Cultural Evolution

Cultural Evolution is one of the most recent and interesting approaches to the crucial task of understanding

how society works. The aim of this initiative is to develop a unified framework capable of understanding cultural change beyond the knowledge of any single discipline.

Summary

Culture is arguably the most important tool that humans can use. We can use it to communicate, cooperate and transmit any kind of knowledge. However, how does it work? What makes an innovation fail or spread? How does society affect individual thinking?

These are only some of the questions that have been explored by the social sciences and humanities since their beginnings. Cultural Evolution is one of the most recent and interesting approaches to the crucial task of understanding how society works. It uses formal models and computer simulations to explore the complexity of cultural change: from the interaction between individuals to large-scale dynamics.

However, data on cultural change is difficult to collect and analyse. Beyond short-term studies based on current social networks we need a larger scope if we want to understand human dynamics. Historical and archaeological data are the best knowledge available for the task, but the information they provide has several issues including uncertainty and fragmentation. We combine data science with knowledge from the past in oder to improve our understanding of these long-term human dynamics.

Objectives

- To develop computer models of cultural change.
- To understand long-term cultural dynamics using archaeological and historical data.
- To create new data science methods and tools designed to analyse evolution.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

---