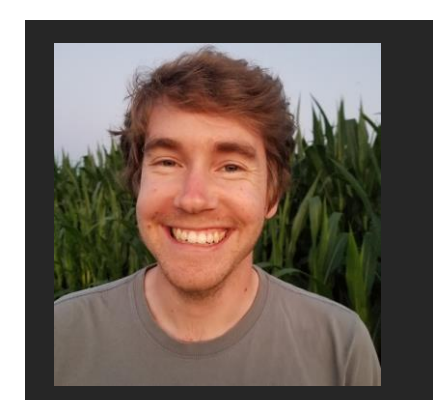


A Census of Human Need:
 Developing a Community Informatics Platform to Systematically Assess Human Need and Satisfaction



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BACKGROUND: We currently optimize measures of human progress that ignore the human condition (GDP), or that inappropriately quantify tradeoffs between different aspects of the lived experience (gross national happiness). Policymakers lack a clear direction for improving the social systems they nurture. Academics argue about intuited theories of need. A large scale, participatory needs measurement system could help us better understand the human condition, and take steps to improve it.

PROPOSED METHODOLOGY

1. Develop an interface for systematically collecting information about individual need and satisfaction (relationships between needs and satisfiers, perceived need and satisfaction, financial/environmental cost of satisfaction, etc.).
2. Represent needs and 'satisfiers' in a bipartite network structure.
3. Aggregate individual 'need nets' into a multi-layer network at the desired level of analysis (household, school, city, state, country, planet).
4. Identify patterns of unsatisfied need, and discover solutions by comparing networks from different regions of the world.

OTHER POTENTIAL USES

- Improve need-literacy in a society, providing a system for reflection on life improvement and behavior change to better satisfy individual need in a community.
- Map out dependencies between organizational membership and need satisfaction.
- Unify existing theories of need with empirical data

How could we systematically assess human need and satisfaction across a society?

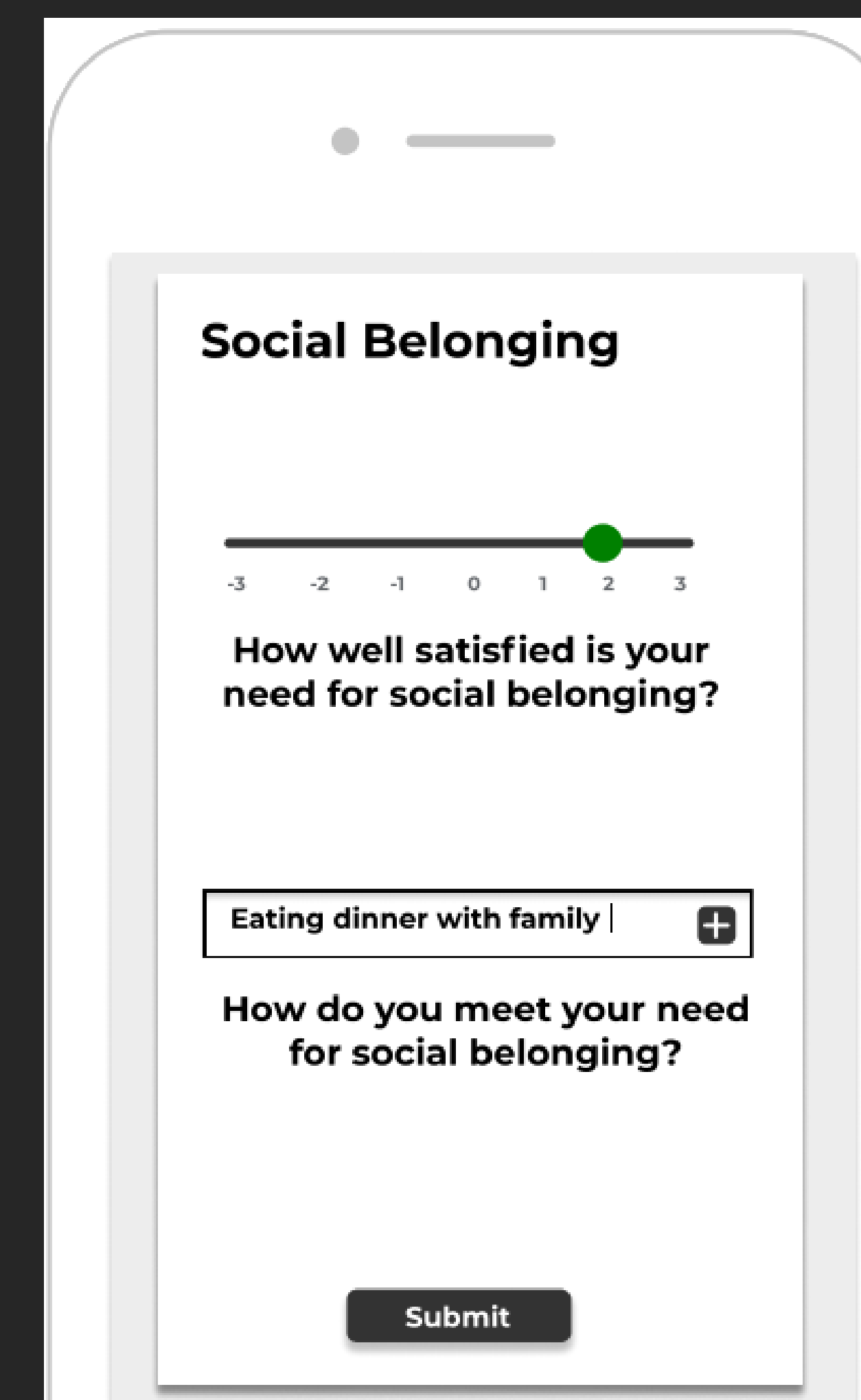
Combine three elements:

