Space is a market device: #CovidArcadia and the pandemic conditions of emergence of digital-affective premises

Kath Bassett[1], Elif Buse Doyuran, Liz McFall, Addie McGowan[2]

This chapter draws on a mixed-method project that explored retail market encounters in Edinburgh during the pandemic. It borrows from Walter Benjamin's methodological and conceptual approach in the arcades project to explore how online settings, notably Instagram, function as market spaces. Arcades, for Benjamin, *work* by using their architecture to create atmospheres conducive to specific actions – lingering, browsing and purchasing. Arcades and Instagram share material and technical features that are orchestrated to shape action and in this both parallel the functions of 'market devices'. The significance of space, as an element in 'the equipment and devices' which give market 'action a shape' has long been acknowledged in market studies (Callon 1998: 22) but *how* retail space works to devise action has had little attention. In describing how Instagram provided 'digital-affective premises' during the pandemic we advance three broader propositions. First, that market spaces are necessarily market devices because they are designed to produce action. Second, that while scholarship has exposed the material and technical elements of market devices, it had said much less about their sentimental or affective elements. Finally, that market spaces showcase how technical-sentimental, digital-affective elements interact in giving action its shape.

Introducing the #covidarcadia project

> These arcades, a recent invention of industrial luxury, are glass-roofed, marble-paneled corridors extending through whole blocks of buildings, whose owners have joined together for such enterprises. Lining both sides of these corridors, which get their light from above, are the most elegant shops, so that the passage is a city, a world in miniature. (Benjamin 1999, 3)

---

[1] University of York
[2] All University of Edinburgh

Figure 1: 'Life in Lockdown' by Candice Purwin for The Black Medicine Coffee Co.
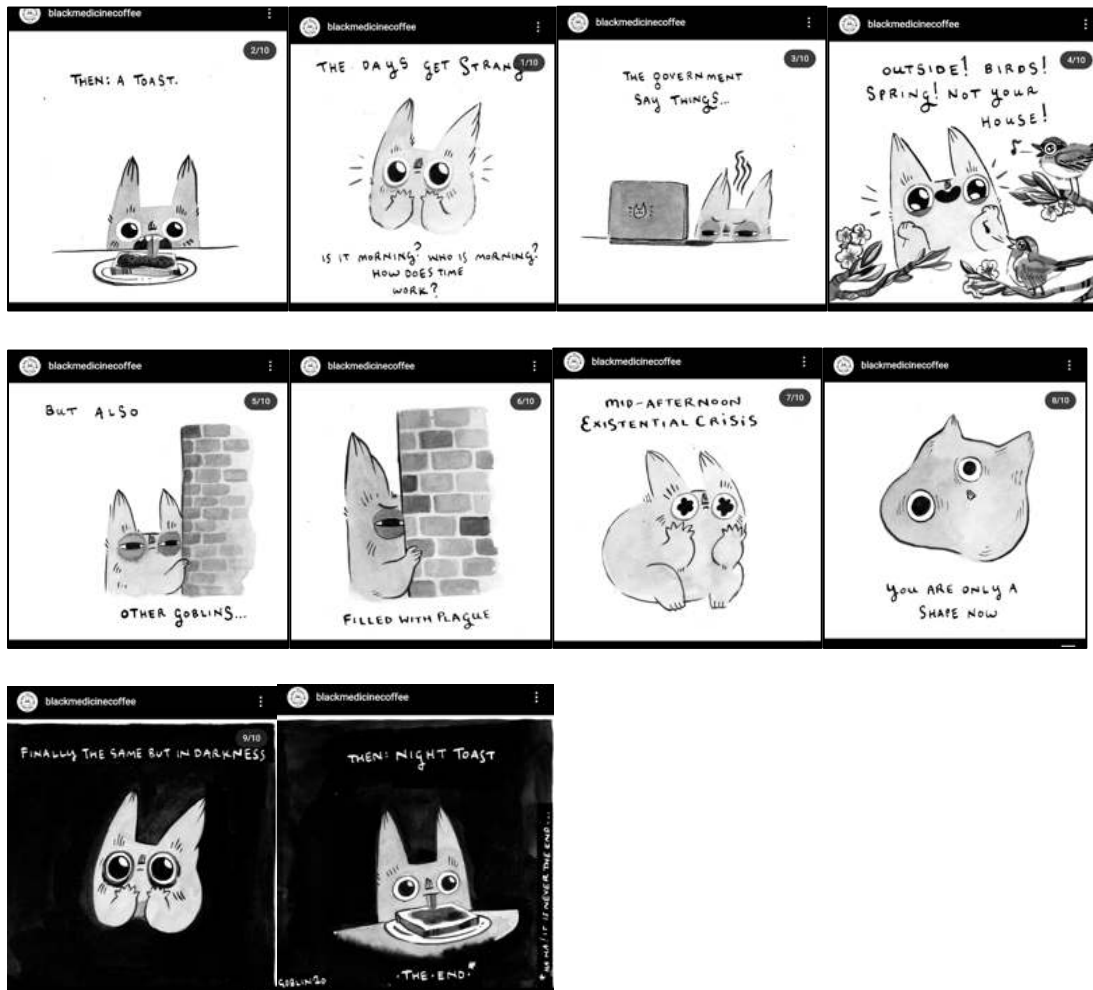
In Spring 2020, in the throes of the first and most severe of the UK's Covid lockdowns, the proprietor of an independent Edinburgh coffee shop called *Black Medicine Coffee Company* began taking regular working walks with their in-house illustrator. These walks – outdoors and physically distanced in compliance with the rules restricting indoor mixing set out by Boris Johnson's administration on March 16th – might have seemed an indulgence at a time when hospitality businesses were scrambling to work out whether they could continue trading at all. Yet their outcome, a series of comic reflections on pandemic life along the lines shown in *Figure 1*, would prove a vital component of the adaptations that helped Black Medicine sustain relationships with customers while navigating the most restrictive phase of these regulations. In

the period when Black Medicine, like thousands of cafés and restaurants globally, was forced to completely shut down, this comic strip series provided a way of maintaining rapport with locked-out customers. To understand how this worked requires tuning in to the various ways that independent retailers have become entangled with, and dependent upon, Instagram as a communicative and 'promotional partner' (Bassett 2022). This entanglement, we suggest, has significant implications for the spatial turn in market studies scholarship. More specifically, it opens up questions about the relationship between the spaces in which retail market encounters take place and 'market devices' (Muniesa et al 2007) as one of the most influential concepts in market studies.

The research project that inspired this chapter began in May 2020 amidst a rapidly changing, profoundly disorientating, series of changes to UK regulations[3] governing how people could move and mix, trade and spend in public space. Working within the constraints of lockdown we assembled a necessarily mixed and experimental set of methods – part fieldwork, part digital ethnography – to explore the improvised bricolage of changes in the material and digital spaces of independent retail outlets in Edinburgh during the first eighteen months of the pandemic. We zoom in on the trajectories of three businesses that relied on Instagram to explain, coordinate, and perform the reordering and rerouting of customer traffic between material and digital space.

As a social-locative platform, Instagram was already core to everyday 'digital economic circulations' (Langley and Leyshon 2017; Kornberger et al 2017) but, just as it did for online meeting software and QR codes, the pandemic created new use cases for Instagram. For local retailers, the platform became vital to their ongoing re-organisations of 'the practical arrangements' that make these markets (Ossandón 2018, 35). This directed our attention to the

---

[3] For simplicity we refer to UK government regulations. There were significant differences between the devolved governments, with both Scotland and Wales tending to stricter interpretations. See https://www.instituteforgovernment.org.uk/charts/uk-government-coronavirus-lockdowns https://data.gov.scot/coronavirus-covid-19/ for a timeline of lockdowns.

spatial distribution of market arrangements between material premises on the street and digital premises on Instagram and we began to follow the switching, alternating and recursive distribution of socio-technical strategies between them. Instagram began to be used to prompt different types of mobility and movement and its role as a market space for the locally situated, independent retailers we focus on here, changed[4].

