

Course: Theories of Mass Communication Part-II (5636)

Mass Communication Semester-III

Important Questions with Answers prepared by Faiza Gul, Ali Raza (Errors and omissions acceptable) Disclaimer: All Questions and Answers are Based on self assessment and It is only Guess material.

Q. No.1: Explain George Gerbner's cultivation theory with special reference to mainstreaming, and resonance effect.

Cultivation Theory

Cultivation theory is a communications and cultural framework which suggests that long-term exposure to media affects how the consumers of media observe the world as well as organize themselves in life.

Beginning of cultivation theory

Cultivation theory was introduced in 1969 by American professor George Gerbner to investigate the influence of media on viewers. He said such influence take place slowly as people face media frequently over the course of their daily lives.

This theory indicates that individuals who are continuous exposed to media understands social

realities according to how such realities are presented in the media. For instance, television has

the capacity to balance and combine views within a society. Children who watch cartoons on TV

try to do such acts in real life as compared to those children's who don't watch TV. As people's

opinions are molded by media exposure, their faiths, morals, and behaviours are also molded.

Gerbner first presented cultivation theory as part of a wider "cultural indicators" plan. The plan

aimed for three areas of study:

i) Institutional process study: which investigated how media messages are prepared

and disseminated;

ii) Message system study: which investigated that those messages communicated as a

complete package; and

iii) Cultivation study: which investigated how media messages influence the way the

users of media messages sees the real world.

Cultivation theory and television

Cultivation theorists suggest that watching television could have long-term effects that gradually

influence the audience. Their basic focus falls on the effects of viewing in the attitudes of the

audience as opposed to created behavior.

People who watch TV on regular basis have developed a belief that the television world is exact

picture of the real world. The theory suggests that continuous watching of television could create

a tendency of violence in the world. Theorists divided the effects of cultivation into two different

levels:

First order: It is a common faith about our world.

Second order: It describe about particular mindsets, such as a hatred or respect for laws and

principles, abnormal mindset like child abusers.

Mean World Syndrome

Mean World Syndrome is an assumption of cultivation theory, which states that aggression and hostility related feelings on television and film creates doubts in the minds of viewers that the world is very dangerous than it actually is. Audience who watch a lot of aggression and violence on TV and film could imagine that there are more murders than actually are in the real world.

Mainstreaming and Resonance

Due to popularity of cultivation theory, Gerbner and his associates presented the concepts of mainstreaming and resonance to further enhance their theory. Television effectively shows society's cultural mainstream. Audience represent various factions of society due to diversity of ethnicity, society, and political positions of such groups. Television through mainstream reduces such disparities by imposing unique tendency and further eradicates them completely, particularly among massive audiences. While mainstreaming boosts unity and equality among society folks, it enhances resistance to change in some aspects of culture and life, which might be in the favour of society. Hence is the significance to examine under which social situations does mainstreaming take place and in which way.

Gerbner, on the contrary, guesses that mainstreaming takes place in the way aimed by media owners and gate keepers. Gerbner denotes to the dynamics of mainstreaming as "the 3Bs:

Blurring, blending, and bending."

Blurring denotes to the merging of conventional differences.

Blending denotes to shifting the mainstream to the institutional benefits of the medium and its supporters.

Resonance

Television from time to time strictly manipulates opinions within specific segments of society in comparison to other. These segments of society are more friendly to television messages, whether due to direct involvement with certain matter, or as a result to a special interest in it. For instance, women may be more at risk to television messages dealing with aggressive and

passionate violations, as they are more scared than men of becoming preys to such types of crimes.

Research

While Gerbner concentrated his research on imaginary television, more recently, scholars have developed cultivation research into other media, including video games, and various types of television, such as reality TV. Furthermore, the topics searched in cultivation research go further. Studies have involved the effect of media on observations of family, sex roles, sexuality, aging, mental health, the environment, science, minorities, and various other fields.

Cultivation Differential

The disparity in the level of cultivation between various television audiences is known as the cultivation differential. A number of aspects could influence the intensity of cultivation.

