

# Cooperation in Historical Dynamics. An Overview

- Research streams
- Results of the sub-projects:
  - historical analysis
  - DATA SETS and GIS accomplishments
- General conclusions and Future possible contributions

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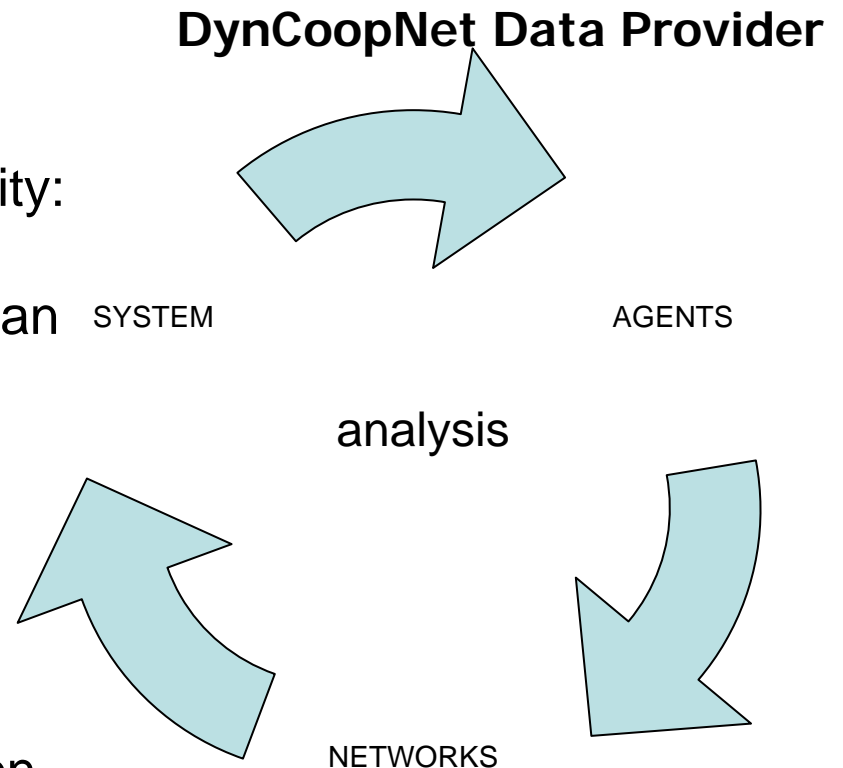
High-Spanish Council of Research  
CCHS-CSIC

# Agents, social actors, merchant Communities in a Complex System

- HISTORICAL DATA = Information about social agents.
- Human network historical community: analysis in time and space.
- Historic DATA architecture on human cooperation available to scientific community.

GIS tools and Historical analysis:

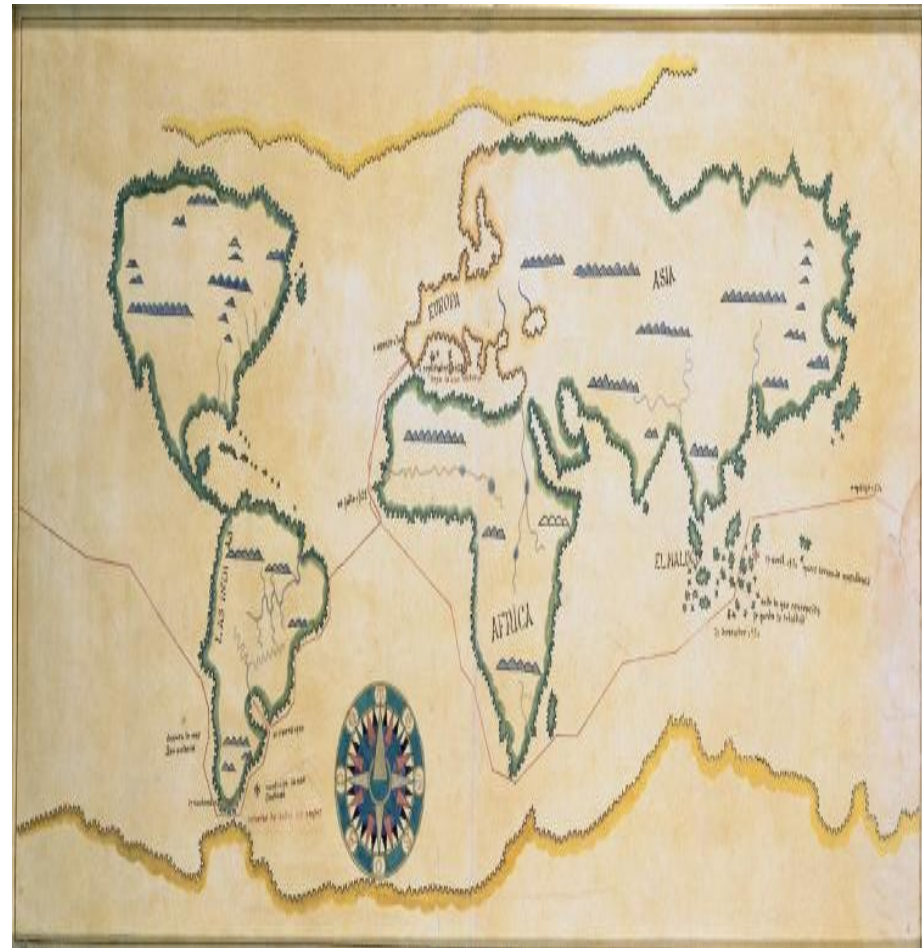
- Building a Geo-Sociology of cooperation in its historical evolution.



