

People behave socially and 'well' even without rules: study

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Fundamentally people behave in a social and rather compassionate and "good" way rather than aggressively, even without specified rules. That is the result of a study from the Institute for Science of Complex Systems at the MedUni Vienna under the leadership of Stefan Thurner and Michael Szell. They analysed the behaviour of more than 400,000 participants of the "Virtual Life" game "Pardus" on the Internet. The findings are that only two percent of all actions are aggressive, even though the game would make it easy for war-like attacks with spaceships, for example.

Millions of human interactions were assessed during the study which included actions such as communication, founding and ending friendships, trading goods, sleeping, moving, however also starting hostilities, attacks and punishment. The game does not suggest any rules and everyone can live with their avatar (i.e. with their "game character" in the [virtual world](#)) as they choose. "And the result of this is not anarchy", says Thurner. "The [participants](#) organise themselves as a social group with good intents. Almost all the actions are positive."

The interactions were fed into an "alphabet" by the researchers, "similar to how the genetic code of DNA was decoded 15 years ago", says Thurner. "From this we get a pattern which reflects how people tick". However, there is quite a high potential for aggression: so, for example, if a negative action is inflicted, the probability that the player will subsequently also act aggressively shoots up more than tenfold, even to about 30 percent.

Thurner and his team were also able to present by means of the pattern that the whole game is a reflection of reality. “For example, we could adopt measured values one for one for communication networks. A further measurement is that almost no one has more than 150 friends, the so-called Dunbar’s number, regardless of whether in the real or the virtual world.” The study has now been published in the specialist journal *PLoS One*.

The long-term aim is to detect “phase transitions in societies” early on using these measurements and the behavioural patterns researched in the virtual world in order to be able to forecast group dynamic social processes and to be able to react in the event of these cases in good time. “It is possible, for example, that through certain conditions the aggression level, that has increased tenfold, remains extensively in place and therefore systemically for a longer time, which bears comparison with a drastic radicalisation in societies. Consequently, we could react to it in good time.” A current example for such a phase transition in society has been the relatively surprising “Arab Spring” with its many protests, uprisings and revolutions, which, as is well known, were targeted against the ruling totalitarian regimes in many countries.

More information: “Emergence of good conduct, scaling and Zipf laws in human behavioral sequences in an online world.” Stefan Thurner, Michael Szell, Roberta Sinatra. *PLoS ONE* 7(1): e29796.

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