Social Formations of Global Media Art
José-Carlos Mariátegui, Sean Cubitt & Gunalan Nadarajan

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INTRODUCTION

Though digital media date back to the 1940s and digital arts to the 1950s, it is only since the mass marketing of personal digital technology in the mid-1980s and the arrival of the world wide web in the early 1990s that social science researchers have begun to ask themselves what is the relation between new media and development, and particularly how relations between the First and the Third World become restructured. Though many of the technologies may seem similar, their effects on diverse groups of people are qualitatively as well as quantitatively different, very often reflecting the differential access and distribution of such technologies. This is the case of the use of new media in emergent areas of the world, particularly when related to culture and arts. This special issue of Third Text aims to analyse new media art practice in recent decades and asks whether it has provided a source for new cultural and social practices. While individual practitioners have produced thousands of innovations, the purchase of such innovations in the wider culture depends on their distribution and publicity: for this reason, we have elected to trace the histories not of individual artists but of networks and social formations, most of them created by artists and cultural workers devoted to establishing longer-term impacts than single artworks usually can.

The term ‘institution’ is problematic. On the one hand, in the political philosophy stemming from Michel Foucault, institutions appear as regulators of exchange, instruments of oppression and guardians of what can or cannot be legitimately thought. Such institutions exercise rule, through discipline or control, in the interests of what in the twenty-first century need to be understood as numerically tiny cosmopolitan elites, who are also the class to whom wealth accrues, and who are the taste-setters for the global art market. On the other hand, institutions such as artist-run spaces and organised networks can be considered counter-institutions, aligned neither with the state nor with corporations, but operating as organised forms of civic life in the public sphere. In recent decades, such institutions have

included very loose, open networks without fixed memberships or structures, perhaps most famously those associated with the anti-globalisation protest movements. This ambiguity in the meaning of the word is important because it is reflected in the kinds of practice that self-organised new media institutions engage in. However, as is clear from several contributions to the *Third Text* special issue ‘Whither Tactical Media?’ (no 94), new media practices frequently frustrate and reformulate the term. So it is better to opt for the less loaded term ‘social formation’, which captures the tenuous and temporary nature of such formations that are still structurally coherent enough to act with some common intentionality.

New media art practice, or at least its computing-related precedents, started in the 1950s and 1960s as a means of experimenting with both concepts and the core technical apparatus. The term ‘electronic art’ became a popular way to refer to this type of art, identifying it closely with the media used. Throughout this formative period and to some extent beyond, there were two particular emphases: on the one side a critical relation to television and mass media; and, on the other, a positive relation between art, science and technology. The 1990s also brought a shift in the dissemination of non-Western cultures, not least in the realm of new media art, opening a dialogue for democratic and open exchange. Nevertheless, over the years, some of these exchanges and initial critical perspectives became institutionalised (in the negative sense) in formal discourses that lost their initial value as agents for change. Current access to information about non-Western critical discourse and the proliferation of collaborative global projects to some extent owes its existence to communication and media technologies developed initially in the West. But like institutional structures, these technologies are not only replicated but also remixed to become new cultural forms (and not just standard formats).

In the case of new media art, the notion of ‘video creation’, for example, gained widespread circulation in creative production, offering a licence to play – literally – with the moving image and to explore its possibilities by means of the technological artefact. For artists gaining experience with a new medium, such play results in technological flexibility and ‘meaning-in-use’, the derivation of new kinds of meanings from the new medium itself. A user utilises a given technology not only as originally designed, but also by inventing (programming) new uses that were not initially identified by their original designers. This is the case of what also is defined as the ‘localisation or ‘tropicalisation’ of a technology, and by Norman Girvan as ‘indigenisable technologies’, that is, those which are neither black boxes which cannot be modified to suit local conditions, nor those which militant development experts define as indigenous, but those whose black boxes can be opened and made relevant to local users. The user is not only a practitioner but a designer, and the resulting technology expresses a level of malleability. However, technology is not infinitely malleable; its level of flexibility depends to a large degree on the level of interconnectedness and configuration of the technological artefact.

