Introduction

Making it Personal

Hints that a user’s web experience might now be “personalized” exist in innumerable traces all over the web. The preceding quotes from Microsoft, Facebook, and Google highlight that dominant web platforms are increasingly embracing what Fan and Poole call the “intuitive but also slippery” practice of personalization (2006, 183):
process of delivering apparently individually tailored online content and services to users, based on their habits, preferences, and identity markers. Like countless other “cookie notices” across the internet, Microsoft’s notification mobilizes the term to explain why users’ data are tracked and managed across its platforms (MSN, 2018; Microsoft, 2018; Live, 2017). Facebook’s Newsroom Blog reinforces the platform’s long-standing aim to provide a “personalized experience” for each of the site’s two billion active monthly users. Invoking the sentiment that “Personalized Search” can only be convenient for its users, in 2009 the Google Blog stated that Google Search would provide personalized search results to all users, even to those who were signed out of their Google account. Since then, Google and its parent company Alphabet have increasingly incorporated personalization into their other services: Google Maps, Google’s mobile app, and YouTube all provide extensive forms of personally recommended content as well as individually tailored information, location, product, and entertainment suggestions. Though only implied in the preceding quotes, the information collected in order to “personalize” web user engagements is of course also used to target those same users for monetization purposes (Bassett, 2008; Jordan, 2015; Jarrett, 2014; Cheney-Lippold, 2017).

Beyond their references to personalization, the previously quoted sentiments of Microsoft, Google, and Facebook share three similarities worth highlighting. First, they treat personalization as “intuitive”—it does not need to be explained or justified, but is instead presented as a practice that simply exists, apparently for the indisputable advantage of the user. Second, they exemplify that personalization is indeed “slippery”—it can be mobilized in various contexts and can be used in ways that do not necessarily reveal the specificities of what is being personalized (simply “content,” “experiences,” or “search”), or how or when. Third, they highlight that in the context of the contemporary web, the user does not enact personalization—it is implemented and controlled by the system, platform, or service. You do not personalize your web experience, your news feeds, your playlists, or your product recommendations. Rather, with the help of a multitude of personal data collected by platforms as you go about your day, your needs and interests can be algorithmically inferred and
your experience “conveniently”—and computationally—personalized on your behalf.

It is the “slippery” but certainly not “intuitive” presence of personalization in my own web experiences that provides the foundational motivations for this book. When I first embarked on this research in 2013, evidence that some components of my web experience were being “personalized” took the form of web advertisements for recommended products I had recently browsed on retailers’ web sites. At the time, these ads seemed crude, invasive, and usually entirely ineffective. Sometimes I would be served advertisements for products that I had literally just bought, rendering targeting me based on my previous browsing habits so precise as to be absurdly pointless. At other times, the knowledge (produced by the ad’s very existence) that the advertisement could only be generated by algorithmically “watching” me triggered a feeling of privacy invasion that worked to overshadow any relevance the ad might have to my personal preferences. The enduring presence of these tailored advertisements, delivered across platforms and in a variety of different formats, serves as a reminder that the personalizing of my daily web trajectory inherently involves relinquishing some form of personal data in exchange for the free content and services I access and enjoy on a daily basis.

The delivery of targeted advertisements continues to persist, yet is now accompanied by other personalization practices that seemingly transcend but, as I will argue, never fully depart from targeted marketing. It is no longer only clearly bounded “recommended ads” that are personalized, but also content, services, interfaces, and indeed simply “experience” itself. “Personalization” is frequently cited as the reason for the collection of user data on some of the world’s most visited sites. For example, on their privacy policy, owners of AOL and Yahoo Verizon Media state that they use the data they collect “to provide you with personalized experiences and advertising across the devices you use” (Oath, 2019). Elsewhere on the web, entertainment web site BuzzFeed states that they allow third parties to place cookies on their sites “to serve ads to you and to target you with tailored (or personalized) ads” (BuzzFeed, 2018). Online music player Spotify’s Privacy Policy explains that “we need to understand your
listening habits” through data collection “so we can deliver an exceptional and personalized service specifically for you” (Spotify, 2018). The term is used to validate the tracking of users in hundreds, if not thousands, of user-facing cookie notices, including the Microsoft notices cited earlier, but also on sites such as eBay, BBC, The Washington Post, Huffpost, Twitter, The Financial Times, Instagram, Imgur, and innumerable others. In fact, on the contemporary web, personalization seems both undefined and just “there”: in their Privacy Policies, eight out of the ten most popular global web sites cite the “personalization” or “customizing” of users’ experience as one of the primary reasons for harvesting users’ personal data. Though “personalizing” and “customizing” are distinct terms, on these sites they are used to mean the same thing—to “know” a user’s individual tastes, preferences, identity components, habits, or desires in order to deliver some content, interface, or service that is deemed to be individually suited to that user.

The concept that our web experience can and should be personalized is similarly reflected in marketing of the “intelligent personal assistants” (Myers et al., 2007) increasingly finding a place in homes and on mobile phones. Google’s Assistant, Apple’s Siri, and Amazon’s Echo claim to be able to computationally manage the demands and routines of daily life by delivering customized content feeds and recommendations in the form of news bulletins, task scheduling, traffic updates, geolocative weather information, product notifications, or recommended playlists. The “personal” touch of these digital assistants is enacted by algorithmic mechanisms and is framed as technology that can preempt users’ informational needs, what texts they would like to watch, listen to, or consume, and what products most suit their preferences. As well as algorithmically anticipating a user’s desires, the development of voice-recognition means that users can now command these assistants: for example, Alexa users can instruct the device to play the song of their choice, or indeed do their homework for them (TwitterClips, 2018). As I will explore in this book, these personal assistants paradoxically promise to make the best choices for us, while simultaneously offering to action the choices we make, thus leading to the everyday yet complex entanglement of human and non-human agency
that I argue throws the sovereignty of selfhood into question. Of course, like the web services cited earlier, the makers of these personal assistants reserve the right to collect user data as a means of personalization—and monetization.

