When virtual and material worlds collide: democratic fashion in the digital age

Louise Crewe
School of Geography, University of Nottingham, University Park, Nottingham NG7 2RD, England; e-mail: louise.crewe@nottingham.ac.uk
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Abstract. This paper explores the impact of digitally mediated communications technologies on the fashion sector. It argues that material and virtual fashion worlds are perpetually intersecting social realities that coexist relationally, simultaneously, and in mutual connection. The paper explores these shifting fashion landscapes in three particular ways in order to understand how fashion worlds are being transformed, enhanced, and reproduced in space and time. Firstly, it is argued that emergent digital technologies are *remediating* and *refashioning* existing cultural forms of signification such as fashion magazines and photography. Secondly, the potential *disintermediatory* effects that the Internet is having on fashion markets and consumption are explored, questioning to what extent digital technologies are enabling the devolution of fashion authority from traditional power brokers such as magazine editors and designers towards a more diversified assemblage of participants, including fashion bloggers and consumers. Thirdly, the transformative effects that digital technology is having on fashion consumption are explored. The Internet has opened up new spaces of fashion consumption that are unprecedented in their levels of ubiquity, immersion, fluidity, and interactivity. Fashion spaces are increasingly portable, must follow us around, travel with us through time and space. The network effects made possible by the Internet are enabling the creation of always-on, always-connected consumer communities. Increasingly we are adrift *without* the Internet, not with it. This is generating new ways of being in space where the absence of physical presence becomes second nature. Taken together, the collision between virtual and material fashion spaces requires a fundamental rethink about the role of fashion production, consumption, knowledge, and the laws of markets.

Keywords: fashion, blogging, consumption, Internet, remediation, disintermediation, Burberry

1 Introduction: beyond transactional spaces

 "The internet is the fabric of our lives."

Castells (2001, page 1)

This paper responds to a recent call for "economic geography to develop an active and critical engagement with the economics of digital transitions ... [and for a] reconceptualization of the space economy so that the virtual is accorded the attention it demands" (PEGW, 2011, pages 119–120). It explores the impact of the Internet on the spaces, times, business models, and consumption practices of the fashion sector. Specifically the paper explores how conventional fashion spaces (cities, stores, magazines, designer firms, shows) might variously compete, coexist, or coalesce with digitally mediated spaces and how the relational networks between the two might unfold. How are fashion producers and consumers adapting to emergent worlds where touching or stepping through the screen becomes part of the daily routine of everyday life, and where windows are properties of both physical and virtual stores? How do fashion worlds function when they are carried with us on mobile devices,

permanently in transit, always on, and what might be the impact of this on the existing geographies of fashion space?

In part the answers to these questions depend on how one conceptualises the fashion sector. It is now widely acknowledged that fashion is rarely, if ever, simply a moment, or a point of purchase, or a reflection of supply and demand (Entwistle, 2000; 2010; Entwistle and Rocamora, 2006; Rantisi, 2006; 2009; 2011; Scott, 1996; Tokatli, 2011; 2012). Fashion has never been simply transactional, whether through a store, a catalogue, or a computer, and thus the impacts of the Internet on the sector need to be evaluated in beyond-market terms. The most significant effects relate to shifts in the distribution and reproduction of fashion practices and knowledge rather than to quantifiable fluctuations in sales by volume, value, or distribution channel. Under this theorisation the virtual, material, embodied, and performative dimensions of the fashion sector become more significant than its empirical size or weight as digital technologies enable new possibilities for producers *and* consumers to see, explore, perform, and practise fashion. The outcomes, whilst still uncertain and evolving, are unlikely to produce a complete liquefaction of more traditional forms of fashion retailing and consumption. Rather, emergent technologies are probing and perforating the boundaries between firms and consumers, production and consumption, object and image, the material and the virtual. The emergent geographies of electronically mediated consumption may challenge our conventional wisdoms about consumption, space, and practice. Further, such fashioned geographies are generating new ideas about mind, body, self, identity, and object. When biology and technology kiss, the results can be unpredictable, exciting, transformative. The Internet is far more than a technology: it transforms the way we connect to the world and understand it. Together, the collision between virtual and material fashion spaces requires a fundamental retheorisation about the agentive capacity of consumers and their abilities to disintermediate existing industry hierarchies and to create and reproduce fashion knowledge and markets. The emergent computer–consumer–commodity nexus is thus of fundamental importance in that it holds the potential to reshape our understandings of organisations, consumers, and the mechanisms through which fashion knowledge is generated and circulated.

The paper identifies three key ways in which the Internet is impacting on the fashion sector. Together, these shifts offer a new conceptual framework through which we can understand how fashion worlds are being transformed, enhanced, and reproduced in space and time: a new theory of fashion time, space, and knowledge. Firstly, I argue that emergent digitally mediated communication practices are *remediating* and *refashioning* existing cultural forms of signification such as magazines and photography (Boulter and Grusin, 1999; Jenkins, 2006). Traditionally, brand narratives were transmitted unidirectionally, from designer/producer to audience/consumer through carefully choreographed photography and film. The emergence of interactive and fast-paced interface mechanisms is changing both the pace and the form of fashion dissemination. But because they have developed within and alongside existing cultural and economic forms and formats, embedding themselves within a preexisting order yet forging new pathways through existing systems of signification, the effects are relational and depositional rather than straightforwardly disruptive. When physical, material, and virtual spaces coexist, coalesce, and collide, old and new fashion practices merge, are twisted together, hybrid and relational (Fuery, 2009). The remediating effects of digital communications reveal both the enduring significance of conventional fashion media such as magazines and photography and their translation and transposition into more immediate, mobile, and associative digital formats, the two relational and convergent. Secondly, the paper explores the potentially disintermediatory effects that the Internet is having on markets and consumption and suggests that we may be living through a critical moment where consumer participation offers the very real promise of a more open, transparent, and democratic fashion system (Rocamora, 2011). It seems certain that the Internet has empowered fashion consumers,

transformed them from recipients or interpreters of brand messages into active players, brand storytellers, or "authors of their own lives" (Holt, 2002, page 87) who have a much greater range and influence on fashion markets than they (or we) could previously have foreseen, and pulling them into the process of value creation itself. This requires a critical rethink about how the fashion system operates and a disentangling of the assumed connections between creation, sale, and use: a decoupling of production from consumption in the creation of value (Tokatli, 2012). New relations between brands and consumers are slicing through market laws and business models and, in the process, are redefining what we understand as creation, knowledge, space, and time. This offers a very powerful reframing of the economy which will generate new understandings of what constitutes the producer and the consumer grouped around the idea of the market as a forum, of economies as hybrid heterarchies, and of strategy as a process of continuous cocreation (Benkler, 2006; von Hippel, 2005). Finally, the paper explores the transformative effects that digitally mediated technologies are having on *fashion consumption*. Fashion spaces can increasingly be portable, can follow us around, travel with us through time and space. In contrast to accounts that predict social disconnection and fear that new technologies will usher in a 'weightless economy' of isolated agents whose chief encounters are with machines not people, I argue precisely the opposite and suggest that the network effects made possible by the Internet are enabling the creation of always-on, always-connected consumer communities. Increasingly it seems we are adrift *without* the Internet, not with it: the isolation of our physical bodies does not indicate our state of connectedness but rather quite the opposite.

