Postdigital Aesthetics
Art, Computation and Design

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The postdigital, as an aesthetic, gestures towards a relation produced by digital surfaces in a bewildering number of different places and contexts. This interface-centricity is not necessarily screenic, however, and represents the current emerging asterism that is formed around notions of art, computation and design. In this conception, the postdigital is not purely a digital formation or artefact – it can also be the concepts, networks and frameworks of digitality that are represented (e.g. voxels, glitch, off-internet media, neo-analogue, ‘non-digital’ media, post-internet art). Nonetheless, the interesting aspect is the implicit notion of surfaces as theatres of action and performance – such as through data visualization, interactivity or material design – above and beyond a depth model, which highlights the machinery of computation (see Berry 2014, 58).

Here I am thinking not just of the surfaces created in and through the digital, but, moreover, of the kinds of logics that this inspires more broadly across society and culture. For example, I am gesturing not only to new rectangular screenic interfaces, but also to physical manifestations of thinking interfaces – flat design as a mode of thought. So, for example, the 9,250 square metre simulated English village purpose-built in 2003 for the Metropolitan Police in Gravesend is in many ways an interface (BBC 2003); that is, an interface as a ‘militarized non-place […] designed for use as an immersive staging ground for police-training exercises, fighting staged riots, burglaries, bank robberies, and other crimes’ that creates an ‘architectural simulation embedded with high-tech, upgradeable media’ (bidblog 2014, emphasis added). Complete with exteriors created by mock shopfronts, estates, parks, banks and post offices, this interface is made up of surfaces and facades, in a grotesque simulacrum of a real British town (see Clarke 2008). Similarly, the interface to the computational becomes a site which is a non-place of confrontation, engagement and control.

This notion of the surface is not new, of course. Jameson (2006) famously diagnosed the logic of postmodern capitalism through an analysis of the seeming shallowness of postmodernity. However, through computation, capitalist logics have been remediated and re-ordered relative to their softwarization, not just resulting in surfaces that wait to be read, or inscribed in such a way as to make such readings impossible or schizophrenic. Rather, surfaces themselves become thin machinery, containing not just the possibility of a hermeneutic encounter but also an agency drawn from computation itself. These surfaces point towards and suggest the very veneer of computation networked across the terrain of everyday life, directed towards control and surveillance. The postdigital is, then, both an aesthetic and a logic that informs the re-presentation of space and time within an epoch that is after-digital, but which remains profoundly computational and organized through a constellation of techniques and technologies to order things to stand by (Heidegger 1977).

Further, the postdigital itself can be understood as an aesthetic that revels in the possibility of revealing the ‘grain of computation’, or, perhaps better, showing the limitations of digital artefacts through a kind of digital glitch, or the ‘aesthetics of failure’ (Cascone 2000, 13). In common with the new aesthetic, the postdigital has been linked to the extent to which digital media have permeated our everyday lives (Berry 2012a). We could, perhaps, say that the postdigital emerges from a form of ‘breakdown’ practice linked to the conspicuousness of digital technologies (see Berry 2014, 99): not just through the use of digital tools, of course, but also a language of new media (see Manovich 2001), the frameworks, structures, concepts and processes represented by computation, and the interplay of design and aesthetics inscribed on the faces of technical devices; that is, both in the presentation of computation and in its representational modes. To explore this further, I think it is interesting to look at the way in which the ‘digital’ has been understood in the work of Bruno Latour by way of example, as I think he brings out many of the tensions that emerge in relation to the demand that we rethink the digital in relation to its historicity (Berry 2014).

The digital

Latour outlined his understanding of the digital in a plenary lecture at Digital Humanities 2014 conference. He was exemplary in explaining that his understanding might be a product of his own individualization and pre-digital training as a scholar, which emphasized close-reading techniques and agonistic engagement around a shared text (Latour 2014). Nonetheless, in presenting his attempt to produce a system of what we might call augmented close reading through building the AIME web-reading system, he also revealed how he deployed the digital methodologically and his corresponding notion of the digital’s ontological constitution.

