

Working In Contemporary Teams

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Lecture - 03

Virtual teams

Warm welcome to this course on Introduction to Contemporary Teams and Virtual Teams. I am your Instructor Dr. M.P. Ganesh from IIT, Hyderabad. I am one of the co-instructors of this course and this is going to be our third lecture.

I will quickly summarize what happened in the previous two lectures so that we will get some understanding and understanding in context of what has happened till now. So, we looked at the chapter outline. We looked at the definition of team and we saw how teams are different from groups. Even though people use the words team and groups interchangeably, technically there is a difference.

The difference is teams have members who work together and there is high levels of interdependency between them. Groups also have people working together but the level of interdependency may not be very high or it may be very less. When you say interdependency, it can be goal-related interdependency or task-related interdependency. It can be both also. We also looked at teams because they work interdependently, members work interdependently, they are able to create synergy.

We also looked at how in work teams, the autonomy teams have might vary from completely less to completely high. So, teams which have high levels of autonomy, they are able to choose their own performance goals or where they want to achieve, what they want to achieve. We also looked at why it is important to understand contemporary teams and what do we mean by contemporary teams. Contemporary teams are nothing but teams of present days or the newer forms of teams. What has led to newer forms of teams and what are the challenges in newer forms of teams? What has led to newer forms of teams? Factors like the nature of tasks have changed, nature of work have changed, team members crossing different boundaries have increased, how people interact within the team have changed because of technological tool usage and heterogeneity within the team.

Nature of the employees in terms of diversity has increased, how organizations operate in terms of their structure have changed and that has influenced how employees interact within the team has also changed. We also looked at some of the different contemporary teams. Distributed teams are virtual teams in which people work from different geographical locations on the same project, they work together, but they will not meet face to face or they meet face to face very less frequently. Cross-cultural teams are teams in which team members belong to different cultures and nationalities. Self-managed teams are teams which choose their own goals, choose how they want to do that task and choose who does what within the team.

So there is very less intervention from the larger organization in terms of deciding what the team should do. So these are self-managed teams. Startup teams are smaller organizations, newer organizations, even though in terms of scope they are organizations, in terms of their size and the way they operate they may act like teams. So there are very unique challenges in these kind of smaller organizations which behave like teams. We also spoke about how recently there are more and more teams which use robots or AI in enhancing their performance.

So in that case, these robots or AI can also be considered as part of the team or they can be considered as team members. Some of the common challenges in these contemporary teams are managing communication and knowledge sharing becomes a major problem or a hurdle because these teams use extensively technology to communicate and there are diversity, high levels of diversity. Communication knowledge sharing can be a major challenge. Team dynamics is also another factor or another challenge because these teams work in a very different context compared to earlier kind of teams. So the way they interact, the way they establish ties within, the way they share information, the way they manage their boundaries, all those things might be very different from earlier teams and that itself can create a lot of challenges.

And also because these teams work in a very new context, work in a very different kind of an environment, evaluating their effectiveness or defining what is effectiveness becomes a challenge and also measuring performance is very difficult in these kind of teams because how do you define performance itself can be a huge issue. And relationship with other entities in the environment because like I said earlier, these teams work in newer context and the kind of stakeholders they handle are very different compared to earlier times. So these environmental factors or these stakeholders in the environment may influence the team in a way people may not even have visualized. So these are some of the challenges which usually contemporary teams face. We also looked at virtual teams in the previous lecture.

So typically when we think about virtual teams or distributed teams, we think about IT companies because most of these IT companies which work on outsourced projects, there'll be someone who will be sitting in the client location, people will be there in the host country and they'll be working on a project, distributed kind of projects. But now more and more organizations have started using virtual teams. Major reason being globalization where multinational organizations have increased, how outsourcing have increased. Newer technologies have made collaborations very easy and affordable. Like I said in the previous lecture, internet usage has been more and more becoming common among even common people.

So you don't need a computer to use internet. You get high-speed internet in your smartphone itself. With that, you can do video call or a lot of other facilities which are not affordable earlier due to costly nature of these technologies. Now they have become more affordable. So more and more organizations, it's not necessarily big organizations or very technologically advanced organizations can use this kind of technologies.

So more and more organizations are using these kind of technologies which leads to increase in distributed teams or people working from remote locations. So we also looked at what are the advantages of using virtual teams or distributed work. So we looked at from an employee's point of view and also from organization's point of view. One major advantage of working in distributed teams or remote working is you don't need to travel. Your travel time is reduced and you can work from a place where you are comfortable with.

