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Reimagining Political Competition for the Age of Data and Algorithm

This article theorises a significant transformation of today's politics, marked by increasing dependence of political actors on data intermediaries and online platforms. This shift goes beyond technical and operational dimensions. Instead, it can be seen as a shift of political agency; simultaneously, this is also a change in direction of the process through which politics is formulated and carried out: instead of starting with existing political positions, focus shifts to audience expectations, emotions, and affective proclivities according to which content is strategically constructed. No less importantly, though, silences and voids also play a crucial part in understanding political world-making.

The above shift should be seen in the context of several key considerations. The first one is the attention economy, whereby the overabundance of information and media content has led to a growing incapacity of audiences to pay attention to and retain focus on any piece of content. In this context, the capacity to amass audience data and tailor one's content offering to algorithmically deduced audience characteristics becomes the cornerstone of success. The second trend is the rise of data and algorithm-rich actors capable of understanding audiences and predicting their behaviour.

Following from the above considerations, this article is structured in four parts. The first part is dedicated to an overview of the attention economy and the nature of competition therein. Then, the second and the third parts discuss the technological context linking attention economy and the operation of the data analytics ecosystem. Finally, the fourth part takes into consideration the process of sculpting digital voids in online platforms.

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Competition over Attention

It is widely acknowledged that today's media environment is characterised by abundance, interactivity, and mobility¹. In fact, it could be claimed that we live in a period of content excess and information overabundance². Thus, the quantity of attention and its possible allocation has become a resource making content filtering a valuable function³.

As for the audience, it needs to “drastically select from the environment” to cope with this barrage of information⁴. Indeed, the audience is unable to “pay enough attention”⁵, implying that the domain of attention is one of lack and deficit. This scarcity of attention forms the backbone of the “attention economy” in which businesses compete for consumers' attention, which can generate revenue for them. Among the challenges, there is the drive by business, political, and other actors towards ever more intensive attention attraction. As a result, audiences' accidental and spontaneous attention-giving becomes ever more unlikely: every act of attention-giving gets performed “under the influence of a media enthrallment to whose resonance, around (and inside) each of us, we all contribute”⁶. Consequently, lagging behind the strategies adopted not only by one's direct competitors but also by others across the media in the broadest sense possible poses a significant threat of oblivion.

For communicators, the so-called “news-finds-me perception” complicates the matter further. This is the notion of individuals believing they can be informed about public affairs by way of general use of the internet and interaction with peers on social media without actively following the news⁷. That also allows one to consider attention as a collective resource⁸ while attention that one has already managed to attract becomes an investment that pays its own dividends straight away. This leads to a conclusion that “attention attracts attention”⁹. In respect to social media,

¹ G. Mazzoleni, *Changes in Contemporary Communication Ecosystems Ask for a 'New Look' at the Concept of Mediatisation*, in “Javnost – The Public”, 24, 2017, pp. 140-141.

² S. Vaidhyathan, *Anti-Social Media: How Facebook Disconnects Us and Undermines Democracy*, Oxford University Press, Oxford 2018, p. 80.

³ Y. Citton, *The Ecology of Attention*, Polity, Cambridge 2017, p. 134.

⁴ N. Couldry, A. Hepp, *The Mediated Construction of Reality*, Polity, Cambridge 2017, p. 113.

⁵ Y. Citton, *op. cit.*, p. 35.

⁶ Ivi, p. 30.

⁷ H. Gil de Zúñiga, B. Weeks, A. Ardèvol-Abreu, *Effects of the News-Finds-Me Perception in Communication: Social Media Use Implications for News Seeking and Learning About Politics*, in “Journal of Computer-Mediated Communication”, 22, 2017, p. 207.

⁸ Y. Citton, *op. cit.*, p. 33.

⁹ Ivi, p. 48.

it is virality metrics and trends, but it is analogue to millions of tourists visiting a site because millions of tourists come there. Hence, if the initial drive to attract attention succeeds, it becomes self-reinforcing; otherwise, one's effort is set more than one foot behind, with the gap widening as the communication process goes on.

The competitive element is particularly clear on social media, whereby political power is in managing attention. That, in turn, shifts attention from what people *are* attracted to towards what they *will be*, from what *is* to what *will be*¹⁰. Such a shift leads to the importance of predictive data analytics, which enables to delve into what is yet to be¹¹. For that reason, communicators more and more often must rely on actors rich in both data and analytic capacity for the purpose of message tailoring and, in certain cases, delivery.

