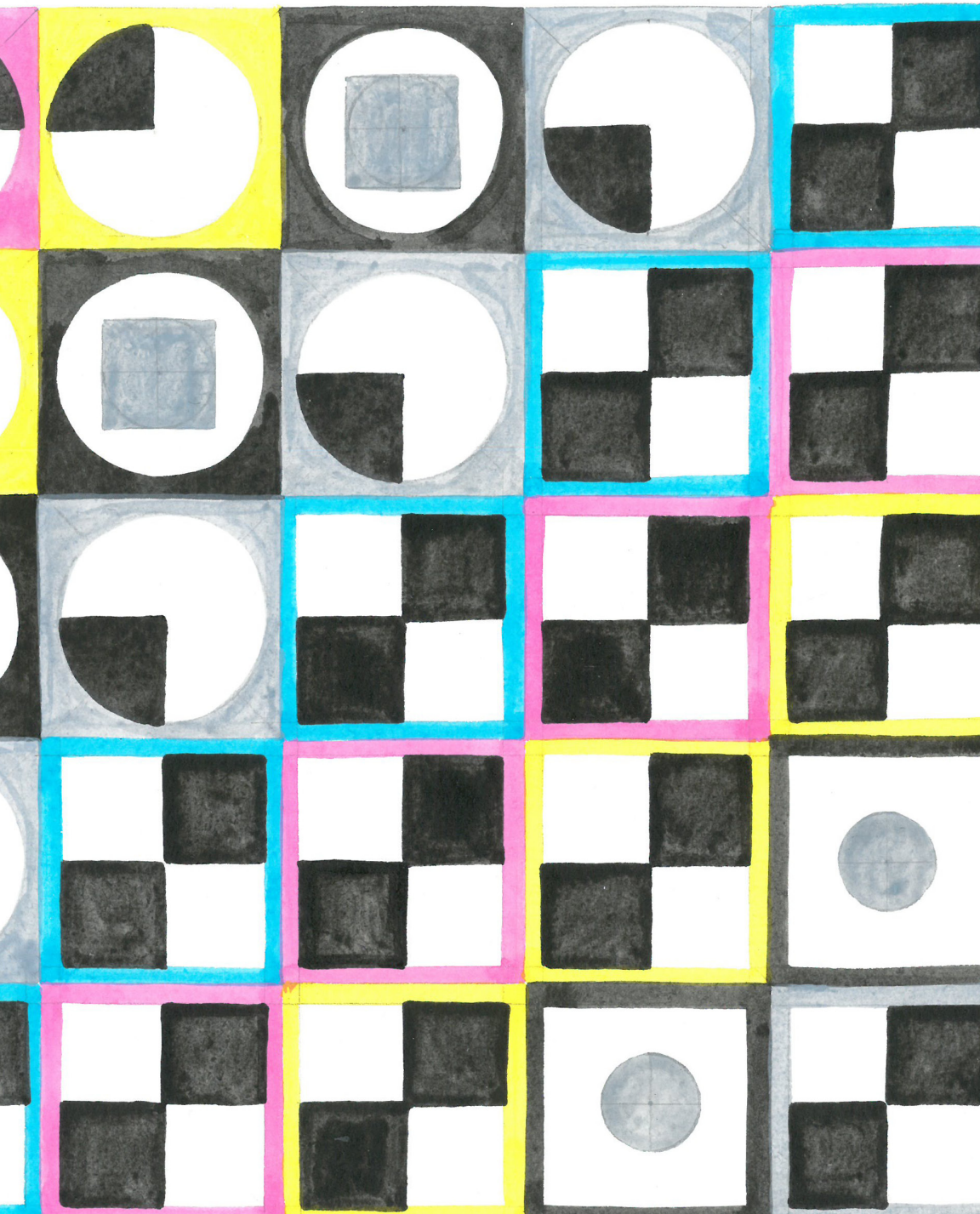
ARTICULATING MEDIA

GENEALOGY, INTERFACE, SITUATION

EDITED BY JAMES GABRILLO AND NATHANIEL ZETTER



Articulating Media

Genealogy, Interface, Situation

Technographies

Series Editors: Steven Connor, David Trotter and James Purdon

How was it that technology and writing came to inform each other so extensively that today there is only information? Technographies seeks to answer that question by putting the emphasis on writing as an answer to the large question of 'through what?'. Writing about technographies in history, our contributors will themselves write technographically.

