Sociality and Technology for Social Manipulation

A Conversation Between Christiane Paul and Paolo Cirio

The following interview took place at Printed Matter, New York City as part of the Sociality & Technology for Social Manipulation *event on April 26, 2019.*

Christiane Paul: Thanks so much for coming out tonight, I'm really honored to be able to have this conversation with Paolo, with whom I've worked on a couple of occasions.

Many of you may be familiar with his work, which I would say frequently exposes or undermines systems of power and control. Some of the works you are very well known for, Paolo, are the *Hacking Monopolism Trilogy*, which you did with Alessandro Ludovico. It includes *Google Will Eat Itself* where Google revenues from Google Ads were used to buy Google shares; *Amazon Noir*, which scraped Amazon in order to make books freely available; and *Face to Facebook*, very well-known, which scraped one million user profiles from Facebook to turn them into a dating site. Another work was *Loophole For All*, which investigated the Cayman Islands as a refuge for unscrupulous business practices and exposed secretive offshore companies.

Many of these projects are short-lived because there is an immediate crackdown by the corporations involved, so the works very much become a conceptual act.

Before we get to the *Sociality* book itself, I also want to establish a little bit more context for the *Sociality* project, which is very much in sync with what you have been doing as a form of regulatory art and, in this case, focuses on the investigation of public repositories of patents, scraping them and analyzing them for us.

There's a lot of talk right now about human sociality and psychology as they are affected by social media and about devices that ultimately program our social behaviors, and I think the project makes a major contribution to that discussion.

So, before we get to the book itself and how it functions within that framework, can you talk a little bit about the *Sociality* project? What inspired you to do it? How did you approach the project, and then the book as a selection of its findings?

Paolo Cirio: Thanks so much for the introduction and everyone and everything. Well, it was a long path to get to this. I think many years ago I was looking at patents already — just as visual material — to be honest. Because, by doing all these projects, I was already working with algorithms. And those flow charts — just visually — it was already material that I wanted to use.

Then it just happened over the past two years, I would say. And I think the Cambridge Analytica scandal made the big step toward this project. Sometimes those things just happen around you. It's not that you really plan, like schedule, the publication of a project; the material is out there, it's like a public conversation that is happening.

And it's amazing actually how 2018 was the year when everything happened, basically, from Cambridge Analytica and the Facebook scandals happening every day. Also, all these books, news, theories, and articles were starting to talk about discrimination and social manipulation made by algorithms, interfaces, and so on.

Everything really came together. I don't know; but as with most of my best intuitions, the timing was almost coincidental. Then yes, of course when I discovered that there were so many problematic patents, that was the revelation that made me focus on the project and doing a little bit of research, and then I was just shocked how many patents of that sort were coming to me. Then I had to do it.

CP: Yeah, and I think that project and the book are doing a really great service. It's not that you unearthed something we didn't know, we always hear in the media about all those technologies modifying our behaviors or creating bias in data sets through data mining — lowest common denominator filtering that has serious effects on our behaviors, on our legal status, et cetera.

But you can so easily become completely overwhelmed by the issues surrounding these technologies. Where do I even start the research to learn about them? Patents are accessible to anyone, but who has the time to go through thousands and thousands of them? I think what you really nicely achieve in this project is a form of filtering and categorization of patents in different areas of social manipulation, of surveillance, et cetera.

Can you talk a little bit more about the categorization system and how you arrived at that?

PC: Gosh, that was insane work.

CP: I can imagine.

PC: The first step was pretty much automated, and actually, I also want to say thanks to Andres Chang who was like my assistant on this project, and he helped me to find the classes of patents because there are so many categories and technicalities in this field.

There's a lot of overlap between some of the patents, and it's almost a choreography that then arrives at this form of social control.

