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The Digital and the Human: A Prospectus for Digital Anthropology

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This introduction will propose six basic principles as the foundation for a new subdiscipline: digital anthropology.[1] While the principles will be used to integrate the chapters that follow, its larger purpose is to spread the widest possible canvas upon which to begin the creative work of new research and thinking. The intention is not simply to study and reflect on new developments but to use these to further our understanding of what we are and have always been. The digital should and can be a highly effective means for reflecting upon what it means to be human, the ultimate task of anthropology as a discipline.

While we cannot claim to be comprehensive, we will try to cover a good deal of ground, because we feel that to launch a book of this kind means taking responsibility for asking and answering some significant questions. For example, we need to be clear as to what we mean by words such as *digital*, *culture* and *anthropology* and what we believe represents practices that are new and unprecedented and what remains the same or merely slightly changed. We need to find a way to ensure that the vast generalizations required in such tasks do not obscure differences, distinctions and relativism, which we view as remaining amongst the most important contributions of an anthropological perspective to understanding human life and culture. We have responded partly through imposing a common structure to this volume. Each of the contributors was asked to provide a general survey of work in their field, followed by two more detailed (usually ethnographic) case studies, concluded by a discussion of potential new developments.

In this introduction we use the findings of these individual contributions as the foundation for building six principles that we believe constitute the key questions and concerns of digital anthropology as a subdiscipline. The first principle is that the digital itself intensifies the dialectical nature of culture. The term *digital* will be defined as all that which can be ultimately reduced to binary code but which produces a further proliferation of particularity and difference. The dialectic refers to the relationship between this growth in universality and particularity and the intrinsic connections between their positive and negative effects. Our second principle suggests that humanity is not one iota more mediated by the rise of the digital. Rather, we suggest that digital

anthropology will progress to the degree that the digital enables us to understand and exposes the framed nature of analogue or predigital life as culture and fails when we fall victim to a broader and romanticized discourse that presupposes a greater authenticity or reality to the predigital. The commitment to holism, the foundation of anthropological perspectives on humanity, represents a third principle. Where some disciplines prioritize collectives, minds, individuals and other fragments of life, anthropologists focus upon life as lived and all the (mess of) relevant factors that comes with that. Anthropological approaches to ethnography focus upon the world constituted within the frame of a particular ethnographic project but also the still wider world that both impacts upon and transcends that frame. The fourth principle reasserts the importance of cultural relativism and the global nature of our encounter with the digital, negating assumptions that the digital is necessarily homogenizing and also giving voice and visibility to those who are peripheralized by modernist and similar perspectives. The fifth principle is concerned with the essential ambiguity of digital culture with regard to its increasing openness and closure, which emerge in matters ranging from politics and privacy to the authenticity of ambivalence.

Our final principle acknowledges the materiality of digital worlds, which are neither more nor less material than the worlds that preceded them. Material culture approaches have shown how materiality is also the mechanism behind our final observation, which is also our primary justification for an anthropological approach. This concerns humanity's remarkable capacity to reimpose normativity just as quickly as digital technologies create conditions for change. We shall argue that it is this drive to the normative that that makes attempts to understand the impact of the digital in the absence of anthropology unviable. As many of the chapters in this volume will demonstrate, the digital, as all material culture, is more than a substrate; it is becoming a constitutive part of what makes us human. The primary point of this introduction, and the emergence of digital anthropology as a subfield more generally, is in resolute opposition to all approaches that imply that becoming digital has either rendered us less human, less authentic or more mediated. Not only are we just as human within the digital world, the digital also provides many new opportunities for anthropology to help us understand what it means to be human.

Defining the Digital through the Dialectic

Some time ago Daniel Miller and Haidy Geismar were discussing the launch of the new master's programme in digital anthropology at University College London. Reflecting upon similar initiatives in museum studies at New York University, Geismar mentioned that one of the challenges of creating such programs revolved around the fact that everyone had different ideas of what the digital implied. Some scholars looked to three-dimensional visualizations of museum objects. For others, the digital referred to virtual displays, the development of websites and virtual exhibitions. Some

colleagues looked to innovations in research methodology, while others focused on the digitalization of collections and archives. Still others focused upon new media and digital communication, such as smartphones. Alongside novelty, the word *digital* has come to be associated with a much wider and older meta-discourse of modernism, from science fiction to various versions of technoliberalism. At the end of the day, however, the word seems to have become a discursive catchall for novelty.

