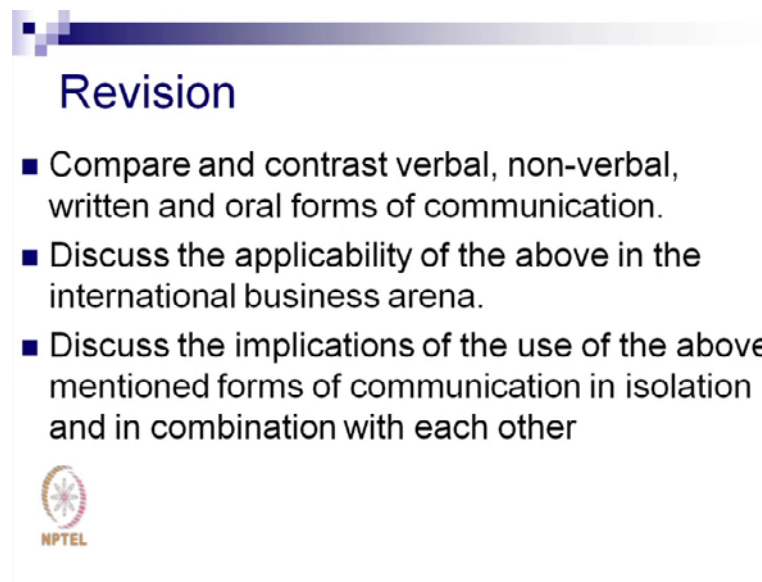


International Business Communication
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Lecture - 35
Role of Technology in International Business Communication


Welcome back to the class on international business communication. Today we will be talking about how technology plays a part in communication in international business. How do we communicate using technology? What are the effects of the use of technology in the international business sphere? In international business communication specifically, and how we can expand this realm? I mean that is something that I would like you to think about what affects the use of technology in international business communication and so on and so forth. So, before we move on we will have a revision; again IBC stands for international business communication revision compare. And contrast verbal non-verbal written and oral forms of communication.

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Revision

- Compare and contrast verbal, non-verbal, written and oral forms of communication.
- Discuss the applicability of the above in the international business arena.
- Discuss the implications of the use of the above mentioned forms of communication in isolation and in combination with each other



Now, we are at a stage where I would really like you to see these differences; please figure out what these differences are you should know what is verbal communication? What is oral communication? What is non-verbal communication? What is written communication? And today we will talk about digital communication.

So, you should know the differences, you should know the effects of communication. You should know the effects of either of these are each of these media on the interpretation the designing and interpretation of messages and so on. So, you should know these basics discuss the applicability of the above in the international business arena. I would like you to figure out how each of these can be used; where would they be used; where would you use written communication? Where would you use oral communication? Again I told you last time I am telling you again; this course is not about prescriptions.

I would like you the people listening to these things to come up with your own prescriptions; please, come up with 10 steps to effective written communication. Please, come up with 20 steps to effective non-verbal communication. Please, come up with 15 steps to effective oral communication; that is something that I want you to figure out on your own based on what you hear in this class. And based on the links that are brought to your or suggested to you.

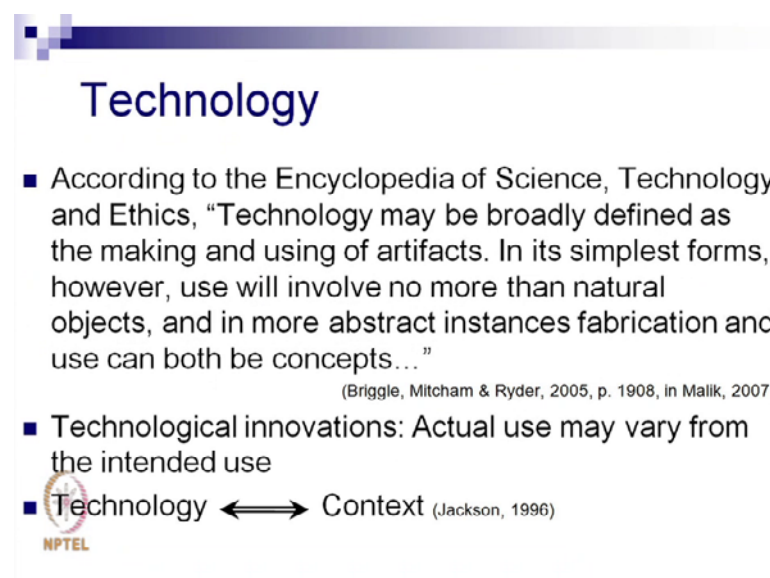
You can take these links and search some more; and I would like you to figure these things out on your own. And I had noticed a very interesting snapshot on face book; I do not think I have the authority to put up put it up here. So, I am not going to do so but it was just a slide; where this person had said that what we study in class is we are taught in class that $2 + 3 = 5$; in the examination we are asked what is 239 multiplied by 569 .

And, in a class test that is what we are asked? And in the examination what we are asked to compute is the mass of the sun. And that is pretty much what I am trying to do here; it is not I am giving you all the tools. Now, you figure out how these tools can be applied there is a reason for this; it is not to offload what we do here on you? The reason for this is to help you start thinking more critically about whatever we learn to start using the or to start applying the basic concepts to daily lives, because we cannot cover the entire gamut of situations.

Now, digital communication is relatively newer phenomenon as compared to written communication or oral communication. It is a form of written communication, but there are some aspects of morality also in the written in the digital communication. And that is pretty much what we will discuss today how do these things play a part in determining? How people feel about digital communication? I would like you to also discuss the

implications of the use of the above forms of communication in isolation and in combination with each other. When would you use written communication on its own? When would you combine with oral communication? When would you or would you be able to combine written oral and non-verbal communication? In someplace where when what would the impact be please discover these things for yourself and you all learn a lot more. After, you have done that let us move on to technology digital communication. Now, we will talk about digital communication digitality is a form of technology. So, before we talk about digitality we should have some philosophical understanding about what technology is?

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Technology

- According to the Encyclopedia of Science, Technology and Ethics, "Technology may be broadly defined as the making and using of artifacts. In its simplest forms, however, use will involve no more than natural objects, and in more abstract instances fabrication and use can both be concepts..."
(Briggle, Mitcham & Ryder, 2005, p. 1908, in Malik, 2007)
- Technological innovations: Actual use may vary from the intended use
- Technology ↔ Context (Jackson, 1996)

NPTEL

According to the encyclopedia of science technology and ethics technology may be broadly defined as the making and using of artifacts in its simplest forms; however, used will involve no more than natural objects and in more abstract instances fabrication. And use can both be concepts; again there is a debate going on whether technology is only artifacts or the use can also be considered as technology. And the use depends on my favorite word here context how do you use something; how does that use impact; how you think about technology or any other artifact; will be determined by context. And context will further feed into what you think about the technology and how you use it? What you see in it? What do you think of value in it technological innovations? The actual use of technological innovations may vary from the intended use. An example of this is the radio or the television.

Initially, the radio and television were forms of mass information they were designed in to convey information in mass to people. And then people realize that why only information why not some entertainment, why not education. Initially, when TV started it was news; most of it was news I remember those times I was a kid. And Himachal Pradesh had just started using television it was in the 70s. And we had just got you know started watching TV in Himachal; the relay used to be from Jalandhar TV if I am not mistaken. And there was one receptor in Shimla that used to transmit it to selected places in Himachal.

And, some programs initially were you know most important programs were news in English Hindi and Punjabi, because it was coming from Punjab. And then we had you know some sports events, but it was pretty much that maybe 1 weekly movie. And we used to have Chitrahah which I am not sure if Doordarshan still broadcasts that or not; it was a medley of songs. And may be 1 quiz program then your slowly things started creeping in we started having quiz programmes; we started having foreign programs were also shown.

One of the earliest programs was I think mind your language and Telematch. Telematch was a German program there were many variations available of that, but if you Google it you can see it. So, it was mainly to stimulate your senses hard-core entertainment was never a part of the television; at least when it started this is from personal experience I am sure research has indicated otherwise. But people who are in the same age group as me who are somehow you know; who have seen all this happening will be able to relate to it.

Then, people started realising that these forms of mass communication can also be used for education. So, the one thing that parents never prevented their children from watching watch the u g c program. It was a broadcast daily I think at 9 o clock 9 am or 10 am in the morning; and at 3 or 4 pm. And I remember coming back from school and sitting glued to this television; these where things they were not being taught in school. But this is something that we could learn from there we used to have a science quiz. And you know old days black and white televisions used to be there colour transmissions had not yet started we used to have a science quiz. So, people started thinking that this form of mass communication can also be used for in education in addition to giving people.

The news about various events that they did not have access to through newspapers; and they realized that this kind of technology would bring them news faster than what you saw in the newspaper. The next day was brought to you via national news the previous night. So, you were a step ahead and having experienced these things. You know we saw the advent of the internet we were pre internet teenagers and pre internet adorers and soon pre-internet young adults. And we saw how this changed our lives completely. Now, similar things happen similar things can be applied to the newer forms of technologies.