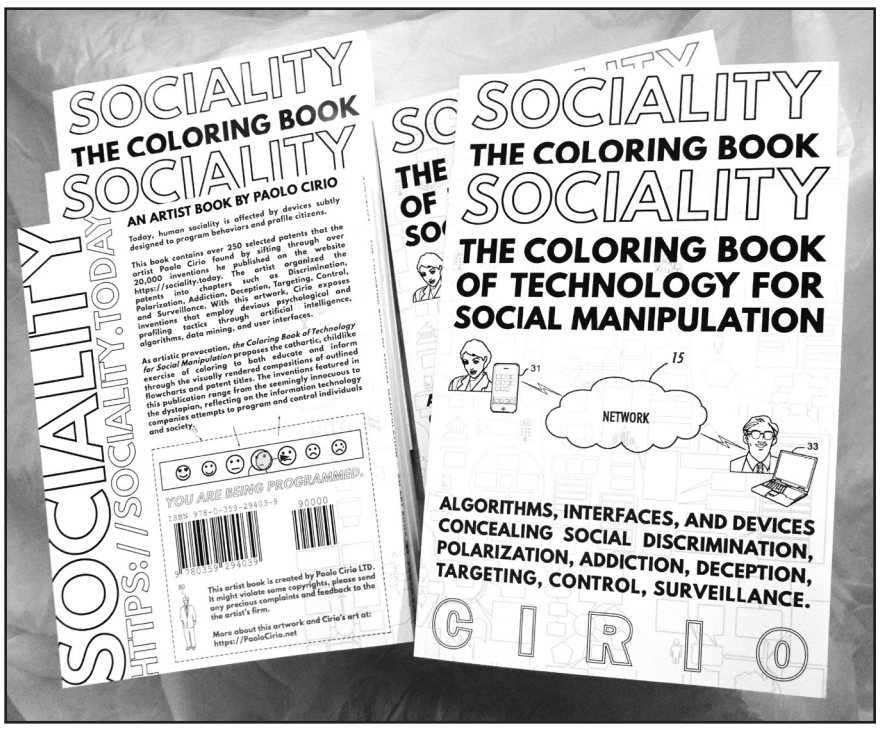
Yes, then the first step was to rate them in bulk with data mining, just by a few keywords and classes. And then it became like a manual process and a fine-tuning process. And that was just me trying to figure out how to improve that kind of rating/scoring of patterns.

For the book, it literally was just me going through the first 4,000 or 5,000 rated patents, and then finding the best ones, moving files in organized folders, for having like 250 pretty much in this final book. And especially categorizing them by profiling, manipulation, etc. Some patents sound similar and it's not even like about the individual patents, but sometimes it's the combination of two or many that create discrimination, polarizations, or surveillance.

CP: Yeah. That is also interesting; there's a lot of overlap between some of the patents, and it's almost a choreography that then arrives at this form of social control.

Another question I had for you concerns selection: when you're saying, I selected the best ones, what were your criteria? What piqued your interest most in picking those 250 for the book?

PC: There were a few things I was looking at — including, for this book — the visual material. So



sometimes they're very funny pictures, like just this clip art kind of stuff, and sometimes they are even like hand-made. So it can be very funny. And then the companies that patented them. There are a lot by Facebook, Amazon, but there are some of them that are by Walmart or companies that you wouldn't expect to patent such technology. Even like banks; I think there are a couple of Bank of America patents. And then, well, of course, what they were trying to do or what they were saying. There are some that are very insane in what they propose. So that pretty much is how I was trying to categorize them.

CP: Again, the book is part of a larger project, which is all about raising public awareness. And at the website visitors can also contribute to the filtering of the information. So, what inspired you to do the book in the first place and how do you see it working within the overall project, how do you see it as different from or contributing to it?

PC: Well, the book was the last step of this project because first it was the website where there are 20,000 of these pictures and patents. And then I did these interventions where I printed some of these patents pretty much as they are in the book. And I posted them in the major colleges in the US, so I went to a Berkeley, Stanford, Harvard. Simply because I think that's really the place where these patents should be discussed legally, technologically, and actually it's where many were made. Because most of these patents are American, and most of these people that made these patents, they went to these colleges.

CP: Ivy League schools.

PC: Of course. And then I was looking at these pictures, and I was doing another project with print on demand, and somehow I just thought, well, this could be very quick, because they were already PDFs. And I knew that it was going to be very cheap too to produce. So, I just put them together and uploaded them on Lulu, which is the on-demand publishing platform. It was just a nice idea, and it was also a way to make the work more — well I wouldn't say educational because of course it's kind of a provocation, although it is kind of an educational book if you want — but it's also the irony that makes it more interesting, in a way.

CP: Why a children's coloring book, which is how you frame it?

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Vermont, large sailing ships un-comprehendible by pre-Columbian civilizations, a totally inclusive beach vacation/orgy, a hypothetical self-driving future car shaped like a three-sided onigiri, a school of fish, a thumbprint, the Milky Way, the blueprint for the new economy, a forest, and so forth. Daniel Drescher's Blockchain book, *Blockchain: A Nontechnical Introduction in 25 Steps* (2017), even utilizes blockchain's multiplicity as an organizing premise: twenty-five steps, twenty-five "real world" metaphors. *Do you have a mobile phone? Have you ever bought a car? Can you remember the last time you bought a CD for yourself in a music store or in a department store? Does the problem of trying to organize a group of individuals who do not accept or recognize authority sound familiar?* And so forth. The blockchain hash may be, as Williams claims, the "symbol of our new reality," but the sixty-four characters that comprise it are precisely not symbolism but encryption — not given for human interpretation, letters, and reading but for quantification, numbers, and computation.

