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## **CONTEXTUALIZING AI ETHICS IN TIME AND SPACE**

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Research has recently highlighted the ramifications of big-data algorithms and artificial intelligence (AI). With their overwhelming ubiquity, and with the increasing datafication of social life, such algorithms were shown to limit personal autonomy (Cooper 2020), (re)produce social biases, racism, and inequities (Benjamin 2019; Eubanks 2018; Noble 2018), destabilize democracy (Tufekci 2014), provide fertile ground for polarization, and more.

Accordingly, algorithmic ethics is recently raising considerable public and scholarly interest (Ananny 2016; Wachter, Mittelstadt & Floridi 2017), as researchers, activists, and legislators have begun to chart ethical frameworks to direct the development and implementation of such algorithms (Jobin, Ienca & Vayena 2019). However, despite an extensive multi-disciplinary discussion, the literature on algorithmic ethics tends to examine the subject through philosophical, legal, or technocratic perspectives, largely neglecting the empirical, socio-cultural ones. Moreover, this literature tends to focus on algorithmic production in the United States, and to overlook other tech centers around the world. This paper aims to fill these gaps by focusing on how Israeli data scientists understand, interpret, and depict algorithmic ethics. After all, scholars have shown that algorithms are cultural products (Gillespie 2014; Seaver 2017) that stem from specific socio-technical contexts (Kotliar 2020). Hence, the ethics of algorithms are more than an outcome of formal guidelines or regulations. Like other technological artifacts, these ethics are deeply tied to the values of those who design them, and to their particular occupational, organizational, and cultural backgrounds (Ribak & Turow 2003; Ribak 2019). And so, we ask: which ideologies, discourses and world views construct algorithmic ethics? And what cultural processes affect their creation and implementation?

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Using a pragmatic sociological analysis (Boltanski & Thévenot 1999) and based on a thematic analysis of 60 semi-structured interviews with Israeli data scientists, this paper examines the moral regimes of Israeli data scientists and the specific moral logics (Schwarz 2013) through which they construct their algorithmic ethics. Our findings point to three central moral logics: A) ethics as a personal endeavor; B) ethics as hindering progress; and C) ethics as a commodity.

The first moral logic treats ethics as an inherent feature of the self – as a personal trait that individuals either possess or lack, and on which the social environment bears little significance. We show that this logic is deeply incongruent with the creation of an agreed-upon moral regime, and with the possibility of eliciting organized, collective action against the development of "unethical" algorithms. We accordingly argue that this moral logic poses a heavy burden on individuals and as such, its potential to translate into political action is extremely limited.

The second moral logic sees the discussion of AI ethics as a hindrance to technological progress. According to this view, data science's primary duty is to promote new technologies, despite potential social ramifications. Hence, the only viable ethics this regime can acknowledge is work ethics, as technological production is seen as inherently "ahead of its time", and as something that necessarily renounces restrictive and outdated social norms. Accordingly, adopting an institutionalized moral regime which regulates or restricts algorithmic production (e.g., with ethical codes), is seen as tantamount to joining technology's age-old enemies – regulation and bureaucracy.

In the third moral logic, Israeli data scientists see algorithmic ethics as attainable only when they are commodifiable. Here, ethical values (such as privacy or transparency) only seem viable when a commercial company is founded to protect them. Hence, Israeli data scientists are able to imagine a collective, restrictive moral regime only when it is governed by the rules of the market, as engineering's dominant moral logics embrace the entrepreneurial ethos (Neff 2012).

