STANDARDS RULE? REGULATIONS, LITERACIES AND ALGORITHMS IN TIMES OF TRANSITION

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Moderator: Joseph Turow, University of Pennsylvania

In this panel we seek to reflect upon the theme "internet rules" by drawing on the notion of standards, developed in Science and Technology Studies. The work of Susan Leigh Star lays a foundation for considering the relationships between rules, standards and algorithms as forms of infrastructure. In the panel, we explore the production of standards as they become transparent infrastructures, heeding Star and Lampland's call to restore these standards' "historical development, their political consequences, and the smoke-filled rooms always attached to decisions made about them" (2009:13). Standards – and algorithms – are rarely queried, as they promise and embody efficiency and order. Indeed, modernity may be described as a concentrated, relentless effort to contain the accidental, the arbitrary, the residual; to categorize, order, and routinize the unexpected; and to preclude the exceptional and unpredictable (Bauman, 1991) – in a word: to standardize. As Larkin writes, it is difficult to separate an analysis of infrastructures such as standards from the modernist belief that by promoting order, "infrastructures bring about change, and through change they enact progress, and through progress we gain freedom" (2013:332).

It is ironic, then, that standards are distributed unevenly across the sociocultural landscape, that they are increasingly linked and integrated with one another, and that they codify, embody or prescribe social values that often carry great consequences for individuals and groups (Star and Lampland, 2009:5). In this context, the four papers and the moderator of this panel explore the meaning of contemporary standardization practices in such diverse fields as memory applications, crowdfunding, biometric identification and national archiving, and internet literacy – viewing them as empirically distinct yet theoretically interrelated attempts to impose order in times of growing uncertainty. Together, they address two tensions that inform contemporary standardization efforts, regarding standards as an encounter between analogue and digital objects and practices; and as dialectic of invisibility and transparency, a pragmatic and symbolic endeavor.

References


Total recall: Standardizing memory in Facebook applications

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"Memories include things like your posts and others' posts you're tagged in, major life events and when you became friends with someone on Facebook". (Facebook's "On this day" help center¹, February 2016)

It seems that while memory studies' scholars are debating the implications and meanings of digital memory artifacts (Garde-Hansen, 2009; Mayer-Schönberger, 2011; Schwarz, 2013; van Dijk, 2007), Facebook has it all figured out: the official Help Center for Facebook's memory applications (including "On this day," "Year in review" and most recently "Friends day video"), describes in a clear, even laconic manner what constitutes a memory. Yet Facebook's definition for memory has not always been as clear. In fact, as late as June 2015, the same official help center page did not offer any explanation at all.

What was it that brought about this conceptual change? Facebook's memory applications were publicly criticized by users from the moment they came into being: "Algorithms are essentially thoughtless. They model certain decision flows, but once you run them no more thought occurs,"² wrote a blogger who was reminded of his young daughter's death earlier that year by Facebook's "Year in review" application, which pops up in December with algorithmically-selected highlights of the passing year. "For those of us who lived through the death of loved ones," he continued, "or spent extended time in the hospital, or were hit by divorce or losing a job (…) we might not want another look at this past year."

These types of criticism were also made in relation to "On this day" memory application, which was officially launched on March 24, 2015 after about a year of test versions and user feedbacks. By that time, Facebook's designers and coders provided users with some control over the reminiscing process, featuring new filters, customized notification and privacy settings. This trajectory highlights the negotiations between coders and algorithms on the one hand and users on the other. At the same time, it sheds light on the emergence of a standardized definition of "memory," allowing us to "restore the narratives of these standards: their historical development, their political consequences, and the smoke-filled rooms always attached to decisions made about them" (Lampland & Star, 2009, p. 13).

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¹ Retrieved from: https://www.facebook.com/help/439014052921484
This paper seeks to explore the standardization process of digital memory artifacts generated by Facebook's various applications. The framework for this discussion considers the specific characteristics of standardization, as well as the current discourse surrounding digital memory and algorithms. Lampland & Star (2009) offer five commonalities regarding all standards, making them easier to identify: standards fit inside one another, they are linked and intergraded, their' ability to function is relative to specific practices, they're unevenly distributed and carry a set of values which impacts individuals.

