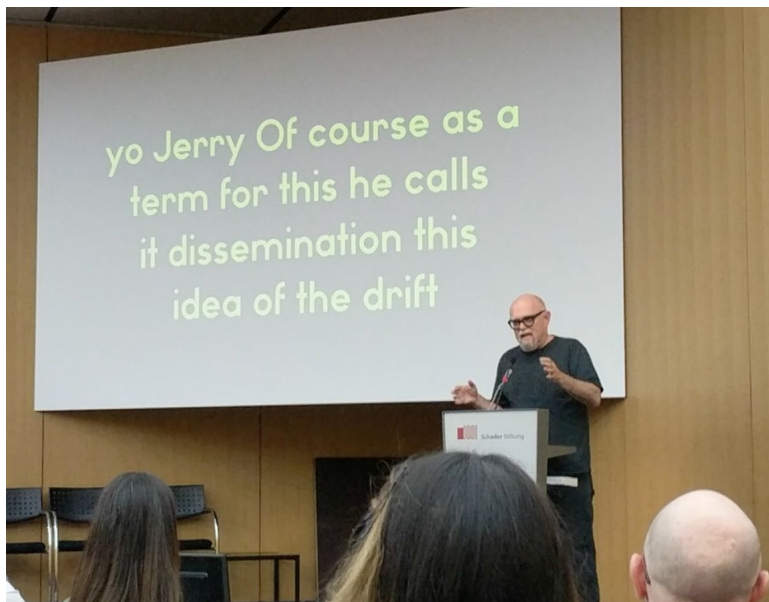


Speaking with the Mindless

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I'm here to talk about conversation – the simple act of people talking together – and how our picture of what that is will change in a world with non-human mindless entities that are able to talk and listen to what people say. These entities of course are just one factor among the torrent of strange new experiences we all have to deal with in this century – but they have a special character, forming a direct assault on the nature of language itself, the root of human communication and the central defining fact of human life and culture. What are we doing when we speak with these non-human *things*?



I'll be spending some space in this essay complaining about what I consider the corporate misuse of these inventions, and in trying to disentangle a bit the difference between speaking/listening programs and Artificial Intelligence, as it is popularly conceived.

But the advent of such language systems has its positive aspects as well. Being forced by them to extend our notion of what conversation is and can be, I think we can come to a new way to think about the new world, a post-human world where minds and non-minds, subjects and objects, the artificial and the natural, are completely and irrevocably intertwined. And I will be proposing that the traditional way in which the artistic process has related to human

conversation can guide us towards the new understanding we need, to face – and solve? – the array of new ecological and social problems facing us.

The image above is based on the *Speaking with the Mindless* installation my collaborator Brian Reinbolt and I presented at the Defragmentation Conference at Darmstadt in the summer of 2018. This is a display of the text stream of unfiltered, intermediate guesses by Google voice recognition software of what I was saying in delivering a version of this talk. Our code sends audio packets off to Google, and it sends back its text guesses along with a confidence estimate about how accurate it thinks its guess may be. Part of its charm is that in its “low confidence” guesses, it gets it wrong a good part of the time, sometimes getting obscene or betraying other aspects of its training biases, but also providing a sort of crazy alliterative poetic commentary. With this project we were looking at defining a new way to relate to artificial speakers/listeners as partners in playful, creative conversation. We set up a conversation room with a system that eavesdrops on human conversation taking place there, and offers occasional – often non- or semi-sensical – commentary that may amuse, enlighten, inspire.

But first let us look at some old cultural tropes about AI, old ideas we need to overcome. Here is a sound sample which demonstrates something of the deep cultural context, the old familiar fear of Artificial Intelligence. This is an excerpt from a trailer for the 1970 American film, *Colossus: the Forbin Project*:¹

Announcer: This is the dawning of the age of Colossus....

Robot Voice: This is the voice of World Control. I bring you peace. It may be the peace of plenty and contentment or the peace of unburied death. The choice is yours: obey me and live, or disobey and die....

Announcer: They built Colossus, super-computer with a mind of its own. Then they had to fight it for the world.... When this emotionless creation becomes the master of man, the result is catastrophic.

It is the old story: AI's are going to be super-intelligent, make us obsolete, and go to the top of the food chain! They're going to scoop our gig of running the world!! They will of course be inherently evil, or at best, still not have our interests at heart. Colossus threatened to use the H-bombs; Proteus(*The Demon Seed*, 1972) achieved world domination by impregnating Julie Christie; Skynet (*Terminator*, 1984) actually used those H-bombs on humans; and Hal(*2001: A Space Odyssey*, 1968) was sorry, Dave, he just couldn't open the pod bay door. But they and the dozens of other evil movie AI's are basically all the same. It seems we have just not been able to imagine objects that behave in the realm of language, but which remain mindless.