Specifically, communicative technologies like blogs for example, or teleconferencing or what you are what is happening here. This particular event this recording is happening in you know sometime in the late say 2000 and 10 to 2000 and 12 timeframe. Now, who knows how long this will be saved who knows how long this will be available? This could be available even 100 years from now as an old archived piece of information; if there is some value to it or this could be deleted as soon as people listen to it.

So, things have changed people realized that the internet was there for information and then the internet started for coming up for entertainment. And for people to connect with each other; internet stands for international network if I am not mistaken. And so it is a network of people who are sharing what they know people are communicating with each other. And then with the positives also came the negatives. So, it is really about you know when you design a technology? You do not know how all consuming it can be and many philosophers including one who I have referred to quite a bit; was Martin Heidegger who said that you design a technology for your use, but eventually it ends up consuming you.

Because you have to you have to really keep a tab on how you use technology. And context as we have already established how we use technology depends on context? And then the use of technology we are pushed into a position we use technology for something else than it has been intended for; and then slowly it takes over. And we sort of give it different meaning to it; one technology that has now died is Google wave it started its people said that it will be probably replace face book. But what happened was that Google wave started, but face book was so strong. And a lot of things that were on Google wave were also available on face book people; you know they started competing with each other. So, eventually the whole concept even though it was very good somehow it did not offer anything additional. It did not offer the additional benefit of

getting people of you know of helping people stay in touch with each other. Now, that is an example of technology dying.

Because of lack of creative use people could have used it, but there are so much available I tried it. I tried it in one of my classrooms where we got people to start talking the biggest problem was the load on the server; we could not keep up with it. I wanted all my students to participate in a class of 100 students I made groups; even though we had only 10 groups the, it was hard to have people participate in the discussion. Because of the load it put on the server. So, that is one reason why I stopped using it; there could be other people who are doing different things also. But depending on the ease of use of technology again in international business; I will bring it back to what we are really discussing here it is international business? In the international business arena what technology does is something that no one can imagine something that no one can predict. And, I am going to give you all these inputs I am sorry I am really very, very passionate about this subject. So, I may have straight from the main topic, but then you will become as passionate too after you have gone through this lecture I hope.

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Communication Technology

- Communication assisted or facilitated by technology
- Communication that is mediated by technology, where technology itself acts as a liaison between the sender and receiver of the message



Communication technology can be of 2 types it could be communication assisted or facilitated by technology; let us think of some examples may be the voice mail could be a form of communication that is assisted or facilitated by technology does not alter. The communication as such it just helps store the form of communication; it would just be

sort of unit it acts as a storage device that is communication assisted or facilitated by technology.

Communication that is mediated by technology where technology itself acts as a liaison between the sender and receiver of the message; these are the 2 categories that I thought we could apply to the communication technologies especially in the workplace. Some examples of this of computed mediated for sorry communication mediated by technology could be the discussion groups could be decision making that is off loaded to the computer.

So, you feed in the data the computer gives you some responses you use those responses and make your decisions. So, what happens is that what you put in is in your control, but what comes out is not in your control. Similarly, with discussion groups you say your part, but how the other people respond. And how that tries in with your, what you said where are the hyperlinks generated? How they are generated all that is not determined by you somehow this computer is playing a part. And you say well it is all human beings yes we feed in information, but then how that information is tagged? And how it links up with relevant things is again managed by a supercomputer outside of this one. And that is where we say that the computer becomes a medium of transmission. It could be a storage device also; it could become a medium of transmission it could be a different source of information as well sounds my in boggling we will come to it in a bit.

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Communication technologies in international business (Modaff & DeWine, 2002)

- Voice mail
- Email
- Teleconference
- Compressed video
- Computer assisted decision making
- Blogs and personal websites
- Discussion groups
- Online communities & Virtual reality
- ... (add as many as you like)

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Communication technologies in international business; writes now in the year 200 and 11 12 what is really happening; is the technologies in international business that are being used today are one voicemail is an integral part of any business. You have emails all business happens pretty much over emails very few face to face interactions very few papers. Teleconferencing is another one; we have compressed videos, we have computer assisted decision-making, we have blogs and personal websites, we have discussion groups, we have online communities and virtual reality; you have a second life again. I think there is a website called second life dot com. So, you can create a different identity you can create multiple identities and people can be communicating through those; and you can add as many as you like to this particular set.

Now, I will give you an example one thing that this does is that it somehow immortalizes the sender of the message. And it is a sad phenomenon and I have not put it on the slides how if you are using something like face book you will realize that a lot of times; people who are who have passed on still have their profiles. Obviously, people do not share their passwords with others unless it is an emergency. So, those people the profiles of such of people who are passed on are still available on face book which is which means that they have somehow become immortalized. And if they have shared their passwords with their near and dear ones; may be some people want to keep these the souls alive through their identities on the internet. And by the time that this video is broadcast and shared and who knows maybe 10, 15, 20, 50 years down the line.

This will become our reality; a means of immortalizing ourselves a means of storing records. So, it is not really oral or written in the previous lectures we said that written communication helps you store records. But at this point we are also realizing that internet communication through technology can also become a very valuable storage arena for records it immortalizes you.

And, the space required is not very much; and the thanks to all our scientists who are working day and night to develop these technologies. The manner of storage is not as difficult you do not have buildings full of old files; that are prone to you know fire. And all that stuff or termites and it is very easy to retrieve it is relatively may not be very easy, but relatively easier to retrieve all this information. So, you what you say what you do throughout your life is in a way immortalized through the use of technology scary, but

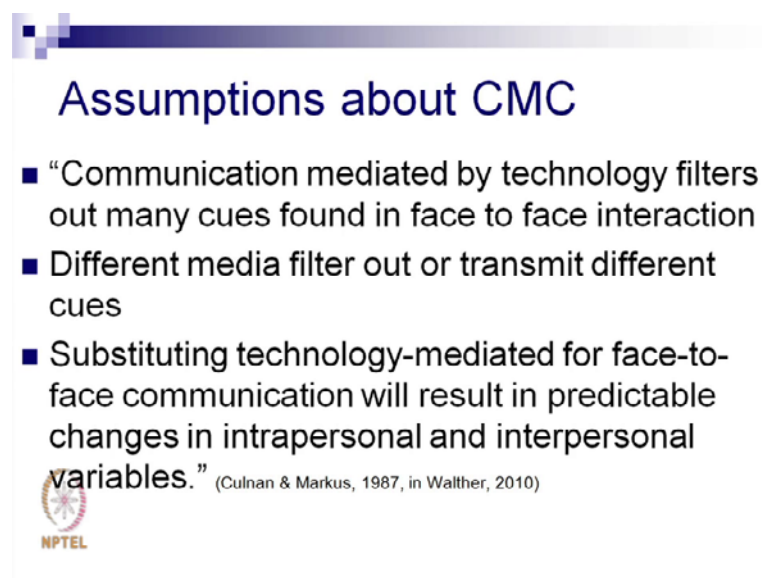
also you know both positives and negatives. And we get into this discussion it will take up maybe 15 more lectures.

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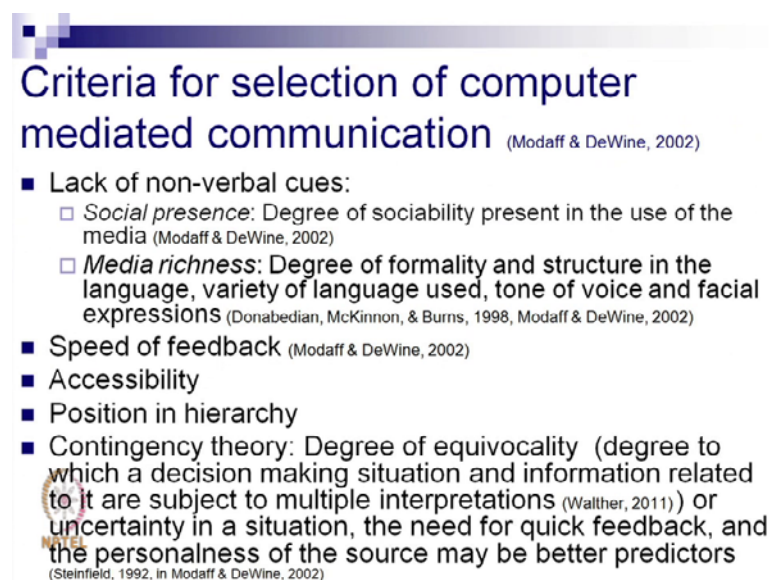
Computer mediated communication; let us come to that, because computer assisted communication is primarily storage. So, not very much going on there, but when we start mediating our communication through the computers I am going to stick to only one thing today computers.

