

## COMPUTER SUPPORT FOR CREATIVITY IN SMALL GROUPS USING CHATS

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**Abstract.** *The paper presents a new approach in the stimulation of creativity using computer support and the present facilities of communication offered by instant messengers ("chat"). We start from the dialogic perspective of Mikhail Bakhtin and from the polyphonic theory of knowledge building in small groups, which was previously used for Computer-Supported Collaborative Learning. The PolyCAFe system, developed following the polyphonic ideas is used for the analysis of brainstorming chat sessions and for feedback generation.*

**Keywords:** Creativity, creativity stimulation, CSCL, Bakhtin, polyphony, inter-animation, chat

### 1. Introduction

There was a lot of research in Artificial Intelligence (AI) in the last decades for obtaining a computationally-based "artificial creativity", which was supposed to model the human creativity [7]. There were attempts to develop computer programs for poetry, humor and story writing, for generating metaphors, music, paintings, etc. However, creativity, together with consciousness, understanding natural language and intuition escape the attempts of automatization. Therefore, we are not positioning ourselves on the position of the "strong AI", which tries to develop programs that would replace humans. We rather prefer the "weak AI" position, which only tries to develop programs that support humans. We do not try to write programs that would "create" something, we envisage only to develop computer-based support tools for assisting and stimulating human creativity, a main guideline in our approach being to provide a central role for men as they are essentially creative.

In recent years, in the context of the intensive use of Internet communication tools like instant messengers ("chats", for example Yahoo Messenger <http://messenger.yahoo.com/>), many mundane activities involving natural language communication and collaboration are transferred from face-to-face toward virtual, online communication. This transition offers a great opportunity for people from any place to collaboratively construct knowledge. Well known creativity stimulating methods, like brainstorming [1] may be adapted and even

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