In the seventh episode of the fifth season of Silicon Valley, the plucky tech entrepreneurs from Pied Piper explore funding their start-up with an ICO (Initial Coin Offering). For advice, two of the show's principal characters, Richard Hendricks and Bertram Gilfoyle, seek out the bombastic, billionaire venture capitalist, Russ Hanneman, who has put his fortune into crypto. They finally find him supervising a dozen day-laborers in an enormous landfill. Hanneman explains that he converted all his thirty-six companies into ICOs, all but one of which failed ("one of them got shut down by the SCC, on a few we got scammed, but some of them worked, one of them worked"). The one that worked ("up 3000% in the last two weeks") would "cover all the losers," but a housekeeper accidently threw out a thumb drive with the passkey. "300 million in Crypto is buried out here somewhere," he says, as heavy equipment scrapes away fecklessly in the distance and the workers in foreground in surgical gloves and masks rummage around in the filth with seagulls circling overhead. Suddenly, a worker finds not a thumb drive but an actual severed thumb and Hanneman gets momentarily excited. What makes this set-piece perfect for this context is its Reductio absurdum of the landscape of innovation into a real-life heap of bullshit jobs, menial labor, dead labor, and the ecological dead zone symbolized by the landfill.

The ironic apercu: if only the billionaire just had a working passkey, he wouldn't need to exploit these workers. It is a commonplace that the wasted energy behind bitcoin, blockchain, and the rest of it exceeds that of a small, developed country. Blockchain promises a more efficient and secure way to process toxic information for a cancelled future with a ruinous horizon. The heap isn't nature or culture; it's a total, totaled, and totalized waste land. The hidden ledgers of value and trust — in so many words, the archive of the present — can no longer be processed at human scales. They can't even be represented.

Aaron Jaffe is Frances Cushing Ervin Professor of English at Florida State University. He is the author of Modernism and the Culture of Celebrity *(2005, 2009),* The Way Things Go: An Essay on the Matter of Second Modernism *(2014), and the forthcoming* Spoiler Alert: A Critical Guide *(2019). In 2016, he edited a special issue of Modernism/Modernity. He is also the co-editor of three books:* Modernist Star Maps *(2010),* The Year's Work in Lebowski Studies *(2009), and* The Year's Work at the Zombie Research Center *(2014). He co-edits the Year's Workbook series with Indiana UP on fan cultures, cultural theory, and objects.*

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PC: Right, because the idea would be that people would learn about these patents, and especially the new generations would learn about it. Also, simply because we know a lot about how the conventional mass media, TV, radio, newspapers are manipulating us, or brainwashing us, but we don't know exactly, I mean, we are learning it now, actually, how these technological apparatuses work. And so that's why it's a coloring book. That's like: we are all kind of like a kid trying to learn, and by coloring them, it's a way, to look really at the technology inside.

CP: I think the coloring is a nice narrative device to achieve that. Also, when I first went through the book and looked at the patents, I immediately thought about other colored classification systems for data, meaning how my coloring could actually go to a deeper level in terms of the tagging of the patents. A book is static, so the categories are set, but you can introduce new classification systems through the coloring, which I thought was a nice challenge.

PC: Yes. I mean, there are many views you can have with that. And nevertheless, now I'm starting to have exhibitions in many forms with this project. And so they actually start to ask me for the book as well. Often they do ask me to do a wallpaper with these pictures. But then they say, oh, but maybe in installations we should also have this book. So it's becoming a proper art object in a way, or part of the installation itself.

CP: What has the feedback from the public been? Many of your projects have been extremely mediagenic. I'm not saying that was or should be their goal, but ultimately the response to the projects in the media was very much what they conceptually were about because you're raising public awareness of serious legal issues. In the case of *Sociality*, the patents are publicly available; it's not like they're completely hidden from the public's view. So what has the public response been to this particular project?

PC: Well the public response here is not big, and I didn't expect that it was going to be big. Because, as we said, it's not like a pop project in many ways. Sometimes I strategize the project to have that response from the media.

In this case there is nothing really controversial or popular. It's more an informative project, I find. And it's true; these patents are already there. They're in the public domain, but I think it is a lot like how sometimes when there is a pile of items and there is a thing hidden in the middle. Yes, it's still in the pile so everyone can reach it, but actually you don't see what is really inside.