For the purposes of this book, we feel it may therefore be helpful to start with a clear and unambiguous definition of the digital. Rather than a general distinction between the digital and the analogue, we define the digital as everything that has been developed by, or can be reduced to, the binary—that is bits consisting of 0s and 1s. The development of binary code radically simplified information and communication, creating new possibilities of convergence between what were previously disparate technologies or content. We will use this basic definition, but we are aware that the term *digital* has been associated with many other developments. For example systems theory and the cybernetics of Norbert Wiener (Turner 2006: 20–8; Wiener 1948) developed from observations of self-regulatory feedback mechanisms in living organisms that have nothing to do with binary code but can be applied to engineering. We also acknowledge that the use of term *digital* in colloquial discourse is clearly wider than our specific usage; we suggest that having such an unambiguous definition has heuristic benefits that will become evident below.

One advantage of defining the digital as binary is that this definition also helps us identify a possible historical precedent. If the digital is defined as our ability to reduce so much of the world to the commonality of a binary, a sort of baseline 2, then we can also reflect upon humanity's ability to previously reduce much of the world to baseline 10, the decimal foundation for systems of modern money. There is a prior and established anthropological debate about the consequences of money for humanity that may help us to conceptualize the consequences of the digital. Just like the digital, money represented a new phase in human abstraction where, for the first time, practically anything could be reduced to the same common element. This reduction of quality to quantity was in turn the foundation for an explosion of differentiated things, especially the huge expansion of commoditization linked to industrialization. In both cases, the more we reduce to the same, the more we can thereby create difference. This is what makes money the best precedent for understanding digital culture and leads to our first principle of the dialectic.

Dialectical thinking, as developed by Hegel, theorized this relationship between the simultaneous growth of the universal and of the particular as dependent upon each other rather than in opposition to each other. This is the case both with money and with the digital. For social science much of the concern was with the way money meant that everything that we hold dear can now be reduced to the quantitative. This reduction to baseline 10 seemed at least as much a threat as a promise to our general humanity. Generalized from Marx and Simmel's original arguments with regard to capitalism by the Frankfurt School and others, money threatens humanity both as

universalized abstraction and as differentiated particularity. As an abstraction, money gives rise to various forms of capital and their inherent tendency to aggrandizement. As particularity, money threatens our humanity through the sheer scale and diversity of commoditized culture. We take such arguments to be sufficiently well established as to not require further elucidation here.

Keith Hart (2000, 2005, 2007) was the first to suggest that money might be a useful precedent to the digital, because money provides the basis for a specifically anthropological response to the challenges which the digital in turn poses to our humanity.[2] Money was always virtual to the degree that it extended the possibilities of abstraction. Exchange became more distant from face-to-face transaction and focused on equivalence, calculation and the quantitative as opposed to human and social consequence. Hart recognized that digital technologies align with these virtual properties; indeed, they make money itself still more abstract, more deterritorialized, cheaper, more efficient and closer to the nature of information or communication.

Hart previously argued that if money was itself responsible for such effects, then perhaps humanity's best response was to tackle this problem at its source. He saw a potential for human liberation in various schemes that reunite money with social relations, such as local exchange trading schemes (Hart 2000: 280–7). For Hart, the digital not only exacerbates the problems of money but also can form part of the solution since new money-like schemes based on the Internet may allow us to create more democratized and personalized systems of exchange outside of mainstream capitalism. PayPal and eBay hint at these emancipatory possibilities in digital money and trade. Certainly, as Zelizer (1994) has shown, there are many ways we domesticate and resocialize money. For example many people use the money they earn from side jobs for personal treats, ignoring the apparent homogeneity of money as money.

