Resource Summary Report

Generated by <u>NIF</u> on May 20, 2025

SocioPatterns

RRID:SCR_005739 Type: Tool

Proper Citation

SocioPatterns (RRID:SCR_005739)

Resource Information

URL: http://www.sociopatterns.org/

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Description: SocioPatterns is an interdisciplinary research collaboration that adopts datadriven methodology with the aim of uncovering fundamental patterns in social dynamics and coordinated human activity. To achieve its scientific goals, the SocioPatterns collaboration also contributes to the development of new technologies for collecting relevant data. In particular, the collaboration supports the development of the SocioPatterns sensing platform, which uses wireless wearable sensors to gather longitudinal data on human mobility and face-to-face proximity in real-world environments. The SocioPatterns team also works on developing tools and techniques to represent, analyze and visualize the collected data. We increasingly use digital media and computational devices in our daily activities, and leave behind a sizable amount of digital traces while doing so. The proliferation of mobile devices, and the incorporation of various sensing technologies in these devices, will further add to this growing trail of data. The possibility to mine and analyze these data, and the scale at which this can be done on contemporary computer systems, affords a novel, data-driven approach in the investigation of various aspects of human behavior. The following collection of datasets obtained through the SocioPatterns sensing platform are available: * Infectious SocioPatterns dynamic contact networks * Hypertext 2009 dynamic contact network * Primary school cumulative networks * Infectious SocioPatterns

Abbreviations: SocioPatterns

Synonyms: Socio Patterns

Resource Type: service resource, production service resource, material service resource, instrument manufacture, portal, data or information resource

Keywords: social dynamics, human activity, sensor, human mobility, face-to-face proximity, contact network, infectious disease, child, early human

Funding: Institute for Scientific Interchange Foundation ; CNRS

Resource Name: SocioPatterns

Resource ID: SCR_005739

Alternate IDs: nlx_149199

Record Creation Time: 20220129T080232+0000

Record Last Update: 20250519T203416+0000

Ratings and Alerts

No rating or validation information has been found for SocioPatterns.

No alerts have been found for SocioPatterns.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 62 mentions in open access literature.

Listed below are recent publications. The full list is available at <u>NIF</u>.

Casiraghi G, et al. (2025) Empirical networks are sparse: Enhancing multiedge models with zero-inflation. PNAS nexus, 4(1), pgaf001.

Arregui-García B, et al. (2024) Patterns in Temporal Networks with Higher-Order Egocentric Structures. Entropy (Basel, Switzerland), 26(3).

Dall'Amico L, et al. (2024) An embedding-based distance for temporal graphs. Nature communications, 15(1), 9954.

Gallo L, et al. (2024) Higher-order correlations reveal complex memory in temporal hypergraphs. Nature communications, 15(1), 4754.

Aguolu OG, et al. (2024) Comprehensive profiling of social mixing patterns in resource poor countries: A mixed methods research protocol. PloS one, 19(6), e0301638.

Contreras DA, et al. (2024) Infection patterns in simple and complex contagion processes on networks. PLoS computational biology, 20(6), e1012206.

Dall'Amico L, et al. (2024) Estimating household contact matrices structure from easily collectable metadata. PloS one, 19(3), e0296810.

Badalyan A, et al. (2024) Structure and inference in hypergraphs with node attributes. Nature communications, 15(1), 7073.

Neal ZP, et al. (2024) How strong is strong? The challenge of interpreting network edge weights. PloS one, 19(10), e0311614.

St-Onge G, et al. (2024) Nonlinear bias toward complex contagion in uncertain transmission settings. Proceedings of the National Academy of Sciences of the United States of America, 121(1), e2312202121.

Mancastroppa M, et al. (2023) Hyper-cores promote localization and efficient seeding in higher-order processes. Nature communications, 14(1), 6223.

Ceria A, et al. (2023) Temporal-topological properties of higher-order evolving networks. Scientific reports, 13(1), 5885.

Sheng A, et al. (2023) Evolutionary dynamics on sequential temporal networks. PLoS computational biology, 19(8), e1011333.

Bhaumik J, et al. (2023) Fixation probability in evolutionary dynamics on switching temporal networks. Journal of mathematical biology, 87(5), 64.

Aguolu OG, et al. (2023) Comprehensive profiling of social mixing patterns in resource poor countries: a mixed methods research protocol. medRxiv : the preprint server for health sciences.

Sheng A, et al. (2023) Constructing temporal networks with bursty activity patterns. Nature communications, 14(1), 7311.

Campajola C, et al. (2022) Modelling time-varying interactions in complex systems: the Score Driven Kinetic Ising Model. Scientific reports, 12(1), 19339.

Tamarit I, et al. (2022) Beyond Dunbar circles: a continuous description of social relationships and resource allocation. Scientific reports, 12(1), 2287.

Bassolas A, et al. (2022) Mapping nonlocal relationships between metadata and network structure with metadata-dependent encoding of random walks. Science advances, 8(43), eabn7558.

Cencetti G, et al. (2021) Digital proximity tracing on empirical contact networks for pandemic

control. Nature communications, 12(1), 1655.