It can be a house, it can be a coffee shop, it can be a park, wherever you want to work, you can work. That gives a lot of freedom and flexibility for the employee. For the organization's point of view, you don't need to spend money on getting the best expertise in terms of relocating them. You don't need to find someone who's willing to relocate also. So if somebody is willing to work, they can work from the place where they want to work.

So that's a great advantage for organizations also. But again, remote working is not always very positive. There are some negative aspects of working in virtual teams and working remotely. In fact, that is why we need to understand how to manage these problems. So this is where we stopped in the previous class.

Now we are going to understand what do we mean by virtual teams because even though we assume that virtual teams are teams in which people work from different places, they use technology, it's not as simple as that. Especially now because of various other factors apart from technology and geography, these factors should also be considered when we

are defining what is virtual team or what is virtual work. So a typical definition of virtual teams is virtual teams are teams in which members are geographically dispersed and they interact using technology, media, communication to achieve their goals. It's a very simple form of definition. But again, some of these ideas are emerging ideas and also there are certain factors which are changing.

So we need to consider those factors also when we define virtualness. A much refined version of this definition is virtual teams are teams which cut across boundaries like geography, time and organization. So if you remember in the previous class, I spoke about distance, distance as a factor. These people are distant from each other and the distance may not necessarily be limiting to geographical distance. It can be time difference, it can be organizational distance, it can be cultural distance, it can be functional distance.

Distance is nothing but variation, how varied the people are or how dispersed the team members are. So dispersion can happen geographically where people sit from different geographical locations. Dispersion can happen because of time differences. So again, time zone differences and geographical differences are related. If you are geographically dispersed, it also means time zone differences will be there.

But sometimes even without geographical dispersion, there can be time zone differences or time differences. For example, people working in different shifts, they all might be working in the same city on the same project, but shifts might vary. One person may work in the morning, one person may work in the evening, night shift. So time differences are in terms of when they work exist. So we cannot assume time zone differences is related to geographical dispersion.

Organizational dispersion is people working from different organizations. So the way they do certain things in their organization might be different from another team member who's working from another organization, especially when people work from different organizations and work in the same project, like outsource projects and all. Organizational cultural differences, organizational policy differences might influence the way they approach, team members approach work. And also cultural dispersion, their cultural belief systems, cultural norms, what is right, what is wrong, all those things might also influence the way people collaborate in virtual things.

So that is also a distance. Again, when you think about cultural differences, it's not always about someone from USA is different from India. Even within India, there can be so many cultural differences. A person from Tamil Nadu will be, will put up, undergone a very different culture compared to someone who's from maybe West Bengal or Punjab or Sikkim, because India being a very diverse country, you cannot assume that all Indians

have same culture. Culture can also be a variation in terms of generations. SUB_TEXT I belong to a certain generation, somebody belongs to another generation.

So though our own belief systems, the way we grew up can also influence the way we look at things and that can lead to dispersion. So we are going to talk about cross-cultural teams in the next chapter, but I'm explaining this because these factors can also lead to dispersion. Dispersion can also happen due to functional differences. When I say functional differences, I belong to HR, human resource management. Somebody belongs to operations management.

The way I look at a problem or the goal will be very different from someone who has a finance background or operations background will look at the problem or the goal they want to achieve. And also the kind of terminologies they use, the kind of technical aspects they will look at will be very different because of their functional differences. Their priorities might also change. For example, from a HR person's point of view, human resource manager's point of view, I would rate performance in terms of how well people cooperate, but from a finance person's point of view, they may look at financial return on investment as a major criteria. My prioritization might vary in terms of my functional background and that differences in terms of how people look at what is important can also create distance between team members.

So the whole idea of explaining this is distance is not necessarily or just limited to physical distance or geographical distance. It can be many types. So even if you all sit in the same office, if these distances are more, then it can lead to high level of virtualness, strictly speaking. But again, it depends on how you define virtual teams and what you consider to be important in understanding the performance of virtual teams. For example, some organizations may take into consideration of only cultural differences and time zone differences and geographical differences, and then they will address that.

If you look at very minutely, even like I said, even if they are sitting in the same office, functional differences or generational differences or organizational differences, they also matter a lot. So you need to consider those factors also. But how deeply you can consider those minute factors, this is always a question. It depends on how much perfection you are looking at or how much effectiveness you are looking at. So if you resolve all these or if you address all these distance related factors, you will have the best kind of teams.

