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The Digital Dimensions of Personal Identity. An Analysis of Facebook's User Interface and Audience Targeting Application

2. Preis

Personal identity is a multidimensional construct subjected to various influences that are intricately difficult to define. Before the intellectual turning point of The Enlightenment in 18th century Europe, religious dogma largely determined the fundamental aspects of personal identity: every person was first and foremost a child of God. Importantly, dogmatic conceptualizations of personal identity were stable principles and hardly ever revised. Beyond the dogmas of religion, however, individuals always had some freedom of self-comprehension. Such a hermeneutical dimension of personal identity comprises the possibilities that enable individuals to form intelligible self-concepts within a communal, cultural, and historical-meaning giving structure. Thus, the hermeneutical dimension of personal identity describes how individuals apply meaning to the diversity of experiences in the context of culturally pre-defined concepts. For example, cultural rituals and traditions provided narrative self-conceptions for individuals independent of the influential principles of religious dogma.

With the philosophical ideas of The Enlightenment authority over the normative and descriptive nature of personal identity began to slowly transform to the intellectual world of the individual human being. Today, we know that humans are biological organisms consisting of a set of different units called cells that all share a similar genetic makeup. Thus, natural sciences represent another significant dimension of personal identity as a construct.

Personal identity is subjected to dogmatic influences today: in law, personal identity is standardized in constitutions. For example, the Basic Law for the Federal Republic of Germany approved in 1949 specifies in article 1, sentence 1: "Human dignity is inviolable".[1] While human dignity should not be conflated with personal identity, this example nonetheless demonstrates that legal texts enshrine the legal dimensions of personal identity. Moreover, such legal standards are usually less malleable: article 1, sentence 1 cannot be altered or modified in any way, as it is an eternity clause that persists as long as the German constitution is in effect.

Overall, while the religious and legally specified dimension of personal identity are relatively stable, the scientific and, in particular, hermeneutical dimension of personal identity are more dynamic.

1. Modeling the Social World in a Profitable Program

Programmers create mini worlds, i.e., models M of the scope of the reality a program incorporates. In so doing, programmers will need to abstract from the nature of the real world W. In computer sciences, abstraction is a process of imperfect translation: no program is large enough to include all objects of even the tiniest scope of W, the real world. Overall, the interpretation $I:W \rightarrow M$ denotes that I maps W into M: the interpretation of the real world W is represented in a model M. M thereby contains the terms of the objects of the interpretation of W (Figure 1). It follows that if the function $f_M:M \rightarrow M$ denotes any relation between two terms in M, then there is an according function $f_W:W \rightarrow W$ denoting a relation in W as depicted in Figure 1.

Relations between objects in M have their correspondence in the reality of the world W. In creating a program, a model is a relative concept. The model of a mini world can in turn be inter-

preted and used as the reality for another model, which involves further abstraction.
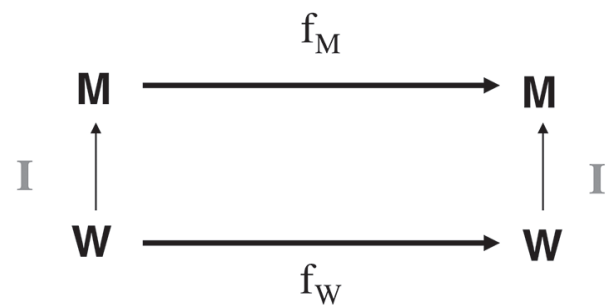

Figure 1: A computer model of a scope of reality in the real world. Relations between objects in M have their correspondence in the reality of the world W.
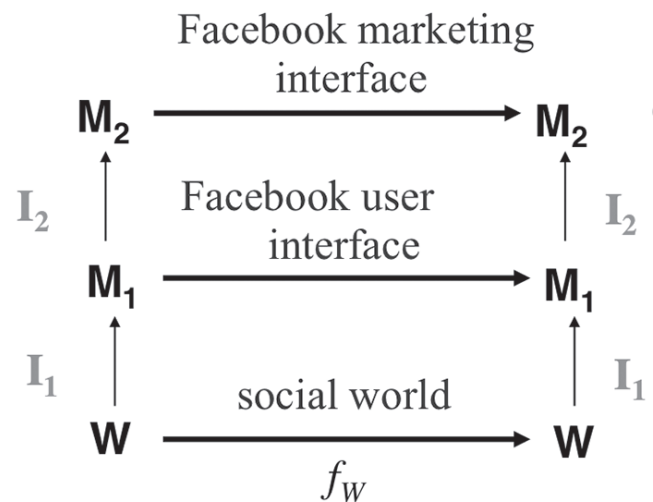