- i. Audiences who spend more time on TV are more inspired than those who spend less time.
- ii. TV audiences who live in unsafe environment are more vulnerable to Mean World Syndrome.
- iii. It is depicted on TV that women are victims in our society, they are supposed to face more Mean world syndrome.
- iv. Watching television in company would reduce the cultivation effects because of group discussions or gossips. However, watching a horror movie alone at night could increase the possibility of cultivation.
- v. Young children who could not understand the consequences as displayed on TV exposed cultivation.

Criticism

Critics of cultivation theory criticize its scope and absence of classification while analyzing its contents. For instance, they do not make any difference between types of violence, they consider the consequences of watching cartoon equally as they do think violence in real life.

Q. No.2: Discuss the spiral of silence theory.

Answer

If we imagine that how frequently we express our opinions without fearing judgement? How frequent we bite our tongue due to an unpopular comment? How often do we avoid to give any comment with the fear what others would say or what situation it would create?

Spiral of Silence Theory

Most people do not express their opinions what they have in mind even in modern societies. However, they digest their opinions and adjust it according to the situation. This appears to the 'spiral of silence,' a human communication theory developed by German researcher Elisabeth Noelle-Neumann in 1970s.

The theory suggests that they remain silent for a few reasons:

- a) Fear of isolation or separation when the group or public realizes that the individual has a different opinion from the circumstances.
- b) Fear of retaliation or severe isolation, as a reason for giving said opinion might lead to a negative consequence beyond that of mere isolation.

For instance, the Chairman of an institution decides to impose a ban on foreign traveling and informs all employees through an office order. Majority of them accept his order and few employees are not satisfied with this decision because they need to travel abroad pertaining to their family commitments or for recreation. But they could not or ready to express their feelings openly.

The spiral of silence model

Millingness to speak out Person with minority view point Silence Fear Of Isolation

The downward spiral of silence model shows the decreasing will of a person to give his or her different views in the existence of a fear of isolation.

Mass media and spiral of silence

Mass media has prominent effect on us; we get each and every information through media. Media is like a window through which we see the world, and it educate us about its advantages and disadvantages. In the perspective of spiral of silence, mass media shapes our point of view, and accordingly our sense of opinion, by feeding us desired information. Furthermore, influential opinions of mass media and interpersonal help work together to dictate majority opinion. These mass media opinions are different than what most public think.

Characteristics of spiral of silence theory

- a) It is an influential technique.
- b) Mass media manipulates spiral of silence trends.
- c) Marginalization is a technique to eradicate competition in political, social and organizational level.
- d) People hesitate to speak due to their fear of isolation.
- e) People sometimes withdraw their proposals to correspond to factions of society.
- f) Powerful sections of society do not pay attention to a small group who do not follow their lines.

- g) Weaker factions of society get less treatment in social values.
- h) The results could be severe or dangerous.

Pros and Cons

- i. Spiral of silence theory has both micro level and macro level explanatory process.
- ii. It is adopted in parliamentary practices like Senate and National Assembly and provincial assemblies.
- iii. It helps to raise questions about considering the role and responsibility of media in the society.
- iv. In some cases, an individual could realize that his/her opinions are secondary as compared to majorities ideas.

Examples of spiral of silence theory

- Spiral of silence theory usually applied in politics. During public polls and general elections, public is requested about their views on candidates. Public try to support the famous candidate without any doubt or do not disclose their views. This situation elaborates the spiral of silence theory.
- The public of U.S. was approached to give their views in favour of Gulf War in 1991. Majority of the public were against the war. However, media which was supporting the U.S. government and war, presented opposite results. The public, who got information through media, were more supportive of war as they wanted to be in the majority. This is spiral of silence. The majority of public who were against the war, but did not speak up against it. They understood what media presented in the results was the view of the majority.

Q. No.3: What does the uses and gratifications theory say? /How this theory is different from hypodermic needle model theory? /On which grounds scholars criticize the uses and gratification theory?