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Then, let us see what happens some assumptions we make about computer mediated communication; c m c is an internationally recognized abbreviation for computer mediated communication. This is from a paper by Culnan and Markus quoted in Walther 2000. And 10 communication mediated by technology filters out many cues found in face to face interaction. One of the assumptions different media filter out or transmit different cues substituting technology mediated for face to face communication will result in predictable changes in intrapersonal and interpersonal variables. I will discuss this if I start getting down to it I will not be able to cover anything. But just keep it this in mind that the computer mediated communication will have an impact on how we think about situations; how those situations in turn affect how we deal with other people in the environment.

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Criteria for selection of computer mediated communication (Modaff & DeWine, 2002)

- **Lack of non-verbal cues:**
 - *Social presence*: Degree of sociability present in the use of the media (Modaff & DeWine, 2002)
 - *Media richness*: Degree of formality and structure in the language, variety of language used, tone of voice and facial expressions (Donabedian, McKinnon, & Burns, 1998, Modaff & DeWine, 2002)
- **Speed of feedback** (Modaff & DeWine, 2002)
- **Accessibility**
- **Position in hierarchy**
- **Contingency theory**: Degree of equivocality (degree to which a decision making situation and information related to it are subject to multiple interpretations (Walther, 2011)) or uncertainty in a situation, the need for quick feedback, and the personalness of the source may be better predictors (Steinfeld, 1992, in Modaff & DeWine, 2002)

Some criteria for selection of computer mediated communication; one is the lack of non-verbal cues. Now, we know that there are no non-verbal cues and depend and knowing this fully well; we still choose to use the computer mediated communication. Some of the aspects here are one is social presence. Social presence is the degree of sociability present in the use of the media; how visible you are how people view you in the business environment in your social environment or socio professional environment. If we if you want to take professional environment as a subset of social environment; how people view you there how much of presence you have how much of impact you are having. So, that again depends on the lack of non-verbal cues again that impacts this. It also impacts

media richness; which is the degree of formality and structure in the language, the variety of language the kinds of words you use the tone you use; and the facial expression if applicable or smiley's that also adds to it.

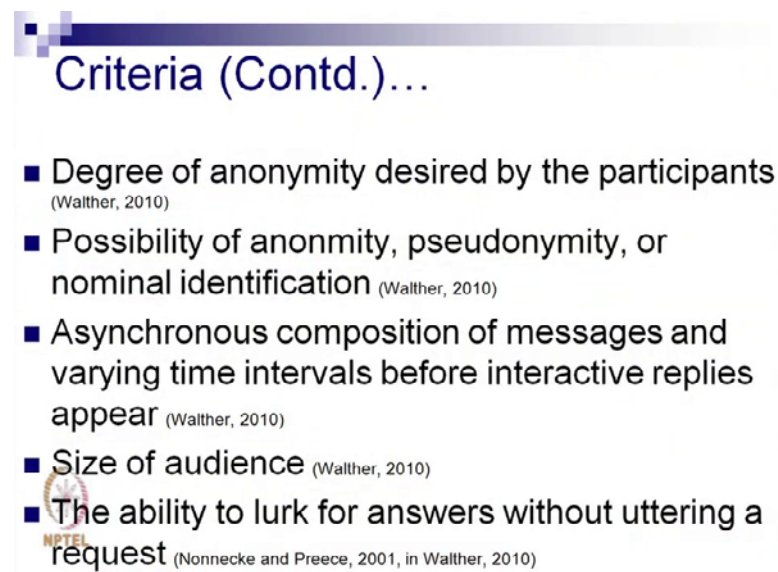
Now, time the speed of feedback has been a part of media richness I have put it under a separate heading here. Because I feel that this is a very important criteria in for selecting which kind of a technology you will use for your communication. And again this depends on the availability again; next point here is accessibility who has access to a particular form of technology? May be 10 years ago very few people had access to a telephone, cell phone was a luxury. These days cell phone is a necessity in IIT Kharagpur; very poor areas you know people with very living in very, very poor conditions live within and outside the campus. People do not have people of do not have that much money to spend on luxuries. But we see the Rickshaw Wallahs on campus carrying cell phones.

So, if they wanted they could engage in business with anyone sitting in any part of the world. Because these programs these you know the ability to communicate with somebody is so; and so much these days it has become a necessity. The accessibility of a cell phone is much higher than the accessibility of an internet connection. So, if somebody sitting in some other part of the world; if a rickshaw puller in say London wanted to communicate with the rickshaw puller in Kharagpur or in Midnapore. They could do so via phone they do not need anything else. And it would not cost that much they will be able to probably afford it; it is easier.

Position in hierarchy is another criterion that will depend on how comfortable you are higher-ups feel with the technology; you use maybe they prefer paper-based communication; maybe they prefer face-to-face communication may be they prefer email that will depend on where you are contingency theory is the degree of equivocality; which is the degree to which decision-making situation. And information related to it are subject to multiple interpretations or the uncertainty in a situation. The need for quick feedback and the personalness of the source could be better predictors of the contingency theory. So, how uncertain is it to interpret what was intended that is the contingency theory.

And, that in turn determines what technology we use an email with smiley's will somehow convey both verbal and non-verbal expressions. And again there is a whole bunch of research that tells you that you should not capitalize, because capitalization and email amounts to shouting. So, you know how you the font you pick the colour of the font the background that you pick shows people what you are thinking and where your coming from and again. If we get into it is just been spread over ten lectures.

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Criteria (Contd.)...

- Degree of anonymity desired by the participants (Walther, 2010)
- Possibility of anonymity, pseudonymity, or nominal identification (Walther, 2010)
- Asynchronous composition of messages and varying time intervals before interactive replies appear (Walther, 2010)
- Size of audience (Walther, 2010)
- The ability to lurk for answers without uttering a request (Nonnecke and Preece, 2001, in Walther, 2010)

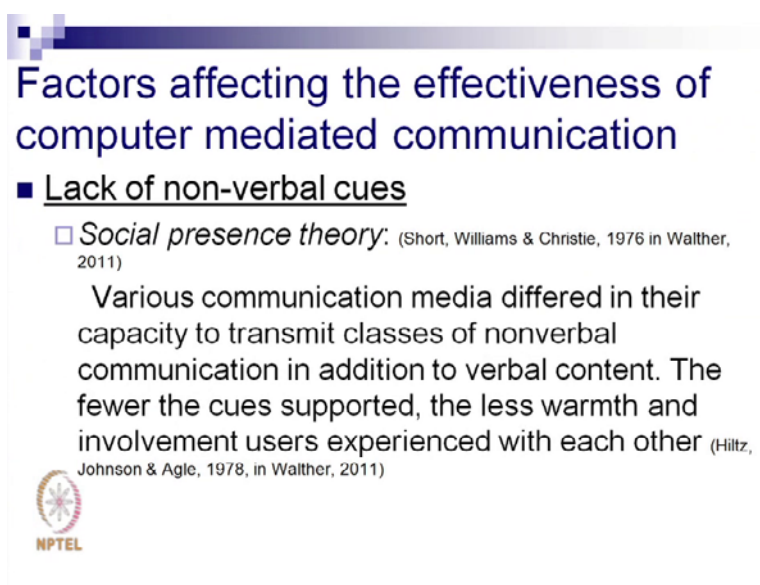
Some more criteria the degree of a anonymity desired by the participants; how invisible they wants to be is another factor, possibility of anonymity pseudonymity or nominal identification. Again some people want to be invisible; some people do not depending on what they are doing they may even want to be deceptive. Pseudonymity is being portraying yourself to be somebody else you want to have an online presence you do not want to declare who you are? So, you come up with a separate identity and you go with the pseudonym I want to be known, but I do not want the real me to be known I want only this aspect of me to be known. So, there is social presence, but the name your using is different or nominal identification you have some little bit of presence. But again depending on how you want to portrait; it is selective identification.

If synchronous composition of messages and varying time intervals before interactive replies appear; again how you structure your messages where do you want which kind of reply. You know again this sort of this comes in the realm of strategic communication.

How you shape your messages, what is transmitted, when it is not in real time? You send out one part of the message at one point. And then you come up with it and say that is not all get the person interested you say that is not all. That is an example of a synchronous compositional messages you get a person hooked on we had discussed this in persuasion. Size of audiences another one how many people do you want to reach; if it is a phone call it is very unlikely that you will be able to leave voicemails for 50 people. It may become possible by the time this message is this video is transmitted. Today it is not possible to leave the same voicemail on 50 machines. But it may become possible and it may become easily available.


So, if it is one to one messaging you leave a voicemail; if it is a personal message you vary the tone pitch. If it is a mass thing you leave a an email or you put it on the bulletin board if you are not expecting a response. And all those things determine what you pick. The ability to lurk for answers without uttering a request. Now, many websites show you whether what you have posted or whether what you have sent as read or not. So, what you do you keep visiting that site. And what we do not realise? Is that many people can see how many times their site has been visited; how many times this has been seen and by whom. And then they will realize, well so and so is looking for an answer; let me hold back could be a manipulating technique could also give the other person a sense of urgency.

