


DIFFUSION NETWORK (CHAPT 8) (EVERETT ROGERS)

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- 1. MODELS OF MASS COMMUNICATION FLOWS**
 - 2. HOMOPHILY-HETEROPHILY IN COMMUNICATION NETWORKS**
 - 3. MEASURING OPINION LEADERSHIP AND NETWORKS LINKS**
 - 4. MONOMORPHIC & POLYMORPHIC OPINION LEADERSHIP**
 - 5. CHARACTERISTICS OF OPINION LEADERS**
 - 6. THE CRITICAL MASS IN THE ADOPTION OF INTERACTIVE INNOVATION**
 - 7. SOCIAL LEARNING THEORY**

MODEL OF MASS COMMUNICATION FLOWS

HYPODERMIC NEEDLE MODEL

1. IF MASS MEDIA HAD DIRECT, IMMEDIATE, POWERFUL EFFECTS ON A MASS AUDIENCE
2. BASED PRIMARILY ON INTUITIVE, TOO SIMPLE, TOO MECHANISTIC

TWO -STEP FLOW MODEL

- PEOPLE APPEARED TO BE MUCH MORE INFLUENCED BY FACE-TO FACE CONTACT \WITH OTHER PEOPLE
- STEP 1: FROM MEDIA SOURCES TO OPINION LEADERS (TRANSFER OF INFORMATION)
- STEP 2: FROM OPINION TO THEIR FOLLOWERS. "COMMUNICATION MESSAGES" FLOW FROM A SOURCE-VIA MASS MEDIA CHANNELS TO OPINION LEADERS - PASS THEM ON TO THE FOLLOWERS
- THE ROLE OF DIFFERENT COMMUNICATION:
- KNOWLEDGE OF AN INNOVATION TO PERSUASION
 - DECISION TO ADOPT OR TO REJECT IMPLEMENTATION
 - CONFIRMATION
 - KNOWLEDGE CREATORS

HOMOPHILY – HETEROPHILY IN COMMUNICATION NETWORKS

- HOMOPHILY FUNDAMENTAL PRINCIPLE : HUMAN COMMUNICATION IS THAT THE EXCHANGE OF IDEAS OCCURS MOST FREQUENTLY BETWEEN INDIVIDUALS WHO ARE ALIKE. (SUPPOSED TO BE MORE EFFECTIVE)
- HETEROPHILY FUNDAMENTAL PRINCIPLE : HUMAN COMMUNICATION IS THAT THE EXCHANGE OF IDEAS OCCURS MOST FREQUENTLY BETWEEN INDIVIDUALS WHO ARE DIFFERENT FROM THEMSELVES (SUPPOSED TO BE MORE IN-EFFECTIVE)
- HOMOPHILY AS A BARRIER TO DIFFUSION AS THERE IS NO "TRICKLE DOWN " FROM ELITES TO NON ELITES" WITHIN THE SYSTEM
- HETEROPHILY AS A DIFFUSIONS ENERGIZER AS A CHANGE AGENT COULD CONCENTRATE ATTENTION ON ONLY A FEW OPINION LEADERS NEAR THE TOP IN SOCIAL STATUS AND INNOVATIVENESS.

GENERALISATION OF HOPHILOUS & HETEROPHILOUS COMMUNICATION

- # 1. INTERPERSONAL DIFFUSION NETWORKS ARE MOSTLY HOMOPHILOUS
- # 2. WHEN INTERPERSONAL DIFFUSION NETWORK ARE HETEROPHILOUS, FOLLOWERS SEEK OPINION LEADERS OF HIGHER SOCIO ECONOMIC STATUS.
- # 3. WHEN INTERPERSONAL DIFFUSION NETWORK ARE HETEROPHILOUS, FOLLOWERS SEEK OPINION LEADERS WITH MORE FORMAL EDUCATION .
- # 4. WHEN INTERPERSONAL DIFFUSION NETWORK ARE HETEROPHILOUS, FOLLOWERS SEEK OPINION LEADERS WITH A GREATER DEGREE OF MASS MEDIA EXPOSURE.
- # 5. WHEN INTERPERSONAL DIFFUSION NETWORK ARE HETEROPHILOUS, FOLLOWERS SEEK OPINION LEADERS WHO ARE MORE COSMOPOLITE
- # 6. . WHEN INTERPERSONAL DIFFUSION NETWORK ARE HETEROPHILOUS, FOLLOWERS SEEK OPINION LEADERS WITH GREATER CHANGE AGENT CONTACT.
- # 7. WHEN INTERPERSONAL DIFFUSION NETWORK ARE HETEROPHILOUS, FOLLOWERS SEEK OPINION LEADERS WHO ARE MORE INNOVATIVE.

