

A New Kind of Economy is Born

Social Decision-Makers Beat the "Homo Economicus"

"The social nature of man has dramatic implications, both for economic theory and for the way we need to organize our economy," concludes professor Dirk Helbing of ETH Zurich in a recent study. As we are more and more connected with others, the "homo economicus", i.e. the independent decision-maker and perfect egoist, is not anymore an adequate representation or good approximation of human decision-makers. "Reality has changed. We are applying an outdated theory, and that's what makes economic crises more severe," says Helbing.

Outdated theory, outdated institutions

"Social behavior is vulnerable to exploitation by the 'homo economicus'," continues Helbing. In a selfish environment, the 'homo socialis' cannot thrive. In other words, if the settings are not right, the 'homo socialis' behaves the same as the 'homo economicus'. "That's probably why we haven't noticed its existence for a long time," believes Helbing. "Our theories and institutions were tailored to the 'homo economicus', not to the 'homo socialis'."

In fact, many of today's institutions, such as homogeneous markets with anonymous exchange, undermine cooperation in social dilemma situations, i.e. situations in which cooperation would be favorable for everyone, but non-cooperative behavior promises additional benefits. This calls for new institutions.

New institutions for a global information society

In the past we have built public roads, parks and museums, schools, libraries, universities, and free markets on a global scale. What would be suitable institutions for the 21st century? "Reputation systems can transfer the success principles of social communities to our globalized society, the 'global village' ", suggests Helbing. Most people and companies care about reputation. Therefore, reputation systems could support social decision-making and cooperation, with better outcomes for everyone. In fact, reputation systems spread on the Web 2.0 like wildfire. People rate products, sellers, news, everything, be it at amazon, ebay, or trip adviser. We have become a "like it" generation, because we listen to what our friends like.

Importantly, recommender systems should not narrow down socio-diversity, as this is the basis of happiness, innovation and societal resilience. "We don't want to live in a filter bubble, where we don't get an objective picture of the world anymore," says Helbing with reference to Eli Pariser. Therefore, reputation systems should be pluralistic, open, and user-centric. "Pluralistic reputation systems are oriented at the values and quality criteria of individuals," explains Helbing, "rather than recommending what a company's reputation filter thinks is best. Self-determination of the user is central.

"Reputation creates benefits for buyers and sellers," continues Helbing. A recent study shows that good reputation allows sellers to take a higher price, while customers can expect a better service. Reputation systems may also promote better quality as well as socially and environmentally friendly production, suggests Helbing. "This could be a new approach to reach more sustainable production, based on self-regulation rather than enforcement by laws." One day, reputation systems may also be used to create a new kind of money, speculates Helbing.

Benefits of a self-regulating economy

So far, governments try to fix market failures and tragedies of the commons with top-down regulations and punitive institutions. However, such regulatory institutions are very expensive, and often quite ineffective. "Basically all industrialized countries suffer from exploding debts," says Helbing. "I believe we cannot pay for this much longer, we are at the limit. We need a new approach." As Albert Einstein pointed out: "We cannot solve our problems with the same kind of thinking that created them."

"But self-regulation does not mean that everyone can choose the rules he likes," explains Helbing. "It only works with an other-regarding element. The self-regulation rules must be able to achieve a balance between the interests of everyone, who is affected by the externalities of a decision."

This can be illustrated with an example from urban traffic management. "Traffic control is a problem where not everybody's desires can be satisfied immediately and at the same time, like in economic systems. The study compares three kinds of control: A centralized top-down regulation by a traffic center, the classical control approach, and two decentralized control approaches. The first one assumes that each intersection independently minimizes the waiting times of approaching vehicles, as a "homo economicus" would do. The second one decides in an other-regarding way: it interrupts the minimization of waiting times, when this is needed to avoid spill-over effects at neighboring intersections. Helbing summarizes: "The 'homo economicus' approach works well up to a moderate utilization of intersections, but queue lengths get out of control long before the intersection capacity is reached. The bottom-up self-regulation based on the principle of the 'homo socialis' approach beats both, the centralized top-down regulation and the bottom-up self-organization based on principles of the 'homo economicus'. Other-regarding behavior improves the coordination among neighboring intersections. It makes Adam Smith principle of the 'invisible hand' work even at high utilizations."

Economics 2.0: Emergence of a participatory market society

But will such a self-regulating system ever be implemented? Helbing is convinced: "It's already on its way. The Web 2.0, in particular reputation

systems and social media are driving the transition towards a new economy, the economy 2.0.

This will eventually create a participatory market society. "Prosumers", i.e. co-producing consumers, the new "makers" movement, and the sharing economy are some examples illustrating this. "Just think of the success of Wikipedia, Open Streetmap or Github. Open Streetmap now provides the most detailed maps of the world, thanks to more than 1 million volunteers." Helbing stresses: "This is just the beginning of a new era. A new intellectual framework is emerging, and a creative and participatory era is ahead.

Further Information:

D. Helbing (2013) Economics 2.0: The Natural step towards a self-regulating, participatory market society, Evolutionary and Institutional Economics Review **ADD DETAILS**, see <http://arxiv.org/abs/1305.4078> and the video at <https://www.youtube.com/watch?v=ZHYxMHm4t6U>