The approach we took was influenced by Walter Benjamin's *Arcades Project* (1999) and the 'ragpicker' methods he used to assemble his compendium. Arcades, in Benjamin's account, *work* by using their architecture of ornate cast-iron frames, covered paths, display windows and glass roofs to create atmospheres that are conducive to particular kinds of action – lingering, gazing, idle browsing and, of course, purchasing. Benjamin was interested in analysing both how the specific historical, economic, and technological conditions of nineteenth century industrial capitalism made arcade architecture possible and how that same architecture facilitated the kind of market action – luxury consumption – that supported industrial capitalism. Our provocation here is that borrowing from Benjamin's methodological and conceptual approach can offer some insights into how Instagram works as a market space. Arcades and Instagram both have material and technical features that are designed to shape market action and in this they parallel the functions attributed to market devices. First and foremost though they are market spaces, specifically spaces in which material and technical components are orchestrated to provide a stage, an atmosphere, conducive to retail encounters. The significance of space, as an element in 'the equipment and devices' which give market 'action a shape' was acknowledged obliquely in Callon's (1998, 22) foundational essay, but there has been little focused attention in market studies to how space in retail settings works to devise action. In describing how Instagram provided 'digital-affective premises' for local retailers during the pandemic we also advance three broader propositions. First, that market spaces are necessarily market devices in that they are

---

[4] We use the term 'local retailer' hereafter as a loose descriptor of those usually smaller, independent, often service based retailers who depend on foot traffic for sales.

designed to produce action. Second, while scholarship has exposed the material and technical elements of market devices, their sentimental or affective elements have had less attention. Finally, we suggest that market spaces, particularly in their digital forms, showcase how technical-sentimental, digital-affective elements interact in giving action its shape.

Using 'Instagram' as an arcade: space, sentiment and market devices

While the shift to online retailing, from bricks to clicks, has seemed inexorable since the millennium, the pattern varies significantly between sectors and scales of business. In the UK, large, multiple retailers and department stores had braced themselves for a collapsing high street, a 'retail apocalypse' (Mende and Noble 2019; c.f. Wrigley and Dolega 2011; Castigliano 2022) and were deploying 'omnichannel' strategies to integrate their material and digital premises long before the pandemic. They were accordingly at least somewhat prepared for a context in which online sales rose as high as 35 per cent at their UK peak in February 2021[5]. For many smaller retailers, it was the establishment of ecommerce functionalities on Instagram after its acquisition by Facebook in 2012, that made online sales viable.[6] By 2020, Instagram shops were firmly established, and had transformed sectors like fashion retailing 'altering both the look and nature of products people buy and the physical spaces where they shop.'[7] Even in cases where sales, or ecommerce directly, was not the focus, such as in high-end and mid-market restaurants, cafés and coffeeshops, chefs were 'cooking for looks' creating 'instagrammable' dishes with the kind of photogenic qualities that might be widely shared and attract customers (Contois and Kish 2022, 1).

---

[5] There are exceptions, budget retailers Lidl, Aldi, Primark have very limited ecommerce offers. See https://www.ons.gov.uk/businessindustryandtrade/retailindustry/bulletins/retailsales/january2022#online-retail https://www.centreforcities.org/blog/how-is-covid-19-impacting-online-shopping/ for UK data; https://www.census.gov/library/stories/2022/04/ecommerce-sales-surged-during-pandemic.html for US context
[6] https://www.perfectsearchmedia.com/blog/brief-history-how-instagram-s-business-features-have-evolved
[7] https://retail.economictimes.indiatimes.com/news/e-commerce/e-tailing/how-instagram-changed-the-way-we-shop/72991005?redirect=1

By 2018 Instagram had one billion users worldwide, but as Contois and Kish (2022) note, it has not attracted the scholarly attention devoted to platforms like Twitter and Facebook. They connect this to its 'presumed feminisation and superficial consumerism' and frequent displays of white affluence (2022, 2). There has been some recent research tracing these dynamics in the context of placemaking (Broinsvort and Uitermark 2021; Boy and Uitermark 2017). What Zukin, Lindemann and Hurson (2017) described as the 'discursive investments' in place that users made by posting on the platform Yelp in New York in the early 2010s, Boy and Uitermark apply to the way Instagram users showcase some places, some forms of being and belonging, while excluding others, cropping out 'the messiness and occasional gloom and doom of the city' (2017, 11). In this way Instagram, like Yelp, feeds broader processes of urban transformation and gentrification. This phenomenon is related to the developments we trace but it is also distinct from them. The retailers we followed often did adhere to 'instagrammable' aesthetics but the content they shared at the peak of the pandemic went beyond visual branding, combining an array of technical and affective elements in an attempt to rapidly coordinate and mobilise people and objects across time and space in a charged environment.

Prior to the pandemic most of these retailers had at least some Instagram presence and while their usage patterns varied the majority of posts were straightforwardly promotional. The pandemic changed this, accelerating digital platform usage generally in line with changing work patterns and their associated consequences for urban environments (Zukin 2021). Among our local retailers Instagram was used more but also differently. For those selling products like coffee, cake and high-end food, where the atmosphere of being there, in the place itself, is the product, it was not clear whether or how Instagram could address the distribution challenges associated with changing regulations and dramatic reductions in footfall. At first, Instagram was used to post information, messages of support and pleas for help but it soon became a space where improvisations, adaptations or 'pivots' in product and service delivery could be tested. These experimental forays went beyond posing and filtering bodies, venues, objects and food to

dive deeper into the platform's affordances as a medium that could relay a more varied and nuanced range of expressions including fear, anxiety, care and solidarity.

It was these changes that led us to consider Instagram as a kind of market space, a 'premise'. Even when retailers were not trading on the platform directly, they began using it to conjure up a digital version of their offering. As we describe below, this took many different forms from describing material and technical changes to service, to recreating the 'feel' of their premises. In characterising these inchoate mixtures as 'digital-affective premises' we draw upon Anderson's (2009) term 'affective atmospheres'. Borrowing from Marx's formulation of atmosphere as something akin to an unfelt weight, that, undetected, 'envelops' and 'presses upon' all social life, Anderson posits 'affective atmospheres' as a concept 'equal to the ambiguity of affective and emotive life' (2009, 78). For Slaby, affective atmospheres are the outcome of the kind of continuous arrangement and rearrangement of 'persons, things, artifacts, space, discourses, behaviours, expressions or other material' (2019, 109), something we too observed in our project. Material and spatial rearrangements of people and things were hard to miss on the street, but as Instagram became more *infrastructurally* significant to local retailers, these (re)arrangements were also reflected in digital space. Infrastructure has been defined as a form of matter that enables 'the movement of other matter' (Larkin 2013, 329) providing 'the grounds on which markets operate' (Mellet and Beauvisage 2020, 114). Instagram already qualified in this sense as a market infrastructure in many sectors, 'silently assisting in consummating' market exchanges (Kjellberg et al 2019, 223) and combining 'features' to become 'a single device supporting market operations that are otherwise distributed among multiple devices' (Mellet and Beauvisage 2020, 125). Covid boosted the range and character of 'market-supporting' features our local retailers used, making Instagram nearly indispensable to our interlocuters as a space where an affective atmosphere conducive to exchange could be cultivated.

***

To understand these dramatic reconfigurations of market space we turned to Benjamin's description of the arcade as a 'recent invention of industrial luxury' designed, as the original German title *Das Passagen-Werk* - the 'work of the passage' – suggests, to produce particular kinds of action. Benjamin was interested in analysing how the arcade became possible through a set of historical conditions that could be traced in its architectural arrangements - those 'glass-roofed, marble panelled corridors extending through whole blocks of buildings.' His object was not to examine how market spaces in general worked. Conceptually and architecturally arcades are emphatically not shops or shopping centres, high streets or malls – all of which have their own structures and definitions (Wetherell 2020; Kefford 2022). Despite all of this we found reasons for treating a project that wandered from high streets to Instagram feeds as an Arcades project.

The first reason was methodological. Since we began during lockdown the only practicable method available was something akin to sifting through 'the "refuse" and "detritus" of history, the half-concealed, variegated traces of the daily life of the "collective"' (Eiland and McLaughlin, in Benjamin 1999). At first, we walked around the city separately, taking smartphone photographs of nearby streets, shops, cafés, restaurants and pubs, and, like many others fortunate enough to 'work from home,'[8] we browsed and shopped online. As the pandemic went on, we secured funds that allowed us to recruit students and delivery riders to take more photos[9]. We began to follow adaptations in online shopping spaces more closely and focus systematically on changing uses of Instagram. We screenshotted, gathered and followed local retailers' accounts before, in the final stages of the project, we launched our own - @CovidArcadia. On @CovidArcadia we posted highlights and stories showcasing the adaptations we observed. By this point, researchers were talking to retailers online and offline, on

---

Instagram, Zoom and in person. We secured direct access to the three businesses featured in this chapter and focused our data collection on how pivots in their services were reflected on Instagram. We visited and photographed their premises, particularly the material adaptations, and conducted in depth, semi-structured interviews with owners and managers.