The paper begins with an empirical appraisal of the recent growth, scale, and reach of digital communications and commerce. This is set alongside early pronouncements during the dot-com boom-and-bust debacle that fashion simply was not suited to e-commerce given the very materiality of the commodity—people simply would not buy clothes on-line, it was argued, and fashion was positioned as an undigitisable product, unlike, for example, money or music. The infamous case of the fashion e-commerce retailer Boo.com is used as an exemplar of such arguments. The next section offers a rather different take on what is, and was, possible in terms of the Internet's effects on fashion, focusing on processes of remediation. Drawing on the cases of Burberry and SHOWstudio, both acknowledged pioneers in operationalising digital technologies in the fashion sector, I argue for the powerful remediating effects of digital forms of communication and display, effects that reveal the sensory capacity, responsiveness, reach, scaleability, and complexity of digitally mediated fashion sites. Thirdly, I question to what extent digital technologies are enabling the disintermediation (or at least reconfiguration) of 'trusted' fashion intermediaries and knowledge providers, resulting in a devolution of fashion authority away from traditional power brokers such as magazine editors and photographers towards a more diversified assemblage of participants, including bloggers and consumers (Rocamora, 2011). Fourthly, I explore the ways in which emergent forms of fashion dissemination have the capacity to absorb the consumer with unprecedented multidimensionality, involving visuality, sociality, and interactivity at-a-distance. The paper concludes with an evaluation of the significance of emergent forms of digitally mediated fashion creation, distribution, and representation for broader debates about production, consumption, knowledge, and markets.

2 Framing the recent history of Internet fashion

The history of the effects of digitally mediated communication practices on fashion is both turbulent and little understood. Some twelve years on from the media-hyped frenzy of the dot-com boom and the subsequent—and very precipitous—bust, there remains little critical analysis of the impact of new media technologies on the fashion sector. Whilst e-business research has emerged as a key strand within the management strategy

and marketing literature (see, for example, Armstrong and Hagel, 1997; Kim et al, 2004; Liebowitz, 2002; Porter, 2001; Shapiro and Varian, 1999; Tapscott and McQueen, 1995), much of this work is remarkably insensitive to questions of geography and very little geographical scholarship has focused specifically on fashion and the Internet. As with most innovations, the long-term and lasting implications of e-commerce were little understood at the outset of the boom and projections and impact analyses from a range of global consultancy organisations varied widely in their predictions (Deloitte and Touche, 1999; Ernst and Young, 1999). Following the dot-com boom and bust of the late 1990s, e-commerce activities have undoubtedly stabilised, become 'normalised' and less erratic in their activities and impacts (Leyshon et al, 2005). Nonetheless, online business activity continues to grow apace. In crudely empirical terms it is undeniable that e-commerce has emerged as a significant economic force. Global e-commerce sales are predicted to grow by over 19% per year, to reach almost $1 trillion by 2013 (Forrester Research, 2011). The number of online shoppers globally increased by 40% in the two years 2006–08, and the percentage of online consumers who made a purchase over the Internet in 2009 reached 93% in South Korea, 89% in Japan, 75% in the UK, and 63% in the US (Forrester Research, 2011). There are geographic variations in the rates of e-commerce consumption activity, with the Asia-Pacific region, which has 40% of the world's online population, predicted to grow by an estimated 27.5% per year until 2015, overtaking Europe as the world leader in e-commerce sales by 2012 (Forrester Research, 2011). Whilst Asia is experiencing the fastest growth rates in Internet consumption, the UK has the highest per capita online spending in the world, with 31 million consumers purchasing online in 2009 (Boston Consulting Group, 2010). Online commerce in the UK is predicted to account for between 10% and 13% of GDP by 2015 (Boston Consulting Group, 2010). In spite of difficult recessionary conditions and a marked slowdown in consumer spending on the UK high street since 2009, £4.3 billion worth of clothes were bought over the Internet in 2010 (Mintel Market Research, 2010), a 40% increase in sales over the previous year. High street fashion stores in the UK experienced a decline in sales of 14% during 2010 whilst online sales increased by 10% and online fashion retailing is argued to be the sector that outperformed all others in 2010 (IMRG, 2011), figures which are echoed across Europe, the US, and the Asia-Pacific region. Interest in the unfolding developments occurring in the sector continues as traditional online commerce activities converge with newer mobile (m-commerce), location-based services, social networking, and person-to-person communications (P2P), signalling a new phase of development. It is predicted that more consumers in the US will access the Internet via mobile devices than via their desktop or laptop computer by 2012 (Morgan Stanley, 2010) and that mobile commerce in the US will replicate the developments underway in Asia. In the UK two fifths of retailers were aiming to launch a transactional mobile site during 2011, a significant strategic investment given that 51% of consumers engage in m-commerce and there are an estimated 23.3 million mobile phone users in the UK (IMRG, 2011). Existing e-commerce business models are being adapted for mobiles and new applications developed exclusively for mobile devices. These are having significant effects on the landscape of fashion retailing and consumption: m-commerce and e-commerce are not simply adjuncts, additional distribution or sales channels—they are transformative technologies that are founded on new forms of economic behaviour and have the potential to radically alter the ways in which retailers and consumers interact and share knowledge and expertise.

What, then, does all this add up to and, more importantly, what might its broader theoretical implications be? Beyond the obvious empirical growth in e-commerce and m-commerce, and in more substantive terms, I argue that the digital revolution of the 1980s has had lasting, unforeseen, and very real material and cultural impacts on the fashion sector. In some senses

it could be argued that the Internet has now sunk into the business background and is no longer a crisply demarcated 'new' sector. Technological changes often filter into our lives in subtle, barely noticeable ways and not in the abrupt or startling ways that are sometimes proclaimed (Negroponte, 1995). But this very mundanity, the ways in which computer-mediated-communication has slouched towards the ordinary (Herring, 2004), could also be one source of its transformative power and potential.

If we unfurl the recent history of Internet fashion a fascinating narrative emerges. Early accounts of the fashion sector positioned it as one of the most dramatic victims of the dot-com bust, with Boo.com being hailed by CNN as the most spectacular dot-com catastrophe in history. Launched in 1999, the founders of Boo.com appeared on the front cover of *Fortune* magazine with an estimated valuation of $390 million, before their website had even launched. Boo.com spent $135 million of venture capital in eighteen months before it was placed into receivership and subsequently liquidated in May 2000 (Malmsten et al, 2001). With such a spectacular burn rate the aftermath of the Boo.com collapse was calamitous: creditors were owed over $19 million and 400 staff were made redundant. Lying dormant in the graveyard of binary has-beens (Lanxon, 2008), Boo.com stands as a stark and sorry reminder of the very real dangers of trying to sell clothes on-line, a tragic sectoral icon of what not to do. Part of the explanation for the early failures of the fashion industry to succeed online undoubtedly relates to structural rather than specifically sectoral factors, most notably the limited bandwidth speeds associated with dial-up modems, the limited stockholding and fulfillment capabilities of e-tailers at the turn of the millennium, and the unsustainable funding regimes based on venture capitalists' speculation and heady overexcitement. Undoubtedly, too, part of the problem facing the fashion sector in particular lay in the vision, design, functionality, and aesthetic capacity of its early websites. Those organisations that attempted to create transactional sites, either as pure players or hybrid 'bricks and clicks' retailers (Burt and Sparks, 2003), all too often transplanted the layout of their conventional stores onto the Internet, with dismal results. The visual presence of the sites seemed secondary to the desire to have some sort of on-line presence, however rudimentary or dysfunctional that might be. It is hardly surprising, then, that early e-commerce fashion sites that were visually unappealing, technically incompetent, functionally frustrating, and lacking aesthetic pull or interactive capability failed to seduce. They were, at best, little more than additional distribution channels: computerised catalogues that neither enticed nor excited consumers. Compounded by media dot-bust theories which suggest that some sectors (notably fashion) simply are not suited to the web, on-line fashion, it seemed, faced an uphill struggle.