Latour first outlined a rejection of the specificity of the digital as a separate domain, highlighting both the materiality of the digital and its complex relationship with the analogue. He described the analogue structures that
underpin the digital processing that makes the digital possible (the materials, the specific electrical voltage structures and signalling mechanisms, the sheer matter of it all), but also the digital’s relationship to a socio-technical environment. In other words, he swiftly moved away from the view that we might call the abstract materiality of the digital, its complex layering over an analogue carrier, and instead reiterated the conditions under which the existing methodological approach of actor-network theory was justified: digital forms part of a network, is ‘physical’ and material, requires a socio-technical environment to function, is a ‘complex function’ and so on.  

It would be too strong, perhaps, to state that Latour denied the specificity of the digital as such; rather, through a sophisticated form of ‘bait and switch’, he used a convincingly deployed visualization of what the digital ‘really’ is, courtesy of an image drawn from Cantwell-Smith (2003) to disprove notions of the digital as ‘not-physical’. Indeed, this approach to the digital echoes his earlier statements from 1997 about the digital, arguing that he does not believe that computers are abstract … there is (either) 0 and (or) 1 has absolutely no connection with the abstractness. It is actually very concrete, never 0 and 1 (at the same time) … There is only transformation. Information as something which will be carried through space and time, without deformation, is a complete myth. People who deal with the technology will actually use the practical notion of transformation. From the same bytes, in terms of ‘abstract encoding’, the output you get is entirely different, depending on the medium you use.  

(Lovink and Schultz 1997)"
approaches for the study of the digital, rather than, as Latour claims, the only, or most important, research methodology.

This is significant because research agendas, and hence research funds, are increasingly coalescing around the digital. Thus, due to financial pressures and research grants being given to engage with 'digital' society, and the new manifest presence of the digital in all aspects of life, we see claims about which methodological and theoretical approaches should be used to understand the 'digital'. Should one undertake digital humanities or computational social science, or apply digital sociology, computational media studies, or some other approach, such as actor-network theory? Latour's claim that 'the more thinking and interpreting becomes traceable, the more humanities could merge with other disciplines' reveals the normative line of his reasoning that the specificity of (digital) humanities as a research field could be usurped or supplemented by approaches that Latour himself thinks are better at capturing the digital (Latour 2014). Indeed, Latour claims in his book *Modes of Existence* that his project, AIME, 'is part of the development of something known by the still-vague term "digital humanities," whose evolving style is beginning to supplement the more conventional styles of the social sciences and philosophy' (Latour, 2013, xx).

To legitimate Latour's claim of actor-network theory as a kind of queen of the sciences in relation to the digital, he refers to Boullier's (2014) work *Pour des sciences sociales de première génération* (quoted in Latour 2014). Boullier argues that there have been three ages of social context, with the latest emerging from the rise of digital technologies and the capture of digital traces they make possible. They are:

- Age 1: Statistics and the idea of *society*
- Age 2: Polls and the idea of *opinion*
- Age 3: Digital traces and the idea of *vibrations*.

(quoted in Latour 2014)

Here, 'vibration' follows from the work of Gabriel Tarde, who in 1903 referred to the notion of 'vibration' in connection with an empirical social science of data collection, arguing that

a time may come when upon the accomplishment of every social event a figure will at once issue forth automatically, so to speak, to take its place on the statistical registers that will be continuously communicated to the public and spread abroad pictorially by the daily press. Then, at every step, at every glance cast upon poster or newspaper, we shall be assailed, as it were, with statistical facts, with precise and condensed knowledge of all the peculiarities of actual social conditions, of commercial gains or losses, of the rise or falling off of certain political parties, of the progress or decay of a certain doctrine, etc., in exactly the same way as we are assailed when we open our eyes by the vibrations of the ether which tell us of the approach or withdrawal of such and such a so-called body and of many other things of a similar nature.