Digital Structuration

It must be admitted that the structuration of the social has passed from being a human endeavour to one dominated by the digital. Today's world has been fundamentally transformed by the developments in data, algorithms, networks, the cloud, and improving hardware¹². In combination, these could be referred to as the datafication of everyday life, defined as a development through which “both system and life-world are transmuted into data and/or mediated by data”¹³. Thus, the central actors in today's life are those capable of orchestrating and intermediating interactions, collecting the resulting data, and analysing them for commercial gain.

Contemporary society is often referred to as the “sensor society” addressing the shift towards general acceptance of constant monitoring and data collection¹⁴. However, a mere collection is not enough – the data need to be actively engaged with, necessitating a corresponding increase in analytic capacity. Hence, in concord with sensing, today's world is also characterised by analytics, which has been made possible by the ability to process vast amounts of data. Consequently, audiences can be revealed in ever-finer detail, giving observers “an especially clear view

¹⁰ S. Broadbent, C. Lobet-Maris, *Towards a Grey Ecology*, in L. Floridi (a cura di) *The Onlife Manifesto: Being Human in a Hyperconnected Era*, Springer, Cham 2015, p. 114.

¹¹ *Ibidem*.

¹² A. McAfee, E. Brynjolfsson, *Machine, Platform, Crowd: Harnessing Our Digital Future*, W. W. Norton & Company, New York 2017, p. 95.

¹³ D. Beraldo, S. Milan, *From Data Politics to the Contentious Politics of Data*, in “Big Data & Society”, 2019, p. 1.

¹⁴ M. Andrejevic, M. Burdon, *Defining the Sensor Society*, in “Television & New Media”, 16, 2015, p. 24.

of the granular: subcategories and submarkets”¹⁵. There is, however, a clear limitation: as far-reaching observations require significant capacity in data collection and analysis, this makes political actors dependent on hired analytical capacity.

Crucially, daily social life is structured around the systems and technologies and thus data is being constantly collected not only as a result of external observation, but, instead, is typically *engaged*, i.e., happens from *within* the processes of everyday life and interaction¹⁶. Datafication processes affect the circumstances of their own generation by way of communities being created and recreated “by automated calculation based on the ‘digital traces’ that individuals leave online”¹⁷. In other words, not only do we constantly reveal who we are and what we are like, but the same revelations are instantaneously fed back, sorting and herding us so that we are placed next to, and exposed to, content deemed to be liked by the proverbial “people like you”. This, in turn, may be seen as curtailing spontaneity in human sociality turning it into a programmed feature instead¹⁸.

However, in order to properly appreciate how the above processes curtail spontaneity and increase the predictability of attention allocation, a notion of the algorithm has to be introduced. Broadly, algorithms are “coded instructions that a computer needs to follow to perform a given task”, typically “deployed to make decisions, to sort and make meaningfully visible the vast amount of data produced and available on the Web”¹⁹. A crucial quality underpinning the importance and spread of algorithms is their capacity to “plough through an immense quantity and breadth of data to identify patterns and correlations”²⁰. Therefore, within the ambit of (political) communication, the analysis behaviour and communications of a large number of people enables algorithms to appear to know these people rather accurately in order to subsequently “target individuals via customized messages that leverage aspects of personality, political leanings, and affective proclivities”²¹. Hence, the targeted individuals and groups ultimately just *cannot fail to choose* the outcome put forward to them.

¹⁵ V. Mayer-Schönberger, K. Cukier, *Big Data: The Essential Guide to Work, Life and Learning in the Age of Insight*, John Murray, London 2017, p. 13.

¹⁶ R. Caplan, D. Boyd, *Isomorphism through Algorithms: Institutional Dependencies in the Case of Facebook*, in “Big Data & Society”, 2018, p. 4.

¹⁷ N. Couldry, A. Hepp, *op. cit.*, p. 168.

¹⁸ T. Bucher, *If... Then: Algorithmic Power and Politics*, Oxford University Press, Oxford 2018, p. 4.

¹⁹ Ivi, pp. 2-3.

²⁰ S. Faraj, S. Pachidi, K. Sayegh, *Working and Organizing in the Age of the Learning Algorithm*, in “Information and Organization”, 28, 2018, p. 64.

²¹ Ivi, p. 6.