Figure 2: The model M1 ("Facebook user interface") of a scope of reality W ("social world") serves as the basis for M2 ("Facebook marketing interface")

Importantly, this is the case with Facebook (Figure 2). The user interface serves as a model for a subsequent model, the marketing interface. Likewise, any relationship between objects in the user interface will have a correspondent relationship in the marketing interface. However, in the case of Facebook, the concept of a model is somewhat misleading: while a model is often asso-

ciated with a mere simulation of events, the Facebook model of the social world is participatory so that:
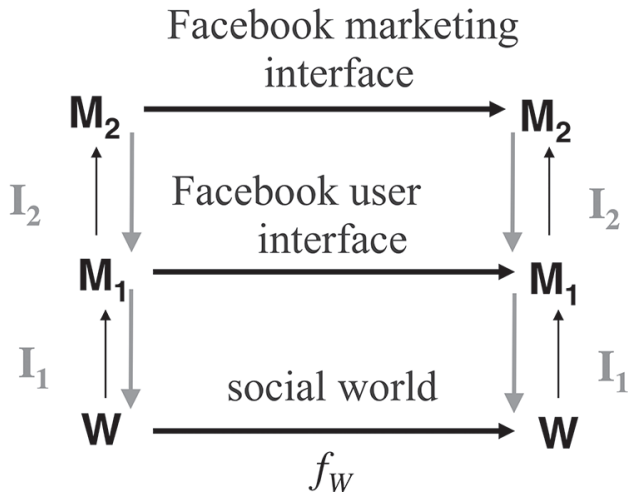

Figure 3: The two models of the social world M1 and M2 are participatory and therefore influence a scope of the social reality W.

To generate monetary value, every action in the user interface has a corresponding economic value in the marketing interface. As such, the user interface represents a system that is fully determined in terms of actions that can be made. The marketing interface is fully determined in terms of the inferences that are made from these actions. The model of the user interface serves as a participatory platform for advertisers to influence the user interface, which subsequently influences the social world (see Figure 3, red arrows). Taken together, all Facebook users worldwide participate in an interactive model of the social world as conceived by Facebook's programmers.

The first programmers of Facebook faced the thorny task of modeling a scope of the social world. They had to create a model containing objects such as individuals, interactions, communities, social actions and so on based on their observation and description of the offline social world. Indeed, this demonstrates that creating a digital program purposed to model the social world is inevitably a normative undertaking.

2. People-based Marketing

The following case study will give a glimpse into the possibilities of creating highly specific audiences for advertising on Facebook. Fundamentally, there are two different approaches: first, advertisers themselves put together the target audience. Second, advertisers can instruct Facebook to create an audience based on characteristics similar to an existing audience. Such an audience is called a *lookalike* audience.

2.1 Custom Audiences

Advertisers can provide Facebook with a range of metadata on their customers, such as first and last name, phone number or email address (Figure 4).
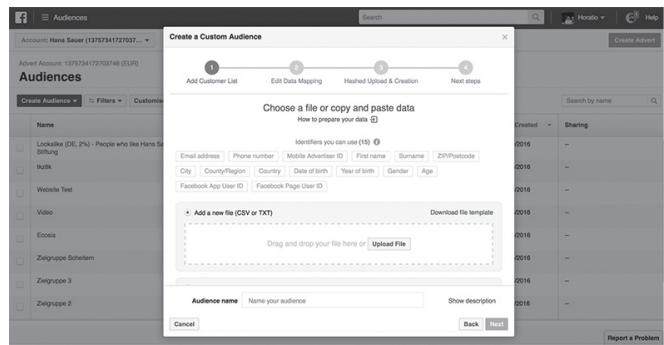

Figure 4: When creating a custom audience advertisers upload data of existing customers based on a variety of attributes to directly target on Facebook. https://www.facebook.com/ads/manager/

Once a customer audience has been defined by uploading offline customer data to Facebook, an advertiser can add further filters to that user group by Facebook's *audience insights*.