The Uses and Gratifications theory

The Uses and Gratifications theory examines the influences and consequences of the media on public. It enlightens how public consume media for their own requirement and get satisfied when their requirements are met. It could be said that this theory discusses what public do with media instead of what media do to public. This theory is proposed to satisfy the needs of the audience. Even for communication, say – interpersonal, people refer to the media for the topic to discuss among themselves. By referring the media, they gain more knowledge and exposure to the world beyond their limited eyesight.

Background

This theory was introduced in 1940s with an investigation on why public decide to utilize different types of media. For the next few decades, uses and gratifications research mostly focused on the satisfactions media users wanted. Then, in the 1970s, researchers turned their attention to the outcomes of media use and the social and psychological needs that media gratified. Today, the theory is often credited to Jay Bulmer and Elihu Katz's work in 1974. As media technologies continue to proliferate, research on uses and gratifications theory is more important than ever for understanding people's motivations for choosing media and the satisfactions they get out of it.

Assumptions

Uses and gratifications theory depend on two principles about media consumers.

a) it identifies media users as active in their selection of the media they utilized. Having this perception, people do not use media passively. They are engaged and motivated in their media selections.

b) people are informed of their motives for selecting different media choices. They rely on their wisdom of their motivations to make media choices that will help them meet their specific desires and necessities.

Generally, uses and gratifications theory underlines the capacity of individual over the capacity of the media. Individual disagreement facilitates the relationship between media and their effects. These results in media effects being driven as much by the media user as by the media content it. So, even if people take in the same media message, each individual will not be impacted by the message in the same way.

Categories of Uses and Gratifications

Human needs and satisfactions could be divided into five broad categories such as:

1. Logical needs

Public utilize media to gather information and awareness. It is also utilized to improve understanding of various concepts and issues, for instance people watch documentaries, news analysis reports on current affairs.

2. Emotional needs

Media is utilized by people for their emotional sentiments and to get relax, for instance, they watch music videos, movies and romantic or comedy dramas on Netflix, YouTube or other web platforms.

3. Self-esteem needs

Some people utilize media to maintain and highlight their status to the public. For instance, sometimes people get to improve their status by watching media advertisements and buy products to change their life style with the help of media.

4. Needs for social connection

21st century has turned this world as global village. Media is actively playing its role to connect people with family, friends and colleagues. Internet and social media playing its role for this purpose. For instance, mobile applications such as WhatsApp, Skype, Signals, Wechat, e-mails, chat rooms or other social networking sites are used for this purpose.

5. Catharsis

Everyone has tensions and problems in daily life. People utilize media for release their tension and to spend time in peace of mind. Media divert human problems temporarily from the routine life. For instance, few people utilize media by watching comedy movies, some read books, comics and some play games.

Latest media platforms

This digital era has introduced various applications which are used according to uses and gratifications theory. By observing the use of technology in the world one could easily understand the usefulness and authenticity of uses and gratifications theory. Some prominent applications of this theory are as follows:

I. Research

Mass communication experts regularly apply uses and gratification theory for research purposes to explain the different scopes of the media used by people and to describe the social and economic context of needs on part of people.

For instance, Brown & Lauricella & Douai & Zaidi (2012) in their research article name as "Consuming Television Crime Drama: A Uses and Gratifications Approach" published in *American Communication Journal* used uses and gratifications theory and concluded that curiosity and information are two actual needs due to which young people watch crime dramas.

ii. Mobile Phones

Mobile phones have now become a basic need of everyone. People use mobile phones for immediate access, fashion/status, entertainment, weather forecast alerts, sports alerts, interaction, affection and mobility. For instance, people are using mobile phone apps to check latest scores specially cricket and football lovers. They get score alerts by downloading and subscribing respective apps on mobile phones.

iii. Television

Television enables us to have freedom and escape from all our worries having remote control in

our hands to watch different content as we desire. People watch television for relaxation and for this purpose they especially dig out some time from their daily routine lives. For instance, Bulbulay – a comedy drama serial on ARY Digital is a source of entertainment for large number of people.

iv. Radio

Radio is used extensively for information gaining purpose and for community development. People listen different radio contents to gratify their different needs such as information, entertainment etc. For instance, farmers in rural areas of Pakistan listen radio especially for the sake of updates regarding weather and which fertilizers to use for production purposes.

v. Internet

Internet allows us to identify more people and internet has made it possible to search for anything which comes in our minds. Internet has developed our education massively by launching different sites with the help of which we could get the required information. Facebook, Twitter, WhatsApp, Google, Youtube, Wikipedia, Google scholar and many more are popular examples of internet usage.

