Mētic Action in Digital Culture Martin Zeilinger - Anglia Ruskin University martin.j.zeilinger@gmail.com

This essay explores how mētis – understood as the appropriation of dominant power and its inscription in the resistant force of alternative practices – can serve as a framing device for theorising tactical practices of digital culture. Revisiting critical discourses on mētis here serves as a framework for arguing that digital practices can simultaneously exist within and without (i.e., against) capital, and as such can become a viable oppositional stance that derives its power from precisely the contradictions that also delineate its limits of criticality. My discussion is linked to theories of appropriation, biopower, the multitude, and cognitive capitalism; my arguments are supported by reference to a series of examples in the form of experimental media art works which, as I argue, inhabit the critical potential of digital mētic action.

Introduction

In its multifarious, unstable, forever emergent manifestations, the digital has provided, and continues to provide, myriad new ways of reorganising information, communication, and knowledge, and it puts access to these reorganisation tools in the hands of ever more individuals. For this reason, among others, the digital has been seen to indicate the emergence of a new era (or order?) that holds an immense potential for the disruption and renewal of social, political, and economic systems. As such, the digital was supposed to revolutionise access to knowledge and education, for example, and facilitate micro- and macro-level democratisation of power relations around the globe. But the digital has also provided (and continues to provide) new ways in which capitalism, the dominant oppressive political-economic formation of our time, can reorganise itself in counteraction of the liberatory promises of the digital. Capital has developed multiform alignments along all vectors of the digital and in so doing draws on the very same tools and potentialities otherwise seen to represent the radical, disruptive kernel of new modes of doing, having, saying, being digitally. As Rob Coley and Dean Lockwood write in their 2012 discussion of emergent cloud capitalism: "Escape or capture: the manuals are available to both friends and foes" (p. 40). It has become clear that the digital revolution ensnares us ever more deeply in the logic of various capitalisms ("post-industrial" and "post-Fordist," "financial," "cognitive," "informational," "affective," and so on). Indeed, capital is so amazingly adept at co-opting and assimilating disruptive elements that some of the most radical characteristics of the digital-such as non-rivalrous reproducibility, knowledge decentralisation, anti-hierarchical data structures, distributed data storage and cloud computing, multi-directional, wireless communication, or participatory communication platforms-are also emerging as some of the most profitable aspects of capitalism today. The commonplace that "there is no outside to capital" would now seem to hold more true than ever, paradoxically at a moment when digital technologies of potentially immense disruptive power are at the fingertips of hundreds of millions. What comes into being here seems reciprocal at best - the opposition begot by digital capital also feeds back into the strength of capital. What, then, of the subversive uses and applications of these powers? What of opposition in

the digital, through the digital, and, by necessity, against the digital?

Marxist economic theory has known capital's flair for co-option and assimilation from the very beginning. The emergence of the many innovations, technologies, tools, and practices I have here loosely grouped together as "the digital" seemed to mark at least a temporary reprieve from pessimistic views on the individual's lack of power *vis-à-vis* capital. But any positive outlook of the supposedly liberatory, democratising, or revolutionary potential of the digital is easy to contradict discursively or by reference to practical or historical example. There is, today, no sustained-and-sustainable perspective on the digital as a condition that might counteract capital effectively. In this essay, I nevertheless speculate on the feasibility of such a perspective. My speculation takes the form of a revisitation of *mētis*—the notion of an uncontainable, recalcitrant cunning derived from the Ancient Greek myth of the guileful Titaness who defied Zeus. This concept of *mētis* as the appropriation of dominant power and its inscription in the resistant force of practical skills and wisdom holds, I argue, tools that may help navigate contemporary media theory out of the dead ends into which it often manoeuvres itself. Most importantly, *mētis* does not offer yes-or-no, black-or-white answers to questions regarding the resistant potential of the digital; instead, it makes it possible to step outside of such polarising rhetoric.

In much existing literature, initial invocation or explicit mention of *mētis* frequently occurs in the form of a conclusion (often literally in the last chapter, if not last sentence), as an add-on to sinister commentary on the relative futility of digital "resistance" to capital. For example, Keller Easterling's *Extrastatecraft* (2014) introduces *mētis* in the second-to-last paragraph before the Afterword; similarly, Chia and Holt's *Strategy without Design* (2009) circles around the concept before delivering it, as a punch line of sorts, at the end of the final chapter, just before a brief Epilogue. In such discussions, *mētis* appears as an esoteric appendage wriggling its way out of the tail end of protracted discussions to offer a fleeting outlook on a possible solution—a not-very-wellknown theory of practice-based, lived opposition to political and economic subjugation. A thorough re-reading of the myth of Mētis must reveal, however, that *mētis* is never a solution, but rather a beginning and, subsequently, an ongoing becoming. *Mētis* is not terminal; it is not an end all of digital resistance. It is, by definition, everything but conclusive, and should appear, rather, as it does here (and likely in the other contributions to this special issue), as a starting point.

This essay represents, in other words, an attempt to explore how *mētis* can be usefully deployed as a framing device for theorising contemporary tactical practices of digital culture in and beyond capital. I begin by linking mētic action to contemporary practices of appropriation, which is itself a concept that has always formed both a core process of capitalist accumulation and a primary mode of opposition against capital. This approach allows me to first tie *mētis* to capital, before attempting to disentangle it from amongst the knotted weavings of digitally-based capitalist enterprise, art practice, and everyday life. Among my core assumptions throughout this essay is that, like appropriation, like the digital, and, indeed, like the general subject of late capitalism, *mētis* can exist *within and without* (i.e., against) capital simultaneously—in ouroboric constellations that might be seen as paradoxical, irreconcilable, schizophrenic, impossible. I further assume that if the digital can form a viable oppositional framework *vis-à-vis* capital, its powers to do so must be located in and derived from precisely the contradictions that also delineate its limits of criticality. It is by following this perspective that I will here attempt to invoke mētic action as a way to recuperate the digital as functioning within and without—and therefore, potentially, also against—capital.