But those are ideal conditions. Anyway, so we spoke about how do we define virtual teams. But again, even if you consider physical distance and geographical distance and time zone differences, usage of technology, there are certain challenges in defining virtual teams. Because the idea of virtual teams and face-to-face teams looks at teams as two

distinct categories. You look at teams as it is either virtual team or a co-located or face-to-face team. So if it is a face-to-face or a co-located team, you need to handle that or manage that in a certain way.

If it is a virtual team or a distributed team, we also call it distributed team, you need to handle certain issues. So this is how we conceptualize traditionally. But like I said, more and more teams are using technologies. They may not be completely virtual teams also. They might be using extensive technology usage.

They might be having extensive technology usage for communication. But that may not qualify them as pure virtual teams. So I will give an example. Now we spoke about using technology and physical distance as something which can be used to distinguish between face-to-face and virtual teams. For example, let's say in an office, your team members, all of you sit in the same office space, same floor, the same office space, each one of you sit in different cubicles.

How many times do you meet face-to-face in a day? It's not like all of you in the same office, same floor, you meet frequently, isn't it? Face-to-face, you may not meet frequently. You might be sitting and chatting with your team member who's in the next cubicle. It's very easy to get up and say, clarify your doubt. But sometimes we chat with them. They might be sitting next to you, but you'll be chatting with them and asking for some clarification.

Or certain things you can communicate only via email, even though they are sitting next to you, certain documents or questions which you want to send should be sent only through email. Okay ! So even if all of us are in the same location, we may not be meeting face-to-face frequently. So in that case, we can be called as a virtual team. Or in other words, virtualness exists in all kind of teams. It's not necessarily, you have to qualify as a virtual team or as a face-to-face team.

Even in face-to-face teams, co-located teams, members might use extensive technologies or lot of technological tools to communicate, even if there's an option to meet face-to-face. So what I'm trying to say is virtualness as a potential characteristics of all teams. So the idea of classifying teams into virtual teams and face-to-face teams doesn't make sense nowadays. Instead, virtualness is a quality which exists in all teams. So there might be teams which are low in virtualness, there might be teams which are very high in virtualness.

So virtualness is a common quality which can be measured or found in all teams. So why it is important to understand this? What is the difference between looking at teams as face-

to-face teams and virtual teams vis-a-vis looking at virtualness as a quality which is there in all teams? The difference is the way you approach the team. So if you look at teams as virtual teams vis-a-vis face-to-face teams, you will treat them very differently. But instead, if you look at virtualness as a quality which is there in all teams, you will not take certain things for granted. Everybody sitting in the same geographical location and working in the same office space, you may take certain things for granted because we feel that face-to-face teams have certain advantage.

It may not necessarily, even though they are sitting together, because they are using technological tools, there might be some problems which may arise or they may have certain advantages compared to teams which use very less technology. So understanding the power or the nature of challenges which arise due to virtualness becomes very important irrespective of what kind of team they are. So when you say virtualness, how do you measure virtualness? What do you mean by virtualness? So like you saw earlier virtual teams, face-to-face teams, the difference is technology usage and distance. And there can also be other forms of distance because these are very subtle ways in which people are different and the distance exists. So how do you define or measure virtualness? How do you know that this team has very high levels of virtualness, this team has very low levels of virtualness? What are the criteria? So in fact, this measure of virtualness has been spoken by many experts in this area.

I have also worked, if you remember, I said I did my PhD in this area. In fact, one of the contributions of my PhD research was coming up with a measure or a tool to understand how virtual a team is or even an organization is. So what are the criteria to measure virtualness? One level and kind of technology use. It's not just how much technology they use. It's also about what kind of technology they use for communication.

Two, location boundaries. So how clearly there is a boundary between the client location and my location. Or one team member, another team member, what is the physical dispersion or the locational differences. Temporal boundaries. When I say boundary, it means how clearly they are separated.

Time zone differences. Very clearly there might be time zone differences. In some places, time zone differences may not be very exact. For example, let's say team members working from India, USA, Australia, the time zone distinctions are very clear. Let's say USA and Canada or even within USA, certain areas there might be time differences, but the time differences may not be that much.

India and China or India and Japan. So time Singapore, India and Singapore. Time zone differences, distinctions may not be very very different. So if there are very clear

boundaries or distinctions in terms of time differences, then it means high level of virtualness. Similarly, location differences are very distinct.

Then we can call high level of virtualness. Relational differences. Like I said, distances in terms of different departments, they may belong to different departments. They may have a relationship with other team members. For example, if as a team member, I am part of many different teams, then that becomes a challenge for this particular team because this team member works in very different teams. So he or she might have conflicting goals in terms of working for this team versus another team.