¹ *Colossus: The Forbin Project (1970) - Official Trailer (HD)*
<https://www.youtube.com/watch?v=kyOEwiQhzMI>

Of course in reality, it is humans who make destructive plans using their “smart” inventions. At *I/O 2018*, Google’s developer conference in May 2018, Google CEO Sundar Pichai demonstrated an experimental version of their Google Assistant conversational robot, in which the system makes a call to a hair salon, and holds a fairly complex conversation arranging a hair-cutting appointment with a salon employee, without identifying itself as non-human. The program even includes in its speech markers of human dysfluency – pauses, and expressions like “umm-hmm” and “uh”, all in what is clearly an effort to deceive its conversational partner into thinking she is speaking with a human being. If we can believe this was not a false and staged demonstration, it worked: the woman on the other end of the call appears to be completely taken in.²

From the applause on the live recording of the presentation of this demo, it seems the Google developer crowd loved it. But outside this collection of hard-core enthusiasts, reactions were mixed, and largely negative on the web. For example, Zeynep Tufekci (@zeynep), associate professor at the University of North Carolina, and a techno-sociologist known primarily for her research on the social implications of emerging technologies, tweeted:

...horrifying! Silicon Valley is ethically lost, rudderless and has not learned a thing.³

Google seemed quite surprised by the negative outcry, and back-pedalled a bit after the event: they made a subsequent announcement that of course they would never build such a feature into their product and that the Google Assistant would always identify itself as such, a claim this is frankly not very convincing.

Casually surveying the range of responses found in online comment streams gave a depressing impression of just how unequipped humans are to think clearly and ethically about what is going on when they are having conversations with mindless entities. Responses ranged from the mildly sociopathic – with one fellow excited about the prospect of having his robot friend make 40 dinner reservations at different restaurants, and ordering him/her/it to cancel 39 of them at dinner time – to the inappropriately compassionate, worrying that demanding that a robot identify itself as such might be seen as unfair discrimination against the non-human!

I have to say that my response lines up pretty closely with that of Dr. Tufekci. At our current technological moment it seemed we wouldn’t soon see the day that a non-human entity on the phone could fool you into thinking it was a real person, but Google’s demo literally made me shiver with the thought that that day is now here.⁴

² *Google I/O 2018: A Google Assistant that will even make calls for you*
<https://www.youtube.com/watch?v=d40jgFZ5hXk>

³ <https://twitter.com/zeynep/status/994233568359575552>

⁴ *Of course this is just one of Google’s many disingenuous demos: they often try to sell new technologies as services that increase individuals’ personal power when the more probable result is the enhancement of corporate and governmental power. The false personality on the telephone is more likely to show up in robo sales calls and in interactions with bureaucracies, where they will be collecting data; the unpopular Google glasses have only found*

Google's hair appointment demo reminded me of the project of sound artist/ecologist David Dunn, who, in conjunction with forestry officials and researchers in Canada, has devised an electronic device to save dying trees in the northern forests⁵. Climate change has exacerbated the problem of Bark Beetle infestations which kill the trees, and Dunn's gizmo, when screwed into a tree, injects sounds into it which disrupts the sounds the attacking beetles make to communicate with each other. The confused beetles are not poisoned or killed, they just lose their social integrity and die out, after becoming unable to find mates and reproduce.

I think of Google's project of filling the world with entities that are going around pretending to be human, and engaging in conversations under that deception, as tampering with the basic social glue of the human race. It seems tremendously irresponsible. It's as if someone said: "Let's just all take drugs that scramble up our DNA! Let's try it out! What could possibly go wrong!?" It's amazing to me that tinkering with the basic behaviors of our species is undertaken in such a thoughtless and irresponsible way.

Perhaps it is time for me to clarify why I put such a premium on normal, even casual, human conversation, and why I consider it the underlying basis of human society, the mysterious locus where human creativity occurs, and which shapes the way in which humans encounter and create the future. It's the underlying nature of the way we connect with each other, and its ubiquity is the reason we are often blind to how wonderful and mysterious it actually is.

If I'm having a good conversation with you, I say something and I don't know what your response is going to be. And therefore I don't even know what is the next thing I am going to say! I say something and you respond to me in some surprising way, you have a different perspective. My ideas are re-interpreted in a new context, so we are both in a state in which we're learning something new, and we're changing our ideas about things. We are both on a creative adventure.

In an authentic conversation, we create something together that neither of us were able to create ourselves. Neither of us know where it's going, or what might emerge. This really is the locus of culture creation, it is the place where what is new in human society happens, the place where meaning emerges.