Michel de Certeau, one of a handful of theorists to have written about *metis* more extensively, commented usefully on the double-nature of the late capitalist subject, which, he

claimed, can be quite fully assimilated into the capitalist machine while simultaneously possessing practical knowledge useful for undermining capital in various ways (1984). But how can this perspective be thought forward to contexts of digital culture, for example with regard to immaterial labour and knowledge work? Here, contemporary scholarship is far less optimistic about the resistant powers of the subject of digital capital; see Boutang (2011), Coley and Lockwood (2012), already cited above, Fuller and Goffey (2012), or also Easterling (2014). The troublesome line between conformist participation, on the one hand, and cunning, resistant, potentially revolutionary opposition, on the other, surfaces wherever appropriation is deployed in a critical fashion. Any attempt to recuperate the digital for critical, tactical purposes must thus emphasise appropriation, and focus in particular on areas where the line blurs-such as the contested zones in which "knowledge worker" turns into "hacker," "consumer" into "distributor," or "user" into "pirate," often within just a few keystrokes. Below, I consider some concrete examples of this blurring-evidenced, for example, in the "parasitical" financial technologies developed by the Robin Hood Cooperative, or in the art and activism of the Critical Engineering Working Group-and propose that *metis* provides a useful framework for conceptualising such splits and transitions as dynamic, non-terminal, and open-ended.

The multivalence of the digital as commercial/critical/artistic/revolutionary/etc. appears to be captured quite perfectly in the Ancient Greek myth of the Titanness Metis, whose cunning force Zeus sought to contain by swallowing her alive, but who, even from within Zeus-thesovereign, yielded an offspring (Athena) who burst forth from the master's aching head after absorbing the knowledge and skills needed to contest his rule. Metis, in this myth, navigates the tensions between containment and uncontainability-as does, I argue, the concept of appropriation, particularly in its digital manifestations. In the case of the myth of Metis, the primary concern is political dissent. Any discussion of appropriation-based practices, in turn, must inevitably concern challenges to the socio-economic dominance of property regimes. In the context of contemporary digital media landscapes, dominated as they are by informational capital, these concerns are clearly overlapping. After a discussion of the foundational scholarship on metis, I will begin exploring this connection by first revisiting Marx's theory of appropriation. Then I will push Marcel Detienne & Pierre Vernant's (1991) anthropological work on cunning intelligence towards the digital by way of a discussion of informal socio-political resistance in de Certeau (1984) and Scott (1998). This will bring my discussion to intertwined, contested notions of the multitude, immaterial labour, and cognitive capitalism, in which the resistant force of biopower has been negotiated, since the early 2000s, with varying (and sadly diminishing) degrees of optimism (cf. Negri and Hardt, 2000, 2004, 2009; Dyer-Witheford, 1999; Terranova, 2000). In digital contexts, mētis can recuperate and reinvigorate this resistant force, as I will argue and attempt to show through discussion of examples, and through reference to debates that take turns to affirm and contest the theoretical force of *metis*. When I arrive, ultimately, at discussions of digitally framed metic action in current critical and artistic work, my discussion will attempt to recuperate the critical potential of digital appropriation-based practices through the language of *metis*. As noted, I will posit the potential of metic action not as an end all of revolutionary resistance (as such, it would inevitably fail); rather, metis will figure in my discussion as an ongoing becomingrecalcitrant, which we might inhabit, digitally, even when contained/bound/caught within capital.

Mētis Before Capital

In Greek mythology, *metis* denotes a cunning intelligence, wit, or trickster wisdom that appropriates knowledge, resources, or technologies from within a dominant context, against which it turns. The first systematic discussion of the concept, offered by the historians and anthropologists Marcel Detienne and Jean-Pierre Vernant (1991), also figures importantly in the work of Michel de Certeau (1984) and the political scientist and comparatist James C. Scott (1998). What these initial applications of the concept share is that they introduce metis as a way forward that is always already immanent in the power relations that are being opposed. Metis, thus, is a concept arising at junctures at which new directions, new approaches, or new perspectives are sought; moments when the independence, autonomy, and even existential integrity of resistant subjects are in crisis. In Greek mythology, the Titan goddess Metis was Zeus' first wife. Initially smitten with her guile and wisdom, Zeus soon began to fear her as the embodiment of a freespirited disobedience that was manifest in her cunning insubordination. Metis, in turn, came to be associated not only with wise counsel, but also with Promethean, potentially revolutionary tricksterdom. According to the myth, her slyness posed such a substantial threat to Zeus' sovereign patriarchy that he swallowed her alive, in order to quite literally contain the dissident force she embodied. Detienne and Vernant (1991, p. 305) describe the effect of Zeus' actions as follows:

By swallowing the goddess Mētis ... Zeus at one stroke eliminated the element of unpredictability and disorder which had previously given rise to revolts and conflicts [and] replaced it with an order which was immutable. Thereafter there would be no more chance ventures or surprises; no more reversals in which the master of bonds could, in turn, find himself bound.