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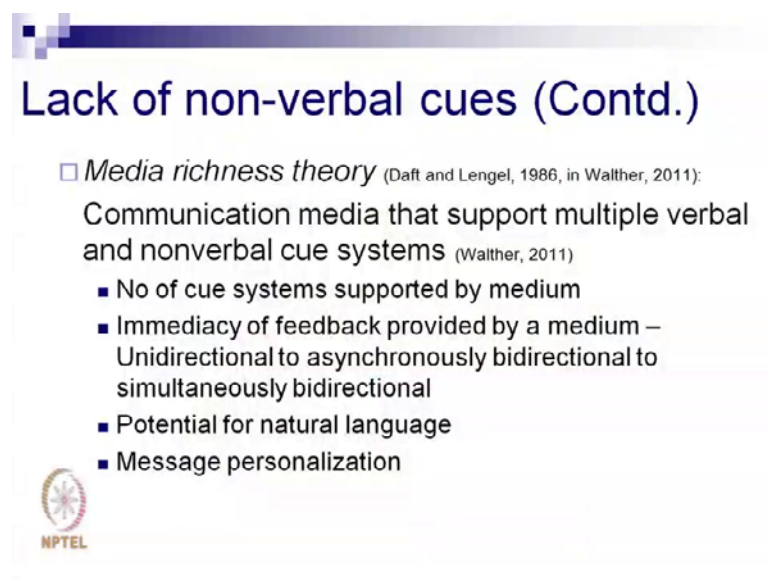
Factors affecting the effectiveness of computer mediated communication

- Lack of non-verbal cues
 - *Social presence theory*: (Short, Williams & Christie, 1976 in Walther, 2011)
Various communication media differed in their capacity to transmit classes of nonverbal communication in addition to verbal content. The fewer the cues supported, the less warmth and involvement users experienced with each other (Hiltz, Johnson & Agle, 1978, in Walther, 2011)




Factors affecting the effectiveness of computer mediated communication. Now, lack of non-verbal cues can also be a factor; that affects the effectiveness of computer mediated communication in lack of non-verbal cues. We have something called as the social presence theory; which means that many communication media differ in their capacity of transmit classes of non-verbal communication in addition to verbal content. So, the fewer the cues that are transmitted the less warm. And personal the message is perceived to be again this is based on a research by Hiltz Johnson and Angel in 1978; things could be different today. But again this has been you know people have been going back and forth. And saying whether technology isolates or brings people together; again people feel that depending on the choice of words. The amount of personal tone in the message people either felt involved with somebody or they feel dissociated with somebody.

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Lack of non-verbal cues (Contd.)

- *Media richness theory* (Daft and Lengel, 1986, in Walther, 2011):
Communication media that support multiple verbal and nonverbal cue systems (Walther, 2011)
 - No of cue systems supported by medium
 - Immediacy of feedback provided by a medium – Unidirectional to asynchronously bidirectional to simultaneously bidirectional
 - Potential for natural language
 - Message personalization

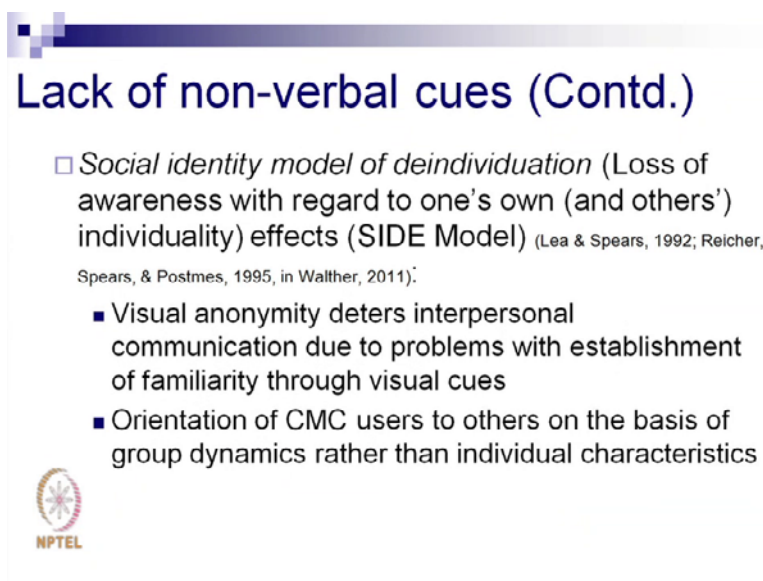


The next one is media richness theory again communication media that support multiple verbal and non-verbal cue systems; make up the richness of the medium that is being used. The number of cue systems supported by the medium adds to the richness of the medium. Immediacy of feedback provided by the medium also adds to the richness of the medium, unidirectional to a synchronously bidirectional to simultaneously bidirectional. Sounds like big words unidirectional; you post a message you are not expecting a response one sided; a synchronously bidirectional is send an email wait for the response. The response may come in 1 hour, it may come in comeback in 1 month, it may come back in 1 year. So, you space out simultaneously bidirectional is excuse me the chat

messages you constantly it is almost like talking. So, you are immediately getting a response shaping your next response. And if you delay things than people feel that there is something wrong, potential for natural language again that also contributes to media richness. So, when we talk about natural language again. There is a whole body of research that covers national language, but that that adds to the richness of the media.


The potential of any medium to help the users communicate in their natural language along with its faults and flaws and imperfections is called the media richness theory; it sort of adds to the media richness. Message personalisation again you could personalise the background you could add things you could add different cues to it. So, the possibility the availability of personalisation tools the availability of tools that can make your language as sound as human as possible. You could add all these different kinds of add-ons to your message contributes to the richness of the media. And the time again depends on how you know how your structure your message people could perceive it as personal or impersonal or formal et cetera ok.

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Lack of non-verbal cues (Contd.)

- *Social identity model of deindividuation* (Loss of awareness with regard to one's own (and others') individuality) effects (SIDE Model) (Lea & Spears, 1992; Reicher, Spears, & Postmes, 1995, in Walther, 2011):
 - Visual anonymity deters interpersonal communication due to problems with establishment of familiarity through visual cues
 - Orientation of CMC users to others on the basis of group dynamics rather than individual characteristics



Social identity model of deindividuation; the loss of awareness with regards to one's own and other's individuality affects this is called side model. Social identity model of deindividuation what do we mean by this we are essentially talking about the identity is my identity in my hands or is it constructed socially. Visual anonymity deters interpersonal communication due to problems with establishment of similarity through

visual cues. You do not know who is on the other hand? There is no familiarity you do not know how the person will respond. So, people feel that there is a gap how do I know you. I do not know you enough to give you this information; I do not know you enough to share this piece of information with you. I do not know you are enough to establish this professional connection with you.

This happens in a lot of the international teams where 1 person in the team is placed on 1 continent and the other person is placed on another continent. How do I establish trust, how do I want to put you in a frame? You are a committed individual you are sitting in India, your boss is sitting in China, boss's boss is sitting in the US, boss's boss's boss is sitting in Brazil. How do you connect? Yes, you can communicate through technology, but which frame? You know when you start writing their report, when you start assessing their performance, how do you do it? You do not know who is at the other end, how do you talk freely to these people? And how do you come up with the mutually acceptable solution to problems? Orientation of CMC users to others on the basis of group dynamics rather than individual characteristics.

So, what we do is; we do not we are unable to see people's individual characteristics. So, what do we do the start attributing these traits to them based on how they behave in the groups; teleconferencing somebody is aggressive somebody is not. So, you say so and so can get things done, because even though people are sitting on different continents. The person could be a wimp in real life. But since the person has been able to get things done through an online conference, through an online chat, through an online community room; we start attributing these traits to the person. So, it is basically it is exclusively based on the person's behavior in group dynamic situations.

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Lack of non-verbal cues (Contd.)

- *Signalling theory* (Donath, 2007, in Walther, 2011): Shows “why certain signals are reliable and others are not. The costs of deceptively producing the signal must outweigh the benefits.”
 - **Assessment signals:** Artifacts that have an inherent and natural relationship with some characteristic with which they are associated. e.g. Everyone associated with an organization reputed for its creativity and innovation would be creative and innovative.
 - **Conventional signals:** Bear socially determined relationship with their referents. Verbal claims and self-descriptions – may or may not be trustworthy



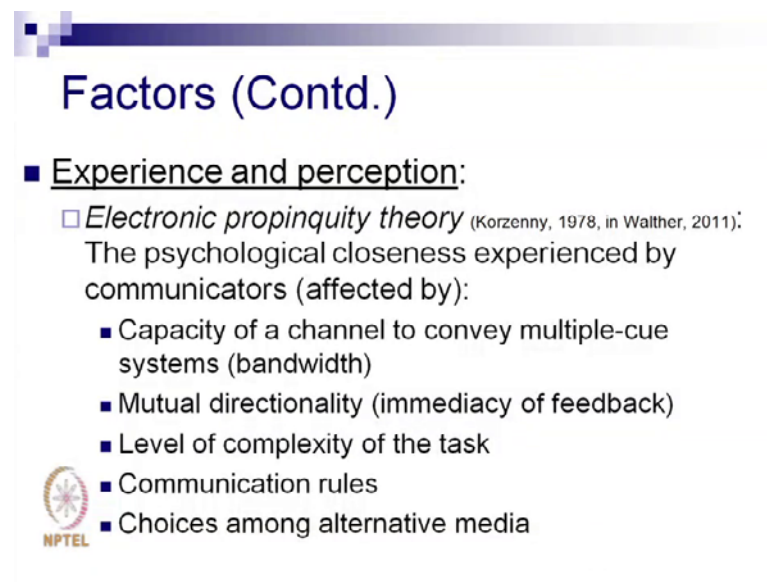
Signalling theory is another one; while certain signals are reliable and others or not. The costs of deceptively producing the signal must outweigh the benefit; again different kinds of signals give us an idea of the manner in which this technology is perceived. And how we treat this technology? Do we treat a piece of technology as reliable or not? We have 2 kinds of signals; one is the assessment signals and the other one is the conventional signals.

