



Special Issue: Iteration and persuasion as key conditions of digital societies

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The aim of this special issue is to explore how social processes driven by repetition, such as cultural memory, belief-creation, labelling, advocacy and ideas of consensus need urgent reconsideration in digital contexts. It looks at the agencies of repetition itself—to offer identity, for example, or to reify and direct attention—aiming to unpack exactly *how* the digital encodes the human, and vice versa.

It arises from a series of seminars and symposia held by The Re-Interdisciplinary Network at CRASSH, University of Cambridge,¹ which analysed the extent to which the affordances of the digital environment—both negative and positive—involve sudden and sweeping changes less in the creation than in the *iteration* of information. Diverse discussion across a wide range of disciplines on a wide range of topics all emphasised iteration and persuasion as two key conditions of communication that have been radically transformed by digital technologies. This is perhaps unsurprising, given that two of the most significant practical changes brought about by the digital era are the rise of end-user-driven and self-generating processes of which social media is the salient example, coupled with the algorithmic monetisation of personal data by advertiser platforms. In a world where facts no longer persuade, the systematic organisation and control of attention is the primary persuasive determinant. Networked effects of socially-associated values have become more powerful than objective data, evidence, or proofs, turning truth and falsehood into collective phenomena of selective sharing, i.e., of mechanical and human *repetition*. Yet persuasion and iteration currently play little part in scholarly

discussions of how the digital era impacts society, and more important, in public understandings of the nature of digitally-mediated social environments.

As a term, ‘repetition’ has gathered its own corner of scholarly literature, focused around Benjamin, Deleuze, Žižek, Lacan, and Butler, among others (for example Agamben 2002; Benjamin 1969; Butler 1999; Deleuze 1994; Lacan *et al.* 1973; Žižek 2012); ‘iteration’ has its own specific use as a term in mathematics and computer science, and is a concept integral to the algorithm. However, thinking again about repetition as a social agent—who repeats what, and why; or rather, what repeating something *does*—offers a potentially useful angle on, or imaginary for, grasping what is socially distinct about a digital era. For sharing, liking, clicking, dissemination, and spread are iterative processes. They are simultaneously end-user and algorithmically driven, happen interactively in real time, live, at speed, and most important, with impacts typically invisible to both their targets and agents. Other types of repetition create pattern-over-time, pointing back at users cumulatively and collectively, such as profile-creation, data-harvesting, and search engine optimization.

Algorithms are tools for structuring and influencing *repeated* data: designed to pattern input and instrumentalize output. Their current pervasiveness in human society is unprecedented. This special issue proposes that repetition, iteration, and digital sharing should be considered in a wider sense than simply as an individual choice to decide, knowingly, to repeat some *thing*. Indeed, perhaps that is part of the problem: a click or a like is *not* such a knowing decision to repeat. It cannot be, by definition, because its networked effects are impossible to calculate in that same instant, and in isolation. However, a click or a like is not impossible to *predict*. That is what algorithms are designed to do. And if that is what algorithms are designed to do, and those networked effects depend on emotion, on precisely avoiding the application of fully considered, contextualised knowledge,

¹ <https://www.crassh.cam.ac.uk/research/networks/re-interdisciplinary-network>.

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and if user behaviour is implicated in the business models that shape Internet use, we are living, by design, in a system of ‘hidden persuasion’²; in what insiders in Silicon Valley since 1997 have called ‘persuasive technology’.³

Those working on the psychology of persuasion and mass belief tend not to be computer scientists or data analysts. This is unfortunate, because digital public spaces are a combination of the human and the mechanical together in an inseparable, interactive, and ongoing relationship—a relationship in which the user is both target and agent, both cause and effect. It is for these reasons that the issue seeks to draw attention to repetition and persuasion as core characteristics of the digital era, and as potential conceptual lenses which can be easily grasped by end-users, advancing the process of end-user education that most in this field understand as a key to effective solutions.

The repeated misrepresentation (both deliberate and not) of evidence and fact is certainly nothing new: it has been a feature of knowledge communities from long before the digital era—arguably, it is an essential characteristic of human society itself. But easily accessible, low-cost interventions in capacities to repeat are a special opportunity offered by a digital information ecosystem. And the difference, now, is that who or what is choosing to direct public attention and shape public narratives is no longer patent, nor accountable (‘data sets, rather than humans, have become the programmers’, Foster 2022, quoting AI pioneer Geoffrey Hinton, this volume). For as Foster reminds us, although digital technologies render public space, this is not a ‘public sphere’ in which a plurality of evidence and opinions freely mix, and from which independent views might be formed, but a collection of invisibly curated privacies—proximate but several, and shaped by iterative processes that are never persuasively neutral.

