

# Conflicts and Their Resolution in Collaborative Value Production: Edit Wars in Wikipedia

Janos Kertesz

Department of Theoretical Physics, Budapest University of Technology and Economics,  
H-1111 Budapest, Hungary  
Department of Biomedical Engineering and Computational Science, Aalto University School of Science,  
P.O. Box 12200, Espoo, Finland

E-mail: [kertesz@phy.bme.hu](mailto:kertesz@phy.bme.hu)

## Abstract

Wikipedia is the paradigmatic example of collaboration on the internet and its advantage is, from the research point of view, that every editing or discussion event is perfectly documented and freely downloadable. We have been interested in the emergence and resolution of conflicts in the editing process. We constructed a measure, which made it possible to identify controversial articles algorithmically. We investigated the statistical properties of such pages in a number of languages and concluded that, except of a few, generally disputed topics, the most controversial pages are culture-dependent. By looking at the temporal evolution of the conflicts we could identify three categories: Isolated conflicts, multiple conflicts and permanent wars. We introduced an opinion dynamics model by which we were able to reproduce qualitatively our findings.