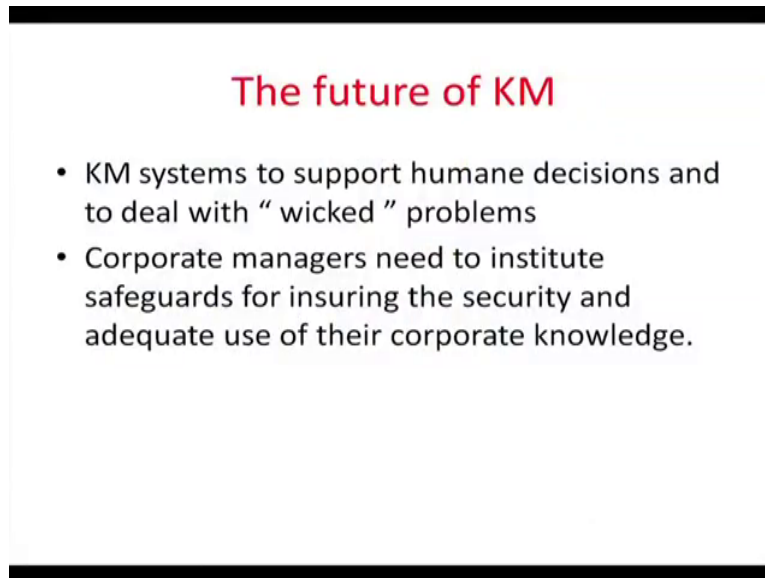**Knowledge Management**
Prof K B L Srivastava
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Lecture – 39
Future of KM

Okay so in the last leg of my lecture I am going to talk about the future of knowledge management.

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When I am talking about future of knowledge management we have to say that how knowledge management is going to involve in the future, what kind of changes is going to take place related to the architecture, the knowledge management system, how just going to influence by people, environment and the organization because you know that we are going to live in environment which is going to be very, very uncertain chaotic.

So what kind of knowledge management system would be required to hope away the challenges of the organization challenges of the people, so that people can take better decisions and can deal with those problems which could be within quote can be treated as with it, for with there is no solution for with the solutions, are not in sight or for which there is no good solution that exists.

So how are going to deal with those wicket problems which has been created by the environment people or even the system because you do not find an alternative solution for

those kind of problems or it is very difficult to get those solutions or certain problems right, and that is very have to see that how knowledge management system is to be involve and develop in the future.

So that you can create better decisions and the knowledge managers or managers can deal with such problems which may arise the uncertainty, chaos and competition which is going to happen in the future, the similarly will also find lot of technological changes are happening, how they are going to change the knowledge management system, its architecture at only that the never how people are going to share the knowledge, since are moving from physical world to more visual world.

It is interesting to see that how knowledge management system is going to be developed in the future and the important issue relate to the future is that security and safety of the knowledge management and the corporate knowledge that exists with the organizers, so you need to create systems and processes through which your system is going to be safe and will able to access.

So lot of problems are coming up with the you know that technology not only help in creating system but also a helping in distracting the systems you need to identify those factors or those things which are destructive in nature, how you can develop robust knowledge management system which is not only secure and safe for you but this is not going to attack by any kind of outsources or side forces including technology so these are from the issues that we are going to discuss in the future of knowledge management.

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Protecting Intellectual Property (IP)

- IP can be defined as any results of a human intellectual process that has inherent value to the individual or organization that sponsored the process.
- It includes inventions, designs, processes, organizational structures, strategic plans, marketing plans, computer programs, algorithms, literary works, music scores, and works of art, among many other things.

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Now to start with is the one major and discussion that had taken place in the last leg was that yes, when we are going to create new knowledge it becomes a property of the organization and that is what you know as intellectual property, so the intellectual property that is being created by the organization for the use of the organization is very, very important, so protecting these a intellectual property is not only ethical and legal issue.

But to also issue relate to the technology right, so if you look at in intellectual property it is defined as a result of any human intellectual process that has inherent value okay, so any knowledge that is created by organization becomes a part of intellectual property, so it ultimately becomes a intellectual property it could be related to the organization or it could be related to the individual okay.