Assessment signals are where we attributes the traits of group the person belongs to the person himself or herself. I will give you an example maybe a company is known for its human behavior or its creativity. So, we will say that since this company has a reputation for being a very creative organization; everybody in this organization must be thinking out of the box why? Because we have not had a chance to interact with people we are just looking for signals to assess the people; we cannot possibly go and visit the organization.

And meet everybody we are just interacting with them; they are always using the company line. So, we say that based on what we have heard from them we assume that I have had interaction with 20 people from this organization; everybody is saying the same thing. So, this means that the whole company and the company has a reputation. So, even the other 820 people are just as creative and just as professional as these 20 people I have interacted with.


Conventional signals are they bear socially determined relationship with their reference their verbal claims and self descriptions may or may not be trustworthy. One example of this is a person's resume and what a person puts up on their website I am so and so I have done so and so. In the academic arena we put up lists of are publications people can go and verify it that is one side of it. Many times people cannot go and verify what you put up on your resume till they actually pick up the phone and call up those people. And usually people will not mention negative things on their resume. So, it can be verified, but it is hard to verify these things. These are the conventional signals. And again we depend on these signals to perceive to make connections between people sitting in different areas, especially people who we are connected with only through technology.

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Factors (Contd.)

- Experience and perception:
 - *Electronic propinquity theory* (Korzenny, 1978, in Walther, 2011):
The psychological closeness experienced by communicators (affected by):
 - Capacity of a channel to convey multiple-cue systems (bandwidth)
 - Mutual directionality (immediacy of feedback)
 - Level of complexity of the task
 - Communication rules
 - Choices among alternative media

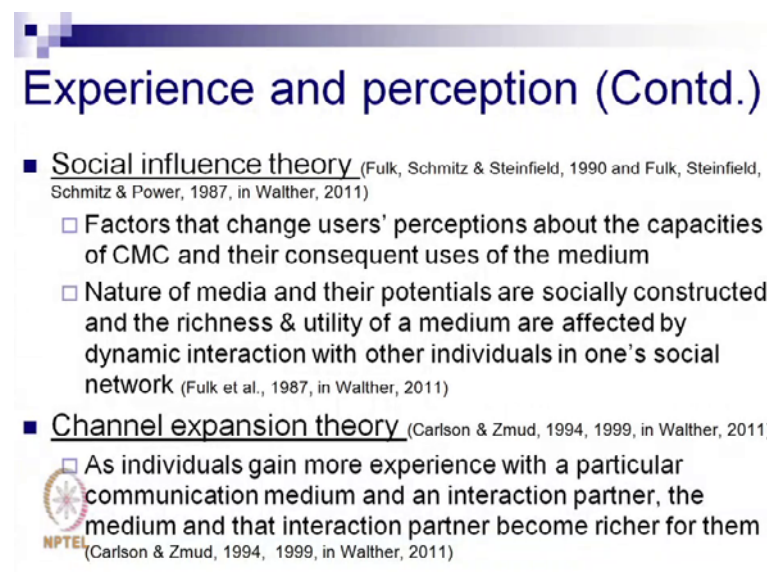


Experience and perception is another one. And here we have the electronic propinquity theory; this deals with the psychological closeness experienced by communicators; which is in turn affected by the capacity of a channel to convey multiple cue systems. You may be there you may have the system. But the bandwidth eventually determines what you can and cannot send out. And I just gave you an example Google wave in my personal case failed in my classroom, because the bandwidth could not handle the load of even 10 computers working simultaneously. Mutual directionality immediacy of feedback; how immediately, how soon, how the degree of simultaneity? If there is a word like that with which you get your feedback in turn impacts how close people feel to each other; when they are using when they are been connected through electronic

communication media. Level of complexity of the task; again how closely their working on solving a complex task and the level of complexity; where they are constantly inter dependent.

Communication rules again another one big think how do communication rules determine, how close you feel to people? I will leave this for you. This is something that you should be able to figure out on your own by now choices among alternative media. If it is chat, if I am not able to get something done through chat; would I be able to get it done through some other channel. If I have more choices I may not feel committed to use the medium. That I have to its full capacity on the other hand if the medium I am using is the only one I have or is one of the fewer media. I have then I will be more committed to putting in my heart and soul and exploring everything it is full utility; and may be coming out with a more effective response. And maybe feeling close with people in dealing with these complex problems here of using the medium to it is full capacity all of these things are interrelated ok.

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Experience and perception (Contd.)

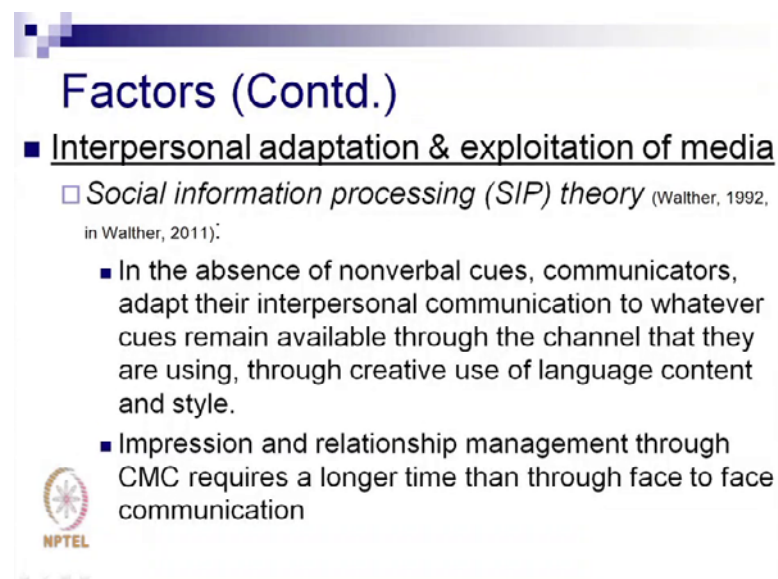
- **Social influence theory** (Fulk, Schmitz & Steinfield, 1990 and Fulk, Steinfield, Schmitz & Power, 1987, in Walther, 2011)
 - Factors that change users' perceptions about the capacities of CMC and their consequent uses of the medium
 - Nature of media and their potentials are socially constructed, and the richness & utility of a medium are affected by dynamic interaction with other individuals in one's social network (Fulk et al., 1987, in Walther, 2011)
- **Channel expansion theory** (Carlson & Zmud, 1994, 1999, in Walther, 2011)
 - As individuals gain more experience with a particular communication medium and an interaction partner, the medium and that interaction partner become richer for them (Carlson & Zmud, 1994, 1999, in Walther, 2011)

Experience and perception is the another factor that determines how we view technology social influence theory; factors that change users perceptions about the capacities of computer mediated communication; and their consequent uses of the medium. How we determine, what technology is going to be influential, what is not depends on, what we see, or what we perceive from our environment? Nature of media and their potentials are

socially constructed. And the richness and utility of a medium are effected by dynamic interaction with other individuals or social network people around us are telling us this can be used in this way and this way. I have used it effectively why do not you and we see this and get influenced. And that in turn determines whether we decide to use a particular technology or not. And how effective that technology becomes, because more and more people are working towards using it to its full capacity.


Channel expansion theory as individuals gain more experience with a particular communication medium. And an interaction partner the medium and that interaction partner become richer for them. So, we would you know whatever we do; if we are constantly using it practice is coming in different people are coming in we become closer we start using the medium more effectively. And we start thinking that the medium is really more effective than we thought it to be earlier.

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Factors (Contd.)