(Tarde 1903/1962, 167–168)

Thus, the notion of vibration, to which Latour points, is given in the idea of *sublata* (similar to *capta*, or captured data). For Latour, the datascape is that which is captured by the digital, and this digitality allows us to view *a few segments*, thus partially making visible the connections and communications of the social, understood as an actor-network. It is key here to note the focus on the visibility of the representation made possible by the digital, which becomes not a processual computational infrastructure but, rather, a set of inscriptions on a surface. These can then be collected by the keen-eyed ethnographer to help reassemble the complex socio-technical environments of which the digital forms a part. The social is, then, in some senses an interface on which the traces of complex social interactions between actants in a network are written, but only ever a repository of *some of these traces*. Thus, we might say that an algorithmic society is *readable* through a veneer made manifest through the digital, understood as a patina, so that 'for now we see through a glass, darkly' (Corinthians 13.12), through the mediators and mediation of the thin machinery of computation.

Latour (2014) argues that the digital is not a domain or a sphere, but a single entry into the materiality of interpreting complex data (*sublata*) within a collective of fellow co-inquirers. He reiterates his point about the downgraded status of the digital as a problematic within social research and its pacification through its articulation as an inscription technology (similar to books) rather than machinery in and of itself. This shows us again, I think, that Latour's understanding of the digital is correspondingly problematic, and also unhelpful in trying to unpack the *post-digital*.

The use of the 'digital' in such a desiccated form points to the limitations of Latour's ability to engage with the research programme of investigating the digital, but also the way in which a theoretically derived close-reading method derived from bookish practice may not be entirely appropriate for unpacking and 'reading' computational media and software structures. It is not that the digital does not leave traces, as patently it does; rather, it is that these traces are encoded in such a form, at such quantities and high resolutions of data compression that in many cases human attempts to read this information inscription directly are fruitless, and instead require the mediation of software, and hence a double-hermeneutic which places human researchers twice (or more) removed from the inscriptions they wish to examine and read. This is not to deny the materiality of the digital, or of computation itself, but it certainly makes the study of such matter and practices much more difficult than the claims to visibility that Latour presents.
It also suggests that Latour's rejection of the abstraction in and of computation that electronic circuitry makes possible is highly problematic and ultimately flawed.

The postdigital constellation

In response to Latour's formulation, I would like to offer a contextualization of the digital by way of exploring the notion of the 'postdigital constellation'. This is to use the postdigital in an approach that looks to interrogate the original theoretical legacy of early critical theory, and also explores its concepts and ideas in the light of computation and the postdigital condition (see Berry 2014). This is to connect back the implications of computational imaginaries, particularly hegemonic representations of the digital - 'postdigital aesthetics', 'new aesthetic', 'pixels', 'sound waves', 'interfaces', 'surface' and so forth - in relation to the digital itself. As computation has become spatial in its implementation, embedded within the environment, in the body and in society, it becomes part of the texture of life itself which can be walked around, touched, manipulated and interacted with in a number of ways. So 'being online' or 'being offline' is now anachronistic, with our always-on smart devices, tablets and hyper-connectivity, as, indeed, is the notion that we have 'digital' and 'analogue' worlds that are disconnected or discrete. Today the postdigital is hegemonic, and as such is entangled with everyday life and experience in a highly complex, messy and difficult to untangle way that is different from previous instantiations of the digital - indeed, the varieties of the digital should be treated as historical in this important sense.

Kracauer (1995) wrote that we must rid ourselves of the delusion that it is the major events which have the most decisive influence on us. We are much more deeply and continuously influenced by what he called 'the tiny catastrophes that make up daily life'. As such, we need a consistent, inter-disciplinary attempt to articulate the material construction of a historically specific social reality; that is, a focus on the impoverished but potentially revelatory landscape of everyday life - today represented increasingly by social media, technical devices and real-time streams (Berry 2011). Kracauer argues that the position that an epoch occupies in the historical process can be determined more strikingly from an analysis of its inconspicuous surface-level expressions than from that epoch's judgements about itself. These surface-level expressions provide access to the state of things, because through their organization, computationally and aesthetically, elements that were 'strewn helter-skelter' suddenly become meaningfully related. This connection with a notion of the postdigital is, therefore, suggestive.