These interviews explored the general impact of the pandemic and the specific changes they made during the various phases of lockdown. Our interview guide was informed by the 'non-digital-centricness' principle that guides researchers to 'acknowledge the ways in which media are inseparable from the other activities, technologies, materialities and feelings through which they are used, experienced and operate' (Pink et al. 2016, 9). We applied this by focusing on how digital platforms sat within our respondents' broader organisational practices and using their posts as interview elicitation devices guiding the timeline of their stories and prompting discussion about experiences beyond 'the digital.' When we tried to make sense of our findings, we became more and more conscious of how fluid and unstable the boundaries between online and offline were. Disentangling the 'passagen-werk' of the Instagram account from the work done by the shop on the street got harder as services that were once only available in store moved online, and safety adaptations to shops were echoed online.

All of this led to our second reason for returning to the arcade: its conceptual reach. At the risk of oversimplifying, the arcades project was presented as a methodological and empirical compendium, but it was rooted in Benjamin's conceptual preoccupation with what arcades revealed about the 'primal history' of the nineteenth century, in all its literary, philosophical, political, economic and technological specificities. At one level, Benjamin offers a socio-technical description, one that connects the boom in the textile trade to the genealogy of iron construction as the necessary conditions for this new era of 'industrial luxury.' This is a sufficient undertaking in itself. But Benjamin was after much more than that in his pursuit of the arcade as a 'dialectical fairyland' (1999). The arcade was not just the *stage* for the commodification of things, it offered an explanation of how industrial capitalism worked by making things seem, simultaneously, more

material and more spectral. It is this material/spectral simultaneity that defines the connections between the arcade's consumer fairyland atmosphere and the political-economy of industrial luxury. This resonates with the role we ascribe to Instagram as both a 'digital-affective atmosphere and a market infrastructure supporting exchange.

This has implications for understanding how market spaces work more generally. In *One Way Street*, Benjamin referred to the placards, brochures and publicity of commercial media as 'prompt language' that demonstrated that literary effectiveness could only be accomplished through a 'strict alternation between action and writing' (1985a, 45). Benjamin's concern here, as in the Arcades project, was in exploring how political action could be mobilised purposefully. Arcades and commercial media preoccupied him because he saw in these inconspicuous, banal forms a more effective exercise in mobilising, that is 'prompting', human action. Effectiveness came, not from the persuasiveness of language itself, but from its arrangement on disruptive technological platforms. Early twentieth century media – neon, cinema, giant billboards – performed like the arcades of the nineteenth century, as a magical mirror world, that moved people in both senses of the term, while simultaneously expressing and obscuring the vast infrastructural transformations beneath.

Benjamin's reasoning prefigures the relationship between description and action, between 'statements and their worlds' laid out in the concept of market devices/agencement (Callon 2007, 320; Muniesa *et al.* 2007) and it offers a distinctive perspective on the active, generative role of space in retail encounters. Market devices are hybrid socio-technical arrangements including material devices and writing/language – for example, the formulae, operating instructions, technical knowledge etc. that guide operation. It is the configuration of these different elements that determines the 'performative' success or failure of any given market device in accomplishing its intended action. By this definition arcades are devices: ceilings and corridors, entry, exit and shop signs combine materials and written language to channel action. Reflecting on actor-network perspectives on the invisible infrastructures that support cities,

Denis and Pontille (2010, 442) remark that a 'sign in place' is one element in the 'broad assemblage of devices that perform the city'. Applying this to market settings, a blocked passageway or an obscured directional sign are elements in the arcade-device that could provoke what Callon (2010) described as a 'misfire,' a failed performance. That signs help support or perform the city may be a given in urban studies but their role in market, and specifically retail, settings has not been well researched. The pandemic accentuated the way signs and shopfittings move people and objects through space and how they are experienced or felt. Widely reported responses to changed shopping environments – shame, embarrassment, confusion, anger, sadness, empathy – draw attention to the work done by 'affective atmospheres' in completing retail encounters. This messy, ambiguous term fits the terrain we are reaching for – the almost unaccountable atmosphere surrounding market transactions that socio-technically inclined market studies and the devices literature in particular, have underplayed.

These literatures deepened empirical understanding of the socio-technical orderings of markets and offered the distributed processes of economic performation (Caliskan and Callon 2009, 2010) as an explanation of how economies and markets come into being. But they have not broached the kind of integration of political, economic and cultural accounting Benjamin was reaching for. Critiques that socio-technically inclined market studies have had 'a lot to say about economy but much less to say about culture' (Entwistle and Slater 2014, 161) offering explanations that are 'a bit too materially, too technologically, observant' (McFall, 2014, 17) have often turned on this neglect of messier questions of sentiment, attachment or affect in market action. What Franck Cochoy (2008) characterised as 'qualculation' and the 'uncertainty, guesswork, sentiment, luck, mystery and failure' (Cochoy, Deville and McFall 2017, 11) that is also always at play in market encounters has had less empirical attention than material equipment. This was not inevitable. Conceptually, market devices were always supposed to provide a framework for tracing the 'evolving intricacies of agency' (Muniesa et al. 2007, 3) across human and non-human, material and discursive assemblages. The idea itself builds on

earlier formulations of attachment – beautifully summarised in Hennion (2017) – that are attuned to the ambiguities and inaccessibilities inherent to researching the material equipment of affect. In his most recent formulation Callon remarks:

> Market devices aim to capture potential customers' attention and to make them deviate from their original trajectories, just like the street sellers calling out on the sidewalk in London. This is not enough, however. Imagine a framing of encounters that awakens curiosity, fires up desire, excites the passions, amplifies and transforms these into interest and ultimately fails to obtain the willingness to pay. Payment can be obtained only if the good ends up attached to the client and the client to the good. (2021, 59)

This sets out almost the same ground we are targeting by treating retailers' use of Instagram as an arcade, a place where digital-affective atmosphere is cultivated. Callon even calls this scene '*affectio mercatus* … the heart of the market' (246) and a 'mode of framing' on par with the material equipment and organisation of agencies and encounters. Our argument here is that space, particularly in moments of dramatic rearrangement, offers under-exploited empirical resources for investigating the heart of markets and particularly the interactions at play between movement and feeling prior to the moment of exchange.

Not that this is easy. Attachment, Hennion (2017) writes, cannot be registered through structures, determinations, causes or intentions. It 'does not belong to the vocabulary of action' and is more like a liability in the commercial sense except – and this is the kicker – 'when it comes to attachment no one can do such an accounting' (112). This is the paradox that Anderson also acknowledges in the 'affective atmospheres' that drag upon action but can never quite be represented. The rearrangements of retail premises throughout 2020 did not make market attachment more accountable but they did draw attention to how much space matters in securing it. This is true for both physical and digital market spaces and the complicated switching, alternating and recursive traffic between them.

Juxtaposing the digital-affective atmosphere retailers cultivated between Instagram and their physical premises against the arcade's affective fairyland is an attempt to explore rather than nail down, the interaction of [online and offline] space and affective attachment in consummating exchange. The retail settings we describe have little in common with the arcade as an architectural form, but they share its perplexing mix of material and spectral, technique and sentiment, digital and affective. Our retailers all trade on the high street but their offers are structured by the 'internet offensive' and the subsequent hybridisation of (e-)commerce into 'atmospheric marketing … that protects and enfolds the customer, nourishing his [sic.] sensations' (Callon 2021, 212-213).[10] The 'material' form and physical appearance of the high street was linked to the emergence of 'digital' e-commerce driven, platform economies long before the pandemic. What we suggest below is that the pandemic acted to expose, complicate, rearrange and accelerate these connections.

