



Algorithmic culture and the colonization of life-worlds

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Abstract

This article explores some of the concerns which are being raised about algorithms with recourse to Habermas's theory of communicative action. The intention is not to undertake an empirical examination of 'algorithms' or their consequences but to connect critical theory to some contemporary concerns regarding digital cultures. Habermas's 'colonization of life-worlds' thesis gives theoretical expression to two different trends which underlie many current criticisms of the insidious influence of digital algorithms: the privatization of communication, and the particularization of knowledge and experience. Habermas's social theory therefore offers a useful framework for exploring some of the normative and political problems that are attributed to 'algorithmic culture' and 'big data'.

Keywords

algorithms, colonization of life-worlds, critical theory, feedback loops, Habermas

'Algorithms' has become a major buzzword in contemporary cultural criticism. As is the case with buzzwords (Davis, 2008), the critical notion of algorithms captures a diverse cluster of concerns regarding the computerization of culture, and specifically the processes through which digital culture is now produced and disseminated over the internet. The fact that algorithms have long occurred wherever calculation and computerization have played any role in cultural production – one thinks immediately of complex economics of printing and broadcasting – is beside the point. Today 'algorithms' are on the internet, and more specifically, they mean what governments, online media platforms, social networking sites and advertisers are doing with the internet: collecting data about

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our consumption, decisions and interests and then using that information to shape what we see and how we see it.

This article explores some of the concerns which are being raised about algorithms with recourse to Jürgen Habermas's theory of communicative action. The intention here is not to undertake an empirical examination of 'algorithms' or their consequences, which continue to be contested (Boxell et al., 2017). Rather, the intention is to connect a well-established line of analysis from critical theory to some contemporary concerns regarding digital cultures. The argument advanced below is that Habermas's 'colonization of life-worlds' thesis gives theoretical expression to two different trends which underlie many current criticisms of the insidious influence of digital algorithms: the privatization of communication, and the particularization of knowledge and experience.

Algorithmic loops

With 21st-century lives now increasingly taking place online, information about our interactions, our choices and our decisions within online environments is routinely being recorded, stored, exchanged, processed, sorted and interpreted by the 'algorithmic' processes of computerized systems and software. The term 'big data' broadly describes these processes, indicating that we are now working with datasets of such size and complexity that new computerized methods are required to manage them. The 'output' of this data processing then re-enters our online experience in the way it is used to shape content – influencing which advertisements we see, which search engine results are returned, whose social media content is shown, the news stories we are exposed to, the product choices we are presented with, and so on. Our further 'input' into this 'output' (as decisions and choices we make about how we react to this already shaped content) then becomes yet more data for the software to process and continue to use in personalizing our online experiences. These recursive and self-referential phenomena become what has been described as a 'reinforcing spiral' or 'feedback loop' (Hofstadter, 2008; Slater, 2007). As this feedback loop repeats itself recursively, the question can then be posed: How much of what we are doing online do we have control over? And how much of what we do is determined by something else? Is the informational feedback loop, as in audio feedback, generating amplifications and distortions which affect our world? In all of this processing, and processing of processing of processing, it becomes increasingly difficult to locate where our input is.

I draw on Habermas's theoretical description of the 'colonization of life-worlds' as a way of broadly situating a variety of concerns now being raised in cultural studies and critical theory about the effects that data-driven feedback loops might be having on democracy and culture. This, as I suggest, is manifest in two types of phenomena: The privatization of communication and the particularization of knowledge and experience. It could be protested that following Habermas in this way allows him to assimilate a number of contesting approaches (such as those inspired by post-structuralist or Foucauldian thought) into his imperial grand theory project (Knodt, 1994: 94). While I accept the plausibility of this objection, I want to suggest that Habermas's focus on communicative action makes his concepts highly appropriate for a very focused and illuminating critique of the datification of online activity, and that (at least for now) these

other critical approaches can be seen as complementing rather than contravening Habermas's aims. While there are many significant critical questions that can be raised about the Habermasian project, for the sake of brevity they must remain outside of the scope of this paper.