- **Interpersonal adaptation & exploitation of media**
 - *Social information processing (SIP) theory* (Walther, 1992, in Walther, 2011):
 - In the absence of nonverbal cues, communicators, adapt their interpersonal communication to whatever cues remain available through the channel that they are using, through creative use of language content and style.
 - Impression and relationship management through CMC requires a longer time than through face to face communication

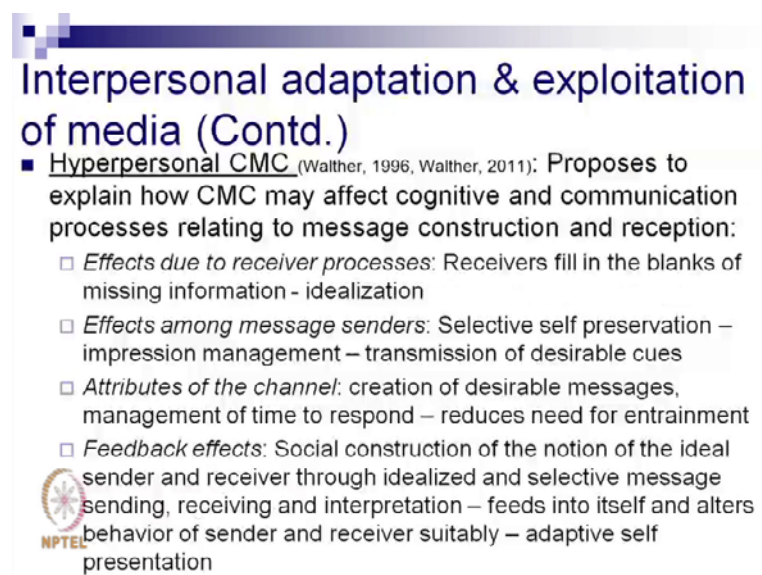


Interpersonal adaptation and exploitation of media social information processing theory; in the absence of non-verbal cues communicators adapts their interpersonal communication to whatever cues remain available through the channel that they are using. And so we tend to adapt to a medium; especially when that medium is the only one available to us. And that in turn influences how we start using that medium? So, we say that since I have already figured out how to use this medium to its full capacity, why should I not continue using this; and not really use the others as much. And the other one

is the impression and relationship management through CMC requires a longer time than through face to face communication.

Now, again this is social information one is the use I become more comfortable, but it takes me a longer time. And it is more difficult for me to establish an impression; and maintain that impression in my social arena public image when we say impression we are essentially talking about our public image and social identity. And that in turn is influenced that in turn influences how effective we perceive in medium to be?

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Interpersonal adaptation & exploitation of media (Contd.)

- **Hyperpersonal CMC** (Walther, 1996, Walther, 2011): Proposes to explain how CMC may affect cognitive and communication processes relating to message construction and reception:
 - *Effects due to receiver processes*: Receivers fill in the blanks of missing information - idealization
 - *Effects among message senders*: Selective self preservation – impression management – transmission of desirable cues
 - *Attributes of the channel*: creation of desirable messages, management of time to respond – reduces need for entrainment
 - *Feedback effects*: Social construction of the notion of the ideal sender and receiver through idealized and selective message sending, receiving and interpretation – feeds into itself and alters behavior of sender and receiver suitably – adaptive self presentation

One more aspect here is hyper personal communication computer, mediated communication; it proposes to explain how CMC may affect cognitive and communication processes relating to message construction and reception. So, how does CMC affect cognition and communication processes? The first one is effects due to receiver processes one is Idealization. What do I do? When I get all this information from different places; what do I do? I say this is missing. And since 60 percent of the information points in this direction; I will fill in the gaps. And I will assume that the whole message should be interpreted in such a way it is all positive. Effects among message senders selective self-preservation impression management and transmission of desirable cues. I give you selective information about myself.

And, so that becomes it is factor in helping me choose which technology; I should use and which technology I should not use; wherever there is a higher possibility of me

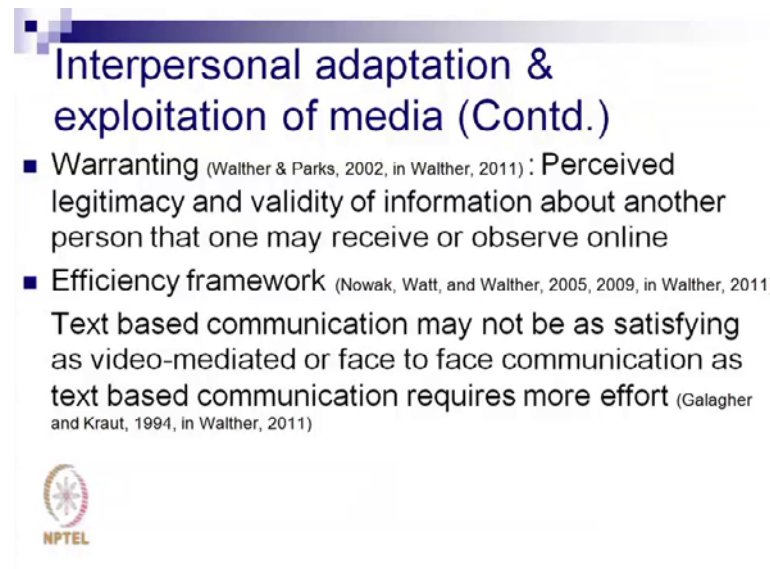
presenting myself selectively. And selective interpretations; I will use a technology that is that allows me to construct this alternative identity as well as possible or easily. Attributes of the channel, creation of desirable messages, management of time to respond leads to transmission of that reduces the need for entertainment. So, what happens is that I create the desirable messages I manage the time to respond.

So, I do not really need to sort of look for other things and enjoy the interaction I get to the point as fast as possible; and I am done with it. And the channel in turn helps me do it; and I select a channel that helps me get to the point much faster without all this alternative voice in the background. Feedback effects are social construction of the notion of the ideal sender and receiver through idealized and selective message sending, receiving and interpretation it feeds into itself. And alters behavior of the sender and receiver suitably; I portray a image of myself people start expecting things associated with that portrayed image. Their feedback to me is dependent on what they think of me at that point.

And depending on that feedback when I get that feedback from them I start responding appropriately. And my behavior changes; I portray myself selectively based on that selective portrayal their feedback comes in which is feedback to this alternate identity I have created; when this identity is fed it grows and it envelops me. And I become that alternate person I may not have been that alternate person, but I become that alternate person.


Because of this constant going in and coming out of messages constant exchange of messages. So, it could change you for better. So, it could change you for worst it could affect the way organizations are perceived international business. You could be perceived as adaptable you could be perceived as not adaptable very strict very stringent and again you know all I mean. It has so many implications I want you to figure this on your own.

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Interpersonal adaptation & exploitation of media (Contd.)

- **Warranting** (Walther & Parks, 2002, in Walther, 2011) : Perceived legitimacy and validity of information about another person that one may receive or observe online
- **Efficiency framework** (Nowak, Watt, and Walther, 2005, 2009, in Walther, 2011)
Text based communication may not be as satisfying as video-mediated or face to face communication as text based communication requires more effort (Gallagher and Kraut, 1994, in Walther, 2011)



Warranting is perceived legitimacy and validity of information about another person that one may receive or observe online efficiency frame work is so. You know it is warranting is the legitimacy and validity of the information about the person that one may think about online. Is this person legitimate? Is this person right? Is this person ethical? Should I believe this person, should I not believe this person; all of those things efficiency framework is text based communication; which may not be as satisfying as video mediated or face to face communication as text based communication.


Because it requires more effort know what happens is that text based communication; requires a lot more effort to transmit the non-verbal cues. Whereas, in a video mediated or face to face communication. You say something it is supplemented with all these non-verbal cues. So, the effort required to transmit the message is much lesser the effort required to conveyed; the intended meaning is much less in video mediated or face to face communication. And that in turn impacts when what kind of medium you choose.

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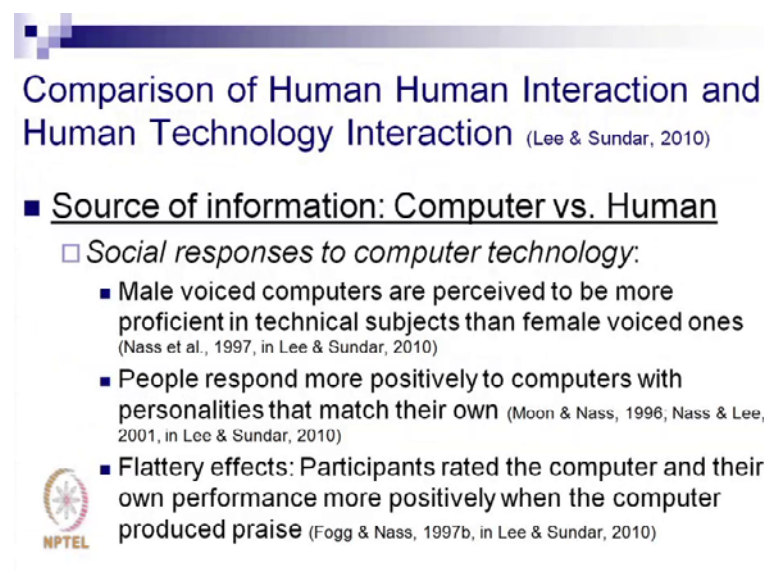
Interpersonal adaptation & exploitation of media (Contd.)