Socio-technological techniques and digital-affective premises

Within hours of the UK government's first lockdown announcement retailers began confirming their closures and encouraging their customers to 'stay home and stay safe' via posts on social media. In Edinburgh, tourist, residential and commercial foot traffic collapsed and many retail premises closed indefinitely. While streets emptied, traffic online built up. On Instagram, retailers began posting more frequently and engaging in conversational exchanges with customers and other businesses. Soon, Instagram became the place retailers used to explain changes in the 'spatial dimensions' of their market-making practices (Holmes et al 2021, 332) – to how, where and with what equipment they were operating. These announcements often referred to new products and modes of service – notably the introduction of customer collection and/or home delivery. Physical space was reconfigured. The most obvious change was often to bar customer

---

[10] Callon derives this formulation from Catherine Grandclement (2005).

entry, but inside, other changes were underway. In some cases, entire venues were repurposed into a 'backstage' where non-furloughed employees could prepare food for collection or delivery, or, as in one of the cases we focus on, assemble meal components for customers to complete 'at home.' This response also marked a shift in which staff performed which tasks. Owners and managers undertook a much greater range of tasks from delivery to food preparation to ad-hoc shop refits. Staff usually employed in 'front-of-house' positions found themselves assembling products backstage rather than performing the experiential elements of the customer encounter. In some cases, the main customer-facing work that remained was contracted out to either independently employed couriers or Deliveroo riders. These platform workers lack the legal protections of employees (Gregory 2021) and during the first phases of Covid lockdowns they, like customers, were locked out of venues and denied access to essential facilities, notably toilets. Delivery became front-line, essential work with all the risks, few protections and none of the applause[11]. This first set of adaptations centred on technical, material changes to shops and kitchens that were inescapably social in consequences for staff and customers.

The socio-technical character of market work is familiar ground in market studies scholarship but it led us to consider the less well-rehearsed relationships between material premises, their mirrored 'digital premises' on Instagram and the 'feel' of this suddenly redistributed market encounter. To distribute their 'at home' goods, many establishments set up online trading for the first time, usually by integrating an ecommerce platform such as Shopify. This meant they needed to both generate awareness, excitement, or 'buzz', about these new functionalities, and crucially, set out a clear pathway back to their online shops. While previously Instagram had been used mostly as a means of promotion, designed to entice foot-traffic to their brick-and-mortar premises, it now needed to direct web-traffic down an Instagram side-route to new Shopify spaces. This pivot promoted broader visibility within Google's Search ecosystem.

---

[11] In the UK during the early months of the pandemic a social movement known as 'Clap for Carers' led to ritualised applause for National Health Service and Social Care workers at 20.00hrs every Thursday evening between 26 March and 28 May.
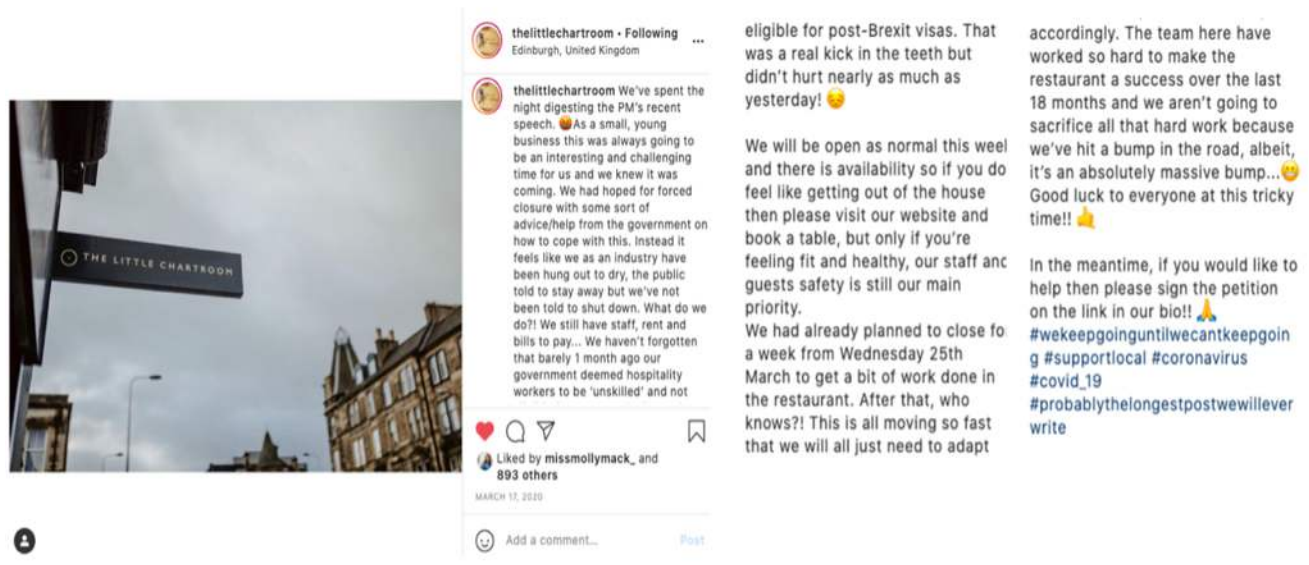
Ecommerce functionalities create a flow of continuous updates, web traffic and sales between Instagram, Shopify and other websites making retailers more discoverable. This allowed independent retailers to derive more economic benefit from the algorithmically mediated attention capital that structures internet economies generally and e-commerce platforms specifically (Kaplan 2014; Shin and Ognyanova 2020). There were however interesting differences in how retailers adopted and adapted ecommerce functionalities. These specific arrangements of ecommerce functionality and experiential atmosphere is part of what we are trying to capture as 'digital-affective premises.' Socio-technical or, more precisely, 'socio-technological' techniques (Kendal and Wickham 2001) were being entangled in new ways with 'affective arrangements' (Slaby 2019) in an effort to capture the 'atmosphere' of closed premises.

For *The Little Chartroom* (TLC), a small, upmarket bistro in Edinburgh, these techniques leveraged Instagram as a tool for trade and relationship building. TLC opened in June 2018 and was solidifying itself as a staple in the area's dining community throughout 2019 and early 2020, with the Michelin Guide calling its buzz 'addictive'.[12] When Covid hit and TLC was forced to close completely their first response was to make Instagram their primary business communication tool. This was less about building rapport and more about working out how the platform might drive purchases, extending their 'digital premises' to accommodate home delivery.

---

[12] https://guide.michelin.com/gb/en/city-of-edinburgh/edinburgh/restaurant/the-little-chartroom

Figure 2: TLC's Post Announcing Closure, 17 March 2020

On March 17, 2020, the day after the first stay-at-home announcement, TLC's feed shifted from

photos of their food and dining room to emotionally raw, live reactions to what was unfolding

(Figure 2). These charged posts positioned TLC early on as worthy of community support,

calling on a 'mutual and durable interpersonal obligation'(Warde, Paddock, and Whillans 2020,

9). The tone adopted aligned contemporary dining out experiences more with being a guest in a

home than with a predominantly rational mode of market exchange. Initially, this appealed to the

local sense of "duty" during a crisis (Stewart et al. 2022), but it grew into a creative branding

opportunity as lockdown(s) became a longer-term new normal. Over the coming months, TLC

used their Instagram account to continue this intimate social engagement with Edinburgh and

step over virtual thresholds into diners' homes. They announced a limited number of daily

takeaway meals and invited their followers to call the restaurant to book orders for collection.

These meals regularly sold out as TLC set out a path from online engagement to phone ordering

to in-person pick up. Since TLC's focus was on offering holistic, high-end dining experiences

this, of course, presented challenges. As one of their chefs explained[13], following customer

---

[13] Interview 1 (IV1)

feedback they refined their initial at-home offering into 'finish at home' experiences complete with cooking instructions and wine pairings. They augmented this with elegantly printed menus, quality, sustainable packaging and Spotify playlists all designed to carry some of the aura of their dining room into customers' homes.

Instagram was also used to build and promote cross-business collaborations, such as the pairings with local wine and cocktail bars featured in Figures 3 and 4. These kinds of local cross-promotion were a common response in the first phase of Edinburgh's lockdowns (*Independent Thinking* 2020) allowing retailers to use the platform as a stage on which they could perform as a collective network. During fieldwalks we heard many examples of collaboration, where businesses in the same locales would share information, tips and Personal Protective Equipment (PPE) at a time when it was hard to source. Cross-promotions like TLC's on the other hand were often joint enterprises between physically distant businesses, in a faint digital echo of the networked collaborations architecturally marked by the arcade's corridors. In cross-leveraging social ties and digital reach, these initiatives shine a light on how significant and how varied the socio-technological techniques and improvisations that enabled some businesses to keep trading were. In these and other examples we observed Instagram generating audience engagement and participation through community, connection, and brand experiences, that is not well captured by the emphasis on Instagram's aestheticizing dimensions in the literature.