Habermas's colonization thesis

In volume 2 of *Theory of Communicative Action*, Habermas developed the 'colonization of life-world' thesis as a way of integrating a broad range of sociological, political and theoretical critiques of capitalist modernity into his paradigm of intersubjective rationality (Habermas, 1987: 322ff.). For Habermas, the life-world means the 'always already': the shared resources of cultural knowledge and semantic meaning which we must draw upon in order to make the world intelligible to ourselves and to communicate with others (Habermas, 1987: 266). The notion of life-world therefore implies that whenever we attempt to conceptualize or communicate things, we are already doing so from within a web of linguistic meaning into which we have been socialized, and that this web is the very precondition of our having cognitive and communicative capacities.

The crux of Habermas's argument is that the life-world is only reproduced through communicative action. Speech (meant in the broadest sense) must take place between human subjects, and it is through the intersubjectivity of speech that the commonly shared meanings, cultures and expectations germinate, which become the necessary resources for yet more communication. When non-discursive systems like markets or bureaucracies take the place of communication and do our speaking for us (when prices relieve our need to agree upon exchange values, or when the law relieves us of the need to agree on what is permissible behaviour), they reduce the burden of having to discuss and come to agreement on everything. As such, these systems play a necessary role in giving our experiences predictability within a highly complex and functionally differentiated modern society. However, they do so at the expense of eroding our participation in the reproduction of shared cultural meanings.

According to Habermas, this can become pathological. If our world becomes overly determined by the functional demands of these systems, it becomes less free, less meaningful and less discernibly human (Habermas, 1987: 291). State logics of governmentality and market logics of corporate interest eclipse the critical and deliberative potential of the public. Engaged communication between human participants, aimed at achieving agreement, is the very basis of democratic culture, but this is prevented when instrumental systems have already determined our decisions for us.

Some critical theorists have already seen the relevance of Habermas's concepts for examining how online communications are susceptible to colonization by state and market logics (Dahlberg, 2005; Fuchs, 2014). They have used his concepts to contest optimistic narratives that see internet technologies as heralding a renaissance of public sphere activity, creating a prominent platform from where once excluded voices can now be loudly heard, and thereby establishing a path to the inevitable future democratization of communication (e.g. Shirky, 2011). Hence, rather than automatically facilitating the political engagement of publics, Dahlberg suggests that online activity is actually becoming a site of intense competition over our attention, primarily between rival

business interests who now invest heavily in developing ways to increase their influence on online content (Dahlberg, 2005: 162). Consequently, the opportunities for democratic discourse erode as critical public debate becomes crowded out or distorted by the noise of advertising, click-bait and various other attention-grabbing strategies. In a similar vein, Fuchs suggests that through privately owned social media sites, corporate and state entities may become threatening to the way counter-hegemonic publics self-organize (Fuchs, 2014: 89). As a politically engaged public seeks to take advantage of the benefits that new communication technologies afford, their delicate personal information is meanwhile recorded and stored by host companies like Facebook, Twitter and Google. This becomes a potential means of surveillance with which states or private entities can identify and target specific members of the public. Fuchs therefore advises distrusting online communication platforms, especially given their connections with businesses and states.

Algorithmic processes can play an even more insidious role in these trends, as they are largely invisible to the user. They draw from our everyday habitual interactions to analyse our behaviour and sentiments. They create predictive models which then feed back into and shape our online experiences. In what follows, I suggest that there are points of conflict between these practices and the Habermasian ideal of open and non-exclusionary communication. This is manifest in two major ways: First, there is a *privatization of communication* in a political-economic sense, as the data about us, as well as the methods used to collect it and deploy it, remain intellectual property. When data is used to shape the content we are exposed to, it constitutes an instrumental mediation of the flow of intersubjective communication through which our cultural life-world is reproduced. Our cultural and semantic resources can thereby be ‘colonized’ by processes put in place by businesses or states; they can make decisions over what and how we access. Second, the *particularization of knowledge and experience* occurs where predictive algorithms personalize content for us. The content one person can immediately access is therefore different to the content another can immediately access. Not only is this practice discriminatory by its very nature, but it also leads to what have been termed ‘filter bubbles’ (Pariser, 2011), or highly individualized patterns in the consumption and appropriation of knowledge and culture. This idea has gained particular public attention following the election of US President Donald Trump in 2016, because the personalization of information flows on social media has been attributed to intensifying political polarization. Morally and politically divisive content is more successfully disseminated within the bounds of ideological groupings, producing a feedback mechanism whereby group members are subjected to greater exposure to more extreme and partisan views (Brady et al., 2017). In Habermasian terms, this intensifies the heterogeneity of life-worlds into contesting ideological camps. It reinforces a polarized mutual hostility between contesting political sides, rather than facilitating rational and open discourse which is oriented to solving problems by reaching mutual consensus.