Because no one who are going to create a new product a new process a new system which is a part of the intellectual property or being sponsored by the organization or you are going to sponsor it yourself to create these new product and process in place so you have to see that how to protect these kind of intellectual property which is nothing else but the result of the process of intellectual process you can say by the people okay.
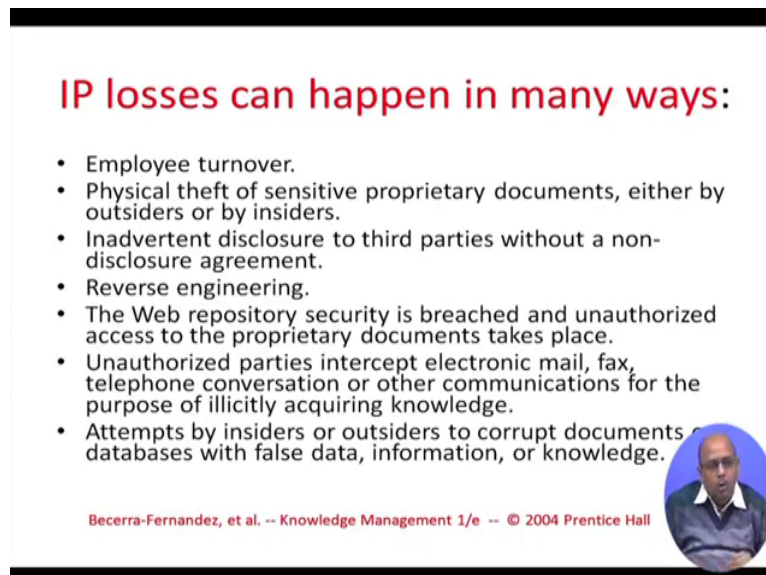
Or these intellectual processes or intellectual property may include a number of this will be a design a new design it could be new process or it could be new invention, new product or system processes okay or even a new instruction for the organization okay, a new strategy or a new marketing plan, a new program that we are going to develop through your computers and new algorithm, any new work that could be a painting, it could be a music, it could be a

work of art okay.

So anything could be what you call a intellectual property, so protecting these intellectual property that is an outcome of a knowledge management system because have been able to create and make new knowledge by using a knowledge management system are which repository becomes a very important issues right. Now because is a danger duplication, there is a danger of hacking okay and all kind of things and that is why it is very, very important.

To look at this issue that however to protect and safeguard any new invention in related to any area right and that is why you need to see that how your systems, Processes, structures strategies are going to be safe okay and other scenario limited and copied.

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IP losses can happen in many ways:

- Employee turnover.
- Physical theft of sensitive proprietary documents, either by outsiders or by insiders.
- Inadvertent disclosure to third parties without a non-disclosure agreement.
- Reverse engineering.
- The Web repository security is breached and unauthorized access to the proprietary documents takes place.
- Unauthorized parties intercept electronic mail, fax, telephone conversation or other communications for the purpose of illicitly acquiring knowledge.
- Attempts by insiders or outsiders to corrupt documents databases with false data, information, or knowledge.

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Now how you are going to see that it is protected and what are the possible dangers okay, of losing your intellectual property, the most important danger is that when there is a high implied turnover people with good knowledge leave the organization right, so employees turnover is a major factor because of switch or there is every possibility that employees are living the organization take away the knowledge with them and because it is not available with the system right.

Similarly sometimes you will find that yes there is a theft in the organization okay related to propriety documents propriety documents are basically knowledgebase documents okay either by outsiders or insiders, you will must have a where there is a theft of the databases okay by their people, or in the organizers okay who are going to compete with each other and

that actually created certain problems for intellectual property okay.

And when you go for some kind of disclosure to third parties okay without having a nondisclosure agreement which is a legal issues okay because you know that there is a nondisclosure agreement or there is a disclosure agreement, where going to disclose certain things relate to the product and process, for example when you are coming out with a product you have to identify what are the ingredients in the product.

And it has to be on the package so that can be used by other people because but it is protected by the intellectual property, then public you have betrayed what is it because you going to use it they have to pay for it right, so there are lot of issues related to like reverse engineering okay the way have done something others can also copy that, make it different way that is very popular in the many developing countries okay when they go for reverse engineering.

