds of products (computers and software respectively) considered together, they exert a kind of duopoly over the practice of graphic design. As 'industry standard' tools, Apple computers and Adobe software are today synonymous with both the production of graphic design and the identity of the graphic designer. Students are trained through them in school; studios and freelancers depend on them for their day-to-day business; and they act as *de facto* sponsors at design conferences around the world through their ubiquitous presence on stage (and dispersed among audiences).

But while the word duopoly expresses an economic reality, 'hegemony' is an equally appropriate term to consider, to comprehensively understand what the dominance of both corporations means. As cultural critic Raymond Williams explained it, hegemony exists when our ways of seeing the world 'are not just intellectual but political facts'; when a particular way of seeing the world depends 'not only on its expression of interests of the ruling class but also on its acceptance as "normal reality" or "common sense" by those in practice subordinated to it'.

Locked out from ownership

Apple and Adobe are the ruling classes of graphic design, and at whatever point their products became the self-evident choice of tool for the industry, they penetrated the consciousness of its designers to become part of the 'normal reality' of their professional lives. Within mainstream graphic design practice there are few popular alternatives, though the reasons behind the saturating usage of each differ – in the case of Apple, their status as the 'designer's choice' has remained little questioned (despite an increased focus on luxury commodity production), while Adobe have long since superseded or bought out most rival software producers to become the universal standard for the production of graphic design.

Most powerfully, the graphic designer's identity has become brand-specific, enmeshed as it is with the identity of these products.

Sociologist Celia Lury has described the way in which many contemporary corporations seek to establish themselves as a 'platform for action' by creating scenarios where consumers completely equate specific forms of activity with their brands. Apple and Adobe have both succeeded in these aims; most designers cannot imagine practising without using their products.

Drawing on Lury's ideas, social scientist Adam Arvidsson has argued that contemporary brands work 'to "program" the freedom of consumers to evolve in particular directions' and 'the task of brand management is to create a number of resistances that make it difficult or unlikely for consumers to experience their freedom, or indeed their goals, in ways different from those prescribed ...' Adobe's initially controversial decision in 2013 to discontinue their Creative Suite software in favour of the Creative Cloud subscription service provided a clear case of this 'programming' strategy in action. Users now pay a rolling licence-fee and are locked out from ownership of the primary tools of their trade, forced perennially to repurchase access to them – each time reaffirming their position as subordinate consumer first, designer second.

This locking-out takes place not only at the level of ownership, but also increasingly at the level of knowledge about the tools being employed. How many designers (this author included) understand anything about the technology that supports the machines and software that they use on a daily basis? The philosopher Bruno Latour describes 'the way scientific and technical work is made invisible by its own success' as blackboxing – 'When a machine runs efficiently ... one need focus only on its inputs and outputs and not on its internal complexity. Thus, paradoxically, the more science and technology succeed, the more opaque and obscure they become.' This point takes on an acute resonance when considered in relation to the profession of graphic design, where knowledge of the mechanics of production have, since early Modernism at least, been held as a prerequisite for good practice.

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Jürg Lehni and Jonathan Puckey's Paper.js software framework was created to counter such ignorance of the functionality of technological tools. Puckey believes that 'instead of collectively agreeing to the same streamlined tools sold to us by large software companies, we need to reclaim the personal relationship we have with our tools.' As Lehni explained to me in an interview last year, their intention was to create a framework 'that someone could then take and build something like [Adobe] Illustrator running on the web ... to empower the design world through the creation of a vocabulary that others can access, in order to begin to build their own tools.' From the duo's perspective, the culture of open-source software facilitates collaborative participation from the ground up, and enables agency.

This resonates with the views of David Reinfurt, who has noted how 'technically sophisticated users want to modify, fix, or add to [...] software. They want access to the technology, because that is where the power resides.'