As the number of personalization technologies grows, so too has the data-tracking practices used to infer users’ everyday habits and sociocultural economic practices. Contemporary data-tracking strategies include harvesting users’ browsing histories, Facebook “likes,” purchase histories, search histories, geolocation, app interactions, the photos they upload, their mobile and other audibly detectible conversations, the comments they write, their home appliance use, their cross-device activity and IP (internet protocol) addresses, the content of their texts and emails, their commute to work, their “friend” connections, their “moods,” their song downloads, their credit history, their movie/TV viewing choices, and their gaming high-scores, among a host of other traceable everyday actions. Contemporary data-collection devices include Amazon’s Echo Look, which takes photos of its users so that “algorithms curate your closet for you, organizing your looks by season, weather, occasion and more” (Amazon, 2018), and Facebook’s Messenger app, which according to its Terms of Service can “record audio with the microphone at any time and without your confirmation” (Facebook Messenger App, cited in Watson, 2013, my emphasis). The wording of such claims omits the specifics of exactly how and when these data will be used (indeed if at all). However, it is implied that upon being collected, these snippets of everyday life are collated and connected to other user data sets in order to construct and manage behavioral profiles, user demographics, and other configurations of user identity.

Taken together, the preceding data-collection mechanisms are deployed as part of a now common socioeconomic exchange imposed by platform providers and accepted by web users. Users are routinely expected to submit to the tracking of their everyday habits and movements in exchange for free, convenient, and personalized services. Though framed as a kind of additional benefit by the platforms that implement it, personalization is not primarily the “goodwill” gesture it might first appear: instead, the
user data relinquished as part of the exchange are the driving economic resource of the contemporary free-to-use web. As a market model, this data-for-services exchange seems to be functioning very successfully: in the first quarter of 2018, the world’s biggest data tracker, Facebook, made $11.97 billion in revenue (Protalinski, 2018), in large part generated via personalization systems that deliver “micro-targeted advertising” to its users. The tracking of users is a widely accepted form of monetization that is legitimized through discourses that imply that personalization results in a “better” web infrastructure for both user and platform. As I will emphasize throughout this book, it is not an overstatement to propose that the drive to personalize web user experience underpins the online economy as we know it.

Profit generation from personalization exists in spite of the privacy scandal that engulfed Facebook in 2018, which uncovered the (mis)use of Facebook user data by analytics company Cambridge Analytica to build “a system that could target US voters with personalised political advertisements” based on extensive behavioral and demographic profiles (Greenfield, 2018). The profiling and targeting undertaken by Cambridge Analytica transpired to be widespread, with the company claiming to work on campaigns not only in the United States but in the United Kingdom, Cyprus, Nigeria, India, Italy, and over twenty-five other countries (Ghoshal, 2018), sparking debates that personalized political advertising could unduly influence elections and in doing so undermine democracy itself. The scandal threatened to devalue Facebook’s share prices, as well as trigger much stricter data-tracking regulations both on and off Facebook (though such threats have as yet had little long-term impact for the platform’s popularity). Beyond Facebook, in the same year, the EU General Data Protect Regulation (GDPR) legislation replaced the 1998 Data Protection Act: a move intended to update privacy regulations and give EU citizens more security over how their personal data are used. Though a legal necessity only for EU web sites, the GDPR has had a wider global effect: for streamlining purposes, many non-EU platform providers have complied with EU requirements. From these privacy directives to Facebook’s CEO Mark Zuckerberg’s recent testimony in US congressional
hearings, data tracking has come to underpin the popular web as a kind of necessary evil: condemned as privacy-invading and a potential threat to democracy, yet increasingly legitimized as making possible the apparently essential personalization of marketing, content, and services upon which platforms rely. It is the enduring and widespread implementation of personalization as a market practice that provides one of the many motivations for this book.

It is not only commercial dominance of data-driven personalization that has sparked my investigations: it is platforms’ attempts to “know,” anticipate, and, as I will explore, act on the person implied in the term “personalization.” As scholars such as Gillespie (2014) and Bucher (2016) note, though academic scholarship has shown interest in the commercial tracking and anticipation of web users through largely theoretical and quantitative approaches, there has been less research to qualitatively focus on how web users themselves engage with and negotiate the algorithms that seek to “know” them through data. As Bucher states:

While media and communication scholars have started to take notice of algorithms . . . little is yet known about the ways in which users know and perceive that algorithms are part of their “media life.” (2016, 31)

Cohn has relatedly argued that theoretical critiques of algorithms in social life tend to “be overly dystopian or utopian in tone” (2019, 10) in ways that pay little attention to the nuances that go into encountering personalization as part of everyday engagement. It seems then that, as Gillespie puts it, “it is easy to theorize, but substantially more difficult to document, how users may shift their worldviews to accommodate the underlying logics and implicit presumptions of the algorithms they use regularly” (2014, 187).

This proposed disconnect brings me to this book’s primary aim: to bridge the gap between “theory” and “documentation” in regard to how algorithmic personalization intersects with users’ notions of identity, autonomy, and everyday life. To do this, the book employs a mixed
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methodology of qualitative investigation, political economy, and critical and historical analysis to understand how personalization has come to dominate the digital landscape, as well as asking users themselves how they experience platforms’ attempts to track their personal preferences, anticipate their actions, and personalize their experience accordingly. In combining these methodological approaches, it becomes possible to recognize algorithmic personalization not only as an everyday, situated encounter, but also as a macrocosmic “force relation” (Bucher, 2016) that plays a pivotal role in twenty-first-century capitalist web economies. As the individual testimonies featured in the book highlight, when approached from the perspective of web users themselves, data tracking in the name of personalization occupies a routine yet tense place in many web users’ everyday experiences. Described by those who encounter it as ubiquitous, convenient, infuriating, unexceptional, persistent, unnerving, and opaque, personalization appears to be an inescapable fixture of the digital landscape, whether welcomed, resisted, or negotiated as somewhere in between.