However, as I argue in this paper, a significant part of the problem for the initial failure of online fashion relates less to the market constraints of capitalisation, bandwidth capacity, or website functionality and much more to the instrumental, transactional, and narrowly marketised view of the fashion sector that underpins this particular e-commerce narrative. For the new technical media that typified the dot-com boom were not external agents that came from nowhere to disrupt an unsuspecting culture, catching it unawares and rewriting the rules. They emerged from within existing cultural contexts and refashioned, or remediated, other media which were embedded in similar contexts (Boulter and Grusin, 1999, page 19). Technological changes are geographically and institutionally embedded and work within existing practises, processes, representations, and formats (Dodge and Kitchen, 2005, page 170). Internet fashion sites have an ability to coexist, mediate, link with and augment a range of more familiar fashion spaces such as the store, the fashion show and the street (Dodge and Kitchen, 2005, page 169). As such, digitally mediated technological assemblages are evolutionary rather than revolutionary and are enabling the generation of new relations and mediations between hitherto disparate and disconnected nodes and actors within fashion's global networks (Currah, 2002; Kitchin, 1998; Rantisi, 2009; Scott, 1996; Thrift, 1996). It is

to the analysis of the capacity of the Internet to remediate prevailing lines of connection within networks of fashion production and consumption that the paper now turns.

3 Bastard spaces: remediation, convergence, and heterotopia

> "Had Foucault been able to navigate fashion websites he might have interpreted such online spaces as heterotopias … they have a curious ability to link to all other fashion spaces in a way that contradicts, neutralizes, inverts or reflects the sets of relations they designate in ways that are difficult to gauge fully."
>
> Quinn (2003, page 55)

If we adopt a more expansive take on what and where the fashion industry is and can be, a rather different version of events unfolds, one which reveals the remarkable capacity of the Internet to act as a multilayered choreographic tool that shifts and shapes both old and new fashion spaces in unanticipated and innovative ways. Fashion is signified in a whole array of different registers: a garment, a body, a shop, a catwalk, an idea, a photograph, a memory, a moving image on a screen or a street, as a blog or an application on our phone. And the capacity of the Internet to remediate conventional representations of fashion such as stores, runways, magazines, and photographs, to reanimate images in time and space and to conjoin different ways of seeing and doing fashion offers some potent possibilities for how we understand fashion. It reveals how fashion is increasingly operating through a range of collectivities, hybrid representational networks that are both and at the same time physical and virtual, social and solitary, aesthetic and transactional. Virtual remediation is generating additive effects and riotous forms—creating bastard spaces if you will, and raising some key questions about how we understand fashion knowledge, space, and the making of markets. The sensory capacity, responsiveness, reach, scaleability, and complexity of digitally mediated fashion sites may be one their key strengths. A range of examples will be drawn on here to show how digital technologies are revealing both continuities and ruptures in the spatial organisation and reproduction of fashion. Fashion is being remediated as old and new forms of distribution and reproduction merge and mingle so that the product, its marketing, reproduction, retailing, and web space are not separately imagined, designed, or commodified but, rather, are incorporated into a coalescent spatial landscape. Burberry is one of the clearest examples of an organisation that understands how traditional branding, editorial placement, and retail display can intersect with and be enlivened by digital technologies (Tokatli, 2012). The organisation currently allocates 60% of its marketing budget to digital media as part of its accelerating digitisation strategy—more than triple the industry average and an indication of the challenges facing traditional print media (*Drapers* 2011). Their Autumn/Winter 2010 advertising campaign, for example, used motion responsive imagery that allowed consumers to choose the view and perspective of the video campaign and its cast and products. It featured fourteen images and six interactive videos of the brand's collections and the on-screen imagery could be rotated, paused, and dragged by 180°. At the opening of their Beijing flagship store in April 2011, digital technologies were an integral element of their real-life and multiangle digital runway shows which combined the use of live models with animated footage, life-like holograms, music, and the ability to purchase items viewed in the show immediately, prior to their arrival in-store (Whiteside, 2011). This evolving business model both reflects the history and the heritage of the brand but also connects customers through music, technology, emotion, and product—the cocreation of desire through remediation, the convergence of a range of extant formats such as the flagship store, the logo and printed copy, and the development of new forms of fashion reproduction and dissemination including livestream and interactivity. Burberry offers consumers total access to their brand across any device, anywhere, anytime. Digitally mediated fashion is here not simply a new transactional opportunity but is an additional space for the production of desire, a storehouse of signs,

images, connections, and significations for consumers, producers, and intermediaries to work through and with. It reveals the evolving relationships between fashion, image, science, and technology through which new vocabularies and visions come into being.

If we build on this broader view of a remediated fashion system and rewind back to the depths of the dot-com bust in 2001, an altogether different 'business' model was being born, based not simply on the sales or market capitalisation capacity of transactional fashion websites but upon their capacity to remediate and recalibrate the existing relations between and across fashion's networks and to generate new orchestrations between a range of cultural forms and practices, including art, design, fashion, production, and consumption. For much of the 20th century the promotion, transmission, and dissemination of fashion occurred primarily through biannual fashion shows in key global fashion cities (New York, London, Paris, Milan) and via printed global media publications such as *Vogue*, *Tatler*, and *Women's Wear Daily* (Entwistle, 2010). The dissemination of designer fashion was choreographed by a handful of highly influential fashion editors such as Suzy Menkes (*International Herald Tribune*) and Anna Wintour (*Vogue*) who acted as global style authorities, were closely aligned to networks of fashion designers, stylists, photographers, and journalists, and were able to control the selection, circulation, and dissemination of fashion via their curation of international media publications and the lucrative advertising revenues that accrued to global fashion magazines and their reputational and authorial capital. This alliance between a group of highly influential fashion intermediaries working out of global fashion capitals such as London and New York ensured that knowledge about emergent fashion trends, directions, and stories remained in the restricted and privileged hands of key actors who shaped which, how, and where fashion stories were distributed to the consuming public (Rantisi, 2006).