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Genealogy, Interface, Situation

James Gabrillo and Nathaniel Zetter

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Contents

8

Situating Google's Alphabet

Rebecca Ross

In 1964, communication theorist Marshall McLuhan (2001: 93), following on the heels of economist Harold Innis and setting the tone for future invocations of the so-called 'alphabet effect' by the Toronto School of Communication, claimed the superiority of Western civilisation on the basis of its development of a phonetic alphabet: 'The breaking up of every kind of experience into uniform units in order to produce faster action and change of form (applied knowledge) has been the secret of Western power over man and nature alike.' The Toronto School understood the defining characteristic of the alphabet to be its phoneticism. In contrast to pictographic (or even syllabic) writing systems, the phonetic alphabet dissociated the specific writing system from the language being transcribed and could therefore be used with any language regardless of fluency (Logan 1986: 20). In this instance, the definition of an alphabet as both a universally applicable (portable) and independent symbol system becomes directly intertwined with a colonial proposition.

A half-century later, one of the world's largest and most influential publicly traded corporations, Google, Inc., restructured itself as Alphabet, converting Google – the search engine – into a separate company to be held as a subsidiary of the newly formed Alphabet, Inc. In his letter explaining the transition to the public, Google co-founder Larry Page (Google 2015) wrote, 'We liked the name Alphabet because it means a collection of letters that represent language, one of humanity's most important innovations, and is the core of how we index with Google search!' This definition of the alphabet as 'letters that represent language' is characteristic of Google's oversimplifying approach to knowledge, making a subject appear better understood than it might be in practice with the confident flourish of an exclamation point. The web page containing Page's letter is itself decorated with brightly coloured children's ABC blocks.

The Toronto School and Google /Alphabet have approached their interest in communication from a different perspective, at different times in history, and with varying values and motivations, but they share a claim to the concept of an alphabet. On one level, the re-definition of Google as Alphabet in the context of Google's dominance as a tech giant seems irrelevant.

From the point of view of the US's security and exchange commission, re-structuring would have been identical financially and legally if another single-word moniker, such as 'elephant' or 'bubble', had been chosen instead. Indeed, much of the ensuing discussion in the mainstream, technology, and design presses focused on either the financial aspects or the accompanying change of logo and typeface. Once this chatter subsided, as was intended from the outset – 'we are not intending for this to be a big consumer brand with related products – the whole point is that Alphabet companies should have independence' (Google 2015) – the activities of Alphabet since 2015 have largely fallen out of view of all but certain elements of the finance sector. The company continues to trade as GOOG and GOOGL in stock markets; its presence online is lean, fulfilling the basic publishing requirements of a publicly traded corporation. It may however be precisely because Alphabet the holding corporation so far has faded into the background, that the question of the implications of the renaming for other notions of alphabet grows in importance.

The difficulty of reflecting actively on the concept of alphabet is balanced with its intuitive ubiquity. Most users of alphabets are immersed in their application to the extent that they more often relate to the world through them than with any well-considered or articulated concept of the alphabet in mind. Similar to the division of time into hours and minutes, it has become deeply embedded and naturalised in many cultures. In 1957 historian of printing and typography Stanley Morison (1972) delivered a significant series of lectures on the subject of the history and politics of western scripts at Oxford University. In 1985, linguist Geoffrey Sampson wrote an introduction to writing systems that he hoped would redress written language's status as, according to philosopher Jacques Derrida, 'the wandering outcast of linguistics' (quoted in Sampson 1985: 11). In contemporary scholarship, the alphabet remains quietly present at the periphery of a small number of academic fields and professions: sub-branches of linguistics, literature, graphic design, communications and media, printing, lettering, bibliography, computer programming (to name a few). Perhaps it is due to the extent to which academics use alphabets to transact that it has so infrequently been attended to by scholars as a far-reaching concept, nor would it be possible to do so comprehensively in a lifetime of work, let alone in the space of this short chapter. Google's renaming to Alphabet nevertheless gives pause and demands that we attempt to consider its implications for other alphabets and notions of alphabet or alphabetic-ness.