For Kracauer, the ornamental patterns produced by groups of dancers, for example, are the aesthetic reflex of the rationality to which the prevailing economic system aspires. He calls this the 'mass ornament', which is not simply a superstructural reflection of the prevailing mode of production. Rather, Kracauer reads the geometry of contemporary patterns and ordering as an ambivalent historico-philosophical allegory, insisting that they are also a mise-en-scene of disenchantment. Thus, the mass ornament manifests progressive potential as the representation of a new type of collectivity, organized not according to bonds of a community but as a social mass of functionally linked individuals.

The postdigital constellation similarly resembles aerial photography of landscapes and cities, in that it does not emerge out of the interior of the given conditions, but, rather, appears above them - granting a distant reading of culture, society and everyday life. In the midst of a world which has become blurred and ungraspable, the postdigital constellation becomes a primary element, an object for a cultural analytics that provides connection and a sense of cohesion in a fragmentary digital experience. The relation to the postdigital constellation is an aesthetic mode, an ornament that becomes an end in itself - via data visualizations, interfaces, surfaces, habitual media and veneers of glass (see also Chun 2015; Cubitt 2015, this volume).

So the postdigital constellation could be said to figuratively consist of lines and circles, as in Euclidean geometry, but also waves and spirals. These formations are still in some sense opaque, composed as they are according to the dictates of a rationality that sacrifices meaning for the sake of an abstract unity of reified elements. Here, I am thinking about the computational rationalities of the database: the collection, the stream and the file. Thus, the postdigital constellation suspends the opposition of the merely decorative applied ornament and the functional structure - the interface is, in reality, thin machinery mediating and remediating computation.

Thus, the interface produces both an ornamentation of function and a functionalization of ornament, and, by critically examining the very superficiality of the postdigital constellation as a surface, one can further explore the computational practices that underwrite and mediate this affinity with the surface. Reading algorithms, for example, opens the material expressions of a particular historical condition. This has been explored by the Synchronous Objects Project, created by Ohio State University and The Forsythe Company project, which aims to build a large set of data-visualization tools for understanding and analyzing the interlocking systems of organization in the choreography of William Forsythe’s 'One Flat Thing'. Here, dance was quantified through the collection of data and transformed into a series of objects called 'synchronous objects' - we might think of these as an example of an asterism of the postdigital constellation - that work in harmony to explore those choreographic structures, reveal their patterns, and re-imagine them through data-visualization techniques. In some senses, this is the de-temporalization of movement, creating a spatial map formed by the aggregate of dancers' movements. A further gesture towards the postdigital
constellation is made by the artist, Natalie Bookchin, in her installation and video, Mass Ornament. She writes:

In Mass Ornament a mass dance is constructed from hundreds of clips from YouTube of people dancing alone in their rooms... Today, YouTube dancers, alone in their rooms performing a routine that is both extremely private and extraordinarily public, reflect a post-Fordist era. Millions of isolated spectator/workers in front of their screens move in formation and watch dancers moving in formation alone in their rooms, also in front of their screens.

(Bookchin 2009)

We might say that the algorithm that instantiates the postdigital captures the remnants that history has left behind; the same mere nature that appears in the algorithm is thriving in the reality of the society created by capitalist rationality, for example, in new social media obsessions with consumption and conspicuous compensatory leisure, sedimented issues of gender, or in politics and norms. The postdigital serves to train people in those forms of perceptions and reactions which are necessary for any interaction with computational devices. Indeed, the representational practices of the postdigital display an elective affinity with the surface, not the knowledge of an original but the spatial configuration of an instant. In some sense, the postdigital stages nature and everyday life as the negativity of history through the mediation of design.

This leads to a theoretical and sociological challenge in terms of how critical theory can be deployed to think through this historical constellation: Questions of aesthetics, politics, economics, society and the everyday need to be reflected on in relation to the computational precisely because of the penetration of computation into all aspects of human life. This is a call to more rigorous scholarship in relation to the postdigital, but also towards a praxis linked to critical practice and a critical approach to the aesthetic of computation and its mediating role both in and through computation.

