

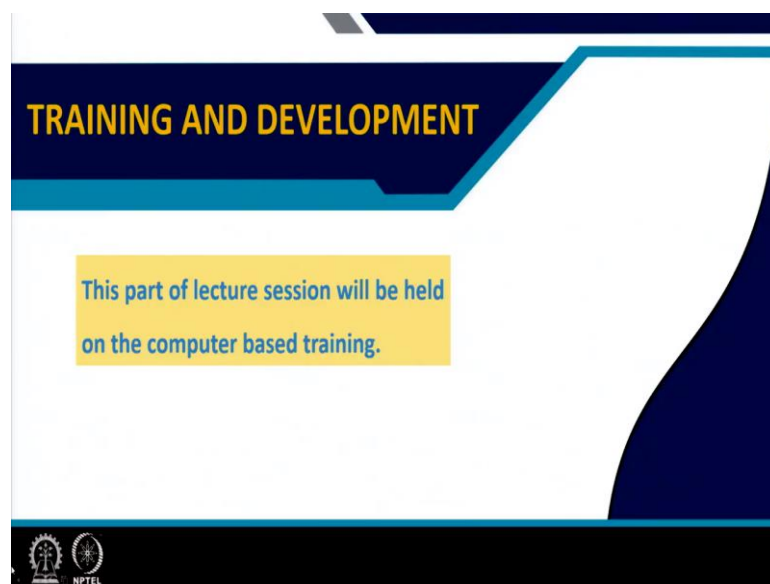
Training and Development
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Module – 08: Technology Based Training Methods
Lecture - 37
Computer Based Training

Welcome to the discussions on module 8, which is on technology based training. In the first lecture session of this module, we have discussed about the technology based training, how it is different from traditional training, how we can make a hybrid model based on the like positive aspects of both the traditional methods of training and the technology based training. With that initial idea on what is the technology based training?

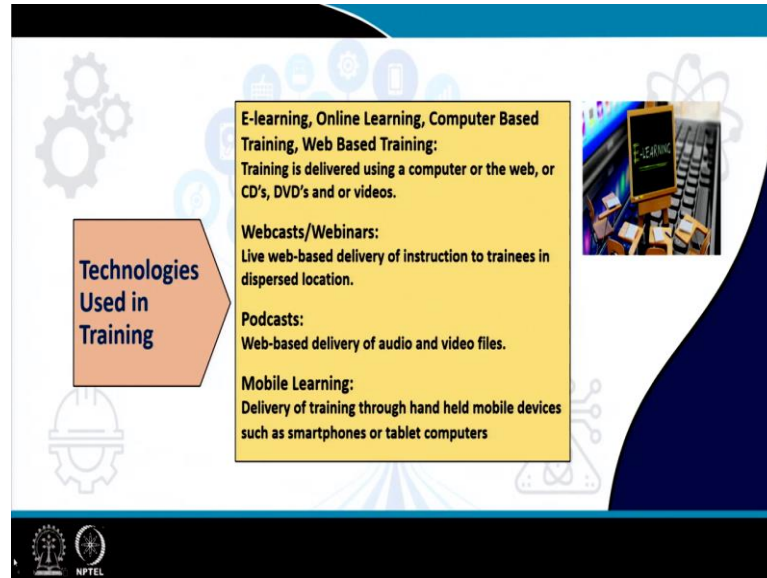
In today's lecture session we are going to discuss on one of the important natures of technology based training which is Computer Based Training. In today's lecture, we are going to cover on computer based training, what are the different aspects of it? What are the different processes of it? What we need to like, what resources we need to have in order to deliver computer based training. What are the organizational capabilities need to be developed? So, that technology based training which is computer based training can be given.

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So, let us begin. So, this part of the lecture session will be held on the computer based training.

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Now what are the technologies that are used in training? As we understand technologies which are used in training are E learning, online learning, computer based training, web based training. So, the in all these things the training is delivered using a computer or the web or CD's, DVD's and videos.

And what is the like, fine line of difference whenever you are talking of computer based training and E-learning or online learning. Like, computer based training which is based on whether CD's, DVD's, a standalone or whether it is computer based training which is again connected with the net and you have you are accessing the content through the internet.

So, which we again talk of like the web based training also. So, the but the bigger umbrella here that we are discussing is that of computer based training. Now, what are webcasts or webinars which a live web based delivery of instructions to trainees in dispersed locations.

