

Diffusion of Innovations



Information Technology and Social Life

January 28, 2005



Question

- Why is it important for us to talk about diffusion? Why can't we just talk about the features of the technology or innovation in order to understand its significance?



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- Taught and conducted research for 44 years.
- He has served on the faculty of Ohio State University, Michigan State University, University of Michigan, Stanford University, University of Southern California, and the University of New Mexico.
- *Diffusion of Innovations* first published in 1962; in 5th edition 2003



Diffusion

- The process in which an innovation is communicated through certain channels over time among the members of a social system.
- Communication - the process in which participants create and share information with one another in order to reach a mutual understanding.
- Deals with the spread of *new* ideas
- Degree of uncertainty; lack of predictability, structure, information
- Involves communication in a two-way process of convergence
- Diffusion is a kind of social change



Innovation

- An idea, practice or object that is perceived as new by an individual or other unit of adoption
- Perceived newness
- Technology - hardware and software
- Technology clusters - one or more elements of technology that are perceived as being closely interrelated.

Technology - hardware dominant, software dominant, hardware purchased first (shaver and blades approach)

Almost always represents a mix



Attributes of Innovations

- Relative Advantage
- Compatibility
- Complexity
- Trialability
- Observability
- Reinvention - the degree to which an innovation is changed or modified by a user in the process of adoption and implementation.



Communication Channels

- Mass media
- Interpersonal
- Interactive channels
- Heterophily



Time

- Innovation-Decision Process
 - Knowledge
 - Persuasion
 - Decision
 - Implementation
 - Confirmation
- Innovativeness and adopter categories
 - Innovators, early adopters, early majority, late majority, laggards
- Rate of Adoption - S-shaped curve



Social System

- A set of interrelated units that are engaged in joint problem solving to accomplish a common goal.
- Diffusion is effected by a combination of social structure and individual characteristics
- Opinion Leaders and Change Agents
- Innovation-Decisions - optional, collective, authority, contingent
- Consequences