So affiliation with other teams or overlapping of team members with different teams that can increase virtualness. Being part of different organizations and also cultural subgroups. So we looked at how culture may not necessarily mean nationality difference. It can mean generational difference.

It can mean functional difference, all those things. So if a team has high levels of all those things, high levels of technology usage, a certain kind of technology, high levels of location boundaries, temporal boundaries, relational boundaries, then we can call those teams very high in virtualness. If it is low, they use very less technology, very different kind of technology. They all sit in the same place. There are no time zone differences. They all belong to the same department, same cultural background, then virtualness might be low.

So you might be thinking, is virtualness bad? If high level of virtualness is there, does it mean it is bad for the team? Not necessarily. The goal is not to remove these factors. We are not saying if you remove all these factors, teams will be successful or teams will be effective. So these are the factors which exist because of a certain advantage. You bring in people from different background, different cultures, different functional identities because you need diverse ideas.

But again, if you don't manage these factors, then it might become a problem. So like I said, the idea is not to remove virtualness from a team or eliminate virtualness from the team. The idea is to make use of it effectively or to manage it effectively. If you manage virtualness effectively, teams can do a lot of things.

They can do wonders. So if you remember in the previous slide, I spoke about media tool usage in terms of what level and what kind. What level is very simple. What level means how frequently or how extensively you use certain kind of media tools. Like how frequently you use email, how frequently you use teleconferencing, all those things.

So frequency is extent. But nature of the tool means, for example, using how frequently you use email versus how frequently you use video conferencing. It makes a difference, isn't it? Video conferencing has a certain advantage. Email has a certain advantage.

Video conferencing has a certain limitation. Email has a certain limitation. So every media tool, like media tool means all these tools, video conferencing tool, email, online chat, electronic bulletin boards, electronic notice boards, blogs or shared spaces in terms of virtual team meeting rooms. So all those things are media tools, telecommunication media tools. So each of these tools have their own advantage, own disadvantage. So how do you evaluate or how do you understand the nature of the tool? There are many theories which help us understand the nature of these media tools. There are like many theories like I said, but there are predominantly two important theories.

The first theory is called media richness theory. So it says every tool, media tool, has certain level of media richness. How rich is the tool? So what do you mean by richness of a tool? So there are many factors which define or can be used to understand richness of the tool. The first factor is ability to transmit multiple cues, which means this particular media is able to transmit different types of communication. It can be verbal, it can be visual, it can be you know other attachments you can send, you can attach emails, you can attach videos.

It is not just you can just talk or you can just see, you can do other things. In fact, there are some virtual reality tools like augmented reality, mixed reality tools. They can give the feeling of touching something online also, this haptic technologies. So they give cues in terms of sensory motor cues also. You know all these VR headsets, they make you feel as if you are actually there.

So ideally speaking, face to face gives all these things. It can help you transmit multiple cues. But for example, maybe VR meeting room, virtual reality meeting room will be the best in terms of transmitting multiple cues. On the other hand, email, email gives only text, you can send only text message. Maximum you can do is you can record a video and send it as an attachment.

Or if it is chat box, you can send only text messages. If you are using telephone, you can send only audio messages. So if you look at media richness from multiple cues point of view, maybe email is the lowest and video conferencing is the highest or virtual reality meeting rooms is the highest. The other factor to define richness is immediacy of feedback, which means how immediately you can get feedback from the other person who is communicating with you. For example, chat, you can get immediate feedback if the person is sitting online. So you send in WhatsApp, you send a message, immediately if the person

is online, they can send the message back.

On the other hand, email, if you send an email, they have to look at it, open their email box, reply you, it may not be immediate. It's not happening live. It's not a live communication compared to a chat. Compared to telephone, it's even more better.

You can communicate even more quickly to the other person. If it is video conferencing, it's much better because it can transmit multiple cues. Language variety means whether it supports multiple forms of languages. Language is not necessarily grammatical language, it can be non-verbal languages also, non-verbal communication. For example, video conferencing can be used to communicate with multiple ranges of languages, but let's say email. Now you can use local languages, regional languages, but earlier email and all was there only in English.

You cannot communicate non-verbal communication. I mean you can do it with, now you can use all these emoticons and all those things, but otherwise you can use smileys and all, but otherwise how do you communicate non-verbal language? You cannot do it in certain media. Personal focus means certain tools give you that feeling that the other person is sitting next to you. For example, if you are using video conferencing, if you're using Skype or Google Meet, you get that personal feeling. Isn't it? You feel that the other person is there, but again it may not be as realistic as meeting someone face to face.