The privatization of communication

Traditional broadcast media have long utilized research methods like ratings systems and polling to ascertain audience needs and desires. They use this research to strategically inform the development of broadcast content, with the aim of increasing their market

share or maximizing sponsorship opportunities. They may appeal to the broadest possible audience or target a particular social group, such as youth. However, the limited nature of broadcast technologies means that each channel or station is forced to invest itself in disseminating just one product at a time.

In the online, post-broadcast environment, audience research methods have been transformed. The ability to now trace or mine individual audience members' habits or sentiments for 'data', and the ability of service providers like Google or Facebook or other bodies to use this data to customize the way their content reaches users, means that many traditional limitations of broadcast media are being overcome. Multiple users can simultaneously consume vastly different media content, which was only possible before through much slower and more expensive technologies like print or VHS. Yet, in much the same way that the methods of broadcast media have attracted criticisms over the way they construct audiences and disseminate content (Bratich, 2005), so too have post-broadcast media.

As data is mined about our habits and sentiments and used to make decisions about content (whether those decisions are made by machines or by human researchers), quantitative processes are coming to exert a powerful influence on what happens in cultural life (Striphas, 2015). Not only are these processes alienating – coldly using computer engineering to algorithmically determine what will satisfy our human emotionality and curiosity (Kennedy, 2012: 440) – they are also prone to manipulation and failure in opaque ways. This is compounded by the fact that the bulk of this data mining and big data analysis is performed by private entities, who can conceal their datasets and methods through legal means behind intellectual property rights.

Striphas provides an excellent example of this, when Amazon apparently removed gay and lesbian titles from its product listings and sales rankings in 2009 (Striphas, 2015: 396). This provoked a backlash from online communities, who initially assumed Amazon was censoring its content and discriminating against gay and lesbian authors and their readers. When challenged, Amazon claimed that the removals were a result of a human error: When one clumsy worker altered a single variable, 'adult', from false to true, it simultaneously categorized over 57,000 books as containing inappropriate content and removed them from all promotional services. The error was corrected, and the relevant titles were returned to the listings. Yet, what this highlights is the way in which the cultural content we see online has now always already been filtered through and organized by computerized processes. While Amazon's explanation and response to this one incident may have appeased the concerns that it is censoring content, the programming code and the data still remain secret. What remains obscured is how the computational organization of cultural content is always online, affecting us *all the time*.

Amazon's prominence as a major bookseller, and its various listing, ranking and reviewing systems – as well as its ability to record and analyse our reading habits while we read e-books (Davis, 2015) – gives it enormous influence over the production, availability and distribution of cultural products. On Amazon and elsewhere, computational processes are delegated the task of utilizing our recorded behavioural patterns to sort out and prioritize what we see. Cultural exposure has become, by degrees, less an outcome of our own decisions and judgements and more an output of the efficient filtration and ordering of vast quantities of digital information. Not only are these processes

prone to failures, such as the example above, but they give businesses like Amazon, Google, Twitter and Facebook extraordinary power over the reproduction and dissemination of the cultural content we see (Striphas, 2015: 407).

