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Hacking Practices and their Relevance for Consumer Studies: The Example of the 'Jailbreaking' of the iPhone

Paolo Magaudda

University of Padua

Paolo.magaudda@unipd.it

Introduction

This contribution aims to show how “hacking” practices and their recent evolutions are becoming increasingly relevant for consumer studies. In the last decade, “hackers” have lost their association with digital criminals or romantic heroes (see Levy 1984) and “hacking” practices have ceased to be merely a matter of subcultures, computer enthusiasts or criminal organizations and increasingly involve ordinary people and their everyday lives. When we consider hacking practices in a broader sense, defining them as all forms of modification of computer hardware and software and all forms of digital devices, we can see that these practices are frequently appearing in the realm of ordinary consumption patterns.

This short paper will consider the relationship between hacking practices and the consumer realm on two levels. The first level is conceptual and aims to connect the question of hacking practices to broader ideas which are emerging nowadays in consumer studies. The second level is empirical, and consists of a description of the practice of “jailbreaking”, which is a widespread consumer modification involving the well-known Apple digital device, the iPhone. Both levels will help in highlighting how emerging hacking practices should be considered relevant factors in the shaping of forthcoming forms of digital consumption.

Hacking Practices and Consumer Culture

The first part of this discussion considers how issues connected to emerging hacking practices can be related to consumer studies. To do this, it will be shown how the phenomenon of the modification of digital devices is connected to some of the emerging tendencies which have attracted the interest of consumer scholars over the last few years when making sense of the ongoing changes occurring in consumption. Special attention will be given to three tendencies which today play a significant role in how commodities are used by people and how knowledge and practices involved in these uses circulate.

The first tendency to stress regards the recognition that active manipulation of commodities by consumers is not only becoming more common, it is also more culturally and materially integrated in several contexts of consumption. Colin Campbell has explicitly addressed the changing nature of consumer involvement in the modification of commodities. He has developed the character of the “craft consumer” to underline that consumer manipulations are today becoming more usual practices in relationships with commodities and objects. Campbell (2005) writes that “the craft consumer is a person who typically takes any number of mass-produced products and employs these as the ‘raw materials’ for the creation of a new ‘product’, one that is typically intended for self-consumption” (pp. 27-28).

A second relevant question concerns the fact that, in recent years, consumers have

attained new and powerful tools to acquire commodities and engage in device modification. Indeed, the spread of internet web sites, forums and web 2.0 services is offering consumers opportunities to acquire competences and knowledge with which they can manipulate objects and commodities. The relevance of web tools for consumption patterns has recently been addressed in a special issue of the *Journal of Consumer Culture* edited by Beer and Burrows (2010). In this issue, Ritzer and Jurgenson contributed to defining more scrupulously the influence of web 2.0 services on consumer practices, developing the concept of “prosumption”. For example, the two scholars stated that:

Web 2.0 is defined by the ability of users to produce content collaboratively, whereas most of what exists on Web 1.0 is provider-generated. It is on Web 2.0 that there has been a dramatic explosion in prosumption. It can be argued that Web 2.0 should be seen as crucial in the development of the ‘means of prosumption’; Web 2.0 facilitates the implosion of production and consumption (Ritzer and Jurgenson 2010. p.19).

A third and final useful element concerns the increasing significance in consumer culture of forms of symbolic manipulation and criticism by consumers around established brands and products. Among these forms of symbolic manipulation, one of the more notable is the practice of “culture jamming”, which was developed by social consumer movements and which is becoming popular thanks to the activities of the Canadian magazine “Adbusters”. “Culture jamming” consists not only of the symbolic modification of brands but also of the mobilisation of ideas, values and identities around this practice. A broader role of “culture jamming” in consumption has been highlighted by Vince Carducci, who highlighted the ability of these practices to spur changes in industry, as the author makes clear in the following passage:

By exposing the inconsistencies on the producer side of the ledger, culture jammers may in fact be the avant-garde of the evolution of consumer society, encouraging producers to conform to new consumer expectations in order to garner sales (Carducci 2006: 123)

If we consider these three tendencies in consumption – the increasing role of consumer manipulation; the potential of web tools; and the significance of symbolic critics and manipulations – it is easier to understand how consumer modifications of digital devices assume a specific relevance when we inquire into broader contemporary changes in the realm of consumption. The following example regarding the modification of the Apple iPhone will help highlight some of the ongoing transformations occurring in the material consumption of personal digital devices (see also Magaouda 2011) and in the fruition of digital cultural content.