Finally, we show that while data science is a nascent profession, these three moral logics in fact stem from the techno-libertarian culture of its parent-profession – engineering (Avnoon 2021), and that they accordingly prevent the institutionalization of a wider, agreed-upon moral regime. While our findings echo other recent studies on tech ethics in other parts of the world (Metcalf, Moss, & boyd 2019; Orr & Davis 2020; Ribak 2019), suggesting this might be a global techno-professional moral regime, our findings can also be explained through their particular national context – namely, the Israeli one. Israeli data scientists' tendency to avoid an organized, politicized moral regime seems to also stem from Israelis' general disregard to privacy (Ribak & Turow 2003), from the link between the Israeli high-tech scene and the Israeli military (Swed & Butler 2015), or from Israeli tech workers' long-time refrain from unionizing. Thus, this paper offers to see algorithmic ethics in a contextualized, culture-specific perspective, one that focuses on how data scientists practically see and construct their ethics, while taking into account their professional, organizational, and national contexts.

#### References

Ananny, Mike. (2016). Toward an Ethics of Algorithms: Convening, Observation, Probability, and Timeliness. *Science Technology and Human Values*, 41(1), 93–117.

Avnoon, Netta (2021). Data Scientists' Identity Work: Omnivorous Symbolic Boundaries in Skills Acquisition. *Work, Employment and Society,* 35(2), 332-349.

Benjamin, Ruha. (2019). *Race After Technology: Abolitionist Tools for the New Jim Code*. John Wiley & Sons.

Boltanski, Luc, & Laurent Thévenot. (1999). The sociology of critical capacity. *European Journal of Social Theory*, 2(3), 359-377.

Cooper, Rosalind. (2020). Pastoral Power and Algorithmic Governmentality. *Theory, Culture & Society*, 37(1), 29–52.

Eubanks, Virginia. (2018). *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor.* St. Martin's Press.

Gillespie, Tarleton. (2014). The Relevance of Algorithms. In Tarleton Gillespie, Pablo J. Boczkowski & Kirsten A. Foot (Eds.), *Media Technologies: Essays on Communication, Materiality, and Society* (pp. 167–193). MIT Press.

Jobin, Anna., Marcelo Ienca, & Effy Vayena. (2019). The global landscape of AI ethics guidelines. *Nature Machine Intelligence*, 1(9), 389-399.

Kotliar, Dan M. "The Return of the Social: Algorithmic Identity in an Age of Symbolic Demise." New Media & Society 22, no. 7 (2020): 1152–67.

Metcalf, Jacob, Emanual Moss, & danah boyd. (2019). Owning Ethics: Corporate Logics, Silicon Valley, and the Institutionalization of Ethics. *Social Research: An International Quarterly*, 82(2), 449-476.

Neff, Gina. (2012). *Venture Labor: Work and the Burden of Risk in Innovative Industries*. MIT Press.

Noble, Safiya. U. (2018). *Algorithms of Oppression: How search engines reinforce racism*. NYU Press.

Orr, Will, & Jenny Davis L. (2020). Attributions of ethical responsibility by Artificial Intelligence practitioners. *Information, Communication & Society,* 23(5), 719-735.

Ribak, Rivka, & Joseph Turow. (2003). Internet Power and Social Context: A Globalization Approach to Web Privacy Concerns. *Journal of Broadcasting & Electronic Media*, 47(3), 328–349.

Ribak, Rivka. (2019). Translating privacy: developer cultures in the global world of practice. *Information, Communication & Society,* 22(6), 838-853.

Schwarz, Ori. (2013). Dead honest judgments: Emotional expression, sonic styles and evaluating sounds of mourning in late modernity. *American Journal of Cultural Sociology*, 1(2), 153-185.

Seaver, Nick. (2017). Algorithms as Culture: Some Tactics for the Ethnography of Algorithmic Systems. *Big Data & Society*, 4(2).

Swed, Ori, & John Sibley Butler. (2015). "Military Capital in the Israeli Hi-Tech Industry." *Armed Forces & Society*, 41(1), 123–41.

Tufekci, Zeynep. (2014). Engineering the Public: Big Data, Surveillance and Computational Politics. *First Monday*, *19*(7).

Wachter, Sandra, Brent Mittelstadt, & Luciano Floridi. (2017). Transparent, Explainable, and Accountable AI for Robotics. *Transparent, Explainable, and Accountable AI for Robotics. Science Robotics,* 2(6).