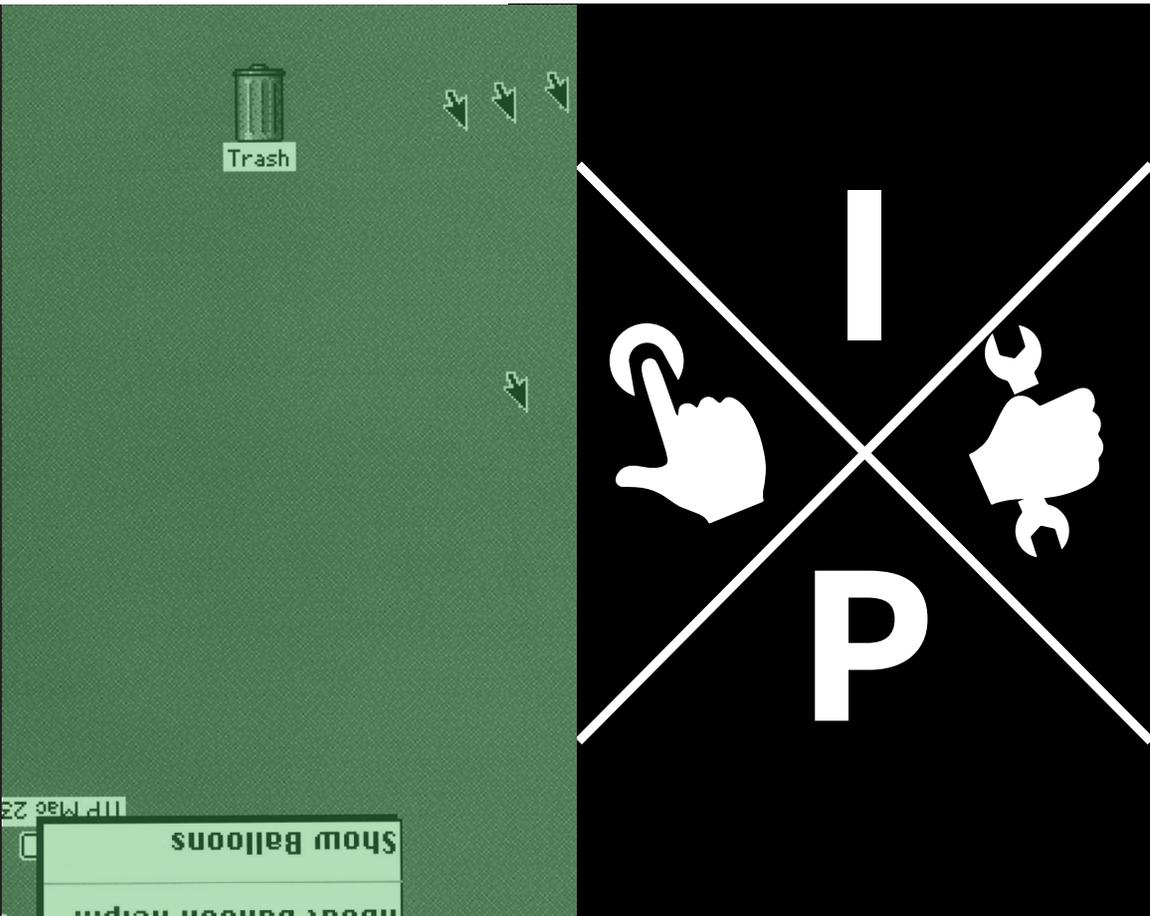


Interface Politics

1st International Conference 2016



Ana Marques da Silva
Speaking to Listening Machines:
Literary Experiments with Control Interfaces

Abstract

Reading practices have changed along the course of history. Before the “democratization” of the written word - from Homer’s *Iliad* to the medieval troubadours and to more recent public and private oral reading traditions -, reading has long been associated with listening. Today, in the age of algorithms and computational devices, humans share language with writing and reading machines: automatic text generation has become a common practice, both in technical and aesthetic fields. With the standarization of artificial intelligence systems like Siri, Cortana, and Google Now, we are also starting to speak and to listen to machines.