Difference between Uses & Gratifications theory and Hypodermic Needle Theory

One of the main differences between hypodermic needle theory and the Uses and gratifications theory is the actions of the audience. Hypodermic needle theory considers the audience as "blank sheets of paper on which media message could be written" (Hanes, P The Advantages and Limitations of a focus on Audience in Media Studies). It considers the audience as a shapeless crowd which the media could influence in any way they desire, the audience has no capability for logic and no prior expectations with which to evaluate the media messages.

On the other hand, uses and gratifications theory says that "members of an audience would have prior attitudes and beliefs which would determine how effective media messages are" (Hans P The Advantages and Limitations of a focus on Audience in Media Studies). This does not disprove the fact that the media tries to inspire its audience, one only has to judge the massive volume of advertising the public is put in danger too to understand this. However, the important

difference being that uses and gratification theory admits that a mass audience is comprised of individuals all with the competence for independent thought.

Critics on Uses and Gratifications Theory

In 2002, James Lull criticized the basic assumption of uses and gratifications theory i.e. people seek out media to gratify their needs by pointing out that audiences do not always benefit from the use of media and moreover they do not take media consumption willingly and independently.

A strong limitation of this theory comes from one of its developers E. Katz who in 1987 admitted the doubtful nature of the study itself. Since the theory investigated from media users by relying on their memories which could be distorted due to external influences. Some researchers also argue that uses and gratifications approach is individualistic and completely ignore the sociocultural context. Positive point of the uses and gratifications theory is it focuses attention on individuals in the mass communication process.

Q. No.4: Do mass media set audience agenda? Your answer should be based on solid theoretical basis as well as empirical evidences.

Agenda Setting

Agenda setting is one of the most significant media theories of the present times. The notion of agenda setting took its name from the idea that the mass media have the capability to take the prominent points on their news outlines and then convey it to the public agenda. Agenda setting states that audiences get this attention of the matters from the news media, combining same preferences into their own agendas. Agenda setting explains the prominent communication as one of the most important feature of mass communication. The electronic media not only update us about the whole world by highlighting major things happening in the world, but they also inspire importance of those things in the images.

Background

Walter Lippmann in 1922, presented the concept of agenda setting very first him in his book Public

opinion in which he said that mass media make pictures of events in our memory and the experts should be aware of those pictures in people's minds.

In 1963 Bernard Cohen noticed that media "may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about. It follows from this that the world looks different to different people, depending not only on their personal interests, but also on the map that is drawn for them by the writers, editors and publishers of papers they read."

In 1972 Maxwell McCombs and Donald Shaw performed a research of media's role during presidential campaign in North Carolina, U.S held in 1968. In their research they discovered that the media has played a very pivotal role for readers and viewers what to think about and they invented the term agenda setting to define this process.

Assumptions of agenda setting

There are two fundamental assumptions of agenda setting theory:

- a) The press and media do not show reality, they process and manipulate it.
- b) Media focus on few things and themes guides the public to notice those issues as important as any other issue.

Types of agenda setting

Research indicates that the media agenda, audience agenda and policy agenda influence the agenda setting as defined below: Rogers and Dearing explains how following types of agenda setting (dependent variable in research) are influenced by other factors.

- 1. Media Agenda or Agenda building
- 2. Public/Audience Agenda
- 3. Policy/Political Agenda

1. The media agenda or Agenda building

Journalists, editors, newsroom staff and media houses form the political reality by picking relevant

stories to broadcast.

2. Public/Audience agenda

The public pick important topics whatever they feel important.

3. Policy/Political agenda

The policy and political agendas denote topics that the executives consider are especially important, for instance, legislators, political elite and those relevant who influence the legislative process.

