Distracted Reading: Acts of Attention in the Age of the Internet

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Abstract

Our digital gadgets are often blamed for introducing unprecedented levels of distraction, but how might we recognize and harness the attentional possibilities such an environment offers? This editorial essay introduces a special issue of DHQ devoted to thinking about distracted reading, and sets out an agenda and a context for our exploration of distributed modes of attention.

The Project

Central to the humanities is the theorization and practice of modes of attention. Yet if digital technology has changed one thing above all else in the texture of our everyday lives, it is precisely the nature of our attention to the world and to the cultural artifacts within it. Indeed, within our teaching spaces many of us devote much time to finding ways to redirect our students' attention away from the distractions of their multiple electronic gadgets. But what if we consider how such distributed focus might enable new acts of attention and new ways of reading? How might we think about pedagogically-inspired research methods, in addition to the more usual research-led pedagogy? How might we rethink our research methods and our pedagogy in an era of hyper-connectivity? This is the context and these are the questions that motivated this special issue, in which "reading" is taken to represent an act of critical engagement with works in any medium (text, visual art, film, or music, for example), and with the digital interfaces and devices through which we access those media. Indeed, it is important that the essays in this issue engage with a variety of art forms (from the visual arts, and cinema, to text) and with a variety of digital contexts and information systems. This is a conversation that has brought us together from across the humanities.

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This special issue emerged from a project that ran over two years at New York University and which involved two symposia over the course of 2016: one milestone event in the school of the interdisciplinary global liberal arts, Liberal Studies, and one in NYU's Centre for the Humanities. Both gathered scholars from across the disciplines, the first within a school, and the second from across the university and beyond. The project was designed initially to catch energies for new ways of working with digital technologies, to bring them together, and to give a space in which they could be fostered, developed, and shared with others. The initial aim, then, was to give us the space to experiment and to think afresh about our ways of working within the institution. However, the project attracted considerable attention from outside the university and began to connect with existing initiatives and inspire new projects in the work of scholars from across the US, Europe and Australasia. As a result, this special issue includes work from all three of those continents. It is a project that grew from the local to the global and whose growth was, of course, facilitated by the digital cultures it explores.

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The project community often worked with digital tools in a way that has become expected of the digital humanities – sometimes misusing tools and technologies creatively for new purposes and to provide new ways of thinking; sometimes creating new tools to enable new methods of engagement. Above all, though, the project has been centred not around a tool-led approach, but around an engagement with the broader concerns of digital cultures and our operation within them. The aim, ultimately, was to bring a greater self-consciousness to our use of digital tools and technologies and to our thinking about the acts of attention they entail, enable, or disable. Overall, the aim has been to think more about how we read with them and through them rather than about their ability to bring, for example, quantitative methods to the humanities. Digital humanities might often be focussed on what technology can bring to our study of the humanities, but it also reflects on what the humanities can bring to our engagement with our technological present. And in the case of the latter, what the humanities have to offer is, above all else perhaps, an assessment of how digital technologies are changing our experience of the world in the most profound and general of ways. A change in the way we attend is just one of these, but one particularly important to scholars and teachers.

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It is worth clarifying two points at the outset, then. The first is that "distracted reading" is not about simply celebrating the anarchy of distraction, but rather about exploring how distraction might involve acts of micro-attention or a distributed focus that can be harnessed constructively as useful methods of engagement for certain goals. The second: for all that the essays here frequently explore the uses of digital distraction as a method of study, this is not a manifesto for the use of technology, and it is certainly not an insistence on a revolution in pedagogy that will displace other methods. It's worth stressing again that the main point of the project is rather to encourage a more self-reflexive engagement with these gadgets (perhaps one of the most important skills for our current age) – and should lead to exactly the opposite of a blanket adoption of digital tools: it should lead to a more conscious decision as to when and why one might want to harness their distractive power and, equally, when and why one might call for an avoidance of them. The key to this project is to be more aware of

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fitting the methods to the aims, and to see — in a way that has not been adequately recognized — technological distraction as one legitimate method, among many others, but certainly not the only method, or even one that should be privileged. The point is to explore the potential of a range of practices we might add to our repertoire.

