Testimony of Julia Stoyanovich and Solon Barocas before New York City Council Committee on Technology, regarding Update on Local Law 49 of 2018 in Relation to Automated Decision Systems (ADS) Used by Agencies

April 4, 2019

Dear Chair Koo and members of the Committee:

We, Prof. Julia Stoyanovich and Prof. Solon Barocas, are jointly entering this testimony. We both are appointed members of a Task Force established in response to Local Law 49 of 2018 in Relation to Automated Decision Systems Used by Agencies (the ADS Task Force).

Julia Stoyanovich holds a Ph.D. in Computer Science from Columbia University. She is an Assistant Professor of Computer Science and Engineering at New York University's Tandon School of Engineering, and an Assistant Professor of Data Science at the Center for Data Science. In her research and teaching,[1] she focuses on responsible data science — on incorporating legal requirements and ethical norms, including fairness, accountability, transparency, and data protection, into data-driven algorithmic decision making. Prof. Stoyanovich is a recipient of a National Science Foundation CAREER award. Her extensive project portfolio includes a collaborative NSF-funded project "Foundations of Responsible Data Management."[2]

Solon Barocas holds a Ph.D. in Media, Culture, and Communication from New York University. He is a Researcher at Microsoft Research New York, an Assistant Professor in the Department of Information Science at Cornell University, and a Faculty Associate at the Berkman Klein Center for Internet & Society at Harvard University. Prof. Barocas co-founded the annual workshop on Fairness, Accountability, and Transparency in Machine Learning (FAT/ML)[3] and later established the ACM Conference on Fairness, Accountability, and Transparency (ACM FAT*).[4]

In our testimony, we would like to express our concerns with the direction of the work of the ADS Task Force.

The intent of Local Law 49 of 2018 is to uphold two important principles in the use of ADS in City agencies: to enable greater government transparency and accountability,

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[1] DS-GA 3001.009 Responsible Data Science, all course materials are publicly available at https://dataresponsibly.github.io/courses/spring19/

[2] See https://dataresponsibly.github.io/ for information about this work, funded by the National Science Foundation through the BIGDATA program (NSF Award #1741047).

[3] http://www.fatml.org/

[4] https://www.fatconference.org/

and to ensure fairness and equity.[5] Yet, the work of the Task Force so far has failed to fully satisfy these principles.

Despite numerous requests, Task Force members have not been given any information about ADSs used by the City. To date, the City has not identified even a single system. Task Force members need to know about relevant systems used by the City to provide meaningful recommendations. A report based on hypothetical examples, rather than on actual NYC systems, will remain abstract and inapplicable in practice. The Task Force cannot issue actionable and credible recommendations without some knowledge of the systems to which they are intended to apply. The need for examples has been raised by several of us on numerous occasions, but remained unaddressed until yesterday, just one day before this hearing, with the City suggesting that two examples *might* be forthcoming, at some unspecified future date.

The City has cited concerns with privacy and security in response to our requests, but these cannot be used as blanket reasons to stand in the way of government transparency. Privacy and security considerations must be thoughtfully addressed as part of the process of formulating recommendations for transparency and accountability. However, we can only determine how to navigate these tensions if basic details about actual ADSs—and specific concerns that justifiably counsel against transparency—are shared with the Task Force. These cannot be negotiated in the abstract.

Despite these challenges, the Task Force was able to make some meaningful progress in developing a methodology for eliciting relevant information about ADSs, using so-called "ADS Cards" that ask developers and operators to provide specific details about the system in question (see attached). ADS Cards built on an emerging body of academic research on transparency and accountability for automated systems,[6] and we viewed them as a worthwhile and promising effort. Unfortunately, the City had the Task Force abandon ADS Cards at the start of the year for reasons that remain unclear.

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[5] In the press release from Office of the Mayor regarding the ADS Task Force, available at https://www1.nyc.gov/office-of-the-mayor/news/251-18/mayor-de-blasio-first-in-nation-task-force-examine-automated-decision-systems-used-by, "As data and technology become more central to the work of city government, the algorithms we use to aid decision making must be aligned with our goals and values," said Mayor de Blasio. "The establishment of the Automated Decision Systems Task Force is an important first step towards greater transparency and equity in our use of technology."

[6] Ke Yang, Julia Stoyanovich, Abolfazl Asudeh, Bill Howe, H. V. Jagadish, Gerome Miklau: A Nutritional Label for Rankings. SIGMOD Conference 2018: 1773-1776. http://demo.dataresponsibly.com/rankingfacts; Margaret Mitchell, Simone Wu, Andrew Zaldivar, Parker Barnes, Lucy Vasserman, Ben Hutchinson, Elena Spitzer, Inioluwa Deborah Raji, Timnit Gebru: Model Cards for Model Reporting. ACM FAT* 2019: 220-229; Timnit Gebru, Jamie Morgenstern, Briana Vecchione, Jennifer Wortman Vaughan, Hanna M. Wallach, Hal Daumé III, Kate Crawford: Datasheets for Datasets. CoRR abs/1803.09010 (2018).

The problems described above are exacerbated by the lack of transparency in the City's decision-making about the Task Force structure and operation. Not only do Task Force members lack the information about ADSs that they need to execute the mandate of the Law, but they lack information as to how and why these decisions are being made.

In light of these concerns, we make the following recommendations:

1. The City Council should urge the City to provide Task Force members with sufficient information and examples to develop well informed, concrete, and actionable recommendations. Should the City fail to be forthcoming, the City Council should amend the Law to give Task Force members legal authority to make such requests.
2. If it is determined that additional time is needed to identify and collect information about ADSs, the City Council should amend the Law to allocate additional time to the work of the Task Force. It is more important to do this work right than to do it quickly.
3. The City Council should play a more active and consistent role in overseeing the Task Force, with the goal of ensuring that the City works with Task Force members to fulfill the mandate of the Law.

The apparent lack of commitment to transparency on the part of Task Force leadership casts doubt on the City's intentions to seriously consider or enact the report's recommendations—recommendations largely about transparency. We hope that the City Council will take deliberate and decisive action to address the concerns we raise in our testimony. Otherwise, we worry that this highly visible, much anticipated effort—the first such effort in the United States—will be a missed opportunity.