But Metis had already conceived a child, and the story of how Athena (very fittingly the goddess of wisdom, handicrafts, and warfare) sprung forth from Zeus's badly aching head is much more popular than that of her cannibalised mother. Based on this myth, then, metis denotes a set of cunning, practical skills that is impossible to contain by dominant forces. Metic action, by extension, has the theoretical power to challenge a dominant system from within. It is important to note that for the most part, Detienne and Vernant set *metis* apart from *techne*. Techne is commonly translated as art, craft, or skill, and is generally considered to be concerned with the analytical, quantitative, and linear approaches of sovereign powers striving toward universality (rather than with approaches resisting these powers). Following Detienne and Vernant, both de Certeau and Scott define the appropriative potential of *metis* as a cunning intelligence rooted in contextual, heavily localised and specialised practical skills that oppose the empirical knowledge of techne. Whereas *techne* is characterised by "impersonal, often quantitative precision and a concern with explanation and verification, ... metis is concerned with personal skill, with "touch," and with practical results" (Scott, 1998, p. 320). Detienne and Vernant (1991, pp. 3-4) too, state that the contexts for *metis* are "situations which are transient, shifting, disconcerting and ambiguous, situations which do not lend themselves to precise measurement, exact calculation, or rigorous logic"; situations, in other words, that require the improvisational logic of the tinkerer, and not the rational logic of authority. While classic definitions of techne can be useful for initial definitions of metis, it will soon become clear that a strict separation between metis and techne is untenable, and that thinking past such a separation is an important condition for deploying both concepts usefully in digital contexts.

Mētis Within Capital

For now, a clear connection can be drawn between the basic definition offered above, and Michel de Certeau's work, which employs the story of Mētis to outline a series of resistant tactics that relate mētic action to everyday life under capitalist rule. Here, the concept serves to describe how consumers and workers might reclaim a sense of agency and autonomy from within dominant socio-economic and political systems. Famously, de Certeau's argument begins with the question of what the late capitalist subject may be able to create while allegedly doing nothing other than consuming; related to this is the question of what may be in the workers' power to produce while they outwardly submit to the rules of the work place and the pressure to sell their labour force. In de Certeau's formulation, the answer to these questions is simple: the capitalist ploy of perpetual and complete domination through the assimilation of labour power suffers from a significant deficiency, because the subject's instrumentalisation actually serves a double function—not only does it yoke and subjugate the subject, but it simultaneously provides the subjugated subject with access to operative meta-structures underpinning the dominant system. This, according to de Certeau, enables the acquisition of exactly the kind of resistant force that Zeus feared. *Mētis*, in other words, is born of access (or exposure) to *techne*.

The resourceful workers, whose economic predicaments can also render them keen tinkerers, hackers, or repairmen (in short: masterful appropriators) can now emerge as powerful (if low-level) resistant parameters within exploitative socio-economic systems. For an example, de Certeau points to factory floor workers who, simply by having access to the knowledge, machinery and raw materials necessary to carry out their job, find themselves in a position of theoretical power that allows them to appropriate the resources at their disposal for their own purposes, however modest these may be. More concretely, de Certeau discusses what French workers' argot called *faire de la perruque* ("making the wig"). This, he writes, "is the worker's own work disguised as work for his employer. It differs from pilfering in that nothing of material value is stolen. It differs from absenteeism in that the worker is officially on the job" (de Certeau, 1984, p. 25). *Faire de la perruque* is thus the practice of appropriating and repurposing the resources available at a workplace, "work that is free, creative, and precisely not directed toward profit" (de Certeau, 1984, p. 25).

James C. Scott (1998) offers a similar definition but pushes the concept to a broader critical and political level when he discusses, for example, work-to-rule strikes, in which employees continue their duties in strict adherence to their work manuals. In doing so they refuse to put to work the *mētis* that can only be acquired on the factory floor—an oppositional tactic disguised as obedience that can massively slow down production processes, generating great financial losses (1998, p. 310). Following such a model, there is no need for industrial sabotage, or for a full-on walkout. On the contrary, here the routines, experience, and practical skills acquired within the dominating setting displays their raw power as mētic resistance most effectively when deployed (or withheld) tactically at the workplace itself.

Following Scott's examples, the split between authoritative schemes of an economic or political order (*techne*), on the one hand, and the practical knowledge on which these schemes rely, but which they tend to ignore or seek to prohibit (*mētis*), seems clear. But again, it is also clear that during an event such as a work-to-rule strike, *mētis* and *techne* become folded in upon one another. Scott (1998, p. 310) agrees that the order of officialdom is always related to "informal processes which the formal scheme does not recognize, without which it could not exist, and which it alone

cannot create or maintain." But the critical appropriations he (1998, p. 324) describes as "the recombination of existing elements" can, of course, also overrule and stamp out the criticality of *mētis* through co-option. *Mētis* thus exists not only against or despite *techne*, but rather also as *mētis-qua-techne*. Any notion of a strict separation between the two concepts must be questioned, an insistence that also emerges, for example, from Sarah Kofman's (1988) poststructuralist reading of Plato's differentiations between *techne* and *episteme*. Kofman (1988, p. 8) suggests that *techne* is prominent and indeed indispensable among the "stratagems, expedients, tricks, ruses [and] machinations" devised and implemented whenever *mētis* helps cut through "inextricable bonds." *Mētis* and *techne* thus exist in contingent relationships with one another, share characteristics, may, indeed, invoke and function through one another.

These fluctuating, polymorphous connections, which forever enable reinventions of both *mētis* and *techne*, may also explain why the former, despite its deep association with resistant tactics of dissent, is also sometimes invoked as part of strategies that clearly seem to further empirical, strategic, instrumental goals normally associated with *techne*. Examples of such seemingly counter-intuitive invocations of *mētis* include corporate strategy manuals (e.g., Chia and Holt 2009, which pulls *mētis* into the context of on-the-fly business decision-making and the collaborative work of software development), or critical texts more ambivalently moving between philosophy, analysis of entrepreneurial innovation, and history of military strategy (e.g., Jullien, 2004, which derives mētic business advice from Chinese philosophy and ancient warfare stratagems).