In 2004, communications scholar Paul Grosswiler (2004) carefully reverse-engineered the Toronto School's 'alphabet effect', tracing the term through a large corpus of associated literature and demonstrating a range of flaws in the notion that phonetic writing systems are inherently superior. For example, where the Toronto School identified the fact that phonetic writing systems can be used with unknown languages as a distinct advantage, Grosswiler countered by describing the commensurate value that a shared

pictographic writing system offered to speakers of diverse spoken languages, such as in China. More recently, scholar of Chinese literature Lydia H. Liu (2015) has challenged histories of writing systems that attribute the colonial dominance of the Roman alphabet entirely to its phonetic characteristics. Rather than attempt to 'dispel' the alphabet effect, as Grosswiler suggests, it may be more productive to regard more clearly its colonialist definition and, indeed, evaluate the 'effects' that it has had despite, or perhaps as a function of, its compromised premise. What does it mean to define the alphabet in such exclusive terms? What does it do? It is on this basis that the present chapter considers the question of what it means for the world's largest actor in the domain of spatial data, not to mention one of the world's largest multinational corporations, to lay claim to, and indeed entangle its very identity with, the concept of alphabet. Building on this, it also speculates more broadly on relationships in the development of location as a medium and the role of situatedness in our understanding of media.

I.

The Toronto School's understanding of the phonetic alphabet as exceptional is based on the association of symbols with component sounds rather than the meaning of words or parts of words:

> The phonetic alphabet is a unique system of writing in which a small number of letters or visual signs (twenty-two to forty) are used to represent the basic sounds or phonemes of a spoken language. The letters are used to code the sounds of each word phonetically. (Logan 1986: 19)

On more or less this basis, McLuhan (2001: 88) in *Understanding Media* described the alphabet as a transposition of the sonic into the visual, 'an eye for an ear'. The relatively small number of visual symbols that compose a phonetic alphabet was understood to facilitate the 'breaking up of every kind of experience into uniform units' (93). The fact that these symbols are concurrently entirely separate from, and extensions of, the human ear was identified by the Toronto School as a point of origin for western thought.

Like McLuhan, working decades later in the twentieth century and on the other side of the Atlantic, media theorist Vilém Flusser, in his essay *Does Writing Have a Future?*, also referred to the phonetic alphabet as the basis for a series of extended arguments about communication. In the broadest terms, both McLuhan and Flusser invoked its invention as productive of a phase of human existence presently approaching an end. Both were also engaged with, to use McLuhan's term, 'an intensification and extension of the visual function' (2001: 91), and to use Flusser's, the coming of 'technical images' (2011b).

However, where for McLuhan the alphabet is an assertion of the visual, for Flusser writing exists in productive tension with images, which he equates to numbers for their shared semiotic irreducibility. As references to phonemes, Flusser understood letters in relation to sound and music. In order to become meaningful, letters require a subjective process of interpretation, whereas numbers, which Flusser (2011a: 24) associated with images and science, are inherently meaningful and do not depend on interpretation: 'Letters are about a discourse, numbers about content'.

While both Flusser and McLuhan share a sense of numbers as associated with the immediate, they are less of an emphasis for McLuhan than they are for Flusser and are understood differently in relation to writing. McLuhan (2001: 119) understood numbers as a 'shadow' of writing, wielding 'a separate life and intensity' from letters yet developing over the long-term in concert 'with the growth of literacy'. With reference to the association between numerical digits and human fingers, McLuhan (2001: 116) explicitly framed numbers as an extension of the human sense of touch: 'Just as writing is an extension and separation of our most neutral and objective sense, the sense of sight, number is an extension and separation of our most intimate and interrelating activity, our sense of touch'.

Where to a certain extent Flusser shared McLuhan's understanding of vision as 'neutral and objective', he departed from McLuhan in his analysis of numbers as continuous with images. This analysis is complicated by McLuhan's readings of certain mid-twentieth century works of art and music as well as Flusser's (2011b: 12, 33–5) somewhat rigid distinction between 'traditional pictures' and 'technical images'. Nor do their divergent thoughts on letters and numbers put into question their shared sense of an impending broad reconfiguration of human existence. However, the variations between their understandings of alphabet are nevertheless worth tracing for their distinct implications concerning the way in which they envision the future role of humans relative to their media.