1) Psychological theories of need



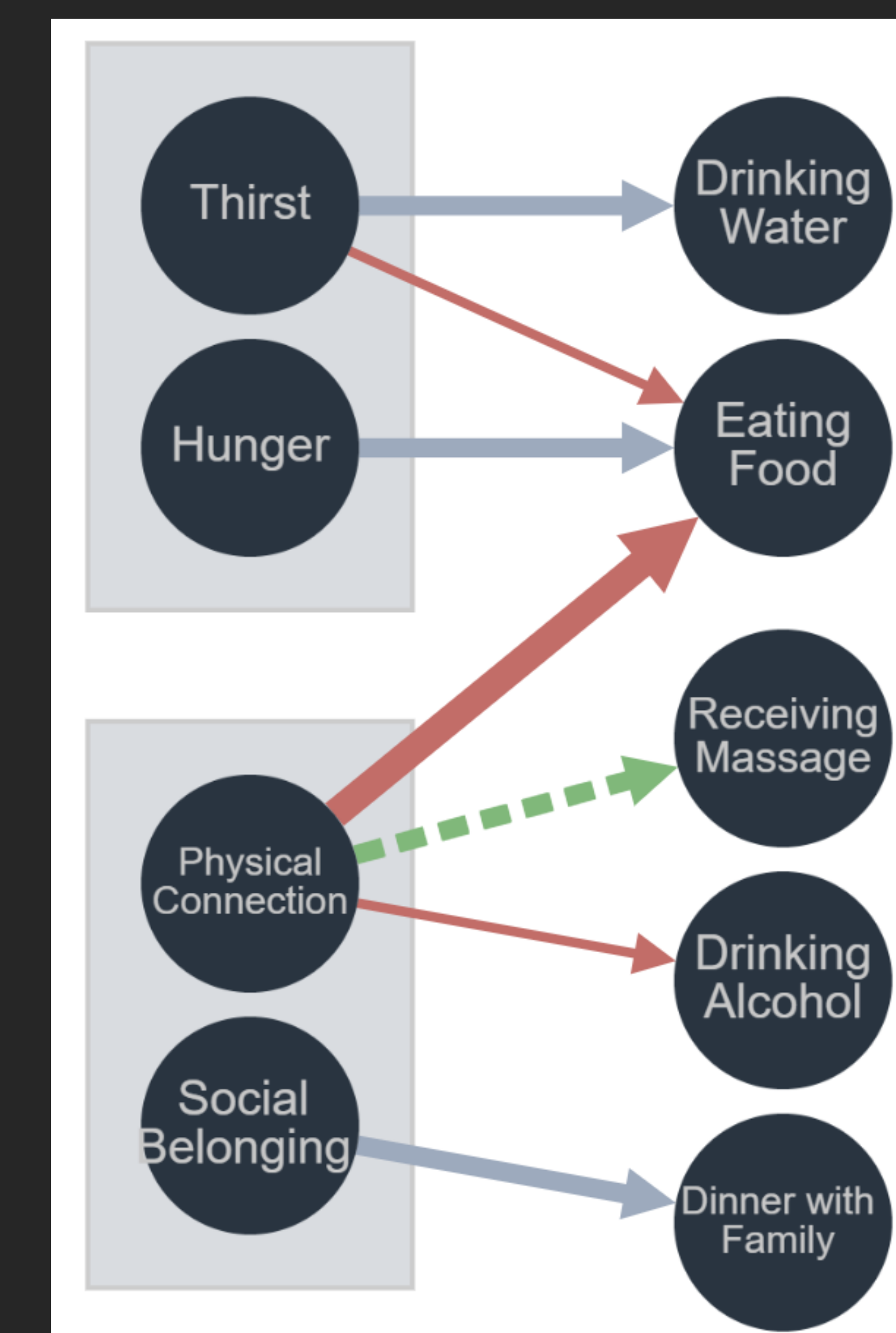
Maslow's Hierarchy of Needs (one of many theories of need)