The postdigital can be thought of as an abductive aesthetic (or pattern aesthetic) and linked by a notion of computational patterns and pattern recognition as a means of cultural expression. By this I mean that, as computational ontologies and categories become increasingly dominant as instrumental and aesthetic values, they also become influential as economic, political, communicative and aesthetic concepts. Patterns, drawing on the ideas of Christopher Alexander, can be defined as follows:

As an element of language, a pattern is an instruction, which shows how this spatial configuration can be used, over and over again, to resolve the given system of forces, wherever the context makes it relevant. The pattern is, in short, at the same time a thing, which happens in the world, and the rule which tells us how to create that thing, and when we must create it. It is both a process and a thing; both a description of a thing which is alive, and a description of the process which will generate that thing.

(Alexander 1979, 247)

Patterns are also deeply concerned with computer pattern recognition, repeated elements, codes and structural elements that enable something to be recognized as a type of thing. This is not just visual, of course, and patterns may be recognized in data sets, textual archives, data points, distributions, non-visual sensors, physical movement or gestures, haptic forces, and so on. Indeed, this points to the importance of information visualization as part of the abductive aesthetic in order to 'visualize' the patterns that are hidden in sets of data. This is also the link between the postdigital and the digital humanities (see Berry 2012b; Gold 2012).

One can think of an abductive aesthetic as a bounded aesthetic linked inextricably with the computational and the foundation for developing a cognitive map (Jameson 2006, 516). The fact that abduction aesthetics are networked, shareable, modular, 'digital' and located in both the digital and analogue worlds is appropriate, as they follow the colonization of the lifeworld by the techniques of computality.

So, a return to Bridle's (2012) New Aesthetic collection shows how his project is indeed symptomatic of an emerging aesthetic, an admittedly haphazard and disparate collection of objects placed within a Tumblr blog that is presented to the user as a stream of data. The collecting of these digital and pseudo-digital objects is deeply influenced by a computational frame, and, indeed, the very collection is made possible through new forms of computational curation tools, such as Tumblr and Pinterest, which are essentially new interfaces to the databases that lie behind.

The postdigital suggests that an abduction aesthetic will become more prevalent, and it will be interesting to see the exemplars emerge. While today we tend to think of 8-bit pixelation, geometric patterns, satellite photos, CCTV images and the like in relation to computational aesthetics, it is probable that alternative, more computational forms that build from the interface as the thin machinery of computation will emerge. Conceivably, this might also lead to a form of cognitive dissonance, with people looking for pattern aesthetics everywhere, understood as a form of apophenia, that is, the experience of seeing meaningful patterns or connections in random or meaningless data (called a Type 1 error in statistics). Perhaps even further, people will seek digital or abductive explanations for certain kinds of aesthetic, visual or even non-visual experiences which may not be digital or produced through computational means at all, a digital pareidolia.

The postdigital is a concept that stands in for, or conceptualizes, the notion of the computational as a network of digital surfaces in a number
of different places and contexts. The postdigital can be said to constitute the pattern, the asterism, that is distinctive of our age, but it impresses itself on the new as well as the traditional. Thus, history is recast within the terms of the postdigital. In other words, we tend to look backwards with computational ‘eyes’ and reconstruct the past as if computationally ‘found patterns’ had been influential on making, drawing, writing or creating culture more generally.

Ironically, this is happening at a time when most people’s command of digital technology is weak and their understanding of the politics of technology minimal. The postdigital might, then, in its popular manifestations, and as evidenced by Bridle (2012) and Sterling (2012), actually gesture towards a weak form of understanding of the computational and its representation – perhaps even an attempt at a domestication in the sense given by Silverstone (2003). This seems especially important when we look critically at the suggested methods proposed by Latour and others and their disavowal in relation to the computational. Indeed, at the level of the interface, which often re-presents not the presently existing computational but a simplified version in, for example, flat design, 8-bit graphics or blocky visuals, we see that the surface actually detracts from understanding what Lash (2007) called ‘algorithmic power’.

In this chapter, I have explored the question raised by the postdigital in relation to Latour’s notion of the digital and in light of the entanglement of the computational and capitalism. By drawing from critical theory to think about the possibility of surfacing the digital through re-presentation and mediation, a new constellation is made visible. Thus, the postdigital as an asterism usefully contributes to a sense of reality, a growing sense or suspicion towards the digital, a sense of the limits or even the absolute, because experienced reality beyond everyday life is hidden or obfuscated for most members of society. The postdigital is, therefore, specific to the more general problematic raised in relation to the question of reason and emancipation in a computational society, and one in which the intentionality of the black boxes of technology is increasingly divined from their surfaces.

