

# SILICON UTOPIAS: THE MAKING OF A TECH STARTUP ECOSYSTEM IN MANCHESTER (UK)

## ABSTRACT

‘Silicon utopias’, the hope for a green, affluent and happy future through the creation of new tech-businesses, are today informing many urban development processes globally. In this contribution, I look at the recent remodeling of Manchester (Northern England) as an entrepreneurial city. In particular, I present a specific government investment scheme and its relation to the work of a group of local lobbyists who have been promoting a new tech startup community in the city since 2012. Stemming from this empirical example, I explore the interplay between local entrepreneurial dreams and the state’s promotion of startups. The paper concludes with the argument that an anthropologically informed concept of cynicism can contribute to a nuanced reading of silicon utopias and dystopias.

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Keywords: Startup community, entrepreneurship, Manchester, utopias, cynicism

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## INTRODUCTION<sup>1</sup>

In an information society, no thought, debate or dream is wasted—whether conceived in a tent camp, prison cell or the table football space of a startup company.

‘The end of capitalism has begun’, by Paul Mason in *The Guardian* (2015)

It was at the table football in a co-workspace in Manchester (Northwest England) where I was reading a very similar slogan written on the wall while waiting for the CEO of a technology startup company to finish his game for our interview. The prophetic title and the oracular words of the BBC journalist Paul

Mason fit the category of utopias of human liberation through technology; utopias which are periodically updated through whatever is a ‘new’ technology in any given moment (Harvey 1996: 127). Tech(nology), not only in the journalistic domain, is today writ large with software, computer-sustained electronic devices, internet and a selected number of related omnipresent global corporations, brands and algorithm-sustained products and services which have become ubiquitous in everyday life. Nevertheless, Mason’s reference to the prison cell or the tent camp also indicates the association of technology startups with transgression of the status quo. Besides, labels such as the information society suggest a specific kind of symbiosis between technology and

culture as a distinctive feature of this moment in history. Far from being exclusively journalistic jargon, academia, corporations, the art world and politicians employ quite similar vocabulary as Mason and similar self-descriptions of tech startup companies do exist in everyday practice, as this contribution will show. How is it, one might ask, that business creation, when related to digital technology, is seen today as a way to get rich, overcome climate change or promote happiness?

The following research report is divided into four main sections. The first section looks at the origins of these pervasive 'silicon utopias'. It explores the imaginations and concepts related to the 'digital age' in art, academia and in the first ethnographic accounts of computer technology communities published at the turn of the century. The second section analyses the political economy of the recent restyling of Manchester as a digital-technological city. In the third section, I present the case of a specific development project supported by the central government and articulated by local leaders of the tech-community. The final section relates this case study to concepts such as the entrepreneurial dream. An anthropologically informed notion of cynicism, I suggest in the conclusions, can contribute to a balanced evaluation of the contemporary ideology of technological entrepreneurialism beyond the utopias of practitioners and dystopias of academics.

## UTOPIAS AND ETHNOGRAPHIES OF TECHNOLOGICALLY SATURATED COMMUNITIES

The apparently ever-growing importance of information and communication technology in everyday life shapes contemporary

representations of society and the economy. Tropes such as 'the sharing economy', 'creative industries' or 'the information society' envision present and future worlds, resultant from computer based technologies, in academic writing, technology businesses and ordinary experience. Anthropologists have rephrased Anderson's 'imagined communities' (2001 [1983]), to call some of these representations 'imagined networks' (Green et al. 2005: 806) or 'imagined worlds' (Appadurai 1996: 33). Subsequently, for anthropology a whole series of new intriguing questions have arisen. Technology itself is increasingly displayed as 'culture' in its own right, not only as enabling, improving or assisting culture (Harvey 1996: 121–123). New exotic communities emerge, such as digital natives, hackers, freaks, techies, nerds, gamers or geeks (Tocci 2009) and online communities seem to question place-based ethnography (Whitehead and Wesch 2012).