- ICT succession (Stephens, 2007, in Walther, 2011) : Repetition of a message through two different types of communication channels causes the greatest communication effectiveness and efficiency (for certain types of tasks):
 - Successive (vs. single) message transmissions
 - Complementary (Vs. singular) channel usage




ICT succession information and communication technology succession; reputation of a message through 2 different types of communication channels causes the greatest communication effectiveness and efficiency for certain types of tasks. So, successive message transmission in turn determines the versus single message transmission is supposed to be more powerful than a single message. Complementary channel usage, versus singular channel usage again adds to the richness of the message transmission. And that in turn determines how effective we perceive our communication technologies to be ok.

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Comparison of Human Human Interaction and Human Technology Interaction (Lee & Sundar, 2010)

- Source of information: Computer vs. Human
 - *Social responses to computer technology:*
 - Male voiced computers are perceived to be more proficient in technical subjects than female voiced ones (Nass et al., 1997, in Lee & Sundar, 2010)
 - People respond more positively to computers with personalities that match their own (Moon & Nass, 1996, Nass & Lee, 2001, in Lee & Sundar, 2010)
 - Flattery effects: Participants rated the computer and their own performance more positively when the computer produced praise (Fogg & Nass, 1997b, in Lee & Sundar, 2010)

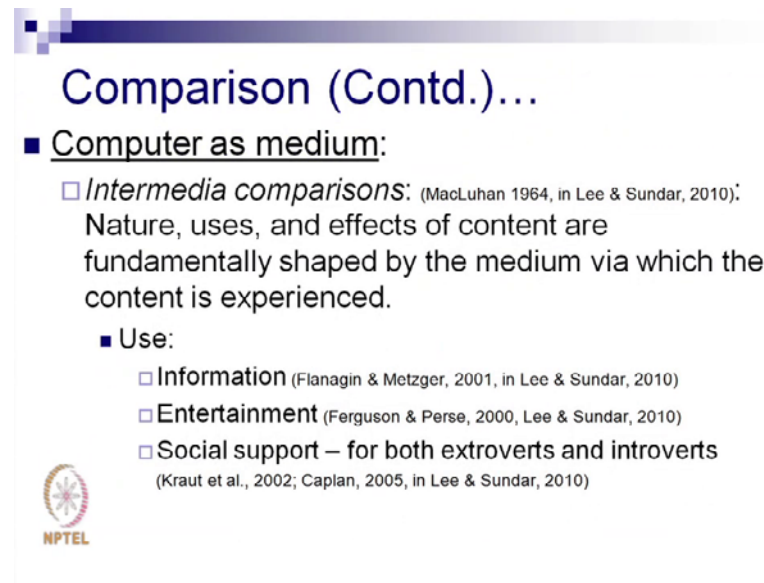


Comparison of Human interaction and human technology interaction; the first one here is the source of information computer versus human. The social responses to computer technology are source of information influences the social responses to computer technology. Male voiced computers are perceived to be more proficient in technical subjects than female voiced ones. I do not know this is based on a research I do not know why this is so but for some reason this is been found through research. These are some examples, people respond more positively to computers with personalities that match their own; this is the link to lesson one.

The level of similarity helps us draw the same interpretation similar interpretations level of comfort is higher. So, the more familiar we feel about the personality of the computer when we are using the computer; we say oh great the computer response coming out of the computer is similar to the manner in which I would have responded. So, this computer is an extension of me I like this computer.


So, we start looking at the computer as a human being. Flattery effects participants rated the computer and their own performance more positively; when the computer produced praise this sounds completely it sounds very funny. But really what is the computer it is GIGO this is something I heard you may laugh garbage in garbage out. Somebody has fed these things into the computer. So, you are essentially aligning yourself with the personality of the person who has programmed the computer in a manner; so as to give you these desirable responses. And we instead of thinking about it like that what do we say? We say this is the computer, I like the computer. The computer has the personality of like mine; computer praises me or the message that is coming to me is favorable.

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Comparison (Contd.)...

- Computer as medium:
 - *Intermedia comparisons:* (MacLuhan 1964, in Lee & Sundar, 2010):
Nature, uses, and effects of content are fundamentally shaped by the medium via which the content is experienced.
 - Use:
 - **Information** (Flanagin & Metzger, 2001, in Lee & Sundar, 2010)
 - **Entertainment** (Ferguson & Perse, 2000, Lee & Sundar, 2010)
 - **Social support – for both extroverts and introverts**
(Kraut et al., 2002; Caplan, 2005, in Lee & Sundar, 2010)

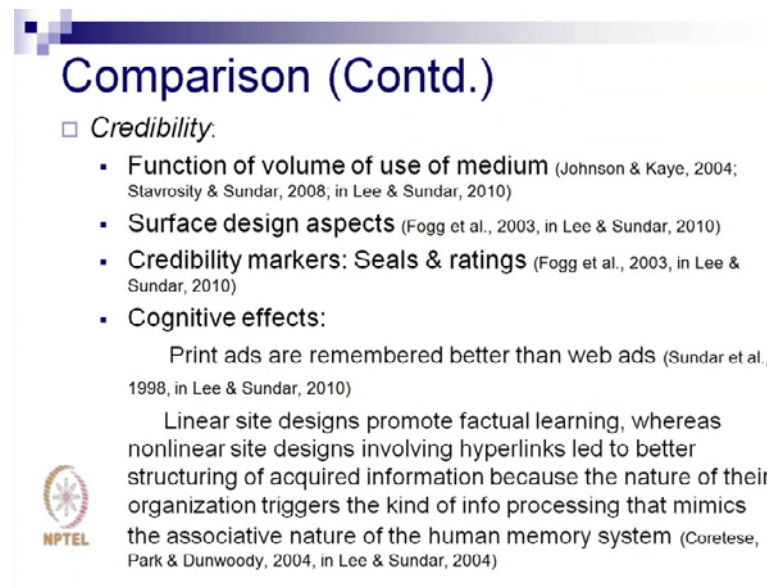


So, I feel good about what I have said and I feel good about myself. And again this is all through research I will give you these references you can look them up very interesting reading. Computer as medium we talked about computerized source intermediate comparisons; again another thing these are when we say comparison; we are essentially talking about the similarities and the differences. Sometimes in some areas there are similarities in some areas there are differences. Nature uses an again this is based on Marshall McLuhan's medium is the message in Lee and Sundar 2010. Nature uses and effects of content are fundamentally shaped by the medium via which the content is experienced. The medium that we used to send the content determines how we use a message, how we do things, how we interpret the message, what we think the sender of the message wants us to do and so on and so forth.

And, we make these comparisons based on the use; we use the medium for information, entertainment or social support for both extroverts and introverts. You want to be your shiny you are scared about talking to people, you want to talk to people, but you are scared. So, what do you do; just go online put something up nobody knows anonymously nobody knows what you are doing? And your fine extroverts; you go in you declare who you are you garner all the support, again you are the hub of or you become the main attraction of any online party.


And, so it provides a medium of expression to both it gives you a medium a manner a place for social support for both types of people. And similar this happens again in human to human interaction also; we get information from some people we I mean you know this is similar to mass media that are managed by human beings. And that are where human beings are the channel of communication ok.

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Comparison (Contd.)

- **Credibility:**
 - **Function of volume of use of medium** (Johnson & Kaye, 2004; Stavrosity & Sundar, 2008, in Lee & Sundar, 2010)
 - **Surface design aspects** (Fogg et al., 2003, in Lee & Sundar, 2010)
 - **Credibility markers: Seals & ratings** (Fogg et al., 2003, in Lee & Sundar, 2010)
 - **Cognitive effects:**
 - Print ads are remembered better than web ads (Sundar et al., 1998, in Lee & Sundar, 2010)
 - Linear site designs promote factual learning, whereas nonlinear site designs involving hyperlinks led to better structuring of acquired information because the nature of their organization triggers the kind of info processing that mimics the associative nature of the human memory system (Corelese, Park & Dunwoody, 2004, in Lee & Sundar, 2004)



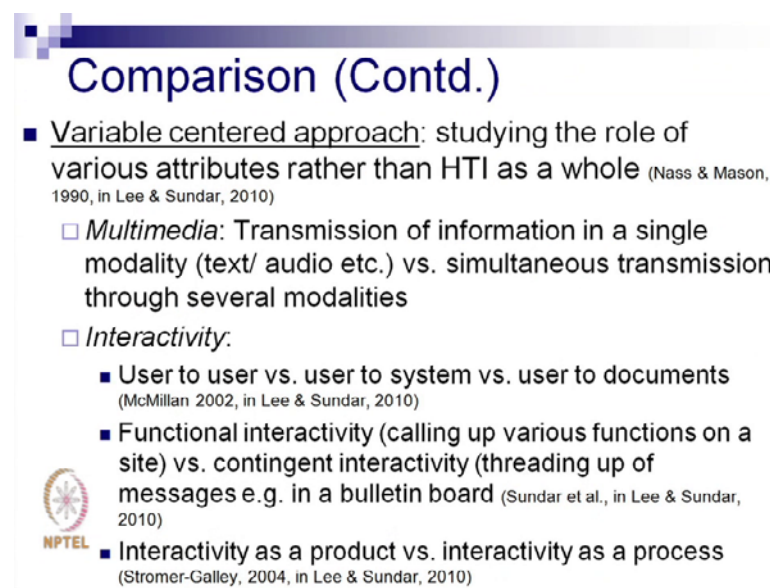
Credibility function of volume of use of medium; again how much we use the particular medium is gives us a sense of how credible the medium is; and how credible we are perceived to be on the medium. Surface design aspects again research has proven that people do not necessarily verify the information; they just go by surface design most often. And depending on you know how the website is designed they figure out whether they should trust the information or not credibility markers are another ones seals and ratings.

