Exploring Ontology-based Design Interactions for Sustainability Research

A workshop with Dr. Greta Adamo and Dr. Max Willis



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Contemporary social-ecological systems (SESs) research:

Adamo, G., Willis, M. (2023) The omnipresent role of technology in social-ecological systems: ontological discuss Information Science: Information Science and the Connected World. RCIS 2023. LNBIP, vol. 476, pp. 87–102. Springer

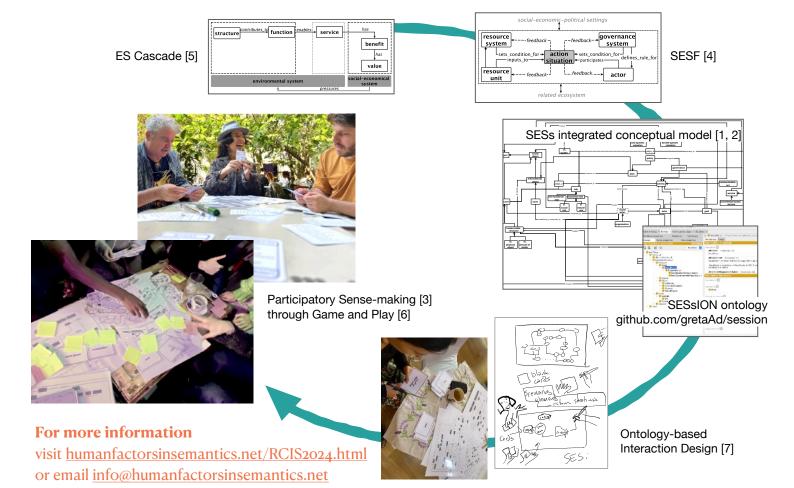
De Jaegher, H., Di Paolo, E.: Participator McGinnis, M.D., Ostrom, E. (2014) Social-

Potschin, M., Haines-Young, R., et al. (2016) Stenros, J. (2014) In defence of a magic circ Willis, M. & Adamo, G. (2024) Ontology-base

- I. supports policy and decision-making to tackle social and environmental sustainability;
- II. requires inter- and transdisciplinary communication and multistakeholder synergy;
- III. employs various knowledge frameworks to describe and understand SESs, such as Ecosystem Services (ES) Cascade [5] and Social-ecological System Framework (SESF) [4]

However, different frameworks produce different kinds of data, information and knowledge, which leads to interoperability issues and difficulties comparing and integrating cross-domain research outcomes.

This half-day workshop explores the integration of SESs knowledge frameworks using **conceptual modelling, applied ontologies**, and **Interaction Design** to clarify notions, align perspectives, negotiate terminologies and navigate the semantics of sustainability research in collaborative settings. Together we will examine **sustainable SESs management** and **climate change risk** scenarios, experimenting with interaction *scripts* based on game and play methods, and experience first-hand the potentials, and challenges of ontology-based participatory sense-making for knowledge co-production.



In: Research Challenges in Information Science. RCIS 2022. LNBIP, vol. 446, pp. 321–337. Springer

al cognition. Phenomenolgy and Cognitive Science 6, 485–507 (2007) and continuing challenges. Ecology and Society. 19(2), 1–28 In: Routledge Handbook of Ecosystem Services, pp. 25–44 es of play. Transactions of the Digital Games Research Association. 1(2), 1–39 ystems research. In: Research Challenges in Information Science; RCIS 2024