So in this case, I also find that there are some patents that have been discussed by major newspapers, but I don't think they have been discussed in this magnitude in terms of the amount of problematic patents and the abuse of the patent office that was flooded by unethical inventions for more than a decade. And so there is still some potential for discussing patents in this amount or also looking at some other ones that are less known and discovering more about them.

Some people say technology is neutral; sometimes it's true — but it really depends on how you use and design technology.

But yeah, definitely the reactions were mainly from people that were already involved in these discussions. So technologists definitely, if not legislators, lawyers and academics who work on this legal field and technology. And, yeah, some people that just liked it. But it wasn't huge, of course.

CP: Once again, I think there is a different audience for this project. In the age of machine learning and data mining we're talking a lot about ethics and calling for new ethical standards but, as you say, that is not necessarily integrated into the educational process. Graduates from Ivy League schools often create the tech startups that patent dubious kinds of technologies. And I find the sheer mass of these patents truly shocking.

PC: Yes. It's very shocking. And I think these projects somehow are kind of important because they also document the history of the internet. And, yes, now we talk about all these atypical issues, but it's also interesting to see how differently we understood the internet twenty years ago.

And chronologically, really, if you look at the patents, like from '98 to now in the past twenty years there was an incremental and then exponential number of patents meant to manipulate people, especially in the online advertising sector. Basically, once they discovered that the ads in the form of banners didn't work that well, and they discovered the potential of social media, where you can know and harvest way more personal data, they started to patent all this technology — these targeting algorithms, mainly. And the internet became what it is today. And so I find that's a very important way to look at the internet today. And then there are also other economic issues, not only legal and ethical, I find. Because, for instance, in Europe you cannot patent software. So, basically, it's only in the US Patents Office where you can patent this kind of technology. And that also makes a point on the fact that the internet is governed by American companies at this point. And that's also very interesting to me geopolitically in a way.

CP: There is a beautiful data visualization of the Top 10 Company Market Cap Ranking History 1998-2018 (https://www.youtube.com/watch?v=fobx4wIS6W0). And what it shows is that it has been only in recent years that companies such as Facebook, Apple, et cetera, moved to the top sector of the market. It was a much, much more diverse landscape before then, and it's really amazing to see that development.

PC: Yes, I mean to me it's just to show how the internet changed dramatically, and how we are all not really free anymore to use the internet as before, and actually, there's a lot of manipulation, and censorship, and so on. That's why then I promote the regulations, and it's kind of a provocation to say that we should ban some of these patents completely. But I do think that sometimes, actually, you should do that, because there are technologies that are just bad. Some people say technology is neutral; sometimes it's true — but it really depends on how you use and design technology. Sometimes technology is just as bad as it is. There's nothing good you can do with it or the down sides are just too bad.

CP: And technology doesn't come out of nowhere. It is created by us, and it always has...

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PC: ...been designed to do something.

CP: There is an agenda in its design. At that point technology obviously already stops being neutral, but I think what is important here — and what your project contributes to — is raising more of a radical question about impact. And I'm the last person to say, oh, social media is bad, the internet is bad.

There is enormous potential in these technologies if we think about their benefits in a more radical way and pay more attention to inscribed biases. Coincidentally I attended a summit on AI during the last couple of days where one of the participants suggested that we need completely new systems for metrics of success in order to rethink financing and economics. I think your project also contributes to that specific dialogue.

PC: Yes. So that's why, actually, on the website you can email the patents to a legislator. Of course ,there haven't been many people doing it, but simply because people don't know about it or they don't know how to email something to a legislator. People are just not engaged enough in these legislative discussions.

And, nevertheless, they don't know about these things and how they work. We still live in very little bubbles; most people don't know what's an algorithm or they have a very abstract idea of what bad things they can do. But sometimes it's very simple to just say, you don't see everything on Facebook. The feeds have been manipulated. You don't see all your friends' posts because algorithms decide what you can see or not see.

And it's a huge difference from the notion of using social networks to share and meet new people and to discover something. Now it's real manipulation happening in front of you. And that happened — it was around 2008 or 2007 — when Facebook decided to run algorithms for their users' feed. So there was an exact moment when they used one of those patents. They applied it to your feed, and from that point on, you couldn't see everything that was happening that you wanted to see. They started to decide what you were seeing.

And so that changed everything completely — the idea of social networks and all related rhetoric, which to me it's not a utopia; because those ideas could still work, but not this notion that the social media will help us to improve society with these terms created by a centralized authority manipulating communication.

CP: I think that's one of the big ironies of the current social media landscape: on the one hand, the front end has become so user friendly that your grandmother can use it without problems, while the back end has completely lost its transparency. It's just not accessible anymore, which wasn't the case in the '90s when the Web was launched.