Use certain processes to create about the same process or also being used to create and product by them okay, for example you have to come out with camera, they can also create a many camera that selling using the same processes okay, so these kind of things are there and then important issue is security of the web protest okay, most of the sites today are not very safe and the organizers have to install foolproof security systems to ensure that whatever repositories available with the organization is secure.

And this no freeze unauthorized use of access to the propriety documents sometimes you has to choose system login passwords, sometimes you have to get permissions from the organization okay, but even then there are people there are systems which can be used to access information from different websites, which could be classified as confidential, so we have to say that you have systems and measures in place so that is confidential it is not faced okay.

Your documents are safe and it is very, very important because the way the technology is developed anything is possible and similarly you know that cyberspace and cybercrime, police try to intercept your mail, telephones, calls okay to catch these but it can also be used by hackers to identify or get knowledge from their competitors suppose you are going to intercept mails okay or phone calls or the conversation, that is going on between to going to tape it or record it which you can use it for your benefits.

You have to ensure that the communication system that is therein place for knowledge sharing other things okay is not being used unethically or legally by other people okay, then you will also find that sometimes your databases gets damaged okay, you need to go for proper encryption of the kind of thing so that your document is safe okay, you also need to see that it is not going to be corrupted by outside forces it is very, very important because in that databases damaged or corrupted probably not able to make use of it okay.

Or sometimes will also find the databases is fed up with an incorrect data and information knowledge by outsiders intensely, so that when you make use it okay you are not going to get any benefit of it so you also need to secure and see that any data that is going to fed into systems is tested and verified by the knowledge managers before it is put into the system okay, so that you make sure that your that data is other in the repository or not it is not only safe and secure physical but it is also reliable and valid.

So these are some of the issues are relate to intellectual property which may create problems for the future okay, so you have to see that what it is done.

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How to protect the organization from IP losses

- Non-disclosure Agreements

- Patents

- Copyrights

- Trade Secrets

You need to go for nondisclosure agreements okay you make sure that to make contracts, suppliers, vendors others you have a nondisclosure agreements, so you are not going to disclose certain critical information okay or knowledge you go for patenting, you have to have copyrights issues settled and then also it comes trade secrets are not going to disclose any information okay.

So if you are able to go for these kind of things probably will been a much better position to see that you are intellectual property that is with the organization safe and secure and for that make sure that when you are going to make any contract to have a nondisclosure agreement or not going to disclose information which is critically in nature, then if you have come out with any kind of new products or process okay which is which you think is innovative, which is not been done then you can find for a patent.

And I can give examples which is top on high innovation index have the maximum partings okay, so most of the components filed of it further products and processes and that is how they are able to save their intellectual properties, similarly you can also go for strain your products with the rest of the copyrights and that is how you have to copyrights, so if there is any unauthorized use of that content committed by anybody else without permission then there are legal issues involved in that.

Similarly trade secrets trade secrets are basically the secret are going to call the critical knowledge which is very, very important for product and processes and this is make sure that it is not going to shared widely it is kept with minimum number of people okay and even at the same time also have certain and safeguards to ensure that is trade secrets are not going to be revealed by people okay and that is how we going to safe it.

Now this KM is going to be used for decision-making process and to the benefits and that is why most of the organization has invested a lot of money to create knowledge management systems okay.

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KM: A new Paradigm for Decision-Making

- The development of MIS, Decision Support Systems, and KMS has been influenced by the works of five influential philosophers, namely, Leibniz, Locke, Kant, Hegel, and Singer.
- Recent developments in KMS have also enabled to extend the reach of those involved in the solution, through group support systems.
- As globalization expands, the number of stakeholders affected by the organization increases

So if you look at the development of knowledge management system which is started with management information system then moved to decision support system and then you have a knowledge management system which could be in the form of what you call say expert systems or what you call further development which has taken place in the name of what you call artificial intelligence okay.

So whatever you call you know that this kind of things have been influence by philosophers, lot of philosophers and see that how are going to take decisions and how explicit knowledge is going to be used for making decisions, because you ultimately you need to right rational in the decision-making process, but the same time you cannot ignore the fact that most of the decisions are bounded by nationalities okay.