The ‘Re-’ Network looks at cultural repetition of all kinds—from the nature of traditions, originals and copies, canons and icons, to heritage, brand, and celebrity—interested in the social values all such forms of recognisable repetition perform. The goal of ‘Re-’ is to help equip the public with a more fluent grasp of how cultural repetition offers an identity, frames a particular worldview, implies a consensus, and performs a persuasive past. It seeks to shift public attention from what cultural works and other kinds of public statements *are*, to what they *do*. It does this by asking, for example, what constituencies or audiences are implied by a particular act of (re)address; or what *else* (other

than the repeated thing itself) is being performed via any particular instance of reperformance, revival, re-enactment, remembrance, or reference: values such as status, knowledge, legitimacy, authority, continuity, participation, community, identity, and nation. Cultural repetition has a set of common dynamics that like the dynamics of a language are collectively performed, evolved, and sustained, maintaining a ‘resource of the recognisable’ (Foster 2020). Inevitably any repetition of images and texts across different media or audience contexts brings up issues of shared memory, time, document, record, narrative, place, and identity, and accompanying moral questions of fiction and veracity, faith and accuracy, aesthetics, and subject position. However, in a digital era, the development of such a language of shared material, of what becomes familiar or recognisable—visible, trending, and recommended—can be easily deliberately interfered with or influenced by individual agents (both human and mechanical) with cause and effect in unprecedented disproportion. A key effect of this interference has been to binarise the experience of public positions and identities as either/or propositions, as polarised mutually exclusive oppositions, rather than as plural and multivalent co-existents. This special issue argues for the value of the Arts, Humanities and Social Sciences in general in offering ways to answer back to these binarising tendencies, and to re-encourage critical reading in the widest sense: that is, thinking based on plural perspectives, thorough contextualisation, comparison, analogy, and awareness of self: not easy to do with every click, but no less necessary.

The difficulty of ‘reading’ information on the Internet in this wider, critical sense is striking. As Duncan Ganley’s mediation on the difference between ‘reading’ versus ‘scanning’ suggests (Ganley, in this volume) it is not only that reading implies active interpretation, but also that like any live, embodied or performing art, it implies that multiple meanings are always available. The multiplicity of available meanings as well as the interpretative complexity inherent in ‘reading’ has been a seminal aspect of it in cultural studies, psychoanalysis, political science, and other relevant fields (see, for example, Dahlgren 2009; Dolan 1995; Eagleton 1991; Fiske 1986; Hall 1980). Digital information ecosystems de-emphasise this foundational assumption. They are set up to encourage, indeed, to require definitive *category*, or code. Selection, moreover, is a structural function of digital environments: the fundamental action of data analysis is to create clusters. The corollary of this categoric tendency, the desired product of algorithmically-curated networked associations, is a reactive binary yes or no, an act of approval or disapproval, belief or disbelief. ‘Reading’ in its most interrogative sense also implies time: consideration. But the shaping of narratives via repetition in a digital era, both consciously and unconsciously, is instantaneous, constant, and live.

² Vance Packard’s famous phrase in his 1957 *The Hidden Persuaders*. This book, and his 1964 *The Naked Society*, remain a seminal American critique of advertisement-driven consumer society.

³ See, e.g., <https://behavioraldesign.stanford.edu/ethical-use-persuasive-technology>.

Digital technologies are designed to exploit these uncritical affordances, from bots, trolls, and fake accounts to recommendation engines and search engines. These effects are particularly hard to tackle because they are both deliberate and structurally inevitable. The power of all these tools of influence has to do not only with interventions in the *iteration* of information, but also depends, in part, upon the *absence* of public understandings of their processes. It is therefore not without cause that well-financed influencers believe that they can potentialize the newly atomised, decontextualized information environment more effectively the less the public grasp the processes by which this is achieved. Nor is it surprising to find them encouraging public outrage and division about individual instances of influence or persuasion, if it distracts from sense-making elucidation of the wider structures or strategic systems involved. This interdisciplinary issue proposes repetition and persuasion as useful public-facing ideas to direct attention to some of these common principles and patterns.

The issue is divided into three sections: ‘Social impacts, social remedies,’ a survey of some of the wider stakes and potentials involved; ‘An inherently iterative medium,’ offering some different ways in which repetition is a primary agent or feature of specific aspects of Internet use; and lastly, ‘Persuasive affordances,’ exploring some examples of how digital public space is a *prima facie* persuasive environment. Taken together, the chapters argue for a paradigm shift in public understandings of the digital era, as a move away from a culture of discovery, where what matters is what exists or is the case, towards a culture of iteration, where what matters is what gets repeated.