METHODS OF MEASURING OPINION LEADERSHIP IN DIFFUSION NETWORKS

MEASUREMENT METHODE	DESCRIPTION	QUESTION ASK
SOCIOMETRIC	ASK SYSTEM MEMBERS TO WHOM THEY GO FOR ADVICE AND INFORMATION ABOUT AN IDEA.	WHO IS YOUR LEADER ?
INFORMANTS' RATING	SUBJECTIVELY SELECTED KEY INFORMANTS IN A SYSTEM ARE ASKED TO DRSIGNATE OPINION LEADERS	WHO ARE LEADERS IN THIS SYSTEM ?
SELF-DESIGNATING	ASK EACH RESPONDENT A SERIES OF QUESTIONS TO DETERMINE THE DEGREE WHICH HE/SHE PERCEIVES HIMSELF/HERSELF TO BE AN OPINION LEADER	ARE YOU LEADER IN THIS SYSTEM?
OBSERVATION	IDENTIFY AND RECORD COMMUNICATION NETWORK LINKS AS THEY OCCUR	NONE

ADVANTAGES AND LIMITATIONS OF FOUR METHODS OF MEASURING OPINION LEADERSHIP IN DIFFUSION NETWORKS

MEASUREMENT METHOD	ADVANTAGES	LIMITATIONS
SOCIOMETRIC	THE QUESTIONS ARE EASY TO ADMINISTER AND ARE ADAPTABLE TO DIFFERENT TYPE OF SETTINGS AND ISSUES, HIGHEST VALIDITY	-COMPLEX ANALYSIS, , REQUIRES A LARGE NUMBER OF RESPONDENTS TO LOCATE A SMALL NUMBER OF OPINION LEADERS; NOT APPLICABLE TO SAMPLE DESIGNS WHERE ONLY A PORTION OF THE SOCIAL SYSTEM IS INTERVIEWED
INFORMANTS' RATING	COST AND TIME SAVING MET-HOD COMPARED TO SOCIO-METRIC METHOD	EACH INFORMANT MUST BE THOROUGHLY FAMILIAR WITH THE SYSTEM.
SELF-DESIGNATING	MEASURES THE INDIVIDUAL 'S PERCEPTION OPF HER/HIS OPINION LEADERSHIP, WHICH INFLUENCE HIS/HER BEHAVIOR	DEPENDENT UPON THE ACCURACY WITH WHICH RESPONDENTS CAN IDENTIFY AND REPORT THEIR SELF IMAGES
OBSERVATION	HIGH VALIDITY	, WORKS BEST IN A VERY SMALL SYSTEM, AND MAY REQUIRE MUCH PATIENCE BY THE OBSERVER.

MONOMORPHIC AND POLYMORPHIC OPINION LEADERSHIP

- # POLYMORPHISM IS THE DEGREE TO WHICH AN INDIVIDUAL ACTS AS AN OPINION LEADER FOR A VARIETY OF TOPICS
- # MONOMORPHISM IS THE DEGREE TO WHICH AN INDIVIDUAL ACTS AS AN OPINION LEADER FOR ONLY A SINGLE TOPIC

CHARACTERISTICS OF OPINION LEADER

EXTERNAL COMMUNICATION

ACCESSIBILITY

SOCIOECONOMIC STATUS

INNOVATIVENESS

DIFFUSION NETWORKS

- # 1. COMMUNIATION NETWORK
- # 2. THE STRENGTH OF WEAK TIES THEORY
- # 3. WHO IS LINKED TO WHOM IN NETWORKS
- # 4. THE CRITICAL MASS IN THE ADOPTION OF INTERACTIVE INNOVATIONS
- # 5. BACKGROUND OF THE CONCEPT OF THE CRITICAL MASS
- # 6. WATCHING WHILE BEING WATCHED
- # 7. INDIVIDUAL THRESHOLDS FOR ADOPTION
- # 8. WHY DO INDIVIDUALS ADOPT PRIOR TO THE CRITICAL MASS?
- # 9. STRATEGIES FOR GETTING TO CRITICAL MASS
- # 10.. SOCIAL LEARNING THEORY