BEYOND PRIVACY: ALGORITHMIC ANTICIPATION

For many years scholarly debates on the collection of web user data have largely coalesced around issues of privacy—defending it on the grounds of human rights (Lyon, 2014; McStay 2017), relinquishing it in order to use web services (Bassett, 2013; Jordan, 2015; Turow et al., 2015; Peacock, 2014), or indeed questioning the very possibility of it in the context of tracking practices so complex, vague, and opaque as to be in some ways always unknowable (Brunton and Nissenbaum, 2015; Mai, 2016). Since Edward Snowden revealed in 2013 that commercial platforms such as Google and Facebook have been aiding the state “dataveillance” of millions of web users in the United States and the United Kingdom (BBC, 2016; Guardian, 2013; Lyon, 2014; Seeman, 2015), popular and academic debates surrounding online privacy have proliferated. Such privacy debates gained further traction in 2018 following the fallout of the aforementioned Cambridge Analytica scandal, with concerns about privacy framed as data
“misuse” by data researchers, as compared to the apparently “appropriate” use of these data for commercial personalization. Despite increased public scrutiny, however, there is evidence that user action in resisting data tracking remains muted—increasingly, users are aware that they are being targeted, and though many users feel uncomfortable being tracked (Ofcom, 2019), they are resigned to the fact that if they want access to the services they use on a daily basis, then they must sacrifice their data to do so (Turow et al., 2015).

These privacy concerns inform elements of this book, and they certainly highlight the wide-reaching political implications that emerge from the daily surveillance of web users. However, in recent years there has been an increasing critical insistence that “privacy is not the only politically relevant concern” (Gillespie, 2014, 173) when it comes to data tracking. This is because data tracking does not exist, in and of itself, simply to surveil or track users, but to anticipate them (Gillespie, 2014; Cheney-Lippold, 2017; Hearn, 2017), to “know” some facet(s) of a user’s identity in order to make “personally” relevant some component of experience on their behalf. Crucially, this process of commercial anticipation is executed not with the central aim of “watching” the individual user, but instead to act on, with, or against their experience of the web.

Take, for example, Facebook’s data-tracking practices. According to Facebook’s user-facing page “Your ad preferences” (Facebook, 2018), Facebook has categorized my online behavior into a dizzyingly extensive list of around 390 “interests,” which include categories like “Feminism,” “Dogs,” “Media Studies,” “Digital Technologies,” “Orange Is the New Black,” and “University of Sussex.” These listed categories do indeed reflect some of my sociocultural, political, and economic interests: others do not (“Quilt,” “Whitewater”), some are almost laughably specific or existentially vague (“Clydesdale Horse,” “Failure”), and others still remain a mystery as to which of my preferences they signify (“Hour,” “Emotion,” “Boy,” “Sequence,” and “Li Ke”). All of these categories exist despite the fact that I have actively resisted explicitly inputting any categories of interest on Facebook: these “preferences” have instead been inferred from my daily trajectory on Facebook and on the web more generally. The inferred
categories are used to anticipate the kind of advertising and other content that I might find “relevant,” and my News Feed is filtered and adjusted accordingly (Facebook Help Center, 2018). Then, through a process of recursion (Jordan, 2015), this algorithmically adjusted News Feed informs the kind of interests that Facebook might infer from my activity henceforth—the cycle both changes and continues ceaselessly.

Though the name “Your ad preferences” suggests that these categories of interest only affect the advertisements I see, in actuality these “advertisements” usually take the form of “sponsored posts,” which are not formatted as ads, but rather are integrated into Facebook’s News Feed as news and entertainment content. This blurring of advertising and “organic” content (Hardy, 2015) highlights that though personalization processes often revolve around targeted advertising, its effects extend far beyond marketing. Most importantly, this cycle of inferring my interests and amending my News Feed highlights that the very purpose of collecting data about my daily trajectories is to act accordingly on my experiences—to algorithmically make decisions for me, to filter, reorder, or display content or information in such a way as to be personally “relevant.”

It is through examples such as “Your ad preferences” that the role of algorithms in the online personalization process becomes explicit, and it is the power afforded to algorithms to determine what is “personal” on behalf of the user that makes this form of personalization distinct from other forms of personalized production. After all, practically anything can be individually customized—products, gifts, clothes, shoes, and furnishings can be tailored to suit personal preferences (Getting Personal, 2017; Prezzy Box, 2017; Your Design, 2017); health care (Roche, 2017), social care (NHS, 2017), and educational packages (Personalizing Education, 2017) can be personalized to appeal to specific people. It is, however, algorithmic personalization that takes the focus of this book—the computational tracking and anticipation of users’ preferences, movements, and identity categorizations in order to algorithmically intervene in users’ daily experiences. By specifying this form of personalization as “algorithmic,” I do not mean to suggest that algorithms somehow exist beyond the human; as scholars such as Finn (2017), Law (1991), and (Oudshoorn et al.,
2004) argue, computational systems are always in some way informed by and situated in very “human” aspects of design, culture, and sociality. Yet, as I will explore in this book, it is algorithms’ power to intervene in everyday action—indeed from the direct decision-making processes of marketers, platform providers, designers, or users—that imbues them with material and productive power as non-human actors (Latour, 2005).