**THE CURRENT (PAST) DISCOURSE**

For the last decade, a decisive cultural practice in the use of new technologies has been emerging in underdeveloped countries. Recent studies
have tried to show the development of artistic and cultural practices in the light of globalisation. In many such recent accounts it is becoming evident that the technological muse plays a decisive role, for example in new senses of belonging fostered through networked access to the languages, cultures and political activities of migrants’ home countries. Evaluations of the effects of such access differ widely from positive to negative visions. The potentiality of digital technologies reminds us how the ‘low-tech’ can provide the basis for critique of the ‘high-tech’ (in the same way that there is a critique of Western culture from non-Western perspectives). However, in many of these discussions the uses of technology are treated as a given and this assumption is connected with a narrow approach to technology, which defines it as autonomous from society and value-neutral. By observing how artists and others are dealing with the technological apparatus, and thereby radically changing our definition of artistic practice towards a more social perspective, we can also challenge this autonomous, neutral vision of technology inherited from the West.

As technologies become more widely disseminated, globalisation needs to be interpreted as a process whereby imported ideas, concepts and artefacts are indigenised or tropicalised. In this respect people may adapt information and communication technologies (ICTs) for their own purposes to generate value that is meaningful, beyond any specific national or multilateral agenda. Implicit in this reading of indigenised, tropicalised technologies is the principle that technologies are not given, but are the product of both design and use. Technology is, then, made out of cultural processes; and since culture is at its heart dynamic and emergent, so too are information and communications technologies that evolve as appropriations in local contexts to suit local people’s imperatives, both cultural and pragmatic.

Nevertheless, if we take up this conceptualisation of technology naively, without regard to its actual implementation in social formations, issues in the alignment between nation-state objectives and the practice itself may become problematic. For example, concepts of citizenship do not fit neatly or figure prominently in the everyday network communications and exchanges of people around the world. This ambivalence over citizenship challenges many presumptions about equality of access to technologies.

Postcolonial theory can be used as a lens to understand how powerful economic, social and cultural influences affect the development of technologies and their use in local contexts, particularly where traditional institutional concepts prevail. A key argument to take into consideration is that during the late 1980s and early 1990s, less emphasis was put on the actual consequences of technology. As the standardisation processes were being deployed, the idea of using the internet for democratic enhancement was at its highest. This was the principle on which many technology-oriented organisations were established. There was the myth that technology, in a plausible future, was going to resolve many issues in underdeveloped societies in the same way it had in the developed world. The argument rested on two premises. First, since the foundation of US aid programmes in the 1950s, the theory was that because the West had progressed from agriculture to industrialisation and thence to the finance and information economies, developing


7. Escobar, op cit, 1994


nations of necessity had to follow the same ‘modernisation’ path. The second is characterised by Robert Hunter Wade as tractorisation,\(^{11}\) the theory that since Western agriculture was successful and had lots of tractors, all that developing agricultural nations needed was more tractors. Wade accuses the United Nations Development Programme (UNDP) and other development agencies of applying the same logic to computers, with very probably the same result: fields full of unmaintained tractors ill-equipped for tropical conditions; schools and libraries with unopened boxes of computers, or computers used only for word processing and games; or computers simply dumped for lack of interest or anyone to maintain them. Western institutions – and corporations like Microsoft, Cisco Systems and Dell who have major development projects – constantly repeat this error in their collaborations with non-Western settings and practitioners, applying network solutions from the West with no concept of how their rigidity and complexity fail to match the often fuzzy, vague and ad hoc arrangements of business and public life in the non-West. Even some non-profit projects that come from the West, such as the One-Laptop-Per-Child (OLPC) initiative, do not seem – at least from their initial implementation – to take into consideration the context in which these machines are used. By means of a piece of standardised hardware and software, the OLPC intends to make children learn and collaborate in places with no internet connection and where there are other more complex contextual problems yet to be solved. Questions of whether this is appropriate technology, whether it can truly be indigenised, and whether it may also generate generational and other conflict have scarcely been addressed by its proselytisers.