COMMUNICATION NETWORK

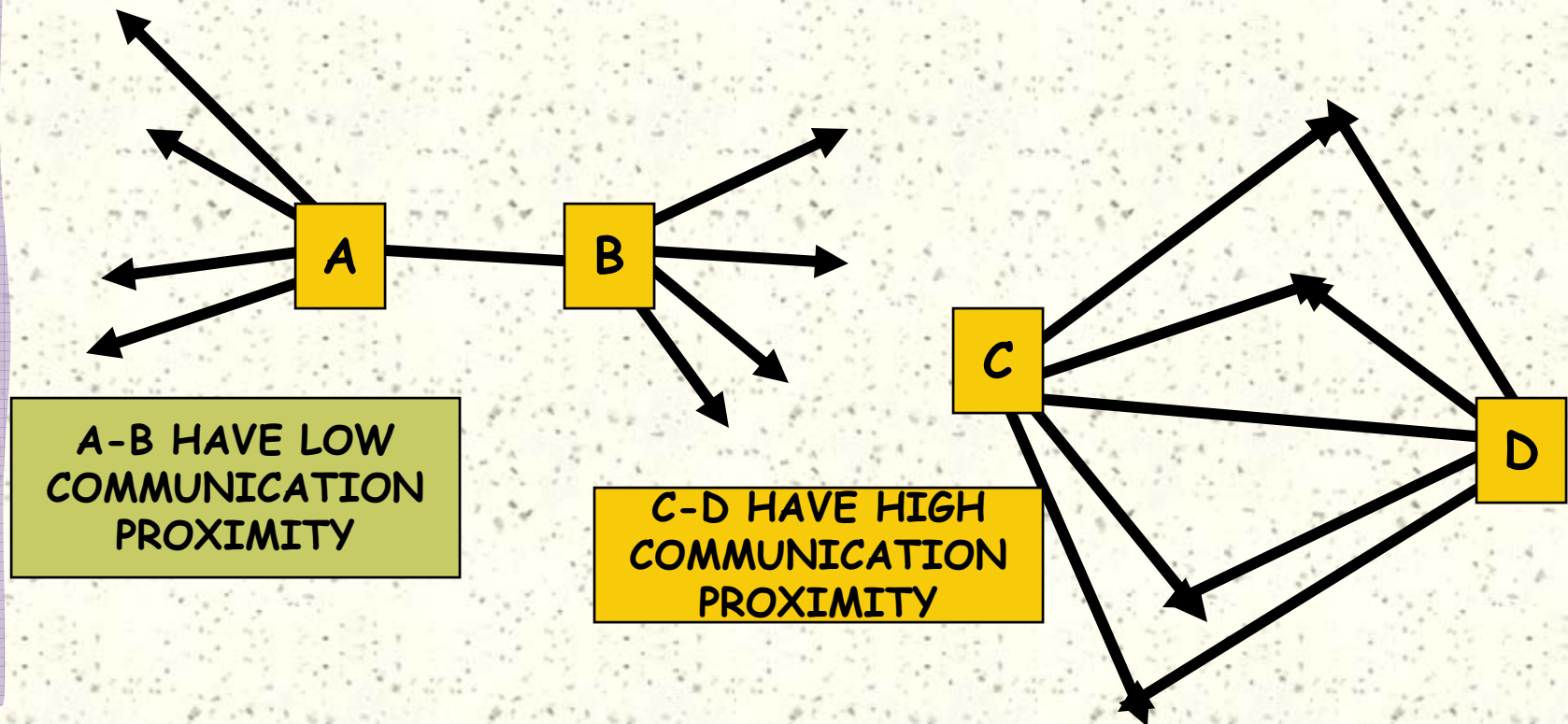
- # 1. INTERCONNECTED INDIVIDUALS WHO ARE LINKED BY PATTERNED FLOWS OF INFORMATION
- # 2. AN INDIVIDUALS NETWORK LINK ARE IMPORTANT DETERMINANTS OF THE ADOPTION OF INNOVATIONS.
- # 3. THE NETWORK INTERCONNECTEDNESS OF AN INDIVIDUAL INSOCIAL SYSTEM IS POSITIVELY RELATED TO THE INDIVIDUAL'S INNOVATIVENESS
- # 4. INTERCONNECTEDNESS IS THE DEGREE TO WHICH THE UNITS IN SOCIAL SYSTEM ARE LINKED BY INTERPERSONAL NETWORKS,
- # 5. NETWORKS PROVIDE A CERTAIN DEGREE OF STRUCTURE AND STABILITY IN THE PREDICTABILITY OF HUMAN BEHAVIOR
- # 6. COMMUNICATION STRUCTURE IS THE DIFFERENTIATED ELEMENTS THAT CAN BE RECOGNIZED IN THE PATTERNED COMMUNICATION FLOWS IN ASYSTEM.; CONSISTS OF THE CLIQUES WITHIN THE SYSTEM AND NETWORKS INTERCONNECTIONS AMONG THEM THROUGH BRIDGES AND LIAISONS.
- # 7. A PERSONAL NETWORK CONSISTS OF THOSE INTERCONNECTED INDIVIDUALS WHO ARE LINKED BY PATTERNED COMMUNICATION FLOWS TO A GIVEN INDIVIDUAL.