Among the origins of fantasies of the digital or information age was the work of Marshall McLuhan.<sup>2</sup> *The Medium is the Message* (2008 [1967]), a book at the intersections of philosophy, cultural studies and pop-art, includes some of his most popular ideas. Communication technology is shaping the mentality of societies as we move towards a world of total involvement, the global village, one of the popular terms he has coined. 'Electric circuitry is recreating in us the multi-dimensional space orientation of the "primitive"'; it 'confers a mythic dimension on our ordinary individual and group actions' and it is 'orientalizing the west' (McLuhan and Fiore 1967: 57, 114, 145). Today McLuhan-influenced scholars relate this 'new tribalism' to internet communities (Stille 2000) and anthropologists have referred to McLuhan's 'global village' as part of the history of the globalization concept (Eriksen 2007: 2). In addition, there have been recent anthropological

narratives similar to McLuhan's, in form (presented as philosophic artwork), popularity (reaching out to a wide general public) and content (technology is changing our mentality). Michael Wesch, professor of anthropology, is author of the artistic video collage, 'The Machine is Us/ing Us', arguing that the internet leads to more sharing, trading, collaboration and is reconfiguring identities and self-perceptions. It was the most popular video on the Web in October 2007 and up to 2015 it had been viewed over eleven million times. The prophetic nature of these accounts has similar correlates in corporate narratives of revolutionary products, such as the iPad (everything changes with iPad), Skype (keeps the world talking) or Facebook (it's free and always will be). Of course, the very nature of utopias is that they are entangled with dystopias. 'Don't be evil,' was Google's much discussed corporate slogan until recently, while the first Macintosh commercial in 1984 played with Orwell's dystopian novel, 'Nineteen Eighty-Four'.

At the turn of the century two books, by Paulina Borsook (2000) and Jan English-Lueck (2002) respectively, were published on the cultural particularities of a community that was seen as the showcase of the 'information revolution' and the 'emerging global culture' (English-Lueck 2002: 8). They analyzed the values and worldviews of the Silicon Valley tech or startup community, a group structured by the symbolic and economic power of the cutting edge technology they themselves created.<sup>3</sup> Both authors knew about each other while writing their books. Borsook depicted a telephone conversation with English-Lueck as amusing, because 'to these anthropologists, what I was describing was the religion of their native informants' (2001: 4–5). Inversely, English-Lueck referred to Borsook's work in a footnote, misspelling her name as Barsook, as

'more journalistic' (2002: 9). Both Borsook's self-titled 'gonzo anthropology' (2001: 3) and English-Lueck's in-depth ethnography were innovative for their time, considering that Google, founded in 1998 and moving to Palo Alto in 1999, was not even mentioned yet by English-Lueck. Both looked at the cultural consequences of the new computer technology not only for consumers, but for their producers, studying, through participant observation, the local particularities of a community shaped by 'technological saturation' (English-Lueck 2002). Borsook created a powerful dystopia of Northern California's 'technolibertarian' community which she, fifteen years after her publication, describes in a contribution for the blog of the Institute of Network Cultures of the Amsterdam University of Applied Sciences as 'so.much.worse.now':

Silicon Valley is both (as has always been the case) in bed with and in opposition to government. The language of 'disruption' and 'sharing economy' seems more about avoiding taxes, licenses, and corporate liability than 'sharing' anything (i.e. deeply technolibertarian)—but then the terms Friend™ and Like™ have also taken on strange new meanings. (2015)

The ethos that English-Lueck identifies in the Bay Area of the 1990s is similar, but the more cultural-relativistic style of the monograph did not allow for such accentuated political positioning. Instrumental reasoning prevailed (life is managed), 'the production of technology [was] a moral mission' (technoptimism) and people lived for their work as they felt joy and passion for technology or 'technolust' (2002: 34–35, 42, 51, 95, 174). In 2015, these descriptions feel mundane and familiar as our everyday experience is intimately related

with ever-present mobile devices (ubiquitous computing is the technical term used by software engineers today). The author rightly anticipated the predictive character of her findings in the Silicon Valley laboratory.

Today, administrations and corporations are trying to reproduce these 'silicon communities' or 'places' (English-Lueck 2002: 11, 166, 181). In this endeavor, more intriguing than the question of what digital-tech communities ontologically are, is how they are envisioned as desirable futures by politicians, city planners and lobbyists. '[A]ll the world wants to be what it *thinks* Silicon Valley is like' (Borsook 2001: 8; my italics). Along these lines, the entrepreneurial ideal underlying urban redevelopment in Manchester has received considerable attention from academics in recent years.

## MANCHESTER: THE ENTREPRENEURIAL CITY

Greater Manchester, the third largest metropolitan area in the UK, was once the epicenter of the industrial revolution, especially in terms of the textile industry. As with Silicon Valley today, places and products were labelled 'Manchester' because of the worldwide diffusion of the city's cotton products, which led historian Harold James to a comparison with the contemporary iconicity of the McDonalds hamburger (2001: 12).<sup>4</sup> Since the 1930s, the city has experienced a process of urban decline and deindustrialization. From the 1970s onwards and especially after an IRA bomb explosion in the city center in 1996, the city has been 'regenerated' by city planners, administrations and corporations, mainly through public-private partnerships (Hetherington 2007: 630–631).