2) Personal Informatics Interfaces



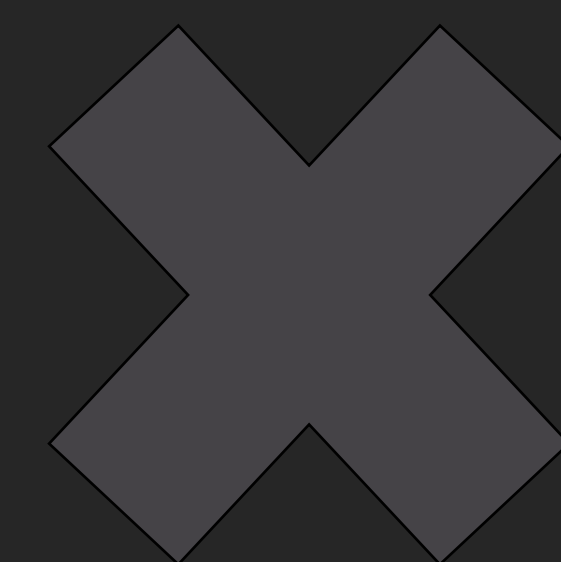
Application for experience sampling

3) Intra-individual ego network data structures

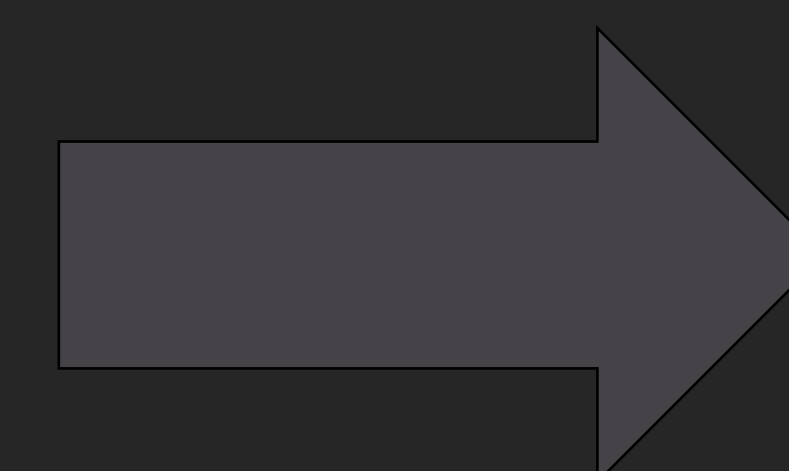


Bipartite network structure enables aggregation into a multi-layer network

And scale!



Collect need and satisfaction information from diverse groups



Aggregate network layers and analyze to improve policy