These commonalities can be used to describe memory algorithms and view them as certain types of standards. For the purpose of this discussion, Facebook's memory algorithms are nested in other algorithms in the sense that they require having e-mail addresses and phone numbers to sign up for the social media site, which are linked and nested in the common ways to invite friends to like a Facebook page or become Facebook friends. Facebook's memory algorithms can be considered unevenly distributed because they assume basic technical knowledge for all users (e.g. how to set privacy settings, enable or disable specific applications and so on), they are relative in their meaning and impact for individuals, so one user's nostalgic trip down memory lane can be another's horrible recollection. Facebook's memory algorithms are also intergraded with other algorithms in the sense that they contain different forms of standards: writing on a friend's wall is significantly different than writing a private message, how and when we publish photos, who we tag and when should we keep from sharing our specific location. Finally, these memory algorithms embody a set of values and ethics by filtering conflict and diversity. Facebook's memory algorithms operate by pulling what they count as valid memories out of a set of general algorithm system, and they are able to do so by employing standards. Over time, these algorithms had to learn to identify what counts as memories that are worth reminiscing.

According to Busch (2011), standards – and by extension, memory algorithms – are also ideally invisible, anonymous, merely technical and even neutral, and therefore exercise power. By looking at Facebook's memory applications, its official Help Center pages, as well as the texts that accompany them and the media publications regarding them, and performing textual and visual content analysis, I hope to gain insight to the standardization process of digital memory on Facebook, and the algorithms that organize these memory artifacts.

For example, Facebook's memory applications make apparent use of post-human language, which contributes to the anonymity of the algorithms that operate them: "Would you like to receive notifications when you have new memories to look back on?" asks "On this day." This rhetoric links the human reminiscing process with a non-human technical action – to receive a notification from Facebook, but more importantly, it throws into relief the standardization of technical memory production, as today's posts are turned into tomorrow's "new memories." The media coverage regarding users' protest against the cruelty of these algorithms and their expectation for higher levels of sensitivity portrays the ongoing negotiation between algorithms and users. But it also sheds light on what constitutes worth reminding on Facebook, worth archiving and

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3 Retrieved from: https://www.facebook.com/onthisday/?source=bookmark
appropriate for sharing on the social network. The standards that impose a certain amount of friends in order to generate a "Friends day" video, which portrays a specific set of photos and posts made by those who are considered users' best (Facebook) friends, or a certain amount of content in order to actually have "Facebook memories," and users' expectations to avoid bad memories (of e.g. ex-partners, the death of loved ones, divorce or loss of jobs) are keys to further understanding the specific terrains of conflict regarding digital memory. "Consuming memories from the past and resharing them" promises Facebook's product manager Jonathan Geller, "rewires our relationships."4 This quote portrays Facebook's ambition do draw clear boundaries between analog and digital memory, and define the latter as a preferred and ideal way to experience human relations. Digital memory is intertwined in the various ways in which we perceive human memory, and Facebook's memory algorithms offer a unique window to these practices.

References


Crowdfunding as an infrastructure and the standards governing it

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Standards, particular legitimated ways of doing things often anchored in technological or bureaucratic settings, have a key role in modern life, and an especially prominent role in mediated processes. In this study, I will consider divergent understandings of standards in STS (Science and Technology Studies) and economic sociology (for an overview see Talmud 2013). While recent STS treatments of standards have emphasized their exclusionary consequences (Lampland & Star 2009), work in economic sociology, especially in valuation studies, suggests that standards are essential for the design of fair socio-technical systems. To integrate these understandings, this study will consider cultural crowdfunding as a complex infrastructure “that facilitate[s] the flow” (Larkin 2013, 328) of money and attention from backers to founders of cultural projects in

diverse cultural sectors (see Bennett et al. 2015 on cultural crowdfunding) and focus on the nature of the standards governing it.

**STS approach**

From an STS perspective, Lampland & Star (2009) emphasize the exclusionary aspects of standards. They note that “standards are distributed unevenly” (6) and that these standards assume that the individuals and groups interacting with them possess particular proficiencies or properties. As a result, those lacking such proficiencies or properties might be denied access to the services or products these standards govern often while creating a façade of equality and fairness. For example, an individual that does not use social network sites might find it difficult to use crowdfunding platforms.