And at the same time lot of insights and intuitive decision-making also takes place okay, so when you are going to take decisions have to see that the extent to which or the decision-making processes being contributed by explicit knowledge and also tacit knowledge we cannot deny the role of tacit knowledge also in the decision-making process okay, and lot of philosophers they have worked in the process that when you are going to take decisions it is not only the technical assessment that is the matter.

But also the human related aspects are equally important okay so you need to take care of this., this is very important so both of them contribute and the important issue is that whether you get the support or not support is very important issue in the developing a knowledge management system okay. So those have developed knowledge management systems are the

those who are creating solutions okay used by using the knowledge management systems okay or getting enough support from the system to allow them to come out with new products and systems are to take decisions which are going to be very, very effective okay.

You know that you are going to work in a very competitive world and the competitive forces have actually compared organization to go for of all kind of innovations okay, you have to say that how this knowledge management system is going to affect very stakeholders not only employees, but also other stakeholders in the process managers, customers suppliers and vendors.

And how they are going to how this knowledge management system is being used public taking decisions related to save vendor selections, I could be see that how they are going to the way customer relationship management system or how are going to develop a human resource information system for managing apply better, so all kind of decisions can be taken with the help of this process. Now we going to take decisions you need to adopt multiple perspectives.

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Decision making based on multiple perspectives

- Technical perspective
- Personal and individual perspective
- Decision making based on multiple perspectives
- Organizational and social perspective
- Ethics and aesthetics perspective

And when I am talking about multiple perspectives. It means that technical any decision perspective is not only technically in nature means that you do not have all the information and then of amount of information may not be adequate okay, so the technical decisions cannot be taken always so some element of human decisions always involved and that is where the personal and individual perspectives come into the picture okay.

And any decision has to be taken not only based on technical knowledge in the amount of information the quantum of information, of the quality of information, but that is also supported by the individuals as meant insight the experience in this kind of things and that is why we say that it is based on multiple perspective and that is very, very important. Similarly when you are going to take decision you also look into the organization enthusinal perspective.

Organization perspectives is when you are going to take a decision to implement it you also need to see that whether they support commitment from the top management or not several resources in terms of budget and these kind of things a decision may good, but it may limited because organization may not be position to afford it okay. So you also need to look into the constraints intentions of time space and resources from the organization perspective while taking a particular decision.

For example when you are going to recruit people using a online system, you might end of it getting good people okay, but at the important issues is that how are going to whether their stay back with the organization or how are going to retain them so the best person that is going to be recruited may not be good decisions you have to see that from the organization perspective, what of the that need to be done so that a decision that is taken is going to beneficial for the organization.
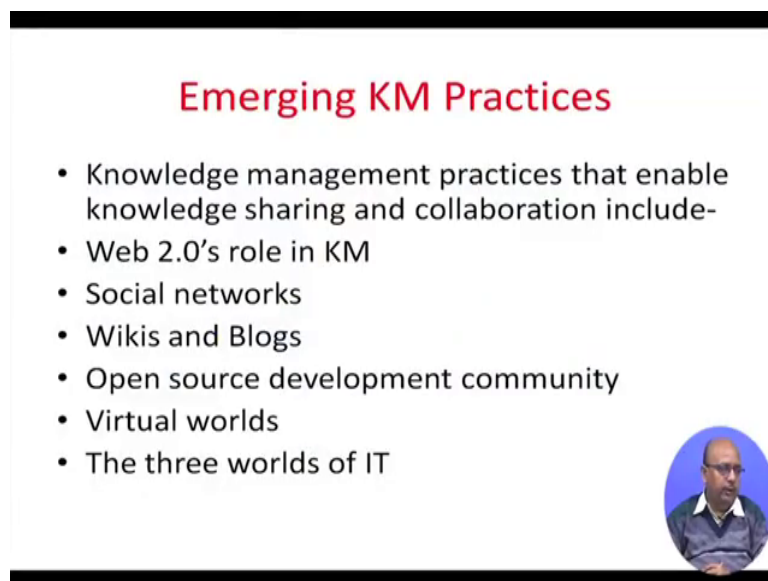
Similarly also need to look into the social perspective how are decision going to having its impact on different stakeholders, including employees, community and society in which will it, say for example you want to go for a new products with that this new product is going to be safe for the people okay what they are side-effects of this product, however that is going to affect the environment and the society, so these are the social perspective that also need to be kept into the mind.