The 21st century has seen the emergence of new forms of fashion reproduction and representation that have broadened and deepened fashion's reach and range. In its earliest incarnation this devolution of fashion authority emerged in the form of a new breed of fashion publications from the early 1980s onwards such as *Dazed & Confused*, *Visionaire*, *i-D*, and *Purple Fashion Magazine*. Edited by (now) iconic creative directors including Terry Jones, Neville Brody, Dylan Jones, Nick Knight, and Peter Saville, the magazines were a consistent source of inspiration for street style, fashion, and the creative arts, and both documented and shaped emergent street fashions, acting as an early template for the style press. *i-D*, for example, began as a hand-stapled fanzine under conditions of 'controlled chaos' and established a reputation for enrolling the consumer in the production of its content and as a training ground for emergent talent in the industry. The publications emphasised the role of smaller, independent designers, the subversive and critical possibilities raised by alternative versions of fashion, the issue-based role that fashion photography can assume and the connections and symbioses that are evident across a number of cultural activities such as fashion, film, music, and photography. More recently these publications have extended their content online, revealing the powerful market effects that emergent and pervasive media offered in terms of reconfiguring the relations between printed media, retailers, producers, and consumers. Jefferson Hack, the founder of *Dazed & Confused*, launched *Dazed Digital* in 2010 to deliver fashion, film, music, and online events live via the Internet to a global audience and became the channel category leader the same year. Acknowledging the powerful potential that viewers offer in terms of disrupting conventional hierarchies and closed systems within the fashion industry, a new site, *Dazed Digital Reactivate*, was launched by Hack in 2010 with a view to opening up new possibilities for fashion reproduction and for a realignment of existing relations between producers and consumers. Hack saw the very real limitations of static printed media and the radical new possibilities opened up by digital forms of display and communication, arguing that "The old media model is a frozen moment in time; a monthly magazine, a seasonal trend—it's over ... . Digital culture is a constant stream.

Either you adapt to it, or you are a dinosaur and you will die (http://www.DazedDigital. com). Here we see how digital fashion spaces have perforated and scrambled the temporal and spatial conventions of fashion (biannual runway shows, monthly magazines), opening up ongoing moments of immediacy. The fashion photographer Nick Knight's website SHOWstudio.com was one of the earliest and still most imaginative and exciting pioneers of digital fashion. Argued by Menkes (2009), to be "the crucible of techno developments in fashion", SHOWstudio harnessed the potential of digital technologies to reinvent how fashion images are communicated, reproduced, and relayed, in turn transforming the ways in which we consume and experience fashion. Since its inception in 2001 the site has in many ways defined the ways in which fashion is presented on the Internet and has combined film, fashion, photography, art, and music in innovative ways to deliver fashion live, as it happens, to a global community of thousands of viewers, freed from anchorage to a particular time, space, event, or occurrence. From the outset SHOWstudio's content and direction was determined by its audience and participants rather than by advertisers, a business model that remediated the existing practices of fashion production, reproduction, and dissemination and demonstrated that the Internet is in many ways the perfect medium for the active coconstruction of fashion.

Founded on the convergent capabilities of a range of media, including the runway, film, photography, and music, this virtual concept space revealed perhaps more than any other the astounding capacity of fashion to move across and between different media modalities and in different material and immaterial forms—breaking down the binary between the two, and between creator and consumer, here and there, now and then (Knight, 2009). Knight discusses the transformative impact that digital technologies had on fashion and how he saw the potential many years before he launched SHOWstudio, arguing that "designers create clothes to be seen in movement, so it could be said that any still representation of a garment is a compromise of the designer's vision" (Simpson, 2009). In an industry famed for its opacity and secrecy, Knight sought to prise open this closed world and saw the radical and progressive potential of transparency, free reveal, and fashion democracy. The concept of 'live' was a key foundation for SHOWstudio who treated the Internet as a live broadcasting channel. The site is founded on the belief that showing the entire creative process—from conception to completion—is important for the artist, the audience, and the art itself (Shinkle, 2008, page 115). Knight saw too the exciting possibilities that new media offered in terms of fashion display and performance, as a means to animate the fashion image that had for so long been reproduced as a frozen still, flat, two-dimensional, and locked into the immobile and static frame that is the magazine or editorial photograph. The possibilities opened up by digital fashion began for Knight in 1986 when he was filming a fashion shoot for the designer Yohji Yamamoto: "I was photographing a very young Naomi [Campbell] and she was dancing to Prince in a bright red Yohji Yamamoto coat. I thought it was just so thrilling. It was a piece of contemporary theatre and it was seen by no more than around seven people" (Simpson, 2009). Commenting on popular media representations of fashion, Knight argued that the industry has been trivialised, rarified, and stereotyped, its potential as both a cultural and a commercial form underplayed. Just over a decade on, it is clear that SHOWstudio.com had a significant impact on the ways and spaces in which fashion is projected and reproduced. With an online archive detailing over 250 projects and monthly hits in excess of 120 000 viewers the range and reach of SHOWstudio is significant, as is its transformative impact on broader questions about fashion creation, authorship and collaboration. Two particular projects are explored here in an attempt to sketch out the powerful remediating impacts that digitally mediated communication is having on fashion. In the first example, called Virtual Accessories [1] we

[1] The examples drawn upon in the discussion can be explored further on the SHOWstudio website.

see how SHOWstudio actively questions corporate branding, creativity, and the power of the logo. SHOWstudio collaborated with the digital artist Daniel Brown to explore what fashion would look like without its logo and to create a virtual space in which viewers can imagine and experience the magical alchemy of a brand. Brown selected signature garments from four iconic global brands (Balenciaga, Marc Jacobs, Missoni, and Prada) and transformed stills of the clothes into interactive, three dimensional designs overlain with interpretive sounds and the key symbolic referrants of each brand's advertising campaign for Spring/Summer 2002 (http://showstudio.com/projects/vac/vac_start.html). The result is a unique, personal, and viewer-led experience of fashion where there is no product and no logo, but a layered set of sensory signifiers that capture what a brand is and what it symbolises to a consumer. "As you introduce the cursor into the dark screen that opens Interactive 1, rays of textured colour fan out into star shapes, revealing wave-like printed patterns that could only belong to Missoni" (Martin, 2002). Interactive images on computer screens can be beautiful, critical, passionate, provocative, and immersive. They extend the range and reach of designers and brands to consumers whilst simultaneously enabling the viewer to take an active role in how a design or logo is reproduced, how and why it speaks to its audience, and how its representation can be curated, customised, and challenged in ways that the original designer may not have anticipated.

The second example of the way in which SHOWstudio harnessed the revolutionary power of the web to reframe and remediate fashion was the live streaming in 2009 of Alexander McQueen's final show before his death. McQueen is widely acknowledged as one of the most spectacular and provocative designers of the contemporary era and his catwalk shows were legendary spectacles in the fashion world (Knox, 2010). His collaboration with Knight on the live streaming on SHOWstudio of the Plato's Atlantis collection has been seen as a pivotal moment in fashion history when "the rules of the game changed all over again" (Simpson, 2009). Described as "the most dramatic revolution in 21st-century fashion" (Menkes, 2009), this was the first runway show to have been streamed live on the Internet from Fashion Week and gave industry outsiders across the world real-time access to a catwalk that had previously been the exclusive preserve of fashion's elite. The online broadcast captured the live spectacle of a McQueen fashion show and relayed it in real time around the world. McQueen clearly saw the participatory potential of live online broadcasting and, through his collaboration with SHOWstudio, fulfilled his desire to be seen and heard rather than edited and reported. In suitably hyperbolic terms, McQueen argued that

"Every year, buyers and the press come to see the spectacle of my show. But I want to generate something else, something for a wider audience—for people ... who don't have a seat at the show ... . It'll be like live theatre—at home. The audience at home is actually going to see more than the guests at the show ... . This is the birth of a new dawn. There is no way back for me now. I am going to take you on journeys you've never dreamed were possible" (McQueen, quoted in Simpson, 2009).

