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Strategic disclosure with reputational concerns

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Abstract

I study a strategic disclosure model wherein an uninformed decision-maker (DM) consults an expert of uncertain types regarding the state before acting. The expert may be an honest type, who is committed to reporting the truth; or a strategic type, whose payoff increases in the DM's action independent of the state and, thus, strategically discloses information to facilitate his agenda while also valuing a reputation for honesty. We find that if the expert fails to obtain information with positive <u>probability</u>, a monotone equilibrium exists that involves an interval wherein the strategic expert adopts a mixed strategy for disclosure, in contrast to a simple cutoff rule that cannot be sustained in equilibrium. The value that the strategic expert attaches to reputation serves as a commitment device to promote disclosure, as does the higher <u>probability</u> that the state is observed, whereas an honest expert's greater presence may harm the strategic expert's disclosure incentive.

Introduction

According to the literature on the disclosure of verifiable information, when information is publicly known to be obtained with certainty, the sender who intends to increase the receiver's belief would disclose all information; this is known as the celebrated "unravelling" result (Grossman and Hart, 1980, Grossman). However, when information is obtained only with some positive probability, the sender's disclosure strategy is characterized by a threshold, such that he would disclose all observed signals above it but conceal those below by pooling them with the non-observation scenario (Dye, 1985, Jung and Kwon, 1988). Meanwhile, the literature on reputational expertise has examined the case wherein the sender endowed with information is free to send a different message to the DM (Morris, 2001, Li, 2010)—a mode of communication known as cheap talk (Crawford and Sobel, 1982). However, to the best of my knowledge, how reputational concern feeds into the sender's disclosure incentive and affects the equilibrium disclosure strategy in the context of verifiable information remains uninvestigated. This study aims to fill this gap in the literature.

Specifically, this paper attempts to connect reputational expertise with the disclosure of hard and verifiable evidence. Two main types of expertise reputation are discussed in the literature—namely, expert competence and objectiveness. For example, Prat (2005) studies about expert competence and shows that transparency over expert action creates an

incentive for the expert to ignore useful private signals. Morris (2001) examines expert objectiveness and shows that instrumental reputational concern creates incentives for the objective expert (i.e., sharing the same preference with the decision maker [DM]) to distort the message reported to the DM. This paper places expertise reputation in the context of objectiveness, under the assumption of hard and verifiable information. We extend the model in Dye (1985) by introducing reputational concern as a potential mechanism to facilitate disclosure. To introduce reputation in a minimal fashion, we assume that the expert who reports to the DM may be one of the following two types: an honest type, who is committed to reporting truthfully; and a biased type, who prefers a higher action to be taken irrespective of the state. This novel aspect twists Dye's (1985) equilibrium structure wherein the expert adopts a simple cutoff strategy for disclosure. In our model, the equilibrium disclosure behavior of the strategic expert features an intermediate interval, such that he conceals states lower than this interval, randomizes between disclosure and concealment for states in the interval, and discloses the states above it. A conventional simple cutoff strategy does not survive in equilibrium because, under such a strategy, the strategic expert whose payoff is continuously increasing in action would experience a reputational gap when he discloses the states in the neighborhood of the cutoff, which, in turn, renders the cutoff strategy suboptimal. This can be remedied by a strategy featuring an interval that bridges complete disclosure and concealment by mixing the two.

In line with applied work, our paper is also related to Shadmehr and Bernhardt (2015) which models government censorship as strategic disclosure. Their work shows that censorship/concealment cost can act as a commitment device to facilitate disclosure and, therefore, improve public expectations on the state when no information is released, such that the ruler/government can even gain from a higher censorship cost. Our model assumes that concealment *per se* is not costly but introduces reputational concern for the strategic expert; as the honest expert does not conceal, concealment lowers expert reputation and, thereby, deters the strategic expert from concealing. Hence, reputational concern functions as sort of a "soft" concealment cost in facilitating disclosure. However, it differs from a hard concealment cost in that the former leads to an equilibrium characterized by an intermediate interval wherein a mixed strategy for disclosure is used, whereas the latter leads to an equilibrium characterized by a simple cutoff strategy.

The remainder of this paper is organized as follows: Section 2 presents the model and equilibrium characterization. Section 3 presents several comparative static analyses. Section 4 concludes.

Section snippets

Model setup and equilibrium characterization

We consider a game between an expert and a DM, who is an expected utility maximizer. A payoff-relevant state θ is assumed to be distributed according to density function f(.) with continuous support in $[\underline{\theta}, \overline{\theta}]$ with the corresponding probability distribution function F(.); occasionally, we use the notation $H(.) \equiv 1 - F(.)$. We define the density function for all real numbers, such that $f(\theta) = 0$ for $\theta \notin [\underline{\theta}, \overline{\theta}]$. We denote the prior expectation of the state by μ . The DM's payoff, denoted by u_d , is jointly...

Comparative statics

For comparative statics analysis, the following three key parameters are of interest: The probability of observing the state q, the proportion of honest expert λ , and the value of reputation π . Specifically, we are interested in the impact of these parameters on disclosure probability. The probability of disclosure conditional on information arrival can be expressed as follows: $D\left(v^*,R_\phi^*\right)=\lambda+(1-\lambda)\left[1-F\left(\theta_b^*\right)+\int_{\theta_a^*}^{\theta_b^*}\gamma\left(t;v^*,R_\phi^*,\lambda\right)f\left(t\right)dt\right]$ Notably, as $Z\left(v^*,R_\phi^*\right)$ is the strategic expert's concealment...

Conclusion

This paper introduces reputational concern to the analysis of the disclosure of verifiable information. Its primary finding is that reputational concern can alter the equilibrium structure characterized by a simple cutoff in the conventional disclosure model into an intermediate interval wherein a mixed strategy on disclosure is used. We focus on the monotone equilibrium, a simple and interesting type of equilibrium allowed by the game. In such an equilibrium, a higher value placed on...

CRediT authorship contribution statement

Wenhao Zhang: Conceptualization, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing....

Declaration of competing interest

The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper....

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