These ideas are central to the work of Open Source Publishing (OSP, osp.kitchen), a self-described 'caravan' of designers who work exclusively with free software and publish online the source files to all their projects. They are highly critical of the limitations engendered through reliance on Adobe software, but the underlying aim, as with Lehni and Puckey, is as much political as practical: it relates to freedom, knowledge and autonomy. The group describes open-source software and applications as 'tools with which to think. Their interfaces, paradigms and functionalities translate countless ways of seeing and doing that can emerge because they are not subjected to marketing requirements that replicate standard practices.' They have cited free software pioneer Richard Stallman's theories as influential. Stallman has written that '[Society] needs information that is truly available to its citizens – for example, programs that people can read, fix, adapt and improve, not just operate. But what software owners typically deliver is a black box that we can't study or change. Society also needs freedom. When a program has an owner, the users lose freedom to control part of their own lives.'

OSP also look to the views of anthropologist Christopher Kelty, who has proposed that those who

participate in the creation, development and use of free software represent a collective that is 'independent of other forms of constituted power and is capable of speaking to existing forms of power through the production of actually existing alternatives.'

The autonomy that open-source technology facilitates is central to its appeal, but the impact of such initiatives is arguably yet to be felt among the day-to-day practice of the profession. For now, power resides elsewhere. This lack of control ensures that designers are compromised, while both Apple and Adobe's involvement with ethical issues typical of modern multinationals is enough to make any designer question how much influence either corporation should have over their practice.

Complicating matters further is the question of whether these ties are any different from the myriad of others perpetuated by our participation as consumers within global online networks. One of the most far-reaching consequences of design tools being mediated through the web has been the total subsumption of practice within the commercial sphere of the internet.

Designers have been beholden to large corporations in the past, but there were physically tangible aspects to those relationships and limits that could be placed on the extent of those associations. This seems less certain now. As digital media theorist Tiziana Terranova has argued, the commodity (which in our case is also the tool) is transformed when it moves online, it becomes 'increasingly ephemeral … becomes more of a process than a finished product'. We become trapped because our relationship with our tools is never stable – it is constantly being reconfigured externally.

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Philosopher Gilles Deleuze's analysis of 'societies of control' is an appropriate reference here – where he describes modern corporations, distinct from their factory-based predecessors, as 'a spirit, a gas', who leave their subjects 'undulating, in orbit, in a continuous network', unable to find security or stability within their work. We might consider graphic designers as labourers whose work generates surplus value for Apple and Adobe. It is therefore in their interests to exert 'mechanisms of control' over the practices of designers, which ultimately impinge on the autonomy and agency of individuals designing.

A passage in Ellen Lupton's influential essay 'The Designer as Producer' (1998) asserts that there exist opportunities for designers to seize control of the means of production, and to share that control with the reading public. Today, that reads like part of a manifesto for an open-source based design practice. The examples outlined above suggest that there is certainly some appetite to 'seize control' of the means of production, wrestling the profession away from its corporate ownership. Yet in terms of mainstream practice, the means of production have never seemed more removed from the designer's hands. The position that the profession is in, collectively, is one of subservience to a narrow range of commercial products. The dream of liberation created by technological advancement and standardisation – historically such important themes within design – has proved too powerful to resist: update by update, we have been lured in.

According to Robin Kinross, standardisation was a core feature of the Modern movement of design, and was championed for the belief that it enabled those involved in the process to be 'able to act more freely once [the] basic factors had been determined'.