This venture undoubtedly led the way for the new generation of live streaming from the catwalk: by Autumn/Winter 2010 every major designer at every international fashion week streamed their shows live online.

Together these examples of Burberry, SHOWstudio, and the British youth-fashion style press show how fashion media can be simultaneously transactional, performative, interactive, and critical; they can offer both sensory seduction and critical political commentary and work on a number of layers as complex political, creative, visual, commercial, and ideological spaces. SHOWstudio demonstrates how fashion can be experienced in digital as well as physical space, virtually as well as materially, pointing to an imaginative, expansive, and future-oriented sense of experience (Lehdonvirta, 2010). Here we see how "virtuality has a more complex set of meanings which includes the practice of imagining urban space, the

use of technology to simulate real spaces and a complex set of transactions in time and space" (Latham et al, 2009, page 12). Far from acting simply as an additional distribution channel, we see how the web can act as a means of propagating and structuring creativity, reconfiguring existing nodes of knowledge and influence, offering short cuts to inspiration, and creating highly accessible sensory worlds, fluid environments that entice and captivate, scrambling space and time in all sorts of powerful ways.

4 Disintermediation, cocreative communities, and heterarchy

> "Every few hundred years in western history there occurs a sharp transformation. Within a few short decades society rearranges itself: its worldview, its basic values, its social and political structures … fifty years later there is a new world."
>
> Drucker (1993, page 139)

Secondly, and linked to the above, the Internet is enabling the disintermediation (or at least reconfiguration) of 'trusted' fashion intermediaries and knowledge providers and is reworking the relationships between producers, the media, and consumers. This potential impact of the Internet on business practices was acknowledged over twenty years ago by a number of management scholars and strategists. According to Malone et al's (1987) electronic market hypothesis, the growth of retail-focused electronic markets would bring about a reduction in the costs of economic coordination, resulting in a decline in the importance of hierarchies in favour of market co-ordination (see also Drucker, 1993; Evans and Wurster, 2000; Tapscott and McQueen, 1995). The Internet was seen to have the potential to disrupt and reconfigure established industrial networks and to shift the balance of power from market incumbents to relatively new market entrants (French et al, 2004). The emergence of the Internet, and the growth of software devices such as search engines and intelligent agents, which purposely scan Internet databases for specific types of information, make it possible for consumers to conduct more effective searches of fashion markets and trends than before, at higher speed and at lower cost. This has the potential to greatly extend market spaces beyond their existing geographical boundaries and to enable consumers to access fashion knowledge that was hitherto concealed by corporations who controlled supply and distribution chains. For emergent media forms are not simply about increasing speed and reducing cost but are about shifts in the distribution of intelligence (Negroponte, 1995). These processes of disintermediation, respatialisation, and retemporalisation form part of the basis for claims that digitally mediated technologies will empower consumers by undermining the hold of large organisations over the production and distribution of fashion and its knowledges, creating heterarchies of relation where producers and consumers are more closely aligned in terms of knowledge, power, and authority. Such disintermediated networks offer powerful opportunities for the reconfiguration of the competitive bases and contestability of markets (French et al, 2004).

There are a number of means through which digital technologies have enrolled the consumer in the production and dissemination of fashion knowledges. Based on Web 2.0 and 3.0 capabilities, a range of social media practices, such as social networking sites and collaborative projects such as wikis, have enhanced and enabled consumer involvement in fashion creation and reproduction (Kaplan and Haenlein, 2010). Two particular, and rather different, examples are drawn on here: crowdsourcing and user-generated content via blogging. Crowdsourcing as a concept was first coined by Jeff Howe in 2006 in a *Wired Magazine* article describing the process whereby the talent of the many (the crowd) can be leveraged to generate knowledges, products, capacities, and capabilities that were formerly the preserve of a specialised few (Howe, 2009). Crowdsourcing depends on the capacity of the Internet to create distanciated networks or communities of consumer–producers who together collaborate, share, remix, fine-tune, and redesign products and processes. Crowdsourcing is actively being developed as an organisational strategy that harnesses the

creative potential of consumer–producer communities to drive innovation and creativity (Corcoran, 2010). The point about crowdsourcing is that it is a business-led strategy, an attempt by organisations to use digital capabilities to enrol the collective capacities of consumers into the creation, collation, and representation of their brand stories. Burberry's 'Art of the Trench' project, for example, shifts the creative input from stylists, professional photographers, and editors to consumers who are sharing authorship for the many ways in which the iconic trench coat can be worn, displayed, performed. Users are invited to upload photographs of them wearing their Burberry trenchcoat which then appear on the official Burberry website—a perfect illustration of how organisations are crowdsourcing innovation and using the creative energies of their consumers to steer their corporate branding and marketing campaigns. Quite whether this represents a flattening of fashion's long-established authorial hierarchies and the emergence of a new set of relations between brands and consumers, or is simply another means through which capital can exploit consumer labour-power in order to extract additional value remains to be seen.

An arguably more powerful set of developments are underway that depend less on the corporate outsourcing of intelligence through crowdsourcing and more on disintermediating effects of social media operating outwith but alongside professional organisational routines and practices. In a number of ways it can be argued that digital developments have given voice, knowledge, and power to larger and more diverse consumer groups, many of whom lacked any sense of authority or persuasion under the conventional hierarchical fashion system with its high barriers to entry and exclusionary practices. With the rise of social media and user-generated content such as blogs, the balance of power between fashion producers/intermediaries and consumers in terms of who shapes brand perception, and fashion knowledge appears to be shifting. This is particularly significant because the fashion industry has long faced the threat of instability over the creation and dissemination of its knowledges. In spite of attempts by large organisations to control and orchestrate access to commodity and market knowledge, fashion has always been a difficult industry to govern, calculate, predict, or order because it requires change, pace, and unpredictability. This lack of brand certitude offers opportunities for consumers to subvert and reinterpret brand and trend messages and project their own dreams, desires, wishes, and identities onto fashion's surfaces and spaces. The instantaneous digital global relay of fashion concepts across unbounded geographic spaces further flattens established hierarchies of access to knowledge. Now more than ever, communal consumer conversations have the capacity and critical mass to effectively challenge the assumed power of the producer and consumers are relying less on the authority of conventional branding and advertising campaigns for their consumption knowledge (Howe, 2009). The powerful network effects made possible by the Internet have enabled consumers to reach out into fashion worlds faster, further, and deeper than ever before and to redefine how and where fashion knowledge is created and disseminated to the point where it has been argued that the technologies of production are now increasingly in the hands, and minds, of consumers (Potts et al, 2008, page 20). Consumers are able to connect to one another via digitally mediated communications in real time, all the time; physically absent from one another yet digitally connected. This ability to connect with others without copresence is a powerful method of harnessing member-generated value in fashion consumption. It reveals the ability to mobilise strangers and to weave copresent interactions, distanciated connections, and mediated communications in a seamless web (Licoppe, 2004, page 135). And it suggests that people everywhere can participate not only in self-expression and entertainment, but in new ways of producing knowledge that is scaled up from the street, the library, or the bedroom to population-wide distributed networks (Potts et al, 2008, page 20; Surowiecki, 2005). Although still derived from individual actions that may be deemed insignificant in isolation, the emergence of social