It has also been really striking to me how artistic practice on the internet has changed from the '90s until today. Early net art projects that dealt with similar issues of network architecture and real

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estate were really fun and playful projects. I often juxtapose projects such as Mark Napier's *Shredder* (http://www.marknapier.com/portfolio/shredder/) from 1998, which basically used the source of web pages to shred them into a visual collage, and works such as your *Hacking Monopolism Trilogy* (2005-11) where you need a team of lawyers from the start to be prepped for the corporate response. These are completely different levels of intervention into platforms that illustrate what artists have been doing to raise awareness of these issues at different times in the internet's evolution.

PC: Yes, things are changing very fast. And also I have to say my work has been changing in the same direction on several levels because, for instance, you were talking about *Face to Facebook*, but if we did *Face to Facebook* now, people wouldn't understand it because back then you could do this kind of a provocation in that kind of cultural context, as much as talking about the regulation of the internet.

If we were talking about regulating the internet ten years ago, people would just walk out and scream, "Oh no internet needs to be free, no one should touch it." And instead now we are talking about banning technologies that are running the internet, and there are still people out there that hate this idea, but now it's common understanding. And that happened really in the last three, five years. It was very, very recent. And I have to say that's why I was mentioning *Face to Facebook* because my practice changed according to that idea/notion of the internet, simply because I am doing internet art. So I am following the media, and I try to do whatever is most important for the media that I am working on.

CP: Should we open to the audience and see if there are any questions at this point?

PC: Sure.

Audience member: I haven't looked at the book yet, but I'm just curious, were there any specific patents that you think were especially problematic or strange. I mean, just from looking through all of these, were there a few that you would like to highlight?

CP: Your favorites? Best of?

PC: Well yes, there are so many, but I think there is one by Facebook and one by Amazon, where they really try to understand your credit score in terms of how much money you make, and like where you went to school, and then they apply a tailored price of the product that you see online, which is disturbing — but that happens regularly every day, right?

You already know that. But that is the actual document. That's the thing; somehow it's a documentary project if you want, because it shows the evidence. And it's also important, again, from an economic point of view, like the property of these patents and the trade of these patents is very interesting because they are sold between these companies. So sometimes you can trace it back, so maybe a discriminatory algorithm was patented by Facebook, but then Bank of America bought it because they thought it was a great investment to buy such a thing. Right? So that's also very disturbing.

The Soft Machine

Paul D. Miller

The Age of Smart Information: How Artificial Intelligence and Spatial Computing will Change the Way we Communicate

M. Pell

ForeverFuturistic Design, Inc
www.theageofsmartinformation.com
200 Pages; Print, $29.99

The term "hype cycle" is a branded data visualization used to represent the adoption of different technologies. It's a graphic and conceptual presentation of how consumers get into emergent technology with terms like "Technology's trigger" to "Peak of Inflated Expectations" to "Trough of Disillusionment" to "Slope of Enlightenment" and ending with "Plateau of Productivity" when the product is actually useful. With the rich amount of data they have access to, you realize that marketing and advertising data analytics have a lot more info about how we use technology than most nation states. We are in an era where software and design have raced far ahead of how we measure stuff like happiness or Maslow's Hierarchy of Needs because they are different kinds of literatures, different

The Age of Smart Information *is partly about how to use software tools Pell has worked with and partly philosophical rumination on how these tools change the way we think.*

modes of engaging a digital narrative that inundate our every waking and sleeping moment in the twenty-first century.

There are equations for just about every choice we make onscreen, and one book that I think encapsulates this kind of transparency at the edge of this dizzying situation is Mike Pell's book *The Age of Smart Information: How Artificial Intelligence and Spatial Computing Will Transform the We Communicate Forever*. Long title, but hey — you get the point.

It's not every day that you get a sense of how much the world has changed in such a brief amount of time. We all know that even if you pay a small amount of time reading about technology, we are now living in a world where an informal law of unintended consequences holds sway, and everything changes at the speed of information. We know the incredible potential of everything from quantum computing, which uses complex physics of the smallest particles of the universe on the processes we use to derive information, to the more industrial scale issues of climate change and genetic engineering — one phenomena holds these things together: how humans use information to navigate the ephemeral terrains of a landscape made of consciousness as translated into code. Basically, the twenty-first century is all about pattern recognition.

Mike Pell has been clever at giving us a sense of the edge of what's going on in the rapidly evolving world of our data driven society because he was one of the principal designers of Adobe Acrobat. It's one of those core pieces of software

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