So, this we understand these are live web based training and which are to be given at a particular time slot and people from different parts of the geography can choice. Podcasts

are web based delivery of audio and video files. Now, mobile learning. It is delivery of training through handheld mobile devices such as smart phones or tablet computers.

So, whenever we are talking of computer based training, maybe we are talking of more of like a training which is deliverable from like you have to have a laptop or a desktop, but when you are talking of mobile learning it is through you are getting your training through training contents in your mobile devices.

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The slide features a central yellow box with definitions for four technologies. To the left, an orange arrow points to the title 'Technologies Used in Training'. To the right, there is an image of a classroom with a smartboard and a small inset image of a woman speaking. The background is decorated with various icons like gears, a smartphone, and a graduation cap. The NPTEL logo is visible at the bottom left.

Technologies Used in Training

Blended Learning:
Training is delivered using a combined technology and face-to-face instructional delivery approach such as class room and web-based technology

Wikis:
Websites that allow many users to create, edit, update content and share knowledge.

Distance Learning:
Training delivery to trainees in other locations online, or through webcasts or virtual classroom.

Social Media:
Online and mobile technology used to create interactive communications allowing the creation and exchange of user generated content.

Now, blended learning- here training is delivered using a combined technology and face-to-face instructional delivery approach such as classroom training and web based technology. Wikis are the websites that allow many users to create, edit, update content and share knowledge. So, it is a creative comment where like a collective intelligence gathers to develop a particular topic like share their ideas and views and like the pool of knowledge about a particular topic develops through this through the contribution of many users.

Distance learning- raining delivery to trainees in other locations online or through webcasts or virtual classrooms. Social media- online and mobile technology are used to create interactive communications allowing the creation and exchange of user generated content. So, here what is happening like in social media there is like interactive communication happening and as a result of that the user generated content like develops regarding any topic.

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Technologies Used in Training

Blogs:
A webpage where an author posts entries and readers can comment

Chat Rooms and Discussion Board:
An electronic room or message board on which learners communicate between learners at the same or different times.

Massive Open Online Courses:
Learning is designated to enroll large number of learners (Massive) with free and accessible to anyone with an internet connection

The slide features a central yellow text box with definitions. To the left is a blue arrow pointing right with the title. The background includes icons of gears, a hard hat, and a person at a computer. A small video inset of a woman is in the bottom right corner. The NPTEL logo and 'IIT Kharagpur' are at the bottom.

Other types of technologies used in training are like that of blogs- where a webpage where an author post entries and readers can comment. Chat rooms and discussion boards-which are an electronic room or a message board on which the learners communicate between learners at the same time or in different times. Massive open online courses is a learning is designated to enroll large number of learners which is massive with free and accessible to anyone with an internet connection.

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Computer Based Training

It is referred to instruction and delivery of training conducted using a computer through internet or through the web.

These training methods can

- Include and integrate text,
- interaction using simulations, and games, and videos, and
- collaboration using blogs, wikis and social network and
- hyper links to additional resources.

The slide features a central yellow text box with a definition and a list. To the left is a blue arrow pointing right with the title. The background includes icons of gears, a hard hat, and a person at a computer. A small video inset of a woman is in the bottom right corner. The NPTEL logo and 'IIT Kharagpur' are at the bottom.

Now, that was an introduction about the different technology based training and we will now discuss more on the computer based training. So, whenever we are talking of computer based training, it is referred to instructions and delivery of training conducted using computer through internet or through the webs. These training methods can include an integrate text, interaction using simulations and games videos, then collaboration using blogs wikis and social network and hyper links to additional resources.

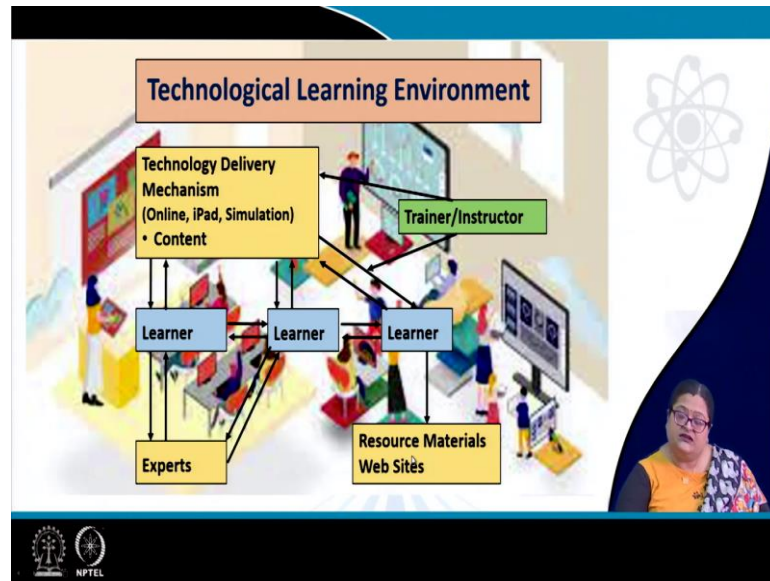
So, this is a very beautiful thing like the hyper link to additional resources like in a scheduled class time maybe many concepts in details could not could not be covered or cannot be covered or sometimes you have like different people with different levels of interest who have joined or people who have different levels of grasping power and understanding of a topic may have joined for the same course.