and technological consumer-to-consumer and consumer-to-producer networks generates forms of innovation that may be of large-scale significance in shaping behaviour (Howe, 2009; Ritzer and Jurgenson, 2010; Shirky, 2009; 2010; van Dijk, 2009; von Hippel, 2007). This ability for consumers to short-circuit the formerly concealed suite of corporate sales and marketing tactics is enabling new levels of transparency where there is less scope for hype and spin over pricing structures, the authority of the brand, the meaning of value, and conditions of production and distribution. This delayering of 'trusted' experts may significantly empower consumers and offers the possibility at least for new forms of consumer agency and self-determination, enabling them to venture beyond the bounds of organisational intentionality. Such new technological means of doing fashion are resulting in a new blurring between firms, consumers, and the creative process to produce what might be described as a hybrid 'mash culture', an accelerating 'connective mutation' of cycles of production, consumption, and reproduction as consumers break into formerly closed systems and processes (Beer and Burrows, 2010). As technological architectures shift from centralised providers to more personalised forms of collective intelligence, the possibilities arise for more democratic forms of fashion knowledge distribution and reproduction. Enhanced feedback loops enable new forms of active coconstruction between producers and consumers and allow new forms of intelligibility to emerge on the back of active negotiation (Thrift, 2011, page 10).

The example of fashion blogging is used to illustrate this broader conceptual intervention and to point to its limits. Blogs are Internet sites where individuals post their thoughts, ideas, and inspirations online in an unedited and spontaneous style. Blogs began at the turn of the millennium and have grown to become a significant force in the field of fashion, a new means through which individuals can sift and sort through vast amounts of fashion information that they filter and distil into personally curated Internet posts. It is estimated that there were two million fashion and shopping-related blogs in 2010 (*Technorati Inc.* 2010). Fashion blogs can be broadly divided into corporate and independent blogs (Rocamora, 2011). The former represent an institutional or organisational 'voice', either a magazine (http://www.vogue.co.uk/blog; http://www.wwd.com/fashion-blogs/fashion) or a fashion brand such as Louis Vuitton (http://www.nowness.com/). The latter are personally curated postings, usually including photographs, that offer commentaries on fashion trends and directions. The most influential fashion blogs include Scott Schuman's *The Sartorialist* (www.thesartorialist.com), which receives over thirteen million views per month (Amed, 2011) and is argued by *Time Magazine* to be one of the most important influences on contemporary design, London-based Suzie Lau's *Style Bubble* (stylebubble.typepad.com) and *Tavi Gevinson's Blog* (www.thestylerookie.com) which is part mood board, part historical montage (figure 1), part the curious musings of a quirky teenager, and, increasingly, part of the front-row fashion media. Now 14 years old, Gevinson began writing her blog when she was 12 and is now regularly seated on the front row at Fashion Week, joining the rank and file fashion 'A list' models, editors, and journalists, a coveted position where proximity to the front signifies seniority or authority—a clear spatial manifestation of the politics of power at play in the fashion world (Corcoran, 2010). That Gevinson's blog receives almost as many monthly hits as *Teen Vogue* illustrates what a significant force in the field of fashion blogs have become (see *Signature9* 2011).

This is how I want to dress this fall. Left: Grace Coddington and a kitty, Prada shoe/sock combo, Marc Jacobs Fall 2010, Miu Miu coat, Marc again, and *Annie Hall*. Right: *Manhattan*, Hanne Gaby Odiele in Prada in *Vogue Nippon*, Margot Tenenbaum, Sonia Rykiel jacket, young Marianne Faithfull, and something from the March 2010 issue of *T*.

Figure 1. [In colour online] *Tavi Gevinson's Blog* (www.thestylerookie.com).

Other notable fashion blogs that continue to appear on league tables include *Jak & Jil* (jakandjil.com), *The Cherry Blosson Girl* (thecherryblossomgirl.com), *Refinery29* (refinery29. com), and *Go Fug Yourself* (gofugyourself.com) (see Blog Rank 2010).[2] It is these independent or personal fashion blogs that have the potential to reshape the power relations in the industry. With minimal barriers to entry, the practice of blogging has enabled industry outsiders who may have no professional affiliation nor any formal qualifications to establish a credible, authorial voice that can stand alongside established fashion intermediaries such as editors and stylists and thus break into formerly closed and exclusionary worlds with speed and reach, shattering established hierarchies and modes of knowledge circulation. Bloggers represent a new form of fashion intermediary, one that is curiously positioned between insider and outsider, expert and layperson. The disintermediatory power of blogging lies in its capacity for speed and immediacy, characteristics that conventional printed media simply cannot compete with (Walker Rettberg, 2008). Blogging has undoubtedly increased the speed and pace of fashion. A blogger can, for example, watch a fashion show and begin blogging immediately, creating conversations about brands or trends that can be watched, commented upon and distributed in real time. The space and time between reader and author is reduced, removed even, and dense relational feedback loops and conversations can be developed without the need for institutional mediation or editorial curation. As a result, fashion bloggers have the capacity to reappropriate and translate the intention of editors, brands, and marketeers. In this sense bloggers have the potential to assail the elitist world

[2] There are a number of publications that rank the influence of blogging sites according to a range of metrics, including RSS subscribers, unique monthly visitors, number of incoming links, and the Alexa rank. See Blog Rank 2010; Net-A-Porter's The Blog Power List 2010; Top Sites Blog Fashion 2010; Signature9 Top 99 Fashion blogs 2011. Whilst the precise ranking of the blogs varies according to the particular metrics used, a handful of key names, including those listed here, occur repeatedly across all league tables.

of fashion through transmitting their personal interpretations of fashion to audiences far and wide in geographical reach. Acting as new fashion mediators, bloggers can offer a more critical and democratic take on fashion, potentially challenging the exclusive hierarchical control that editorial elites formerly enjoyed over the creation and distribution of fashion. This shift in the long-held power relations that underpin the fashion system is well explained by Pederson, who argues that "viewers, readers, interpreters and consumers [are] producing, constructing, deconstructing and retrofitting ideas and objects to suit their individual wants and needs … [this] necessarily dispenses from power those who produce content for and edit major fashion publications" (2011, page 3).