The logic animating the hegemonic projects on which the criticisms of de Certeau and Scott focus is one of control and containment, undertaken for the purpose of more efficient exploitation and value appropriation. As Scott states (1998, p. 335), "the reduction or [...] elimination of *mētis* and the local control it entails are preconditions, in the case of the state, of administrative and fiscal appropriation and, in the case of the large capitalist firm, of worker discipline and profit." De Certeau (1984), too, notes that post-industrial capitalism relies, to a significant degree, on the worker's willingness to engage in activities that represent a kind of non-critical mētic action, a *mētis-qua-techne* or *mētis-cum-techne* as introduced above. De Certeau (1984, pp. xxiii-xxiv) describes the individual bearer of *mētis* as follows:

Increasingly constrained, yet less and less concerned with [the vast technological and economic frameworks] in which he is incorporated, the individual detaches himself from them without being able to escape them and can henceforth try to outwit them, to pull tricks on them, to rediscover within an electronized and computerized megalopolis the 'art' of the hunters and rural folk of earlier days. ... These ways of re-appropriating the productsystem, ways created by consumers and workers, have as their goal a therapeutics for deteriorating social relations and make use of techniques of re-employment in which we can recognize the procedures of everyday practices.

But as noted, this kind of re-appropriation goes both ways, and tactical advantages described by de Certeau and Scott also becomes available to capital. If *mētis*, as discussed in the work thus far cited, was to operate in a state of relative autonomy within capitalist ideological structures, a straightforward interpretation would be that Zeus' drastic measure of swallowing the Titaness (*techne* attempting to defuse *mētis*) effectively served to strengthen his opponent by placing her in a blindspot of the dominating power. But since the machinations of *mētis* can also serve *techne*—since the kinds of activities and techniques here described as mētic are available, as Keller Easterling

(2014, p. 346) has pointed out, both to the powerful and the weak—this sort of argument is too simple. The interplay between *mētis* and *techne* becomes much more complicated when keeping in mind, firstly, capital's proclivity for expanding its reach by assimilating oppositional forces, and, secondly, that the digital, by definition, derives its versatile functionality precisely from how easily it can be recombined, reused, and redeployed across wide-ranging contexts. If skills and knowledge relating to productive use of the digital are bound in the labour-force of the informational worker, then questions of the contingencies of *techne* and *mētis* in evitably become questions of biopolitics. I will take up this issue of the negotiation of *mētis* in and through biopolitics in the following sections.

Capital and Metic Appropriation

In the *Grundrisse*, Marx (1973, p. 489) describes the appropriation of resources as "the unity of living and active humanity with the natural, inorganic conditions of their metabolic exchange with nature." Chapter Four of the first volume of Capital specifies that "[t]he simple circulation of commodities—selling in order to buy—is a means of carrying out a purpose unconnected with [the] circulation [of capital], namely the appropriation of use-values" (Marx, 1976, p. 92). Appropriation, which in pre-capitalist contexts may have taken the form of the mere satisfaction of personal needs (appropriating out of the common, as it appears in John Locke's *Two Treatises*), thus has undergone a qualitative change once it occurs in the domain of capitalist circulation, where it serves to render profit.

The rendering of profit from commodities exchanged for more than their actual labourvalue is no easy task. Marx (1976, p. 106) describes extraction-through-appropriation as one of the biggest talents of the capitalist entrepreneur, who has recognised that "the one commodity whose use-value possesses the peculiar property of being a source of value" is commodified labour-power, and who knows that its "actual consumption, therefore, is itself ... a creation of value." It is this appropriative consumption of labour-power that enables the accumulation of capital, by turning what Marx calls unproductive labour (i.e., labour that must be exerted in order to satisfy personal needs) into productive labour that creates value beyond itself. Because the value bound in labour is alienable, the production of surplus-value becomes tied, in Marx's (1976, p. 305) famous formulation, to "[t]he prolongation of the working-day beyond the point at which the labourer would have produced just an equivalent for the value of his labour-power," and subsequently to "the appropriation of that surplus-labour by capital."

Labour, and the values it produces, is a messy affair. It is intimately tied both to the labouring body of the worker and to the worker's labouring mind. In fact, beyond a certain point at which maximum optimisation of physical labour has been achieved, all increases of value extractable from labour are derived from the skills and abilities—the potentially metic knowledge—the worker embodies. This proposition aligns with the focus, within Marxist theory of the past decades, on immaterial labour (and its appropriation by capital). It also highlights, at least in theory, the potential for appropriation-based activity conducted not by, but against capital. These related issues—regarding the appropriation of immaterial labour, regarding appropriation-against-capital, and regarding the re-appropriation of resistant forces—point again towards the complex interplay between *metis* and *techne* in post-industrial, digital capitalism.

If doctrinal Marxist theory of the accumulation of surplus-value primarily draws up scenar-

ios of appropriation at the hand of capital, it also conjures, at least by implication, everyday, artistic, and critical appropriation that turn against capital. Artists and activists have long realised the power of appropriative techniques to elicit socio-political critique, and it is self-evident that appropriation-based creative practices (from Dadaism, Situationism, and experimental "found footage" film to music sampling, video remixes, and digital art that reworks appropriated computer code; I have discussed many of these practices in detail in my PhD thesis—see Zeilinger, 2009) bear great relevance beyond discussions of the purely cultural and aesthetic, and form important critiques of capitalist economies (and the legal and policy apparatuses they have produced). Capital's talent of appropriating surplus-value from labour, on the one hand, and the artistic talent of appropriating pre-existing, already-authored cultural matter to create new expressions, on the other, are simply two manifestations of a universal, powerful drive to reuse. Different manifestations of appropriation exist in contingent, contested, conflicted relationships with one another; wherever we look, we can see them intrude on the other's territory, whether for purposes of commercial exploitation or, conversely, for the purpose of critique.