Algorithms are typically used as a power tool both to be exerted on an individual and also on the public in the collective manner²². Crucially, though, this governance function of algorithms extends beyond simple placement (of individuals and content), structuration (of groups and networks of content exchange), or opening/closing of action pathways. Instead, the role of algorithms is to influence “not only what we think about (agenda-setting) but also how we think about it (framing) and consequently how we act”²³. For this, all three components – the collection and analysis of data, combined with algorithmic governance, and the marketplace of attention – are required.

Sentiment analysis, the function of which is to assess “subjectivity (e.g., affect or opinions) in texts”²⁴, is helpful in achieving the aforementioned goals. By way of sentiment analysis, it is possible to identify non-trivia, which enables to draw conclusions about people’s opinions from the vast collection of information from a variety of sources, enabling the detection of ideological changes or analysis of political strategy trends²⁵. Hence, political context and analysis thereof have shifted from rational and analytical into one that is marked by datafication and “post-factual” politics²⁶. This enables to improve the performance of a politician and exploitation of behavioural analysis, which renders a sellable product.

As shown in the now-seminal research of Michal Kosinski and David Stillwell, even such public and seemingly trivial information as Facebook likes can be indispensable in gauging personality traits (i.e. psychometrically testing individuals without their knowledge), intimate details about personal life (e.g. sexual orientation, relationship status), political and religious views, intelligence, and even determining significant prior life events (e.g. parents’ divorce) as well as the emotional states of the individual²⁷. Sentiment analysis enables such in-depth discoveries²⁸.

Thus, an unprecedented capacity for behavioural change is present, which is enabled by the use of persuasive computing techniques utilis-

²² J. Just, M. Latzer, *Governance by Algorithms: Reality Construction by Algorithmic Selection in the Internet*, in “Media, Culture & Society”, 39, 2017, p. 245.

²³ *Ibidem*.

²⁴ M. Etter *et al.*, *Measuring Organizational Legitimacy in Social Media: Assessing Citizens’ Judgments with Sentiment Analysis*, in “Business & Society”, 57, 2018, p. 72.

²⁵ M. Giatsoglou *et al.*, *Sentiment Analysis Leveraging Emotions and Word Embeddings*, in “Expert Systems with Applications”, 69, 2017, p. 214.

²⁶ C. Puschmann, A. Powell, *Turning Words into Consumer Preferences: How Sentiment Analysis is Framed in Research and the News Media*, in “Social Media + Society”, 2018, p. 1.

²⁷ M. Kosinski, D. Stillwell, T. Graepel, *Private Traits and Attributes as Predictable from Digital Records of Human Behavior*, in “Proceedings of The National Academy of Sciences of the United States of America”, 110, 2013.

²⁸ *Ibidem*.

ing user hooking and triggering their particular actions and responses by using psychological data. A crucial feature of this data-driven effort at behavioural change is that it is “nimble, unobtrusive and highly potent”, operating by way of placing the subject within “a highly personalised choice environment”²⁹. Thus, the more important behaviour determining factor is no longer nature, but the machine learning algorithms³⁰.

Consolidation of Power

Moving forward, it must be admitted that political considerations are increasingly being replaced by data-based ones. For those capable of employing them, data offer “granular insights into the customer’s purchasing journey”, regardless of whether that purchase turns out to be an acquisition of physical goods, a subscription to digital service, or a voting decision – in all of these (and many other) domains, “data and metrics deliver in quasi-real time critical insights into customer needs and behaviors” relevant to decision-making³¹. This analytical turn also creates an onus on political campaign planners to employ data analytics in preparation of their strategies, not only for the purpose of improving efficiency but also because the audiences become used to ever more comfortable personalisation. Ultimately, analytics, when paired with algorithmic agglomeration of audiences and/or structuration of encounters with information, opens opportunities to microtarget strategically chosen audiences³².

The propensity for stickiness of such microtargeted influence ultimately also implies that algorithmic politics must be understood as “ways of world-making – the practices and capacities entailed in ordering and arranging different ways of being in the world”³³. Crucially, if a political actor is capable of successfully wrapping their target audiences in a tailored information environment, that personalised experience cocoon simultaneously becomes the lens through which individuals come to interpret their environment, including what is real, true, and genuine, and what is not. In other words, politics becomes “the making of certain realities”³⁴. Agency, nevertheless, is never fully (even never primarily) with the po-

²⁹ K. Yeung, ‘*Hypernudge*’: *Big Data as a Mode of Regulation by Design*, in “Information, Communication & Society”, 20, 2017, p. 122.

