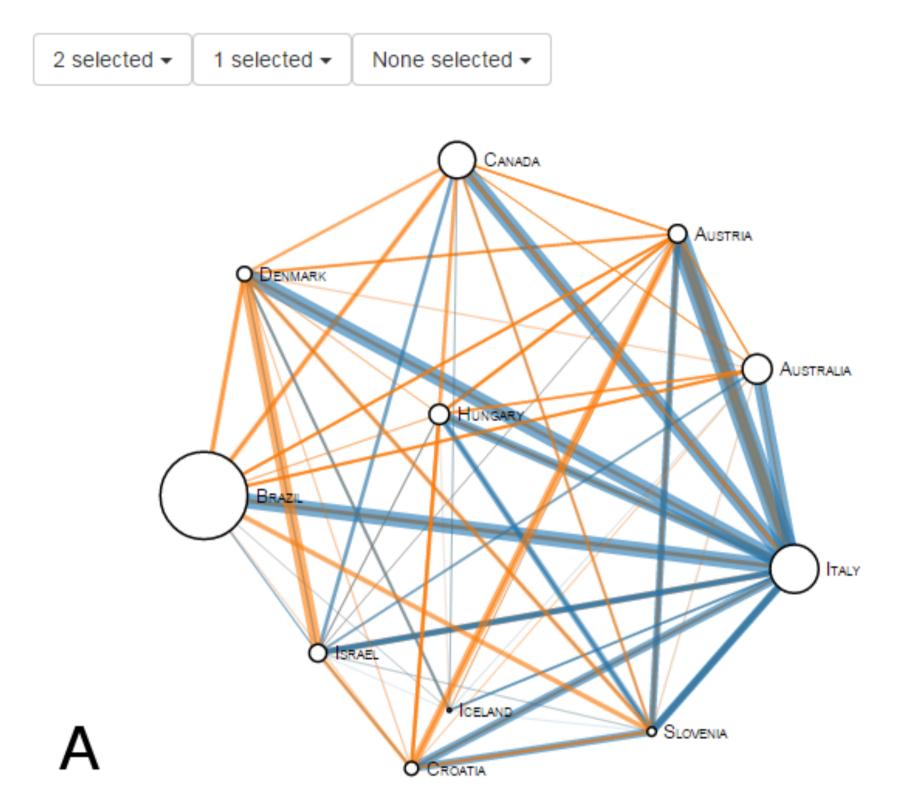
## MultiNets: Web-based multilayer network visualization

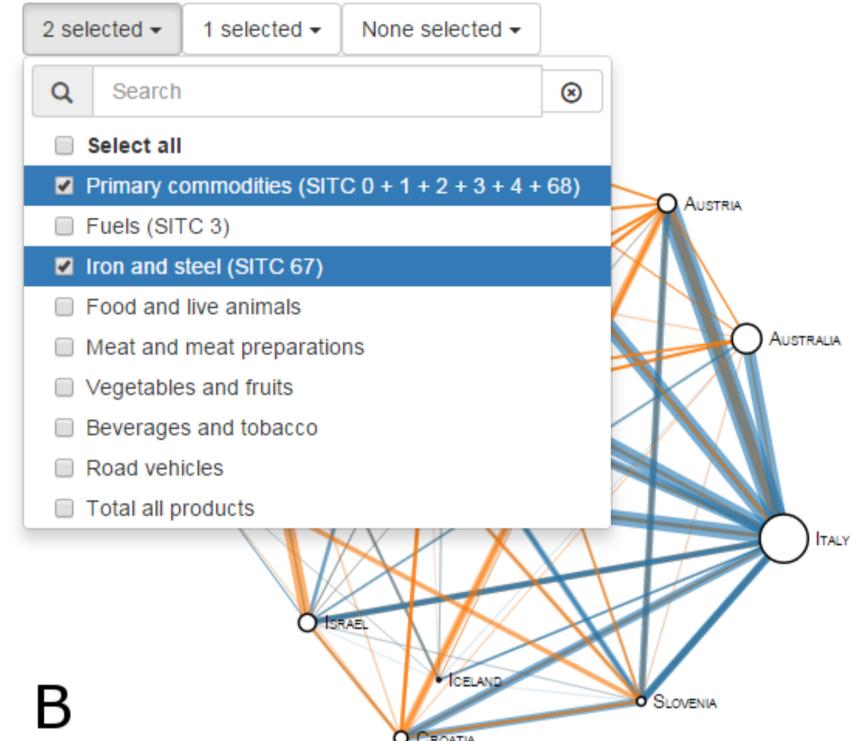
## Matija Piškorec<sup>1</sup>, Borut Sluban<sup>2</sup>, Tomislav Šmuc<sup>1</sup>