Though many so-called adaptive algorithms—algorithms that have the capacity to independently intervene in decision chains, such as those used in global stock market calculations—have autonomous and agential powers, the accounts of the web users interviewed for this book highlight that commercial personalization algorithms have particular resonance as decision-makers in everyday web experience. This is due to not only their ubiquity, but also, as I will detail, the epistemic uncertainties and struggles for autonomy that they create for the users who encounter personalization. Differently put, who decides what is “made personal,” how this is decided, and the ways in which these decisions reshape the parameters of engagement have a multitude of implications for the people who encounter personalization—both “online” and “offline.” In fact, the ubiquity of networked technologies, combined with the increasing integration of data-mining systems in devices from mobile phones to cars to toasters and even tampons (Hern and Mahdawi, 2018) mean that it is difficult and indeed unproductive to differentiate between everyday “online” and “offline” interactions in late capitalist digital cultures. I therefore join scholars such as Berry (2014) and Sauter (2013) in asserting that the “online/offline” dichotomy is becoming increasingly unhelpful. The contemporary drive to personalize web user experiences is extending rapidly beyond solely online information, and as such this book is based on the premise that algorithmic personalization may be implemented through networked technologies, but is better considered as part of users’ “media life” (Deuze, 2011).

By assigning web users the role of “data providers” (Van Dijck, 2009, 47) while algorithmic protocols are assigned as the gatekeepers for deciding personal relevancy, algorithmic personalization creates tense relations between user and computational system that other forms of personalization
do not. The accounts contained in this book suggest that it is not only privacy invasion that explains the discomfort some web users feel when confronted with, for instance, a personalized advertisement that follows them around the web. Rather, it is the fact that an algorithm has been afforded the autonomous power to reorder and repurpose users’ web experiences in the users’ stead. As I will argue, by intervening in and reshaping users’ everyday experiences, algorithmic personalization imbues the system with the power to co-constitute users’ experience, identity, and selfhood in a performative sense (Butler, 1988, 1990, 1993). Chapter 3 will detail the performative possibilities of algorithms in the everyday—possibilities which, I argue, open up critical considerations concerning the “entangled state of agencies” of user and system (Barad, 2007, 23). This “symbiotic agency” (Neff and Nagy, 2016) opens up new avenues for investigation in understanding the self: as algorithmically informed but user performed, as preexisting the algorithm but also brought into existence by it, and as governed but autonomous.

In recent years an increasing variety of literature has identified the socio-cultural implications of web personalization. Most prominently, Pariser (2011) has argued that because web personalization relies on mining users’ preexisting browsing and search histories to determine what users see next, personalization reductively reaffirms our existing worldviews, causing “filter bubbles” of consumption. By algorithmically implementing users’ future web experiences on their past preferences, Pariser argues that filter bubbles create “you-loops” in identity that only ever reinforce rather than challenge or diversify users’ existing sociocultural beliefs. Since the publication of Pariser’s work in 2011, filter bubble theory has been further refined, theorized, and debated, and a plethora of research has emerged that has sought to find evidence of the filter bubble at work. For instance, Hosanagar et al. propose in their study of iTunes that “[p]ersonalization appears to be a tool for helping users widen their interests, which in turn creates commonality with others” (2013, 1). Skrubbeltrang et al. (2017) analyze user perspectives of personalization on Instagram, finding that user-led counter-narratives resist the assumption that algorithmic personalization is beneficial to users. Koutra et al’s (2014) study regarding
algorithmically filtered news consumption supports Pariser’s arguments, concluding that “people use the web to largely access agreeable information” that ultimately provides a “myopic view” (2014, 8). The contrasting outcomes of these studies suggest that algorithmic personalization creates different outcomes for users depending on the context. They also highlight the importance of context-specific research in understanding the nuances of theory when applied to everyday web engagement.

The filter bubble is perhaps to date the most widely interrogated theory connected to personalization, leading to guidance and software designed to help users combat its proposed reductive effects (MIT, 2013; Ponsot, 2017). However, the computational anticipation of users’ needs, preferences, and desires has also triggered debates regarding the socio-cultural implications of personalization not for users’ worldviews, but for their own identities. Cohn (2019), for example, offers a detailed and comprehensive analysis of contemporary recommendations systems that, as I explore in Chapter 2, constitute one of the key forms of algorithmic personalization that web users most commonly encounter. Cohn argues that the automated, seemingly individualized recommendations offered by platforms such as Google, Facebook, and Netflix work to “shape the contemporary self” (2019, 51) by encouraging and indeed coercing users to “choose” content that is easily monetizable and standardizing, and that reinforces existing dominant frameworks of inequality and neoliberalism. He argues that

[r]ecommendation systems privilege the “free choice” of users as a synecdoche of their unique individuality, self-worth and authenticity, while, in fact, always guiding the user towards certain choices over others in order to encourage them to better fit with those the system recognizes as being like them. (2019, 7)

For Cohn, personalized recommendation systems thus have the potential to reduce and reconfigure the self in ways that suit the logic of neoliberal capitalism. I stress potential here, however, because for Cohn, the ideological controls imposed by recommendations are never total. He argues
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instead that users find ways to “critique, ignore, laugh at, negotiate with, and otherwise respond to recommendations” (2019, 8) in ways that suggest user resistance and subversion to algorithmic recommendation as a mode of sociocultural governance.

In his work on data profiling, Cheney-Lippold argues that data trackers’ attempts to profile users into “emergent categories” such as “high cost” or “celebrity” (2017, 4), or “terrorist,” “male,” or “female,” as well as other niche categories, work to produce the self purely in and through computational mechanisms. For Cheney-Lippold, the shifting, modulatory, and performative productions of algorithmic classification mean that our identities are not simply reflected in data—instead, increasingly “we are data” (2017, my emphasis). Hearn proposes that ubiquitous data tracking has replaced late twentieth-century notions of the neoliberal, self-promoting individual, instead giving rise to the “anticipatory, speculative self” (2017, 74) that is in some ways more fluid than the neoliberal self and yet forever in need of “verification” by big data processors such as Twitter. Bucher has argued that users are becoming increasingly familiar with living through and in algorithmic infrastructures, creating norms in our everyday “media life” wherein we may have come to “see and identify ourselves through the ‘eyes’ of the algorithm” (2016, 34–35). Other scholars such as Skeggs (2017), O’Neil (2016), and Noble (2018) interrogate the divisive and discriminatory practices inherent in being profiled in and through data; as I will detail in Chapters 2 and 3, the behavioral profiling upon which personalization relies seeks to identify not only web users who function as “valued” consumers, but also those who are de- or undervalued as economic risk. As with the socioeconomic classifications that have functioned to govern and discipline social subjects for hundreds of years, under algorithmic personalization, not all persons are identified and constituted as equal.

