## Co-Creating Sustainable Innovation across Cultures and Technological Levels Christopher M. Barlow

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## abstract

Tools proven effective for maximizing profits in mass-produced goods and services for developed economies can cause disappointing confusion when addressing the challenges of sustainability and subsistence economies. They can be very successful when applied within a more comprehensive understanding of the success dynamics of these tools.

This paper explores relevant cases of collaborative design between representatives of different cultures and economies to establish a clear model for practice when individuals and teams from developed economies attempt to assist in design and entrepreneurship individuals and communities in subsistence economies.

Ironically, the changes in utilization and perspective needed to help collaborations among experts from developed and subsistence economies (diverse stakeholders, understanding the great differences of local conditions, and cultural effects on communication and thinking) are the same shifts needed for large organizations to create more strategically and globally in the most highly developed industries and economies.

Exploration of the application of developed world thinking tools to guide teams including those with local knowledge and understanding integrates a number of findings and concepts:

Muhammad Yunus clearly states his opinion that no one needs to teach entrepreneurship to the poor. He found that while they can be supported with information and resources, their local knowledge of enterprise dynamics is vastly

superior to visitors from richer economies.

Morris Stein of New York University was contracted early in the life of the Peace Corps to assess whether there was any bias in the selection of volunteers. Using his own typology he found that the personality that was definitely over-represented in selection produced the least successful volunteers, while the style of the most successful volunteers was the least likely to make it through selection and training.

In teaching a process called Value Engineering (developed to reduce costs of manufactured products, services, and construction) in India, I found participants adapting the process to increasing the "indigenous content" of products design in the US and Japan. Seeking alternative ways to perform the required function, participants were able to take components of telecommunication switches designed to be welded by robots and redesign them so they worked just as well, but could be made by local craftsmen with handtools and welding torches.

☐ The same process of unpacking a design and selecting alternatives superior in some dimension can also be applied very effectively to improving the sustainability of products, services, facilities, etc.

Deliberate creativity can be seen, in part, as a process of exploring the advantages of less-used styles of thinking. Most well known creativity and thinking techniques were designed to shift the thinking habits of American managers and engineers (in the 1950's) to less frequently explored thinking styles, using their own paradigms to lead them to shift their thinking. Problem solvers from other cultures often need different shifts of style, and must be led through their own paradigms and assumptions to experiment with new methods of thinking.

As designers adapt to the multiple stakeholder reality of situations, those experienced in solving well described problems in effective organizations find it difficult to operate when conflicts in stakeholder expectations and uncertainties in the situation make well described problems impossible.

The discussion converges into a reconceptualization of deliberate innovation as a process of creating an individual, team, or organization capable of "relevant" AHA's, and seeing creative process as teams that get smarter and smarter about the problem until a solution is obvious. The key word "relevant" acknowledges that while anyone can have a useful idea about anything, and can have that AHA or Eureka reaction based on their understanding of the fit of the solution to their understanding of the problem, the reaction of those with greater understanding of all the issues and possibilities area more relevant.

Individuals do not exist with the breadth of knowledge and understanding to deliver the best possibilities in subsistence economies, especially in delivering sustainable solutions. The teams and collaborations which become necessary require more than translators, they require the creation of a collaborative communication climate in which those of great diversity are willing and able to understand and integrate the knowledge and values offered by others. The concepts reviewed and discussed in this paper can be a useful guide to those attempting to make these collaborations successful.