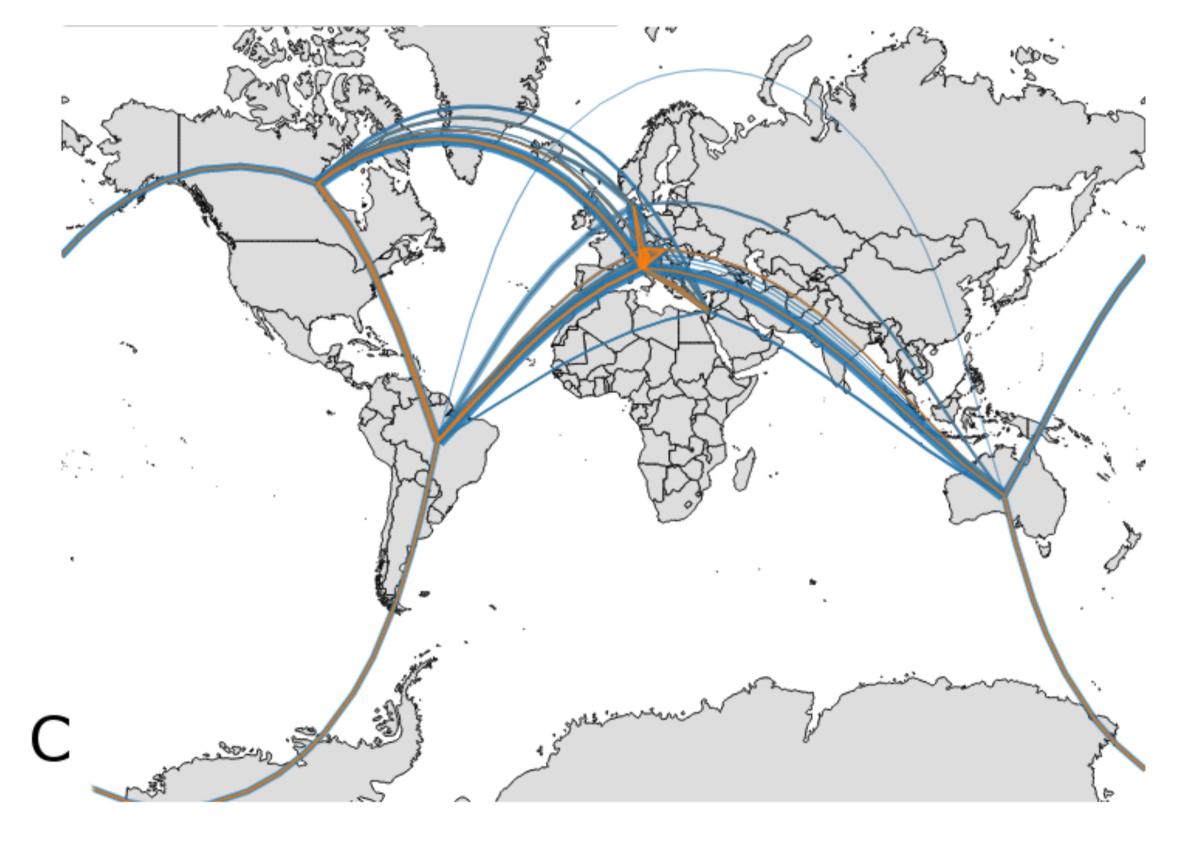
<sup>1</sup> Laboratory for Information Systems, Ruđer Bošković Institute, Croatia <sup>2</sup> Jožef Stefan Institute, Ljubljana, Slovenia

MultiNets is a Javascript library that provides reusable HTML components with functions for loading, manipulation and visualization of multilayered networks. These components can be easily incorporated into any web page, and they allow users to perform exploratory analysis of multilayer networks and prepare publication quality network visualizations. MultiNets components are easily extendable to provide custom-based visualizations, such as embedding networks on geographical maps, and can be used for building complex web-based graphical user interfaces for data mining services that operate on multilayered networks and multirelational data in general.

HTML snippet which generates multilayer network visualization and a menu for selecting layers. Multinets also provides components for loading network data from the server and the user, printing retrieved data, and embedding multilayer network into geographical map.







Visualization of the multilayer network of trade relations between countries. Sizes of the nodes are proportional to the population of each countries, colors of the connections correspond to various products and their thickness to the total trading volume. Other mappings from data to visual elements can be easily defined by modifying the existing components.

Menu for selecting various aspects of the multilayer network, in this case the products traded between the countries. Multiple layers can be selected at once. Geographical embedding of the given multilayer network. Users can extend MultiNets to provide similar embeddings for their specific domains.



Are you a researcher interested in using the Multinets tool or collaboration in general? We would like to hear from you.



Contact us on:

matija.piskorec@irb.hr



For more information, visit:



http://matijapiskorec.github.io/multinets/