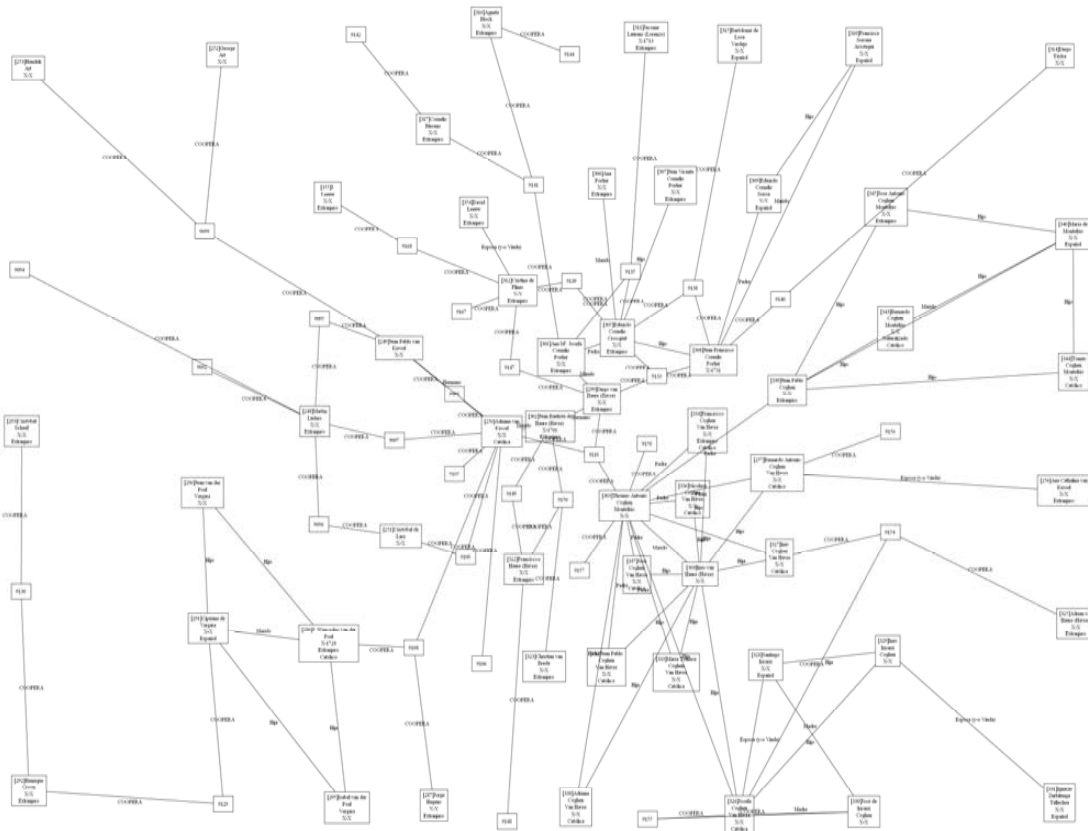
# Three scientific goals:

- Creation of data sets to support analysis of cooperation (social agents and trading networks)
- Spatia-temporal GIS and mathematical expressions
- Internet publications of DATA SET= DataSharing
- Problems of the CRP, which has been superated:
  - 1. Planet-Wide team
  - 2. Budget cuts
  - 3. commons efforts for interdisciplinarity.

