



COMPLEXITY
SCIENCE
HUB
VIENNA

CSH WORKSHOP AGENDA

EVOLUTION OF SOCIAL COMPLEXITY

October 2-3, 2017

COMPLEXITY SCIENCE HUB VIENNA
ROOM E05
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Abstract

Over the past 10,000 years human societies evolved from “simple” – small egalitarian groups, integrated by face-to-face interactions – to “complex” – huge anonymous societies of millions, characterized by great differentials in wealth and power, extensive division of labor, elaborate governance structures, and sophisticated information systems. Social complexity, however, is a characteristic that has proven difficult to conceptualize and quantify. Many researchers argue that there is no single dimension along which social complexity can be measured; there must be multiple dimensions or variable manifestations of complexity. Another common view is that different societies have unique histories and cannot be meaningfully compared in this way.

This workshop will bring together researchers from a variety of disciplinary backgrounds to discuss the following questions: Can we measure Social Complexity? How many dimensions does it have? Can results from a recent analysis of 400 societies in Seshat: Global History Databank throw light on these questions? Assuming we can quantify it, what were the evolutionary forces that explain the dramatic increase in Social Complexity over the past 10,000 years? And, finally, is there a downside to complexity—are overly complex societies unstable and vulnerable to collapse?

Workshop Organizer

Peter Turchin, University of Connecticut; External Faculty, Complexity Science Hub Vienna

ABOUT THE COMPLEXITY SCIENCE HUB VIENNA

The objective of CSH is to host, educate, and inspire complex systems scientists who are dedicated to collect, handle, aggregate, and make sense of big data in ways that are directly valuable for science and society. Focus areas include smart cities, innovation dynamics, medical, social, ecological, and economic systems. CSH is a joint initiative of AIT Austrian Institute of Technology, IIASA International Institute for Applied Systems Analysis, Medical University of Vienna, Vienna University of Technology, Graz University of Technology, and Vienna University of Economics and Business.

AGENDA

October 2

- 09:00 Welcome & Introduction
- Stefan Thurner, Complexity Science Hub Vienna
 - Peter Turchin, University of Connecticut, Complexity Science Hub Vienna
- 09:20 Archaeological Perspectives on the Evolution of Social Complexity
- Gary Feinman, Fieldmuseum Chicago
 - Sander van der Leeuw, Arizona State University
- 10:20 Coffee break
- 10:40 Discussion of Archaeological Perspectives
- 12:00 Lunch break
- 13:00 The Big Data Perspective on the Evolution of Social Complexity
- Dan Hoyer, Evolution Institute, San Antonio
 - Peter Turchin, University of Connecticut, CSH
- 14:00 Discussion of the Big Data Perspective
- 15:00 Tea Break
- 15:30 Social Complexity in Large-Scale Empires: Concepts, Modeling, Measurements and Comparisons
- Johannes Preiser-Kapeller, Austrian Academy of Sciences
 - Maxim Romanov, University of Vienna
- 16:30 Discussion of Historical Perspectives
- 17:30 Adjourn

October 3

- 9:00 Perspectives on Social Complexity from Sociology, Social Science Computation, and Social Networks
- Claudio Cioffi-Revilla, George Mason University
 - David Garcia, Complexity Science Hub Vienna
 - Gergely Palla, Eötvös University
- 10:10 Coffee break
- 10:30 Discussion
- 12:00 Lunch Break
- 13:00 General Discussion: Setting the agenda for research into the evolution of social complexity
(We might also schedule additional short presentation during this period, if the need arises)
- 15:00 Tea break
- 15:10 Discussion continues
- 16:30 Adjourn

The workshop is kindly supported by