Before, it is also useful to consider that, today, definitions of “hackers” and “hacking” are changing and the evolution of these practices are debated from different perspectives. As David Gunkel (2005) has recognized in editing a special issue of “New Media & Society” about “hacking”, the true semantic content of the name “hacker” has become more polysemic, encompassing a wide set of meanings, practices and objects. Thus, from this point of view, a consumer analysis of the evolution of hacking practices also represents a contribution to a wider process of socio-cultural redefinition of what hacking practice and culture is becoming in the contemporary world. That said, we can proceed by considering more closely the modification of Apple’s iPhone.

The “Jailbreaking” of the iPhone and the *prêt-à-porter* of Hacking Practices

Everybody knows that in 2007 Steve Jobs’ firm, Apple, introduced a new mobile phone, which was designed and commercialized after the huge success obtained with the iPod in music. Since the first version of this phone was launched, its wonderful features, such as its advanced touch screen, huge memory and great design, have been widely recognized. But what is probably the most relevant element in the iPhone’s success lies in its new operating system and the possibility for users of buying applications from the App Store, an online store from where a huge number of applications can be downloaded (in September 2010, more than 250,000 apps were available). The success of the iPhone is not under discussion: more than 60 million phones had been sold by autumn 2010 and, although the smartphone market is changing very quickly, all observers agree on the fact that Apple is one step ahead of all other firms in the smartphone sector. Moreover, in 2010, the firm from Cupertino further expanded their range of personal devices on offer with the iPad, which shares both the operating system and the App Store functions of the iPhone and which is also one of the hottest items in everyday

technologies, having sold approximately three million units in just 80 days (Apple 2010).

Both iPhone and iPad are not only huge successes in commercial terms, they can also be considered turning points in the spread of hacking practices among wider groups of users. They are subject to various forms of modification, such as the usual “sim-unlocking” (needed to use the phone with other service providers), and the more innovative and interesting “jailbreaking”. “Jailbreaking” consists of the modification of the phone’s software to allow users to bypass the restrictions which Apple established for the use of the device. The most notable restriction consists of the fact that only applications authorized by Apple can be used on the iPhone and sold through the official App Store. The spread of this modification and the ways in which it has been made available to consumers represents a good example of how hacking practices are increasingly important in the everyday consumption of digital technologies.

The starting point for understanding users’ need for iPhone jailbreaking is the restriction concerning the applications one can install on its iPhone. Indeed, Apple adopts a tight control process on the software distributed through the App Store and the criteria of exclusion can be summed up in two categories: functional restrictions and content restrictions. Functional restriction regards the fact that, for example, iPhone owners cannot synchronize their device using the wifi protocol. Content restrictions have configured an actual policy of censorship by Apple. The most famous case is Apple’s rejection in 2009 of the app *NewsToons* by the cartoonist Mark Fiore, which criticizes the White House and which was accepted only after the author won the Pulitzer Prize in 2010, thereby receiving huge attention from the media (*New York Times* 2010).



Fig. 1. Some of the visual representations created by different websites that supported or just discussed the practice of the iPhone jailbreaking.

As response to these restrictions, soon after its introduction the iPhone operating system was “hacked” with the aim of allowing users to install applications which are not distributed by the official store. There have been several hackers who have released systems to free the iPhone, one of the most famous being that developed by Jay Freeman, a 27-year-old computer science doctoral student in Santa Barbara. Freeman (*nomen omen*, as Latin people used to say) did not restrict his activity to releasing a tool to modify the iPhone and he also created an alternative unauthorized store from where consumers can download unauthorized applications. This store was named Cydia, after *Cydia Pomonella*, the scientific definition for the lepidopteran responsible for the development of the classic worm inside apples, in so doing explicitly alluding to the internal alteration of the Apple system. The symbolic significance of this iPhone modification can also be recognized in the name “jailbreaking”, which evokes both

criticism of the locking of Apple's software and the libertarian nature of this practice of modification, highlighting the political criticism contained in this activity (as it can also be recognized in the visual representations of jailbreaking shown in fig. 1). In this respect, it is interesting to consider the reasons Jay Freeman gave for having developed the Cydia store, which are explicitly political and which, in some sense, belong to the sphere of the politics of consumption. Freeman has stated:

