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Document de Travail

n° 2006-33

ENDOGENOUS LINK STRENGTH IN DIRECTED COMMUNICATION NETWORKS

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September 2006

DT-GREQAM

Endogenous Link Strength in Directed Communication Networks

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September, 4 2006

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.

JEL Classification Numbers: D85, C70

Keywords: Directed Communication Network, Endogenous Link Strength, Efficiency, Stability