The Bailey Bridge[1] Initiative
Science & Technologies for Fostering Agency

Fostering Agency, Designing Holistically and Critical Cartography for Field Interventions
Dates: 14-25 April 2025
Venue: The Tata Institute of Social Sciences, Mumbai, India

Context

Societal studies and in particular social work for centuries have made the world a better place to live in through its various interventions; and at the same time science and technology has achieved path breaking significant results in fulfilling the same goal. In this context, we must recognise that technology is value neutral and humanities and societal studies do not necessarily operate from a space anchored in universal values.

Problems in society are complex in nature and often require scientific and technological inputs along with social science interventions for shifting unworkable systems and cultural norms. Students from social sciences work closely on these issues but are not necessarily equipped with scientific and technical skills and competencies needed to holistically approach the problem. The **Bailey Bridge Initiative** is an offshoot of the *Social and Ecological Stewardship Programme* a field action project of the Tata Institute of Social Sciences to foster agency in both the students and the communities they are engaged with and to address this gap in a value based holistic way. By 'agency' we essentially mean 'the freedom and capacity to live and act in a defined world based on our inner power and the universal values we embody and stand for.

Purpose

To foster agency among individuals and the communities they are engaging with combining Scientific and Technological tools and techniques along with Social Science interventions based on universal values for informed decision making, designing and implementing holistic social interventions which solves problems and shifts norms and systems.

Objectives

By providing a trans-disciplinary platform for technical expertise, peer learning, value based action and dissemination, this initiative will gear the students and other interested individuals to:
a) foster agency of oneself and the communities they are engaged with for informed decision making, action and results in solving problems and shifting systems based on universal values;
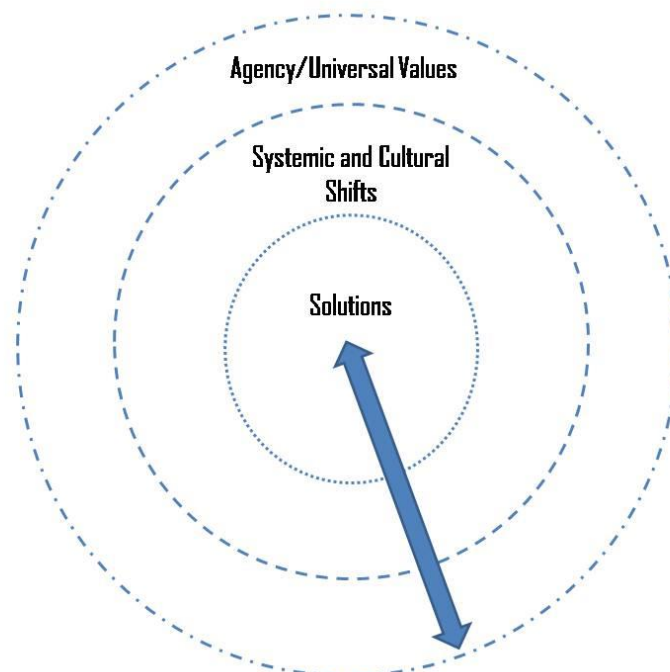
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[1]Bailey Bridge is a simple yet powerful concept and engineered solution for connecting people and places. They are used to develop, improve and repair essential infrastructure in urban and rural areas, including the most remote and challenging locations. From restoring vital lifelines in disaster-hit areas, to enabling economic development through essential infrastructure improvements Bailey Bridge has touched humanity from the days of World War II in many a ways.

b) demystify science and technological concepts, tools and techniques for access and utilisation; and to further share and scale concepts, tools and techniques in society and communities;

c) stimulate spatio-visual, pattern and system thinking abilities for themselves and the communities they work with;

d) integrate physical, natural sciences and technology along with social sciences in order to holistically approach field-level issues;

e) design and implement holistic responses to solve problems, shift systems and culture, and for greater impact;

f) co-create strategies and interventions along with the communities they are engaging with while also building upon their knowledge systems;

g) support communities they are engaging with to build and own the archives of information and knowledge for continuity and action;

h) support people to be "champions of change" in the form of mentoring and fellowship for making their breakthrough initiatives sustainable and to scale.

The Approach

This work uses the *Spectral Framework for Fostering Agency[2]* (SFAA) in designing and implementing projects/interventions for impact and scale based on universal values. It encompasses the full transformation approach where the interventions are designed and implemented in and from all the three domains of Self, System and Solutions.

Agency/Universal Values

Systemic and Cultural Shifts

Solutions

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[2]Adapted from the 'Architecture for Sustainable and Equitable Change' developed by Dr. Monica Sharma.
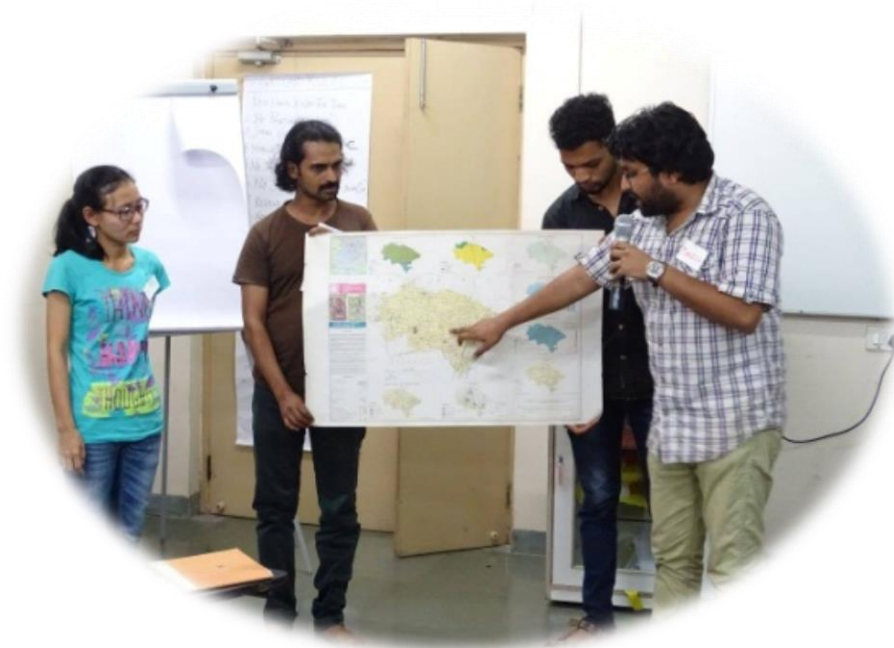
Methodology