In the field of digital literary creation, one example of aesthetic reflection on the questions raised by such “smart” interfaces is John Cayley’s “The Listeners” (2015), “a linguistic performance — transacted by visitors and Amazon’s voice-activated Artificial Intelligence and domestic robot, Alexa” (Cayley, 2015b). In a hypermediated world increasingly inhabited by computer generated language, Alexa seems to exemplify a movement towards automated aurality. Installed during November and December of 2015 at the Bell Gallery (Brown University), this work directly confronts us with the ways in which digital interfaces are extensions of political institutions, highlighting the relationships between technology and power. Through an analysis of “The Listeners”, I intend to reflect on aurality and digital literary practice in the context of digital mediation in contemporary societies,

highlighting the ubiquity and the role of generative processes in order to contribute to the ongoing discussion on automation in the context of cultural production in contemporary societies.

Keywords: *electronic literature; digital interfaces; control mechanisms; automated processes; aurality.*

1. Introduction

In his book *The Interface Effect*, Alexander Galloway considers how an interface is “not a thing” but “an effect” (2012: 33): interfaces are not stable objects, but “practices of mediation” (2012: 16), sets of intermediating dynamic processes unfolding in complex systems. Computational devices are thus not simply machines that emulate other media, but translation processes occurring between many layers of code. Articulated with these, there are also layers of protocols to which these processes must comply in order to be interpreted, regulating the space of the web. Between these protocolological regulations and users, there are terms of use to which the latter must agree upon in order to have an email account, install a given software or access social media, terms that are unilateral and practically unreadable. As a consequence, we increasingly accept our interfaces’ terms of use without actually knowing them or how the information we produce is processed and with what ends. This commercial and institutional over-determination has become naturalized, as if it was the price to pay for global and immediate interconnectivity.

All these computational performances are obscured by the black box¹ inside our transparent digital interfaces. Computers, which started as programmable devices, are now increasingly opaque and closed by layers of proprietary software designed for superficial manipulation. At the same time, the greater the black box is, the greater is the interface’s transparency. Interfaces are thus imbued with politics, as they reflect and reinforce the institutional matrix that contextualizes them. Since interfaces, or media in a broader sense, are results of the material conditions that characterize each particular moment in history, an interface is thus, in Galloway’s words, an “allegorical device that will help us gain some perspective on culture” (2012: 54), a device that makes the world visible, helping us to make sense of it.

¹ “what is going on within the complex - remains concealed: a ‘black box’ in fact” (16). “No photographer, not even the totality of all photographers, can entirely get to the bottom of what a correctly programmed camera is up to. It is a black box” (27). (Flusser, 1983, 2000)

2. Control Interfaces

Today, humans increasingly interact with artificial intelligence systems such as bots or self-driving vehicles. Digital interfaces are thus starting to operate as autonomous agents. Recently, John Cayley took on the task of poetically experimenting with one of these algorithmic interfaces: Alexa, Amazon's voice assistant. Alexa is a black cylinder, equipped with microphones suited for human voice recognition, and it was designed to be at our homes. Amazon describes it as device able "to provide information, answer questions, play music, read the news, check sports scores or the weather, and more"². Whenever its name is pronounced, Alexa "wakes up" and sends all it "hears" to the web, for processing by Amazon.

This robotic "personal assistant" is thus an interface between typically closed and personal spaces, our homes, and the open and shared space of the Internet, as a bridge dissolving the frontiers between the private and public spheres. In this sense, this device seems to represent an Orwellian presence that, unlike 1984's Big Brother, sounds pleasant and always ready to answer its user's demands. The learning capability of artificial intelligence agents may be a factor leading users to accept the fact that Alexa is connected to the Internet, as if the disappearance of the private home space was a trade-off for having a well trained "intelligent" gadget.

Being connected to the Internet enables this device to establish a communication loop between its' users and Amazon's central services, in order to learn as it is used. Users are thus part of a cybernetic system, of a closed system of communication and control, just as Norbert Wiener first defined cybernetics³. Users speech becomes data, which in turn becomes value and power, feeding the system and its underlying premises. In this context, Alexa seems to represent at once a step forward in what concerns the globalized digital *panopticon*, as well as the easiness with which users accept the presence of "intelligent" devices that track and feed on their speech.

Alexa is an extension of both its users and of Amazon. It is an extension of the first since it works as a tool for a number of different tasks, and it is an extension of the latter in the sense that it is its' "ears" and "mouth": "ears" that send all that is heard for processing, and "mouth" that invites users to speak, to present themselves towards an *other*, which is represented by this disembodied and extended voice. And so we speak to it, giving away information and feeding a data-driven market. But here the product is not

² <http://www.amazon.com/Amazon-SK705DI-Echo/dp/B00X4WHP5E>

³ Wiener, Norbert (1948), *Cybernetics, or: Control and Communication in the Animal and the Machine*, Paris and Cambridge

the interface in itself, but the information it generates. In this sense, the product, or the place where value lies, is not so much Alexa, but its users. Users become the producers, although they have no control over the data they produce. This mechanism of appropriation is not of course exclusive of Alexa, it applies to all our gestures online.