In the first section of this special issue, **Alan Blackwell**’s Curmudgeon Corner ‘Wonders without number: the information economy of data and its subjects’ opens the debate with a critical interrogation of the objectivity of data science. He makes a plea to reconsider our assumptions that quantitative measurement is ‘objective’ and a reliable method for understanding and resolving social complexity. He argues that unexamined assumptions about number and objectivity have helped create a situation in which our ‘collective investment in an informationally efficient infrastructure has led inevitably to a commercial imperative that rewards iteration rather than understanding.’ **Clare Foster**’s ‘Truth as Social Practice in a Digital Era’ article looks at the problem of false belief produced by the integrated psychological and algorithmic human landscape we now simultaneously generate and inhabit, arguing that truth and falsehood in a digital era should be seen not as properties or conditions attaching to content, but as interventions in social contexts, i.e., as acts of communication. The paradoxes inherent in the design of digital systems are the subject of two further articles in this section: **Tomasz Hollanek**’s ‘AI transparency: a matter of reconciling design with critique’ looks at how the design of

digital devices has typically included its own concealment, an instance of a ‘black box problem’. Hollanek connects this engineering challenge to theoretical inquiry, suggesting that explicit, active, and transparent critique could be a useful tool to debunk various illusions about AI. Rather than making things transparent, he argues, designers should make *critique* internal to the process of design—in the way a work of literature might refer to itself, for example. This argument points to the agency of user-awareness as paving the way forward, which is also the impetus behind **Orysia Hrudka**’s “‘Pretending to favour the public’: how Facebook’s declared democratising ideals are reversed in practice’. She points out that instead of encouraging more collective engagement in a more diverse public sphere, and offering a context for more inclusive and freer deliberation, as Facebook claims, Facebook’s policies in fact give rise to a deliberate increase in the narrowing of individual horizons, privatisation, and restriction of access to other points of view. The gap between Facebook’s outward slogans and inward practices is a seminal example of digital doublethink.

In the second section of this special issue, ‘An Inherently Iterative Medium,’ **Geoff Stead**, former Chief Product Officer at Babel and former Mobile Application Designer at Qualcomm, lays out the ways mobile app design aims to cause repetitive behaviour, and offers some insider tips on how to resist those deliberately ‘addictive’ features. He encourages users to think about the *positive* potential of feedback loops: to encourage language learning, for example. **Dr David Wood** in ‘What the digital world leaves behind: reiterated analogue traces in Mexican media art’ discusses some of the meanings generated when artworks in old media formats are re-presented in digital forms by contemporary media artists. These ‘media archaeology’ practices constitute critical dialogues between the old and the new in terms of not only technologies and media, but also the politics of cultural traditions and public space. His reflection on the structure of the media landscape in a digital world resonates with Foucault’s ‘archaeology of knowledge’ that questions assumptions of linearity and continuity, bringing to the fore a two-way influence and pointing the way to some positive aspects of digitalisation, not only in terms of practical preservation, but also as generative theoretically and creatively. In a similar vein, artist and photographer **Duncan Ganley** addresses the challenges of translating ephemeral, live, installed artworks into a printed book. His article ‘Reading vs. scanning: notes on Re:Print,’ in exploring new agencies of the ‘book’ in a digital world, reflects on the increasingly iterative quality of ongoing recycles, rediscoveries, transformations, and dislocations that have become characteristic of the production of text, image, and art in general, moving content towards a phenomenon of endless edits and recombinations. Finally, **Guobin Yang** provides a review of the diaries written and posted online by

local residents in Wuhan during the shocking first lockdown in Wuhan at the start of the COVID-19 pandemic in early 2020. His ‘Online lockdown diaries as endurance art’ suggests that these online-circulating daily personal posts went from mentally supporting the diarists themselves in times of difficulty, to representing the endurance of the whole city of Wuhan when struck by the COVID-19 crisis, only for these positive valences to reverse, as they became, in retrospect as the pandemic eased in China and hit the West, part of a global conflict over opinions of China, and thus an issue of patriotic loyalty among the Chinese. His analysis demonstrates that the practice of personal writing and storytelling, when mediated through digital repetition, can have social impacts that change and even reverse their original experience and context.

