Curating social image: Experimental evidence on the value of actions and selfies ☆

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A R T I C L E I N F O

A B S T R A C T

We manipulate the information subjects can share on the web concerning socially sensitive actions (public good contribution) and visibility (selfie) to determine the effect on social image, as captured by the price subjects demand for publication. Our novel design incorporates aspects of social media interaction including limited anonymity and the possibility to manipulate published information in retrospect, which involves a controled decision-making process. The overall conclusion from the experiment is that theory about social reputation can predict subjects' social-signaling behavior. People take costly decisions to curate their social image online. We also report results of a more exploratory nature and find that taking a selfie has a strong negative impact on cooperation among frequent selfie takers, but not on other subjects.

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1. Introduction

Understanding the role social image plays in economic behavior has been the focus of economic theories and experiments in recent years. Research suggests that people care not only about material incentive or intrinsic motivation, but also about how they appear to others (Andreoni and Bernheim, 2009; Ariely et al., 2009; Bao et al., 2018; Bénabou and Tirole, 2006; Bernheim, 1994). A good image or reputation can be a powerful incentive which causes people to behave more prosocially when the action is visible to others compared to when acting anonymously.

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In the present-day context, the widespread use of social media means that people are increasingly sharing aspects of their lives online by uploading information and images, including the highly popular "selfies", to be viewed by others.[2] As a result, for many people traces of their lives can easily be found by a search engine (and, consequently, future employers) and hardly anyone is completely anonymous online. On the other hand, people do have the power to control their public image to some extent by, for example, selectively editing the information that is uploaded and deleting undesirable information.

Remarkably, little has been done in the existing economic literature to understand the new digital environment where social image is produced. Many previous studies have the following in common: first, the starting point for studying an increase in visibility is complete anonymity in the control. In treatment conditions the agent is made visible to others by, for example, having her photo displayed to other group members (Andreoni and Petrie, 2004) or announcing her choice publicly to other agents (Friedrichsen and Engelmann, 2018; Rege and Telle, 2004). Comparing actions in the treatment and control will thus capture both the effect of increased visibility *and* the loss of anonymity, without distinguishing between the two. While anonymity has a clear strategic and behavioral consequence on reciprocity and punishment in a repeated game setting, the implication of different degrees of visibility under non-anonymity is less clear and has only been explicitly introduced in theoretical models starting with Bénabou and Tirole (2006). Second, visibility is manipulated ex-ante, between treatments. Agents are thus aware of their degree of anonymity prior to making their decision and adjust their action accordingly.

We study agents' valuation of social image in a framed field experiment by manipulating the information subjects can share on the web. We vary the inclusion of socially sensitive information (contribution in the public good game, henceforth PG) and the degree of visibility (selfie) to determine the effect on social image, as captured by the price subjects demand for publication using the Becker-DeGroot-Marschak (BDM) mechanism. Two novel features of our experiment are the non-anonymity default, as subjects' names are included in the baseline, and ex-post possibility to control the publication. The potential publication and possibility to control it are not known until after the subject has made their PG contribution, thus creating dissonance within subjects who free-ride but want to appear cooperative. These two features thus allow us to measure within-subject net effects of two key components of social image: socially sensitive information (PG contribution) and increased visibility (the selfie), in an environment designed to closely capture important aspects of social media interaction, namely where subjects are no longer completely anonymous and can ex-post curate their social image online.

Visibility is a crucial determinant of both positive and negative behaviors, a fact that has been recognized by various organizations. Charities often publish a list of donors and use donation categories to make visible and encourage higher donations. More recently, a new industry has flourished which monetizes people's desire to maintain their reputation online. For example, some websites re-post official arrest mugshots and then charge a high fee for those wanting to remove them, while other businesses (often run by the same owner as the above websites) offer mugshot removal as part of a reputation management service.[3] Since 2012 Her Majesty's Revenue and Customs (HMRC) in the UK has published the details of tax evaders on its official webpages to shame them into paying owed taxes.[4] These examples highlight the importance of maintaining one's public image, especially in an age where people are to various extents living public lives online, and motivate the need to study how agents value different components of social image given limited anonymity.

We adopt Bénabou and Tirole (2006) theoretical model to study sophisticated signaling behavior in an experimental setting. In the model agents are assumed to derive utility from three components: intrinsic motivation, extrinsic material incentive, and reputation, which together determine their contribution to a public good. When contributions are made in private, the agent experiences a conflict between intrinsic motivation and material incentives and agents with sufficiently low intrinsic prosociality free-ride. When contributions are made in public, reputational incentive comes into play which increases contribution. The agent who free-rides in private may thus choose to contribute in public. The effect is magnified the higher the degree of visibility, for example when more people are watching. In our experimental design, subjects play the PG in private and are subsequently surprised with the possibility of publishing their contribution online. Their actual contribution may thus be less than their ideal contribution in front of an audience, creating a dissonance which can only be resolved by foregoing monetary gain in the BDM stage.

We show that subjects indeed curate their social image in this online environment and use their BDM bids to selectively manipulate what information is shown on the web. Making information more visible by adding a selfie to the publication of PG contribution results in a highly significant increase in price demanded. Subjects become more motivated to hide lower PG contribution, even if she is already identifiable through her name. Not surprisingly, the more subjects free-ride the more unwilling they are to publish their contribution. We find a negative correlation between the subject's PG contribution and the premium demanded for adding a selfie (the selfie premium), the premium for adding PG contribution (Contribution Information Premium, henceforth CIP), and the absolute prices demanded, though the effect is not strongly significant for

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[2] "Selfie" was chosen as the Oxford Dictionaries Word of the Year in 2013. It is defined as "a photograph that one has taken of oneself, typically one taken with a smartphone or webcam and uploaded to a social media website". The popularity of selfies has been noted by the UK Office of Communications, finding that 1.2 billion selfies were taken yearly in the UK alone (Ofcom, 2015).

[3] http://www.nytimes.com/2013/10/06/business/mugged-by-a-mug-shot-online.html, accessed 16 September 2017.

[4] https://www.gov.uk/government/publications/publishing-details-of-deliberate-tax-defaulters-pddd/current-list-of-deliberate-tax-defaulters, accessed 16 September 2017.