**Valuation approach**

The notion of standard is invoked differently in valuation studies, a branch of economic sociology which deals with the way actors evaluate the worth of products or services. Going beyond the neo-classical assumption that the value of a product is neutrally shaped by forces of supply and demand, these studies distinguish between “standard markets” and “status markets” (Aspers 2009). Standard markets are markets in which an explicit socially-constructed quality convention exists to assess the goods being exchanged. By contrast, in status markets the value of a good is assessed according to the social status of the actors interacting. In STS terms, one could think of both these types of markets as governed by standards. However, in “standard markets” the standards are explicit while in status markets they are more implicit. Art markets (Velthuis 2005) and illegal markets governed by the mafia are such “inscrutable markets” (Gambetta 1994) where it is difficult to assess the value of the product and therefore buyers and sellers revert to assessing actors’ reputation. In art, such reputation might be divined from the success of an artist’s past work in the market, or from the identity of their representing gallery. In illegal markets, reputation can be gleaned from an actor’s affiliation with a particular crime organization.

In highlighting the advantages of explicit standards as an alternative to implicit standards linked to reputation, the valuation approach draws on classic analyses of modern society which emphasize its complex nature (Durkheim 1933) and the emergence of bureaucratic structures to deal with such complexity. From a neo-Weberian perspective, systems of peer-production such as crowdfunding, which have been hailed as radically democratic, might in fact be coercive and charisma-driven, compelling participants to adopt social networking technologies, eroding distinctions between work and the private sphere, and benefitting a small elite of charismatic individuals. This perspective is attentive to the “inclusivity and accountability that have long characterized bureaucracies” (Kreiss et al. 2011, 255) and the tendency of sharing economies to erode these capacities.

**Integrating the approaches and applying them to crowdfunding**

Both approaches agree that standards are important social phenomena and that they are anchored in particular social contexts and embody particular values. This is evident
in economic sociology in the argument that all economic action is socially embedded (Granovetter 1985). The claims that standards are often nested within broader standards and that these in turn operate within vaster infrastructures (Lampland & Star 2009, 17) also reflect this position. Theoretically, a valuation approach contributes the insight that in the absence of explicit standards focused on the particular action of an individual or group, implicit standards linked to social status automatically kick in, and therefore while some standards can be inherently exclusionary, the lack of explicit standards can be even more regressive.

**Empirical study**

This study examines the role of implicit standards (status) and explicit standards in a crowdfunding platform’s operation. Further, from an infrastructural perspective, the study examines crowdfunding’s nested dependence on online social networks which promote particular neoliberal practices of self-promotion (Marwick 2013) and its embeddedness in contemporary culture industries which demand from producers intense “self-discipline” (McRobbie 2002). In the second post published on the Kickstarter blog, one of its founders echoed the optimistic view of peer production: “Kickstarter aims to give each one of us a chance to fund our ideas, starting directly with the people who are closest to it (friends, fans, community-fellows) … to discover that we can offer each other value through creation without a middleman dictating the product and terms” (Strickler 2009). In contrast, semi-structured interviews with 17 culture producers in the U.S. and Israel who have attempted to use crowdfunding suggest that crowdfunding is enabled by a long list of intermediaries – agents, PR professionals, and journalists among others. I thematically analyze these interview transcripts as well as data from participant observations of crowdfunding-related events, and analyze the Kickstarter blog and Kickstarter fulfillment list – to consider both the nature of crowdfunding as a heterogeneous infrastructure that has not done away with middlemen, and the prominence of implicit and explicit standards as criteria for assessing crowdfunding projects and their founders.

**References**


Technological standards and the politics of representation

Avi Marciano and Sharon Ringel, University of Haifa

In the introduction to their edited collection, Star and Lampland suggest that "to standardize an action, process, or thing means, at some level, to screen out unlimited diversity," and argue that "the silencing of ‘Other’ choices […] is a moral choice" (2009, p. 8). Busch contextualizes this claim within a wider political perspective, suggesting that "however much standards appear to be neutral, benign, merely technical [and] obscure, […] they are […] an extremely important and growing source of social, political, and economic relations of power" (2011, p. 28).

In this paper, we reflect upon the moral choices and power relations hidden in processes of standardization, as implicated in two case studies in Israel: the establishment of a national biometric database and the digitization of archives at the National Library of Israel (NLI). We show how institutionalized standards – allegedly technical and objective – work to define different aspects of Israeli nationality. More specifically, we point to the ways in which standardized digitization of texts and bodies sets the boundaries of Israeli nationality through the shaping of memory and citizenship, respectively.