Advertisers then target users on Facebook based on demographics, interests, and behaviors. Figure 5 reveals the large variety of people-based marketing options offered to advertisers by Facebook.
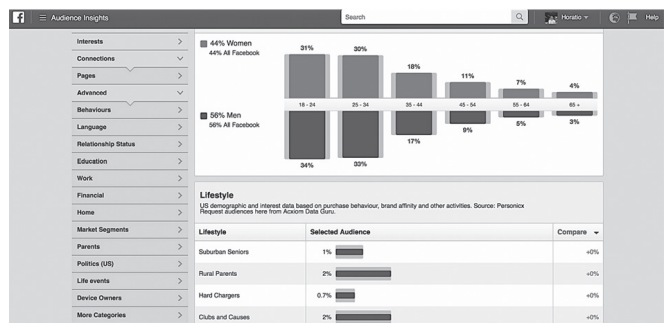

Figure 5: Left column indicates the vast range of categories by which advertisers can target users on Facebook in addition to metadata. https://www.facebook.com/ads/audience-insights/

A relatively specific audience on Facebook could include the following filters: as an advertiser, I might wish to target females who have recently been in Manhattan in New York City, but are no longer there; are between ages 20 and 30; speak English and match the criteria "new parents" or "Mums: new Moms" or "Parents (01 – 02 years)", "Parents with Toddlers" or "expectant parents" who also are interested in "eBook readers".[2] Figure 6 shows the final audience in Facebook's Adverts Manager.
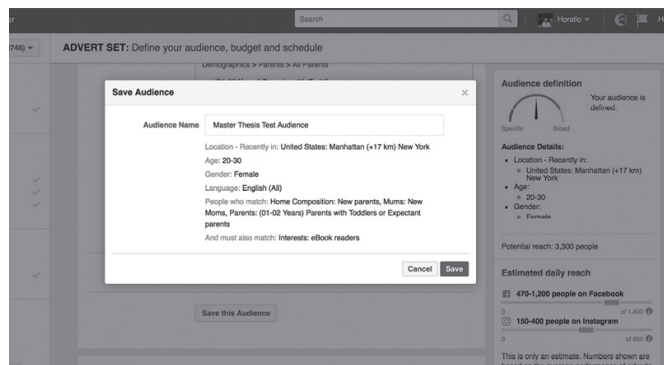

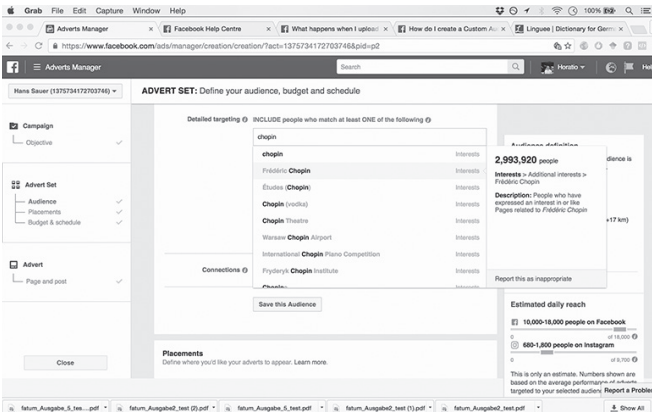Figure 6: An audience created with Facebook's "Audience Insights" tool. https://www.facebook.com/ads/audience-insights/

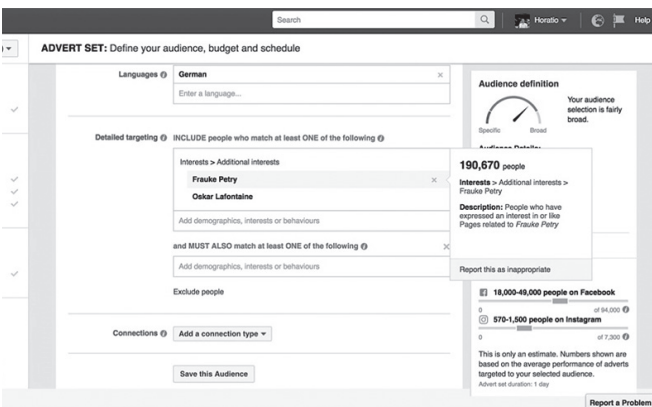*Figure 7: Targeting options for an audience to which Facebook assigns the interest "chopin" on Facebook's "Audience Insights". https://www.facebook.com/ads/manager/*