Similarly you also need to see ethical and aesthetic perspectives, ethical perspective mean when you are going to decision in the civility ethical maybe in the interest of organization, but the same time may not be ethical, for example you are going to advertise a product okay, so sometimes you know that when advertising happens, the agencies or the organization mainly certain unethical practices to promote the product, which may not be ethical in nature okay.

Similarly also need to look into the aesthetic perspectives okay how the product work how to appealing in nature not what is the design factors allow all kind of things, so all these perspectives are very important is not only technical and personal perspective but you also need to see organization social ethical perspective which is very, very important, when it comes to taking a decision based on the use of knowledge management system.

Now if look at some of the emerging practices in the field of knowledge management which have happen very, very important.

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And then will see that how these knowledge management practices which emerged recently and have been able to help knowledge sharing and collaboration in a big way, because that has a major issue in the coming future that knowledge sharing, knowledge holding use of technology, ethical hacking, so we have to see that how we can enhance knowledge sharing in collaboration along people when you are going to make use of different kind of practices.

So the certain practices that going to discuss is like were point to zero or what is its only knowledge management will also you see that how social networks, reason wiki's and blogs, open source document communities, virtual worlds are going to be useful okay. So for as knowledge management systems are concerned because if you look at this systems they are very important with respect to knowledge sharing and collaboration.

So what we are going to discuss now is that how this knowledge practices knowledge

management practices help in knowledge sharing.

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Now if look at the emergence of web two point zero earlier, we have web one point zero, now we have web two point zero and then in future we are going to have web three point zero, which is more advanced sophisticated system. Now this web two point zero was develop by riley two thousand basically which was basically related to development duration of web-based communities and hosted services like you have social networking sites, video sharing sites, wikis, blogs and fox mommies okay.

And the kind of technology that was use was basically a JavaScript and XML okay which allows available obligation to perform okay like just like it desktop applications, using these technology basically you can go for sharing okay at various social networking sites, like Facebook okay and other websites video sharing like you have YouTube's and then you have also wikis blogs, which is connected to net internet and then fox mommies which is also connected to this okay.

Created a group of people who are going to work for this kind of things so this if look at the emergence of two point zero is very, very important okay at this basically, the basic features of this two point zero is it talks about collective intelligence okay, so basically come from the users, so in information that is being posted on the users on these networking sites or sharing sites become a product for the website and they are going to make use of it to take certain decisions okay, so it is very, very important for that matter okay.

So there is a lot of investments have taken place like in the field of social networking sites or what you call the p2p networking that this peer-to-peer networking or even to provide better web services okay, then you also have going to provides one point zero, plus two point zero. So one point zero is basically it for distribution and platform for viewing certain things and two point is basically which provides tools as links authoring, tagging, signals and extensions okay.

If you take the example of Facebook or LinkedIn there using two point zero for different kind of flexibility, you can search, you can provide links, you can also write something, there you can tag something or you can also extend your thinks right and that is why this two point zero is better than one point zero.

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Now will discuss of this applications related knowledge management and that is a social networking has coming a big way okay it, started in 2000, to basically these social networking sites and that is Friendster was coming there and so this was the first networking site which was used by people and it allows to use basically use users to share photos, videos comments and messages from the different kinds okay.

Similarly there was another site came up which was known as Who Viewed me okay, it basically also view based on user relationship, but not via traditional marketing and then another things came up that was MySpace okay, which was in the place of Friendster okay which included the certain features of Pinster, then and also added music and discovering knowledge discovery okay and if you look at this social networking sites that is Friendster it

aligned itself channel for merging this devotion among idle.

And major recording level artists and it has a highest visited domain in 2006 okay. Now if look at the social networking sites the idea of having the social networking sites are was to share information okay and this information could been forms of an audio, video, text and these kind of things okay and that is why make friends you can also add lot of things to it and that is why it what used as a platform for knowledge sharing.

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Now if look at social networking site and the way has develop now you have a are three major things that has come into the picture like to have LinkedIn okay, which is basically a social network where to become a member, then you can have a access to information about to other professional colleagues working in the same field or different field okay, you can query questions and post job, you can post enquiries their also, which could be answered by professionals working that field okay.

and if you look at the growth and development of LinkedIn, it has grown when a big way and you know that LinkedIn is also generate a lot of revenue though being a social networking site, it has ripped a lot of benefits lot of new knowledge being created okay through post another kind of things. Another networking site which is known as Orkut which is not very you can say popular today with owned by Google okay and basically most of the users basic belong to Indian project.