Consider, for example, enlivening the large lecture format by offering an electronic message board to which any of the students can send a question during the lecture if they are puzzled, or want more elaboration on a particular point. Then every fifteen minutes or so (which in reality is the length of most people's attention span) the lecturer stops to answer some of the questions. The questions do in a sense distract from the onward flow of the lecture, and they certainly break up its texture, but they do both in a way that promotes understanding of the content and, I would argue, attention. The technique results in the students feeling involved — the lecture becomes a two-way interaction — and of course this method has a core pedagogical purpose: in such a large group, without such techniques it is virtually impossible, otherwise, to know whether most students are following the lecture or completely lost. The lecturer can modulate the content in light of the level of understanding demonstrated in the questions posted. Moreover, in such a large lecture format it will always be impossible to strictly enforce a ban of technology, so it might be an occasion on which embracing its potential is more appropriate. However, there are still plenty of teaching sessions in which one might want to insist on the absence of electronic gadgets and work with pen and paper alone. There might be good reasons to do this for particular purposes; studies have shown that the phenomenological engagement involved in the inscription of cursive on the page is a better route towards certain types of mental activity than typing on a keyboard [May 2014].

Introduction to the Essays

The essays in this issue fall naturally into three groups. The first two essays begin by thinking about the processes of research and reading: how do distraction and distributed attention function within economies of information? We start with Jennifer Edmond's insightful, detailed, and fascinatingly evidenced analysis of distraction as a fundamental, but often undervalued, part of the process of humanities research. Focussing particularly on historians, her analysis of the methods of the humanities scholar is enlightening and refreshing. Moreover, her call for an exploration and validation of the distracted reading processes central to some research methods is essential. Tully Barnett's essay then goes on to think about "distributed reading" as a generative concept for understating processes of reading in the digital era. Barnett thinks about the impact of digitization on reading by exploring what it means to read through interface. She draws our attention to reading as a process within a network of "devices, platforms, features, networks, contexts", in order that "these can usefully be understood as forming an infrastructure of reading". These first two essays frame the field in different ways, but both offer a good platform for rethinking the informational economy of the humanities around notions of attention, distraction, and distribution.

The next three papers outline particular pedagogical strategies, and experiments with students, that are based on an interest in the type of distracted reading our engagement with electronic gadgets encourages. These three papers focus, respectively, on art history, cinema studies, and literature, providing a strong disciplinary range. Writing in the context of art history, Martha Hollander describes her experiments with student phone and tablet use. Using the capacity of students' individual electronic devices to call up a wealth of images to supplement those that are the focus of the syllabus, Hollander incorporates them into her teaching method. As she notes, with so many artworks being stored rather than exhibited publicly, the smartphone becomes a vehicle for accessing some of the "hidden treasures" of the museum. In requiring the use of personal devices in this way, Hollander keeps students active as individual participants, asking "What constitutes distraction as opposed to associative or divided thinking? How would we characterize a habit of mind enabled, rather than created, by personal digital devices?" For Hollander these methods have enabled an importantly different approach to learning the history of art; one which involves starting not with the reified canonical example, but with a mass of examples that give a feel for the genre or the artist's style before proceeding to the particular images she has chosen as the focus for communal attention. In other words, these new pedagogical strategies reflect and capitalize on the abundance of data now at our fingertips. Also working with visual images, but in the very different disciplinary context of cinema studies, Marina Hassapopoulou explores distraction through the idea of play and gamification, asking how "social media, remixing, GIS tools, and augmented reality" can be incorporated into pedagogical methods. Platforms and technologies that are more often experienced by students as distractions from study are repurposed by Hassapopoulou to enable "productive models of distributed attention and collective intelligence". Countering claims that shorter attention spans in younger audiences are damaging students' ability to learn, Hassapopoulou explores the new cognitive skills that media theorists have argued might be emerging: "such as the ability to process information more rapidly as a result of a less linearly-constrained and more interactive thought process". Moving next to literary studies, Sarah E. Kersh and Chelsea Skalak offer an analysis of the development and use of an annotation tool that helps their students read recursively. Noting that student assignments often presuppose a textual environment very different from that which exists for the students in actuality, they seek to enable them to create hypertext analyses. Working with the understanding of "hypertext-enabled radial reading" as a distracted form of reading, they show how such acts of overlaying and interconnecting readings helped students to understand the relationship between the theories and methodologies they were exploring.