So, what happens you cannot like increase the difficulty level of the class too much, then some people who are who needs a like lucid discussion on the topic at maybe a basic level they are going to lose interest. You cannot keep it very low also then other people who wants to know more will be losing interest from the contents that you are giving. Since, in computer based training if how it helps?

It helps you to give a whole chunk of material as additional resources which will like help the people who wants to know in depth about a topic to refer to those like selected resources which have been shared by the course instructor and gain additional knowledge from it and if possible, again contact back with the instructor.

So, that and discussion with the instructor if certain explanation requires to be given and then, in that way the knowledge become more like the person gets to know more and then knowledge becomes more imbibed within the person. So, this computer one of the beautiful features of the computer based training is hyperlink to additional resources. Along with this collaboration using which are blogs wikis and social networks.

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Now, what is the technological learning environment? So, you what you see over here, which is there is a trainer in this whole environment there is trainer who delivers the content through the technology delivery mechanism like online or iPad simulation and there is a content which is delivered through this medium.

Now the content as we told it is a learner centric system, the content should match with the learning styles of the learners and again the learn the content should be matching with the learning styles of the learners and what the learners give the feedback about the content also helps in modifying the content. So, the content has a both way directional arrow with the learner.

The learner also can like consult experts in a particular area who can give them more knowledge about it and so knowledge sharing can also happen between the learner and the expert. In a technological learning, environment technology driven learning environment though there is a trainer and instructor because it is learner centric because it is motivation a learner's motivation which helps him or her to like register for a particular course.

It gives the freedom also to learner and encourage that the learner may through additional resources or through certain points of accessibility and communication get to interact with the experts and enrich their knowledge. Similarly, the learner like one

learner can consult about the whole thing in a peer to peer discussion is also very much encouraged in technology learning environment.

So, what we see over here there are three independent learners, but again there are by directional arrows between the learners which shows the both way communication between the learners in terms of knowledge sharing and knowledge gaining also from reciprocating of the knowledge.

And the learner together along with the training trainer, instructor the materials given and the knowledge shared by the expert together then, the learner can also contribute to developing the resource materials and then websites and like through their feedback and they can also consult the resource materials and the websites for gaining further knowledge.

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The slide features a central yellow box with a list of five bullet points. To the left of this box is an orange arrow pointing right, containing the text 'Features of Computer Based Training'. The background is white with faint icons of gears, a smartphone, a laptop, and a network diagram. In the bottom right corner, there is a small video inset showing a woman with glasses and a colorful patterned top. At the bottom left, there is a logo for NPTEL.

Features of Computer Based Training

- This is designed to let the trainee move through the program at his or her own pace and repeat sections of the program if necessary
- Immediate feedback on the trainee's work
- Tracking of progress can determine if there is a need to adjust or change training
- Provides options for all types of learners (visual or hands-on)
- It is more affordable than traditional styles of training

The features of computer based training. This is designed to let the trainee move through the program at his or her own pace and repeat sections of the program if necessary. Immediate feedback on the trainee's work. Tracking of progress can determine if there is a need to adjust or change training. Provides options for all types of learners, as we told visuals or hand-on. It is more affordable than traditional styles of training.

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The slide features a central yellow box with the title "Features of Computer Based Training" in an orange arrow-shaped box. To the right, a yellow box contains three bullet points. The background is light blue with various icons like gears, a hard hat, and a network diagram. A small video feed of a woman is in the bottom right corner. The NPTEL logo is at the bottom left.

Features of Computer Based Training

- E-learning is accessible at any time and any place
- The audience can include employees, managers, customers, vendors and clients
- Training is enhanced by the use of multiple media and trainee interaction which ensures good job performance from the new employees

So, these are some of the good features of the computer based training. Along with that also E-learning is accessible at any time, any place. The audience can include the employees, managers, customers, vendors and clients. The training is enhanced by use of multiple media and training interaction which ensures like good job performance from the new employees. So, there is a constant interaction between the mentors and the mentee.

