

# Truth-Telling and Information Design in School Choice Problems\*

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**Abstract:** This paper studies an information design problem in the context of school choice problem. The deferred acceptance (DA) mechanism proposed by Gale and Shapley (1962) is widely implemented around the world, and it has two types: the student-proposing DA mechanism and the college-proposing DA mechanism. It is well known that under the student-proposing DA mechanism, proposing true preferences is better for students than any other action. However, when students misunderstand or do not have sufficient information to clarify the type of DA mechanism, they may misreport. Specifically, under the college-proposing DA mechanism, they have such an incentive. To deal with this issue, we build a dynamic school choice model and consider when students will misreport. We find that under a certain condition on students' prior beliefs about the type of mechanism in use and on their preference types, students may misreport even under the student-proposing DA mechanism. This result may explain why students misreport under the student-proposing DA mechanism in the real world.

Keywords: Two-sided matching, Dynamic matching, Information design, Strategy-proofness.

JEL Classification: C78, D47, D61, D63

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