



Sally Applin

“Ich liebe Dich UBER alles in der Welt” (I love you more than anything else in the world)

People are busy. The more tools we come up with to help us be faster, smarter, and better at keeping up, the more entities figure out how to create more busy work for us to do, so we can't keep up.

Applin and Fischer (7) refer to Forced Compliance as the state where one doesn't have a choice to do something, one just must do it if one wants to move closer to a high priority outcome. So much of our world is online and businesses have figured out how to shave expenses by shifting labor to their customers. The tools that people now have access to enable them to do the work that used to be the paid work of other people.

Forced Compliance takes time away from other tasks and as a result, people are adapting by manipulating time where they can. Time Compression (2)–(3) is a state where people don't have enough time to do things and begin to try to compound and combine tasks. Using the mobile phone while doing some other task is an outcome of

Time Compression. As people have started to shift how they use time (11), they are adopting asynchronicity to their advantage to shift potential communications responses and replace slower synchronous communications with faster asynchronous nonlinear choices. Applin and Fischer (2), (3), (5)–(7) describe PolySocial Reality (PoSR) as a model of all human relations expressed through our communications. An outcome of too many messages, and too much heterogeneity, is overwhelming. That in combination with reduced time and Forced Compliance takes a further toll on our ability to cope.

We're busy.

Uber, the private-car-turned-cab company, enlists private people to do the work of licensed cab drivers, without the license, and largely without the responsibilities that are required by the possession of a taxi medallion. A taxi medallion is a type of license that taxis purchase to enable their drivers to work in a certain area. The medallion ensures that all passengers requesting rides within the area will be picked up, will be charged a fair and legal fee and so forth. The people who drive for Uber use their private cars. Thus, because Uber doesn't own any

cars, it is not required to have taxi medallions, and the rules and regulations that medallions require for taxis do not apply to Uber. As a private business, Uber can do what it wants with fees. Furthermore, Uber drivers can ignore riders in areas that are dangerous, refuse or not be equipped to pick up disabled passengers or babies requiring car seats, and there is no recourse for the passengers or the law because Uber is an unregulated car service.

“Disruption” is a label for ideas that change an area of the market in a broad and radical way. Silicon Valley is interested in disruption because it is a way to leverage the hard work that other businesses put into building a market and attracting customers, without having to do much more themselves to add to the market. Uber is a disruptor of the taxi industry, and the taxi industry doesn't like that. To run their business, Uber didn't have to explain to people what a taxi was, or how to use one — Uber just figured out a way to streamline how people are connected to rides. They did this in part by disrupting dispatch labor (replacing the people who are not critical to the actual job of driving the car with a software service and the labor of the passenger),

removing the language and cultural barriers of communicating directly with drivers (often from other countries and cultures), and shifting traditional taxi radio communications to the Internet. Instead of calling a dispatch phone number and then having the dispatcher radio a taxi to an address, Uber's app automatically sends location and polls for the nearest preferred Uber car type in the area, estimates arrival times and sends a driver to the address provided by the passenger. With Uber, people get rides dispatched sooner and more precisely than they would from a taxi, eliminating both flagging a random taxi from the street and the time of waiting for dispatch by humans. In doing this, Uber streamlined ride-to-person performance, optimizing for both cost effectiveness and efficiency.

All sorts of people were put out by Uber, but customers, for the most part, loved the improved car service — until they got hit by premium rates at premium times, experienced uninsured (or low insured) accidents, and had other issues with drivers. For the most part though, the issues with Uber are between city locales, taxi medallion holders, and regulation.

However, Uber is doing something else that is not obvious to passengers or those even admiring its disruption success. Recently, I was stopped next to an Uber car at a traffic light. I looked at the passenger in the back of the Prius, and saw them looking down at their phone.

I realized that people who are trying to deal with Forced Compliance and Time Compression are using Uber to time shift, and by doing so, are gaining an advantage in business and in their social lives because they are no longer spending any time dealing with any type of commuting other than having a car get them precisely where they are and depositing them precisely where they

are going. Uber users do not have to stop their tasks to talk with a driver, they do not have to haggle about cash payments, and they do not have to collect a receipt. Everything is automated on their mobile phones, which they never have to stop looking at (1). Uber's streamlining of the taxi service by removing the inconvenience to people of having to make a synchronous call for dispatch, spend time flagging down a taxi, communicate with drivers, and deal with payments, as well as the change from communication by radio (which is not easily archivable) to that of the Internet, has also automated the process for humans doing work. People can look down at their mobile devices even more than before.

Simultaneously, Uber is recording people's precise paths. Uber knows what time people travel and, over time, exactly where they go, and where they go after that. Uber knows anywhere people go with Uber. The aggregate of people's travel patterns is now owned by Uber as well as the driver patterns of the Uber car's owner and driver.

Phone companies have some of this data as well, but they don't have passenger and driver behavior in the same way that Uber does. Uber knows passenger car preference, how much people tip, and the aggregate of things that distributed companies know individually. In 2013, Google put \$258 million dollars into Uber (8). Google has maps and they map streets, and their Android phones can track individual destination patterns. With Uber's data, Google just got a whole lot more information on people, adding to its already near total state of Ubervigilance (10). This data is very valuable to those who are looking to transform, own, automate, and ultimately disrupt the transportation industry.

In "Connected Cars, Becoming the Cyborg Chauffeur," Applin (4)

discusses how connected vehicles may be training their Artificial Intelligence (AI) by monitoring and tracking our driving. As the AI learns how to drive from the humans it observes, its logic improves, eventually developing a foundational AI library for autonomous cars.