In other respects, however, there are signs that the boundaries between professional and nonprofessional blogs are blurring, which is in turn raising questions about their position as new intermediaries within the fashion system. As brands have quickly realised, being mentioned by a respected blog that has the potential to go viral can have significant income-generating impacts for business. The temptation here, for both brand and blogger, is to develop a more collaborative and advertorial relationship in which the blogger receives gifts, samples, or revenue in return for featuring a brand or having their copy checked by the sponsoring organisation or their pubic relations firm. In an industry where reporters and critics depend so heavily on the financial interests of those who control it for access, it is little surprise that many independent bloggers turn to large advertising campaigns or corporate 'sponsorship' in order to gain entry into this formerly closed world, not least in order to ensure their economic security. Scott Schuman, the blogger who writes *The Sartorialist*, for example, understood the importance of strategically aligning himself with the mainstream fashion media from the outset and wrote for *GQ* and *Style.com* alongside *The Sartorialist*, in addition to shooting and writing campaigns for Burberry and Kiehls. The vast majority of Schuman's income is now derived from advertising revenue from his blog. As the number of bloggers who become incorporated into the professional world of fashion and derive income from their branding messages or via advertising revenue increases, there are early indications at least that blogging may be undergoing a process of professionalisation. The recent acquisition by Conde Nast of *NOWMANIFEST* (nowmanifest.com) that hosts personal style blogs including *Bryan Boy* (www.bryanboy.com) and *Anna Dello Russo* (www.annadellorusso.com) suggests a new phase in the evolution of personal style bloggers such as Bryan Boy, who began as independent outsiders and are now owned by one of the largest media companies in the world. At the very least the border between editorial, personal, and advertising content is becoming increasingly difficult to define and the relationship between individual bloggers and commercial actors is becoming both more blurred and more opaque.

It is possible to argue that these developments are part of a new technological and social democracy that allows for more public deliberation on products and more input into their design. Blogging has undoubtedly transformed the relationships between designers, editors, magazines, shows, and consumers, enabling the latter to actively and rapidly represent, interpret, and modify fashion consumption. Fashion bloggers are becoming increasingly important in defining innovation and can be seen as a mechanism for redistributing fashion knowledge and democratising fashion via open-source-branding (Neff and Stark, 2002; Prahalad and Ramaswamy, 2004). Bloggers have "altered the language, delivery methods and hierarchically ordered designations of those who could be truthfully considered as producers versus those considered mere consumers" (Pederson, 2011, page 3). These emergent forms of fuzzy consumer power enable consumers to be active producers not simply in the consumption of things but in the creation of worlds limited only by the imagination. Craft consumers (Campbell, 2005), producers (Bruns, 2005), and prosumers (producer–consumers) (Beer and Burrows, 2010; Ritzer and Jurgenson, 2010) engage with the market as a means of creative self-expression and play an active role in the production of contemporary fashion

as part of a broader and more significant shift towards participatory web cultures founded upon user participation and user-generated content (Beer and Burrows, 2010, page 6). In this way bloggers are challenging the conventional wisdom that the spheres of production and consumption are separate (Firat and Venkatesh, 1995) and raise the possibility for innovative forms of participatory engagement. In turn it could be argued that this vision of a permanently heterarchic, emergent, and interactive economy may become a primary means through which the fashion system is reproduced—an architecture of participation if you will. Through the accelerated and heterogeneous forum of the Internet we are seeing the emergence of new relations between markets, fashion, and everyday lives, relations that are producing new cartographies of fashion knowledge and new geographies of fashion consumption that provide significant insights into the role of consumer agency in the fashion system and are suggestive of an emergent fashion democracy.

5 Real time, all the time: immediacy, hypermediacy, and mobility

"Computers, with their reactivity and interactivity, stand in a novel and evocative relationship between the living and the inanimate ... . And because computers are thinking tools, they offer new models of what it means to know and understand."

Turkle (2005, page 287)

Thirdly, and connected to the above, the Internet is raising important new possibilities in terms of mobility, temporality, and subjectivity. The Internet has opened up new spaces of consumption that are unprecedented in their levels of ubiquity, immersion, fluidity, and interactivity (Currah, 2002; Kenney and Curry, 2001; Turkle, 1995; 2011; Zook, 2000). Emergent forms of pervasive media are available anytime, anywhere and are immersive and interwoven into our everyday lives. The Internet has the capacity to absorb the subject with unprecedented multidimensionality, involving visuality, sociality, interactivity at-a-distance: immersive environments that communicate with all of our senses all at the same time, all of the time: emotional performances. Increasingly it seems that the "human body and digital information need to be thought of in conjunction with one another, and indeed, one might say, quite literally *as* a conjunction: a labile, processual and contingent entity" (Boothroyd, 2009, page 334). Technology is as much an architect of our passions and preferences as it is about our solitudes (Turkle, 2008, page 29).

Again we can look to any number of organisational examples that demonstrate new levels of producer–consumer fluidity, openness, and mobility. New levels of media literacy and the technological competence of consumers demands that the future fashion industry be digitally integrated into people's lives wherever (and whenever) they are. Net-A-Porter is a good illustration of how the contemporary consumer moves in multiple ways and across a number of modes. Consumers with no time or inclination to go out shopping or who are not geographically proximate to design stores can still participate whenever and wherever they choose. The site offers so much more than 'just shopping' and includes an online magazine, trend guides, notes, online boutiques that enable consumers to 'shop the catwalk by phone' and a pop-up, augmented reality interactive 'shop' called *The Window Shop* that enables customers to scan photographs of products on the wall using an image-recognition app on their phone or tablet and purchase them for next-day delivery. By any conventional reckoning this is proving to be a successful business model: three million women log on to Net-A-Porter each month, of whom 10 000 are new customers, and the average order price is £500. Turnover has increased by 67% year on year for the ten years it has been running and currently stands at £120 million with a company valuation of £350 million. The new head office mirrors the company ethos, with screens throughout the slick interior so that everyone working there can see what is selling in real time (*Retail Week* 2011a). In an ironic twist of fate

the headquarters are located above London's Westfield Centre where it floats whitely over Europe's largest mall which increasingly looks like a monument to old-fashioned walk-in and browse shopping. Part of the success of Net-A-Porter undeniably relates to precision buying and editing of stock. But the founder, Natalie Massenet, attributes at least 5% of the company's sales to the 400 independent bloggers who drive traffic and increase sales, further evidence of how old and new forms of media representation are refashioning one another as content flows across multiple platforms and networks, bleeding into one another through the process of remediation. The company has also recently introduced a new tool that allows consumers to see exactly what other consumers are buying and from where. This marks a dramatic departure from the secrecy and opacity of corporate sales data in the conventional retail world and simultaneously fosters a sense of a community amongst consumers and offers enormously rich market intelligence for marketers and fashion buyers.