Figure 8: Targeting users with an "Interest" in two German politicians from opposite camps: Frauke Petry and Oskar Lafontaine. https://www.facebook.com/ads/manager/

In the previous example, a relatively specific audience was created and shown. Filters work like search engines for human characteristics. Audiences can be selected according to almost any interest or behavior one can think of. Figures 7 and 8 display how users' interests and behaviors can be retrieved in Facebook's Audience Insights tool. The first search query targets users with the "Interest" in the musical composer Frederic Chopin, while the second attempts to target users with the "Interest" in two German political figures from opposite camps: the ultra-conservative, right-wing Frauke Petry from the "Alternative Für Deutschland" party as well as the left-wing Oskar Lafontaine, member of "Die Linke" party.

2.2 Lookalike Audiences

An alternative strategy for targeting users on Facebook is setting up a so-called lookalike audience. Generally, a lookalike audience consists of users that Facebook evaluates as "similar" in preferences, interests, behaviors, gender, age, location (and others) to users that already share a connection with a fan page, a business, or a website on Facebook (i.e. that have already been profiled). Figure 9 below shows the set-up of such a lookalike audience within the Audience Insights tool in the Facebook marketing interface.
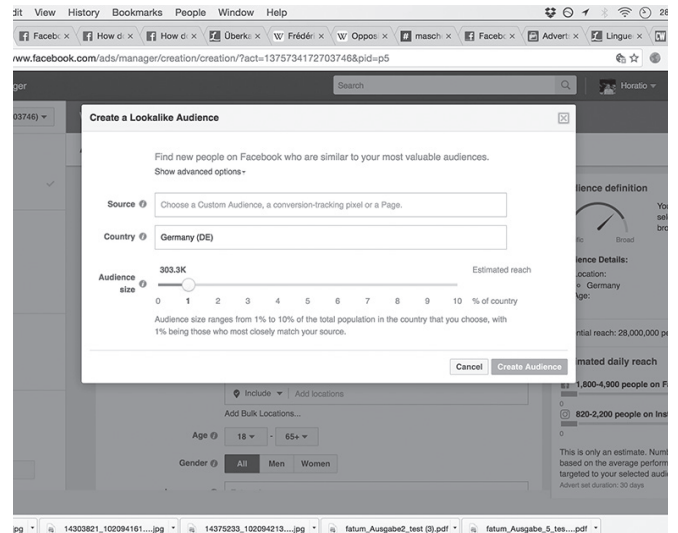

Figure 9: Creating a lookalike audience. https://www.facebook.com/ads/manager/

With this introduction to Facebook marketing, we can now turn to our original analysis of two philosophical theories of personal identity to understand how these relate to Facebook's digital social realism.

3. Facebook and two Philosophical Theories of Personal Identity

3.1 Marya Schechtman's Narrative Self-Constitution View

Schechtman's theory of personal identity consists of two central elements: first, personal identity is a matter of self-interpretation, which, second, is subjected to different external influences, in particular, the interactions with others.[3]

According to Schechtman, personal identity is a life-long process whereby a person constitutes herself by organizing her experiences into a linear narrative. Life consists of experiences, however, only some are actually attentively perceived, interpreted and acted on. Meaning is given only to a handful of these experiences. A person emerges if she carries out "…the psychological work required to organize these experiences in an ongoing, self-reflexive narrative".[4] Additionally, a person comes to realize the boundaries of her person in terms of her story's uniqueness: other individuals have different stories.