Let's say you are meeting someone in a coffee shop and talking to them and drinking coffee. That gives you more personal focus than a video conferencing, but video conferencing is much better than maybe talking to someone over phone because the personal focus is more. So if a tool is able to give all these things, then we can consider it to be a very rich media tool. If you take any media, all these things might vary.

For example, chat messages. It may have immediate feedback, but it may not have personal focus. Telephone will have immediate feedback. It can use different languages, but it may have some level of personal focus, but it may not be very good in transmitting multiple cues. So ideally face to face is something which is preferred according to this theory. But depending on the situation, depending on the nature of the message, we choose different medias. Similarly, there's other theory, media synchronicity theory, which is similar to media richness theory.

The similarities symbol, variety, immediacy of feedback, all those things. Paralism means, I mean, parallelism is slightly different from immediacy of feedback. Paralism means parallely with how many people you can communicate. How many different streams of communication you can have. For example, chat messages. Parallely, you can

communicate with your friend, you can communicate with your manager, you can communicate with your family member, you can open multiple chat boxes and type parallelly.

But if you are in a telephone, you can have conference call, but all of them will talk about the same theme. It's not like you can have different streams of communication in teleconferencing. Similarly, video messages, online video meetings, like Google Meet or Skype, you can have a conference video call, but you cannot have different streams of communication parallelly. So how well a tool facilitates parallelism or multitasking? Rehearsability is to what extent this tool helps you to prepare your communication content and then send it.

If you see, email is very good for that. You can think, work on the message and the way you communicate and then you can send the email. But you cannot do it in a telephone interview or a telephone video conferencing meeting. In video conferencing meeting, even though you prepare well for, let's say, an interview, spontaneity of the moment becomes very crucial. But in email, the advantage of designing your thought process and communication process is very high. So certain messages, like I said earlier, certain kind of communication, resourceability becomes more important, so email can be preferred.

You are sending a mail to your supervisor or manager, so you will prefer an email rather than calling them. When you call them, if you goof up something, you may be in trouble. But email, you can very well design it, very well rehearse it and then send.

So that can be a major advantage. Reprocessability is to what extent you can retrieve the message. For example, in certain communication medias, you can retrieve the message. For example, electronic notice boards like blog, you are sending messages through blog, you are writing a blog and you are posting it in a group. So if you want to remove the blog, you can remove it. But certain media, it's not possible. For example, telephone, if you say something, you cannot undo it or if you chat something, once people have read it, use an online chat, once people have read it, you cannot undo sending that message.

You can delete it before they read, but you cannot take it back once they have read it. But certain media, it is possible. Now email to some level, Google Gmail, when you send a message, just before it goes, there's an option of undo sending. So that undo sending is sort of reprocessability. You can take it back and not sending it.

So if a media has all these things higher, then you can call it a rich tool or synchronous tool. So compared to media richness theory, media synchronous theory gives importance to rehearsability and reprocessability and parallelism also. So it means sometimes email is

better, sometimes chat is better because in chat you can do parallel communication. It's not always media conferencing is the best or it's not always meeting face to face is the best. Certain forms of communications, even tools like email or chat can be very, very useful.

So these are two important theories which talk about the nature of the media tools. There's another theory that says whatever be the tool, if the tool facilitates social presence, social presence means you can feel the other person there. When you are reading an email, but you can feel it's not just some text, you can feel the other person is there. If you feel the presence in terms of that social connection, then that tool is good. So what it implies is if the tool is able to communicate social and emotional messages, then that tool can be preferred.

Then again, even an email you can send a very touchy kind of an email. It's not necessarily a face to face or a video conferencing is best to communicate emotional messages. It is preferable, but you can compensate for all those things through other ways. People chat very emotional, friends do chatting also, they use WhatsApp chat or any other chatting and they can share very emotionally sensitive content also, very emotionally loaded content also. So it's not just a tool, but it is about how good the person uses it to communicate social and emotional cues.

This is very important. So this idea of social presence also leads us to another concern or another idea that inherently no tool is high in richness or low in richness. It's not about email means you can only communicate to this level or only these kinds of messages. Every tool, every media tool can be expanded.

So channel expansion theory talks about that. Channel means media to media channel, media tool which you use. So it's not like email means it cannot be used well or it can be used well. So it's about how well you can use it to the maximum. So some tools, even though they are low in media richness, if the person can use it effectively, you can use it to the fullest, you can do the best out of it. So I will stop here.

We will talk about this theory in the next class because I need some more time to discuss it elaborately. We will talk about it in the next lecture. See you in the next class.