Above three agendas could be perceived as a dependent variable in informal comparison, as in public agenda setting the public agenda is dependent variable, in media agenda setting media's agenda is considered as dependent variable and in policy agenda setting elite policy maker's agenda is dependent variable.

Process of agenda setting

Agenda setting take place through a reasonable process known as "availability". Availability suggests that the more regularly and significantly the news media cover an issue, there are chances that particular issue would be available in the public memories. When respondents are questioned what the big problem of the country is, they recall and answer with the most accessible issue in memory, which is usually the issue the news media focused on the most. The agenda-setting effect is not the result of receiving one or a few messages but is due to the collective effect of a very large number of messages, each of which has a different matter but all of which deal with the same general issue. Mass media reporting in general and agenda setting in particular also has a dominant effect on what individuals think that other people are thinking, and consequently they incline to assign more time and prominence to issues that have been widely covered by mass media.

Theory development in agenda setting research

Levels of agenda setting

There are two levels of agenda setting:

a) First level of agenda setting

In this stage, the media filters objects which are significant for reporting. It is considered by the importance of the target. A target in agenda setting theory is the object towards which our attention is focused. Hence, the more the media reports on a specific issue, the greater its target attention.

b) Second level of agenda setting

In this stage, the media not only recommend what the public should think about but also motivate how people should think about the issue.

Framing

The idea of framing is vital to understand second level of agenda setting. In the context of agenda setting, framing is an activity through which the media underline some features of life and restrain other features. Framing could be performed through the understanding of specific subtopics, through the size of positioning of news item, narration, and manner of appearance and specific details included in the media coverage. Scheufele states that "framing inspires hwo audiences think about issues, not by making outlooks of the issue more relevant but by using explanatory plans that influence the interpretation of incoming information."

Priming

Priming are defined as the consequences of specific, earlier situations on the retrieval and clarification of information. Priming offers clarification for the psychological developments that favour the agenda setting effect. That is when the media grant a huge allocation of space and time to particular issues, these issues become reachable and important in a person's intellectual formation. These primed issues would then be believed particularly important for individuals (first level agenda setting). Moreover, because humans have restricted information handling abilities, these primed topics would provide a way of examining other mainly uncertain information. (Second level agenda setting).

Examples of Agenda Setting theory

In August-September 2021, the most covered news event throughout the world is the disgracing

departure of U.S. forces from Afghanistan. The departure was reported in gasping coverage, with hurry of close fate. However, it was totally clear that for most people in most countries of the world, the return of unconstitutional regime in Afghanistan has little to no importance for their everyday lives.

2. Social media

The agenda setting theory was primarily designed for prevailing media such as television and newspapers, in the 21st century, social media and video sharing applications have begun to dominate the traditional news media. Social media applications such as Facebook have regularly been blamed for filtering news posts in favour of specific ideas and thus molding public opinion. Social study has supported the opinion that social media platforms such as Twitter and Facebook match both the circumstances of the agenda setting theory in that they are selective in what they permit their audiences to see. Audiences that link with political content on Twitter or Facebook show an enhanced level of "issue prominence", or supposing that the certain issue shown significantly on twitter or facebook is more important than others.

This affects people to retreat into their prejudiced political bubbles where the agenda in their newsfeed is completely different to the agenda of people of opposite political views.

Criticisms of Agenda Setting Theory

a) It's difficult to compute

Since the agenda setting theory serve the internal beliefs and views of people (and how these are delicately affected over time through the media's affect), it is difficult to impartially determine and compute.

b) It's irrelevant to instances of acceptances

The agenda setting theory does not relate to situations in which people already have made their minds on an issue. These people just have their opinions strengthened what they witness in the media, relatively having the media influence them in itself. In such cases, the media is only validating an already existing partiality instead of affecting judgement.

c) There is also opposite agenda setting

Opposite agenda setting is the activity through which public views forms the media agenda instead of the other way around (Haarsager, 2009). Twitter trends, viral videos, online appeals are common examples of opposite agenda setting.