Where the Toronto School argued that the phonetic alphabet produces western culture, Flusser (2011a: 7) argued that, in tension with images/numbers, 'the gesture of writing produces historical consciousness'. Unlike images, which are 'scenes', writing and reading are 'processes' which engage human faculties (2011a: 39). In this sense, an alphabet serves as a counterpoint, or medium of 'resistance' to images/numbers (Poster 2010: 9). Flusser understood alphanumeric texts, containing both letters and numbers, as charged with potential meaning and, over time, the potential for the interpretation and re-interpretation of meaning:

> What in the text is actually adequate to what is out there? Letters or numbers? The auditory or the visual? Is it the literal thinking that describes things or the pictorial that counts things? Are there things that want to be described and others that want to be

> counted? And are there things that can be neither described nor counted – and for which science is therefore not adequate? Or are letters and numbers something like nets that we throw out to fish for things, leaving all indescribable and uncountable things to disappear? Or even, do the letter and number nets themselves actually form describable and countable things out of a formless mass? (Flusser 2011a: 25)

This can be contrasted with McLuhan's (2001: 119) contention that 'the electric age brings number back into unity with visual and auditory experience', or numbers into unity with the alphabet. In *Into the Universe of Technical Images*, Flusser (2011b: 4) also argued that the rising 'dominance of technical images', or 'telematic society', is irreversible. But he speculated about the different forms that this could take in the future: 'One moves toward a centrally programmed, totalitarian society of image receivers and image administrators, the other toward a dialogic, telematic society of image producers and image collectors'. Preferring the 'dialogic' to the 'totalitarian', Flusser (4) argued that human beings 'are still free at this point to challenge these values'.

Where both Flusser and McLuhan anticipated a wholesale reconfiguration of humanity's relationship to its media, for McLuhan, the specific form that this will take is fixed in a way that remains somewhat more open for Flusser. In a 1970 lecture on the subject of the coming 'acoustic' or 'electric' world in which the alphabetic and numeric converge, one way that McLuhan distinguished between the visual phase of human history (which for him begins roughly with the spread of the Western phonetic alphabet) and the coming acoustic world is in terms of a diminished human capacity to focus attention, take positions and make decisions: 'It's hard to have a fixed point of view in a world where everything is happening simultaneously. It is hard to have an objective in a world that is changing faster than you can imagine the objective being fulfilled' (McLuhan 1970: n.p.).

As a way to understand the transition presently underway, the alphabet was looked back upon as a kind of force that, once unleashed, transformed 'Western man' iteratively over hundreds of years to the extent that it is on the cusp of a radical transformation, or to use McLuhan's language, a 'big flip'. In the same 1970 lecture McLuhan speculated about how this transformation might play out in Eastern cultures (while claiming not to be 'making value judgements'):

> The Japanese today are introducing Western literacy into their own culture and spending $6 billion to get rid of their own alphabet and put in our alphabet. Little do they know what is going to happen to them or to us as a result. But the alphabetic man is very aggressive and very specialized. The Japanese world is likely to manifest an enormous increase of energy and

> aggression when they get our alphabet installed. It will also wipe out their whole culture – their ideogrammatic forms of writing and culture will be destroyed […] So if the Chinese or the Japanese were to take on our alphabet seriously, they would be in great trouble, and we would too. I don't think they understand what's involved. (McLuhan 1970)

Although it is indisputable that McLuhan considered the phonetic alphabet to be the cornerstone of western civilisation, his particular prose style makes slippages between placing this idea as the basis of a further claim of superiority, or merely an amoral observation, difficult to track across the breadth of his writings. The passion inherent in McLuhan's writing and speaking makes it difficult to accept that there are no 'value judgements' – though what motivates him or what he advocated for specifically in relation to the transformations he described remain open questions. What can be gleaned, however, is a sense of the phonetic alphabet itself as a force which has irrevocably been unleashed in a way that will ultimately colonise human culture with its own media.