³⁰ W. Ammerman, *The Invisible Brand: Marketing in the Age of Automation, Big Data, and Machine Learning*, McGraw-Hill, New York 2019, p. 172.

³¹ K. Schwab, *The Fourth Industrial Revolution*, Portfolio, London 2017, p. 54.

³² O. Papakyriakopoulos *et al.*, *Social Media and Microtargeting: Political Data Processing and the Consequences for Germany*, in “Big Data & Society”, 2018, p. 2.

³³ Bucher, *op. cit.*, p. 3.

³⁴ *Ibidem*.

litical actors. Instead, those actors are themselves dependent upon algorithmic means of “ranking, classifying, sorting, predicting, and processing data” – hence, algorithms (or the actors writing and wielding them) acquire direct political capacity of negotiating and/or choosing presence out of the multiple available options³⁵. Thus, new data intermediaries emerge, which assemble “human actors, code, software and algorithms that are active in shaping the circulation and integration of new forms of data”³⁶. These intermediaries are increasingly the ones who call the shots in political competition.

The role and functioning of such intermediaries are constantly evolving as a result of intensive competition over capture and retention of audience attention and maximisation of efficiency in turning it to audience behaviour or predictions thereof. A paramount example of this logic of continuous experimentation and change is A/B testing that exposes groups of users to variations in code, interface, or content to determine the best-performing iteration. Such testing enables constant perfecting of platforms, so that the hooking of users is as efficient as possible, which can often be translated into *attention potential* and monetized. In addition to their own architectural A/B testing, most platforms and attention management service providers also enable other actors using their services to run content-focused A/B testing through tracking the performance of different messages across multiple formats (textual, audio-visual etc.). Every message thus also becomes an experiment that allows working out to minute detail (subtle variations in text, colour etc.) what influences a particular audience given its psychological characteristics – an experiment conducted dynamically and simultaneously across multiple audiences³⁷.

Further opportunities are also offered by adding machine learning into the mix, most notably – its capacity for producing fine-grained distinctions and for sorting people in increasingly advanced ways. It is possible to target people not merely by identifying the policies from the political right to the left, but also with specifics on the issues that one cares about the most in order to then precision-target a message³⁸. Such messages tend to be not only precision-targeted but also precision-crafted by employing marketing automation and machine learning. They are designed to be persuasive in sophisticated and imperceptible ways³⁹. A further no-

³⁵ *Ibidem*.

³⁶ D. Beer, *Envisioning the Power of Data Analytics*, in “Information, Communication & Society”, 21, 2018, p. 476.

³⁷ P.W. Singer, E. T. Brooking, *Like War: The Weaponization of Social Media*, Mariner Books, Boston 2019, p. 178.

³⁸ C.R. Sunstein, *#Republic*, Princeton University Press, Princeton 2018, p. 4.

³⁹ W. Ammerman, *op. cit.*, p. 46.

table change has been that of scale: with the automation of analysis and message crafting, advertisements and messages can be developed and delivered in a customised and personalised fashion at almost instant speed and on a massive scale, across multiple platforms⁴⁰.

The capacity for gauging audience sentiment and opinion has led to a redefinition of political leadership as well. This new type of leadership is where the leader effectively becomes the mouthpiece of the audience, and it is referred to as “ventriloquism”⁴¹. Similarly, the term “metapopulism” is used to describe when the “leader vanishes [with-in] a chain of signification that represents him or her for others”, effectively becoming “an empty set – a set which has no elements such as beliefs, ideas, values, or feelings that could be attributed to the metapopulist leader him or herself”⁴². In that sense, the political leader switches seats from the traditional sense of stepping forward and guiding others to becoming a blank screen onto which an audience’s inner drives can be projected. The importance of data-based triggering is, therefore, undeniable.

Sculpting Digital Voids

It is crucial to note, however, that political (just like any other) meaning is created not just through structuration of what is said and how but also through determining what is left out. Here online platforms could be seen as custodians of memory and forgetting, or what may be called the practice of “sculpting digital voids”⁴³. While originally the term was coined for somewhat different purpose (the avoidance of bringing up memories that could be unpleasant or painful to the user), the concept is, nevertheless, useful in terms of underscoring silences and absences as “not merely residue from the fire of the already said and shown” but something that “can be actively sculpted and shaped” – signifying not merely absences in data and information removed from view but

⁴⁰ Ivi, p. 46.