The way legally protected algorithms can select what we know and see is not just a question of technology or marketing, it is also highly political. As Habermas reminds us, political engagement depends upon us putting culture to work in helping us to comprehend our world, to interpret and respond to claims made by others, and to formulate and articulate claims of our own. As with broadcast and print media, strategic selection of the media we are exposed to puts online service providers in a position of power over the cultural resources we depend upon to communicate. It establishes positions of power which are able to exercise control over the cultural resources we must draw upon. This 'media power' is neither *inherently* advantageous nor deleterious for democracy (Habermas, 2006); while social media and search engines have expanded our communicative possibilities in very beneficial ways, they also offer potential inroads for corporations and governments to exert influence on how our political and normative understandings are shaped. These processes operate by selectively magnifying digital content while leaving other content out, and what they leave out is usually not something we have control over. Moreover, if this occurs within a feedback loop, it has the potential to become self-reinforcing and thereby greatly *amplify* our exposure to some types of content at the expense of others.

Because the bulk of data and collection methods constitute private intellectual property, which is legally protected, they escape public accountability over how they operate (Andrejevic et al., 2015: 386). Such arrangements serve to conceal the way business models, political power, special interests and marketing strategies can use data processing to influence knowledge and culture. Legislation has struggled to keep up with technological developments, and we now have a situation where 'large data companies have no responsibility to make their data available, and they have total control over who gets to see them' (boyd and Crawford, 2012: 674).

As online, post-broadcast media comes to occupy a more central role in our cultural lives, the technologies that underwrite it influence the means by which we understand ourselves. Kennedy and Moss make sense of this by distinguishing between 'known' and 'knowing' publics (Kennedy and Moss, 2015). As 'known publics', our agency is becoming defined by the subjectifying effects of data-driven technologies. These construct publics 'in particular and partial ways', representing us back to ourselves in mediated form via highly personalized content on social media, search engines and other online services, thereby structuring our agentive possibilities. Against this, 'knowing publics' could be activated to democratize such technologies by demanding closer government regulation, greater public accountability from tech firms and a normative insistence that our data be used to 'make more reflexive and active publics' (Kennedy and Moss, 2015: 5). Publics with higher awareness of the ways in which algorithms shape their online experiences could utilize them to enhance self-reflexivity, becoming self-determining participants in (rather than the subjects of) data systems. If used democratically, Kennedy and Moss believe, data mining could potentially help politically engaged agents to recolonize online spaces, and therefore 'serve the objectives of the public' (Kennedy and Moss, 2015: 6). Such a movement would be conducive with

the Habermasian ideal of a democratized and open public sphere, as it would enhance the transparency of intersubjective discourse. Yet, how this could be concretely achieved or applied remains unclear.

The particularization of knowledge and experience

There is another problematic way in which online culture is being privatized, and it has precedent. Habermas argued that capitalism during the mid-20th century was being held together by a culture of ‘civic privatism’ (Habermas, 1975: 37), consisting of a focus on the nuclear family unit as the dominant sphere of socialization and interaction, a meritocratic ethos which related social status to career achievements, and a celebration of consumer capitalism as the means for individual fulfilment. These trends worked together to simultaneously reinforce economic participation and political disengagement, producing legitimacy for an ordered and hierarchized post-war social system. Habermas’s contention was that this privatistic ethos was being eroded as society-wide changes entailed the socialization of a generation of individuals for whom social and civic justice mattered more than isolated pursuit of their own private interests. His primary example was the upsurge of social movements for civil rights, women’s rights, wealth redistribution as well as student protests that took place during the 1960s and 1970s. Governments in capitalist societies were facing pressure to appease these growing voices of discontent while remaining faithful to the maintenance of the market economy and political administration; failure to balance these challenges could result in a ‘legitimation crisis’ whereby sections of the public refuse to recognize the legitimacy of prevailing political structures – whether at the ballot box or on the street.

Since the ‘Global Financial Crisis’ of 2008, commentators have again begun proclaiming that we may be witnessing the development of another legitimation crisis, this time reacting against the collusion of nation-states and financial capitalism, with the potential to re-ignite participatory politics (Fraser, 2015). Some have proclaimed the communicative possibilities of digital media within this context as enhancing the capacity for publics to come to political agreement and co-ordinate their activism (Bennett and Segerberg, 2012). However, undermining these trends is the distraction and fragmentation of online communication wrought by the businesses who control digital media platforms, whose motivations are more about competition than providing a public service. While the communicative benefits of digital media should not be dismissed, a degree of scepticism is warranted.