Figure 3: TLC and Wine Bar Collaboration

Figure 4: TLC and Cocktail Bar Collaboration

TLC's success in using Instagram and Spotify to support their at-home dining offer provided the backdrop against which the restaurant experimented with another, quite different kind of premises. This came in the form of a casual outdoor takeaway on Edinburgh's Portobello Beach called @TLC_ontheprom and was well-timed to take advantage of the increasing popularity of outdoor, and especially shoreside, urban locations during the pandemic. The food stall started its own Instagram account and used the platform, similarly to the main site, to communicate weekly menus, operating hours, and further adaptations such as main restaurant openings and closings. One of the chefs described how he became an improvisational architect of the stall, helping to fit it out to make it work as an outdoor kitchen. He and another chef '*went out there with a measuring tape and sort of thought, how many fridges can we fit in, how many shelves… there's not that much space.*'[14] He explained how 'taxing' it was to design and build a space that would work, while keeping up with changing government regulations in response to lockdowns. The restaurant usually found out about these changes from the news and would then interpret the requirements and hope their solutions complied. These material adaptations included bringing in tables and chairs for outdoor seating, removing them when they were no longer allowed, adding glass partitions in the indoor restaurant space, removing pre-pandemic seating and so on. As difficult as it was to keep up, the chef remarked that the lockdowns were what kept the restaurant going, allowing them to 'cook for people again' and removing the partition between chef and diner that the 'finish at home' meals built up, in a Covid-safe, outdoor environment. Following the lifting of most trading restrictions in late summer 2021, TLC expanded into a larger restaurant and opened *Eleanore*, a more permanent version of the @tlc_ontheprom concept, in TLC's original space. TLC demonstrates the interplay between socio-technological techniques across digital and material premises. Its new venture @TLC_ontheprom's very existence was a material adaptation to the pandemic (McMahon 2020) but one that relied upon the restaurant's digital real estate to pull off.

---

[14] IV1

TLC's case also illustrates the role of digital networking and collaboration among retailers to augment their individual offers. This kind of response was developed much further in the establishment of the Artisans of Edinburgh concept.

Instagram as prompt language and the account-arcade: The Artisans of Edinburgh

In November 2020, as Edinburgh headed into another lockdown, a group of seven artisans, long-established in the city, came together with a local marketing team to launch a platform collective that they would unequivocally and proudly call 'Artisans of Edinburgh'. The platform was meant to promote the work of the members and support them through the pandemic, and other challenges that face artisanal work, through multi-media digital marketing campaigns. The Covid-19 pandemic was not, as Bill Baber of Bill Baber Knitwear, a member shop, told us, the Artisans' first rodeo[15]. Most had been in business for several decades; they had weathered many 'severe recessions' and 'learned a lot over the years how to survive'. [16] This included extending their retail spaces by setting up e-commerce websites and later by setting up promotional Instagram accounts. As with TLC, these accounts came to matter more with the closure of all their physical premises. Artisans of Edinburgh, as makers of hats and kilts, bagpipes and pottery, knitwear, leather, and garments, had a very different profile than the two other cases we feature. All retail shops with strong links to tourism and craftwork, the Artisans appealed to a customer base with very different characteristics than those of Black Medicine and TLC which cater to a younger, more socio-economically mixed, demographic. More significantly, these businesses revolved around a different kind of market proposition which brought its own set of relations between product and shop atmosphere. Consumption, as with Black Medicine and TLC, was partly about the experience of being there but significantly it was also about exploring the product in particular temporal, spatialized and embodied ways – trying things for size, imagining

---

[15] Interview 2 (IV2) Bill Baber, founder and owner Bill Baber Knitwear. Baber also remarked that the marketing agency, whose business was also badly affected by the pandemic, was another of the intended beneficiaries.
[16] IV2

how they might be worn. These divergences and convergences provided insights into the different ways Instagram can be enrolled to extend affective space.

Figure 5: Instagram account of @artisansofedinburgh
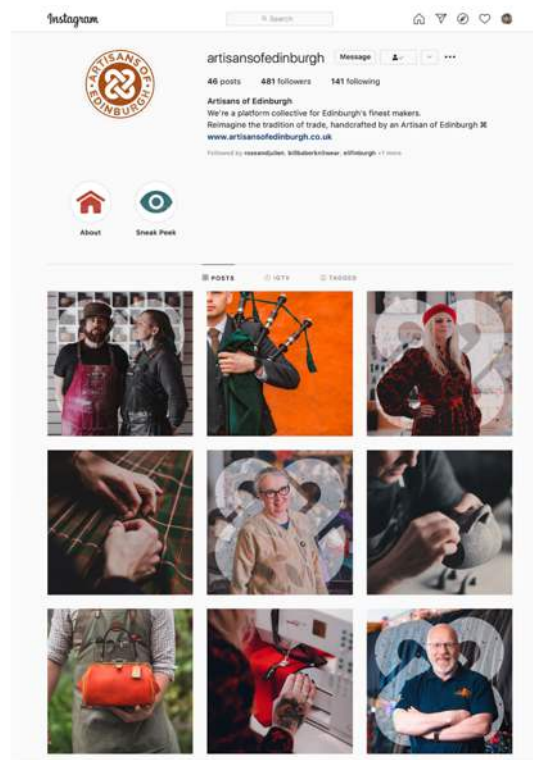
In the post that announced their launch, Artisans of Edinburgh introduced themselves as 'a collective of city makers, designed to showcase the contemporary skill of fine crafts folk and traditional traders in Edinburgh. A directory of talent, an online piazza for you to discover the brands and the people that keep on making by hand.' A scroll through their feed unravels photographs of artisans returning the onlooker's gaze – as though standing on the doorsteps of their shops and looking at the passers-by – showing the products of their labour to the camera or else continuing their work unbothered. One post features a map (Figure 6) created and curated by the Artisans, that locates all 7 member shops, prompting the audience to 'discover the whereabouts of each unique shop', 'enter their world' and 'find each Artisan hard at work in their on-site workshops'. We begin to see an effort to cultivate an atmosphere across and between the

artisans – 'who have joined together for such purposes' -emerge in an 'account-arcade'. The account-arcade works as prompt language in Benjamin's dual sense, to move bodies physically directing footfall to the shops and by moving them *sentimentally*, through the digital doubles of artisanal postures.

Figure 6: A map of the artisans @artisansofedinburgh

The shops' individual digital and material premises also work in this modality of directing traffic. Bill Baber, remarked that the digital presence and the various web premises of Artisans of Edinburgh, was particularly valuable because they all constituted devices pointing towards each other's e-commerce websites. He explains, 'the more sites, the more points of interest that you have which can **point to** your website, the better it is.' Baber is referring to their company's e-commerce website that he 'started years ago' but 'never really did a lot with' just 'used it as a gateway into the business' which is the knitwear workshop that he runs with his wife in Edinburgh's Grassmarket[17]. The Grassmarket, is not so much a 'high street' space as a mediaeval marketplace in the city's Old Town. The area was mixed when Babers opened in 1977, populated

---

[17] IV2

mainly by hostels, pubs, social housing and workshops. The Babers' shop was one of a handful of creative businesses in the vanguard of the area's 'culture-led' regeneration into the gentrified, touristic centre it was becoming by the millenium (c.f. Zukin 1989).

The online shop's status changed when the couple's son took over the website (long before the pandemic) as a separate business turning it into the primary vehicle for online sales and wholesale trading. Physical retailing, overseen by the Babers at their artisanal workshop, has continued to 'benefit from being associated' with the digital premises of the online shop and its subsequent extension to Facebook and Instagram platforms: 'our story has been kept alive by all the work that he's been doing on social media'. Online and wholesales were not only structurally separate they constituted an altogether different offering and a distinctly arranged market space that made no attempts to replicate the atmosphere of the artisanal (work)shop. Their digital premises worked instead as 'a gateway into the business' not a substitute for the physical (work)shop.

This, Baber explains, is because shopping for an artisanal product requires people to 'come in', 'see everything', 'decide which one [of the garments] they want,' and crucially, 'put it on […] that's absolutely the acid test of a garment being a good garment, is when somebody puts it on, and it looks nice'. This embodied process of testing the product extends to the space of the shopping venue: '[a] lot of our customers are from abroad, they come from America, and all they want to do is to walk around and see something that they like and buy it'. As the shopping experience of the customers is intimately linked to their ability to touch, feel, put on, walk around, the tie between the affective atmosphere and the space and weight that the physical venue of the (work)shop gives to it, is harder to sever. The digital premises of websites and Instagram accounts can work to seduce customers as a compelling shopfront, yet the physical store continues to be the chief venue for embodying the look and feel of the artisanal shop, and for staging the fully fledged experience of shopping for an artisanal product.