By contrast Simmel's (1978) masterpiece, *The Philosophy of Money*, includes the first detailed analysis of what was happening at the other end of this dialectical equation. Money was also behind the commodification that led to a vast quantitative increase in material culture. This also created a potential source of alienation as we are deluged by the vast mass of differentiated stuff that surpasses our capacity to appropriate it as culture. Similarly, in our new clichés of the digital we are told that humanity is being swamped by the scale of information and the sheer number of different things we are expected to attend to. Much of the debate about the digital and the human is premised on the threat that the former poses for the latter. We are told that our humanity is beset both by the digital as virtual abstraction *and* its opposite form as the sheer quantity of heterogenized things that are thereby produced. In effect, the digital is producing too much culture, which, because we cannot manage and engage with it, renders us thereby superficial or shallow or alienated.

If Hart argued that our response should be to tackle money at the source, an alternative is presented in *Material Culture and Mass Consumption* (Miller 1987). Miller suggested that people struggle against this feeling of alienation and superficiality not by resocializing money, in the ways described by Zelizer, but through their

consumption of commodities in their specificity. The everyday act of shopping, in which we designate most goods as not 'us' before finding one we will buy, is (in a small way) an attempt to reassert our cultural specificity. We use goods as possessions to try and turn the alienable back into the inalienable. Often this fails, but there are many ways in which everyday domestic consumption utilizes commodities to facilitate meaningful relationships between persons (Miller 2007).

If we agree to regard money as the precedent for the digital, Hart and Miller then provide two distinct positions on the consequences of the digital for our sense of our own humanity. Do we address the problems posed by the digital at the point of its production as abstract code or in our relationship to the mass of new cultural forms that have been created using digital technologies? What does seem clear is that the digital is indeed a further twist to the dialectical screw. At the level of abstraction, there are grounds for thinking we have reached rock bottom; there can be nothing more basic and abstract than binary bits, the difference between 0 and 1. At the other end of the scale, it is already clear that the digital far outstrips mere commoditization in its ability to proliferate difference. Digital processes can reproduce and communicate exact copies prodigiously and cheaply. They can both extend commoditization, but equally, in fields such as communication and music, we have seen a remarkable trend towards decommoditization as people find ways to get things for free. Whether commodified (or not), what is clear is that digital technologies are proliferating a vastly increased field of cultural forms, and what we have seen so far may be just the beginning.

To date, most of the literature on the revolutionary impact and potential of the digital has tended to follow Hart in focusing upon the abstract end of the equation. This point of view is represented in this volume by Karanović's discussion of free software and sharing. For example, Kelty (2008) uses historical and ethnographic methods to retrace the work of those who founded and created the free software movement that lies behind many developments in digital culture (see also Karanović 2008), including instruments such as Linux, UNIX and distributed free software such as Napster and Firefox. There are many reasons why these developments have been celebrated. As Karanović notes, they derive from long-standing political debates which include ideals of free access and ideals of distributed invention, both of which seemed to betoken an escape from the endless increase in commoditization, and, in certain areas such as music, have led to a quite effective decommodification. Software that was shared and not sold seemed to realize the new efficiencies and relative costlessness of digital creation and communication. It also expressed a freedom from control and governance, which seemed to realize various forms of anarchist—or more specifically the idealized—links between new technology and liberalism that are discussed by Barendregt and Malaby. It is also a trend continued by the hacker groups discussed by Karanović, leading to the more anarchist aims of organizations such as Anonymous, which is studied by Coleman (2009).

What is clear in Karanović's and others' contributions is that, just as Simmel saw that money was not just a new medium but one that allowed humanity to advance

in conceptualization and philosophy towards a new imagination of itself, so open source does not simply change coding. The very ideal and experience of free software and open source leads to analogous ideals of what Kelty (2008) calls recursive publics, a committed and involved population that could create fields ranging from free publishing to the collective creation of Wikipedia modelled on the ideal of open source. At a time when the left-leaning student idealism that had lasted since the 1960s seemed exhausted, digital activism became a plausible substitute. This trend has been a major component of digital anthropology to date, including the impact of mainstream politics discussed by Postill. The enthusiasm is reflected in Hart's contribution to anthropology, which included the establishment of the Open Anthropology Cooperative, a social networking forum for the purpose of democratizing anthropological discussion. Many students also first encounter the idea of a digital anthropology through 'An Anthropological Introduction to YouTube' by Michael Wesch, a professor at the University of Kansas, which celebrates this sense of equality of participation and creation (Wesch 2008).