The concept of appropriation thus affirms and undermines seemingly oppositional perspectives simultaneously: while global capital fences in ideas and creative expressions in property regimes, many participants in digital everyday life, such as artists, hackers, and everyday users, thrive on the emerging instability and impermanence of traditional notions of property in digital contexts. For example, digital appropriation as a form of opposition to the notion of intellectual property exists both in contrast to and in reliance upon the belief that immaterial artefacts (commodities, knowledge, creative expressions, etc.) can indeed be owned in the first place. At the same time, notwithstanding this critical dimension of digital appropriation, open source software, characterised as it is by metic procedures of collaboration and collective action that does not aim for profit, has come to represent an extremely profitable domain of digital capital. Again, the dynamic contingencies between *metis* and *techne* are obvious. Is appropriation then so deeply embedded within systems of capitalist exchange that it has virtually become one with it? Yes. Does it follow that appropriation is "of capitalism," and unavailable for oppositional purposes? No. Appropriation, like mētis, exists in a dynamic, unstable range between "complicity" and "critique," and can acknowledge its "inevitable implication in capitalism, without relinquishing the power or will to intervene critically in it" (Hutcheon, 1989, p.25).

At the outset of *Grundrisse*, Marx (1974, p. 87) writes that "[a]ll production is appropriation of nature on the part of an individual within and through a specific form of society. In this sense it is a tautology to say that property (appropriation) is a precondition of production." It may be that practices of appropriation are now primarily understood through the logic of economic exchanges simply because of the economic stakes that have come to dominate so many appropriative practices. But this simply means that it is becoming more important to consider how we can theorise appropriation within capitalist socio-economic formations without resorting to the dominant economics of property-based discourse. This is precisely where the concept of *mētis* becomes relevant as a way for describing the contestations of capitalist structures that occur through appropriative practices that are themselves heavily relied upon by capital.

The Digital, Immaterial Labour, and the Mētis of Knowledge Work

Both de Certeau and Scott argue that *metis*, as defined by Detienne and Vernant, can withstand assimilation by dominant systems without losing its critical potential. Even when (or: especially

when) *mētis* appears to conform to such a system, it has access to all kinds of vital resources and infrastructures, and can therefore continue to draw power from its position as secondary, assimilated, derivative. *Mētis* is what Deleuze and Guattari (1987) called a minor practice. It demonstrates that the systemic limitations that come with socio-economic assimilation can nevertheless enable a becoming of resistance. Mētic action, in this sense, utilises key aspects of dominant (re)production and circulation apparatuses and communicates them to others. It knows them "inside-out," as it were, and enables their appropriation for alternative uses. It represents a resistant potential that is not limited to or by a specific cause or locale. It denotes a more abstract modality of resistance, one that draws on the "plastic, local, and divergent" (Scott, 1998, p. 322) to become flexible and unlocalisable.

The writing of Antonio Negri and Michael Hardt is an obvious starting point for connecting *mētis* to the digital. Beginning with *Empire* (2000), they worked to formulate their vision of a new type of global resistance emerging from new organisations of the immaterial labour exerted by a multitude of knowledge workers in digital economies. In their view, the technological, infrastructural, judicial and social changes appendant to the emergence of contemporary capitalist (re)production circuits have brought with them the foundations of the "multitude," a shape-shifting biopolitical force capable of what I would describe as large-scale mētic action. Negri and Hardt's thinking extends ideas of autonomist Marxism, which regards "each node [in the circuit of capitalist production as] a potential site of conflict where the productive subjectivities capital requires may contest its imperatives" (Dyer-Witheford, 1999, p. 3). Most notably this occurs in acts of appropriation, through which the capitalist subject has the theoretical potential to "refuse to remain labour-power: it resists and re-appropriates" (Dyer-Witherford, 1999, p. 3).

In Marx' *Grundrisse*, the concept of general intellect designated a worker's technological and scientific expertise on which capitalist production depends. The autonomists employed the concept to think labour struggle into the post-Fordist era and beyond the immediate contexts of industrial production. For Negri (2008, p. 11), it is situated "in new labouring subjectivities," where it takes the form of "the technical, cultural, and linguistic knowledge that makes our high-tech economy possible." Today, as they produce the informational, cultural, and software-based content of many commodities, immaterial labourers engage in intellectual and communicative activities that may require knowledge in cybernetics, wireless networking, and many types of data manipulation (Lazzarato, 1996, p. 132). The extension of capital's reach to informational and cognitive activities has resulted in new forms of subjugation, but, I would argue, it also enables new struggles facilitated by mētic action that occur within—and simultaneously, as I noted above, "without"—capital. A new power dynamic emerges here, one that proposes that the biopolitical *mētis* of labour power is, as Moté put it, "not only antagonistic to capital but autonomous from [it]" (as cited in Negri, 2008, p. 12)

With this push toward the digital, the theorising of struggles against capital can now extend to subjects whose direct containment within capitalist apparatuses has traditionally been hard to formalise (particularly, in digital contexts, the unsalaried, freelance workers, and others who contribute to production processes outside normative employment relations). Immaterial labour, accordingly, is described as being decoupled from any particular type or class of labourers (Lazzarato, 1996, p. 133-34), and is seen to represent a shared activity "of every productive subject within postindustrial societies" (Terranova, 2000, p. 41). Negri, too, has described the force embodied in immaterial labour as pervading society in its entirety, and points to the "global potentiality which has within it that generalized social knowledge which is now an essential condition of production" (Negri, 1988, p. 224). When economic production appears as increasingly biopolitical, it becomes "aimed not only at the production of goods, but ultimately at the production of social relationships and social order" (Negri and Hardt, 2004, p. 334).

