

Sustainable Development Research - Art Based research for Open Systems

Objectives: One of the principal strategies in this effort is to foster integration of social research and technology in an art based approach that drives market led innovation in business.

Cultural Fusion Art as Philosophy (Cf AaP) uses Art Based approaches to develop multilateral research emphasizing the process of Sustainable Development from problem identification to solution design.

For example, as demonstrated by existing Cultural Fusion project, the alternative knowledge representation and solution identification can be in the form of local cultural activities, art installation-performance, oral history, and more. This study seeks to understand what elements contribute to the process of enhancing creativity and innovation at the local, grassroots level (i.e. access->information->knowledge->opportunity->innovation).

This research emphasizes the development of new models of cognition and computation that explain or simulate creativity and how these models open up new research areas in computing using technology.

- Learn from previous work such as stored in libraries, the Web, and other sources as well as team inputs, identify specifics that we are to relate and to synthesize.
- Consult with peers and community leaders to identify the specific questions to be answered.
- Multiple teams of researchers, consultants and community leaders working together, each team focuses on a specific cultural background and sustainable development issues to explore, compose, and evaluate possible solutions or to validate findings. The project will have an online collaboration environment. The collaboration interface might be textual, mind-maps, collaborative art, virtual world simulation all will be based on existing tools with possible enhancement to add data collection layers.
- Evaluate and disseminate the results and contribute to the general public for on-going feedback and co-creation.

Longer-term goals: The project will examine creativity, culture and open technology infrastructure and hardware systems in three globally and culturally diverse communities and identify development practices that fulfill the long-term project objectives. These long-term objectives include:

- Empower community leaders for local led innovative Sustainable Development
- Discover and identify repeatable processes and solution patterns for the Sustainable Development communities.
- Discover and identify variants that contribute to local creativities, such as culture background

The **ultimate goal** of this project is a demonstration of improved problem solving and communications skills for community leaders, Information Technology contributes significantly to community development and leadership skills, **Human Creativity and Sustainable Development** project will facilitate sustainable community development using the appropriate creative information technology. The **broader impacts** resulting from the proposed project is the improved understanding of and access to creative information technology for sustainable community development. This project will provide quantifiable measurements to assert that community, culture, creativity, collaboration, caring and civic pride as keys to sustainable development.

The research hypothesis asserts that **creativity enhances socio-technical environments for specific communities.**

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The major project, **Human Creativity and Sustainable Development**, will explore the creative economy concept [Venturelli, 2000] [WEF, 2006] and *promote our understanding of creative cognition and computation*. This major project goal is to **identify and assess the sociotechnology practices that are successful in cross-cultural collaborative projects**. To demonstrate the research hypothesis, the research team will realize the following project objectives within each community studied:

- identify one primary *design process* that supports creativity, based on what enhances or hinders creativity, with a focus on end-user led innovations
- identify three key ways in which *culture and environment* enhance creativity
- identify three key *Creativity Support Tools* to advance and transform the study, with a focus on capturing local knowledge and measuring intangible assets (culture, emotions, diversity and distance)

The project will initially work with a selected set of geographically and culturally diversified communities in this research inquiry, paired with field practitioners and researchers for the domain subjects under study. The aim of this project is to establish a CreativeIT research environment so that even after the funding period is expired ongoing research data can be collected for the refinement of research models, methodologies and processes for the advancement of Sustainable Development. For this grant period, **Human Creativity and Sustainable Development** will examine creativity, culture and technology within current iFOSSF communities