**On Designing Mechanisms under Privacy Constraints**

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**Abstract:**

We study a new measure for the level of privacy provided by a mechanism.

According to our definition, privacy, or the loss thereof, is a relative measure.

It quantifies the extent to which the preferences (or characteristics) of an individual can be inferred from his actions within the mechanism.

We discuss possible variants of this measure and show its connections to the problem of rationally inattentive decision making.

We then discuss the problem of mechanism design under privacy constraints.

We show that requiring a mechanism to respect both the (classic) incentive compatibility constraints and the (new) privacy constraint substantially affects the structure of optimal mechanisms.

In an example of monopolistic screening with uniform distribution, we characterize the optimal selling mechanism for every level of required privacy.