

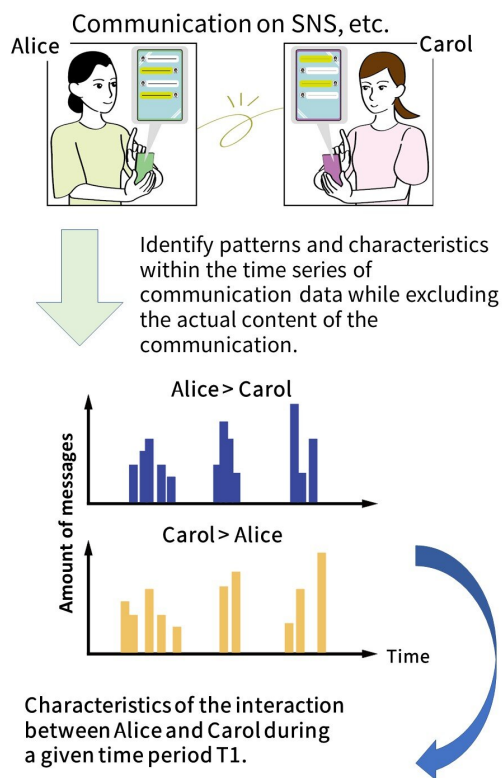
Abstract

Our aim is to create a system that allows anyone, even those without specialized knowledge, to understand their social relationships easily and safely. In this exhibition, we demonstrate a framework that securely visualizes an individual's social relationships. In the proposed framework, data on the temporal characteristics of a person's social media interactions are extracted and stored in a decentralized way using Web3 technology. By utilizing the stored data, a user of this framework can leverage the dynamic patterns in these interactions to visualize her/his social relationships. The proposed framework simplifies the handling of intricate and dynamically changing human relationships, paving the way for personalized social relationships tailored to each individual. By supporting the autonomous formation of social bonds that contribute to well-being, we believe our system will foster novel local community structures and/or diversified family practices.

Social Relationship Platform

- A data platform that records and visualizes human social relationships using time-series data from different interactions, including social media.
- Expected to support various approaches to childcare and help revitalize local communities.

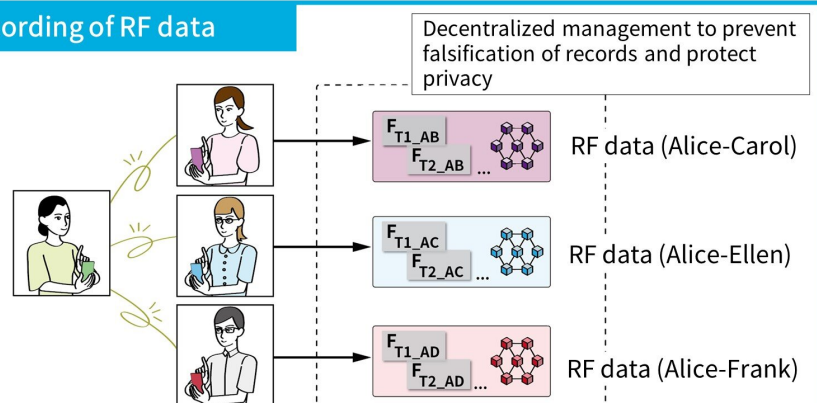
Generating relational feature (RF) data



$$F_{T1_AB} = (a1, b1, c1, \dots)$$

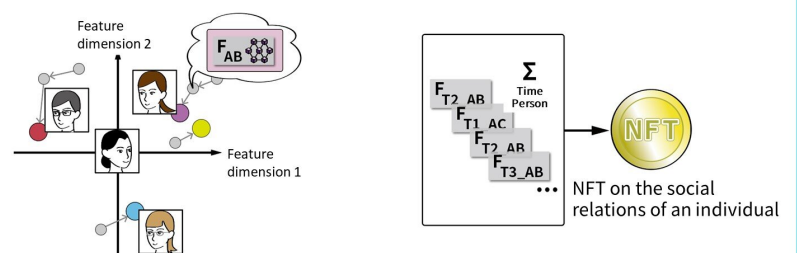
- Who initiated the communication? (a1)
- What is the average rate of communication? (b1)
- What is the average response time? (c1)

Recording of RF data



- Secure decentralized data management on relationship between individuals utilizing Web3 technologies like blockchain.

Utilization of RF data



Visualization of social relationships

Tokenizing RF data as NFTs

- Supporting the autonomous construction of social relationships contributing to well-being through appropriate visualization of RF data
- Transforming RF data into NFTs would enable quantitative evaluation and socialization of the value of social relationships.

References

[1] J. Kishigami, S. Ohashi, N. Maeda, S. Fujimura, A. Nakadaira, "An Analysis Between SNS and Social Capital Types in Japan," in *Proc. Human Choice and Digital by Default: Autonomy vs Digital Determination (HCC 2022)*, 2022.

Contact

Kazushi Maruya, Sensory Representation Research Group, Human Information Science Laboratory