A TALE OF TWO ONLINE COMMUNITIES: FOSTERING COLLABORATION AND CREATIVITY IN SCIENTISTS AND CHILDREN

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ABSTRACT

There has been much recent interest in the development of tools to foster remote collaboration and shared creative work. An open question is: what are the guidelines for this process? What are the key socio-technical preconditions required for a geographically distributed group to collaborate effectively on creative work, and are they different from the conditions of a decade or two ago? In an attempt to answer these questions, we conducted empirical studies of two seemingly very different online communities, both requiring effective collaboration and creative work: an international collaboration of astrophysicists studying supernovae to learn more about the expansion rate of the universe, and a group of children, ages 8-15, from different parts of the world, creating and sharing animated stories and video games on the Scratch online community developed at MIT. Both groups produced creative technical work jointly and were considered successful in their communities. Data included the analysis of thousands of lines from chat and comment logs over a period of several months, and interviews with community members. We discovered some surprising commonalities and some intriguing possibilities, and suggest guidelines for successful creative collaborations. Specifically, systems that support social creativity must facilitate sharing and play, and their design must consider the effects of repurposing, augmentation and behavior adaptation.