

# **Netflix Games: Local Public Good with Capacity Constraints**

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**This paper considers incentives to provide goods that are partially excludable along social links. Individuals face a capacity in that conditional upon providing they may nominate only a subset of neighbours as co-beneficiaries. Our model has two typically incompatible ingredients: (i) graph formation (individuals decide which subset of neighbours to nominate), and (ii) a graphical game (individuals decide how much of the good to provide). For any capacity function and any graph, we show the existence of specialised pure strategy Nash equilibria - those in which some individuals (the 'Drivers',  $D$ ) contribute while the remaining individuals (the 'Passengers',  $P$ ) free ride. The proof is constructive and corresponds to showing, for a given capacity, the existence of a new kind spanning bipartite subgraph, a DP-subgraph, with partite sets  $D$  and  $P$ . We consider how the number of Drivers in equilibrium changes as the capacities of the agents are increased and show a weak monotonicity result. Finally, we introduce dynamics and show that only specialised equilibria are stable against perturbations in good provision.**