Media theorist and scholar of German literature Chadwick Truscott Smith (2014) offers a reading of Flusser's (2002: 165–71) essay 'Celebrating', that responds to the question, which has been raised by other scholars, of whether either or both Flusser and McLuhan are engaged with the post-human in their speculations about the future of communication. Although Flusser gives a great deal of consideration to the reconfiguration of inter-relations between humans and machines, Smith interprets Flusser's writings as ultimately maintaining the possibility of the human as a participant in future process and/or dialogues that question and reconfigure media beyond the end of alphabet and history:

> Flusser retains the belief that even as new technologies emerge to prompt further changes, however, something called the human – with 'marrow and bone in the margin between 10^{-5} and 10^{5} cm' – will still remain. The retention of the word is necessary, even if we don't know what it is, because something threatens this subject of the process of humanization […] It leaves open the process whereby the human (or humanities) have the capacity to redefine the apparatus (or the digital), even as the former is conditioned by the latter (Smith 2014: 13).

To summarise, Flusser's conceptualisation of the alphabet operates concurrently in two inter-related ways. First, it provides a way to talk about history as a function of the discursive relationship between human beings and their media, a relationship that is presently being drastically reconfigured to the point that it will give rise to a new condition of being or 'telematic

society' in which writing and history are at an end and technical images dominate. Second, building here on Smith, it facilitates an identification, foregrounding and valuation of the dialogic as what humans could potentially contribute to the quality of this reconfiguration. Whereas for the Toronto School, the alphabet was associated with a kind of colonisation by the visual to which all humanity is increasingly subject, for Flusser it was associated with both producing and resisting the coming of the technical image as well as positioning humanity with regard to how it might interact with and through technical images in the future.

II.

At the time of Google's launch in 1998, its founders Larry Page and Sergey Brin declared the company's mission as 'to organise the world's information, making it universally accessible and useful' (Google 2019). Following the success of their internet search engine, their initial offering as a publicly traded corporation (IPO) in 2004 brought with it an exploration of how this principle could be elaborated and scaled up. Business decisions following the IPO, such as movements into the book publishing and spatial data sectors, suggest their starting point was to consider the limits of internet search in achieving their bold, if under-defined, proposition of universally-accessible information. Their search engine was powerful but could only ever reach digital information stored on computers connected to the internet. However, their mission statement had specified 'the world's information' without differentiating between internet-based information and information more generally. From this point, two questions began to emerge through their activities and public statements: What information is not available on the internet? Where can the best quality of information be found and what makes it better?

Both Brin and then Google product manager Marissa Mayer were interviewed for a 2007 article in the *New Yorker*, covering Google's legal disputes with publishers of out-of-print books, which they had begun digitising in partnership with several large English-language, mainly American, university library collections in 2004. Regarding Google's motivations for initiating such an ambitious scanning and indexing project, Mayer cited the quality and reliability of information: 'Google has become known for providing access to all of the world's knowledge, and if we provide access to books we are going to get much higher-quality and much more reliable information' (Toobin 2007). Communications scholar Siva Vaidhyanathan (2011: 173) argues that Google Books, as it interacted with entities ranging from universities to local public libraries to scanning equipment to the legalities of copyright, was a move toward the 'privatisation of knowledge', with many associated implications of great concern given its growing role as a corporate 'mediator, filter, and editor' of all information. It is useful to place this important concern in the context

of a question which, though seemingly-obvious is not as straightforward as one might intuit, of what it is about books in particular that makes them high quality information. Vaidhyanathan points out that Google's poor standard of reproduction was not up to archival standards maintained by the library community. For example, images were often poor in quality and physical variations of books, such as fold-outs, were treated expediently. However, my question addresses the more mundane. How did selection, scanning, optical character recognition (OCR), file formats, and indexing for search terms interact with the 'high-quality' of books as information?