Increasingly, then, the algorithmic anticipation of users’ identities foundational to delivering “personalized” experiences is being critically defined as a process of subjectivity constitution: this process creates “algorithmic identities” (Cheney-Lippold, 2017, 5), “data doubles” (Lyon, 2014, 6), “database subjects” (Jarrett, 2014, 27), and “algorithmic selves” (Pasquale,
2015, 1) that are designed to *intersect* and *interact* with the identities that they are intended to mirror, represent, and/or constitute. It is these algorithmic configurations that take the interest of this book. More specifically, it is the intersection of these datafied “selves” with the people who are constituted “in” and yet continue to live “outside” of the algorithm that I argue give rise to fresh considerations of autonomy, identity, and the digital everyday.

PERSONALIZATION, POLITICAL ECONOMY, AND THE EVERYDAY

Given its market dominance, understanding algorithmic personalization as a fixture of the everyday demands attention through two methodological avenues: first, how the *principle* of personalization is put into techno-economic *practice*; and second, how the profitable, datafied “person” can be theorized, historically contextualized, and understood as a lived subject position. As such, this book is underpinned by a mixed methodological approach that combines critical political economy, qualitative analysis, and historical and theoretical critique in order to evaluate algorithmic personalization at both microcosmic and macrocosmic levels.

A critical political economy approach is useful for considering how the principle of personalization is put into techno-economic practice because as methodology it is interested in interrogating the role that commerce plays in structuring the social fabric of everyday life. As Murdock and Golding (2005), Mattelart and Mattelart (1998), Greenstein and Esterhuyan (2006), and Bettig (1996) emphasize, political economy is useful for identifying the “underlying social relations” between market logics and individual needs and interactions (Greenstein and Esterhuyan, 2006, 15). Internet scholars such as Fuchs (2011), Bodle (2015), and Jarrett (2014a) highlight that critical political economy helps to clarify and situate the negotiations of web users as value-generating social subjects, always engrained in *but not* always determined by broader sociocultural and economic capitalist contexts.
Though critical political economy is useful for understanding how algorithmic personalization might function as a dominant market principle, it is less helpful for getting to the minutiae of how the people entangled in personalization systems negotiate their status as data providers. Theoretical and historical analysis is useful here to understand what is meant by the “person” at the heart of the personalization process. As I explore throughout this book, though the concept of the “person” might seem self-evident, it is historically and contextually specific formation that has changed over time and continues to be (re)constituted in critical and popular landscapes. In evaluating the ways in which the “person” has come to be understood, it becomes possible to locate the performative power of algorithms in identity production. However, as I will argue and as others such as Cohn (2019) similarly suggest, theorizations of algorithmic governance must also do justice to the ways in which web users exercise their agential capacities in techno-capitalist cultures that might impose forms of discipline on users but do not necessarily determine their everyday engagements.

There is an increasing wealth of literature that deliberates the promises and problems that emerge in algorithmic anticipation—critiques that underpin and inform the findings presented in this book. However, as Gillespie’s (2014) aforementioned claim highlights, there remains something of a disconnect between “theory” and “documentation” in regard to the ways in which algorithmic encounters are felt and experienced at the level of the everyday. Though, as the qualitative researchers I reference in this book emphasize, “the everyday” is a complex term that can and should not be reduced to a generalized set of practices or frameworks, it seems important to confront personalization algorithms as part of the fabric of digital life in global late-capitalist cultures. After all, personalization algorithms are used in some way by countless commercial web platforms, and millions of web users frequently produce mundane, habitual, and individualized encounters with a range of advertising, service, and content formats. The same “personalized” advertisement will no doubt be shown to thousands of people deemed to be “interested” in whatever it is selling, the same recommended story or media artifact delivered to
a unified demographic of people, and yet each engagement is embedded in a specific time and space, a specific interface, and a specific set of entanglements for the users who confront that (im)personalized text. A series of questions arise for me in these simultaneously personal and impersonal encounters: How can user engagements with personalization be investigated in their specificities? What new insights—and unexpected avenues—of critique might be found in the situated, nuanced, and context-specific accounts of the users who confront personalization algorithms? Are users’ encounters really as oppressive or subversive as contemporary scholarship suggests, or are there other ways to articulate and assess the networked negotiations of the people who are both served and (through the monetization of their personal data) serve algorithmic personalization systems? To answer these questions, I argue that we must—by employing qualitative methodologies—turn to the specific testimonies of web users themselves.

BRIDGING THE GAP: GETTING AT LIVED EXPERIENCE

For many decades, qualitative research methods have been employed as a methodology for “getting at” the daily lives of individuals, in order to untangle the complex ways in which meaning is constructed and maintained in apparently mundane, everyday contexts (Warren, 2001; McNeill and Chapman 2005; Maynard, 1994). Qualitative approaches to gathering research data—such as interviews, ethnographies, participant observations, and focus groups—are understood as fruitful, productive, and reflexive avenues to exploring the kinds of meaning-making that occur in daily life. Just as importantly, as the long-established theorizations of Geertz ([1973] 1993) remind us, it is in their ability to capture rich and deep data that qualitative research methods accommodate critical analyses of social interactions without reducing or condensing their inherent complexity and nuance. As Braun and Clarke state, in-depth and rich data can “record the messiness of real life” in ways that enable critical researchers to put “an organising framework around it” (2013, 20). I argue, then, that
it is in exploring the lived experience of the individuals entangled within algorithmic personalization technologies that it becomes possible to critique and reassess broader structural questions in regard to networked knowledge production, autonomy, and selfhood.