From field To classroom To field:

The Bailey Bridge Initiative has three components: (a) an initial two week course (b) application of the new learning in a community settings or in the context of a social problem (for example, water availability, trafficking women and children, housing) and (c) review. This initiative is based on co-creative processes and praxis for results, and is not based on a conventional classroom teaching-learning environment. It is designed based on learning-in-action programmes from the field. The Bailey Bridge Initiative (BBI) is a transdisciplinary programme which fosters agency in individuals and community members, integrates systems thinking, spatio-temporal visualisation and reasoning as well as project design and implementation based on universal values. It is a unique programme where one's Agency and praxis is interwoven with Science and Technological competence and Social Work.

Modules outline

- Enhancing individual agency and capacity and community engagement
- Designing for system and cultural shifts using Spectral Framework for Fostering Agency
- Designing for equitable and sustainable outputs, outcomes and impacts
- Technological Themes
    o Spatio-temporal visualisation and reasoning
    o Critical cartography
    o Redefining Participatory Rural Appraisal
    o Geographical Information System for Empowerment, Action and Results (GEAR)
    o Water resource management
    o Community based disaster management

Expected Outcomes

The BBI engages with students, young professionals and interested individuals from NGOs, CBOs and communities who are involved in transformational social interventions be it health, education, access, rights so on and so forth, which leads towards creating a people – centred and ecologically sustainable society that promotes and protects the dignity, equality, social justice and human rights for all, with special emphasis on marginalised and vulnerable groups which is aligned with the vision of TISS.

The outcomes we are expecting in terms of systems, cultural and normative shifts are:

- Social Science fieldwork and research shifts from often being theoretical, extractive and study-based to praxis of value based interventions and result-based actions, to address issues in society.
- Students and practitioners of social sciences, shift from being partially engaged, compartmentalising work, and limited commitment to engaging with communities, to build skills and foster agency for themselves and the communities, and to design holistically using trans-disciplinary tools like Spectral Framework for Fostering Agency.
- From activity based conversations and strategies to that which is both output and outcome based for greater impacts in addressing issues of social and economic inequalities especially caste, gender and poverty.
- From science and technology that is complex, exclusive and expert-driven to that which is demystified to be simple, available, accessible, inclusive and utilised by all.
- Individuals and communities from being disengaged to those who take responsibility and accountability for wellbeing and stewarding needs of the community in fostering a socially just & ecologically sensitive society.
- Better and intelligent decision support capabilities for the students, young professionals and communities in their interventions.

Innovations and Events

We completed 5 workshops for students, research scholars, faculty from TISS and field practitioners training over 50 participants in agency praxis, geospatial tools and technologies, participatory community engagement, trans-disciplinary design and implementation of initiatives/projects. They applied their learning to field interventions.

- Mapping 101 Primer Workshop in February 2015
- BBI Summer School in April 2015
- Fostering Agency, Designing Holistically and Critical Cartography for Field Interventions workshop with Centre for Disability Studies and Action (CDSA) TISS in October 2015, May 2018, April/May 2022

What participants say!

"The summer school was a great experience. I learnt new technique of mapping. The passion and dedication of the team was inspiring for all the participants. The best part is the working action teams are formed and the work will go on in future, also hope to include the subject in curriculum. Big thanks to all."
- Dr. Sujata (Assistant Professor, Advanced Centre for Women's Studies, TISS)

"It was a wonderful session. A good mix of technology with leadership skills. My thumbs up to the whole program."
- Tejashree (Rural Communes)

"I consider myself fortunate enough by availing this opportunity. This summer school helps me to rediscover my strengths and how to cope with my limits through agency building. It has enhanced my confidence. Another aspect is spatial learning through cartography skills with QGIS and Google Earth Pro. It has widened my thinking and gives me a new perspective of how to use technology to better understand and analyse a social issue. Now I can apply these tools and skills in my study as well as in future."
- Munazir (Rural Development, TISS Tuljapur)

"Students from the Centre for Disability Studies and Action applied their learning during their field work and community engagement. They connected the different components – self, systems and solutions. They used the 'agency building components' - in their workshops and work with people in the village. Community members stretched to assume responsibility, rather than having us work 'for' them. This was evident in the way men and women organised themselves to represent their issues to government officials. The students were able to identify what they did differently to produce the concrete results outputs connected to outcomes. This was an accomplishment for them."
- Srilatha Juvva (Professor, School of Social Work, TISS)

"I saw both, the participants and I manifesting agency during and after the sessions-- organising themselves, participating during the workshop, creating and implementing our break through initiatives. We were also able to notice the growth in the participants and their commitment to foster the agency of their community and to make their project/research fully transformational. At the end of the sessions we were all inspired and everyone committed to be in action"
- Muthu Kumaran (Consultant, Development Practitioner, Activist)

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