Case study #1: The establishment of a national biometric database

In December 2009, after a decade of public debates, the Israeli parliament approved a controversial law sanctioning the issuing of biometric IDs and passports, and more importantly – the establishment of a national biometric database. The law imposes compulsory enrollment upon Israeli citizens and allows access to the database to all national security authorities. As such, the Israeli biometric project is unprecedented in the democratic world. Almost four years later, in July 2013, the Israeli government launched a two-year preliminary experimental phase before the full implementation of the project, during which citizens’ enrollment is voluntary. This preliminary phase is aimed to evaluate different aspects of this project, including the public response and the
suitability of technical criteria according to which the biometric machines operate. Since the beginning of this phase, the Israeli Biometric Database Management Authority has published four biannual reports that summarize the results and detail the challenges – technical and others – that have arisen at this meeting point of technologies and citizens.

In this first case study, we analyze various operational documents as well the aforementioned interim reports, to show how "technological standards" are used to define eligible bodies through inclusion, exclusion and hierarchization of citizens. We illustrate how such standards turn the complex socio-cultural notion of citizenship into technical quests of authentication and identification, and more importantly – how they produce a "layered citizenship" (Lips, Taylor, & Organ, 2009).

**Case study #2: The digitization of archives at the National Library of Israel**

Since 2008, the NLI began implementing a digitization project, which includes both conversion of analogue materials into digital formats, and maintenance of digitally-born cultural and heritage materials. When cultural texts are digitized and made publicly accessible on the web, they become an open resource for a variety of cultural agents, including historians, authors, teachers, screenwriters and others. Therefore, the formation of a digital corpus is not a mirror image of the library, or an online archive – rather, it is a new means for storing and retrieving information, which provides new affordances for cultural production (Marcum, 2014; Marty, 2009). The practices and the meanings developed during this transitional period were studied through participant observation at the NLI digitization center, and through an analysis of reports and other documents that were produced in the process. Since the beginning of the project, the workers who are in charge of the scanning faced questions regarding the best practices for scanning the historical materials. However, only in 2014 the NLI published a document that defines the standards for digitization of archival materials.

In the second case study, we analyze the official reports that guide the selection of archival materials for digitization, define appropriate techniques for scanning, and suggest formats for the preservation of digital objects. We show how those "technical guidelines" define the ways in which archival materials should be preserved as digital objects for future generations. Furthermore, we illustrate how those standards have the potential to shape future national memory.

**Standards and the politics of representation**

Our case studies demonstrate how political questions are reduced to technological standards that eventually shape specific aspects of Israeli nationality, but at the same time bypass the public discussion about the meaning of inclusion and exclusion. In the first case study, the standards appear as numbers that set the threshold for citizenship through the definition of a successful biometric enrollment. In Joseph Pugliese's terms, these numbers actually set the boundaries of representation by including the eligible and excluding the others (Pugliese, 2005). In the second case study, the standards are operational scanning guidelines that determine not only which cultural texts will make their way into digital archives, but also how these texts will be digitally preserved. In
other words, the standards of scanning have the power to shape the digital national memory by determining the boundaries of the representation of texts. The highly technological contexts in which the standards we analyze operate shed light on these processes of standardization. Thus, these contexts have the capacity to obscure the politics behind these standards.

Putting these case studies together, we conceptualize standardization in terms of the politics of representation, and attend to the ways in which practices of standardization have the capacity to shape the relationship between the state and its citizens. From this perspective, our study demonstrates Busch's claim that "standards are the recipes by which we create realities" (Busch, 2011, p. 2).

References


Who Rules the Rules?

Definitions of risk among media literacy stakeholders

Neta Ziskind, University of Haifa and Open University

Can too many cooks, even those with the best intentions, spoil the broth? In this presentation I focus upon the ways various stakeholders attempt to cooperate in the formulation of rules that children must abide to avoid risks of digital technologies. Children's safety in this context is a primary public concern. When it is compounded by uncertainty about the power of new technologies, public and policy debates become a tug of war between highly protectionist positions versus libertarian ones (Livingstone, Haddon, & Görzig, 2012). Here I present a similar tug of war between various stakeholders in Israel, as each promotes their own standards and rules to achieve digital literacy and safety of children online. Both standards and rules are linked to policy; standards in this context refer to an agreement towards a common ground to put together a curriculum (Tyner, 2014), while rules are formulations of explicit procedures
to produce and interpret texts as the curriculum demands (Olson, & Torrance (2009). I analyzed the attempts to agree upon standards and rules and ask what the process reveals as to the relative power of various stakeholders.