The thirty-six individuals interviewed for this research have all, through their engagement with Ghostery, Facebook apps, or the Google mobile app, encountered algorithmic personalization in some form. I offer more details of their recruitment in corresponding chapters dedicated to each study; here however I want to comment broadly on the sampling and analyses methodologies chosen for this book. As Emmel notes “there are no guidelines, tests or adequacy, or power calculation to establish sample size in qualitative research” (2013, 9) and in fact Emmel is amongst a number of scholars who have pushed back against the idea that there is a “right” size of sample for qualitative research. Unlike quantitative sampling methods, qualitative samples can be considered as “invariably small” (Emmel, 2013, 5) because they are rich; full of utterances and modes of expression that take time to unpack and untangle. After all, the point of qualitative research is very rarely for that sample to be “representative” of a larger group, because to “represent” even the smallest of populations assumes that those individuals in that group have a measurable set of qualities that bring together their specific experiences. I cannot stress enough that the same holds true for this research: the accounts of the thirty-six individual interviewed for this project do not and cannot represent the engagement of all—or even some—of the web users who encounter algorithmic personalization. As Emmel straightforwardly puts it, with qualitative research “the concern in designing these studies is not how many, but what for” (2013, 3). Their richness and deepness therefore “allow for the interpretation and explaining of social processes” (2013, 5) in ways that quantitative data cannot—because of its very “bigness”—accommodate. Participant samples for this research project were settled on the basis that they were big enough to allow for diversity of responses, but small enough to do justice to respondents’ complex, nuanced, playful, glib—and as I will explore consistently tense—articulations on algorithmic personalization systems.
All participants had English as a first or second language and were largely based in the UK (even if temporarily, as with some of the international students interviewed for the Google mobile app project), as well as the US, Canada, the Netherlands, and France, and so this book does not include analyses drawn from anyone who lives outside these dominant language and nation-state boundaries. I call at this point for future research in other linguistic and national contexts, not to “speak for” those languages and countries (in the same way in which my analysis does not “speak for” the UK’s, US’s or France’s web users) but to further expand a field primarily dominated by Anglo-centric studies. As algorithmic personalization practices continue to develop, the opportunities to pursue new research avenues that extend beyond Anglo-centric contexts are becoming more and more apparent. This book explores participants’ accounts that are always already located within socio-cultural normative tastes and practices—practices that are specific to their lived experiences and are therefore contingent on context-specific parameters of taste, class, and cultural preference (amongst other factors). In doing so there are a number of key conceptual, political and theoretical claims I want to make, especially in regards to how algorithmic personalization intervenes in and indeed constructs users’ sense of self.

As feminist approaches to qualitative methods have emphasized (Cotterill, 1992; Maynard, 1994; Stanley & Wise, 1990; Skeggs, 2004; Haraway, 1988), analyzing everyday experience is a complex task in which researchers much respectfully acknowledge the validity of the experiences reported by research participants while also accepting that the notion of experience should not be taken as unproblematic (Maynard, 1994, 15). “To begin with there is no such thing as ‘raw experience’”: rather, as Maynard notes, “the very act of speaking about experience is to culturally and discursively constitute it” (1994, 15). Engaging with the “lived experiences” of individuals is always an act of also constructing that experience, of framing participants’ accounts through a framework informed by the researcher’s own research goals, cultural context, and gendered, classed, and raced (among other sociocultural identity markers) subjectivity. This book follows these feminist-informed principles: I look to treat
participants’ lived experiences of algorithmic personalization as a reflexive, co-constructed dialogue between researcher and participant—while contextualizing these experiences within a wider critical and political economic framework.

Haraway points to the epistemic richness to be found in “situated knowledges”—located ways of knowing that do not rely on or reinforce universal objectivities, but instead take seriously “situated and embodied” epistemologies (1988, 583). In and through situated subjectivity, knowledge can be productively constructed not as universal, common, or unified, but as always contextual, complex, interpretative, and political. However, I join Skeggs (2004) in being mindful not to fetishize subjectivity as a means to inarguably “authentic” knowledge—that is, assuming subjective experience has a kind of possessive ownership of what we can take to be true about the world. In grounding my findings not in quantitative analysis or theoretical hypothesis, but rather in the testimonies of web users themselves, I look to resist generalizing my findings through what would be ultimately “unlocatable, and so irresponsible, knowledge claims” (Haraway, 1988, 583).

It is important to emphasize that as a researcher, I myself am a situated subject. The interviews generated from this project should not and cannot be considered a “blank slate” upon which facts about algorithmic personalization appear: my own situatedness as a Media and Cultural Studies theorist has, like all research, underpinned and shaped the outcomes of this project. Therefore the quest to find meaning in participant encounters must be reflexively—or to use Barad’s terminology “diffractively” (2007)—addressed as something created and shaped not only by the participant, but also by the researcher. Ultimately it seems important to note, as Kvale and Brinkman do, that “the research interview is not a conversation between equal partners, because the researcher defines and controls the situation” (2009, 6). Thus, I hope to do justice to participants’ accounts while contextualizing their responses within my own critical framework.