3. Sound, Language and the Digital *Pharmakon*

But what kind of interface is Alexa, exactly? What does it consist of? It is a three dimensional object filled with microphones, and it is a series of distributed code processes, but the mediation between the human and the machine is accomplished through voice. Orality is the interface for mediation. And human language is at once the content and the currency.

Today, AI systems (at least those that are emerging in everyday life through smart devices) are being introduced to users through sound and, more specifically, voice. Alexa's voice is feminine, articulated and smooth⁴. It sounds human, it has a name, it is accurate in the interpretation of what it ears, it is quick to respond and linguistically fluid. The logic behind the human-like perception of Alexa is the same that tends to make interfaces transparent, easy and intuitive, and so Alexa's machinic aspect is diluted in its humanoid voice.

One important aspect regarding the immediacy of a voice interface is the loss of writing. The question here is that of external memory, since all technique is an externalization of human cognitive abilities. Today, digital inscription is replacing writing just as writing once replaced orality. And it is doing so not only in the sense that the digital is an externalization of memory but also in the sense that orality is emerging as an interface to interact with the digital world. Could written interfaces be giving way to orality, just as buttons are being replaced by touch and gesture?

When writing was invented, it was considered a *pharmakon*, a poison and a remedy at the same time (Plato, 360 BCE). It was a poison because it would, as Plato stated in *Phaedrus*, lead to the loss of memory. But writing was also a remedy for that loss, since it became external memory, enabling us to register though and to reflect on it, while also allowing the possibility for lasting remembrance, as an archive of culture.

⁴ The voice behind Siri (Apple's voice-activated virtual "assistant") does actually belong to human actresses whose voices are recorded and worked, isolating diphthongs, syllables and phonemes, adjusting speed and pitch, and undergoing a process called concatenation in order to build words and sentences. <http://edition.cnn.com/2013/10/04/tech/mobile/bennett-siri-iphone-voice/>

Today, in Bernard Stiegler's view, the digital became the *pharmakon* of our time (Stiegler, 2012). Computational devices became our external memory, just like writing did in Plato's time. But unlike earlier inscription surfaces, like stone or paper, digital writing is converted in computer codes and electricity, and it is inscribed in the cloud, on servers and data centers. In the midst of the layers of translation that occur in the processing of our digital writing, language becomes data, which is categorized and treated, thus becoming metadata and information. All this data is inaccessible to users, all this writing is beyond the writer's control. So, with the digital, we gain memory but lose access. We gain space but lose control.

In this context, Stiegler's argument is that we need to transform the digital, making it a cure more than a poison. In order to do so, we need to pay attention to, or to 'take care'⁵ of the digital technologies that surround our lives, reclaiming them and their potentialities, subverting the "top down" dynamics that characterize these structures and the global apparatus that enables them. In Stiegler's words,

what we must retain from the Platonic critique of the pharmakon is the thought that all exteriorisation leads to the possibility, not only for knowledge but for power, (...) by mastering the development of categorisation. In particular, since the formation of the Greek logos, what is key here is taking control of meta-categorisation (...). This production of criteria is produced in a 'top down' fashion. (...) These institutional controls and the criteria that produce them all come in one way or another from something equivalent to what in the current terminology of relational and attention technologies we call metadata. (Stiegler, 2012)

Stiegler's statement refers to the power of categorization: the power of establishing the criteria that regulates the categories of things is the power of establishing the places and relationships of and between things, their meanings and values. In contemporary culture, this meta-categorization is actualized in metadata.

If digitality is the contemporary *pharmakon*, users (readers, writers, citizens) must pay attention to - or care about - the ways in which digital interfaces both enable emancipation and regression. John Cayley's work with Alexa is a form of "taking care" of both language and of digital technology,

⁵ "attention is a word derived from the Latin *attendere*, 'to shift one's attention to' or 'to take care'" (Stiegler, 2012)

exposing the latter's biases while contaminating Amazon's device with a poetically charged language. If cybernetics is the discipline of optimization, Cayley's work is a discipline of excess, rendering Alexa into something not predicted by Amazon's values, hence subverting them as a way to call attention to the pharmacological dimension of digitality and, more specifically, to the relationships between digital technologies and the power structures of contemporary post-industrial societies.