In the same 2007 article in the *New Yorker*, Bryn offers slightly more detail about Google's specific understanding of the value of books:

> We really care about the comprehensiveness of a search […] And comprehensiveness isn't just about, you know, total number of words or bytes, or whatnot. But it's about having the really high-quality information. You have thousands of years of human knowledge, and probably the highest-quality knowledge is captured in books. So not having that – it's just too big an omission. (Toobin 2007)

For Google, books were seen as repositories of specifically-'human knowledge' developed and extended over millennia in a way that is not expressed sufficiently in terms of quantities of words or bytes, but that are nevertheless 'too big an omission' to exclude from their search. This resonates with the earlier discussion of Flusser's formulation of history as produced through writing in tension with the numeric. Writing is dialogic in a way that facilitates the continuous production of new knowledge. It is not clear precisely how this relates to the standard of 'really high-quality information' that Bryn associated with books in the first place, but it does provide a way to put the subsequent development of Google Books in context.

Google Books ultimately developed into a search platform with results that can appear arbitrary compared to, for example, a visit to a library or bookshop. Only books published during the early twentieth century and earlier, and which fall outside the scope of various copyright laws, are available as complete texts in downloadable PDF or Google Play formats. So, searching from the UK, for example, without an affiliation with a contributing university library, the first results for 'capitalism' are the full version of 'A Circular from the Commissioner of Emigration to the Agriculturists, Manufacturers and Capitalists of India' by John Wilstach, published in 1866, or the first few pages of the second edition of David Schweickart's *After Capitalism* (2011) – with no mention of the likes of Adam Smith or Karl Marx. The majority of books published from the mid-twentieth century onwards are available in either 'preview' or 'snippet' mode. This means that the searcher is granted access to a limited number of paragraphs (snippet view) or pages (preview view) or in

some cases only meta-data, such as the title, containing instances of the search terms. A large majority of information accessible on Google Books is thus presented to most searchers in disorganised and discontinuous fragments. Copyright questions and the need for legal settlements with publishers meant that this aspect was probably a compromise of the intended end-user experience of Google Books. However, as then-president of the French National Library Jean-Noël Jeanneney (2008: 68) argued, the entire premise of 'discovering books only through pages that are separated from one another and located by a search engine, according to the unique criteria of a search for related hits, is not necessarily a good way – and certainly not the most beneficial way – to approach books or make use of them'. Jeanneney identified a basic contradiction between what he saw as an unrealistic, unachievable, and distracting ambition of comprehensiveness, and the aspiration to high quality. Whether through the behind-the-scenes logic of its search algorithm or through the deals it makes with certain university libraries or publishers, Google prioritises information in a way that is inseparable from its business interests. And Google's business interests are not the same as 'the richest, the most intelligent, the best organised, the most accessible of all possible selections' (67).

Google Books may have been set up with the idea of indexing and providing access to 'thousands of years of human knowledge, and probably the highest-quality knowledge'. However, the subsequent development of the project exemplifies the way in which the logic of techno-capitalism places the value associated with distinctly-'human knowledge' at risk. In Jeanneney's view, a 'selection' performed by human beings will always be of higher quality than one carried out as a function of a market-driven algorithm. This difference can also be understood in the terms of Flusser's distinction between alphabetic and encoded media. Books as a medium are easily understood as alphabetic, but in their transposition into Google Books, they become something more encoded in a way that undermines their dialogical or human value. The story of Google Books makes Google's later adoption of the moniker of Alphabet seem ironic. Moreover, it is an example of a Google project that demonstrates that the association of the alphabetic with the discursive is important in a way that must be reflected upon actively, even if Google's services, in which people and their associated data become products, are reconfiguring humanity in a way that sets these values aside (Powers and Jablonski 2015: 74–98).

Google Maps, which ultimately became a more successful venture than Google Books, was launched in 2005, a short time after book-scanning commenced. In certain ways, it arose out of an ambition of comprehensiveness similar to that which motivated the development of Books. In a 2010 interview looking back on Google's history, then Google Street View UX designer Andy Szybalski commented on Google's decision to develop Maps and Street View following the widespread success of its search engine technology.

Szybalski (2010) offered, 'Spatial [maps and later street view] built upon Google's broader mission to organise, or index, all information that exists by acknowledging that most of it is not inside computers but rather visible everywhere in the world.' The project began with the 2004 acquisition of the three-year old Keyhole Corporation, a company which had gained a reputation for supplying immersive fly-through maps composed by stitching together satellite images and aerial photographs (Google 2004).