I do not know how popular it is today but it some people might be using it then have another

channel or you can say social networking site which is known as YouTube. YouTube is very popular you can say networking site it is owned by Google and YouTube has lot of facilities you can upload share even provide comments on the videos, okay and that is basically for audio and video sharing.

And you know that if look at upload if you look at YouTube can upload any kind of knowledge that you have or any kind of video, the only thing is that you need to the copyright issues and other things, so if you have a created a music you can upload it, if you have sang a song you can upload it okay or any kind of thing being uploaded the video, now if look at quantum of information related to any field of knowledge a YouTube is used okay.

And you also find videos of courses, lectures, other things and the interesting thing is that this course even this course is going to be uploaded on YouTube with when you can have access to the information and knowledge, so YouTube have become a big platform you can say for sharing knowledge, for transforming knowledge, so you goes to watch a video on YouTube you get some kind of explicit information, certain forms, which you can internalize and make use of it but doing something right.

And you can find different kind of issues like systems processes, products in all fields of management not only management, but other fields also engineering science and law that most of the lectures are recorded put on the websites, which is YouTube for other benefit of the users and you do not need to pay anything, when you are going to make use of this YouTube for knowledge sharing, case more or less free of cost, because they are going to generate lot of also advertisements and that is all it is being able to sustain it.

And it is a part of YouTube Google.
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Social Networking (continued-)

- Facebook (2004) Designed as replacement (for photo directories (facebooks) given to freshmen
- Exclusivity — must join as part of a network
- Added security Initially comprised (only of students from elite Universities
- Now includes most schools, geographies, and workplaces
- News feed — supports stickiness. Many repeat visits throughout the day

Now the most important development in the social networking has happened today is basically the Facebook okay, which came in 2004, basically it is a new development that has taken place and you will find that Facebook is a replacement for photo directories okay, in Facebook you not only interact this photograph, photograph you can also chat okay and also can share information with people with your friends and colleagues right.

The only is only option it is used in the sense that in order to have access to information the Facebook you need to be a member okay, you must join the network and you need it facilities like internal things to have access to this Facebook system and the important issue is that is the limit to the number of people and their certain rules that followed, when you are going to make use of it because the moderator, monitors the content and these kind of things okay.

And the security issues are there it was there because you know that Facebook was basically used by university as tools from the university across the world okay, but now you will find that Facebook is very, very useful okay cross chipper field, schools, workplaces most of the people are using okay and you can also invite newsfeed okay, supports thickness many repeat visits throughout the day, so I mean Facebook have become face of young generation to today not only to chat but also interact share, information, knowledge okay.

And all kind of thing and that is why this Facebook has become a very, very important in social networking site, you know that the companies of posting advertisements and the also see that when they are going to recruit, whether you have a profile the Facebook what kind of people you are connected with okay, not only with Facebook in the same applies in the

LinkedIn other networking sites okay, so you know that most of the organization, see to it that you have profiling LinkedIn or Facebook and what are the what kind of people you were connected with, what kind of things were posting.

So right to judge, behavior, other kind of things based on your profile and see that whether you are suitable for this kind of job or not and that is why Facebook has become very, very important part this okay.

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Now if you look at these social networking sites, the idea using the social networking site whether it is Facebook, whether it is LinkedIn or YouTube is basically knowledge sharing okay, knowledge which is held by people organization or information systems can be uploaded or downloaded, can used by this okay and you can have you can make friends, you can advice, you can have professional network also, so different kind of also provides different kind of networks okay.

It has a strength in terms of reciprocalcity because you can interact and have dialogue with others and it is very intense also when you can have these interaction or you can have following interactions, then you have to look at the density that is the another important characteristics okay, you have to seal what is the actual to possible ties in a network, how many people are collected, what they are doing in this kind of things and then you have to see what is the position in the network okay.

How many people connected you what to do okay whether position central of the system

okay and that is how we have found that social networking sights have very, very useful for sharing knowledge in the future okay thank you.