The discourse of risk

In Ulrich Beck's seminal work from 1992, he argued that modern societies in the West were in a transition from being industrial into being risk societies. Beck was concerned with hazards that arise from natural causes but also from the operation of modern technologies. Parental attitudes towards digital and mobile media may serve as an illustration of the complexities of everyday struggles in the risk society. Parents express fear that they will not know how to cope with risks faced by their children online. Though the fears are not always warranted, the rise in the perception of fear has real consequences in their lives (Clark, 2013). Smedts (2008) argues that parents' identity is being "entrepreneurially filled in" (p. 126) as more and more experts, including those on educational, psychological, and technological issues, tell parents how to act.

In this presentation, I describe findings from interviews I conducted with a highly diverse set of expert stakeholders who all attempt to cooperate in conceiving rules, guidelines and standards for advancing practices of literacy they deem necessary to deal with risks associated with children and the internet. As standards codify and embody ethics and values (Lampland & Star, 2009, p. 5), I asked what the process of formulating a standard of digital literacy reveals as to the motives and values of the various stakeholders.

Stakeholders and the rules of media literacy

The stakeholders I interviewed take part in the collaborative effort known as Safe Internet Week. This event was initiated in Israel in 2004 by a commercial stakeholder, Microsoft. After a few years, the Ministry of Education took over the reins and started orchestrating a joining of forces to promote media literacy among students. Stakeholders include government agencies – the Israeli Police, Israel Defense Forces, and the Ministry of Public Defense; commercial entities such as Microsoft, Intel and Google; and NGOs, notably Israel Internet Association (ISOC), Eshnav (dedicated to teaching safe internet usage), the Adler Institute (promoting Adlerian family therapy), ELI (foundation for protection of abused children), The Red Button (an NGO dedicated to battling cyber bullying using their own app).

As may be deduced from the diversity of stakeholders' backgrounds and therefore their motives, early on in the interviews, I found that the guidelines to promote literacy by each stakeholder vary significantly in approach, design and underlying values. Some address one particular issue. Others are of the omnibus type and deal with different types of risky behaviors. Some prescribe values of human compassion (as in battling cyber-bullying) while others promote technological expertise (as in preventing phishing attempts).

Method
I adopted the framework proposed by Burns and Machado (2010) to analyze the discourse of collaborative management of risk that arises from new, complex technologies, in order to reflect upon the process of standardizing media literacy rules. I employed critical discourse analysis (CDA) to address these issues. Fairclough (2001) states that every practice is an articulation of diverse social elements within a relatively stable configuration. CDA allows exploration of discourses of risk preventions and shows that rules proposed by stakeholders both generate and depend upon prevalent ideas about childhood, hierarchy, and responsibility.

**Initial Findings**

Analysis of practices of each stakeholder allows insight into the questions of power, authority and responsibility. The Ministry of Education, as the organizing stakeholder, promotes cooperation by opening the yearly efforts with an official meeting of all stakeholders at the ministry's headquarters. While this meeting sets the standards for Safe Internet Week, nearly all stakeholders are united in criticizing the Ministry of Education; they perceive it as concentrating its efforts in a single week, while forsaking the instruction of media literacy for the rest of the school year.

Authority figures also do not adhere to a single formulation of values. One NGO employs soldiers to lecture pupils, other pupils are addressed by police officers or by volunteers from the Public Defenders' Office, while still others watch a presentation delivered by pupils from their own school, who had received a brief preparation on the bare essentials of media literacy.

The question of responsibility is a particularly thorny one. The Ministry of Education assigns teachers with the responsibility of dealing with cyber bullying, including incidents that happen after school hours. Parents expect the school system and NGOs to teach digital literacy as they feel unequipped to do so, while all stakeholders hold parents responsible to the children's knowledge of media literacy, as the values that underlie it must be instilled inside the home.

While the common goal is to formulate educational standards that outline what digitally literate students should know, understand and be able to do (Pearson & Young, 2002), it proves difficult to agree upon them in the discussed context. A critical analysis of the discourse of risk and media literacy highlights the values that lie at the heart of the practice of standardization. This analysis delves into the process of the making of standards that frequently remains transparent and even invisible.

**References**