THE STRENGTH OF WEAK TIES THEORY

- # **WEAK VS STONG TIES DIMENSION IS PRECISELY DEFINED AS COMMUNICATION PROXIMITY, THE DEGREE TO WHICH TWO INDIVIDUALS IN A NET WORK HAVE OVERLAPPING PERSONAL COMMUNICATION NETWORKS.**
- # **WEAK TIES ARE LOW IN COMMUNICATION PROXIMITY BECAUSE THEY CONNECT TWO INDIVIDUALS WHO DONOT SHARE NETWORK LINKS WITH A COMMON SET OF OTHER INDIVIDUALS**
- # **THE INFORMATION EXCHANGE POTENTIAL OF COMMUNICATION NETWORK LINKS IS NEGATIVELY RELATED TO THEIR DEGREE OF – COMMUNICATION PROXIMITY; HOMOPHILY**
- # **WEAK TIES ARE LOW IN COMMUNICATION PROXIMITY BECAUSE THEY CONNECT TWO INDIVIDUALS WHO DONOT SHARE NETWORK LINKS WITH A COMMON SET OF OTHER INDIVIDUALS**
- # **INDIVIDUALS ARE IDENTIFIED BELONG TO CLIQUES ON THE BASIS OF COMMUNICATION PROXIMITY, THE DEGREE TO WHICH TWO LINKED INDIVIDUALS IN A NETWORK HAVE PERSONAL COMMUNICATION NETWORKS THAT OVERLAP**

