

Open Engineering Center

[Open Engineering, Solve Latent Issues]

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OPEN ENGINEERING, SOLVE LATENT ISSUES

From a declining population in developed countries to instant access to information worldwide, the possibilities and challenges we face in the 21st century are unlike anything the human race has experienced in its entire history. Among the many challenges we face, there are issues that we are not fully aware of yet, and that can have an enormous negative impact if left unattended. We call these types of challenges “latent issues”.

The goal of the Open Engineering Center is to identify or predict these latent issues and use the open engineering concept based on open discussion and collaboration with a variety of stakeholders to address these problems before they fully develop. Furthermore, through this process, we will actively contribute to the democratization of technology (in the sense that not only certain people will benefit from it).

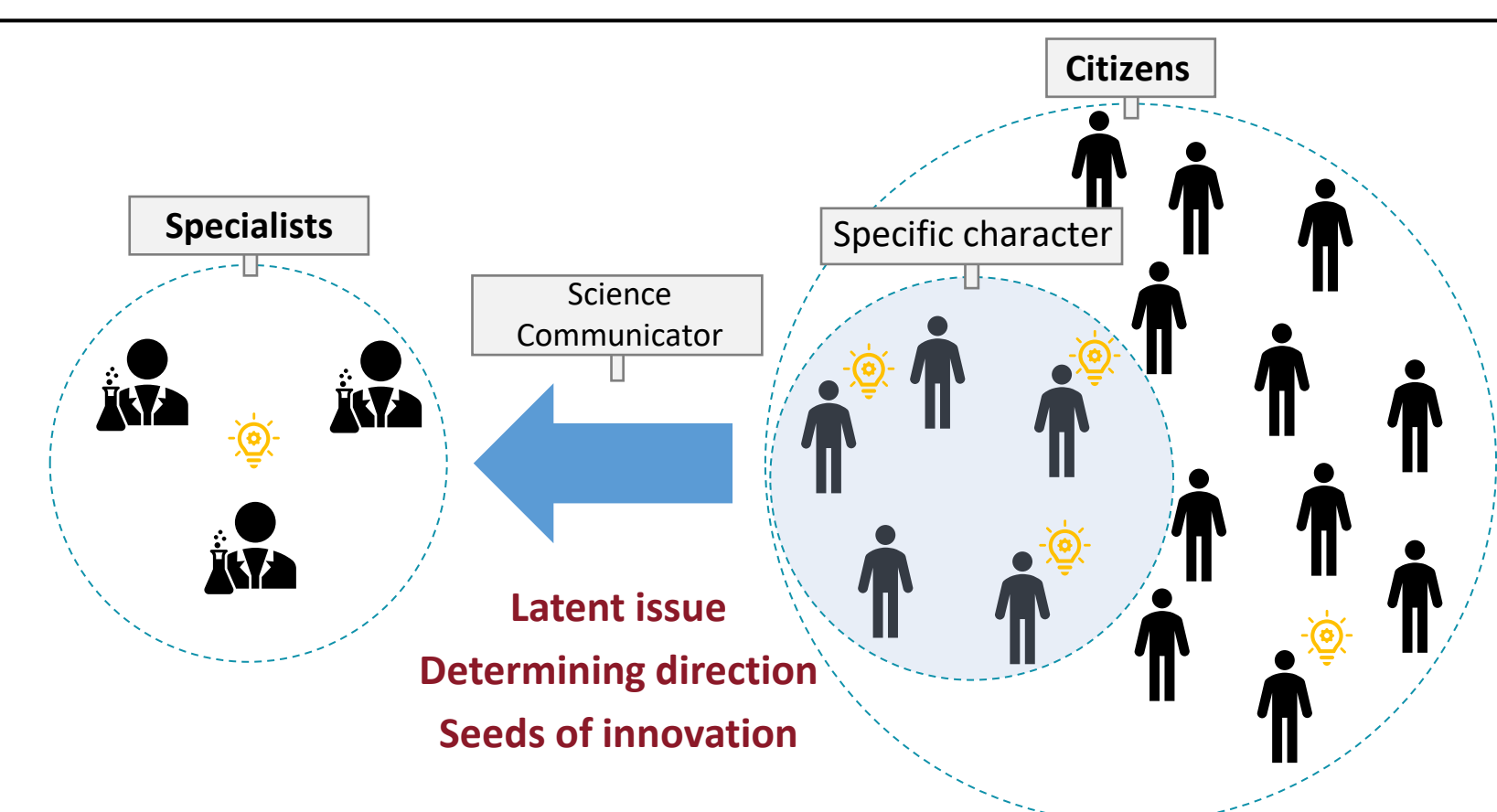
SIX PARALLEL INITIATIVES

Methodological Study of Open Engineering

Systematize methodologies for creating collaboration toward the engineering by typifying forms of collaboration inside and outside the profession.

Minority Research

- (1) Through surveys of groups with specific characteristics (or who are sensitive to specific issues), we will extract latent issues that have not yet been manifested in the whole society or in other groups.
- (2) Extract the direction of the solution that citizens truly desire and the seeds of innovation from the process of discussion by the people concerned.



Fringe Research

We will extract latent issues through surveys of fringe areas where social issues are likely to emerge.

- (1) Leading place: where social changes have emerged ahead of others.
- (2) Interface: where different climatic zones, plates, communities collide.
- (3) Polar: extreme environments, where extreme weather occurs.



(1) Surveys in areas with low population density
Fig. A landscape of Ayakawa Town, Kagawa Pref.



(2) Preservation of traditional houses in Oman
Fig. A traditional house destroyed by cyclone

Improvement of social acceptability

- (1) Extract evaluation criteria for the technology of citizens.
- (2) Extract latent issues that may arise at implementation of technology from the view of ELSI through the process of public discussion.
- (3) Support the development of technologies with high social acceptability based on the above.



Held an Online WS for high school students across the country applying speculative design.



Held a WS for extracting latent issues by tools used in regional cooperation activities at IIS.

Demonstration and Implementation

We will obtain some feedback by implementation of researches which have been conducted in the laboratory in the field. Through these feedback, we will extract new issues that need to be addressed and develop our research.

Connecting Communication Channels

- (1) Collaboration with organizations of the Institute of Industrial Science.
- (2) Collaboration with external research institutions.
- (3) Collaboration with GRIPS (planned).