This notion resonates powerfully with the concept of *metis* which, like biopower, forms "a contradictory context of/within life. By its very definition, it represents the extension of the economic and political contradiction over the entire social fabric, but it also represents the emergence of the singularization of resistances that permanently cut across it" (Negri, 2008, p. 18). While material production still "creates the means of social life," the multitude has the power to create "social life itself" within immaterial production (Negri and Hardt, 2004, p. 146).

Like immaterial labour itself, digital *mētis* appears as a "problematic 'other" in digital economies, a force "that must constantly be controlled and subdued, [that] circumvents or challenges this command," but that is also subject to the constant threat of co-option (Dyer-Witheford, 1999, p. 65). Informational labourers and knowledge workers form "a disorganized, differential, and powerful multiplicity" that is derived "from the relationship between a constitutive form (that of singularity, of invention, of risk, to which all the transformation of labour ... has brought us) and a practice of power (the destructive tendency of value/labour that capital is today obliged to put in effect)" (Negri, 2008, p. 22). Reminiscent of de Certeau's "practice of everyday life," the power of this multitude is also like the resistant force of the Titaness swallowed alive by Zeus; it is, "at once, subject and product of collective praxis" (Negri, n.d., §16), embodying an abundance of individual skills and practices that are difficult to assimilate and control.

That capital, through its reliance on immaterial labour, "undermines the basis of its own rule" (Dyer-Witheford, 1999, p. 4) is not a universally accepted notion. Working with information may have profoundly social and communicative aspects, but it also subjects the affective dimensions of labour to the powers of protocol and technological modulation (cf. Galloway, 2004). The distributed, networked structures that characterise the work carried out by Negri and Hardt's multitude may "transform every boundary into a threshold" ripe for creative or activist appropriation (2004, p. 55), but the sinister opposite of this utopian potential is also constantly realised. Coley and Lockwood (2012) describe this as "cloud capitalism," which excels at co-option no less powerfully than every other form of capitalism before it. Here, "the cooptation of the multitude as multitude, as distributed network of individuals," appears absolute (Coley & Lockwood, 2012, p. 46). Cloud capitalism is expressed "precisely through the multitude. Consequently, the power of cloud capital lies in the virtuality of the multitude itself, in its potential" (Coley & Lockwood, 2012, p. 46). Information, and the immaterial labour tied to it, appears to be easily captured and appropriated through algorithmic control, closely following Deleuze's (1992) discussion of modulation in control societies, and in precisely the protocol-based ways described by Galloway and Thacker (2007).

The loss of critical potential attached to immaterial labour and its appropriability not through, but from capital, is best approached through Yann Moulier Boutang's (2008) concept of cognitive capitalism. This "third kind of capitalism" (Boutang, 2008, p. 9) introduces a key conceptual difference that sets it apart from the related concept of informational capital: for Boutang, contemporary capitalism's most important innovation is that it no longer simply exploits labour power, but more specifically what Maurizzio Lazzarato (2006) has called "invention-power." This is "the living know-how that cannot be reduced to machines" (Boutang, 2008, p. 32), which cognitive capitalism is interested in valorising in addition to mere information. "Knowledge cannot be reduced to

information", Boutang (2008, p. 40) states correctly—and with this statement, *metis* must be reintroduced to the discussion.

Even though the term does not directly appear in Boutang's writing, its relevance is obvious both in the theoretical discussion of cognitive capitalism and in the practical examples provided to describe its functioning. As Boutang (2008, p. 118) writes:

In cognitive capitalism, in order to be a producer of wealth, living labour must have access to machines (hardware), to software, to networks and to conditions of deployment of its networking activity (environmental conditions in particular). Freedom of access supplants the concept of exclusive ownership. Here production means accessing at the same time, and together, information and knowledge in order to produce other knowledge.

Importantly, knowledge, inflected by the labourer's individual experience and intelligence, is most valuable to cognitive capitalism (i.e. can be exploited most productively) if it exists as a kind of public good. Cognitive capitalism thus values what above I have described as metis-as long as it can be appropriated in alignment with the preceding discussion on the interplay between *metis* and *techne*. In fact, in order to sustain its incredible growth and profitability, cognitive capitalism relies fundamentally and existentially on knowledge and innovativeness that borders on metis. Boutang's example for how this manifests practically is a discussion of open source software (see Chapter 3). The culture of innovation and knowledge exchange surrounding the production of open source software teeters precariously close to political ideals that fundamentally contradict capitalist property regimes-nevertheless, cognitive capitalism supports and encourages constellations that favour its development. It "becomes absolutely necessary for cognitive capitalism to allow spontaneous cooperation to create itself unhindered" (Boutang, 2008, p. 108)-in other words, cognitive capitalism by necessity facilitates the basis for metis-qua-techne that could also become real metic action. Here, a gap reappears, into which a multitude can sink its teeth. Cognitive capitalism introduces an instability, an "intrinsic factor of uncertainty" (Boutang, 2008, p. 144) into its own operational logic. The fantastical value of knowledge goods relies in part on the fact that they are similar to public goods (knowledge-based, emerging from collaborative and communicative activities, etc.)-both Michel Bauwens (2005) and Coley and Lockwood (2012, p. 53) have observed that here, capitalism operates within the language and conceptual logic of communism, undertaking what might be described as an immensely profitable risk. Again, the image of Metis, swallowed alive as a containment measure, springs to mind.