- European Expansion (XVth –XIXth): human behaviour on new “Social environments”
- Mercantile societies
  - Port cities /maritimes trade / routes: integration of distant geographic spaces.
  - Commercial and financial activities: cooperation and competition in historical evolution.
  - Densification of human networks and population growth = complex networks

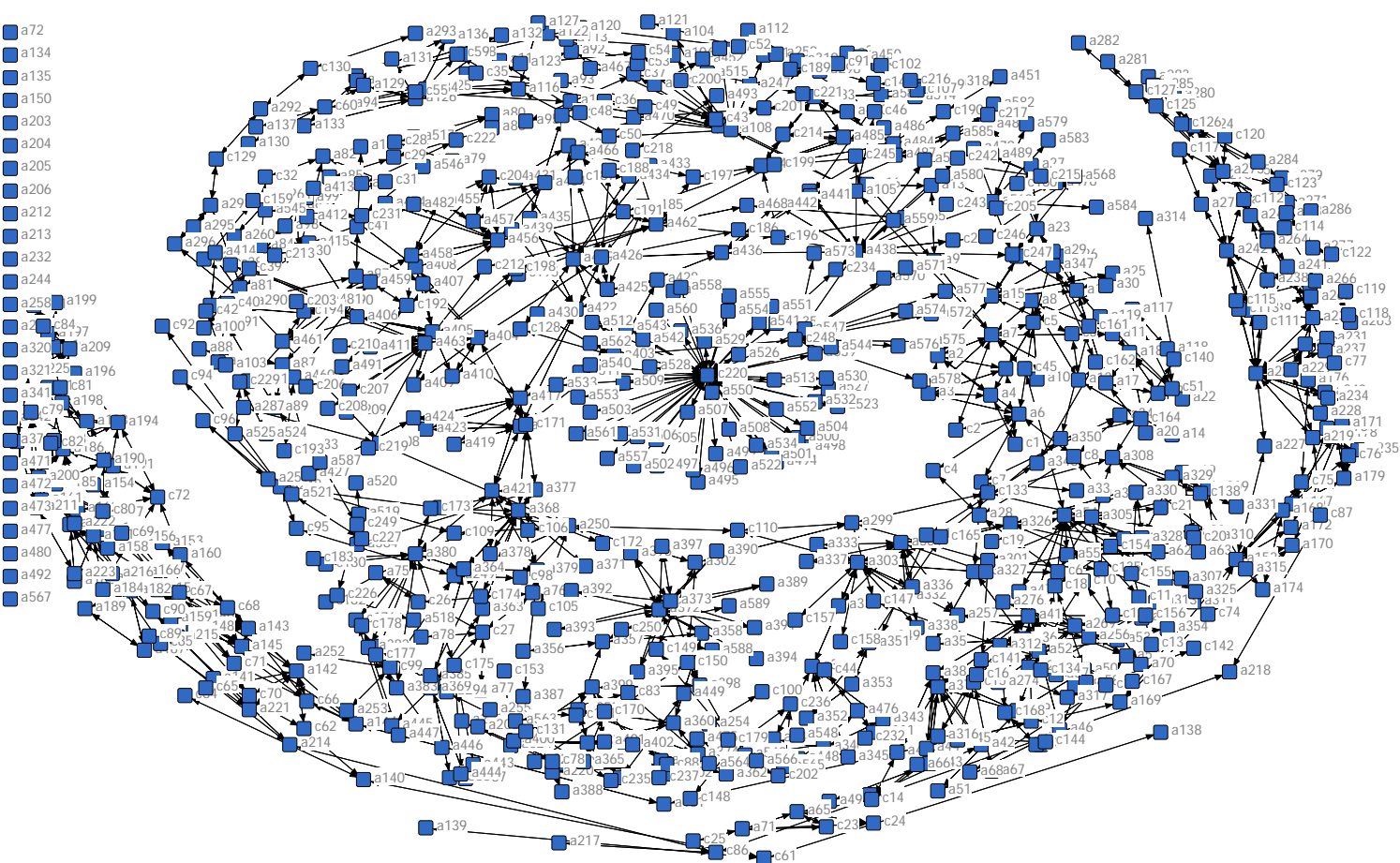


# Mechanisms of cooperation



- Data collected from historical sources
- DATA SETS implemented and integrated in DynCoopNet Data model.
- Examples of analyses to explain ways of cooperation: Extracted models
- Some results