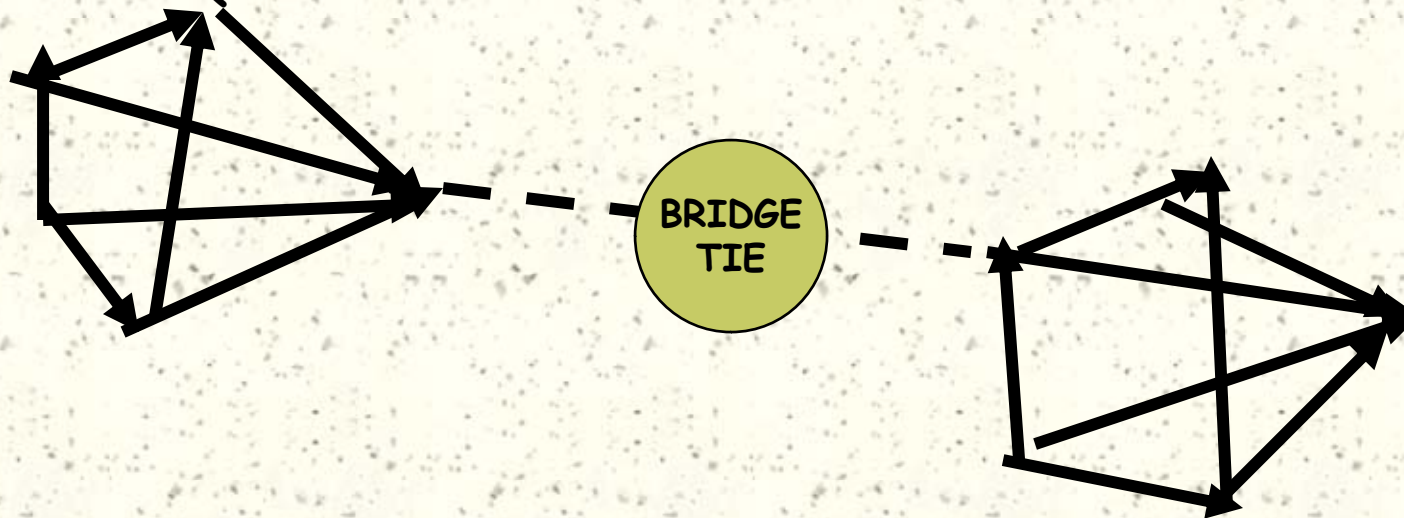
Communication proximity

IS THE DEGREE TO WHICH TWO INDIVIDUALS HAVE OVERLAPPING PERSONAL COMMUNICATION NETWORKS



LOW PROXIMITY NETWORK LINKS ARE IMPORTANT

CHANNELS FOR ITS FLOW OF INFORMATION BETWEEN CLIQUES IN NET WORK.



WEAK TIE/LAW PROXIMITY

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STRONG TIE/HIGH PROXIMITY

WHO IS LINKED TO WHOM IN NETWORKS

INDIVIDUALS TEND TO BE LINKED TO OTHERS WHO ARE CLOSE TO THEM IN PHYSICAL DISTANCE AND WHO ARE RELATIVELY HOMOPHILOUS IN SOCIAL CHARACTERISTICS.

INDIVIDUAL THRESHOLDS FOR ADOPTION

- # A THRESHOLD IS THE NUMBER OF OTHER INDIVIDUALS WHO MUST BE ENGAGED IN AN ACTIVITY BEFORE A GIVEN INDIVIDUAL WILL JOIN THAT ACTIVITY.
- # A TRESHOLD IS REACHED WHEN AN INDIVIDUAL IS CONVINCED TO ADOPT AS THE RESULT OF KNOWING THAT SOME MINIMUM NUMBER OF OTHER INDIVIDUALS IN THE SYSTEM HAVE ADOPTED, AND ARE SATISFIED WITH THEIR USE OF INNOVATION.
- # THRESHOLD MODELS ASSUME THAT AN INDIVIDUAL DECISION TO ADOPT AN INNOVATION DEPENDS ON THE NUMBER OF OTHER INDIVIDUALS IN THE SYSTEM WHO HAVE ALREADYMADE THE BEHAVIOR CHANGE

THE CRITICAL MASS IN THE ADOPTION OF INTERACTIVE INNOVATIONS

- ✦ THE CRITICAL MASS OCCURS AT THE POINT AT WHICH ENOUGH INDIVIDUALS HAVE ADOPTED AN INNOVATION SO THAT THE INNOVATION'S FURTHER RATE OF ADOPTION BECOMES SELF-SUSTAINING.
- ✦ A CRITICAL MASS OF INDIVIDUAL MUST ADOPT AN INTERACTIVE COMMUNICATION TECHNOLOGY BEFORE IT HAS UTILITY FOR THE AVERAGE INDIVIDUAL IN THE SYSTEM
- ✦ WITH EACH ADDITIONAL ADOPTER, THE UTILITY OF AN INTERACTIVE COMMUNICATION TECHNOLOGY INCREASES FOR ALL ADOPTERS.
- ✦ INTERACTIVITY IS THE DEGREE TO WHICH PARTICIPANTS IN COMMUNICATION PROCESS CAN EXCHANGE ROLES IN, AND HAVE CONTROL OVER THEIR MUTUAL DISCOURSE
- ✦ MUTUAL DISCOURSE IS THE DEGREE TO WHICH A GIVEN COMMUNICATION ACT IS BASED ON A PRIOR SERIES OF COMMUNICATION ACTS
- ✦ EXCHANGE OF ROLES MEANS THE EMPATHIC ABILITY OF INDIVIDUAL A TO TAKE THE POSITION OF INDIVIDUAL B
- ✦ HAVING CONTROL MEANS THE EXTENT TO WHICH AN INDIVIDUAL CAN CHOOSE THE TIMING, CONTENT, SEQUENCE OF A COMMUNICATION ACT, SEARCH OUT ALTERNATIVE CHOICES, ENTER THE CONTENT IN TO STORAGE FOR OTHER USERS, AND PERHAPS CREATE NEW COMMUNICATION CAPABILITIES
- ✦ INTERACTIVE COMMUNICATION TECHNOLOGIES FCILITATE MULTIDIRECTIONAL INFORMATION EXCHANGES.
- ✦ A RECIPROCAL INTERDEPENDENCE MEANS NOT ONLY DO EARLIER ADOPTERS INFLUENCE LATER ADOPTERS, BUT LATER ADOPTERS ALSO INFLUENCE EARLIER ADOPTERS,

