

Definition and Core Components of the Role-Partner Allocation Problem in Collaborative Networks

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Abstract : In the current constantly changing economic context, collaborative networks allow partners to undertake projects that would not be possible if attempted by them individually. These projects usually involve the performance of a group of tasks (named roles) that have to be distributed among the partners. Thus, an allocation/matching problem arises that will be referred to as Role-Partner Allocation problem. In real life this situation is addressed by negotiation between partners in order to reach *ad hoc* agreements. Besides taking a long time and being hard work, both historical evidence and economic analysis show that such approach is not recommended. Instead, the allocation process should be automated by means of a centralized matching scheme. However, as a preliminary step to start the search for such a matching mechanism (or even the development of a new one), the problem and its core components must be specified. To this end, this paper establishes (i) the definition of the problem and its constraints, (ii) the key features of the involved elements (i.e., roles and partners); and (iii) how to create preference lists both for roles and partners. Only this way it will be possible to conduct subsequent methodological research on the solution method.

Keywords : collaborative network, matching, partner, preference list, role

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