The wonderful paradox of the situation is that the "engine" that drives this creation of new meaning is the fact that we **misunderstand** each other, that we *don't* perfectly grasp what the other is saying. Jacques Derrida has a term for this: **dissemination**, shorthand for the notion of

usage with police and security firms; and of course the push for self-driving vehicles is really about radically reducing the number of employees working as commercial drivers.

⁵ *Music professor receives patent to help fight bark beetles ravaging Western forests*, UC Santa Cruz magazine, Feb 2017. <https://news.ucsc.edu/2017/02/bark-beetles-dunn.html>

“the drift of the signifier”⁶. Every time an idea or a story is retold, it becomes something different. And as this chain goes on, the meaning of things emerges and constantly evolves.

I would say that this particular way of thinking about conversation is not limited to what happens between two people, but describes what artists do as well. In my case, I spend much of my time doing improvised music, and perhaps it is easy to see how at least *this* form of art has a strong relationship to natural human conversation. One player will make something like a statement in playing a musical gesture, and there will be a response to it from another player, maybe a surprising response or a challenge of some kind. The first player may expand upon this reply, following or perhaps resisting the direction implied by the second player and so on. So the dynamic nature of this particular art form clearly shares some of the properties of simple human conversation.

The players end up negotiating an ever-changing landscape that none of the people involved are controlling but in which they are all participating. Steve Lacy,⁷ the late jazz saxophonist and composer, has spoken precisely about this situation. When you start, Lacy says, you might have an idea going in, a full composition or perhaps only a more sketchy improvisational plan, but once you are in it, and something unexpected and good happens, you just don't want to mess it up! You don't want to fall off the thing that you were all riding, the thing that no one is controlling but that all are participating in. You just want to keep it alive.

And it is not too far-fetched, I think, to see the work of artists in other art forms also as having a similar conversation with the world, a conversation with the materials of the art work. The painter makes a mark on the canvas, then steps back and says *what does it need now?* And then goes back to it, makes a mark, and steps back again and asks: *what does it need now?*

This cycle of making a gesture/statement; then seeing what the response of the work/canvas/paint was to this gesture; and then repeating the process, is the essence of art work, and of conversation. We have an intention, then are informed of some unanticipated aspect of the result by the response of our partner or work-in-progress, and then modify our intention somewhat and continue....

So the next step – and I admit this may be a difficult step for some people to take – is the realization that this kind of creative conversation is possible to have with machines as well. What I've been doing for years in my musical work is building somewhat unruly computer-based musical instruments, “disobedient” machines that respond to my gestures, but that don't necessarily carry out my instructions precisely. I'm interested in building machines that respond to what I do, but in a not fully predictable way, and which give me surprises that I am called on to respond to.⁸ In this way even though one of the participants is not a human being and does

⁶ *Dissemination* (1972), Jacques Derrida. ISBN-10 0226143341

⁷ *Steve Lacy: Conversations* ed. Jason Weiss, (2006). ISBN 0-8223-3815-7

⁸ *Touch Typing demo*. http://perkis.com/_site/videos/index.html

not have a mind at all, there is still the possibility that, from the human perspective, this interaction can have the creative nature of an authentic conversation.

And even in playing solo, I receive some of the give-and-take dynamic of playing with other people. Sometimes there will be a surprise I don't like, and I have to adjust to it. This dynamic of actively adjusting to what really happened, and changing your plan is to me the essence of much interesting artwork.

Science holds a slightly different conversation with the world. Science is often thought of as being very similar to Art, but I think there is a really deep split here between what Science does, and what art is about. A scientist is involved in accumulating a result, doing their part in building an edifice that is our model of the world, one that is constantly being revised and corrected. The process is one of building a consistent framework that we all live in, giving us instrumental power over the world, and eventually providing the resources we need to control things. So while it's giving us a connection to the natural world, at the same time it's building a wall between us and the natural world. It's giving us I would say a sort of false sense of certainty about what is going on.

Artificial intelligence in its current form is sort of a miniature “ant farm” of this situation, it's creating a tiny model of the process of science itself – it's about building statistical models of what is happening in a very particular situation and then making predictions based on that dynamic model. A system may be trained on a large set of pictures of cats and dogs, and told which ones are of cats and which are of dogs. Then it's given a new picture and asked to decide: is this a cat or a dog? One can see this as the scientific process reduced to a very schematic and simplified sandbox, or miniature world.

Art does something different. Georges Braque, the French painter, addressed the key difference between science and art very clearly and succinctly, saying: *L'art est fait pour troubler, la science rassure*⁹. Art troubles, Science reassures. The french word *trouble* is not exactly the same as trouble in English, but its meaning – a more physical meaning than the English word, you might say – is captured in the English expression “troubled water.” Troubled water is water that's turbulent, it's hard to navigate, it's complex, it's unclear which way the flow is going; it may also be opaque, visually unclear with silt roiled up from the bottom, and so on. Art provides the *opposite* of what science is designed to give us, the opposite of the clarity that is science's goal. Art actually provides uncertainty rather than knowledge! Rather than letting us say “Now I understand what's going on”, it leads us to say “I thought I knew what was going on, but now I'm not so sure.”

