Our Dual Existence

**Data traces on the Internet create digital doppelgängers –
and they just might catch up with us.**

COPY —— Professor Oliver Zöllner

Over the last 20 years, we have become accustomed to online shopping and conducting our banking and administrative affairs on the Internet. Its convenient, saves time, and feels modern. Social media networking and personal "profiles" have been norms for some time now. These activities are fun and often even efficient from an economic point of view, such as for professional purposes or seeking a romantic relationship. For a long time now, we have also used search engines to comb the Internet for information.

One thing is certain: We are the ones who provide information in the form of stored traces of data. Data sets that we consciously or unconsciously produce in the network can be linked to our very real existence: IP address, location, time, computer device number, past searches and purchases, as well as our "likes," posts, comments, and preferences. Companies, marketers, and whoever for that matter, already routinely cross-link all of our database entries, for example, when you use your Facebook profile to log into your PayPal account. A paradise for data brokers!

LOOK-ALIKES

Such an information-saturated mirror image of our person often says more about us than we suspect – starting with something as simple as listening to our favorite tunes using a music streaming service. You could say: We have created a twin of sorts on the World Wide Web, a doppelgänger, which is constantly enriched with new information and – as we know from numerous privacy scandals – which we can barely control anymore. What exactly happens to our data? Where does it go? How long is it stored? We often find comfort in telling ourselves that everything is anonymous – and, after all: "Just a couple pieces of information won't hurt anything...". In reality, however, it only takes a few data points (four are enough) to de-anonymize anonymous profiles with 95 percent certainty, that is, to link all the details of our lives using just our name. Google uses tracking to follow the purchasing histories of Mastercard credit card holders in the United States to interactively correlate them with advertisements from its customers. The company simultaneously and diligently collects health data for its artificial intelligence subsidiary DeepMind.

The Süddeutsche Zeitung summed it up in September 2018: "Corporations collect everything they can get their hands on." And the result is: we are no longer alone in our everyday life (a "data shadow" is always following us, in a sense) or private (hardly anything about us is hidden from others). What's life like with this twin existence?

HUMAN AUTONOMY IN DIGITIZATION

One of the basic assumptions about man is that he is an independent, autonomous being within the rules and laws by which we live. As social beings constantly involved in a network of relationships with others, people must negotiate compromises, but in principle everyone is free and responsible for their own actions. But does this hold true in the age of progressive digitization? Increasingly, the former idea of the autonomously acting individual is replaced by that of a "relational self," which, especially with regard to other people, is based on behavior in relation to habits. We could call this "modern network existence." Of course, people already had to take into account other people and "higher authorities" before digitization. But these instances, understood as institutions of power, have changed. It is no longer primarily God, kings, and potentates who guide us, but rather institutions on the Internet that exert great influence on the thinking, opinions, and knowledge of many people.

We are no longer alone: this is the big, utopian promise of data and tech companies. We are constantly watching each other. We are no longer alone, but at the same time there is also the dystopia of the digital twin, the data shadow, which almost always accompanies us. We live in a kind of split existence. We are permanently evaluated and tracked and we behave accordingly. Human autonomy is gradually being transformed into a heteronomy. This has consequences. How free are we still?

FREEDOM IN DIGITIZATION

Nobody knows what foolish choices I made as a teenager in the 1980s (they were harmless, rest assured). Nobody saved my missteps. Today's teenagers, however, live their lives on the net: on Instagram, Facebook, Snapchat, and WhatsApp. Every posted party picture, every selfie, every comment remains stored there – somewhere on the servers of providers. Stupidities and embarrassments included.

Probably forever. We do not know when or under what circumstances an artificial intelligence will put all our snippets of data into a larger image of ourself, but such an intelligence can certainly learn to do so. It is already starting to happen, even though we are still at the beginning of development. The results of such algorithmic computational operations, however, have long had an impact on what we know, who we meet, where we go, and perhaps what kind of bank loan we obtain (or not). Our data today is the basis for tomorrow's forecasts.

Such predictions are no longer necessarily predictions of our self, but about our digital twin: who and how he is and what he is likely to do if he behaves in the future as he behaves today. At its core, this projection, which is based on extrapolations, is a simulation. But this simulation, this belief in the truthfulness of an image of ourselves, is now dominating the way we perceive our world in the digital age. The twin rules and he is ruled at the same time.

NO FREEDOM WITHOUT AUTONOMY

We have to learn to preserve or regain autonomy over our data shadow – and thus over ourselves. Without autonomy, there is no freedom. We do not need an artificial intelligence "emergency stop button" for many useful applications, but rather an emergency button for thinking about how and for what purpose we can use big data and artificial intelligence in such a way that they help the individual as well as society as a whole to flourish. In short: we need AI and digital ethics so that our data shadow does not catch up with us.

Bio

Professor Oliver Zöllner has been teaching empirical media research, media sociology, radio journalism and media ethics at Hochschule der Medien in Stuttgart since 2006. He is one of the three directors of the Institute for Digital Ethics (IDE). His research interests include digitization and society, public diplomacy and nation branding. Zöllner has also been an honorary professor of communication and media studies at Heinrich Heine University Düsseldorf since 2006.

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