Notes

1. It is important to note that interfaces are not just visual; they can also be algorithmic, for example application programming interfaces (APIs).

2. Bruno Latour is professor at Sciences Po and director of the TARDE programme (Theory of Actor-Network and Research in Digital Environments). The programme name is presumably intended to invoke the name of Jean-Gabriel De Tarde, more commonly known as Gabriel Tarde (1843–1904), a French sociologist who used the concepts of imitation, repetition and habit through a sociology of networks made up of individuals to explore the emergence of sociality.

3. Accepting the well-designed look of the AIME Project website, there can be no disputing the fact that the user experience is shockingly bad. Not only is the layout of the web version of the book completely unintuitive, but the process of finding information is clumsy and annoying to use. One can detect the faint simmer of a network ontology guiding the design of the website, an ontology that has been forced onto the usage of the text rather than organically emerging from use; indeed, the philosophical inquiry appears to have influenced the design in unproductive ways. Latour himself notes: ‘although I have learned from studying technological projects that innovating on all fronts at once is a recipe for failure, here we are determined to explore innovations in method, concept, style, and content simultaneously’ (Latour 2013, xx). I have to say that unfortunately I do think that there is something rather odd about the interface that means that the recipe has been unsuccessful. In any case, it is faster and easier to negotiate the book via a PDF file than through the web interface, or certainly it is better to keep ready to hand the PDF or the paper copy when waiting for the website to slowly grind back into life.

4. Latour has an unexpected similarity to the German Media School, in relation to the materiality of the digital as an explanatory and sufficient level of analysis.

5. See also Latour stating:

the digital only adds a little speed to [connectivity]. But that is small compared to talks, prints or writing. The difficulty with computer development is to respect the little innovation there is, without making too much out of it. We add a little spirit to this thing when we use words like universal, unmediated or global. But if we say that, in order to make visible a collective of 5 to 10 billion people, in the long history of immutable mobiles, the byte conversion is adding a little speed, which favours certain connections more than others, then this seems a reasonable statement. (Lovink and Schultz 1997)

6. The irony of Latour (2014) revealing the close-reading practices of actor-network theory as a replacement for the close-reading practices of the humanities/digital humanities is interesting (see Berry 2011), particularly in relation to his continual reference to the question of distant reading within the digital humanities and his admission that actor-network theory offers little by way of distant reading methods. Latour (2010b) explains:

under André Malet’s guidance, I discovered biblical exegesis, which had the effect of forcing me to renew my Catholic training, but, more importantly, which put me for the first time in contact with what came to be called a network of translations – something that was to have decisive influence on my thinking… Hence, my fascination for the literary aspects of science, for the visualizing tools, for the collective work of interpretation around barely distinguishable traces, for what I called inscriptions. Here too, exactly as in the work of biblical exegesis, truth could be obtained not by decreasing the number of intermediary steps, but by increasing the number of mediations. (Latour 2010b, 600–601, emphasis removed)

7. Siegfried Kracauer (1889–1966) was a German journalist, sociologist, cultural critic and film theorist, an early member of the Frankfurt School, whose works were influential on Walter Benjamin and Theodore Adorno.

8. I would like to thank Maaike Bleeker for introducing me to these works at the 4M conference in Utrecht, 5 June 2014.
9. Pareidolia involves seeing importance in vague and random phenomena, for example a face in a random collection of dots on paper. By ‘digital pareidolia’ I am gesturing towards seeing digital causes for things that happen in everyday life. Indeed, under a regime of computation in the future it might be considered stranger to believe that things might have non digital causes. Thus, phenomena would be the norm in a highly digital computational society, perhaps even a significant benefit to one’s life chances and well-being if finding patterns become increasingly lucrative. Here we might consider the growth of computational high-frequency trading and financial systems that are trained and programmed to identify patterns very quickly.

Bibliography