Boutang describes life under cognitive capitalism as life in a "pollen society," i.e., life in a system that facilitates certain kinds of knowledge and communication systems that will, it is hoped, "pollinate" the economic apparatus with exploitable invention-power. The very language used by Boutang invokes rhizomatic structures and uncontainable behaviours, in short, the biopower of the multitude. It isn't difficult to think this theory of cognitive capitalism forward towards a critical moment in which the pollen society's appropriated invention-power becomes proper resistance again, becomes re-appropriated by the knowledge-precariat. To continue Boutang's own apiological play on words: such a moment will arrive when that which has previously pollinated begins to stimulate allergic reactions. The potential to produce an allergic reaction in a host system is always already embodied in the pollen-producing being, the pollen-carrying surface, the pollinating event. Following Boutang's logic, the collective knowledge-power and invention-power that feeds and drives cognitive capitalism could also disrupt it—could erupt from it like a violent sneeze (like Athena

springing from Zeus' aching forehead). "Knowledge and invention power," as Boutang (2008, p. 164) writes, will "overflow and leak in all directions." This is the uncontainable resistance snot of *metis* pure and simple.

Whither Mētis Without Capital / Whither Capital Without Mētis?

Mētis, it is my contention, can exist within capital without losing its radical edge. As Boutang and others note, capital, by contrast, can no longer exist without the kernel of what can either become immense value and profit—or opposition, resistance, counter-measure, *mētis*. In order to remain knowledge (in other words, in order to remain useful to capital), invention-power must inevitably retain some of its autonomy; therefore, it also retains some of its capacity for becoming resistant, mētic action. Regimes of work may today have transcended traditional notions of workplace and erased leisure; but consequently, the ability to reuse and repurpose technological skills, resources, and information now also invades (and, in turn, transcends) sites of work and production, suffusing all of digital society with abilities to engage in mētic action. Capital, by its own operative logic, is forced to "cohabit intimately" with labour power and human productivity (Negri and Hardt, 2004, p. 333). Like Zeus, who swallowed Mētis alive, capital swallows human productivity alive, as it were—but in doing so it generates a hard-to-contain, cunning force that is always in the process of becoming and inhabiting its own resistant potential.

If the context for resistance against capitalist enclosures of the production, reproduction, and circulation of commodities and ideas must, unavoidably, be globalisation, and if the biopower contained in the multitude is its driving force, then the most viable mode of engagement is one of re-appropriation based upon the *mētis* acquired within the systems to be opposed. As I argued in this essay, such a definition of critical appropriation as political practice can build on the assimilative powers that capital imposes on its subjects. The concept of *mētis* allows us to think through how the critical momentum of appropriation can not only be retained, but may actually be intensified as a radical mode of engagement.

In lieu of a conclusion, I will offer a few examples of what I perceive to be effective, thought-provoking, productive digital metic action. But presenting these examples bears its difficulties. *Metis*, as noted, is like *techne*, but it is not *techne*—metic action is a constant of becoming, rather than any kind of terminal solution. It is therefore difficult to determine what might constitute "successful" metic action. I would argue that this difficulty is itself productive, and, in fact, a key characteristic of the kind of uncontainability that *metis* must strive for. *Metis* does not yield terminal conclusions; it is a mode of engagement without a predetermined outcome, an inevitable means to an unknown end. It is never-ending, indeterminate, momentary, ambiguous, shape-shifting, dynamic – characteristics that it shares, importantly, with the digital substrates by which it is framed.

Looking around me, I find myself one of countless pollinators in a digital media landscape full of metic expressions (some nascent, some more fully formed) that engage *techne* critically. The media artist Adam Donovan, for example, creates semi-autonomous sonic and kinetic sculptures that explore scientific concepts of psychoacoustics. *Curious Tautophone* (Donovan, 2013) and *Psychophysics Machines* (Donovan, 2013) implement high-precision 3D sound projection that can powerfully alter the viewers' perception of space. These works pick up and develop cutting edge scientific experimentation in robotics and acoustics. Usually, information regarding this kind of technology, sparse as it is, reaches the public mainly through news about weaponised manifestations,

rather than through media art projects. Donovan's practice reverses this order (fittingly, a recent photo shows the artist next to a version of a robotic mule originally developed for the U.S. Department of Defense), and performs a mētic recuperation in which emerging technologies are transposed from one experimental context (militarisation) to another (media art practice).

The work of Julian Oliver and other artists associated with "critical engineering" practices hit in a similar vein. Oliver's *Transparency Grenade* (2012-2014), for example, is a handheld whistleblowing/leaking device designed to capture, analyse, and broadcast network traffic and audio. The artwork's shape mimics an iconic Soviet hand grenade to suggest an "explosive" solution to problems with institutional or corporate corruption and lack of transparency. The device itself, by contrast, is fully transparent both physically and technologically, with all specifics and data required to rebuild a transparency grenade freely available online. Point 1 of the "Critical Engineering Manifesto" written by Oliver in collaboration with Gordan Savičić and Danja Vasiliev invites readers to consider "any technology depended upon to be both a challenge and a threat. The greater the dependence on a technology the greater the need to study and expose its inner workings, regardless of ownership or legal provision" (Oliver et al, n.d.). Such formulations are fully aligned with the way in which I have tried to position *mētis* throughout this essay: they don't propose an end-all solution, nor assume the possibility of a lasting, terminal transformation of *techne* into *mētis*; rather than proposing an unfeasible revolutionary stance, they emphasise the importance of inhabiting mētic action as a becoming-critical, becoming-resistant.