It seems pertinent to also briefly acknowledge that the relationship between participant and research is not universally applicable to all interviewees and across all scenarios; a huge number of factors can affect
the research-interviewee dynamic, and Cotterill (1992) states that such changeable dynamics mean the researcher does not necessarily always enjoy more authority than the participant during an interview. To draw on my own research experiences, many of the Ghostery interviewees’ technical knowledge of data tracking far outstripped my own, highlighting that the researcher is not always more knowledgeable on the research subject than the participant. Conversely, during interviews for the Google app study I felt very aware of the authority bestowed on me as a researcher; in this case the participants were first-year undergraduate students who (understandably given that I had delivered a lecture to them as part of my call for research participants) recognized me as a tutor, and therefore looked to me to “teach” and “lead” them. I explore this further in the subsequent chapters, but here I want to emphasize that qualitative research is filled with considerations such as these, which should be at least acknowledged and accounted for, even if they cannot be completely resolved.

Interview responses were reviewed and re-reviewed a number of times to identify themes and strands that emerged from and in response to interview questions (themes such as user control over data, self-expression, knowledge of personalization practices). I was eager to allow for a range of different responses, but also acknowledge responses that did not necessarily fit recurrent themes across interviews, and yet still merited critical attention. I am cautious to speak of a “saturation point” at which this book’s interviewees stopped bringing new themes into our conversations—to look for such a saturation point once again implies a positivist standpoint that qualitative data are about getting “enough” to work with. My research instead looked to find codes and themes that could speak back to current work on algorithmic personalization in ways that open up new opportunities for critical analysis.

As user anticipation becomes more ubiquitous, the ways in which the self is constructed is increasingly entangled with the algorithm. I argue it is only through analysis of lived experience that we can fully understand the complex and nuanced ways in which the self is co-constructed by both user and algorithm. I stress this in Chapter 3, where I argue that qualitative analysis provides a useful counterpoint to purely theoretical critiques
that tend to overstate the disciplinary power of algorithms. The political
resonance of this claim is most pressing when users understand them-
selves to “be” what the algorithm says they are. For example, I argue that
Google essentially tells its users they are white, male, and middle-class,
which in turn produces a re-negotiation for users’ own sense of self, as
I expand on in Chapter 6. Crucially, I argue that the political interven-
tions of algorithms into the everyday must be critically approached not
just to consider what algorithms do or don’t do—or indeed, as Finn poses,
what they might “want” (2017)—but how users negotiate and respond to
these algorithmic interventions. As the accounts of the participants in this
book suggest, though algorithmic personalization does indeed constitute
users’ everyday encounters, its power is co-constitutive: users’ identity is
constructed by both algorithm and users themselves.

BOOK STRUCTURE AND OVERARCHING THEMES

Chapter 2, “The Drive to Personalize,” employs critical political economy
to map the historical and technological development of personalization
as a market-driven principle put into algorithmic practice. It first offers
an overview of contemporary personalization systems, paying particular
attention to the co-constitutional relationship created between “user” and
“system” in the commercial quest to “know” user intention. The chap-
ter then works outward toward algorithmic personalization as a matter
of anticipating the user for monetization purposes. Finally, I argue that
even as algorithmic personalization claims to aid the individual in the
fight against “infoglut” (Andrejevic, 2013), the autonomous decision-
making capacities of algorithmic personalization actually create a struggle
for autonomy between user and system. It is this struggle for autonomy
that opens up questions regarding why web users might contest or resist
personalization in ways that go beyond the framing of data tracking as a
matter of privacy invasion. Instead, this struggle reconstitutes that which
can be considered as “the person” at the heart of the drive to personalize
the web.
In Chapter 3, “Me, Myself, and the Algorithm,” I offer an analysis of how user identities have been understood historically and discursively. This chapter situates the “person” supposedly key to the personalization process within wider critical frameworks that interrogate the role and value of the self in late-capitalist contexts. I consider how the self is performatively constituted both inside and outside of algorithmic governance, arguing that it is only by understanding identity as algorithmically managed and anticipated, but politically “felt” by users as social subjects, that the nuances of algorithmic personalization can be understood.

The subsequent three chapters constitute the qualitative body of this book. Drawing on the accounts of twelve interview participants, Chapter 4, “Hiding Your ‘Scuzzy Bits,’” focuses on the privacy tool Ghostery and the ways in which Ghostery users negotiate their positions as (unwilling) data providers in relation to algorithmic personalization. The chapter explores a number of themes that emerged from interviews, which were semi-structured using Ghostery’s own marketing tagline and rhetorical sum: “Knowledge + Control = Privacy” (Ghostery, 2014). These themes include the data-for-services exchange (reluctantly) undertaken by participants, as well as the epistemic anxieties created by what can only ever be partial knowledge of data tracking, articulated through participant statements such as “Ghostery gives me a false sense of security” (Claire, UK, 2013). I argue that this epistemic anxiety actually increases in accounts of participants who could be considered “power users” (Sundar and Marathe, 2010), who framed the use of privacy tools not as a means of meaningful resistance but as an “‘up yours’ gesture” (Gyrogearsloose, UK, 2013). The chapter also analyzes how “personalization” fits into Ghostery’s rhetorical sum. I explore the disconnect between participants’ negotiations with data tracking, which they wholeheartedly resisted, compared to their negotiations with personalization practices, which some welcomed. Finally, the chapter evaluates participants’ sense of privacy in relation to critical notions of selfhood. I argue that participants framed their use of Ghostery as part of the desire to “hide your scuzzy bits” (Chris, UK, 2014)—to protect a preexistent, inner, and possessive selfhood which must be sheltered from the dehumanizing threat of data tracking. I propose that this
framing of selfhood corresponds to the self as disciplinable state citizen, rather than the self as expressive commercial consumer.

