

the EIN can also be modeled as a generalization of budgeted maximization problem that we call *budgeted maximization with overlapping costs* (BMOC). Due to its unique cost structure, BMOC is fundamentally different than those applied previously and thus simple greedy approaches do not work. In fact, a simple reduction to the *densest k -subhypergraph* [49] problem shows that BMOC problem is very hard in general. However, by identifying a possible feature of the EIN social network, which we call the *overlap condition*, we show that for certain instances of BMOC a simple greedy algorithm does provide a near-optimal (constant-factor) approximation. Finally, experimental runs of the greedy algorithm provide strong evidence that the EIN data exhibits this *overlap condition* and thus solutions obtained are very close to optimal.