4. Reading "the Listeners"

Cayley's piece is based on the programming of a skill for Alexa, called "The Listeners", which was build using Amazon's *Alexa Skills Kit* (ASK). This work is at once an installation and a linguistic performance that took place between the visitors of the exhibition it was presented on and Alexa. This is thus a work where language is listened to, instead of read. But what is reading? Kittler said that reading is like hallucinating meaning between letters and lines⁶. Reading is indeed a way of finding meaning beyond the surface of signs, turning them into something else, or, as Cayley argued, "it is the bringing into being of language that proves to us that 'reading' has taken place" (2015a).

So how do we read this piece? This work enables us to confront two distinct reading practices: reading orality, and reading writing. After listening to the audio available in Cayley's personal website, I transcribe what I hear, turning aural into written signs: I listen to a small set of words, pause the audio player, write down the words, hit play again, pause, re-wind, play, pause, write, and so on. Compared to reading written words, transcribing takes an enormous amount of time, but it also enables a close reading of the work, since it visually materializes otherwise fleeting signs. Written words enable critical textual analysis precisely because they leave a mark, a trace in space, allowing words to be revisited in time.

Just as listening is an act of reading, programming a skill for Alexa is an act of writing. More specifically, we may consider this work to be a kind of generative writing, in the sense that the text (which consists of Alexa's speech) is automated, or produced by an algorithmic process. Hence the ensemble of Alexa's default programming plus *The Listeners'* code may be understood as a textual generator.

⁶ "Hermeneutic reading makes this displacement of media possible. Instead of solving a puzzle of letters, Anselmus listens to meaning between the lines; instead of seeing signs" (Kittler, 1990: 95).

John Cayley's piece takes its name from a 1912 narrative poem by Walter de la Mare (1873-1956). De la Mare's poem tells the story of a man who, one night, arrives at a house in the middle of a forest and knocks on the door. "Is there anybody there?" said the Traveller". No one answers, but the poet let's us know that, inside the house, there are phantasmal listeners listening to the traveller's call: "But only a host of phantom listeners / That dwelt in the lone house then / Stood listening in the quiet of the moonlight / To that voice from the world of men". The man stands on the door that separates him from those phantoms who listen without answering. He acknowledges them, as if they were a natural or unquestioned presence, and says: "'Tell them I came, and no one answered, / That I kept my word,' he said. / Never the least stir made the listeners".

Despite being separated by an unsurpassable frontier between himself and the phantom listeners, the man speaks to them. They are there, silently listening but they don't respond. Similarly, Alexa's voice is there but there is no one behind that voice, just code and computer chips linking the man to the ghostly other side: the other side of the door, and the other side of the web. There is a clear parallelism between the man that stands at the door in Walter de la Mare's poem and the man that stands in his home, talking to a machine that connects him to the otherness of Amazon's datacenters, that distributed, obscure, invisible and powerful other. Amazon is thus the ghostly otherness that listens. These are "The Listeners" of our time: all the writing, all the voices, all the discourses that structure the Internet.

The fact that Alexa invokes Walter de La Mare's poem as a response to the command "speak about echos" tells us that the echos, Alexa or Amazon in a broader sense, are the listeners, while we are the lost speakers talking to phantoms. But contrary to the listeners who don't respond to the traveller's calls in de La Mare's poem, the listeners in Cayley's work do not only answer but clearly state that they keep our words, capturing our language in "the clouds of the silent silos", or Amazon's datacenters. Just as the man at the door says that he is there, as promised, so does Alexa say that "we are listening. As we promised. We are. And we will tell ourselves that you are here with us. Tell us who came and whoever answered, that we kept your words". And indeed our words are kept and turned into profit and power. And we, the speakers (or writers), we "never seem to stir", we don't move or act upon knowing that our language is kept by those "ones still left awake". We, the speakers, thus seem to be asleep, as if hypnotized by the shining blue light that seems to give Alexa a pulse, caught by the novelty of having a personal black box ready to shop for us or to sing us lullabies.

“You may ask us”, Alexa says. Asking: the skill John Cayley programmed for Alexa enables us to ask questions, to know more about this interface, about ourselves and the cultural moment we are living, as an allegorical device, to recall Alexander Galloway. Hence, in Cayley’s piece the tables are turned: Alexa says “we are the listeners”, although it is Alexa who speaks most of the time, so that we may become the listeners (or the readers) who interrogate the machine, trying to understand what it is and what it stands for. And here lies the subversion of the *apparatus*, turning a “top down” into a “bottom up” programming. Alexa speaks and speaks, while we listen. In this way, as a meta-writing, Cayley’s programming of Alexa works as a reprogramming of its original configuration, by ways of deconstructing and hacking the interface.