Trevor Paglen and Joseph Appelbaum's *Autonomy Cube* (2014-16) is conceptualised very similarly (Paglen, 2014). The sculpture straddles a fluid divide between art, (consumer) technology, and network strategy by creating both a functional Wi-Fi network and a relay for the Tor network, which provides anonymised, secure Internet access. Conceptualised to be set up in a museum or gallery space, *Autonomy Cube* provides critical commentary on state surveillance strategies and network regulation policy while simultaneously recuperating the technologies on which such strategies and policies rely to form a functional network communication hub, a safe space for users' online activities, a site of critical reflection. While in this case, the artists do not make design blue-prints and building instructions available (their work thus falls short of the more radical approach of the Critical Engineering Working Group), they frame the sculpture with detailed information regarding the Tor network and online anonymity, and encourage viewers to cut through *techne* by finding other opportunities for taking ownership of the readily available technologies.

My last example is the work of the Robin Hood Cooperative, an "activist hedge fund" that functions as a "counter-investment bank of the precariat" (Virtanen, Nelms & Maurer, 2016). The collective of artists, activists and software developers who form the core of the cooperative began by designing a "parasitical" algorithm that emulates the behaviour of high-speed stock trading algorithms. By analysing market activity and automating the replication of the behaviour of successful traders, the Robin Hood Coop algorithm quite literally appropriates the *techne* of the financial market for alternative purposes poised against the logic of financial capital. More generally speaking, the cooperative experiments with the creation of financial services and instruments outside the established financial apparatus by implementing useful technologies and knowledge from that very apparatus. As an important side effect, the cooperative produces discourse regarding participatory, commons-based economics that operates, to reuse my earlier expression, within and without capital at the same time.

Many other examples could be given—Ed Atkins' subversive animations and 3D renderings that bring mainstream video post-production processes into the gallery space (Serpentine Galleries

2014); Sasha Engelmann's experimental solar-powered auto-levitation devices that represent a "nomadic science" created in collaborations between artists, geographers, sociologists, and engineers (2015); or Henry Warwick's "personal portable library" (2014), which critiques the corporatisation, propertisation, and control of knowledge at the hands of institutional repositories or commercial media giants, and which proposes a "Radical Tactics of the Offline Library" resonant with the work of the late information activist Aaron Swartz.

As always, there is a constant danger that any such metic experimentation may be co-opted into the institutional or corporate circuits of the vast capitalist machine within which we operate. Current expressions of tendencies can be found in the trend, among tech-focused corporations, to sponsor media art residencies (such as the well-known Pier 9 Artists in Residence program run by Autodesk), or the flood of "labs" at art universities, which, as Jussi Parikka, Ryan Bishop and Kristofer Gansing (2016) recently noted, demonstrate a problematic "convergence of entrepreneurial precarity and a marginalized avant-garde" that displays not only the emergence of cutting-edge artistic practice but which also sheds light on profit-seeking enterprises that share the "expansive research and development (R&D) horizons of advanced art." Again, appropriation and re-appropriation; meandering between *metis* and *techne*.

All of these examples operate at the margins between contemporary art practice and experimental industrial application. Given the uncertainties, complications, and critiques addressed throughout this essay, is there room for metis as a viable concept for resistant practice in digital culture? I believe that there is, and that our ability to conceptualise viable contemporary resistance practices depends precisely on the availability of dynamic, polymorphous concepts such as mētis. "Knowing how to manipulate [media] objects or processes (while knowing yourself to be manipulated or manipulable in turn), as well as the effects or consequences that the trickery or cunning of such manipulation produces, brings into play ... an appreciation of the relative instability of the relations of which such objects, processes, techniques, or technologies are a part" (Fuller and Goffey, 2012, p. 6). De Certeau's worker, in doing *la perruque*, has little hope (and, probably, no design) to overthrow management and take possession of the modes of production. Likewise, the hacker who learns, understands (perhaps even designs), and who ultimately improves (or bests) a digital protocol, is unlikely to revolutionise the digital landscape. That is not the point. Metic action exists in a perpetual state of becoming-resistant. It does not aspire to an ultimate Yes! or No!, but, rather, advances with a Boolean True-therein lies its success: it exists, it works, it struggles, even when it takes one step forward and two steps back. Wherever commercial or critical appropriation occurs; wherever late capitalist subjects have turned, by ideological choice or existential necessity, the human capacity to recombine and re-use into an art of survival; wherever artists, activists, tinkerers, and hackers critically redeploy knowledge and skills picked up from a position immanent to capital $-m\bar{e}tis$ is a helpful concept for understanding and continuing to develop informal, uncontainable, tactics of resistance in digital contexts. When engaging in metic action, "you don't strive for successful result, but successful process" (Jullien, 2004, p.92). This is a useful suggestion. Let us keep in mind also that Jullien offered it in a text that mines the concept of *metis* for business advice...

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Dr Martin Zeilinger (Lecturer in Media at Anglia Ruskin University) is a new media researcher, practitioner, and curator based in London. His work deals with digital art, media theory, critical code studies, creative computing, and legal theory. Currently he is a Fellow at Akademie Schloss Solitude (Stuttgart/GER); he also serves as co-curator of the Vector New Media Art Festival (Toronto/CAN) and as co-convener of the Digital Art Research Group (Cambridge/UK).