You design the website properly; you save this is been verified by x y and z and or you know so and so endorses our website, or our product, or our service. And we just go by that and we think that it is credible. Cognitive effects print ads are remembered better than web ads again there is a research. I wish I could give you the details we are just running out of time. Linear site designs promote factual learning basis. Whereas, non-linear site designs involving hyperlinks let to better structuring of acquired information. Because the nature of their organization triggers the kind of information processing that

mimics the associative nature of the human memory system. I will show you where have got this information from I have got the book with me.

Now, again this is based on research it is linear information gives us factual learning. But when we immerse ourselves in a communication experience; we have hyperlinks taking us from one end to another as and when we sort of integrate. All this information and structure it; the way we would structure it in our minds; and understand it conceptually ok.

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Comparison (Contd.)

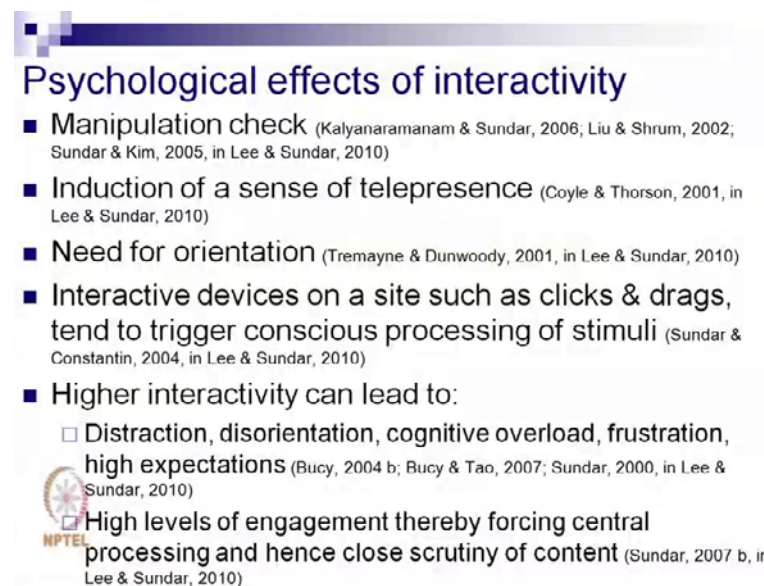
- **Variable centered approach:** studying the role of various attributes rather than HTI as a whole (Nass & Mason, 1990, in Lee & Sundar, 2010)
 - **Multimedia:** Transmission of information in a single modality (text/ audio etc.) vs. simultaneous transmission through several modalities
 - **Interactivity:**
 - **User to user vs. user to system vs. user to documents** (McMillan 2002, in Lee & Sundar, 2010)
 - **Functional interactivity (calling up various functions on a site) vs. contingent interactivity (threading up of messages e.g. in a bulletin board)** (Sundar et al., in Lee & Sundar, 2010)
 - **Interactivity as a product vs. interactivity as a process** (Stromer-Galley, 2004, in Lee & Sundar, 2010)

Variable centered approach studying the role of various attributes rather than human technology interaction as a whole. One is multimedia transmission of information in a single modality versus simultaneous transmission through several modalities; again multimedia does something that human interaction can probably never do or we could do it. I could be talking I could be writing things I could be transmitting. But it is impossible virtually impossible for a human being to do these different things; we say we are multitasking know there is a fraction of a second between different tasks that we do. But we could be doing similar things, but the technology really facilitates a lot of modalities.

The transmission of a message through several modalities; at the same time that face to face interaction cannot do inter activity user to user versus, user to system versus, user to documents; again different classifications have been provided. The second one is functional interactivity; you call up various functions on a site. You download

something; you move from one site to another. All these things are happening at the same time versus contingent interactivity, threading up of messages for example in a bulletin board you know you start with one thread and sort of you move on as and when the need arises. This is something that human being cannot really do. Interactivity as a product versus interactivity as a process again lots of research going on is interactivity; really a product or is it a process that the machine helps you engage in manipulates.

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Psychological effects of interactivity

- **Manipulation check** (Kalyanaramanam & Sundar, 2006; Liu & Shrum, 2002; Sundar & Kim, 2005, in Lee & Sundar, 2010)
- **Induction of a sense of telepresence** (Coyle & Thorson, 2001, in Lee & Sundar, 2010)
- **Need for orientation** (Tremayne & Dunwoody, 2001, in Lee & Sundar, 2010)
- **Interactive devices on a site such as clicks & drags, tend to trigger conscious processing of stimuli** (Sundar & Constantin, 2004, in Lee & Sundar, 2010)
- **Higher interactivity can lead to:**
 - Distraction, disorientation, cognitive overload, frustration, high expectations** (Bucy, 2004 b; Bucy & Tao, 2007; Sundar, 2000, in Lee & Sundar, 2010)
 - High levels of engagement thereby forcing central processing and hence close scrutiny of content** (Sundar, 2007 b, in Lee & Sundar, 2010)

A Psychological effects of interactivity; what happens when you use an interactive computer mediated technology. The first one here is manipulation check; you can be identified. It is not totally anonymous; it could affect your credibility. You do not know who might be watching, what you are doing? So, people do not tend to engage and plus it does not promote manipulation that is one. The second one is induction of a sense of tele presence. Induction of a sense of tele presence; where we say that I have a presence on the internet, I have people are seeing me, I have a web presence. And that this somehow gives me a sense of web presence need for orientation.

It helps me orient myself to the matter at hand, because I have put it up there; and people are going to be seeing it. And focus is induced interactive devices on a site such as clicks. And drags tend to trigger conscious processing of stimuli; where do I click where do I drag information. This is similar to the manner in which we organize the stimuli in our minds to understand different concepts. Higher interactivity can lead to there are

several effects that have been discussed positive and negative effects; let us look at the negative effects. First research has pointed towards distraction disorientation cognitive overload frustration high expectations et cetera. These are some of the negative effects.

And, you can add to the list isolation all of these things high levels. On the other hand positive effects are high levels of engagement, high levels of interactivity encourages high levels of engagement; which there by force central processing. And hence close scrutiny of content and critical thinking and growth intellectual growth. So, again depends on what you use now what are the implications of these things. I have not really put them down here.

But I would like you to think about the implications of these things; we have talked ads nauseam about these things. I would like to you to think about the implications of whatever we have discussed in the international business arena; where do you think all this information would be applied? Where would you apply all this? Which fields of any business would you apply all this information to? I can give you some examples when we talk about communication. It could apply to superior subordinate communication, it could apply to the organizational climate in an organization. It could also apply very, very highly to of or very, very much to the off shore teams.

That we have it could apply to the intra-organizational communication it could apply to the inter-organizational communication across the borders also. It could apply to your teleconferences with your clients sitting in different countries, it could apply to the manner in which you design advertisements. It could apply to the manner in which you communicate with or in which you provide support to people sitting in a different country. It could apply to you are international conferences. It could apply to trade shows, it could apply to so many or marketing or I mean it could apply to so many different aspects of international business. So, just might be worth here while to make a list of these things.

And, see how strong and impact technology has on different aspects of the business. I had made a whole set of slides on how to design presentations; and what to do with blogs and all. But I think all this will become outdated by the time this is viewed and used. So, it does not really make sense to include all of that stuff here. Now, what I will do is I will give you some more things to think about; please figure out what technology mediated

communication is? Computer mediated communication is more over arching would be technology mediated communication.

The other thing I want you to figure out is how may technology mediated communication be influenced by nationality, educational background, professional experience, cultural background and language. How would you choose which technology to use based on the differences in these things? What are the benefits and limitations of technology mediated communication in international business? Where do you draw the line? And how are these users influenced by communication rules? How would communication rules play out? When you use different kinds of technologies? Where would you become more formal, where would you become more hierarchical? How would you communicate with different partners? And why think about these things? And we will discuss a different aspect of communication and international business the next time and my time is up. So, please discuss these things and please take these links. And explore as much as possible; and we will talk some more next time.

Thank you.