There are, however, some cracks in this wall of idealism. Kelty (2008) documents the disputes amongst activists over what could become seen as heretical or alternative ideals (see also Juris 2008). Two people's coding technique could diverge to such an extent that people have to take sides. The ideal was of a new arena in which anyone can participate. Companies such as Apple and Microsoft retain their dominance over open source alternatives partly because such ideals flourish more in the initial creative process than in more tedious areas of the management and repair infrastructure, which all platforms require, whether open or closed. But the reality is that only extremely technically knowledgeable 'geeks' have the ability and time to create such open-source developments. This is less true for businesses, and patent controversies and hardware tie-ins can stack the deck against free software.

Curiously Nafus, Leach and Krieger's (2006) study of free/libre/open-source development found that only 1.5 per cent of the geeks involved in open source activities were women, making it one of the most extreme examples of gender discrepancy in this day and age. Even in less technical areas, a report suggests that only 13 per cent of those who contribute to Wikipedia are women (Glott, Schmidt and Ghosh 2010). Women seemed less likely to embrace what was perceived as a rather antisocial commitment of time to technology required of radical activism and activists (though see Coleman 2009). This is precisely the problematic area addressed by Karanović in her analysis of GeekGirlfriend, a campaign that clearly acknowledges, although not necessarily resolves, these issues of gender discrepancy. Such interventions rest in part on what Karanović and Coleman have revealed to be quite an extensive sociality that contrasts with stereotypes of geeks.

As Karanović discusses, there remain regional distinctions in these developments partly because they articulate with different local political traditions. For example French free software activists are mostly oriented towards French and European

Union interlocutors. One problem in these discussions is that the term *liberal* is seen in the United States as a position in opposition to conservative forces, while in Europe the word *liberal* is used to describe the extreme individualism of US right-wing politics and capitalism. In Brazil, the government support of open-source software and free culture more broadly was tied to a culture of resistance to hegemonic global culture, the global order and traditional patterns of production and ownership with the aim of providing social, cultural and financial inclusion for all Brazilian citizens (Horst 2011). Following Hegel, European political traditions tend to see individual freedom as a contradiction in terms; ultimately freedom can only derive from law and governance. Anarchism suits wide-eyed students with little responsibility, but social-democratic egalitarianism requires systems of regulation and bureaucracy, high taxation and redistribution to actually work as human welfare.

The dialectical contradictions involved are especially clear in the impact of the digital upon money itself. There are many welcome technological advances that range from the sheer availability and efficiency of automated teller machines, new finance, the way migrants can remit money via Western Union to the emergence of calling cards (Vertovec 2004), airtime minutes, micropayments and related services in the payments space (Maurer forthcoming). Inspired by the success of M-Pesa in Kenya, the Grameen Bank in Bangladesh and other model projects, throughout the developing world the promise of mobile banking (m-banking) has led to a number of initiatives focused on banking the so-called 'unbanked' (Donner 2008; Donner and Tellez 2008; Morawczynski 2007). This latter area is subject of a major anthropological programme led by Bill Maurer and his Institute for Money, Technology and Financial Inclusion. Preliminary work on the emergence of mobile money in post-earthquake Haiti by Espelencia Baptiste, Heather Horst and Erin Taylor (2010) reveals modifications of the original visioning of mobile money; in addition to the peer-to-peer (P2P) transactions imagined by the services' designers, early adopters of the service are using me-to-me (M2M) transactions to store money on their mobile accounts for safety and security. The cost associated with sending and saving money on ones' own account is perceived as worth the risk of loss of the sum total of the amount saved (Baptiste, Horst and Taylor 2010; Taylor, Baptiste and Horst 2011).

This situation is not quite so positive when we turn to the world of virtual money. In his research, Julian Dibbell (2006) used the classic ethnographic method of participant observation and set himself the task of making some real money via investing and playing with virtual money. He noted that, at the time, in games such as World of Warcraft, 'merely getting yourself off to a respectable start might entail buying a level 60 Alliance warrior account from a departing player ($1,999 on eBay)' (Dibbell 2006: 12). Taken as a whole, in 2005 these games were 'generating a quantity of real wealth on the order of $20 billion each year' (Dibbell 2006: 13). His ethnography revealed that the virtual world of digital money was subject to pretty much every kind of scam and entrepreneurial trick that one finds in offline business—and then some. Furthermore,

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