Introduction

• The purpose of this study is to explore the emergence of different types of crowd dynamics in small teams.

• To this end, we discuss a summary of the results from a pilot study of a crowdsourcing exercise in higher education carried out in the 2015 winter semester at the College of Management of the École Polytechnique Fédérale de Lausanne (EPFL). Specifically, from November 16th to December 9th students in the Master’s course in IT and e-Business Strategy have been involved in a crowdsourcing exercise.

• The goal of the competition was to identify a business model for a new company, discussing it and motivating it in a text of 3000 characters.

Results

• Referring to the typology in Figure 1, the groups acted as a crowd crystal rather than a community, despite the limited number of members and their mutual acquaintance from the class.

• In addition, the analysis of the comments demonstrated little relevance of factors such as identity, membership, or friendship; whereas having the winning proposal emerged as a unifying element within the group (they were focused on the outcome).

• Then, there was little evidence of team spirit (they supported the proposal but individually and without reference to real team coordination). We observed the case of groups partitioned by activity level and pushed by the activity of two members out of five (consider G2, the winner of the challenge).

• This may imply that a team could be more effective in finding a solution when the team is only nominally a team, being instead actually a crowd crystal.

• One implication of the results may question the performance of community-oriented investments in team-building; also, it opens opportunities for organizations to use prior challenges to look for the best contributors and then gather them in another team, potentially producing effective results on similar topics as well as new “crowd capital” (the total number of crowd units having a demonstrated effectiveness in idea generation or task achievement).

Framework

In this work, we use the typology of crowds shown in Figure 1 and discussed in [Viscusi and Tucci 2015], which distinguishes different types of crowds according to their growth tendency and degree of solidarity (density, equality, and goal orientation) contribute to further distinguishing the distribution of agents within and between the different quadrants:

• Community is a well-known knowledge and innovation management topic [West and Lakhani 2008]. It is worth noting the role of identity and beliefs in its cohesiveness, rendering them difficult to conflicting and heterogeneous goals, which could give rise to crowd crystals or an open crowd.

• Crowd crystal is characterized by a lack of scale, fewer ideas, as well as less input, in addition to a low degree of solidarity due to the topical rather than goal orientation. A crowd crystal may grow in an unrestricted fashion, losing the solidarity nature of the crowd, becoming no longer anonymous, and finally reaching a “community” status. It can also evolve towards either open or closed crowd.

• Open crowd is characterized by “generativity” (ability to evolve digitally without pre-planning the design or usage [Yoo 2013]) typical of large, varied, and uncoordinated audiences [Zittrain 2006]. An open crowd requires investments to get the right information capability [Viscusi and Batini 2014].

• Closed crowd is characterized i) by restricted growth and self-established boundaries, protected from outside influence, and ii) by its being outsourcing- and narrow goal-oriented. In the closed crowd as implemented through the fixed boundaries of digital platforms, the firm has to modularize the problem [Schilling 2006; Afuah and Tucci 2012]. Also, there may be potential “dealmakers” [Feldman and Zoller 2012] acting in multiple crowds for their own benefit, but the company will be unaware of the presence of the same parties across competitions.

References