The technical heterogeneity of the digital-affective

Returning to Black Medicine, a very different arrangement of digital and material adaptations emerges. Black Medicine is in the 'Southside' of Edinburgh, an area on the edge of the Old Town and the University of Edinburgh campus. The Southside is known for its intense mix of extreme social deprivation[18], relative affluence and power – the area abuts the most concentrated tourist attractions, the Scottish parliament, the law courts and the National Museum and it is surrounded by the University's dispersed buildings. Black Medicine established itself by tailoring its offering primarily to suit the footfall generated by the University, offering spaces to meet or work as well as the familiar mix of coffee, tea and artisan bakery. Unlike TLC, Black Medicine didn't respond to the first lockdown with any attempt to pivot their existing product lines into an 'at home' offering for collection or delivery. In fact, their venue remained closed to both their staff and customers for two months.
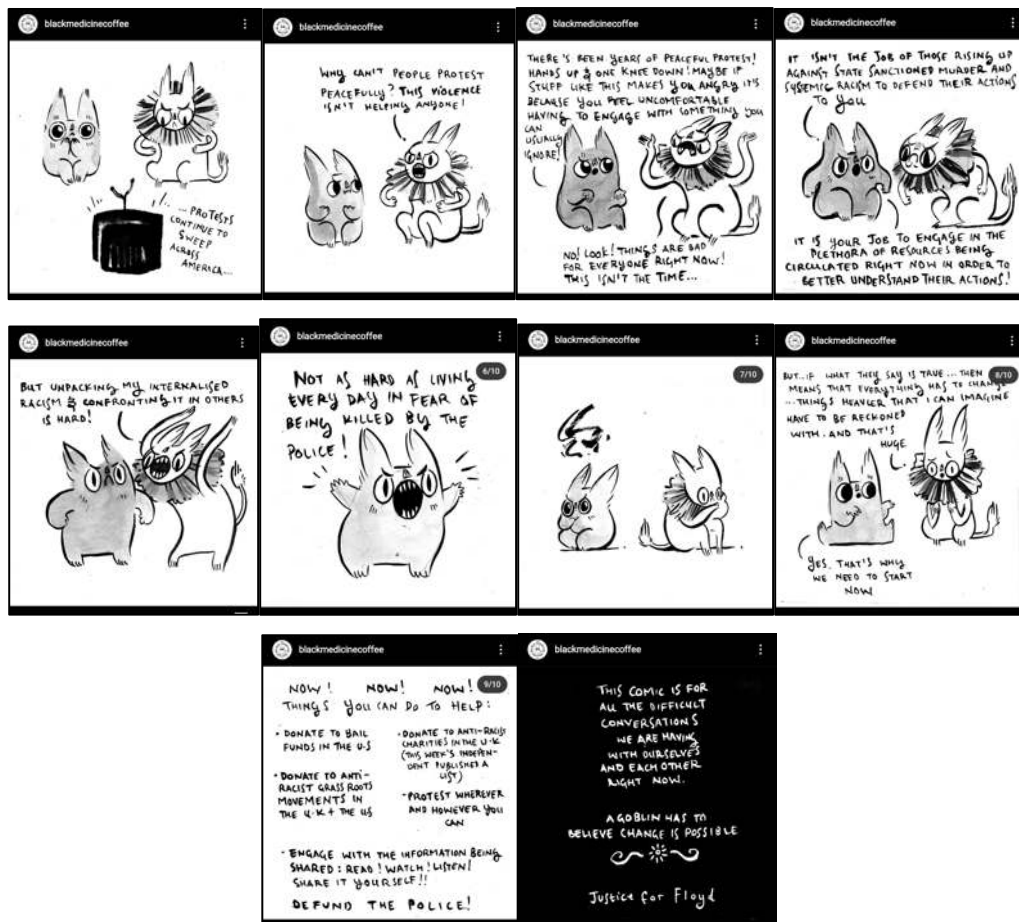
During this prolonged halt, Black Medicine turned its attention to Instagram and began to commission and feature illustrative, comic content, of the type shown in Figure 1, more noticeably on its profile. This content, which came to be better known over the span of lockdowns as 'Goblin Comics', depicted the different stages and nuances of pandemic life from the initial shock of 'Life in Lockdown' to the Black Lives Matter protests that continued throughout summer 2020 following the murder of George Floyd by a police officer in Minnesota on May 25th (Figure 7).

---

[18] Gavin Francis, an author and GP in the nearby Edinburgh Access Practice, gave its mortality rate as 46.5 for men and 41 for women in 2021 https://efi.ed.ac.uk/events/galvanised-connecting-science-engineering-and-the-arts-in-efi-seminar-1/ See also Scottish Index of Multiple Deprivation, Southside Ward.

The comics provide a poignant snapshot of the atmosphere of 2020. They were assembled to provide Black Medicine's patrons with the sense that they were 'not alone' during their daily scrolling at the height of the pandemic. While most of the staff were furloughed and the café was closed, their in-house illustrator took on the task of 'reading the moment,' producing comics for digital broadcast to their followers which tackled the emotional charge of the period directly.

Like TLC and the Artisans, Black Medicine relied on Instagram to stay in touch with their customers, but instead of promoting new products their effort went into cultivating a 'digital -affective atmosphere'. The work done by the illustrator, particularly the comics, are examples of 'affective management', in the Stark and Crawford's sense, in that they were aimed at 'smooth[ing] out the rough edges' (2015, 1) of pandemic life. This approach didn't translate Instagram interaction into website traffic but it did help maintain and grow audience

engagement, working as a tool in the 'arts of market attachment' (Cochoy et al. 2017). These are not arts in the elevated sense, but in the sense of crafted devices that blend sentiment and technique to provoke market action. While the shop was closed, the action at stake was Instagram engagement, interaction and following. The comics provided Black Medicine with a way of staying in touch with their regular patrons and reaching other prospective customers through the broader techniques of algorithmically mediated attention capital. As noted by Dougal McBride – the owner of Black Medicine – in our interview, the traction these goblin comic posts achieved was integral to their doubling their Instagram following during this time, as well as key to the overwhelming amount of foot traffic they attracted to their physical premise when they finally resumed trading. Indeed this growth in foot traffic created the conditions in which they sometimes had to close early due to running out of their normal provisions. Following this new-found digitally-prompted attention and foot traffic, they also made a push to hire more baristas (a rarity in much of the service and hospitality industry during this time) and their pastry chef was instructed to produce larger batches of baked goods in order to accommodate this popularity and resulting demand.

Significantly, these illustrative comics also moved on, off and between digital and material premises, helping to direct these increased flows of foot traffic around and within their venue. When Black Medicine began trading again customers were initially permitted to move through their venue in a one-way coordinated system. Later, in the second lockdown, access was restricted again and a serving at the door model was introduced. As these changes were rolled out, their artist was enrolled again to communicate them. Cardboard and laminated paper signs were produced and these in turn were reworked and posted on Instagram. This use of bespoke comics, accompanied at times with photographs of the venue, turned their Instagram profile into a constantly updated 'how to' guide; a place where customers could *'affectivly* prime' (Bissell, 2011) themselves on how to navigate reordered public and private, outdoor and indoor space.

Figure 8 Black Medicine adaptations
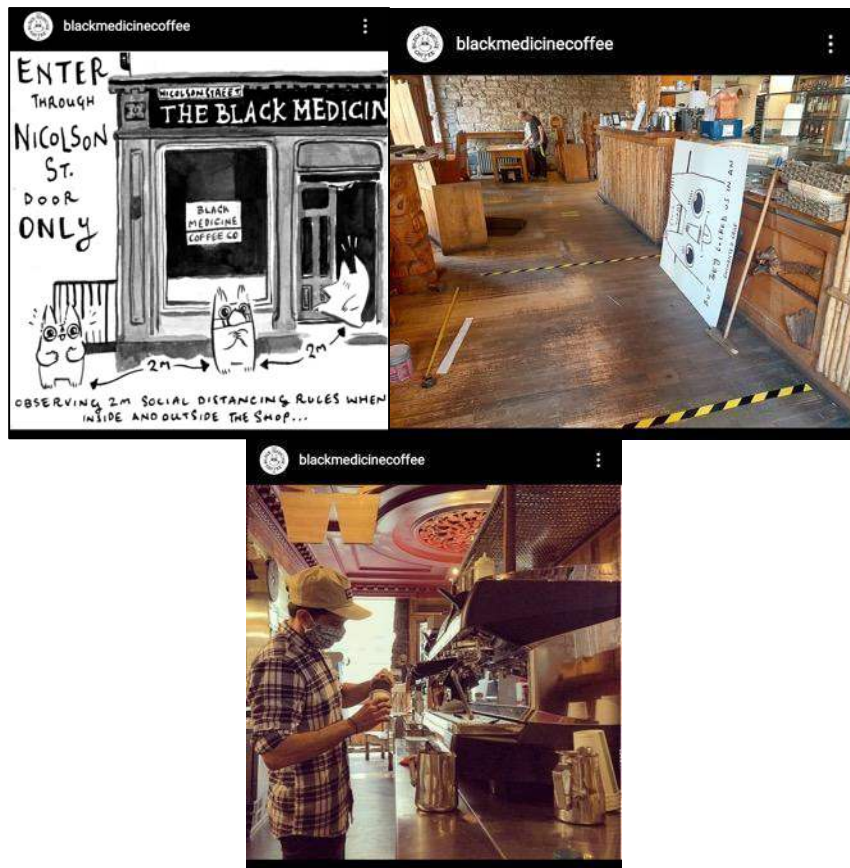
Black Medicine's translation of adaptations between material and digital premises was a popular technique. In the late spring and early summer of 2020, as restrictions began to loosen, many local businesses still elected not to allow customers into their venues and converted their entire premises to a 'backstage'. Orders were taken and served at doors repurposed as barriers using upturned tables, chairs, tape, and street furniture.