Urban studies have, since the 1990s, experienced what some have called an 'entrepreneurial turn' (Ward 2003: 116), and

authors like the English geographer David Harvey have prominently argued that the basic functions of city governance have shifted from redistribution to inter-urban competition. The 'business' of public administrations today is attracting external sources of funding, in Manchester as in other cities within advanced capitalist societies (1989: 4, 7, 9). In this direction, recent redevelopments in the central and eastern districts of Manchester, or the bid for the 2000 Olympic Games, have been described as an accommodation between the city's authorities and the local and global private sector (Quilley 1999; 2000; Ward 2003; Hetherington 2007). 'Manchester has been positioned (and perhaps cast itself) as the entrepreneurial city writ large' (Ward 2003: 124–125). But it has also been argued that the new entrepreneurial governance has required more not less state intervention (Ward 2003: 117) and forced the traditionally socialist city council into arrangements with the neoliberal agendas of governments at Westminster, either Tory or New Labor (Quilley 1999: 187). These arguments were again compatible with Harvey's framework of cities' growing competition for redistribution funds from the central government (Harvey 1989: 10).

A particularly compelling ethnographic account has been produced by Green, Harvey and Knox (2005) related to a third layer of entanglement between local elites in Manchester and powerful institutions seeking to redefine urban spaces and communities through investment in technology. They were reporting on European Union funded projects during the 1990s and early 2000s aiming to develop computer-supported networks among European cities' administrations, foster the 'digitalization' of museums or support the consolidation of Manchester's new-media industry (Knox 2003). The moral underpinning

of these public investment schemes, that the authors have labelled ‘the imperative to connect’, consisted in nurturing a sense of belonging to a new (virtual) Europe that would be compatible with existing identifications of nationhood and local place (Green et al. 2005: 817). New information and communication technologies, like railways or television before them, were used for place-making, these being the social processes of generation and control of space, its meaning, boundaries and symbols (Green et al. 2005: 805–806).

This political-economic process is currently being reshaped in the United Kingdom. The central government’s reaction to the intensification of the Scottish independence movement since 2014 has been a new attempt to ‘devolve powers’ to all regions of the kingdom. Metropolitan areas in the north of England, such as Manchester, inferior to the south in growth, population and infrastructure, have also been promised new self-governance and investments by the conservative British government re-elected in 2015. This wider political agenda, promoted with the slogan ‘Northern Powerhouse’, was accompanied by public and private investments in the field of the digital industries, which take advantage of the general favorable political climate, as my following example illustrates.

## MAKING A TECH STARTUP ECOSYSTEM IN MANCHESTER

The Tech City UK initiative, started in 2010 by the conservative-liberal British government, consisted of a series of investments (broadband), deregulations (entrepreneur visa, review of intellectual property laws) and public-private partnerships (research eventually supported by corporations such as Google and Facebook), to promote the East London technology cluster.

It was to help shorten the distance between Silicon Valley and East London, also referred to as ‘Silicon Roundabout’ (see for instance debates in *The Guardian* [Wintour and Travis 2010]). In 2012, inspired by the mapping of tech-businesses in London realized by Tech City, two Manchester-based entrepreneurs had the idea of gathering novel, qualitative, first-hand information and analysis of so called ‘tech communities’, existing outside London. The following description of different but related initiatives launched by media experts, bank consultants and software engineers since 2012, draws from observations, interviews and social-media-text analysis I have realized during two months of fieldwork in summer 2015.

Among the first steps in the making of a Manchester tech startup community was the collection and display of statistical data that justified speaking of a startup-community in the first place. After a group of entrepreneurs had interviewed prominent or successful founders of tech businesses in different cities in the UK, they started to create the profile of a ‘Manchester tech community’. Several web presentations have been set up, showing statistics on growth, employment, types of startups, but especially the different components of the ‘ecosystem’ such as the identification of research institutes or bars frequented by techies. This was combined with an increase in social media-disseminated narratives of success stories of particular enterprises, events and entrepreneurs. Hence, in order to visualize the existence of a tech startup community, it had to be pictured, mapped, measured and named, mainly because it is an industry that is ill-defined and constantly changing, as observed by Knox of Manchester’s ‘creative industry’ (2003: 155–156). More specific social media campaigns followed, such as a slogan that promoted the idea of Manchester as an imminent top-five European tech-city.