⁴¹ F. Cooren, *Communication Theory at the Center: Ventriloquism and the Communicative Constitution of Reality*, in “Journal of Communication”, 62, 2012; A. Kavada, *Creating the Collective: Social Media, the Occupy Movement and Its Constitution as a Collective Actor*, in “Information, Communication & Society”, 18, 2015.

⁴² M. Hauser, *Metapopulism in-between Democracy and Populism: Transformations of Laclau’s Concept of Populism with Trump and Putin*, in “Distinktion: Journal of Social Theory”, 19, 2018, p. 68.

⁴³ B.N. Jacobsen, *Sculpting Digital Voids: The Politics of Forgetting on Facebook*, in “Convergence: The International Journal of Research into New Media Technologies”, 27, 2021.

also “the presence of the system that instantiated the absence”⁴⁴ – in other worlds, voids are constitutive of any presence. For this reason, the sculpting of digital voids is not a neutral practice⁴⁵. In the increasingly digital-centric world, social media platforms shape the evolution of democracy and thus play a role in shaping the political landscape through content governance⁴⁶. Moreover, such gatekeeping extends beyond structuration of information but also includes deplatforming (ban of individuals) and deplatformization (ban of entire sites) as forms of content governance⁴⁷. In addition, technology companies have other ways to sculpt digital voids as illustrated by the decision by Apple and Google to remove opposition apps from their stores just before the 2021 Russian parliamentary elections⁴⁸.

As intimated above, in particular social media are becoming the arbiters of what voters do and do not see, what political truth is, and where attention is going to be directed – often inducing a sense of helplessness among political actors⁴⁹. Crucially, then, social media “play an increasingly important role as platforms for discourse” through creation of spaces for people “to gather, discuss, debate, and share information”; nevertheless, these are also private commercially owned spaces, meaning that “the users who populate them have relatively little influence on their architecture and governance”⁵⁰. This creates a tension “between community and marketplace, public sphere and private platform” which permanently manifests itself on the platforms through, for example, content moderation “designed to place bounded limits on undesirable forms of expression while maximally encouraging users to produce and post content”⁵¹, and maximising time spent on the already available content. The platforms appear to strive to overcome such tensions by resorting

⁴⁴ Ivi, p. 361.

⁴⁵ Ivi, p. 359.

⁴⁶ A. Gurumurthy, J. Vipra, *Misleading Takedowns: Facebook Needs to Be a Lot More Transparent when It Comes to Banning Pages, Groups*, in “IT for Change”, 2019, <https://itforchange.net/misleading-takedowns-facebook-needs-to-be-a-lot-more-transparent-when-it-comes-to-banning-pages>.

⁴⁷ J. Van Dijck, T. de Winkel, M. T. Schäfer, *Deplatformization and the Governance of the Platform Ecosystem*, in “New Media & Society”, 2021.

⁴⁸ Reuters, *Google, Apple Remove Navalny App from Stores as Russian Elections Begin*, 2021, September 17, available at: <https://www.reuters.com/world/europe/google-apple-remove-navalny-app-stores-russian-elections-begin-2021-09-17/>.

⁴⁹ D. Kreiss, S. C. McGregor, *The ‘Arbiters of What Our Voters See’: Facebook and Google’s struggle with Policy, Process, and Enforcement around Political Advertising*, in “Political Communication”, 36, 4, 2019.

⁵⁰ S. Myers West, *Censored, Suspended, Shadowbanned: User Interpretations of Content Moderation on Social Media Platforms*, in “New Media & Society”, 20, 2018, pp. 4366-4367.

⁵¹ Ivi, p. 4367.

to automation juxtaposing “fallible” human moderators vs “impartial” algorithmic moderation thus seamlessly putting algorithmic decisions beyond questioning⁵².

However, decisions on highly context- and culture-sensitive issues, for example, satire are bound to be problematic⁵³. Also, balancing free speech and the need to remove toxic or illegal content poses another difficulty, not least because automated moderation may struggle to recognise such content and the context in which it is used⁵⁴. After all, “[h]uman communication and interactions are complex, and automated tools misunderstand the political, social or interpersonal context of speech all the time”⁵⁵. In fact, blunt content moderation can in itself be a cause for harm, including disproportionately taking down content pertaining to, or originating from, certain communities⁵⁶. The lack of transparency in algorithmic moderation makes contesting any content moderation decisions extremely difficult⁵⁷ with grounds for content removal decisions often remaining unknown even to the affected individuals⁵⁸. Moreover, although the emphasis is often on content removal and the averted threats (as exemplified by e.g. Facebook’s annual transparency reports), arguably reckoning over content that has not been taken down, including algorithms pushing violent and extremist content is lacking⁵⁹.