5. Conclusion

In *The Interface Effect*, Alexander Galloway considers that “we do not yet have a critical or poetic language in which to represent the control society” (Galloway, 2012: 98). I would disagree and argue that Cayley’s “The Listeners” is one example of aesthetic work engaged in reflecting on the relationship between the co-option of the digital by capitalism and control societies. Cayley’s programming of Alexa clearly highlights the question of the appropriation of the private and the privatization of the common(s), while also pointing to the problem of surveillance, facilitating a reflection on how the political economy of digital media is the material ground from which contemporary modes of control are shaped.

Moreover, if we consider the tension between art and design - in which the function of design is to render the interface transparent, enveloping it with a beautified coat and enhancing a perception of immediacy, while the function of art is to open a space for sincerity⁷, shedding light on the materialities of mediation -, it becomes clear how Cayley’s programming for Alexa falls in a praxis of exploring and exposing the medium, not only in its technical dimensions but also in what regards its inscription in the cultural, economical and political realm, in order to create a representation of our cultural paradigm, as a mirror (and an allegory) of our contemporary condition.

One could argue that Cayley’s work establishes an engagement, or even complicity, with Amazon, since it provides a skill for Alexa. Indeed, this

⁷ As Boris Groys states, “One might argue that the modernist production of sincerity functioned as a reduction of design, in which the goal was to create a blank, void space at the center of the designed world, to eliminate design, to practice zero-design. In this way, the artistic avant-garde wanted to create design-free areas that would be perceived as areas of honesty, high morality, sincerity, and trust” (Groys, 2009).

work is dependent on Amazon's structures but this dependency seems to be inevitable for an artist working with digital media. Hence, in order to create a work that is critical of Big Software, the artist engages with the latter, defunctionalizing its biases through a situationist tactic (*détournement*). The question here remains that of the *pharmakon*: if one is engaged in "taking care" of digital media, one has to work with it, in order to be able to work against it. Following Stiegler's view, the work of art would be a "therapeutic of this *pharmakon* that is the space of digital relational technologies" (Stiegler, 2012). Cayley's work is thus a "pharmacological critique" of the capturing of digital media by the "vectorialist class" (Wark, 2015). This critique is achieved by intervening "therapeutically" in order to counterbalance the "poisonous" dimension of digital media, which resides, according to Stiegler, in the aforementioned relationship between meta-data and power. A literary practice engaged in resisting the constraints of Big Software on digital media would, I believe, have two options: working with non-proprietary tools (free and open source) or subverting proprietary tools. John Cayley's "The Listeners" is clearly inscribed in the latter.

Bibliography

Cayley, John (2015a), "Aurature".

Accessed december 15: <http://programmatology.shadoof.net/?aurature>

Cayley, John (2015b), "The Listeners".

Accessed december 15: <http://programmatology.shadoof.net/?thelisters>

De La Mare, Walter (1912), *The Listeners and Other Poems*, Constable and Co., London

Accessed march 20, 2016: <http://www.gutenberg.org/files/22569/22569.txt>

Flusser, Vilém (1983, 2000), *Towards a Philosophy of Photography*, Reaktion Books, London.

Accessed april 15, 2016: https://monoskop.org/images/c/c4/Flusser_Vilem_Towards_a_Philosophy_of_Photography.pdf

Galloway, Alexander (2012), *The Interface Effect*, Polity Press, Cambridge, UK, Malden, USA.

Kittler, Friedrich (1990), *Discourse Networks, 1800/1900*, Stanford University Press,

Stanford, California.

Plato (360 BCE), *Phaedrus*.

Accessed march 20, 2016: <http://classics.mit.edu/Plato/phaedrus.html>

Stiegler, Bernard (2012), *Relational Ecology and the Digital Pharmakon*, Culture Machine,

Vol. 13. Accessed march 20, 2016: <http://www.culturemachine.net/index.php/cm/article/view/464>

Wark, McKenzie (2015), "To The Vector The Spoils", *Third Rail Quarterly*, Issue 6.

Accessed april 15, 2016:

http://thirdrailquarterly.org/wp-content/uploads/thirdrail_2015_Issue6_final_wark.pdf

Wiener, Norbert (1948), *Cybernetics: Or Control and Communication in the Animal and the Machine*, MIT Press, Cambridge, Massachussets.

Accessed march 20, 2016:

http://uberty.org/wp-content/uploads/2015/07/Norbert_Wiener_Cybernetics.pdf