The final two papers consider digital humanities courses themselves, asking what role digital humanities pedagogy can play in helping us think about economies of attention. Paul Fyfe argues that introductory digital humanities courses offer unique opportunities for exploring the act of reading itself. Focussing particularly on "metacognition" and "transfer", he describes how a focus on acts of attention might help students learn how to read in a more self-aware manner, in addition to enriching their sense of the possibilities for engaging with the "distributed facilities and extra-disciplinary partnerships" across the university that can help integrate their learning. He describes how his digital humanities pedagogy can help make students aware of how attention itself is mediated. Focussing on the relationship between

medium and meaning, he uses this analysis of mediated attention to encourage students to reflect upon the problems and possibilities for knowledge creation within their own educational environment. In the closing essay Grant Wythoff also writes about how the digital is both the object and the method of study in his course "Introduction to Digital Media", describing various strategies he offers to think about acts of attention. These methods include turning the distracted attention our digital devices often elicit from us into a "deep material literacy" of those same devices. This is achieved by having students literally deconstruct the physical make-up of those devices in all their material complexity. In addition to this close attention, Wythoff proposes another, rather more surprising pedagogical experiment. Thinking about distraction as an act of attention, but one "no longer directed by volition, discipline, or desire", he explores something that we might sometimes think of as the opposite of distraction: boredom. Using Kracauer to theorize acts of attention, he considers boredom as a valuable experience of the self that we rarely have to confront when we have our digital devices with us (which for many is almost always). Yet what happens if we insist on preserving some spaces free of digital distractions; "What might dwelling with our boredom open up to students?"

Some Context

It might seem odd to be working with, rather than against, technological distractions (even with the two important caveats introduced in the first section of this essay) in an age in which distraction is often perceived as the enemy of everything universities hold dear about education. Indeed, in May of 2017, a researcher at Oxford University was the first winner of the Nine Dots Prize (awarded for work tackling cotemporary societal issues) for an essay arguing that the distractions of digital technologies are fundamentally undermining our political processes. James Williams's essay "Stand Out of Our light: Freedom and Persuasion in the Attention Economy" argues that digital technologies privilege "our *impulses* over our *intentions*" and distract us from goals we may want to achieve [Williams 2017]. The distraction is, of course, often to the benefit of advertisers and other commercial interests, and Williams — who himself worked in the tech industry for ten years — argues that the very design principles of some of the digital platforms most central to our lives are guided by the aim of hijacking our attention.[1] In Williams' words, these technologies,

> can distract us from living the lives we want to live, or, even worse, undermine our capacities for reflection and self-regulation, making it harder, in the words of philosopher Harry Frankfurt, to "want what we want to want." A primary effect of digital technologies is thus to undermine the operation and even development of the human will. This militates against the possibility of *all* forms of self-determination at both individual and collective levels, including all forms of politics worth having. [Williams 2017]

As one reviewer summarises, "Attention is our most precious resource, and it's being taken away from us" [Tinworth 2017].

There is an implicit assumption in many of these reports on Williams's work that the information environment we live in has changed categorically as a result of the digital revolution: "Back in an information-scarce environment, the role of a newspaper was to bring you information — your problem was lacking it. Now it's the opposite. We have too much" [Gallagher 2017]. Yet it is easy to imagine the information culture of, say, the nineteenth century as similar to that of the present minus the digital technology, when in fact the reality of up to twelve postal deliveries a day in London in the late nineteenth century created a situation in which letters were often exchanged with a frequency we now associate with emails: whole conversations unfolded over the course of a day in quickly scribbled ink on paper. The proliferating worlds of sales, advertising, journalism, and new technologies in the later nineteenth century were also experienced as a revolution in the demands on attention (for example, the distractions of a constant onslaught of sales boys selling "papers and candy" and "new novels" to a captive audience on the train is documented in Brander Matthew's satiric pantoum "En Route" [Matthews 1887, 124–6]). Modernity seems intrinsically tied to concerns about distraction *at least* since the second industrial revolution (the revolution of the commodity in the latter half of the nineteenth century).

Moreover, from the turn of the twentieth century we can find examples of such concerns informing theories of reading. Ezra Pound asserted in the 1930s, "The main expression of nineteenth-century consciousness is in prose". Why? Because "The art of popular success lies simply in never putting more on any one page than the most ordinary reader can lick off it in his normally rapid, half-attentive skim-over" [Pound 1918, 32]. Readers were too distracted to be able to attend to the density of poetry, and its play with multiple resonances. According to this narrative, the novel became much more popular than poetry in the second half of the nineteenth century because it could be read while distracted. Whether or not this is the reason for the dominance of the novel over poetry after the industrial revolution, it is fascinating to see this articulation of a crisis in "modern" culture, and in reading specifically, attributed to the saturation of modern life with distractions that destroyed the capacity for attention that was necessary for reading linguistically complex literary forms. It feels so familiar, in spite of being written nearly a hundred years ago.