In a second step, these lobbyists created a physical and social infrastructure that allowed for the possibility of first-hand and face-to-face experiences of a local tech community 'offline'. For this goal, several co-workspaces and periodic networking events have been created and promoted.

Then, in a third step, all these activities attracted the attention of those in charge of Tech City UK. In 2013, two young men involved in the promotion of the Manchester startup community were invited to advise the governmental Tech City UK managers that brought together various 'leading figures from thriving digital clusters' (Tech City UK 2015). The new 'Cluster Alliance' also attempted to expand Tech City activities to support the rest of the 'Tech Nation' and its 'clusters' and 'communities' (the Prime Minister's words in this report). As a result of this, in 2015 the creation of 'Tech North' was announced and the government committed to an investment of £11 million in tech incubators in three cities in northern England, £4 million of this to fund the proposal presented by one of these entrepreneurs. In addition, this social-media and public relations expert eventually raised another £20 million from private investors, as he and others told me. The investment from the government was justified in the budget with reference to the Tech Nation report, which 'revealed' the large growth numbers and important employment rates of digital businesses in the north of England.

The success story of this and other lobbyists was celebrated on Twitter and LinkedIn or specialized online forums, magazines or local media, showcasing some of the main elements of success, such as the mapping of startup communities outside London, the provision of consulting services to the government and the amount of money raised. In fact, this particular

media-expert was portrayed as a 'rising star' by a British computer magazine and the story was echoed in various conversations and public presentations at events directed at Manchester tech entrepreneurs I visited on a daily basis during my fieldwork. The names of key persons, the amounts of private and public money that had been 'raised' and the general excitement about 'what's going on' has been at the core of these tales.

## GOVERNMENT SUBSIDY AND THE ENTREPRENEURIAL DREAM

This specific way in which the physical, social and visual infrastructure of a 'startup ecosystem' has been set up in Manchester since 2012, especially by a small group of young entrepreneurs and media experts (which finally attracted the attention of the state administration) fits in well with the four basic patterns of the entrepreneurial dream identified by Gill (2013). The entrepreneurial dream is a narrative that was essential to US business periodicals' display of entrepreneurs throughout the 2000s. First, in these tales there was an origin story of difficulty. In our case from Manchester, one of the important figures in the making of this startup community portrayed himself as coming from a working class background and his way to success was hampered by economic hardship. Secondly, there was a unique idea from an ordinary person. In our case, it was the expansion of the Tech City initiative in London to other parts of the UK. The third momentum of the entrepreneurial dream that Gill mentions, namely innovation through technology, was realized by our entrepreneurs through the picturing and identifying of tech clusters outside London through social media, statistics and web presentations. Finally, masculine

qualities of strength and adventurousness were not only embodied by many of these young men, often described in conversations with people at technology events as ‘leaders’, but also by the stories they disseminated, such as a backpacking trip across Britain in order to gather the data for the previously mentioned innovative report on tech-clusters outside London.

From the local perspective and in conversations at tech events in Manchester, it was the entrepreneurial dream coming true that finally attracted government investment and bureaucratic support like Tech North initiative. Nevertheless, besides the individual capacities of the lobbyists in working for ‘their community’ (or ‘talent’ in the rhetoric of startup communities) and the element of coincidence (both core momentums of the entrepreneurial dream), the government investment also had structural explanations. In Latour’s terms (2005) these ‘tech-community leaders’ were (agentive) *mediators* from the local perspective, but were *intermediaries* when looking at the wider political landscape of the UK of 2015, as I argue in the following.

On the one hand, the specific public-private partnership expressed by the collaboration between Tech North and local lobbyists could successfully tackle a basic contradiction of the administrative promotion of entrepreneurship. State interference in startups, creativity, competition or innovation is an incongruity in its own terms, which administrations seek to disperse. This becomes evident when looking at the Tech City UK’s web self-presentation as a ‘publicly, funded non-profit team with a private sector mentality’. This integration of the private sector mentality in public policy, normally practiced through partnership with large corporations, as we have seen in the discussion of the entrepreneurial city at the beginning of this section, has a second problem