In order to remove bogus content more effectively, platforms use the input of users in flagging such content⁶⁰. Nevertheless, for example, government content take down requests pose an additional issue. Although, with regards to some platforms (Facebook is a notable case here), there

⁵² R. Gorwa, R. Binns, C. Katzenbach, *Algorithmic Content Moderation: Technical and Political Challenges in the Automation of Platform Governance*, in “Big Data & Society”, 2020, p. 12.

⁵³ K. Lyons, *Facebook to Update Community Standards to Clarify How It Handles Satire*, in “The Verge”, 2021 June 20, available at: <https://www.theverge.com/2021/6/19/22541349/facebook-update-community-standards-satire-oversight-board>.

⁵⁴ I. Lapowsky, S. Levy, *Here’s What Facebook Won’t Let You Post*, in “Wired”, 2018 April 24, available at: <https://www.wired.com/story/heres-what-facebook-wont-let-you-post/>.

⁵⁵ Electronic Frontier Foundation, *Facebook’s Most Recent Transparency Report Demonstrates the Pitfalls of Automated Content Moderation*, 2020, October 8, available at: <https://www.eff.org/deeplinks/2020/10/facebook-most-recent-transparency-report-demonstrates-pitfalls-automated-content>.

⁵⁶ *Ibidem*.

⁵⁷ R. Gorwa, R. Binns, C. Katzenbach, *op. cit.*

⁵⁸ S. Myers West, *op. cit.*

⁵⁹ I. Lapowsky, *Facebook’s Transparency Report Shows What Facebook Wants You to See*, in “Protocol”, 2021 February 11, available at: <https://www.protocol.com/facebook-hate-speech-transparency#toggle-gdpr>.

⁶⁰ J. Taylor, *Australia’s Department of Home Affairs Made Most Requests for Covid Misinformation Takedowns*, in “The Guardian”, 2021, February 16, available at: <https://www.theguardian.com/australia-news/2021/feb/17/australias-department-of-home-affairs-made-most-requests-for-covid-misinformation-takedowns>.

is transparency in terms of reports detailing requests for taking down illegal content, other grounds for government-initiated removal are more obscure⁶¹. Crucially, even when it comes to requesting takedowns of illegal content, it is not inconceivable for governments (particularly less than fully democratic ones) to legislate in ways that specifically target the opposition⁶². Likewise, activists whose actions are uncomfortable to the government can be targeted by government-initiated takedown requests⁶³. Government requests for content removal that is not illegal but merely violates platform policies is particularly thorny. Of course, one could say that such requests are merely governments being helpful, in a way not dissimilar from ordinary user reporting; however, given that the content is not illegal, “this often starts to feel like a loophole through which government actors can engage in wink-wink-nudge-nudge censorship”, whereby instead of openly cracking down, a government could simply “send a notification to the site that *this* particular content may not break the law, but *hey, doesn't it violate your policies?*”⁶⁴. For this reason, promising additional transparency as to government take down requests for content that is not illegal is a welcome first step towards more transparency⁶⁵.

Conclusion

As attention attraction is a zero-sum game and audiences increasingly expect information to find the consumer and do so in a personally relevant way, experience of consumption becomes a competitive differentiator drawing political (and other) actors towards opportunities offered by datafication, growth in surveillance capacity, and algorithmic data analysis. However, the latter processes are not self-contained: the immediate feedback available as a result of data analysis, if applied to communication in real-time, becomes constitutive of what the data purport to represent, with the capacity to achieve behavioural change in the audiences that wind themselves at the receiving end of microtargeting and message tailoring.

⁶¹ Lapowsky, *Facebook's Transparency Report*, cit.

⁶² J. Taylor, *op. cit.*

⁶³ P. Ravi, *Shadow Bans, Criminal Cases, Takedowns: Inside India's Expanding Digital Crackdown*, in “Article 14”, 2021, July 26, available at: <https://www.article-14.com/post/shadow-bans-criminal-cases-takedowns-inside-india-s-expanding-digital-crackdown-60fe1ebd5f3d0>.

⁶⁴ M. Masnick, *Facebook Promises to Distinguish Takedowns from Governments; Whether They're for Illegal Content, or Merely Site Rules Violations*, in “TechDirt”, 2021 August 31, available at: <https://www.techdirt.com/articles/20210812/17261547351/facebook-promises-to-distinguish-takedowns-governments-whether-theyre-illegal-content-merely-site-rules-violations.shtml>.