The majority of development policies aimed at integrating developing nations into globalisation have been based around such standardised frameworks. In the case of new media, globalisation typically arrived as part of a local intervention and was not formally considered within a discourse about social formations. Local cultural organisations, founded prior to the arrival of internet and digital technologies, confronted the issue of new media from an ambiguous position due to its hybrid and de-localised nature, as well as its artistic background. From one side there was clear evidence of local participation and use of technologies in new ways, offering new visions and hybridities that questioned established discourses. From the other side, as internet connectivity evolved, many joined in simply because they did not want to be left behind or excluded from global activities and projects. These orientations were confirmed by the association of sustainability with information and computer technologies for development (ICT4D) by the UNDP in its 2001 Human Development Report,\(^{12}\) Making New Technologies Work for Human Development. In this context, new media art had potentially new areas to work in, and new ways to intervene in policy discussions on ICT and development.

Much development discourse concerning media is based on the idea that technological leapfrogs would enable underdeveloped societies to catch up thanks to new technologies, a concept typically operationalised at the level of infrastructure. We would like to argue that a socio-technical approach to information infrastructure better explains the case by thinking of it as an ecology of systems that emerges from the interaction between people,\(^{13}\) activities and structures. In this approach infrastructures are seen


not merely as technical, but as the norms, social formations and conventions that enable practices. At the same time, in recent years the cultural agenda has also changed from the idea that culture is an elitist consumption towards its consideration in development and social programmes.14

Socialising the idea of infrastructure and embracing culture as development process both fostered the current institutional interest in new media art. At the same time it is important to recognise the ‘expediency’ of culture analysed by George Yúdice, for whom cultural interventions funded by development agencies (and to a great extent arts funding in the West shares this agenda) must not only achieve significant aesthetic ‘goals’ but provide employment, replace failing education systems by inculcating new skills, and counter the desocialising results of missing social programmes lost to IMF restrictions on state-supported welfare. When the demand by funders that the whole process be apolitical is added to this burden, the most intense innovations are required.15

Thus we believe that, alongside the institutionalisation of ICT, reconsidered in terms of a socio-technical procedure, we also need to understand how people get involved with the use of particular technologies, for example, by recycling its use into new forms. Marcus Neustetter mentions in his article how people are embracing technology more than we think, knowing that it gives them access to a variety of services. Though this approach to technology can mimic the old centre-out model of publishing and media, making the user a one-way media receiver; when people raise questions about the capacities of the technology, there is the potential to develop dialogic values that were previously unavailable.

NEW MEDIA VICINITIES

Although many representations could provide a focus for discussions of new media, in the case of video and electronic art in the non-Western world, a particularly fruitful one is that of the city which the discourse of new media art has tried to abstract as an ‘Other’ space. There is no doubt that, after decades of migratory displacement, the megacities such as São Paulo, Mexico City or Delhi are not merely similar to any modern city: they also become portrayers of the ideas and desires of their inhabitants. As Néstor García Canclini comments: ‘as a result of this kind of situation, national cultures lose their influence in the social definition of identity, and new modes of definition are accepted’.16 In this sense, local culture acts as a repository of popular narrative, creating a space where modernity and tradition converge through day-to-day practice.

Eduardo de Jesús, in this issue, points out how in many underdeveloped countries television is still a very important instrument in social life. New media occupy a more peripheral position, but as a result can promote alternative ways of using the media. On the one hand, new media have to escape from the conventional formats that dominate the mass media. On the other, they give access to the means of production. Both tactics depend on whether or not there are resources, where by ‘resources’ we mean the socio-technical networks of skills, policies and cultural orientations that make alternative social formations so central to new media in the developing world. We still believe that true originality lies in the work that does not enslave itself to the Western mainstream,

but we recognise work which also plays with it as a way of reconstructing an indigenised, tropicalised image. We are also embarking on a completely global phenomenon in the distribution of information. Not only have the channels for its diffusion expanded, thanks to the internet, but both the size of and the interconnections between cities that gather people into globalised groups are growing at much the same rate. When successful non-Western artists become trapped by the system of mainstream art, one of the most convincing temptations for them is that of scale. Ten years ago, the scarcity of technology required either the loan of equipment to artists or the provision of centres where they could work for periods of time. These ‘media labs’ and similar centres in many instances also became institutionalised, not least through their effective monopoly on the means of artistic production. Today this picture has been challenged. Projects require socialised, even gregarious, human resources far more than facilities and equipment in order to make them happen. In her article in this issue, Olga Goriunova notes that the net.art scene in Russia was initially supported by social formations, such as Moscow MediaArtLab. But, as she asserts, many of these initiatives carried an impregnated deterministic and instrumentalist ideology that made evident a limited and limiting interpretation of technology.