when applied to startup promotion. At the heart of the entrepreneurship concept is an imagined local agency or individual of the kind Gill (2013) has described and which individual tech-community promoters represent, not a faceless multi-national corporation. From this angle, the entrepreneur is a contemporary metaphor of the local within the economic dimension of globalization (Pfeilstetter 2014). In this sense, the Google Innovation Hub or Facebook Developer Garage, as part of the London Tech City initiative, could be criticized as a ‘corporate, top-down’ policy that allows US corporations to ‘cherry-pick’ promising British startups while paying tax in Ireland (see PDA 2010).<sup>5</sup> Thus, this kind of private engagement undercuts the possibility of the formation of an archetype entrepreneur (like Steve Jobs) in the UK, which was the justification of public investment in the first place. Therefore, the narrative that justifies taxpayers’ indirectly subsidizing private startups, such as the funding of the Tech North project, needs a community which works as the collective expression of individual startups. As in other governance areas, the state and corporations need to set up, identify and support distinguishable local groups and mediators for the sake of their own legitimacy. The Tech Nation report works with ‘community partners’ and the different local businesses, and the initiatives that these Mancunian<sup>6</sup> (and therefore *local*) entrepreneurs created were styled as such partners. The ‘community leaders’ that have been co-opted for the Cluster Alliance were among the interviewees of the Tech Nation report which again was similar to the statistics gathered by these entrepreneurs themselves. This was portrayed as a specific quality of the information as it was ‘the first *community driven* report of this scale in the UK’ (Tech City UK 2015: 6, my italics). So the favorable growth numbers of ‘tech clusters’ used as justification for

the investment in the 'local ecosystems' in the 2015 UK Budget were based on the information of 'tech entrepreneurs' (UK Budget 2015: 44). This is what some of my informants called 'from the community for the community', or what a state official told me in an interview was the main goal of Tech North: 'getting the ideas from the businesses back to the government'. Meanwhile, this engagement of corporations and the state with the local startup community was also producing its specific ironies. At the time of my fieldwork, a Tech North office space was being built above a multi-national bank funded co-workspace. The noise of the works made one of my informants change her office, 'It was so loud you couldn't work,' she said.

Finally, and not less important, media-effective investment into 'tech-communities' in the north fitted with an overarching political strategy of the government to enhance the 'northern powerhouse'. From the governance perspective, when the Chair of Tech City UK says that 'great digital companies spring from collaborative communities of entrepreneurs' (Tech City UK 2015: 3), she endorses the discourse that the 'local community' politics is about seeking to connect to the 'global market'. The expansion of the Tech City program to Tech North and lastly Tech Nation fits into a more general effort by the British government to reengage with the country's peripheries since 2014. The subsequent evolvement of Tech City, Tech North and Tech Nation relate to the socio-political stereotype of opposed, unequal parts (London/center vs. Manchester/periphery), which dissolves into a synthesis (England/UK). Penny Harvey (1996) has described this phenomenon in Universal Exhibitions, where political unities (nation-states) are produced through *commensurable* differences. The Tech Nation is made up of the sum of 'clusters', or territories associated

with core technological competencies, such as digital media in Manchester or Fin[ancial] Tech in Edinburgh. After all, as the Chair of Tech City UK recognizes, the digital sector is also about 'national prestige' (Tech City UK 2015: 3). Maybe it is not surprising that both the governmental Tech Nation report and the previous mapping of tech clusters from Manchester entrepreneurs finish with nearly the same wording: not only London is important but the whole nation. Finally, a '£4 million government investment towards an *8 floor* incubator' (UK Budget 2015: 44, my italics) in Manchester's city center also fits the monumental place-making tradition in which the powerful have engaged since the 1980s in Manchester (see discussion in the previous section on the entrepreneurial city).

Summarizing, some local 'tech community leaders' in Manchester were simultaneously private promoters and institutional analysts of the evolving tech-community, key informants for journalists or politicians and bureaucratic administrators, government advisors and public fund receivers. Different roles were embraced simultaneously: the charismatic community organizer, the successful businessman and the solemn government advisor. Each role was structurally connected, a source of authority in each other's' field, for instance acting as a 'community leader' for the government, representing an archetype entrepreneur for young people interested in starting a business or representing a mediator with 'connections to the government' for corporate investors. In an interview, one of these leaders was defending classless revolutionary communitarianism, doing things for free, teamwork and humanitarian values above business, 'making as much money as you can' and nationalist positions such as being 'proud of that great island'. Simultaneously he was embracing a specific Mancunian



particularism, when talking about the ‘most rebellious city, with a healthy disrespect towards the establishment’. ‘What I want to represent’ he said ‘is an entrepreneur who thinks about people, the planet and profit.’ With this ‘triple bottom line’ my informant was paraphrasing John Elkington, an influential British business author, though to some this may sound like a (silicon) utopian idea aiming to reconcile incommensurable values.