     This style of service delivery continued through to the second lockdown in late 2020. During this period, as it became clear that social distancing requirements were likely to persist, several independent retailers, notably in mid-market segments, turned to Splintr, a specialist local shopfitter, to design custom-made and branded service hatches, which were themselves branded as 'safe servers' (Figure 9).

Figure 9 Splintr's Safe Servers, June 2020
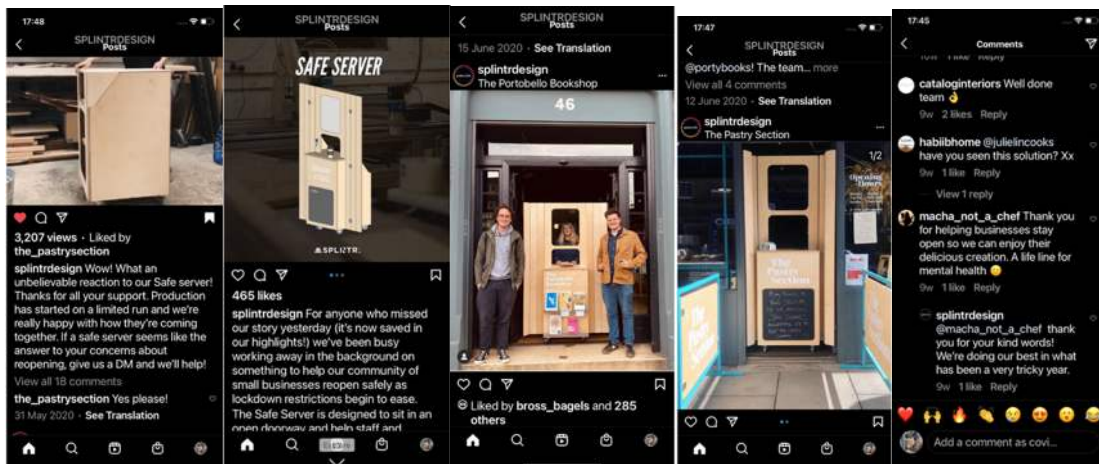
As the Safe Server was completed and installed in venues across Edinburgh it was accompanied by a series of Instagram posts, describing the stages of design and build, and later showcasing the versions commissioned by individual retailers. The initial Instagram 'story' showing the completed design generated well over 3000 views, hundreds of likes and numerous comments. These posts are notable for a few reasons. First, they too feature translations between on and offline locations, with photographs of street installations, design drawings, tools and raw materials in the workshop. Second, the posts are full of cross tags and mentions, which amplify further the online and offline lives of the Safe Servers.

Splintr also showcases their client's branded Safe Servers and clients crosstag with more posts showing the hatches in position. In one case, the Pastry Section, an upmarket pastry shop in the affluent Stockbridge area of the city, chalked up its integrated blackboard with the message 'many thanks to Splintr for our amazing safe server allowing us to keep the cakes coming'. The solidaristic tone of this message is reflected in numerous comments referring to community, safety and creativity describing the collective effort to allow shops to keep trading as a 'lifeline to mental health'. The type of 'buzz' generated by adaptations like the safe server is hard to characterise accurately. It operates in a 'digital affective' register where content is created, posted and managed technically to orchestrate market attachment in ways that are transforming relations

between online and offline, digital and material spaces that market studies scholarship is only beginning to explore.

Concluding Reflections

> What is aura actually? A strange weave of space and time: the unique appearance or semblance of distance, no matter how close the object may be. (Benjamin, 1985)

We began this project with an inkling that arose from the spatial disorientation of the first weeks and months of the pandemic. Quite literally it was clear to no-one where you could or should put your feet and hands in public space. Retail situations became a fraught encounter overnight and those in a position to, transferred much of their shopping activity online. This mood of disorientation prompted our initial questions about the unnoticed work done by the spatial architecture of retailing. To document these changes, we used ragpicker-like methods to assemble photographs, posts, notes and screenshots. As the project went on, we started to see in Benjamin's Arcades Project, not only a parallel method, but an approach to conceptual questions that remain unsettled and under-researched in market studies – notably how markets and space come together to devise action. To that end we made three broad propositions. First, arcades, like all market spaces, should be treated as devices *avant-lettre* because they are equipped to enable or perform economic action. Second, we argued that this work always demands both material/technical equipment and sentimental/affective arrangements, but the latter has had less empirical attention than the former. Finally, we considered how the pandemic's accelerated disruption of the distribution of activity across physical and digital retail premises opens up new perspectives on how markets and space interact.

The pandemic offered a provocation, not just because the usual routines broke, but because the space and time of action/work was continually being reconfigured. As people worked and shopped from home, retailers redistributed their online and offline spaces, changing who did what and where. Hospitality providers experimenting with their modes of service

demonstrated a fluidity of boundaries between online and offline retail space that we struggled to find a vocabulary to describe. These strange 'reweavings' of space and time were attempts to keep businesses going and, simultaneously, worked examples of the struggle for attachment in markets.

The particular struggle we focused on centred on the challenge of re-creating service atmosphere for locked-out customers. We drew inspiration from Benjamin's evocation of arcade atmosphere and from Anderson's approach to atmosphere as 'spatially discharged affective qualities' (2009, 80). We drew on 'atmosphere' and 'affect/emotion' not in spite, but because of the ambiguities inherent within them. These ambiguities and inaccessibilities are core to market encounters, but they have been sidestepped in market studies and specifically in the market devices literature. What it takes, finally, to secure attachment defined as 'the willingness to pay' (Callon 2021) does not lend itself to the kind of accounting characteristic of a field grounded in pragmatist, science and technology studies (STS) traditions. While concepts such as qualculation, attachment and even 'devices' reach for or accommodate this private terrain conceptually, its inaccessibility has been a barrier to sustained empirical research. Stumbling across the relationship between space, atmosphere, movement and action in pandemically improvised retail settings however led us to consider the new perspectives on the devising of action inherent within market studies' spatial turn.

Considering spatiality and affect together helped make sense of the work it took to realise a new market of *safe* exchange. In reconfiguring their use of material and digital space, specifically through the creation of 'digital affective premises,' our interlocuters were active participants in what Holmes et al. describe as 'spatio-market practices' (2021, 332). The particular instance of the 'digital-affective' we focused on was the use of Instagram as a digital extension of physical premises, one that was designed to transmit a sense of the atmosphere, feel, comfort, familiarity and community when trading in the shop itself was judged unsafe. As a social-locative platform – and an increasingly significant market infrastructure – Instagram is intimately entangled within

the provision of local services and the performance, coordination, and management of retail

work and is an active resource in the production of the kind of atmospheres we label digital-

affective.

REFERENCES

Anderson B (2009) Affective atmospheres. *Emotion, Space and Society* 2(2): p.77–81.

Bassett K (2022) *(Digitally Entangled) Touristic Placemaking: Locative Media, Algorithmic Navigation and Affective Orderings*, PhD Thesis, University of Edinburgh

Berndt C and Boeckler M (2012). Geographies of marketization. The Wiley-Blackwell companion to economic geography, 199-212.