⁶⁵ *Ibidem*.

In the above environment, data intermediaries, and non-politicians, act as structuring agents, courtesy of their capacity to determine what messaging is the most efficient in achieving behavioural change in a specific audience. The result is, in a nutshell, outsourcing of political campaigning to actors capable of gaining sophisticated insights into target audiences and tailoring messaging in ways that are known in advance to trigger the desired action by leveraging affective proclivities and exploiting weaknesses in character, thereby changing the conventional mode of democratic politics. Still, such political world-making would be incomplete without digital voids that delimit the outer boundaries of such worlds.

Bibliography

- Ammerman W., *The Invisible Brand: Marketing in the Age of Automation, Big Data, and Machine Learning*, McGraw-Hill, New York 2019.
- Andrejevic M., Burdon M., *Defining the Sensor Society*, in "Television & New Media", 16, 2015, pp. 19-36.
- Beer D., *Envisioning the Power of Data Analytics*, in "Information, Communication & Society", 21, 2018, pp. 465-479.
- Beraldo D., Milan S., *From Data Politics to the Contentious Politics of Data*, in "Big Data & Society", 2019.
- Broadbent S., Lobet-Maris C., *Towards a Grey Ecology*, in L. Floridi (a cura di) *The Onlife Manifesto: Being Human in a Hyperconnected Era*, Springer, Cham 2015, pp. 111-124.
- Bucher T., *If... Then: Algorithmic Power and Politics*, Oxford University Press, Oxford 2018.
- Caplan R., Boyd D., *Isomorphism through Algorithms: Institutional Dependencies in the Case of Facebook*, in "Big Data & Society", 2018.
- Citton Y., *The Ecology of Attention*, Polity, Cambridge 2017.
- Cooren F., *Communication Theory at the Center: Ventriloquism and the Communicative Constitution of Reality*, in "Journal of Communication", 62, 2012, pp. 1-20.
- Couldry N., Hepp A., *The Mediated Construction of Reality*, Polity, Cambridge, 2017.
- Electronic Frontier Foundation, *Facebook's Most Recent Transparency Report Demonstrates the Pitfalls of Automated Content Moderation*, 2020, October 8, available at: <https://www.eff.org/deeplinks/2020/10/facebooks-most-recent-transparency-report-demonstrates-pitfalls-automated-content>.
- Etter M. et al., *Measuring Organizational Legitimacy in Social Media: Assessing Citizens' Judgments with Sentiment Analysis*, in "Business & Society", 57, 2018, pp. 60-97.
- Faraj S., Pachidi S., Sayegh K., *Working and Organizing in the Age of the Learning Algorithm*, in "Information and Organization", 28, 2018, pp. 62-70.