The absence of an uninterrupted, lived tradition of critical inquiry into and artistic engagement with technology led to the spread of a certain ideology regarding media or digital media which can be characterised as deterministic, instrumentalist and essentialist. Even when the origins of technologies are considered to be social, their effects are believed to spring from the technologies rather than from their complex uses. Since Kant and Hegel, technologies have been defined as having a teleology other than themselves: unlike living creatures, for whom the goal – to live – is intrinsic, the purposes of technologies are external to themselves – to carry out whatever they were designed to do. Technology is also described in essentialist terms in that the designed purpose is held to override every attempt at repurposing. Technology is still usually regarded today as a black-box phenomenon, either more or less neutral, incapable of playing any significant role in original creation or cultural life at large; or alternatively as vicious, inhuman and destructive of civilization. We renounce these models and argue that technology has no essence, not even in the sense of Martin Heidegger’s claim that ‘the essence of technology is nothing technological’. Nor is it determining of what people do with it. Given these conditions, we reject the notion that technology ‘is’ good or evil: it is as much a part of the human ecology as climate, water, soil, animals and the laws of physics. Taking this perspective, contemporary Russian culture, for example, is unprepared to accept technological forms of art or even of technology culturally as not merely an information channel but as what informs, shapes and structures our world, and in turn is informed, shaped and structured by it. This perspective is reinforced by consideration of how video art was conceived in China, a country in which art has been seen as utilitarian and functionalist. Pi Li reminds us that video is a communication channel, and in China, thanks to the medium’s ease of use, its widespread adoption and familiar mode of communication, it became a conduit for art that reflected its audience. In this it differed from the initial uses of video art in the West, as a critique of the medium of television. In China

video became popular because of its richness and diversity, and, to a great extent, the empowering capacity of the technological medium.

Arturo Escobar criticises post-development literature as having romanticised local traditions and local social movements, ignoring the fact that the local is also embedded in global power relations and that many of the struggles of today are around access to information. This is even more the case with media technologies, where global flows of programme formats and content are essential components of the broadcast and internet economies, as in the case of Rede Globo and Televisa, the Brazilian and Mexican multinational broadcast companies, of Al-Jazeera and BBC World satellite and internet services, and the vast if only semi-public world of news, video and photographic agencies like Visnews, Reuters and Magnum. As the de facto dominant communication media in the world today, TV and the internet – increasingly interwoven with each other and with mobile media – play a central role as distribution media for locally produced content which then serves a global market. We should note also the importance of technical standards bodies like the ISO, ITU and the IETF, responsible respectively for electrical and engineering standards, telecommunications standardisation and international pricing, and for the stabilisation of internet protocols and formats like html, xml or mpeg. A handful of operating systems dominate global computing – Windows, Mac OS/Unix and Linux. A single corporation, Cisco Systems, has effective control over the market for core devices such as switches and routers. If on the one hand this seems like a recipe for global homogenisation, it is also the ground on which complex retro-engineering and recombinant strategies have been and can be built, perhaps most notably in the FLOSS (Free Libre Open Source Software) movement and through mass participation projects like Project Gutenberg and Wikipedia. In this issue, Ravi Sundaram revisits the technology markets of Delhi to demonstrate the inventiveness of ordinary people, undaunted by all this standardisation, and the regimes of intellectual property and internet governance that accompany it. But questions remain. What information is available, and to whom? How is information processed from its universal Western technological mode into local cultural meanings? And when these new local meanings begin to articulate themselves, how, if at all, are they able to broadcast themselves either locally or back into some putative global commons?