Of course, one might argue that whether unprecedented or not, the distractions of new technologies are to be resisted. Many scientific studies show the damage to IQ effected by distraction, and this has become a popular theme in some media outlets [Levitin 2015]. Adam Alter's *Irresistible: The Rise of Addictive Technology and the Business of Keeping us Hooked* (Penguin 2017, *passim*) suggests our relationship with technology might actually be pathological. And I would be lying if I did not admit that in the middle of this project I received from a fortune cookie the following simple legend, on a thin piece of cheap paper:

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Yet "distracted reading" as we frame it in this issue is not about simply succumbing to the random demands on our attention from pinging phones, screen notifications, and step monitors. The project asks instead how we might harness these delicious distractions as attentional devices - and in the process develop much greater self-awareness of the role these technological tools play in our lives, and, crucially, the role we *want* them to play in our lives. Experimenting with distraction is about exploring how we regulate attention, and becoming more aware of how we distribute our attention. After all, our acts of attention are, arguably, rarely other than partial. For some cognitive theorists, attention requires a state analogous to an orchestra playing in unison: the synchronised activity of relevant processes (see [Mole 2011], *passim*). Under such a definition, focussed attention is a rare achievement. As Christopher Mole notes, Philipp Koralus has suggested that such approaches could better encompass divided attention if we think of attention as something structurally analogous to the answering of a question [Koralus 2014] [Mole 2017]. Naomi Eilan also characterizes attention as "the means by which we answer questions about the environment" [Eilan 1998] [Mole 2017]. Needless to say, the "means" are more and more likely to involve our electronic devices.

Distributed Cognition?

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Recent thinking about distributed cognition might offer a useful framework for furthering this idea and for reconsidering the role such gadgetry can play in our cognitive economy. This is a framework psychologists and philosophers are using for thinking about cognitive processes (what we might call mind) as not being solely brain-based but being distributed across the body, across social groups, and also across the electronic gadgets that become extensions of our cognitive selves. What does it mean to think about mind as dispersed across objects external to our bodies? One of the key examples used to launch a central line of enquiry in this field focuses on the cognitive function of memory and the possibility for its extension outside of the body. In "The Extended Mind" (from 1998), Andy Clark and David Chalmers offer the thought experiment of "Otto", an Alzheimer's sufferer whose process of "remembering" relies on consulting a notebook in which he has key facts written down. Exploring the role the notebook plays in Otto's beliefs and action, the authors argue that it constitutes a technology of the extended mind because of the way it drives cognitive processes – it "plays the role usually played by a biological memory" [Clark and Chalmers 1998, 12]. (It is important to note that it is not the *processes* of consulting the notebook or referring to biological memory that are thought to be equivalent here; what is similar is the role of the notebook and/or memory in acting as the basis for beliefs and actions.) "Otto *himself*", they conclude, "is best regarded as an extended system, a coupling of biological organism and external resources" [Clark and Chalmers 1998, 18]:

> Clearly, Otto walked to 53rd Street because he wanted to go to the museum and he believed the museum was on 53rd Street. And just as Inga had her belief even before she consulted her memory, it seems reasonable to say that Otto believed the museum was on 53rd Street even before consulting his notebook. For in relevant respects the cases are entirely analogous: the notebook plays for Otto the same role that memory plays for Inga. The information in the notebook functions just like the information constituting an ordinary non-occurrent belief; it just happens that this information lies beyond the skin. [Clark and Chalmers 1998, 13]

This seminal journal article has generated much discussion among philosophers and psychologists over the past couple of decades, and the issues it raises for our relationship with our smartphones, for example, are clearly very interesting. In their later work, Clark and Chalmers sometimes use technology in examples of extended mind theory, with Chalmers starting his Foreword to Clarke's book, *Supersizing the Mind*, with the claim that his iPhone "has already taken over some of the central functions of my brain". "Friends joke", he goes on, "that I should get the iPhone implanted into my brain, but if Andy Clark is right, all this would do is speed up the processing, and free up my hands. The iPhone is part of my mind already" [Chalmers 2010, 1]. The implication of this for our relationship with technology has been picked up by bloggers and commentators who have explored, for example, the complex issues this theory raises for the real-life case of the rights of the police to access a suspected terrorist's smart phone [Smith 2016].