The premise of stitching together otherwise disparate fragments is where Google Maps differed significantly from Books. Where Books encoded established assemblages of knowledge – bound printed pages – as separate fragments of text and image, Maps gathered disparate images and addresses into a coherent continuous association of tiles and layers. The novelty of this was such that Google felt compelled to explain, in a 2005 blog entry introducing Google Maps, that when panning or zooming, 'there's no wait for a new image to download':

> We think maps can be useful and fun, so we've designed Google Maps to simplify how to get from point A to point B. Say you're looking for 'hotels near LAX'. With Google Maps you'll see nearby hotels plotted right on a crisp new map (we use new rendering methods to make them easier to read). Click and drag the map to view the adjacent area dynamically – there's no wait for a new image to download. Or get step-by-step directions to where you're headed. If a particular intersection on the route looks tricky, click on that step in the directions to see a magnified view. Play with the keyboard shortcuts (arrow keys to pan or the +/- keys to zoom in and out) too. The tour shows you even more. Happy trails. (Google 2005)

Google Maps also differs from standard Google Search because search queries are specifically about location, and search results are presented as maps rather than lists of links. Google Maps incorporates and utilises of a range of pre-existing spatial indexes and organisational systems: twentieth century postal codes, transport maps, fire and tax surveys; latitude and longitude as well as other standards of measure, which date back to the nineteenth century; street names, which can date back thousands of years, and building numbers, which came into use during the eighteenth century; political boundaries that are the product of thousands of years of power struggle and negotiation; as well as features of landscape and topography that pre-date humanity itself. These indices, among others, are cross-referenced to answer specific kinds of questions such as: 'What's the best way to get from Cupertino to Mountain View?'; 'How far is it from Cupertino to Mountain View?'; 'Where is the nearest bookshop [to where I am now]?'; 'Are there any bookshops in the vicinity of 1600 Amphitheater Parkway in Mountain View, CA?'

Rather than dismantle established 'high quality' approaches to knowing about location, by integrating and synthesising a diverse range of well-established and tested methods, Google Maps facilitated new kinds of dialogue with location. This was exemplified by the many unanticipated 'Google Maps Hacks' independently published even before the release of the Maps API in late 2005. These hacks ranged from tools for comparing the prices of nearby gasoline stations to mapping political donations or crime data (Schuyler and Gibson 2006). While images such as maps can generally be understood as encoded in Flusser's terms, Google Maps brought with it an array of unexpected interpretations and subsequent developments exhibiting characteristics of the alphabetic and a wave of experimental engagement with cartography.

A number of recent applications of Google Maps, whether it be a map of 'where to cry in public in the Boston area', or one that coordinates the transformation of vacant lots into community gardens in New York, can be said to transmute location into an alphabetic medium in a way that verges on the literary. In his contribution to the introductory volume to this series on technographies, English literature scholar Steven Connor associates the designation of literary with 'active self-relation'. He argues that language's 'capacity to signify itself to itself' enables it 'to work on the world by working and reworking its own system of representation' (Connor 2016: 30). Taking a different but connected approach to interrelation of the textual and numeric to that of either Flusser or McLuhan, Connor develops the proposition that 'literature is a name for what lies between language and number' (32). For Connor, in a way that relates to Flusser's designation of alphabetic, literature occurs in the pursuit of a numeric/digital/machinic ideal:

> The mediation of other machines assists literature to imagine and start to become the ideal machine it is always aspiring to be. Literature is not any kind of rage against the machine: it is the name for this machinic desire, the desire of this ideal machinery. (31)

This concept is productive for understanding the ways in which location is becoming, in Flusser's terms, more alphabetic, or in Connor's terms, more embroiled with language and the facilitation of imaginaries.