I have very little respect for Apple at this point: I make no secret of this fact. Apple, as a company, has turned into a corporate hypocrisy, embodying the very ideals that it claims to be rebelling against. 'Think Different', as a slogan, has become a cold criticism of their own actions with regards to their product lines. [...] Apple's insistence on controlling the experience of their products sounds very similar to the 'garden of pure ideology' exposed by the Big Brother in their own commercial [in 1984]. This is why many of us (upwards of 10% of all iPhone users, in fact) jailbreak our devices: we want choice. (Freeman, 2008)

The Cydia store was launched in March 2008 and in little over two years it has attracted millions of users who have decided to jailbreak their devices and download applications from Cydia. The number of people who have participated in this modification is not certain. In March 2009, Jay Freeman reported to the Wall Street Journal that, at that date, 1.7 million users had jailbroken their phones. Some months later, he said to "wired.com" that about 4 million – or 10% of the 40 million iPhone and iPod Touch owners – had downloaded software from Cydia. On the same occasion, he also affirmed that 470,000 people were connecting to the Cydia store per day and that the store had earned \$220,000 in total sales in just five months (Wired 2009).

The relevant numbers of people who have jailbroken their iPhones also depends on how easy the technical process of iPhone software modification actually is. Indeed, if initial versions of the software allowing the jailbreaking were characterised by the need for a certain degree of technical skill and the use of a personal computer, its later versions have become as simple as using an ordinary iPhone application. For instance, the 2010 version named *JailbreakMe 2.0* only requires the end-user to visit a specific web page with the iPhone browser and accept the modification with a click. With this latest version, we are truly witnessing a *prêt-à-porter* form of hacking and the increased complexity for users is actually that of choosing from the five different jailbreaking tools available for free on the web. Finally, it is to be noted that, whereas at first the practice of jailbreaking was considered illegal, more recently it has been recognized as a form of "fair use" which does not violate the Digital Millennium Copyright Act. In July 2010, the USA Copyright Office explicitly recognized as legal the bypassing of manufacturer protection mechanisms to allow iPhone owners to use their phones with applications not available from Apple's store, as well as the unlocking of their iPhones for use with unapproved carriers (Cnet 2010). The fact that by now users will be able to modify their digital devices without incurring legal infringements clearly represents a point which favours the further spread of more systematic procedures of device and technology modification.

Digital Device Modifications and the Future of Digital Consumption

From this short description of iPhone modification practices it would appear that consumer digital device hacking is becoming simpler and more affordable for more and more ordinary users. The jailbreaking of Apple devices is probably only one large step on the path towards more widespread digital commodity hacking practices. Clearly, we also have to note that commodity modifications allowing uses which are different from those established by producers is by no means a new social phenomenon. In recent history, innovations have repeatedly emerged because of user modifications and active adaptation work carried out by ordinary people, as sociologies of technology have frequently shown (see Oudshoorn and Pinch 2003). What is relevant and relatively new in the practice of iPhone "jailbreaking" is the fact that, while digital product modifications have, until today, remained mostly localized among experts and in esoteric circles, they are now assuming a *prêt-à-porter* arrangement and becoming available to wider consumer sectors.

What is occurring is that the complex set of competences and knowledge required in hacking practices is today translated into cultural, practical and material terms to fit into contemporary consumer patterns. Thus, on a wider level, cases such as that of iPhone jailbreaking open up new terrain for the study of consumption of both digital devices and cultural digital contents. It illustrates the fact that constraints and opportunities for

consumption in the near future will also be influenced by how sectoral and specific practices, such as hacking, will actually be translated into the more ordinary world of consumer patterns and culture.

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