Are data subjects consumers, workers or investors? (extended abstract)

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This is a paper that explores the status of data subjects in the era of data capitalism.[1] A data subject is a person whose personal data is being collected, held, or processed by data collectors or processors (e.g., Amazon, Google, or Facebook).[2] In this article, we maintain that it is time to seriously investigate whether data subjects are investors.

In their book, *Radical Markets*, Eric A. Posner and E. Glen Weyl submit a thought-provoking perspective through which to rethink about who data subjects are. Especially, their thesis, "Data as Labor" (DaL) delivers a perspective-changing message:

> "The powerhouse of the digital economy, firms like Facebook, Google and Microsoft, exploit the lack of public understanding of AI and ML to collect for free the data we all leave behind in our online interactions. This is the source of the record profits that make them the most valuable companies in the world. Facebook, for example, pays out only 1% of its value each year to workers (programmers) because it gets the rest of its work for free from us! In contrast, Walmart pays out of 40% of its value in wages. People's role as data producers is not fairly used or properly compensated".[3]

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1. The Economist, "Data is giving rise to a new economy," *The Economist*, 2017, Anita Pratap, "The era of data capitalism," *The Week*, 21017, Claude Robinson III, "Spreading the wealth of data capitalism," 2017,

2. We follow the definitions in the European Union's General Data Protection Regulation (GDPR), Article 4. "Personal data means any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person."

3. Eric A Posner and E Glen Weyl, *Radical markets: Uprooting capitalism and democracy for a just society* (Princeton University Press, 2018), p. 209; See also Imanol Arrieta Ibarra et al., "Should We Treat Data as Labor? Moving Beyond'Free'," *Moving Beyond'Free'(December 27, 2017). American Economic Association Papers & Proceedings* 1, no. 1 (2017).

Data subjects's	Conventional view	Data as Labor	Data Equity
Status	Consumer	Workers	Investors
Activity	Trade data with services	Sell data and labor	Lending data to firms
due claim	Good service	Fair compensation	Investors' rights

Table 1: Comparison of the three views

The two authors—a Chicago law professor and a principal researcher in Microsoft Research—'s message alters the way corporate America sees and treats data subjects by challenging conventional views. The message is so powerful that it has turned into a social movement with more than one hundred chapters around the world within a year. DaL gives a real option to young generations who enthusiastically inquire about and radically act to develop an ethical governance structure of the digital economy. we agree with DaL, "Most people do not realize the extent to which their labor–as data producers–powers the digital economy."[4] Nonetheless, in this article, we want to point out that DaL is missing something—a perspective that we believe can better help to understand the legitimate status of data subjects.

In this article, we offer a distinctive view, which we call "Data Equity"(DE), that most people who offer personal information to firms could be considered as data investors. Since our thesis is radical and we are the first to defend it, we expect resistance. Our aim is modest here. We aim to show that DE is a coherent idea and it is not far-fetched to defend that data subjects are entitled to claiming that they are a special kind of investors.

In particular, we aim to explain that data subjects' contributions to a firm often meet major objective conditions necessary to be considered (data) investors, as shareholders meet similar conditions to be (financial) investors. Therefore, that data subjects as investors may deserve several rights, such as control and information rights.[5] It is a separate question which rights to grant to different kinds of investors and we do not fully discuss the question here.

Our thesis—data subjects are investors— provokes a preconception about data subjects that they are data sellers. That is, data subjects and a firm that collects and process their personal data have a trade relationship, in which data subjects sell personal data to processing firms, which in turn offer services to data subjects. Thus, data subjects are those who make discrete market transactions— namely, data sellers. Posner and Weyl's DaL partly shares the conventional view that data subjects *sell* data to firms. What makes DaL distinct from the conventional view is that data subjects are understood as workers rather than consumers and DaL asserts that the workers are unfairly compensated. The main claim of our thesis is that it is more plausible to consider data subjects as investors than sellers. So our thesis is distinctive from the conventional view as well as DaL (See Table 1).

In what follows, first, we offer a functional definition of an investor. Our main argument is what we call the Parallel Thesis, that it is very possible to draw parallels between the relationship of data subject to a firm and the relationship of a capital investor to a firm. To establish the Parallel Thesis, we analytically prove the parallels and support the justifiably of the parallels by showing that it makes best sense to believe that data subjects are investors.

We want to be clear up front about the distinction between saying that data subjects

4. Posner and Weyl, *Radical markets: Uprooting capitalism and democracy for a just society*, p.
5. Julian Velasco, "The fundamental rights of the shareholder," *UC Davis L. Rev.* 40 (2006): 407.

are investors and they are entitled to claiming to be so. In usual financial transactions, the investor commits capital by being fully aware of the financial security received in the transaction (with varying levels of due diligence, depending on the regulatory framework for the transaction). But typically, in current data transactions, data subjects do not yet meet the subjective, mental condition. So, data subjects are not presently investors. But they are entitled to claiming that they are investors, once the subjective condition is met by recognizing that they meet the objective condition. For simplicity's sake, in what follows, we write that data subjects are investors rather than they are entitled to claiming to be so. Furthermore, the lack of the subjective condition is not a peculiar issue to our thesis. A safe empirical assumption would be that most people do not recognize their rightful status with data companies, whether they are consumers, workers or investors. All the three views—the conventional, DaL and Data Equity— are reformative rather than simply descriptive.

Before moving on to the main argument, allow us to clarify our thesis again. By arguing that data subjects are investors, we do not deny that they can simultaneously consumers, workers or a stakeholder group. Data subjects as consumers (or workers) deserve proper consumer (or labor) rights and relevant protection.[6] Our thesis posits that it is time to imagine beyond consumerism or labor theory to address problems concerning data economy. In capitalism, realistically, those who provide capital have power. Moving from the conventional view that data subjects are consumers (or workers) to the new perspective that they are those who provide important capital can radically change how society should treat data subjects. Second, today, there is no denying that data subjects' initial and continuous support (e.g., allowing firms to collect and process personal information) significantly affects firms' business success. Thus, it makes perfect sense that data subjects are a (forgotten) stakeholder group.[7] Giving stakeholder status to data subjects is moral progress toward strengthening their rightful status. All stakeholders may be investors, if we broadly define investors. In this paper, we argue that data subjects are investors even in the narrowly defined sense that we use to regard shareholders or venture capital funds as investors.[8]

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6. Kirsten Martin and Katie Shilton, "Why experience matters to privacy: How context-based experience moderates consumer privacy expectations for mobile applications," *Journal of the Association for Information Science and Technology* 67, no. 8 (2016): 1871–1882.

7. Stakeholders are any group who affects and/or is affected by the achievement of the organization's objectives.R Edward Freeman and David L Reed, "Stockholders and stakeholders: A new perspective on corporate governance," *California management review* 25, no. 3 (1983): 88–106.

8. Henry Hansmann et al., "Ownership and organizational form," *The handbook of organizational economics* 891 (2013); Andrei Shleifer and Robert W Vishny, "A survey of corporate governance," *The Journal of Finance* 52, no. 2 (1997): 737–783.

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