But what is the nature of a person's narrative? First of all, a person's narrative depends on self-interpretation: an individual compares and relates experiences and organizes them by certain culturally-determined standards in order to constantly attribute meaning to the large amount of events that she experiences every day. It follows that no time-slice – any momentary event that an individual experiences – is in any way definitive for a person's identity. Only when interpreted in the context of the narrative, is such a time-slice a descriptive and meaningful element of a person.[5] Second, such narrative contexts are necessary for individuals in a social environment. A person's choices and actions must be "…flowing intelligibly from …(his)… inten-

tions, motives, passions, and purposes, that is…tell a narrative that explains it.[6] Without our narrative context, other individuals cannot make sense of our choices and actions.

The formation of a meaningful and consistent interpretation of one's self is fundamentally linguistic.[7] Schechtman's narrative account tries to demonstrate that the life of human beings is not simply a biological process, but a continuous and coherent linguistic articulation that individuals form. It is the capacity to psychologically organize a stream of events in a culturally accepted form of a narrative "…by which we will come to think of ourselves as persisting individuals with a single life story."[8] The narrative view gives individuals freedom to shape who they wish to be, re-interpret their past self-image, and anticipate their future self. Additionally, other individuals are potentially significant partakers in creating or changing an individual's narrative. Thereby, personal identity is essentially procedural as well as actively negotiated between subjective and objective narrative accounts of a person.

The marketing system of Facebook does not only collect, process, and evaluate what users willingly present of themselves on Facebook. The *inferences data analysis* techniques draw from the activities of a user to generate a parallel narrative, which we will term formalized narrative: there is the person's own narrative, the narrative others have of that person as well as a formalized narrative made by technological systems – in this case Facebook. The system's interpretation of a person is fed back to the person by advertisement. It is therefore reasonable to say that Facebook generates a formalized narrative made for economic purposes.

The custom audience shown in Figure 6 illustrates that one data type, in this case location, can be combined with how users present themselves, who their friends are or how much time they spent on certain fan pages and so on.

One could therefore argue that with Facebook use, personal identity is subjected to a completely new form of narrative – one that is generated by formalized principles that infer information about individuals they are completely unaware of and cannot engage with. Today, a person, his or her social network (offline and online), and Facebook all participate in creating a person's narrative.

3.2 Facebook and Harry Frankfurt's Second Order Volition

In his essay "Freedom of the Will and Concept of a Person"[9], Harry Frankfurt (*1929) develops a notion of personal identity grounded in the structure of human will. Thereby, humans are capable of deciding what desire they wish to be moved by when desiring some action.[10] A person can think and care about the desirability of its desires. Frankfurt calls such desires "second-order desires", which are desires about desires, or wants about wants. Non-human animals have desires or urges, for example, eating or sleeping. Frankfurt calls the desire to eat and the desire to sleep "first-order desires". Animals have no authority over whether they want to have these desires or not – they have no capacity to determine any reasons to act on a desire other than the impulse or urge manifested in that desire.[11] It follows that the object of a first-order desire is a state of affair while a se-

cond-order desire's state of affair is having or not having a first-order desire.

Humans can be vegetarian, for example: a person can want to want to eat in a certain way – here, vegetarianism, an ethical principle, governs how she acts on her desires. The problem is that a person could have multiple second-order desires at once without making any of them the underlying principle for action.

Participating in Facebook (posting self-relevant information), the second-order desire to receive positive feedback from others is highly likely to be the effective and most prominent desire and will therefore represent the majority of users' second-order volition. Social influence is incorporated into the technological set-up of Facebook – also on the marketing side, for example through lookalike audiences. This is perhaps best illustrated by looking at the initial setting-up phase of a profile. Take, for example, two Facebook profiles. One of the two profiles is completely new on Facebook with no friends and no information provided, while the other one has been on Facebook for a couple of years. The new profile will be called "Newbie", the established profile will be termed "Oldie".[12] Figure 10 shows the news feed of Newbie that contains no information or posts by others or any advertisement (names are crossed out for privacy protection).
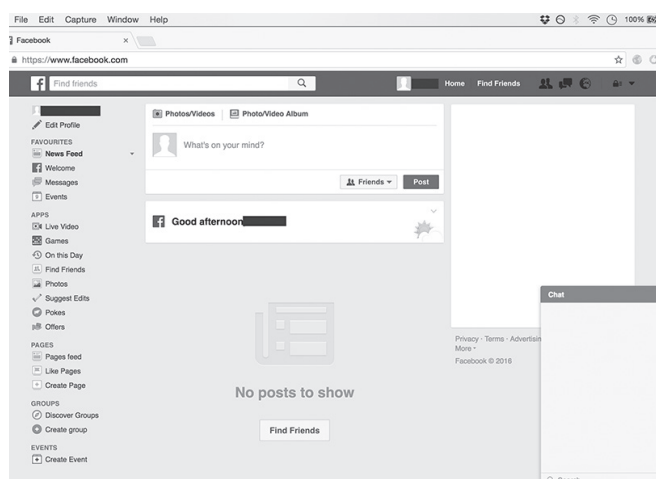

