

Many Agent Communication

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Typical cases of communication concentrate on communication between two agents, sender and receiver. However, many interesting situations involve many listeners who may have different backgrounds and different objectives. The speaker may know something about these backgrounds and these objectives and will aim her speech in such a way that her own utility (or perhaps that of some of the listeners) is maximized. She may not be able to increase all utilities but may focus on increasing those which matter the most. Examples are

- A candidate campaigning for election. She is aware that different groups of voters have different wishes, and wants to maximize the net effect in terms of votes gained.
- Someone sending an email to several persons some of whom are addressees and others are bcc'd.
- Someone having dinner with husband and wife where the two may have different feelings about some social situation.

In each of these cases, the different parties have their own utilities and their own current states of belief. A revision in these states will take place as a result of the communication and certain actions will become likely which were previously unlikely. The goal is to make the new states "better" than the current one.

References:

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