Take the example of HYDESim, or *High-Yield Detonation Effects Simulator*, a Google Maps-based visualisation of the impact of a nuclear blast of variable explosive yield that can be quickly centred on any place in the world. An un-commissioned side-project of noted web coding expert Eric Meyer, HYDESim appeared at first to be primarily informational in purpose (Meyer 2006). However, the map was shared widely as a way to draw attention of British and American audiences to contemporary military deployments, for example 'how a 21,000-pound bomb like the one just dropped on ISIS

in Afghanistan would affect your city' (Bertrand 2017). It functioned outside the original intended purpose of Google Maps, which was to provide useful information such as how to get from one place to another. Instead, it deployed location and situation to convey a critical position on a difficult subject in an unexpected form. And it did so in a dialogic way that furthered the development of location as a medium.

The consideration of the development of Google Books alongside that of Google Maps yields a number of useful observations. First, while the association made by Google's founders between books and 'high quality knowledge' seems rational because of the long and deep historical alignment of literature with books, in practice, the logic of Google Books is not conducive to advancing this history. Likewise, while Google envisioned their spatial products in primarily utilitarian terms, the subsequent use of Google Maps by independent developers, for a range of unanticipated purposes and expressions, demonstrates an association between the openly discursive qualities of a medium and the potential for 'high quality knowledge' to be produced. The story of Google Maps also reveals that in the contemporary context, at certain moments, location is beginning to take hold as a literary or alphabetic medium. Furthermore, the comparison sketches out relationships between the presumed a-situatedness – comprehensiveness, in Google's terms – of a global tech giant such as Google and the further potential for location as a medium; these relationships demand active reflection on situation in literally-geographic terms, as well as those more-figurative ways in which it has been used by humanities scholars in recent decades.

III.

Finally, what do these brief extracts from Google's history reveal about the meaning of alphabet for Google as it continues to develop in its new life as Alphabet, Inc.? One of Alphabet's younger companies, Jigsaw (previously Google Think Tank), is worth considering. Jigsaw proposes to provide 'technology to tackle some of the toughest global security challenges facing the world today – from thwarting online censorship to mitigating the threats from digital attacks to countering violent extremism to protecting people from online harassment' (Jigsaw 2018). According to its CEO, former US statesman Jared Cohen, rather than being philanthropic, as its vision statement might suggest, the primary value of Jigsaw to the rest of Alphabet is that it protects its other companies, such as Android, Gmail and YouTube, from vulnerability to digital threats. Alphabet executive and former Google CEO Eric Schmidt commented, 'I don't think it's fair to ask the government to solve all these problems – they don't have the resources [...]. The tech industry has a responsibility to get this right' (Carr 2017). Between the lines of these comments, there is a presumption on the part of Alphabet's executives that what's good for Alphabet is good for the world and vice versa, or at least a

vagueness regarding distinctions between the technology sector and human interests. This echoes, in many ways, McLuhan's description of the alphabet as a colonising force to which humanity is increasingly subject and by which it is being transformed.

This sense of the inevitable also permeates the rhetoric surrounding contemporary concerns regarding the commodification of personal data by Google (and Facebook). Are human behaviour and movement becoming a new sort of alphabet out of which texts are unknowingly encoded and to which only partial access and limited control are retained? Is the true significance of Google becoming Alphabet that human beings are becoming subsumed as unwitting writers both facilitated by and in the service of Google? Will the full realisation of this mean the end of history, as Flusser has suggested? Or, as Flusser has also suggested, is it possible to maintain a dialogic stance in relation to the present phase of humanity's reconfiguration by its technology?

The comparison between Google Books and Google Maps provides some insight into the role of location, and situatedness, in the human potential to participate actively in the construction and reconstruction of meaning over time. As has been discussed, the two initiatives had in common an ambition toward the production of 'high quality knowledge', though closer scrutiny reveals that it is difficult to be explicit about what this entails precisely – this chapter has associated 'high quality knowledge' with alphabetic-ness, in contrast to encoded-ness by way of Flusser in relation to McLuhan. Where Google Books has placed many of the alphabetic qualities of printed books at risk by encoding them indiscriminately as a vast database of de-situated fragments, Google Maps integrates encoded data with location in ways that, at times, supports what has the potential to develop, in the long term, into 'high quality knowledge'. More an accident of capitalism, this is not a particular credit to Google. Rather, given the claim over humanity that Google's renaming enacts, this chapter has sought to foreground a thread of alphabet-ness within Alphabet in the hopes that it can be grasped more strongly.

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