Figure 10: Newbie's empty news feed
https://www.facebook.com/

What happens, however, if Newbie and Oldie become friends? Figure 11 below indicates how Newbie's news feed changes directly after accepting a friendship request from Oldie (Newbie now has one friend on Facebook: Oldie).

Facebook fills Newbie's news feed with information related entirely to Oldie's profile. Figure 12 illustrates how Facebook adjusts Newbie's informational space with Oldie's social affiliations as well as preferences and interests.

For example, the news feed now presents a post of one of Oldie's friends (who isn't friends with Newbie) that Oldie interacted with (see center red rectangle "liked this") and suggests Newbie to send a friendship request to that profile (see center-right circle "Add Friend"). Moreover, Facebook now suggests pages ("Philosophy Matters") and groups ("Dr. Sebi Recipes") to Newbie, some of which Oldie has interacted with (see "suggested pages" and "suggested groups").
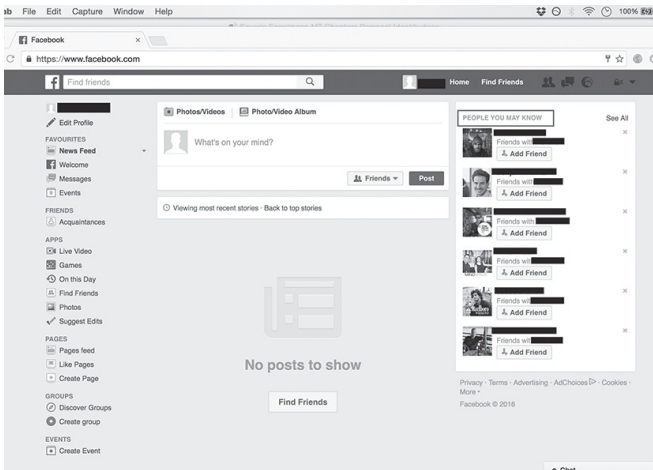
Figure 11: After connecting with Oldie, Facebook instantly proposes a selection of Oldie's social connections to Newbie (see red rectangle). Facebook assumes overlapping social groups for both users. Names are crossed out for privacy protection. https://www.facebook.com/
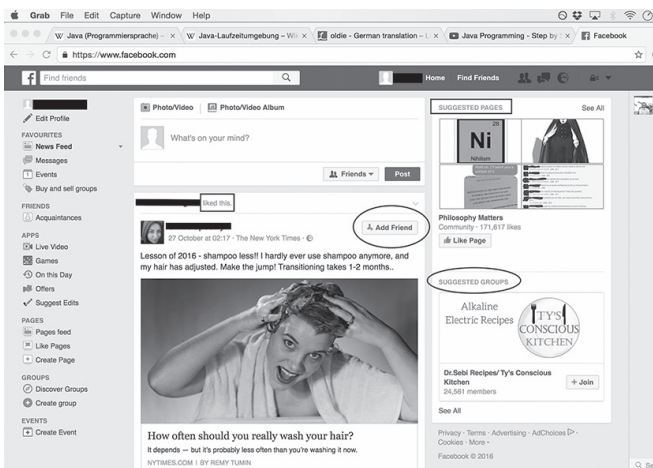

Figure 12: Newbie logging in to Facebook again after becoming friends with Oldie. Red circles and rectangles highlight social as well as advertising posts related to Oldie, now presented in Newbie's news feed. https://www.facebook.com/

This small experiment shows how Facebook's user interface nudges individuals to align their self-presentation in a way that is similar to other users. By becoming affiliated with just one other profile, Facebook appears to draw various inferences about a user and, accordingly, provides several calls to action, for example, becoming friends with certain individuals, expressing an interest or joining a group: none of which a user actively expressed as his or her self-evaluation. Thus, targeting the right person is a matter of interpretation carried out by the program: In the real social world, one may come to develop a preference for something because a friend has a preference for that very same thing – a product, a political attitude, or hobby.