Chapter 5, “Autoposting the Self into Existence,” moves away from personalizing processes that threaten an inner self to algorithmic personalization that has the power to (re)write the self. To do so, the chapter focuses on Facebook’s autoposting apps—third-party apps such as Spotify, Candy Crush, and Map My Run that are connected to Facebook and are capable of posting status updates on the user’s behalf, without the user’s immediate knowledge or explicit consent. Though Facebook claims these apps help users “express who they are through all the things they do” (Facebook, 2014), I argue that if users’ lived experience is considered, then autoposting takes on a performatif power to bring the self into existence. Drawing on the accounts of sixteen Facebook users, the chapter explores how Facebook seeks to algorithmically personalize personhood itself. The chapter focuses on moments when autoposting apps have caused identity disruption or slippage in participants’ self-performances on Facebook and beyond—from Spotify posting “embarrassing” song preferences to participants’ “invisible” Facebook audiences to Instagram disclosing participants’ sexual preferences. I also explore participants’ framing of other users’ game posts as “chavvy,” arguing that such framing reveals complex class dynamics at work that go beyond the established “digital divide.” I argue instead that such engagements produce discourses that frame user value not through cultural capital but algorithmic capital, wherein social subjects deploy value judgments aimed at other users’ orientation toward personalization algorithms. I conclude the chapter by proposing that autoposting thus takes on startling performatif and disciplinary power to write the self into existence—a formation of the self that exists alongside but in tension with the anticipated user as inner, possessive, and preexistent.

Chapter 6, “Validating the Self through Google,” explores the “predictive powers” (Android, 2012) of the Google mobile app, a personalization technology that claims to “give users the information you need throughout your day before you even ask” (Google, 2014, my emphasis). Using a co-observant approach, users were interviewed five times over
the space of six weeks. The participants were six first-year, first-term students enrolled in a Media Studies degree at a UK university, recruited largely because they did not explicitly self-identify as preexisting Google app users, unlike the Facebook and Ghostery users examined in the previous chapters. The chapter is structured around the overarching sense of epistemic trust that participants invested in the app—despite the fact that the app’s personalization capabilities repeatedly failed to live up to participants’ high expectations. The chapter explores this tension between faith and failure, and argues that the Google app’s personalization framework is in fact deeply apersonal: Google constructs an idea of what “life should look like” that assumes a homogenous and normative subject position. The chapter explores respondents’ extensive efforts to “get something” from the app, wherein participants worked hard to orient their everyday practices toward Google in order to be validated as a “doing subject” by the app. I conclude by first considering participants’ status as media studies students, and second by interrogating participants’ claims that they will continue using the app, “just because it’s there now” (Rachel, UK, 2014). I argue that even though participants ultimately failed to find a use for the app, its predictive promise becomes the reason in and of itself to trust in Google.

The Conclusion pulls together the core themes of the book, examining especially the selfhoods that are made—and made possible—under “regimes of anticipation” (Adams et al., cited in Hearn, 2017, 73) that do not necessarily seek to discipline the subject, and yet entangle the agential capacities of user and system in everyday life. I address some future directions for algorithmic personalization, interrogating Google’s discursive erasure of the term “personalization” from many of their user-facing marketing materials: what was once “personalized search” is now simply “search.” This in no way means the algorithmic anticipation of users is disappearing—rather, it is becoming naturalized as the only way to structure and experience web engagement. The conclusion proposes that under the complex yet “black boxed” ways that algorithms seek to know us, “understanding” the algorithm becomes less important than negotiating the interventions of algorithmic personalization into everyday life.
I argue that as user anticipation becomes more ubiquitous, we must consider data providers not through neoliberal discourses that position data subjects as “agents of their own success” (Ringrose and Walkderine, 2008, 228) but instead as algorithmic tacticians who deploy algorithmic capital to “make do” with computational anticipation in sometimes playful, usually productive, and always meaningful ways. The ways in which the self is constructed is increasingly entangled with the algorithm—and it is through lived experience that the sociocultural nuances, implications, and interventions become most apparent.

My investigations produce some context-specific findings that evidence the nuances of living life in, with, and through algorithmic anticipation. These findings can be considered as emergent from situated experiences with particular forms of personalization: however, such particularities both underpin and illuminate some core themes that run throughout the book. The following analyses tease apart the ways in which users must confront the uncertainties of how, when, and why they are being anticipated by algorithmic personalization—confrontations that result in epistemic trust or anxiety in the algorithm, depending on users’ acceptance of their positions as data providers. Building on this, another theme emerges: the constant negotiation of the data-for-services exchange that web users navigate on a daily basis, even in the act of resisting data tracking itself. Furthermore, the struggle for autonomy that algorithmic personalization produces arises again and again, wherein users’ agential capacities—outsourced to the system in the name of personal convenience—emerge as a site of struggle between decision-making algorithms and users as autonomous social subjects. These findings are brought together by my claims that algorithmic personalization has the performative power to intervene in, co-constitute, and even bring into existence the self in ways that reveal the deeply impersonal and divinduating mechanics that lay behind contemporary neoliberal rhetorics of “personal relevance.”

As I will further explore, the investigative threads of this research come together to interrogate the ways that users negotiate different models of selfhood: models that not just differ from one another, but that
are in tension with one another. The participant negotiations featured in this book suggest that algorithmic personalization demands that user identities must be constituted as unitary, inner, and fixable, as endlessly expressive, recursively reworkable, and flexible, and as identities that can be legitimized by both algorithm and user. Others, such as Szulc (2018) and Jordan (2015), have come to similar conclusions, noting that social media logics create fixed, “anchored” (Szulc, 2018) selves as well as “abundant” (Szulc, 2018) and “recursive” (Jordan, 2015) ones. I contribute to these debates by arguing that these selfhoods are not just structured in culture and algorithms, but are felt, embraced, reconciled, and rejected by those users who navigate and negotiate such structures, at the level of the individual—and it is web users’ self-identified positions in the co-constitution of these models of selfhood that in part explain these tensions. As the following chapters demonstrate, these tensions must be contextualized within broader historical and theoretical concepts of the self if we are to understand how the anticipated individual has come to exist—and must be analyzed through lived experience if we are to get at the nuances and complexities of algorithmic interventions into everyday life.