

## **CULTURAL ATTITUDES AND TECHNOLOGY**

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The theories that relate to the acceptance of technology tend to discuss the issues of media, leadership and networking. Although these processes are important in the acceptance of technology, it is proposed that epistemologies as measured by belief systems or mindscapes also play an important part in the acceptance of technology.

The cyclic epistemology, that is hypothesized by Maruyama (1994) as an Eastern epistemology is contrasted with the hierarchical epistemology of the West. The dialectic of Hegel (1975) is a borrowing of a cyclic epistemology to allow creativity in the midst of the hierarchical epistemology of Western philosophy. The G-Type of Maruyama accepts creative possibilities in the midst of the never changing cycles of the cyclic epistemology. Both Hegel and Maruyama require a combination of both cyclic and hierarchical epistemologies to develop a "spiral link" in order to have creativity.

To determine the relationship between acceptance of new technology and epistemology I administered a survey with students studying in the Honolulu area that compared their claimed use of technology with the results of the Harvey/Gore Belief System test. To compare with other factors I included the Inkeles and Smith (1974) Modernity Scale, which measures interest in media, acceptance of newness and new people, and concern about public issues

The survey also asked a series of demographic questions, especially ones that were considered to be related to the acceptance of technology. This part of the survey was extremely successful as most subjects answered all of the demographic questions.

The acceptance of technology was more related to particular demographic issues than to either the Modernity of Inkeles and Smith or the Belief Systems of Harvey and Gore. In particular, different types of technology showed that different demographic issues were important. The most interesting demographic effects were those of gender, father's education and area of national/cultural origin.

A very interesting result was that the belief systems of students who originate in the United States (mostly Hawaii) and are attending school in Hawaii were shown to be more commonly in System 3 and System 4 than the respondents in mainland United States as found by Rowley et al. (1992) in a recent test. The data indicated that mindscapes or belief systems, as predicted by Maruyama, are significantly different for different cultures. In fact the mindscapes of the students from Hawaii were more toward system 3 and system 4 than students who were from Asia. This shows that Students from Hawaii are more Asian in mindscape than Asians.

The survey indicated that neither the Modernity Scale results nor the Harvey/Gore Belief System Test results were strongly related to the use of technology. The demographic issues seemed to be far more important. This is in contrast to the theory envisioned.

The need for information is a cyclic process. Before the printing press people were satisfied with the little information they had because they knew nothing else. With the World Wide web, we have an extreme increase in the amount of information available. If there is no Internet, or I don't know it exists, then such information has no value to me. But once I know about the Internet, and see a need for some of the information that comes in that form my relationship to that technology will cycle from need to use to need, and grow.

The father's education differences, the gender differences, the age differences, and the lack of class differences tend to indicate a need function rather than economic function in the growth of technology. The lack of significance of either the Harvey/Gore or the Inkeles and Smith scales indicates that the old conception of the growth of technology is flawed. Herbig and Polumbo (1994) list the criteria for innovation. These include applicability, profitability, and affordability. These can be summarized into the concept of need, while recognizing the cyclic character of the need/use process.

It is obvious that new technology efforts need to be tied to the needs of those for whom the technology is aimed. The acceptance of one level of use based on need can be used as a starting point and stepping stone in developing further need from the need/use cycle. An innovation that is not needed in this kind of relationship with use will not be accepted or the acceptance will be minimal.

## References

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