Benjamin W (1985a) Filling Station. In *One Way Street and Other Writings*, London, Verso

Benjamin W (1985b) This Space for Rent. In *One Way Street and Other Writings*, London, Verso

Benjamin W (1985) On the Mimetic Faculty. In *One Way Street and Other Writings*, London, Verso

Benjamin W (1999) The Arcades Project. Belknap Press [trans. Eliand, H. and McLaughlin, K.] Cambridge, Mass. and London, England

Benjamin W and Jennings MW (2010) "The Work of Art in the Age of Its Technological Reproducibility [First Version]," *Grey Room* 39: p.11–37.

Bissell D (2012). Mobile testimony in the information age: The powers of travel reviews. International Journal of Cultural Studies, 15(2), 149–164. https://doi.org/10.1177/1367877911416885

Boy JD and Uitermark J (2017) "Reassembling the city through Instagram," *Transactions of the Institute of British Geographers* 42(4): p.612–624.

Bronsvoort I and Uitermark JL (2021)"Seeing the street through Instagram. Digital platforms and the amplification of gentrification," *Urban Studies*: p.004209802110465.

Castigliano F (2022) 'Flaneuring the buyosphere: A comparative historical analysis of shopping environments and phantasmagorias', Journal of Consumer Culture. doi: 10.1177/14695405221111454.

Calıskan K and Callon M (2009). Economization, part 1: shifting attention from the economy towards processes of economization *Economy and Society*, **38**, 3, 369-398.

Calıskan K and Callon M (2010). Economization, part 2: a research programme for the study of markets. *Economy and Society*, **39**, 1, 1-32. doi:10.1080/03085140903424519.

Callon M (2021) *Markets in the Making: Rethinking Competition, Goods, and Innovation.* Poon, M. (Ed.) Zone Books.

Callon M (2010) Performativity, Misfires and Politics. *Journal of Cultural Economy* 3(2): 163–169. DOI: 10.1080/17530350.2010.494119.

Callon M (2007) 'What does it mean to say that economics is performative?' In Do Economists make Markets?, [eds] D. Mackenzie, F. Muniesa & L. Sui, Princeton University Press, Princeton, 311-357

Callon M (1998) Introduction: The Embeddedness of Economic Markets in Economics. In Callon (Ed.), *The Laws of the Markets.* Oxford: Blackwell.

Callon M, Muniesa F and Millo Y [eds.] (2007) *Market Devices*, Blackwell

Cochoy, F (2008) Calculation, qualculation, calqulation: shopping cart arithmetic, equipped cognition and the clustered consumer, *Marketing Theory* 8(1): p.15–44.

Cochoy F, Deville J and McFall L (2017) *Markets and the art of attachment.* Abingdon: Routledge.

Cochoy F, Giraudeau M and McFall L (2010) "Performativity, Economics and Politics," *Journal of Cultural Economy* 3(2): p.139–146.

Contois EJH and Kish Z (2022) *Food Instagram: Identity, Influence, and Negotiation*, University of Illinois Press

Denis J and Pontille D (2010) Placing subway signs: practical properties of signs at work, *Visual Communication* 9(4): p.441–462.

Entwistle J and Slater D (2014) "Reassembling the Cultural," *Journal of Cultural Economy* 7(2):161–177.

Grandclement C (2004) Climatiser le marché. Les contributions des marketings de l'ambiance et de

l'atmosphère, *ethnographiques.org*, 6 - novembre
https://www.ethnographiques.org/2004/Grandclement - consulté le 10.08.2023

Gregory K (2021) "'My Life Is More Valuable Than This': Understanding Risk among On-Demand Food Couriers in Edinburgh," *Work, Employment and Society* 35(2): p.316–331.

Hennion A (2017) Attachments, you say? … How a concept collectively emerges in one research group, *Journal of Cultural Economy* 10(1): p.112–121.

Holmes T, Fernandes J and Palo T (2021). 'Spatio-market practices': conceptualising the always spatial dimensions of market making practices. AMS Review, 1-20.

Independent Thinking (2020) A new era for the high street: helping others to build their brands and the role of popup spaces on our high streets
https://open.spotify.com/episode/7zAuL238tguaOmzC25xB4O?si=15xpAnH2Ti-WRi2oOGAUeQ

Kaplan F Linguistic Capitalism and Algorithmic Mediation *Representations,* 127 (1): 57-63

Kefford A (2022) *The Life and Death of the Shopping City*, Cambridge University Press

Kjellberg H, Hagberg J and Cochoy F (2019) "Enacting a Digital Market Infrastructure in the US Grocery Retail Sector, 1967–2010". In *Thinking Infrastructures: Research in the Sociology of Organizations*, edited by M. Kornberger, G. Bowker, N. Pollock, P. Miller, A. Mennicken, J. Randa Nucho & J. Elyachar, 207–232. Bingley: Emerald Publishing.

Kornberger M, Pflueger D and Mouritsen J (2017) "Evaluative infrastructures: Accounting for platform organization". *Accounting, Organizations and Society* 60: 79–95.

Langley P and Leyshon A 2016. "Platform capitalism: the intermediation and capitalisation of digital economic circulation." *Finance and Society* 3 (1): 11–31

Larkin B (2013) The Politics and Poetics of Infrastructure, *Annual Review of Anthropology,* 42: 327-343

Mahmoud AB, Ball J, Rubin D, Fuxman L, Mohr I, Hack-Polay D, Grigoriou N and Wakibi A (2021) "Pandemic pains to Instagram gains! COVID-19 perceptions effects on behaviours towards fashion brands on Instagram in Sub-Saharan Africa: Tech-native vs non-native generations," *Journal of Marketing Communications:* p.1–25.

Marroncelli R and Braithwaite N (2020) "#insta-fashion: How the Digital Revolution Has Affected Celebrity Culture and the British Fashion Retail Landscape," Fashion Practice 14(1): p.1–27.

McFall L (2014) *Devising Consumption: cultural economies of insurance, credit and spending.* Routledge

McMahon L (2020) I would have laughed in their faces: How Covid led Edinburgh chef Roberta Hall-McCarron to start a food truck, *The Scotsman*, 7 December

Mellet K and Beauvisage T (2020) Cookie Monsters. Anatomy of a Digital Market Infrastructure. *Consumption Markets & Culture*, 23 (2), 110–129.

Mende M and Noble SM (2019) Retail apocalypse or golden opportunity for retail frontline management? *Journal of Retailing* 95(2): 84–89.

Muniesa F, Millo Y & Callon M (2007). An Introduction to Market Devices, in Callon et al. [eds.]

Muniesa F (2014) *The Provoked Economy: economic reality and the performative turn.* Routledge

Ranganathan M and Bonds A (2022) "Racial regimes of property: Introduction to the special issue," *Environment and Planning D: Society and Space* 40(2): p.197–207.

Shin J and Ognyanova K (2022) Social Media Metrics in the Digital Marketplace of Attention: Does Journalistic Capital Matter for Social Media Capital?, *Digital Journalism*, 10:4, 579-598, DOI: 10.1080/21670811.2022.2031242

Slaby J and Von Scheve C (2019). 'Affective Arrangements' In *Affective Societies* (pp. 109-118). Routledge.

Stark L and Crawford K (2015) 'The Conservatism of Emoji: Work, Affect, and Communication', *Social Media + Society*, July-December, pp. 1-11.

Stewart E, Nonhebel A, Möller C and Bassett, K (2022). Doing 'our bit': Solidarity, inequality, and COVID-19 crowdfunding for the UK National Health Service. Social Science & Medicine, 308, 115214.

Treadgold A and Reynolds J (2020) Navigating the New Retail Landscape. Oxford: Oxford University Press

Warde A, Paddock J and Whillans J (2020) *The Social Significance of Dining Out : A Study of Continuity and Change*, Manchester University Press, Manchester. Available from: ProQuest Ebook Central. [24 June 2022].

Wetherell S (2020) *Foundations: How the Built Environment made Twentieth Century Britain*, Princeton University Press

Wrigley N and Dolega L (2011) 'Resilience, Fragility, and Adaptation: New Evidence on the Performance of UK High Streets during Global Economic Crisis and its Policy Implications', Environment and Planning A: Economy and Space, 43(10), pp. 2337–2363.

Zukin S 2020 "Planetary Silicon Valley: Deconstructing New York's innovation complex," *Urban Studies* 58(1): p.3–35.

Zukin S (1989) *Loft Living,* Rutgers University Press, New York

Zukin S, Lindeman S and Hurson L (2017) "The omnivore's neighborhood? Online restaurant reviews, race, and gentrification," *Journal of Consumer Culture* 17(3): p.459–479.