**NEW SOCIAL FORMATIONS AND NEW MEDIA PRACTICE**

During the last decade many social formations in developing countries have claimed to be the voice of new media and culture. Not all of them had been particularly active or successful in their own countries. A common intention of many of these social formations was to become visible internationally by doing projects specifically designed to be recognised outside their country. This is a sign and a consequence of globalisation, particularly in large cities. For example, Videobrasil, a group based in São Paulo, works with artists from Lebanon and is developing projects in South Africa. This decontextualised process, though it demonstrates a will to open up to new cultures by bypassing the metropolitan centres, has become part of an institutional setting,
promoted by an international cultural scene that fosters cultural exchange among different non-Western groups in pursuit of novelty and creativity which it must often feel the metropolitan centres themselves can no longer provide. Though the idea of cultural exchange in itself may not seem bad, too often the emphasis falls on the exchange of culture as commodity exchange rather than as something that might bring a new meaning or outcome to the setting or the community in which it was deployed. Sometimes these initiatives become so delocalised that it may seem difficult to define a beneficiary group or audience. In such circumstances, cultural exchange becomes an object of consumption for connoisseurs, and its social repercussion is minimal.

Self-organising actors have in many instances brought a new way of thinking, introducing more Western-based concepts such as transparency and pluralism. Nina Czegledy and Andrea Szekeres described how the Soros Centers for Contemporary Arts supported culture in general and contemporary new media arts in particular through their network in Eastern Europe. Although the Soros Centers were conceived initially as institutionalising functions of donor capitalism, many of these art centres became key generators of new social formations, promoting flexibility, addressing topical issues, promoting new initiatives, and opening themselves to change at the hands of their users.

TECHNO-CULTURAL TRADITIONS

New media also offer a way of embracing tradition and modernity. Laura Marks, in this issue, argues that Islamic number science and its integration into Islamic art foreshadow the development of digital media in the twentieth century. The process is not unfamiliar. European and North American modernism has looted the supermarkets of colonised and indigenous cultures for more than a century. What is significant in our context is that Marks posits an absolute continuity between tradition and digital modernity in Islam. In her contribution, Maree Mills shows how video and digital media have enabled indigenous artists to engage with Maori philosophy. In a different case, in the Andean regions of Peru the use of video cameras have enabled not only the preservation of oral traditions in communities, but also, perhaps even more significantly, it has enabled those traditions to be diffused via a VHS or a DVD to other communities in which that knowledge was already lost. In both Maori and Quechua cases, as well as many more, the technological artefact is used as a way to preserve but also evolve traditions. Similarly, in Guatemala, whose indigenous population amounts to about eighty-five per cent of the total, a new use of technology in the arts, heavily based on performance and rituals related to their cultural traditions, has evolved. Understood as a tool for the construction of objective or instrumental knowledge, photography constructed the colonial Other as the object, rather than the subject of knowledge, whose own codes of visual communication were excluded from the process and deemed wholly known through an external visual discourse. In the case of Peru, as Delfín and Zegarra recount, there is a permanent struggle between, on one side, a patrimonialist discourse and vision of the territory, discursively fixed in the collective imaginary as the only path towards local
legitimisation and international recognition; and on the other, a growing scenario of global aspirations related to digital paradigms and more critical research on recent memory. Curiously, while the former fixed vision may well be a reminiscence of the past, the latter runs the risk of succumbing to current techno-deterministic political agendas that come from the West. Technologies paradigmatically place the tools for cultural evolution in the hands of younger generations. Indigenous cultural reductionism can take the form of refusal to use non-traditional media as a mode of resistance to colonisation but, by enabling a new kind of cultural activism, it allows groups to become more autonomous in telling their stories, both to each other and where appropriate to potential allies in struggles such as that of the Zapatista peasants of Chiapas. At such points, tactical media become strategic and should be understood as a road to liberation: not merely resisting Western intellectual property but constructing peer-to-peer networks for sharing their ideas and productions.