Self-presentation is a process that involves second-order desire reflection. However, in the user and marketing interface, self-presentation is heavily inspired, nudged, and technologically staged by the normative element of judging the desirability of one's desires as equal or at least similar to the desirability of other individuals' desires.

4. Summary of Analysis & Conclusion

Frankfurt developed his theory of personal identity exclusively from the perspective of the individual. On Facebook, and probably social media in general, humans will use reflection for a limited scope of purposes. The value of activity on Facebook is pre-determined: positive evaluation by a social community largely consisting of weak ties. If this is the overall goal of participation, deliberating about the desirability of my desires is, again, pointless, as others will, in the end, provide the significant evaluation of the desirability of my desires – not me. The awareness of myself is dominated by the awareness of how others view me. The philosopher, Luciano Floridi, (*1964) has termed this "digital gaze": the view I have of myself and the view others have of me necessarily converge on such digital social platforms exactly because I can explicitly view how others view me: a phenomenon that does not exist in the offline world.[13]

Such convergence between communication and evaluation is technologically conditioned. A like does not articulate any reasons for approval. However, the person receiving a like from another user will project some intention into his or her evaluation. While a user may have reasons to like another user's post, it is the technological system that actually arranges and orchestrates such procedures. The post is presented to a user as a result of the system making an algorithm-determined decision. Personal identity is embedded in such technologically staged environments today. Frankfurt demonstrates how important the process of reflecting about one's own values and ideals is for personal identity. By turning immaterial human characteristics into explicit economic value, social media essentially determines the nature of these human characteristics for a global society today. Therefore, Facebook is a perfect example of what Mainzer referred to as situational and personalized interaction models built to represent the contents of human consciousness.[14]

Facebook's user interface serves as a platform for narrative production, albeit a narrative lacking variety. The differences to narratives created in the offline world lie in the aforementioned attributes of the technological environment: its unique spatial, temporal, and communicative dimensions. The more data my formalized narrative contains, the more rigid and stable it gets – Facebook marketing enhances those attitudes and preferences the formalized data narrative assigns to my profile. In turn, the more I am confronted with my formalized narrative by advertisement the more powerful its self-fulfilling prophecy – perhaps a reason for users to obfuscate. Schechtman's narrative-constitution view helps us understand that today there is a technological narrator in the background. The pressure to conform to the formalized narrative, on the other hand, can be very real for individuals.

The goal of this work was to clarify and understand some of the digital dimensions of personal identity by analyzing Facebook's user and marketing interface. We presented philosophical theories of the hermeneutical dimension of personal identity. Such theories seek to underline and clarify the possibilities and limits of self-comprehension for individuals. Evidently, programmers already program the digital dimensions of personal identity – and will do so in the future.

Anmerkungen

1 https://www.bundestag.de/gg
2 Generally, Facebook enables many audience filters based on life events (such as being pregnant, moving house or moving to another city, or being in a relationship).
3 Schechtman, Marya, The Constitution of Selves, New York: Cornell University Press, 1996, page 95
4 Schechtman, Marya, The Constitution of Selves, page 125
5 Schechtman, Marya, The Constitution of Selves, page 127
6 Gallagher, Shaun, The Oxford handbook of the self, Oxford: Oxford University Press, 2011, page 396
7 Gallagher, Shaun, The Oxford handbook of the self, page 395
8 Gallagher, Shaun, The Oxford handbook of the self, page 399
9 Frankfurt, Harry, Freedom of the Will and the Concept of a Person, The Journal of Philosophy, 68.1, 1971
10 Frankfurt, Harry, Freedom of the Will and the Concept of a Person, page 6
11 Frankfurt, Harry, Freedom of the Will and the Concept of a Person, page 6
12 One author created a new Facebook profile (Newbie) and befriended it with his own Facebook profile (Oldie).