Conclusion

Agenda setting theory was first developed to highlight the huge effect of mass media on what is "on the agenda" in public debate. Currently, the theory is used to observe the influence of social media platforms and their procedures on what news we obtain, and what the partialities of those news platforms. It is as suitable as still today when our divided news networks are creating social differences between the political left and right.

Q. No.5: What do you know about diffusion of innovation theory? Discuss how an innovation spreads through a social system.

Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. Diffusion is a special type of communication concerned with the spread of messages that are perceived as new ideas. Diffusion of Innovation Theory, developed by E.M. Rogers in 1962, is one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses or spreads through a specific population or social system.

Process of Diffusion of innovation

Diffusion of innovation is the process by which the adoption of an innovation spreads over a period of time to other clients through communication. The process of diffusion occurs for new products as informational influence and is likely to affect the adoption of new products across groups. Consumer researchers trying to explore the area of consumer acceptance of new products are primarily interested in understanding two closely related processes.

- a) The diffusion process.
- b) The adoption process.

Features that influence the Diffusion Process

All new products or innovations are not always easily accepted by consumers. Some products gain easy acceptance or are easily accepted by consumers. For instance, Surf Excel washing powder was accepted by the consumers while Ariel was the market leader, Suzuki Swift1000 c.c. car grabbed the attention of the customers while there are other new products or ideas which took a long time to be accepted.

Following five features could play significant role in influencing the diffusion process:

1. Comparative benefit

Comparative benefit of the new product is the point which indicates whether it is better and superior than the existing products. If the consumer perceives, the new product to be comparatively enhanced as compared to the existing products, more is the chance of the innovation being adopted. For instance, 'E-mail' and Fax were considered to be better and superior to Telex.

2. Similarity

The level to which possible clients experience that the new product is compatible with their existing requirements, standards and ways is a measure of its possibility. If the requirement is similar, innovation would be accepted by the clients in no time. For instance, 'Laptop' computers are highly similar with the requirements and standard of living of senior executives of Organizations.

3. Difficulty

If a new product is comparatively complicated to or difficult to understand then it would take more time to attract the customers. For instance, personal computers are complex that is why took a lot of time to enter the homes of Pakistanis.

4. Initial trial facility

If a product which is being introduced in the market is available for initial trial to the customers

on small or large scale before going for full-fledged use, then its satisfaction could be judged by the customers if they have got a chance to use it. Initial trial is very important for acceptance or rejection of any product.

5. Observability

The result of new product is observed by others whether or not the new product meets the requirement of the customers. A new product concept will work if the new technology or new product usage could be described and demonstrated.

Steps involved in the process of adopting new products

Diffusion takes place via five steps during decision making process. It takes place through a series of communication channels over a period of time among the members of a similar social system. This is due to bring about a change in buyer's attitude and perception. Following five steps could help in the process of adopting new products:

Step 1: Knowledge / Awareness

A new product or service is introduced to the market in this first step. The end user gets awareness about a new innovation or new idea or new product from any source of information such as friends, neighbor, colleagues or commercial sources.

Step 2: Persuasion

The individual is interested in the innovation and actively seeks related information/details in terms of its utility aspects, performance, and durability and so on.

Step 3: Assessment

The individual takes the idea of the innovation and assess the advantages/disadvantages of using the innovation and evaluate the reliability of the innovation. He or she also evaluates to what extent the new product would be useful to him/her and then decide on whether or not to buy the new product.

Step 4: Trial of the new product

The individual decides to try out the innovation on a small scale basis initially in this step and

make an actual assessment of the worthiness of the new product. This step also indicates that the individual is mentally ready now to try the innovation, though initially on a small scale.

Step 5: Adoption

On being satisfied with the use of the new product, purchased by him on a trial basis, the individual now decides to make full and regular use of the innovation. This is the last stage in the adoption process. The individual takes the decision to go for a full-fledged and continuous use of the new product or innovation.