# Network created with data of commercial families



- Analysis of the evolutionary process of the system's network
- Identification of system's areas/economic region
- Evolution of spatial perception /influence of cartography
- Comparison among systems around trade routes (Atlantic, Indo-Pacific)
- Comparison between commercial activities (privateering versus monopolistic systems?)
- Merchant's behaviour
- Mercantile network (social, institutional, political, religious, cultural)
- Transfer of opinion and information
- Comparative model for the study of cooperation in social evolution with empirical data
- Ways to trade /operation in markets
- Analysis of network structures in the long term

# Collaborative Research Project

- Teams in Portugal, Spain, Usa, India and APs and CPs in Europe, Africa and America.
- DATA SETS: with a integrated data model
- Representativity by team and cooperation between groups: three main ways.
  - 1. implementation of joint science meeting (Porto, Madrid).
  - 2. submission of joint publications
  - 3. cooperation on laboratory reseach

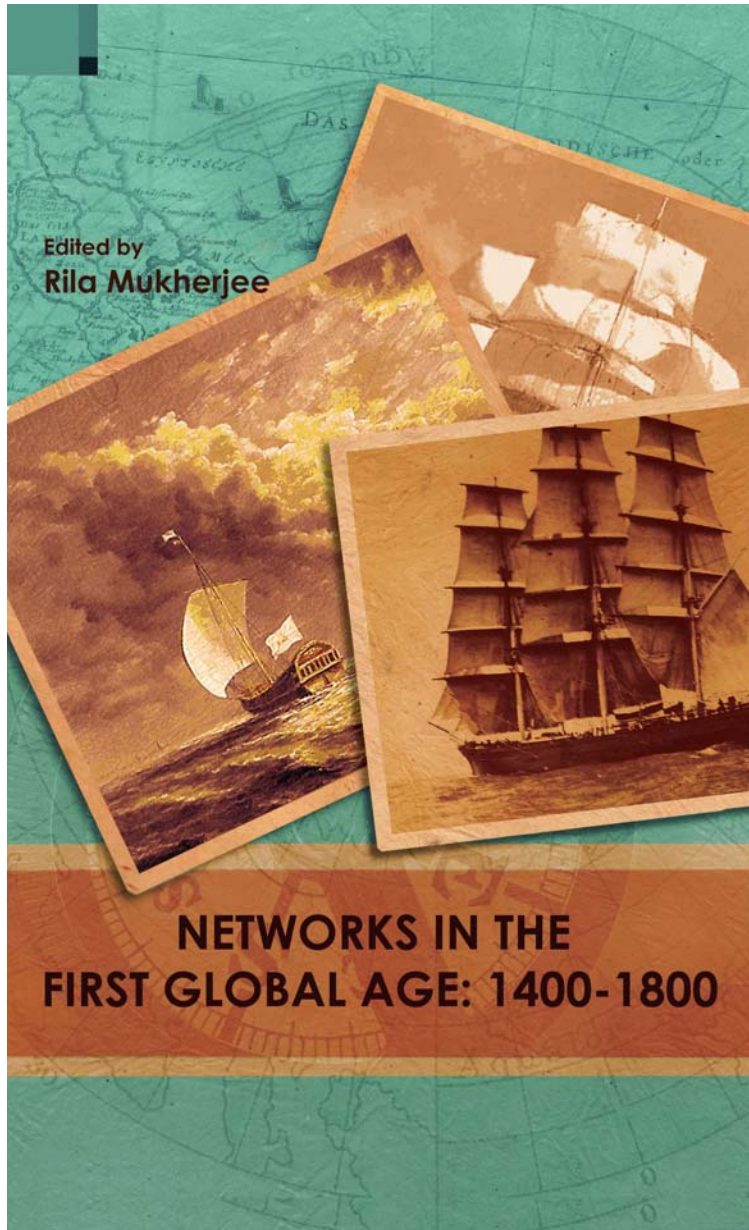


# Master's Degree Program in Geographically-Integrated History



- New research line within an innovative theoretical framework: Geographically Integrated History
- DynCoopNet publications about Global Systems:
- Owens, (2005, 2007)
- Mukherjee, book about networks in the first global age (2010)
- Picazo (two e-books about Trade in the Pacific, 2010)
- Other publications ([more that 200 quoted in Final Report](#))

## Collective works:



Forthcoming:

Alonso & Crespo (eds.)