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Theories of extended mind ask us to rethink the nature of our relationship with our electronic gadgets, and in turn we must rethink our relationship with the possibilities for distributed attention they offer. Perhaps our tendency to keep facts to hand in Wikipedia rather than in the brain, and to keep our sense of direction in a map app rather than in our heads, is not so much a failure as a success by other means: demonstrating a suitable deployment of extended mind technologies. Perhaps our constant need to consult with these devices is not necessarily a sign of lack of attention so much as a different kind of attention. So, while distraction by new technology is not a new phenomenon, the idea of "distracted reading" has a new currency and relevance in our current moment in key part because of changing thinking about cognition. As we begin to understand better the role digital gadgets play in our cognitive economy, the capacity they hold for forms of distributed attention might be more easily recognized and used constructively. What happens if we take this idea into our research and our teaching, and harness the relationship between the student or scholar and their electronic devices as a mode of distributed cognition? What then (to follow up on the second and third strands of the distributed cognition framework introduced at the start of this

section) if we also consider cognition as embodied, or as a social phenomenon among groups of students and/or researchers?

The contributors to this issue were not asked to engage specifically with the concept of extended mind, or the framework of distributed cognition, but it is interesting to see how much those ideas resonate with what is written here. Edmond's analysis of the process of research, for example, is one that speaks profoundly to ideas of distributed cognition. She notes how the piling and arrangement of papers on the top of a scholar's desk becomes what we might call an extended mind system for "arranging ideas, building a knowledge organization system". The messy, crowded desk might facilitate the distracted processes of reading necessary for the type of research practices she explores, or the systems of arrangements of papers on the desk might "optimise certain kinds of concentration". Either way, the surface of the desk might become a kind of cognitive technology. In the third essay, Hollander's sense of the personal digital device as as a sort of technologically extended mind has important consequences for her pedagogical vision: taking on board the extended mind capacities of the devices in the classroom she notes that her assessment is now geared toward "test[ing] research skills rather than memorization". Similarly, Paul Fyfe gestures towards this kind of cognitive extension when he points to Malcolm McCullough's work in *Ambient Commons: Attention in the Age of Embodied Information*, which notes how interface design is often geared not toward demanding our focussed attention but toward introducing new things to the periphery of our attention – making them available for more central focus as and when needed. His interest in such "extended cognition" within our digital environments might sound very familiar to extended mind theorists. In a rather different way, Hassapopoulou's interest in collaborative learning resonates with the idea that social groups and networks can also provide extended-mind environments. Finally, the claims for embodiment made repeatedly through this issue make a great deal of sense in relation to work on embodied cognition. Hassapopoulou writes of moving away from "ocular-centric paradigms of media reception" to "challeng[e] our bodies to, literally, make *sense* of mediated information using other modes of perception besides vision". And note, particularly, Fyfe's comment about how critical-making projects can render us aware of cognition as "an unfolding, embodied relation". Clearly, then, the recent interest in distributed cognition (and its claims for the extension of mind across external devices, social groups, and our bodies) makes itself felt in the concerns of this issue, and creates a timely context in which to think about distraction and distributed attention.

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Conclusion

This special issue aims to showcase and prompt new thinking around how we might harness modes of attention that have been embedded in our everyday lives by digital technologies. Our aim is to inspire new techniques for research and for pedagogy, and to inspire innovation in method as much as we seek innovation in content. More broadly, though, this special issue suggests that a new wave of work in digital humanities is taking on, and will have to take on, the revolution in cognition that is quickly transforming the way we think about our relationship with digital technologies. The speed with which the digital revolution changed older industrial processes is being matched by the speed with which the cognitive revolution is, in turn, transforming our use of digital technologies. Whether of the distributed or "in unison" kind, more attention needs to be devoted to our cognitive engagement with digital tools, and we need to continue to become more self-reflexive in our use of them.

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Notes

[1] "[T]he sort of things we measure and design for - clicks, app use - are not aligned to the life goals of people. Technology is meant to help us, so this suggests a profound failure. Reed Hastings of Netflix described sleep as one of his competitors. This is not of benefit to humans" [Tinworth 2017].

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