The global art institution has its favourite ‘Other’ cities: São Paulo, Dakar, Havana and so on. In the intervening layer of regions, organisations may act as hub for a cluster of initiatives. This is distinct from those social formations which arrange cultural exchange for the depletion of the global market. For example, as Ernesto Calvo and María José Monge point out, Costa Rica is seen, particularly in the new media art scene, as one of the main activators of experimental work in Central America. New media art production in Costa Rica has acquired a significant role in the years since 2000. This phenomenon is inevitably associated with the promotion platform developed from within an institutional setting, the Contemporary Art and Design Museum. As the main hub of the Central American new media art scene, Costa Rica is also strategic: there is little interest in the artworld in what is happening in Nicaragua, Honduras or other Central American countries, but clustering several countries together does give greater opportunity to interconnect, to support small nations and language cultures, to provide instruction and material support. It is only as a result of these regional initiatives that international visibility becomes possible, and that visibility is secondary to the dynamic of regional cultural dialogue. These types of regional cluster are also a way of making visible troubles that are not usually so evident, if seen in a granular sense, but which when collected may not only become visible but meaningful to a broader audience. The same could be said of the work of Akram Zaatari in contemporary Lebanon, as Hannah Feldman describes it in her essay. Feldman mentions the importance of archives as cultural repositories that represent different experiential approaches to history and constructed identities performed by a multiplicity of buried desires. Such memory archives are in many cases situated in artist-originated social formations of the kinds described in this issue.

**CONCLUSION: EMBRACING THE IDEA OF TRADITION AND MODERNITY**

Institutionalisation is not always necessary. Indeed, sometimes, especially when dealing with dispersed groups of people, institutionalisation
may seem far from compelling as a mode of operation and its outcomes too complicated to measure. It has been clear since Marx – to everyone not devoted to neo-liberal fundamentalism – that human activity, human creativity, is fundamentally social. This is the foundation of the theory of the general intellect, first mooted in Karl Marx’s *Grundrisse*, and recently warmly debated among post-autonomist political philosophers in Italy and elsewhere. The sum total of human knowledge and skill never resides in a single individual but in the social. Social formations are ways of managing this common inheritance, either for the benefit of a small elite of owners, or for the general welfare of all, or at least of the largest number. The anarchy of the ‘free’ market produces neither an adequate living for all, nor innovation. As Paolo Virno argues, innovation is a devolved process: ‘the task of the worker or of the clerk to some extent consists in actually finding, in discovering expedients, “tricks”, solutions which ameliorate the organization of labour’. What is specific to our post-Fordist period in history is that communication functions as a means of production. The question of who controls it is of the highest importance. This is why alternative forms of organisation in arts and cultural projects are of such significance, and why they risk being turned from radical innovation into the unpaid research and development of information capitalism. The analogy with the sourcing of aesthetic innovation in marginalised cultures need not be emphasised for readers of *Third Text*.

Even in densely populated cities, where the use of technology is much more intense, differences of wealth no longer determine access to communication. The inventiveness of a large proportion of the population challenges established companies and their commercial offerings. In that sense, the only way to encourage radical innovation, which is at least difficult to recuperate into the dominant forms of managerialism, must be based on the understanding that technological infrastructures embrace language, culture and the common inheritance of the general intellect. This alone provides the potential to think critically about the context and diverse uses of a technology in people’s everyday existence: how it improves their lives, not by homogenising but by being open to diverse scenarios. A large city or the capital of an underdeveloped country may act as a threshold of possibilities; for example, in South Africa, people-interaction is much preferred to mediated interfaces, even if the latter offer greater convenience and efficiency. We can certainly assume that ICTs and culture, both elements embedded in new media, may not be a bad way to forge new local practices. However, the particular way organisations try to use them may become institutionalised and act as part of a broader globalising agenda, one which actively produces underdevelopment as a necessary element of the world system. In the case of new media, as a global and international development, a global agenda may suit a very narrow international elite and have little significance for local users, at which point its significance is diluted or destroyed.

The notion of the museum and of cultural spaces is also challenged by organisational appropriations of alternative spaces. The internet is one of these alternative spaces that, though it has been institutionalised in many of the cases we examine in this issue, still has the capacity to act as an experimental social formation, especially when access is offered and there is not an uncritically accepted agenda of ‘how to use it’. Such