Uber has announced that they are developing an autonomous vehicle. Uber has ready-made passenger and driver data for this system. They have a database of customers whose habits, destinations, and preferences they know intimately. This customer base cares about being easily transported from point A to point B, and they already are not paying attention to their taxi "experience." Uber customers are the perfect cohort of people to embrace autonomous vehicles.

We now have an Internet that enables automation, which enables companies to offload work to customers, who have to log into systems to complete tasks, who have no time, so must adapt by using automated services like Uber, while their privacy and their patterns of movement are recorded and used to create automated cars that know them.

It's all so tidy.

Except for where it isn't tidy. The place where it isn't is amongst the rest of the people within society who can't afford Uber cars, or even smartphones. These people are left behind because they are part of what is being disrupted. They become what the Uber cars pass in the streets and no one who uses Uber sees them because Uber's customers are the passengers looking down at their mobile devices.

Uber's services add to the already pampering workplace of those it serves in its hometown of San Francisco. At start-ups, people are fed, many services are taken care of automatically, and workers have incentive to stay at work and

continue working. This can now easily continue outside the doors of their office as they ride in Uber cars. People can keep working continuously, much in the same way that Google employees can as they ride the Google buses offering transportation to Google employees.

There is something else though, with the Uber story, that bothers me, and also isn't really being talked about. That is the "leverage" that happens in disruption.

What some call "leverage," I call the theft of ideas, hard work, and livelihood without conscience. It is as if all available data from the Internet, and now society, is free for any person or company to take, and to use at will, without boundaries, responsibility, reciprocity, or respect for others. It is also that this data is available to mix and match at will, without credit, attribution, or acknowledgement – into videos, articles, essays, music, work, ideas, theories, and hypotheses. Thanks to nearly ubiquitous mobile technology usage, directions, intent of movement, and mobility patterns (9) are up for grabs as well. Uber (with Google) appear to be extending this territory by leveraging the available Internet data in combination with their aggregate customer data, to build the intelligence required to successfully disrupt

transportation (and the privacy of transportation) as we know it.

It is as if Uber has become a Russian nesting doll of disruption: while Uber is collecting data on those passengers, they themselves are rocketing farther into the economy (as they ride in the back of Uber cars), leveraging the ideas that took other people years to develop, create, and document – without doing any work themselves because ...

They're busy.

Author Information

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References

- (1) K. Albrecht and K. Michael, "We've got to do better," *IEEE Technology & Society Mag.*, pp. 5–7, Spg. 2014; <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6763240>.
- (2) S. Applin and M. Fischer, "Blurry borders and blended boundaries: PolySocial reality in digitally individuated communities," *Proc. Society for Applied Anthropology 72nd Ann. Meet.*, Baltimore, MD: Society for Applied Anthropology, 2012.
- (3) S. Applin and M. Fischer, "Everybody is talking to each other without talking to each other: PolySocial reality and asynchronous adaptation," presented at 111th Ann. Meet. Amer. Anthropological Association (AAA) (San Francisco, CA), 2012; <https://aaa.confex.com/aaa/2012/webprogram/Paper17685.html>.

(4) S. Applin, "Connected car becoming the cyborg chauffeur," *Society Pages*, Mar. 1, 2012; <http://thesocietypages.org/cyborgology/2012/03/01/connected-car-becoming-the-cyborg-chauffeur/>.

(5) S. Applin and M. Fischer, "PolySocial reality: Prospects for extending user capabilities beyond mixed, dual and blended reality," presented at IUI Workshop on Location Awareness for Mixed and Dual Reality LAMDA'12 (Lisbon, PT), 2012; <http://www.dfki.de/LAMDA/2012/accepted/PolySocialReality.pdf>.

(6) S. Applin and M. Fischer, "A cultural perspective on mixed, blended and dual reality," presented at IUI Workshop on Location Awareness for Mixed and Dual Reality (LAMDA '11) (Palo Alto, CA), 2011; <http://www.dfki.de/LAMDA/accepted/ACulturalPerspective.pdf>.

(7) S. Applin and M. Fischer, "Forced compliance - PolySocial reality," *Posr.org*, 2011; http://posr.org/wiki/Forced_Compliance.

(8) R. Lawler, "Uber confirms that it raised \$258M from Google ventures and TPG," *TechCrunch*, 2013; <http://techcrunch.com/2013/08/23/uber-confirms-258m-raise/>.

(9) K. Michael, A. McNamee, M. Michael, and H. Tootell, "Location-based intelligence – Modeling behavior in humans using GPS," in *Proc. IEEE Int. Symp. Technology and Society*. New York, NY: IEEE Computer Society, 2006; <http://works.bepress.com/kmichael/6/>.

(10) K. Michael and R. Clarke, "Location and tracking of mobile devices: Überveillance stalks the streets," *Computer Law and Security Rev.*, vol. 29, no. 2, pp. 216–228, 2013; <http://www.sciencedirect.com/science/article/pii/S0267364913000587>.

(11) S. Applin and M. Fischer, "Asynchronous adaptations to complex social interactions," *IEEE Technology and Society Mag.*, vol. 32, no. 4, pp. 35–44, Wint. 2013.



BOOK REVIEWS (continued from page 12)

of their criminal enterprises, and the tools and technology of their trade. Readers looking for a very detailed technical history of anti-auto theft devices might not be satisfied with the generalist approach presented. One area of strength in this work is how the authors have included media sources into their narrative about car theft as a reflection

of American's attitudes about the subject. Overall, it is easy to recommend this book to readers, from historians and professionals interested in automobile topics to a general audience looking for a good read.

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