The third section of this special issue, ‘Persuasive Affordances’, provides empirical examples from various cultural contexts of how digital iteration is pre-eminently socially persuasive, and explores the agency of end-users in digitally mediated political environments. **Ruichen Zhang**, in her ‘Re-directing socialist persuasion through affective reiteration: a discourse analysis of “socialist memes” on the Chinese internet,’ shows how practices of reworking propaganda language into humorous memes on Chinese social media engage the online public, through the effect of humour in a meaningful dialogue with politics, potentially transforming the power of government-sponsored socialist persuasion in China towards liberalisation. The potential of reworking political discourse in alternative contexts is also the subject of **Anthony Kelly**’s case study of the 2016 US presidential election, about alt-right conservatives. His ‘Recontextualising partisan outrage online: analysing the public negotiation of Trump support among American conservatives in 2016’ examines how social media users (re)deployed right-wing discourses of deliberate outrage to generate electoral support for Donald Trump. He argues that these recontextualisation practices are essentially a means of contesting, negotiating, and (re)constructing political identities. His study shows how outrage, often understood as a commercial strategy by institutional media and political elites, is also user-generated, and thus is a powerful self-propelling tool through recursive practices on the Internet. Two further articles explore the capacity of specific individuals to steer some of the digital affordances of iteration towards positive ends: **Ana Belén Martínez García**’s analysis of ‘Women activists’ strategies of online self-representation demonstrates how certain young women from the Global South have deployed repetitive discursive techniques in narrating their struggles for social justice, and how these narratives are enhanced by the iterative affordances of digital platforms to achieve wider resonance and transnational solidarity, with enduring social impacts both among the general public and in policymaking; and **Madeline Smith-Johnson** looks at the administrators

of LGBT+ support groups on Facebook in her ‘Labor for community on Facebook,’ revealing the deliberate, tangible, and personal emotional labour that administrators put into organising and sustaining support groups for gender identity minorities. She stresses that what lies behind the widely acclaimed affordance of digital platforms in connecting and supporting marginalised individuals are in fact demanding repetitive processes of continuous support by human leaders. Finally, **John Sheridan** shares some insights about the extent to which digitising the UK’s national archive raises questions of selection and classification, a fundamental issue for all archives, but one that is now shaped by the categories of end-user search needs, rather than content. This marks how curators of digital media more generally, in their decisions about nomenclature and group, by encoding assumptions about present and future audiences, are socially shaping the information horizons of the future.

Wider strategic and persuasive purposes would of course be expected to find new force in a digital environment. This special issue suggests what has been missed is the fact that this new environment potentializes the old. Digital methods and affordances combine with old institutions and long-established practices, patterns, and interests to create what is effectively a new medium: one that can be nudged, tilted, and pushed not only to disproportionate effect, but with the added benefit of complete deniability, and of masking the motivating impulse, or interests, behind it. This meshes with what a lot of political science scholars have been saying about why the digital social media environment specifically appears to be favouring the spread of what they call right-wing views. It is also why focusing on end-user education—in this case, around the idea of iteration—is helpful. A catch-all as sweeping and easily graspable as repetition—a Gordian knot approach—might be a way forward in such a context. To encourage people to look at how something is being repeated avoids partisanship, referring instead to technique. It is not to take a side to say we are in a culture of iteration: it is to allow for and encourage reconsideration of the sharing, clicking, liking, or disliking of digital information as *both* concerning individual instances of content *and* the strategic agendas of a context. It allows for and encourages reconsideration of assumed absolutes and universals, especially the mutually defining binary oppositions on which the moral engine of emotional outrage depends.

Iteration as an angle of approach encourages a vision of a constantly shifting interactive self-updating self-learning system that is inevitably going to be persuading everyone all the time, both deliberately and not. It helps users to stop and think about every moment of interaction they have with that system, however modestly mediated through share arrows or ‘like’ hearts, and to notice every recommendation and search result as a mirror back to them of their ongoing curated online profile. It redistributes agency

back to the user, encouraging a sense of critique and self-awareness and empowering ordinary users, the masses, about their capacity to debunk, from not only the outside but also from the inside, through their everyday consumptions of, encounters with and reflections upon the information ecosystem they co-create.

The mechanism of iteration is both a lens and a means through which critique and awareness might be able to emerge and help develop corrective and positive social change. As implied in Zhang's work in this issue, social change is not only about momentous material revolutions, but also the sedimentation of ephemeral, informal activities and movements. This epistemological shift from 'the major' to 'the minor,' as already suggested by several digital media scholars (for example, Guan 2019; Pedwell 2017; Rentschler and Thrift 2015), is also something this special issue highlights. For 'the minor' to take effect and for digital affordances to move beyond the technological black box of unknowing persuasion, understanding iteration is key.

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