## CONCLUSIONS: SILICON UTOPIAS OR CYNICISM?

One might ask if the denial of the difference between conflicting principles, such as profit (self-interest) and community (common interest), is a respectable utopia worth fighting for or a cynical strategy in business and politics, practiced in Manchester and elsewhere, in order to legitimate the underlying quest for power and money. Steinmüller, based on evidence from contemporary China, distinguishes between totalizing and minimal definitions of cynicism (2014). He sees the former as a universalistic moral category that holds cynical reasoning to be a (negative) ideological expression of our time. From this angle, the tech community promoters in Manchester could be seen as at the forefront of a neoliberal eclecticism that exploits values such as opportunism, nationalism, altruism or ecology as means to an end. Whereas the minimal definition of cynicism, more suited for ethnographic accounts, as Steinmüller suggests, is the peoples’ pragmatic distinction between social conventions and ‘real life’ (the underlying motivations of human existence, such as sex, money and power). Cynicism here is an everyday social criticism that may designate subordination, excuse-making or a challenge to prevailing moralities. Bringing this idea back to our case, neglecting, rejecting or suppressing

the opposition between profit and charity, competition and collaboration, work and leisure or business and politics is a practical response to the multiple demands that the role of a tech entrepreneurship promoter entails. On the other hand, it might also indicate a basic ideological source for subcultural group cohesion of which the (real or imagined) opposition to ordinary people or mainstream society is constitutive. Many tech entrepreneurs are portrayed or portray themselves as ‘extraordinarily’ lunatic, innovative and creative.

For McRobbie (2016) the whole euphoria about the ‘creative economy’ is part of a wider political project introduced in Britain at the turn of the century to get the new generations used to the idea of labor as uncertain, unstable and precarious. Prominent sociologists such as Sennett (1998) or Giddens (1991) described the distorting consequences for the self of the new flexible labor regime. More recently, the focus of analysis has shifted from deterritorialization towards surveillance as a central social outcome of digital technology. For instance, Frank Pasquale (2015) talks about an emergent ‘Black Box Society’ where the all-embracing measurement of behavior (big data), processed by secret (privately owned) algorithms, leads to automated judgments in politics and business (see also Steiner 2012). A common thread in all these works is the disenchantment of digital technology, celebrated by governments and businesses alike, by uncovering its ideological foundations (techno optimism) and negative social consequences. They tend to substitute the silicon utopias of many technology entrepreneurs and state officials with academic dystopias.

In this contribution, I have tried to show how notions such as the entrepreneurial dream or cynicism allow for a more nuanced analysis of contemporary ideologies such as the new digital

entrepreneurialism and their coming to (social) life in cities like Manchester. This is important because, as Clifford Geertz reminds us, '[w]e may wait as long for the "end of ideology" as the positivists have waited for the end of religion' (1973: 199).

## NOTES

- 1 This research received funding from the University of Seville (VPPI-US I.6A; V Plan Propio de Investigación de la Universidad de Sevilla).
- 2 For a literature overview of new ways of imagining space shaped by information and communication technologies see Green et al. (2005: 805–806).
- 3 Helmreich's (1998) work, another pioneering text of that time on similar issues, was more specific in focus and outside the Bay Area, looking at artificial life scientists at the Santa Fe Institute, a private non-profit research institution in New Mexico.
- 4 According to the Oxford Dictionary, Manchester can refer to household linen in South Africa, Australia and New Zealand. The past is portrayed along these lines at the city's Museum of Science and Industry, as 70% of the world's cotton textile production came from Manchester. There are also historical connections to computers and liberalism (reminiscent of Borsook's technoliberalism) in Manchester as the first stored-program computer was invented in Manchester after World War Two and the Manchester School (or Manchesterism) in economics (different to anthropology) is known for a 19<sup>th</sup> century business and intellectual movement advocating free trade and, more superficially, somewhat equivalent to *laissez faire* (see Dyer 1960).
- 5 Simultaneously, I would add, it is beneficial for the corporate identity (young, dynamic, innovative), and connects companies with the hearts and minds of their future employees. Invested venture capital had tax benefits for the companies but they had to maintain their connections for at least three years with the startup and then they would sell it off. There was again a market for those who would buy these companies after three years.
- 6 Donym of Manchester.

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