So Art is providing us reminders about the limitations of our models. Somewhere I've heard the dictum: “all models are false but some are useful.” Scientists are always engaged in trying to

⁹ *Cahier de Georges Braque 1917-1955*, (1955). **ASIN:** B002SHPTCM

improve and reconcile the models into one. Art is giving us the capability to be reminded that all models are limited, approximate and ultimately false.

Graham Harman, the contemporary American philosopher, has made a statement that to my mind boils down to an idea very similar to Georges Braque's statement, when he says that art and philosophy are not about producing knowledge.¹⁰ What could he mean by that? These endeavors are more likely to produce what might be described as counter-knowledge, producing doubt. Art, in particular, is not necessarily providing a different narrative or a new explanation; instead it's creating an *opening*, an opportunity for one to react in a personal way, and to be reminded that we are in an open Universe where unexplained things can happen.

I think of what the artist from Los Angeles Ed Ruscha said once about his own work. He released a book of photos – of gas stations, I think – that he was very happy with, and afterwards he said this book had an inexplicable thing he was looking for: “A kind of ‘huh?’”

We need that.

Now it may be harder to see how philosophy shares this nature with art. Because philosophers do make models don't they? They are proposing theories: how the mind works, the nature of knowledge, the basis of ethics, and so on. But there is a sense in which such ideas are *disposable* in philosophy. The focus is not really on telling us that the current theories are better than theories of the past: all the philosophical theories of the past, the present and the future are really about stimulating thought; newer ones are not necessarily better than older ones. The point is to find how we can authentically think, given the current historical situation that we have been thrown into. Plato, the founder of the western intellectual and philosophical tradition, realized this when he decided the important things to record were not conclusions or summaries of the philosophical ideas of his subject Socrates, but rather recording the *dialogue itself*. By recording the dialogues, he's pointing to the fact that the conversation is the essence of what philosophical activity is about, and the encouragement of the constant new creation of meaning is why this activity is engaged in at all.

I'm going to mention Graham Harmon again and by doing this I'm not claiming any sort of expertise in this work or in modern philosophy at all. This may seem like a superficial or naive response, but what struck me about his “object-oriented ontology” was what I would call a certain *ethical humility*. There is something quite wonderful I think about the notion in Harmon's work that any object – and by object he means really any conceptual object at all: a rock, the Communist Party, a unicorn, anything you might think about or talk about – cannot be reduced to just a list of its known properties and a list of its possible effects. There's always some residue that we don't understand, there's always the possibility of being surprised in our interaction with any object.

¹⁰ *Graham Harmon: Art without Relations*, ArtReview, Sept 2014.
https://artreview.com/features/september_2014_graham_harman_relations/

You might say this idea stems from the simple notion that everything has an interior and it is the nature of interiors to be invisible, to have secrets.

We know when we're having a good conversation, but we also know what is happening when we have a bad conversation. A bad conversation often is one where we feel that we "have someone's number": we know exactly what they are going to say, we don't have to listen, they are not able to surprise us. In essence, a bad conversation is lacking in mutual respect. Harmon's is a radical critique of this attitude: for him, everything and everyone can surprise us.

We need to respect human beings, we need to respect animals, and we also need to respect other entities that we know even less about. We need to have a respectful engagement with all the things in the world, including these new and ontologically confusing things, mindless speaking/listening conversational computer programs!

So I think this is a wonderful attitude towards the world – realizing we can learn from anything and anyone, if we engage with respect. This point of view is basically ecologically sound; it doesn't require us to figure out whether something has a mind or not to decide whether we're going to respect it or whether we're going to consider whether it's worth engaging with in a conversational way. Things that don't have minds, any object we encounter in the world can possibly teach us something.

I think this is a point of view that we really need to grasp in a world that's becoming ever more full of very complex objects, including linguistically active objects that I hope we can remember are still mindless, but which can talk with us. We must build objects that contain some understanding in their design of this notion of respect for their human conversational partners. We don't want to be inundated with a wave of automated speakers/listeners that are just there to serve organizational agendas, manipulate our behavior or extract data from us. Rather we need systems built with the human wisdom of being open to the creation of new unexpected truths that comes from real mutual engagement.

Conversation and its children are the places where resistance and incomprehension turn into re-interpretation and culture creation. We really must extend the play of creative conversation to a new, larger cast of characters, to entities living and not, human and not, with whom we can engage productively. Human survival, in this new tangled natural/artificial world, completely relies on our ability to do this.