

# Diffusion of Innovations



Review of Chapter 1 – E. M. Rogers

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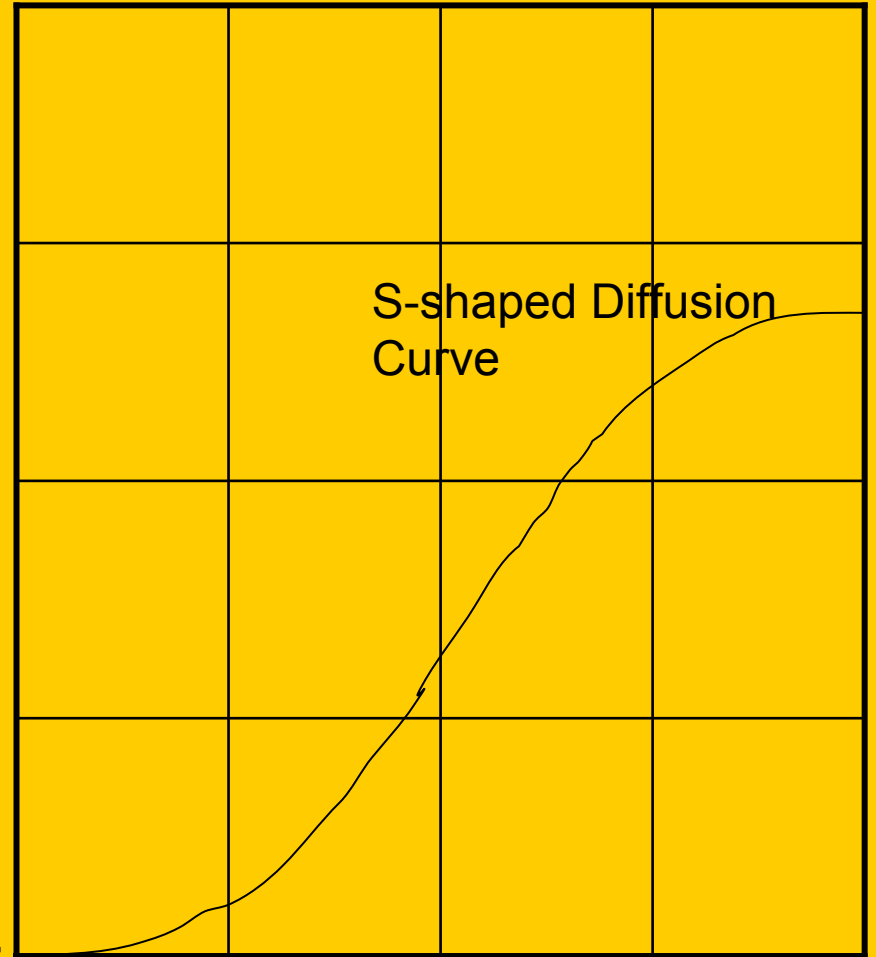
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# Where Does our Work Fit In?

Research and Development  
Activities to Produce an Innovation

Time ----->



Time ----->

# Diffusion (Rogers Definition)

- *Diffusion* is the process in which (1) an *innovation* (2) is *communicated* through certain *channels* (3) *over time* (4) among members of a *social system*.
- It is a special type of communication, in that the messages are concerned with new ideas.

# Diffusion vs. Dissemination

- Diffusion
  - Unplanned & spontaneous spread of new ideas
- Dissemination
  - Planned & managed spread of new ideas

# Diffusionists vs Disseminationists

- Diffusionists assume
  - Spontaneous acceptance
  - Of new technologies
  - By potential end users
- Disseminationists assume
  - Only by top down, managed control
  - By developers
  - Will new technologies be accepted
  - By potential end users

# Diffusionists vs Disseminationists

- Diffusionists
  - Assume the potential end user
  - Has necessary scientific (rational) critical acumen
  - To perceive worth of innovation
- Disseminationists
  - Assume only the developer
  - Has necessary critical acumen
  - To perceive worth of innovation
  - And so the developer must manage its spread

# Diffusionists vs Disseminationists

- The difficulty with contrasting these two approaches is this:
- Diffusionists look to the end user and the information base (social system and the software)
- Disseminationists look to the developer of the technology (hardware)
- They separate the dynamic interaction of
  - The developer and the end user
  - Hardware from software
  - Technology from the social system and its use of the information base.
- This may be why Rogers uses only one term “diffusion” for both concepts.

# 4 Main Elements of Diffusion

1. An innovation
2. Communicated through certain channels
3. Over time
4. Among members of a social system



# An Innovation, A Technology

- Are these synonyms?
- An **innovation** is an idea, practice, or object that is perceived as new by an individual or other unit of adoption.
- A **technology** is “a design for instrumental action that reduces the uncertainty of the cause-effect relationships involved in achieving a certain outcome.”

A technology  
usually has  
2 components

which are...???