access is not merely a matter of being able to sit down in front of a computer. It implies access to the inner workings of the machine, such that it can be adapted and indigenised. That in turn implies a sharing of expertise and a willingness to acquire it. Both sharing and will to acquire are themselves cultural issues. Where there is no reason to want to learn how to make computers do what we want, there is no motivation to learn about them. This chicken-and-egg situation is where the innovative organisational skills of many of our cases come into play. After an all too brief period of anarchy, the internet has increasingly settled into the one-way model of broadcasting which has dominated communications in the developing world for thirty years or more. In some respects, the internet may be understood as even more powerful, both because of its ability to recruit unpaid labour to provide content for corporately owned social networking sites like MySpace (Murdoch) and Flickr (Yahoo!) and YouTube (Google); and because of its technical base in the TCP/IP suite of tools, a regime of control which Alex Galloway describes as ‘protocol’, a new mode of biopolitical management, one in which certain kinds of illegitimate actions are no longer disciplined or assimilated but are simply impossible.

In a series of lectures given towards the end of his life, Michel Foucault mooted the thesis that the ‘disciplinary’ mode of rule, typical of the transition to modernity, had been exchanged at some point during the nineteenth century for a new biopolitical order. Where the old regime relied on the disciplining of individuals and the inculcation of discipline in each citizen, the new biopolitical order was a management of populations in the mass. The model of the old regime was the panopticon; that of the new was epidemiology and the regulations surrounding the control of biological life. Armed with the ‘social physics’ of statistical social science, and with actuarial risk-management techniques derived from the insurance industry, the biopolitical state aimed not at total regulation but at measurable success - for example in mortality rates – and on bracketing off previously unacceptable crimes or injuries as acceptable rates of criminality and accidents that could be ameliorated through various social instruments like media campaigns and neighbourhood watch schemes. Galloway’s protocological rule moves one step further: certain kinds of criminality (for example the theft of intellectual property – critical to the new economy of the USA) become impossible due to control over the technical means of distribution. Meanwhile, these same infrastructures can be painted as, and indeed in many senses are, vehicles of a new kind of freedom. Galloway’s point is that such freedom is always circumscribed, always permitted, always at the mercy of the power to control protocols. Of particular interest in our present context is that this new mode of power is the first truly to extend beyond national borders – the first genuinely global political regime.

Reflecting on a similarly Foucauldian analysis of freedom and control in network communications, Wendy Hui Kyong Chun argues that the translation of human language into software commands ‘perpetuates master–slave relations … reduces freedom to control, language to program and commands’. But she concludes her reflections by arguing that ‘These languages may not allow for polysemy – meaning can only be opened by rewriting the languages and their compilers – but the future remains open’. Today more than ever, the internet and new


media more generally are becoming much more malleable. It is in this sense that they retain the power to generate critical meanings.

Technology is socially adaptable. For that reason we can speak of ‘new’ technologies, despite their sixty years of history, when the dynamics of the apparatus allow users to tell suppressed stories and experience new narrative forms in groups with rich oral culture and social interaction. Capital treads a fine line in the management of innovation: too much innovation too quickly runs the risk of revolutionising not only techniques but the social organisations which are implicated in them. Media history teaches us that key innovations (sound, film, FM radio, Open Source) have been the objects of often successful attempts to stifle innovation in the interests of maintaining a profitable status quo. The irrationality of the market is everywhere apparent: given the current global financial crisis, news in January 2009 of US bank executives in the US paying themselves billion-dollar bonuses demonstrates that the hidden hand of the market is quite capable of slitting its own wrist. Capital fears innovation as much as it craves it. Satirising and sabotaging the major portals and e-businesses that dominate internet traffic is merely tactical; building alternatives to them in the form of peer-to-peer networks and new modes of organisation is strategic. The kinds of social and aesthetic projects analysed here not only awake interest in originality, but also contribute critical reflection on both the dominant culture and the emerging museumification of media art. The yearning to be incorporated into universality, to which the global standardisation of internet protocols appeals, is not a desire that can be diffused with a few pretty splash pages and a smattering of free speech ranters. Once awakened, that demand for universality is also a demand for universal justice and equal access not just to computers but to the wealth and power monopolised by the West. The best new media artefacts are not necessarily websites or installations: they may well be the artefacts of new organisational forms, linking local to global struggles, building solidarities. Such artefacts are ready to burst into new forms and to change forever the habits of use designed into our digital tools. Such resistant fragmentations are the enclaves of difference and change.