Social media and search engines utilize data processing to construct models of who we are, what we want, and what we are likely to click on. They then fill the online spaces we inhabit by shaping content into what these models predict we will respond to. Our cultural universe becomes mediated by an ongoing interaction between us and the computational process, as it observes what we do and influences what we are exposed to next. As a result, we could be witnessing a new form of privatism which is epistemic rather than ethical in substance. Where Habermas’s isolated citizen of postwar capitalism was content to stay at home with his or her family, enjoying consumer goods, as that is what a ‘normal’ person does, the digitally isolated subject continually reinforces epistemic enclosure whenever their interaction (clicking a ‘like’ button, spending a long

time on a webpage) provides the right kind of feedback. The systems gradually learn to filter out what we are not likely to want to see, what we do not want to know, and what it cannot reliably predict our responses to.

Rather than being connected with ‘the global village’ (McLuhan, 1962), our digital cultural universe could become narrower, more particularized and more isolated to us. Encounters with otherness and difference, which are necessary for stimulating our adaptive learning and personal development (Habermas, 1987: 40), are being filtered out beforehand by algorithmic processes because the probability of positive feedback is calculated as too low.

According to Habermas, democracy should be considered a discursive project which depends on public knowledge and a robust public culture. These constitute the concerns we collectively make decisions about, and the resources we must draw on to make ourselves mutually intelligible. Democracy also depends on a public that is open to other viewpoints and skilled in navigating them. Digital personalization pushes in the opposite direction: towards reproducing predictable behaviour, confined within the limits it itself sets around the individuals it observes. It is both individualizing – tailoring a world to our own desires and responses – and polarizing – intensifying our connectedness with others who share our ideological and moral sympathies. In doing so, it can cut participants off from the very learning opportunities that enrich democratic life.

This may seem to hark back to Habermas’s early criticisms of broadcast media, and his dubious claim that a public on the receiving end of mass media technology is being moulded into passivity by ideological manipulation and the entertaining distractions of the culture industry (Habermas, 1989: 181ff.). Audience studies have since shown that television viewers and radio listeners are not the dupes Habermas once made them out to be (Curran, 1993), and there are many complex ways, both old and new, in which audiences exercise degrees of agency over their appropriation of and participation in media culture (Jenkins, 2006). This is certainly also the case with post-broadcast digital media. It is also the case that people use the internet differently, with a growing number of users now suspicious of what happens to their online activity and some now actively avoiding or circumventing data-driven processes (O’Connell, 2016). The problematic question, however, is how far any resistance can go when the processes in question are obscured and beyond control.

Conclusion

This is a highly speculative and somewhat dystopic discussion. It is meant as an essay in the classical sense (Kray, 2018), as ‘an attempt’ to pursue some lines of thought in lieu of possible clarification, empirical testing and validation later. The argument advanced above builds upon an assumption, grounded in Habermas’s critical theory, that public opinion is a positive force and that democracy should therefore be as deliberative as possible. If we are sceptical about unequivocally holding this assumption, it would change the formulation of the problem (e.g. Corsi, 2017; Luhmann, 2012). We have suggested that Habermas’s colonization of life-world thesis offers a way in to conceptualizing the concerns many have about the effect big data is having on contemporary culture, and especially democratic culture. Algorithmic processing means that the flows

through which culture is distributed and ordered have become subject to private interests, with those interests now able to exercise influence over public knowledge. It also threatens to create insular and polarized worlds, where people's interaction is determined by online processes that, through feedback loops, means that their knowledge and values become increasingly self-enclosed, self-validating and difficult to relate to others.