ASOS (As Seen On Screen) is another example of the growing power and presence of e-commerce and m-commerce. Founded in 2000 the company offers 36 000 fashion products, employs 570 people, has 13 million unique visitors every month (de Teliga, 2011) of which 700 000 visits are via mobile devices and wants to be "as ubiquitous as possible" (Hart, 2010). Revenue grew by 35% in the fiscal year 2010 to reach £223 million and pretax profits increased by 44% to £20.3 million (Boston Consulting Group, 2010). International sales increased by 142% to £140 million, accounting for 43% of ASOS's total (*Retail Week* 2011b). As the UK's biggest online retailer, with separate sites in the US, Germany, France and Australia, this Internet-only model of retailing appeals to customer's demands for 24-hour, 7-day-per-week hassle-free shopping, with free delivery and returns, and a dedicated marketplace where shoppers can browse hundreds of small independent boutiques, shop for ethically sourced garments in the Green Room, and sell their unwanted garments, a strategy that replicates on-line auction sites such as ebay. An ASOS cofounder draws on explicitly geographical metaphors to describe the concept: "Imagine putting a roof over Oxford Street … ASOS is Oxford Street, Net-a-Porter is Bond Street" (de Teliga, 2011).

Digitally mediated retailing is arguably bringing about transformative shifts in the spaces, times, and practices of fashion consumption. It has expanded the boundaries between how, when, and where we consume, and has reduced the search and transaction costs associated with fashion consumption and the acquisition of commodity knowledge by harnessing the mutually constructive strategies of generating immediacy and vastly expanding fashion's range and reach. The Internet has brought new fashion worlds into the homes, screens, and minds of consumers, creating imaginative possibilities and provoking us to reflect on who we are and who we would like to be. The screen or the surface becomes a gateway into new and multiple spaces and interface designs, just as store design or shop window display did before it. These new ways of seeing, feeling, looking, and doing fashion are increasingly reliant on digitally enabled communication practices that are mediated via the interface and architecture of the screen (computer monitor, mobile phone, tablet, or television). The ubiquitous (and increasingly mobile) screen is a key means through which fashion consumption is shaped, transmitted, called forth. The fashion landscape is shifting so quickly that monitoring the monitor may represent an important means of keeping up to speed. New fashion worlds have literally been brought to life through the Internet and an emergent online–offline choreography is offering huge potentiality for reconfiguring ways of practising and performing fashion. Virtual spaces can be every bit as vibrant as physical ones and the Internet has revealed a number of ways in which fashion can assume and inhabit unanticipated forms and formats. The historical binary divide between active, agentive, communicative humans, and passive, silent, fixed objects looks increasingly untenable as we move into an era saturated with the 'technological unconscious' (Clough, 2000; Featherstone, 2009; Thrift, 2005). This is in turn redefining the relations between people and objects as "constituent elements of a mutually

constitutive moving 'frame' which is not really a frame at all but more of a fabric that is constantly being spun over and over again" (Thrift, 2011, page 7).

6 Conclusions and reflections

"Fashion is as much a part of the dream world of capitalism as its economy."

Wilson (1995, page 14)

The paper concludes with an evaluation of the significance of emergent forms of digitally mediated fashion creation, distribution, and representation for broader debates about production, consumption, and the relations between the two. Together, these reflections offer the possibility at least for a theory of fashion for the contemporary era. Firstly, the developments discussed above demand that we recalibrate our understandings of fashion practice and process, space and place. Certainly the bipolar narratives that dominated early e-commerce literature (physical versus virtual, clicks versus bricks, material versus immaterial) seem singularly unhelpful in understanding the complex spatialities and temporalities at work when digital technologies and fashion collide (French et al, 2004). Rather, "people and things are located within complex networks of mobilities, interactions, and transactions that bind them together across scales ... creating multiple, simultaneous but partial time-space configurations that are at once 'local' and 'beyond' (Dodge and Kitchen, 2005, page 174). Electronic space interweaves and is intertwined with the spaces and places of our physical worlds; practices, processes, and products cannot be isolated from one another whether online or offline; printed and digitally mediated formats are coconnected, relational, and reveal mutual influence. Old and new modes of doing fashion rebound on one another, are recursively connected—convergent even—and are challenging and disrupting conventional dualisms about here and there, now and then, surface and substance, object and subject. The precise impact of the Internet on fashion's geographies and practices is complex and still evolving, and will continue to be in part shaped by the spatial configuration of existing value chains, power relations, and network structures by virtue of the remediation effects at work. In some respects the developments discussed above may be reinforcing existing geographies of global fashion and throwing fashion's world cities such as London, New York, Paris, and Milan into yet sharper relief. And yet in other important respects we may well be seeing the opening up of new fashion spaces and actors that previously did not figure on fashion's map.

There is certainly evidence that the digitally mediated developments discussed here may be reworking and decentring the geographies of fashion, displacing the authority of traditional experts. The disintermediation that has been made possible through new mechanisms of transmission such as personal blogs and livestream suggests a flattening of fashion's long-established hierarchies, a new kind of virality that is rhizome like in its spread and reach. The relationship between the consumer and the fashion industry is fundamentally changing. The recasting of the relations between old and new forms of fashion representation is generating new ways of making markets, new worlds of possibility that require that we reformulate what is understood as innovation, knowledge, and expertise. The transformations outlined above suggest new affordances based not on time-worn hierarchies and sectoral power asymmetries but on new and more democratic modes of doing and seeing fashion that together are reconfiguring the power bases of the fashion system in what may be only the beginning of a broader enfolding of consumers into the networked process of innovation (Benkler, 2006).

Finally, the developments discussed here raise a number of more substantive questions about production, consumption, power, space, and the reproduction of markets. Quite how this will unfold and take shape remains uncertain and there are a number of possible readings about the longer term implications of digitally mediated communications on the fashion

sector. The depressing interpretation is that crowdsourcing, livestreaming, and the active enrollment of consumers into the creation of brand messages is little more than capitalism's latest tactic to co-opt the consumer in the relentless pursuit of surplus value creation. Is this simply a new means of doing business whereby organisations actively put the consumer to work (Tapscott and Williams 2006), a ratcheting up of long-held forms of exploitation, but at the places of consumption rather than production? The professionalisation of personal style blogs is one example of such occurrence. Whilst this is a possibility I would like to think that the developments discussed here really do offer transformative possibilities for fashion and its participatory politics, possibilities founded upon new modes of knowledge generation and circulation and new recursive links between production and consumption which, together, might form the basis for a new, more transparent, dynamic, and participatory industry. In combination, the processes of remediation, convergence, disintermediation, and hyperarchy are transforming the fashion landscape. The tendencies at work here signal both disruption and disturbance to the conventional power relations that structure fashion. They suggest the emergence of new, hybrid geographies in which certain distance-transcending activities can be enacted whilst simultaneously being embedded in the performer's positionality in material space (Graham, 2011, page 10). And they reveal new sorts of temporality within fashion characterised by immediacy, virality, and more interactive forms of engagement. Together these developments point to exciting times ahead in the practice and theory of fashion and its geographies.

Finally I have demonstrated how we are living through exciting moments of new understanding and possibility. These findings offer us something that breaks with conventional wisdom and implies that we need to find new languages and syntaxes to talk about fashion technologies in ways that do not follow the standard script. In theoretical terms we have great opportunities to rework our understandings of embodiment and subjectivity through the collapse of distinctions between body, the commodity, and technology. Above all there can be no end to fashion's geographies for they are continually being reenacted, replayed, relayed anew. We increasingly inhabit multiple spaces whose interplays and relationalities are throwing up fascinating questions about business models, the market, and consumption. This strikes me as a great way to debate the shape and form that technology, fashion, and space will interweave and evolve in the future.

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