- Giatsoglou M., *et al.*, *Sentiment Analysis Leveraging Emotions and Word Embeddings*, in “Expert Systems with Applications”, 69, 2017, pp. 214-224.
- Gil de Zúñiga H., Weeks B., Ardèvol-Abreu A., *Effects of the News-Finds-Me Perception in Communication: Social Media Use Implications for News Seeking and Learning About Politics*, in “Journal of Computer-Mediated Communication”, 22, 2017, pp. 102-123b.
- Gorwa R., Binns R., Katzenbach C., *Algorithmic Content Moderation: Technical and Political Challenges in the Automation of Platform Governance*, in “Big Data & Society”, 2020.
- Gurumurthy A., Vipra J., *Misleading Takedowns: Facebook Needs to Be a Lot More Transparent when It Comes to Banning Pages, Groups*, in “IT for Change”, 2019, <https://itforchange.net/misleading-takedowns-facebook-needs-to-be-a-lot-more-transparent-when-it-comes-to-banning-pages>.
- Hauser M., *Metapopulism in-between Democracy and Populism: Transformations of Laclau’s Concept of Populism with Trump and Putin*, in “Distinktion: Journal of Social Theory”, 19, 2018, pp. 68-87.
- Jacobsen B.N., *Sculpting Digital Voids: The Politics of Forgetting on Facebook*, in “Convergence: The International Journal of Research into New Media Technologies”, 27, 2021, pp. 357-370.
- Just N., Latzer M., *Governance by Algorithms: Reality Construction by Algorithmic Selection in the Internet*, in “Media, Culture & Society”, 39, 2017, pp. 238-258.
- Kavada A., *Creating the Collective: Social Media, the Occupy Movement and Its Constitution as a Collective Actor*, in “Information, Communication & Society”, 18, 2015, pp. 872-886.
- Kosinski M., Stillwell D., Graepel T., *Private Traits and Attributes as Predictable from Digital Records of Human Behavior*, in “Proceedings of The National Academy of Sciences of the United States of America”, 110, 2013, pp. 5802-5805.
- Kreiss D., McGregor S.C., *The ‘Arbiters of What Our Voters See’: Facebook and Google’s struggle with Policy, Process, and Enforcement around Political Advertising*, in “Political Communication”, 36(4), 2019, pp. 499-522.
- Lapowsky I., *Facebook’s Transparency Report Shows What Facebook Wants You to See*, in “Protocol”, 2021, February 11, available at: <https://www.protocol.com/facebook-hate-speech-transparency#toggle-gdpr>.
- Lapowsky I., Levy S., *Here’s What Facebook Won’t Let You Post*, in “Wired”, 2018 April 24, available at: <https://www.wired.com/story/heres-what-facebook-wont-let-you-post/>.
- Lyons K., *Facebook to Update Community Standards to Clarify How It Handles Satire*, in “The Verge”, 2021, June 20, available at: <https://www.theverge.com/2021/6/19/22541349/facebook-update-community-standards-satire-oversight-board>.
- Masnick M., *Facebook Promises to Distinguish Takedowns from Governments: Whether They’re for Illegal Content, or Merely Site Rules Violations*, in “TechDirt”, 2021 August 31, available at: <https://www.techdirt.com/articles/20210812/17261547351/facebook-promises-to-distinguish-takedowns-governments-whether-theyre-illegal-content-merely-site-rules-violations.shtml>.

- Mayer-Schönberger V., Cukier K., *Big Data: The Essential Guide to Work, Life and Learning in the Age of Insight*, John Murray, London 2017.
- Mazzoleni G., *Changes in Contemporary Communication Ecosystems Ask for a 'New Look' at the Concept of Mediatisation*, "Javnost – The Public", 24, 2017, pp. 136-145.
- McAfee A., Brynjolfsson E., *Machine, Platform, Crowd: Harnessing Our Digital Future*, W. W. Norton & Company, New York 2017.
- Myers West S., *Censored, Suspended, Shadowbanned: User Interpretations of Content Moderation on Social Media Platforms*, in "New Media & Society", 20, 2018, pp. 4366-4383.
- Papakiriakopoulos O. et al., *Social Media and Microtargeting: Political Data Processing and the Consequences for Germany*, in "Big Data & Society", 2018.
- Puschmann C., Powell A., *Turning Words into Consumer Preferences: How Sentiment Analysis is Framed in Research and the News Media*, in "Social Media + Society", 2018.
- Ravi P., *Shadow Bans, Criminal Cases, Takedowns: Inside India's Expanding Digital Crackdown*, in "Article 14", 2021 July 26, available at: <https://www.article-14.com/post/shadow-bans-criminal-cases-takedowns-inside-india-s-expanding-digital-crackdown-60fe1ebd5f3d0>.
- Reuters, *Google, Apple Remove Navalny App from Stores as Russian Elections Begin*, 2021, September 17, available at: <https://www.reuters.com/world/europe/google-apple-remove-navalny-app-stores-russian-elections-begin-2021-09-17/>.
- Schwab K., *The Fourth Industrial Revolution*, Portfolio, London 2017.
- Singer P.W., Brooking E.T., *Like War: The Weaponization of Social Media*, Mariner Books, Boston 2019.
- Sunstein C.R., *#Republic*, Princeton University Press, Princeton 2018.
- Taylor J., *Australia's Department of Home Affairs Made Most Requests for Covid Misinformation Takedowns*, in "The Guardian", 2021 February 16, available at: <https://www.theguardian.com/australia-news/2021/feb/17/australias-department-of-home-affairs-made-most-requests-for-covid-misinformation-takedowns>.
- Vaidhyanathan S., *Anti-Social Media: How Facebook Disconnects Us and Undermines Democracy*, Oxford University Press, Oxford 2018.
- Van Dijck J., De Winkel T., Schäfer M.T., *Deplatformization and the Governance of the Platform Ecosystem*, in "New Media & Society", 2021.
- Yeung K., *'Hypernudge': Big Data as a Mode of Regulation by Design*, in "Information, Communication & Society", 20, 2017, pp. 118-136.