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References

- Andrejevic M, Hearn A and Kennedy H (2015) Cultural studies of data mining: Introduction. *European Journal of Cultural Studies* 18(4–5): 379–394.
- Bennett WL and Segerberg A (2012) The logic of connective action: Digital media and the personalization of contentious politics. *Information, Communication & Society* 15(5): 739–768.
- Boxell L, Gentzkow M and Shapiro JM (2017) *Is the Internet Causing Political Polarization? Evidence from Demographics*. 23258, Working Paper, March. National Bureau of Economic Research. DOI: 10.3386/w23258.
- boyd d and Crawford K (2012) Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, Communication & Society* 15(5): 662–679.
- Brady WJ, Wills JA, Jost JT, et al. (2017) Emotion shapes the diffusion of moralized content in social networks. *Proceedings of the National Academy of Sciences* 114(28): 7313–7318.
- Bratich JZ (2005) Amassing the multitude: Revisiting early audience studies. *Communication Theory* 15(3): 242–265.
- Corsi G (2017) Legitimizing reason or self-created uncertainty? Public opinion as an observer of modern politics. *Thesis Eleven* 143(1): 44–55.
- Curran J (1993) Rethinking the media as a public sphere. In: Dahlgren P and Sparks C (eds) *Communication and Citizenship: Journalism and the Public Sphere*. London: Routledge, pp. 27–56.
- Dahlberg L (2005) The corporate colonization of online attention and the marginalization of critical communication? *Journal of Communication Inquiry* 29(2): 160–180.
- Davis K (2008) Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist Theory* 9(1): 67–85.
- Davis M (2015) E-books in the global information economy. *European Journal of Cultural Studies* 18(4–5): 514–529.
- Fraser N (2015) Legitimation crisis? On the political contradictions of financialized capitalism. *Critical Historical Studies* 2(2): 157–189.
- Fuchs C (2014) Social media and the public sphere. *Triple C: Communication, Capitalism & Critique* 12(1): 57–101.
- Habermas J (1975) *Legitimation Crisis*. Boston, MA: Beacon Press.
- Habermas J (1987) *The Theory of Communicative Action, Volume 2: A Critique of Functionalist Reason*. Boston, MA: Beacon Press.

- Habermas J (1989) *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Cambridge: Polity Press.
- Habermas J (2006) Political communication in media society: Does democracy still enjoy an epistemic dimension? The impact of normative theory on empirical research. *Communication Theory* 16(4): 411–426.
- Hofstadter D (2008) *I Am a Strange Loop*. New York: Basic Books.
- Jenkins H (2006) *Fans, Bloggers, and Gamers: Exploring Participatory Culture*. New York: NYU Press.
- Kennedy H (2012) Perspectives on sentiment analysis. *Journal of Broadcasting & Electronic Media* 56(4): 435–450.
- Kennedy H and Moss G (2015) Known or knowing publics? Social media data mining and the question of public agency. *Big Data & Society* 2(2): 1–11.
- Knodt E (1994) Toward a non-foundationalist epistemology: The Habermas/Luhmann controversy revisited. *New German Critique* 61: 77–100.
- Kray TR (2018) More dialectical than the dialectic: Exemplarity in Theodor W. Adorno's 'The Essay as Form'. *Thesis Eleven* 144(1): 30–45.
- Luhmann N (2012) *Theory of Society, Vol. 1*. Stanford, CA: Stanford University Press.
- McLuhan M (1962) *The Gutenberg Galaxy: The Making of Typographic Man*. Toronto: University of Toronto Press.
- O'Connell A (2016) My entire life is online: Informed consent, big data, and decolonial knowledge. *Intersectionalities: A Global Journal of Social Work Analysis, Research, Polity, and Practice* 5(1): 68–93.
- Pariser E (2011) *The Filter Bubble: What the Internet is Hiding from You*. Harmondsworth: Penguin.
- Shirky C (2011) The political power of social media: Technology, the public sphere, and political change. *Foreign Affairs* 90(1): 28–41.
- Slater MD (2007) Reinforcing spirals: The mutual influence of media selectivity and media effects and their impact on individual behavior and social identity. *Communication Theory* 17(3): 281–303.
- Striphas T (2015) Algorithmic culture. *European Journal of Cultural Studies* 18(4–5): 395–412.

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