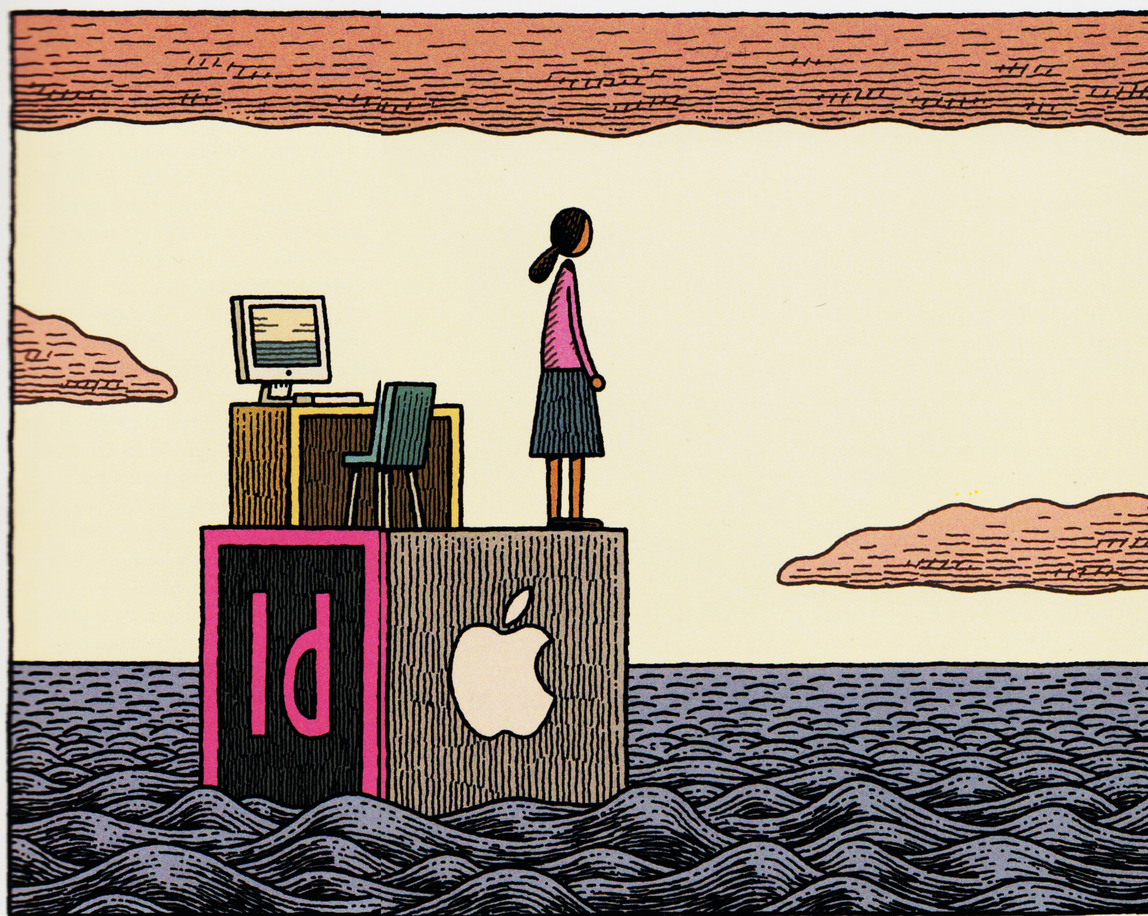
Technological hegemony

Standardisation is essential for the establishment of any form of technology: it is what allows open-source platforms to function for example, so that programmers can continue to modify and develop the software. One of Adobe's most marketable assets is the standardised interface of their applications, which enable designers to integrate their workflows seamlessly. But whereas the 'open' nature of open-source platforms is facilitated by standardisation, in the case of Adobe the standard locks the designer out by preventing or discouraging the use of alternatives.

We should consider the price that has been paid for efficiency. Uniform dependence on these products commodifies the activity of design itself. Based on the current trajectory, designers will continue to be held at a distance from their tools – subjected to planned obsolescence, never-ending system updates and deferred access, reliant on non-participatory and authoritarian communication forms.

These developments have distinct parallels with technological hegemony as experienced more broadly in society, when we consider the pervasive presence of Google, Facebook or Amazon within our lives, and our collective compliance with their intrusive *modus operandi* for the sake of convenience. Could graphic design practice provide one model for a means of resistance?

What would it take for the technological foundations of the profession to become more heterogeneous and independent? The industry is founded upon these proprietary structures – would fundamental change even be possible at this point? Though the implications of a 'detachment' from either Apple or Adobe are clearly different, a wider discussion about the imperative for developing more diverse and autonomous working practices is overdue.



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