ENDOGENOUS LINK STRENGTH IN DIRECTED COMMUNICATION NETWORKS

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Abstract: We present a model of communication network formation in which links' strengths are endogenously determined by individual incentives. Agents are endowed with a fixed amount of resource which they can distribute as they want in directed links. Individuals capture benefits from both direct and indirect access to others, in a way that takes into account the strength of each link. The wheel architecture is shown to be the unique efficient and stable architecture under mild restrictions.

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