BACKGROUND OF THE CONCEPT OF THE CRITICAL MASS

- # THE CRITICAL MASS ORIGINATED IN PHYSICS, WHERE IT WAS DEFINED AS THE AMOUNT OF RADIOACTIVE MATERIAL NECESSARY TO PRODUCE A NUCLEAR REACTION.
- # AN ATOMIC PILE GOES CRITICAL WHEN A CHAIN REACTION OF NUCLEAR FISSION BECOMES SELF-SUSTAINING
- # THE PRINCIPLE OF CRITICAL MASS IS SO SIMPLE THAT IT IS NO WONDER THAT IT SHOWS UP IN EPIDEMIOLOGY, FASHION, SURVIVAL AND EXTINCTION OF SPECIES, LANGUAGE SYSTEMS, RACIAL INTEGRATION, JAYWALKING, PANIC BEHAVIOR, POLITICAL MOVEMENTS
- # INDIVIDUAL BEHAVIOR IN A SYSTEM SO SEEMINGLY ILLOGICAL, THE BASIC REASON IS EACH INDIVIDUAL ACTS IN WAYS THAT ARE RATIONAL IN PURSUING INDIVIDUAL GOALS WITHOUT FULLY CONSIDERING THAT HE OR SHE MIGHT BE DISADVANTAGING THE SYSTEM AT THE COLLECTIVE LEVEL.

WATCHING WHILE BEING WATCHED

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WHY DO INDIVIDUALS ADOPT PRIOR TO THE CRITICAL MASS?

STRATEGIES FOR GETTING TO CRITICAL MASS

- # AN ORGANIZATION HIERARCHY, REWARD SYSTEM, AND REGULATIONS CAN ENCOURAGE, OR DISCOURAGE, THE ADOPTION OF A NEW IDEA. THE ORGANIZATION CAN PROVIDE RESOURCES FOR THE ADOPTION OF AN INTERACTIVE TECHNOLOGY, THUS THE LOWER INDIVIDUAL'S PERCEIVED COST OF ADOPTING.
- # SHAPING INDIVIDUAL'S PERCEPTION OF THE INNOVATION
- # INTRODUCING THE INNOVATION TO INTACT GROUPS IN THE SYSTEM WHOSE MEMBERS ARE LIKELY TO ADOPT AT ONCE.
- # PROVIDE INCENTIVES FOR EARLY ADOPTION OF THE INTERACTIVE INNOVATION, AT LEAST UNTIL THE CRITICAL MASS IS REACHED.

SOCIAL LEARNING THEORY

- # THE CENTRAL IDEAL OF SOCIAL LEARNING THEORY IS THAT, AN INDIVIDUAL LEARNS FROM ANOTHER BY MEANS OF OBSERVATIONAL MODELING,
- # MEASURE MORE EXACTLY WHAT THE INDIVIDUAL LEARNS THROUGH THE NETWORK AND NOT THE AGREGATE
- # FOCUS MORE CENTRALLY ON BEHAVIOR CHANGE AS PROCESS, NOT ON TIME AS VARIABLE IN BEHAVIOR CHANGE
- # IT IS RECOGNIZED THAT THE INDIVIDUAL DOES NOT ALWAYS EXACTLY MIMIC THE MODEL (AS IMPLIED BY RE-INVENTION)
- # EMPHASIZED ON THE EXCHANGE/CONVERGENCE ASPECTS OF BEHAVIOR CHANGE, EMPHASIZING INTERPERSONAL INFORMATION EXCHANGE AS THE BASIS FOR BEHAVIOR CHANGE.