**Self-Organising Networks and  
Trading Cooperation:**

**GIS tools in the visualization of the  
Atlantic Economic expansion. (1400-1800)**

Polytechnic University Team:

## TECHNOLOGICAL CONTRIBUTION TO THE COOPERATION RESEARCH IN THE DYNCOOPNET PROJECT FRAMEWORK

1. Design of a spatio-temporal GIS (experimentation with the Slavevoyage Database, temporal analysis and dynamic visualization tools)
2. Compilation of available bibliography concerning the issue of temporal GIS
3. A prototype of spatio-temporal analysis and dynamic visualization of data in a GIS (UML designed data model)



Polytechnic University Team:



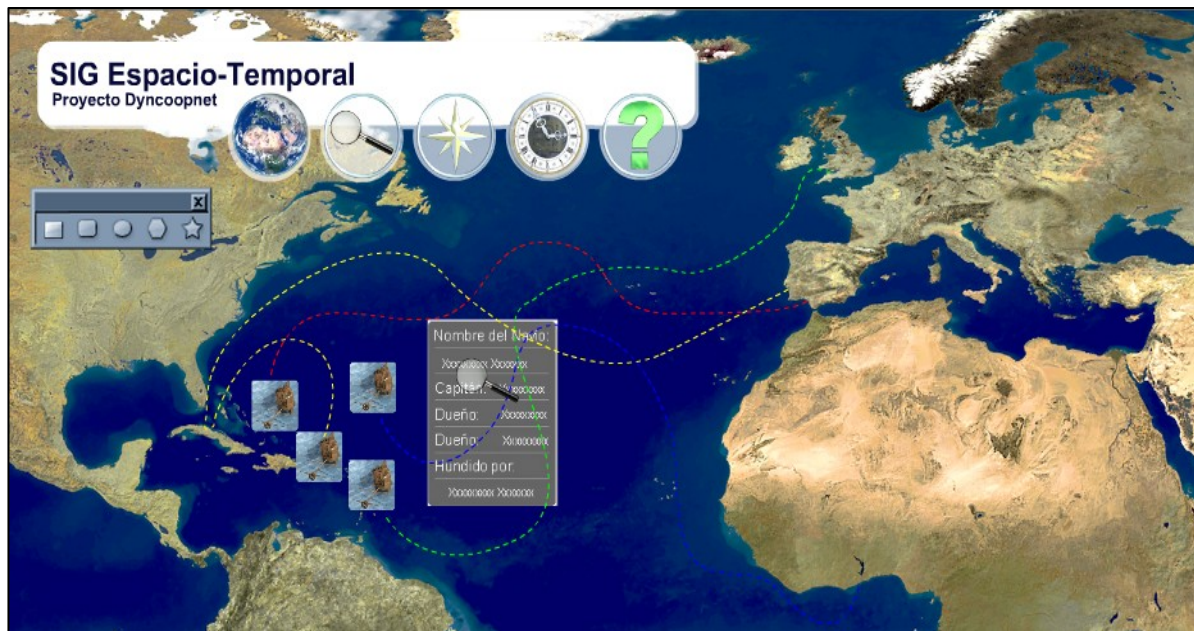
## TECHNOLOGICAL CONTRIBUTION TO THE COOPERATION RESEARCH IN THE DYNCOOPNET PROJECT FRAMEWORK

Other objectives:

1. creation of a Virtual Historical Map based on the OGC Standards

<http://www.dyncoopnet.eu/cartoteca>

2. development of tools for the organization and visualisation of geospatial historical data (Gertrude visualizer prototype)



- Articles: 31
- Contributions to international conferences and presentation in scientific meetings: 132
- Organization of workshops, seminars and general meetings (more than 30, with four that were founded by TECT)
- Posters: 6
- Book reviews, encyclopedias, entries and book chapters: 86
- Books as editors and as authors

- CRP –related website:
- <https://campusvirtual.ucm.es/SCRIPT/>
- <http://ptolomeu.fl.uc.pt/>
- <http://www.dyncoopnet-pt.org/>
- <http://idahostate.academia.edu/JBJackOwens/Papers>
- <http://csic.academia.edu/AnaCrespoSolana>
- <http://dyncoopnet.eu/>
- <http://digitalcsic.es> (Instituto de Historia)

- Other dissemination activities:
- Promotion of PhD and post-doc programmes
- Two joint scientific meetings (Madrid and Porto)
- Different Data sets produced

## What about the future?

- ❖ Research in Dynamic spatio-temporal GIS
- ❖ integrate historical Datasets into the Data model
- ❖ new funding proposals to obtain more resources is Needed in order to continue with research on integration of historical data sets into a Dynamic GIS
- ❖ new form to understanding the discipline of History:

**Visualization of historical process: will make possible  
New prototypes of analysis**