Basic Components of the Diffusion Process of Innovation

Rogers says that diffusion of innovation comprised of four main components which are given below:

a) Innovation

The term 'innovation' refers to the newness of the good or service offering. Rogers has defined an innovation as 'an idea, practice, or object that is perceived as new by an individual or other unit of adoption'.

b) Channels of Communication

These are the sources which communicate necessary information about innovation from companies to the people in the social system as well as from one individual to another. They include both marketing communication and interpersonal communication through word of mouth (WOM). Marketing communication takes place between the marketer and the potential market, or the target segments.

c) Role of Social Systems

Diffusion always takes place within a social system. The social structure, established principles, and norms, as well as the opinion leaders, influence the acceptance or rejection of innovation and affect the speed with which the diffusion will take place.

Opinion leaders are important when it comes to diffusion of innovation. Not all individuals exert an equal amount of influence over others. In this sense <u>opinion leaders</u> are influential in

spreading either positive or negative information about an innovation. Rogers relies on the ideas of Katz & Lazarsfeld and the <u>two-step flow</u> theory in developing his ideas on the influence of opinion leaders.

Electronic social networks play an important role in adoption of innovation. Today, reviews, chats, and blogs also play an important role in the diffusion of innovation. Marketers resort to E-WOM and encourage communication with and between current and prospective customers via social media, often motivating their customers to spread the word. The company's online social network page is also used as a platform.

d) Time

Time is an important factor in the diffusion of innovation, as it determines the pace of adoption and the resultant absorption of the innovative offering. It specifies how long it would take for people to adopt a new good or service. Experts estimated the impact of time in three ways:

- i) Amount of purchase time refers to the average time that a consumer takes to adopt a new good and service offering. This would include the total time between the consumers' initial awareness and the final acceptance/ rejection of the new product or service. When the average purchase time is less, it could be assumed that the rate of diffusion will be faster.
- **Rate of adoption** is a measure of how long it takes a new product or service offering to be adopted by the members of the target. Rogers defines the rate of adoption as the relative speed with which an innovation is adopted by members of a social system'.
- **Identification of adopter categories** Based on the length of time required for a certain percentage of the people in the target market, the adopters are classified into adopter categories. Ryan and Gross (1943) were the first to propose the adopter categories, which were later elaborated upon by Everett Rogers.

Adopter categories

The adopter categories demonstrate a classification scheme amongst members of the target segment, which shows where one customer stands in relation to another customer with respect to time, which has lapsed between the introduction of the new good and service and the adoption by a customer. Everett Rogers in his famous book, Diffusion of innovation, published in 1962, proposed a classification of adopter categories.

i. Trendsetters

Trendsetters are those customers who are willing to take risk, have the highest social status, have financial power, are social and have closest contact to scientific sources and interaction with other customers. Their risk tolerance allows them to adopt technologies that may ultimately fail. Their financial status helps them to bear these failures.

ii. Groundbreakers

These persons have the topmost level of opinion leadership among the adopter categories. Early adopters have a superior social status, financial resources, advanced education and are more socially ahead than last minute adopters. They are more careful in adoption selections than innovators. They use sensible selection of adoption to help them maintain a central communication position.

iii. Deliberators

They adopt an innovation after a varying level of time that is significantly longer than the innovators and early adopters. Deliberators have above average social status, contact with early adopters and infrequent positions of opinion leaders in a system.

iv. Doubtful

They adopt an innovation after the common participant. These individuals consider an innovation with an extreme level of uncertainty and after the majority of society has adopted the innovation. Doubtful remain suspicious about an innovation, have below average social status, little financial resources, in contact with others in late majority and early majority and slight opinion leadership.

v. Stragglers

They adopt the innovation after everyone has availed it. These individuals do not show any desire or intention even to opinion leadership. They usually do not like any idea of innovation or change. They usually follow old traditions; have lowest social status, lowest financial resources, no interest in adoption, and in contact with only family and family friends.

Analysis

Diffusion is hard to measure because humans and human networks are complex. It is extremely difficult, if not impossible; to measure what exactly causes adoption of an innovation. This is important, particularly in healthcare. Those encouraging adoption of health behaviors or new medical technologies need to be aware of the many forces acting on an individual and his or her decision to adopt a new behavior or technology. Diffusion theories could never account for all variables, and therefore might miss critical predictors of adoption. This variety of variables has also led to inconsistent results in research, reducing heuristic value.