Severin Engelmann bei der Vorstellung seiner Masterarbeit

13 Floridi, Luciano, The ethics of information, New York: Oxford University Press, 2013, page 223
14 Mainzer, Klaus, Computerphilosophie zur Einführung, page 173
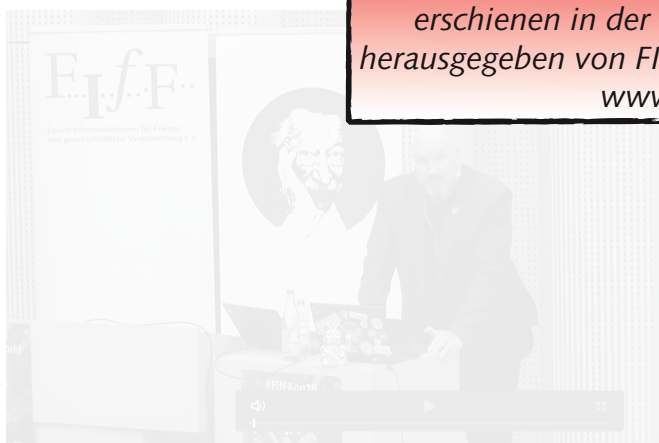
FIfF e. V. – Stefan Hügel: Laudatio für den 3. Preis

Nico Lück: Künstliche Intelligenz und Rüstungskontrolle. Der Einsatz maschinellen Lernens in Waffensystemen und Verifikationsmaßnahmen

Masterarbeit an der Goethe-Universität Frankfurt am Main

Bereits im letzten Jahr haben wir eine Arbeit ausgezeichnet, die die Anwendung der künstlichen Intelligenz zum Thema hatte – die Anwendung statistischer Klassifikation in der Kriminalprognostik. Seither scheint der Hype um die „Künstliche Intelligenz" den um das Thema „Algorithmen" abzulösen.

Laudator Stefan Hügel

Gerade hat der Deutsche Bundestag eine Enquête-Kommission zur Künstlichen Intelligenz eingerichtet. Dass die Beschäftigung mit KI schon lange nicht mehr auf die Informatik begrenzt werden kann, dafür ist die Arbeit *Künstliche Intelligenz und Rüstungskontrolle. Der Einsatz maschinellen Lernens in Waffensystemen und Verifikationsmaßnahmen* von *Nico Lück* ein Beispiel. Sie ist am Institut für Politikwissenschaft der Goethe-Universität

Frankfurt am Main entstanden und steht inhaltlich im Zentrum der Aktivitäten des FIfF: Der Einsatz informatischer Methoden in Waffensystemen und in der Rüstungskontrolle. Sie geht, so der Autor selbst, „der Frage nach, welche Folgen der Einsatz lernender Künstlicher Intelligenz … in Waffensystemen und Ve-rifikationsmaßnahmen aus der Perspektive der Rüstungskont-... Arbeit heute mit dem Weizen-

...systeme können zur Destabilisierung führen, indem sie – anders als Menschen – keinen deeskalierenden Charakter haben, technologisches Wettrüsten fördern und sich die Technologie unkontrolliert verbreiten kann. Sie entzieht sich vielen traditionellen Methoden zur Überwachung und Beschränkung. Die Ansatzpunkte der traditionellen Rüstungskontrolle – eindeutige Materialisierung, Fähigkeiten oder Funktionsweise – scheitern an den intransparenten Eigenschaften von KI: weder nachträgliche Erklärung noch eine vorherige Determinierung der Handlungen sind möglich, da das erlernte Modell nicht einsehbar und damit nicht überprüfbar ist. Es bleibt lediglich die Kontrolle und Beschränkung während des Entwicklungsprozesses oder des aktiven Einsatzes in militärischen Operationen, die eine vertragliche Kontrolle nach traditioneller Logik erschweren. Zudem sind heutige, digitale Innovationen leichter zu kopieren als frühere – mechanische – Innovationen in Waffensystemen, weshalb technologisch überlegene Staaten immer mit sich selbst im Rüstungswettlauf stehen. Weshalb die KI selbst, und nicht die Waffen oder die Waffen in Verbindung mit KI im Fokus der Kontrolle stehen müssen.