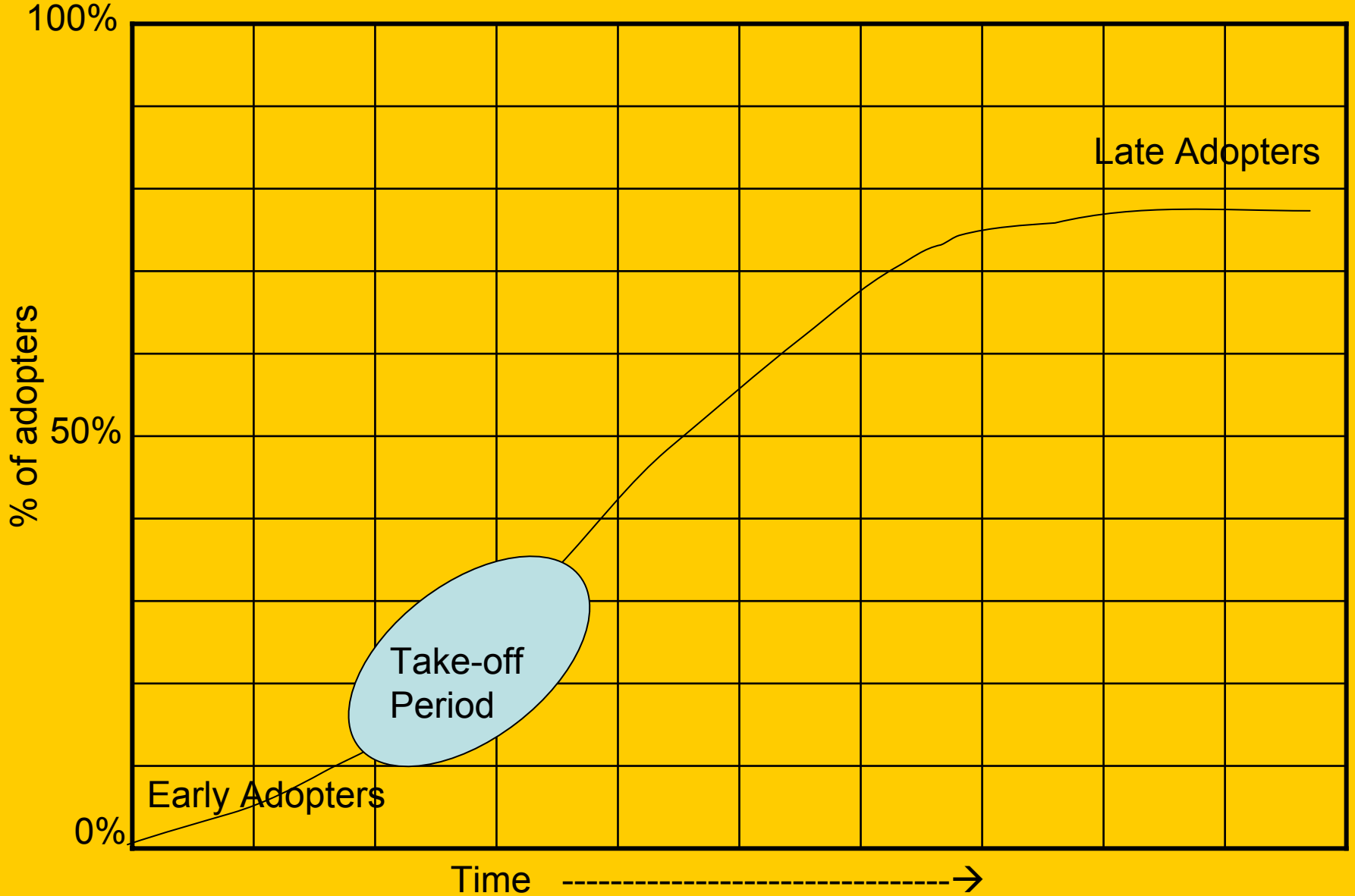
# Hardware and Software

- Hardware – the tool that embodies the technology as a material or physical object
- Software – the information base for the tool

# Diffusion Process

- Diffusion in its most elementary form is a process that involves:
  - (i) an innovation
  - (ii) an individual or other unit that has knowledge/ experience using the innovation
  - (iii) another individual or unit that does **not** yet have knowledge / experience of the innovation
  - (iv) a communication channel connecting the two units.
- The communication channel is the means by which messages get from one individual to another.
- Mass Media
- Interpersonal

# Diffusion Process



# Diffusion of Innovation in the Industrialized World Research Findings

- Early adopters and innovators rely on scientific data
- However, most end users do not evaluate an innovation on the basis of scientific data
- Most end users rely on experiential evaluations communicated by peers – individuals like themselves.
- Diffusion of innovation is the product of a complex of interpersonal and mass media communications within a pre-existing social system.

# Diffusion in Developing Countries

- Local channels of communication
  - can be crucial on the household, village or tribal level
  - a local head person may have responsibility for well-being of the people.
- The social system (non-local) defines the broader
  - ethnic culture, religion and values of the people
  - This is also crucial for acceptance of a technology

# Social System

- What does diffusion research say about social systems???



# Social System

- Diffusion research shows that most people rely on **SUBJECTIVE EVALUATIONS** conveyed from near-peers – individuals like themselves.
- The heart of the diffusion process is a **SOCIAL PROCESS** that involves **INTERPERSONAL COMMUNICATION RELATIONSHIPS**.

What are the  
5 characteristics of innovations  
that explain their different  
rates of adoption?

# 5 characteristics of innovations that explain their different rates of adoption

1. Relative advantage
2. Compatibility
3. Complexity
4. Trialability
5. Observability

What are the  
5 adopter categories?

# Adopter Categories

1. Innovators
2. Early adopters
3. Early majority adopters
4. Late majority adopters
5. Laggards

# Rate of Adoption

- A measure of the length of time required for a certain % of the members of a system to adopt an innovation.