So, and which prepares the individuals for future job and that is why it ensures like good job performance from the new employees.

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The slide features a central yellow box with a list of four bullet points. To the left of this box is an orange arrow pointing right, containing the text 'Some Problems of Computer Based Training'. The background is white with faint icons of gears, a hard hat, and a network diagram. In the bottom right corner, there is a small video inset of a woman speaking. The NPTEL logo is visible in the bottom left corner.

- Inadequate funding - although costs have decreased significantly, an extensive capital investment is still required.
- Inadequate software - after long journey of CBT, the curricula for this medium are still in their infancy.
- Inadequate planning and preparation - sufficient planning and preparation are frequently not carried out, which leads to available computers not being fully utilized
- Unrealistic expectations - many educators have unrealistic expectations of CBT, and then become discouraged when outlandish promises are not met

Inadequate funding - although costs have decreased significantly, an extensive capital investment is still required in terms of developing the course content and thinking out like water the competency is required for developing a web based course content, what is the time required. So, from every aspect it is this computer based training requires an extensive capital investment.

Inadequate software- after long journey of CBT, the curricula for this medium are still in their infancy. So, what should be the curricula? What would be the learning styles? What will be the learning methods? These are needs to be very clearly defined and mapped for computer based training, which is presently not there.

Adequate planning and preparation - so, sufficient planning and preparation and frequently not carried out, which leads to available computers not being fully utilized. So, sometimes we deliver this course in a hurry and we do not appreciate or take into consideration the full like potential of the computers for the course deliver we cannot utilize it properly.

So, we have to understand like how the computer functions and also like in succession planning whatever we are thinking of like planning for and preparing the course material and deliverables like the way to deliver the way to monitor. So, these will take time and this will take lot of planning.

So, with inadequate planning then it may lead to a sorry figure. Unrealistic expectations - many educators have unrealistic expectations of computer based training and then become discouraged when outlandish promises are not met. So, as I am repeating like technology comes as a boon, comes as a blessing, but it is not without it is difficulties.

So, it is better like instead of ignoring like there could be to say difficulties and only highlighting the positive points does not help us to proceed further. So, it is better like we know about the difficulties accepted and see till like what are the remedial measures that can be taken and what are the solutions can be provided so, that we can minimize the risk part from it.

So, otherwise what happens? After a certain point of time people may become discouraged from continuing with computer based training, because they do not see their promises in getting met. So, is not the problem of the computer based training, but because we do not have a clear idea of what the computer based training what we can expect or what we cannot expect from it; we may set some very high standards which are not achievable by computer based training and then we feel bad or demoralized about it.

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The slide features a blue header and footer. The main content area has a light blue background with gear and network icons. A central yellow box contains the following text:

Objectives of Online Learning, E-learning and Web Based Training

Online, E-learning initiatives are adopted to address the following issues:

- Management of people across geographic borders
- Management of remote and mobile employees
- Digital collaboration issues
- Reductions in management development resources
- Limited management time for training and development
- Management's low comfort level in accessing and searching online HR resources

The slide also includes a small inset image of a person at a computer and the NPTEL logo in the bottom left corner.

The objectives of online learning, E-learning and web based training. In an online learning, E-learning initiatives are adapted to address the following issues: management of people across geographic borders. So, learners could be placed at across various time zones across different countries so, how to manage it? So, that online training helps us to

do it especially for MNCs whose like functions or sub are spread across the globe and if you want to give some training you will find employees maybe in residing in or be placed in different countries.

So, how do they give get a training from a common platform this like web based training are going to help with that. Management of remote and mobile employees. So, whenever we talking of remote and mobile employees we understand as we tell like that the these are challenges also. So, in that case like how to keep a track of them; how to understand whether they are really undergoing the training program.

So, how do we keep a track of these employees and reach them out, we can reach them for taking the training program these are important challenges of like management of remote and mobile employees. There could be issues regarding digital collaboration based on like the who becomes the first author or who becomes the second author, what are the do each of the party need to make certain compromises to come to this point of agreement and collaboration these needs to be discussed also.

Reduction in management development resources. So, these are another of the issues definitely. So, where people are preferring more online type of lectures, because it you do not have to take the cost of like paying the professionals and may be taking care of their hospitality, making arrangement of classroom for giving a training. So, many things are involved for which you can reduce the cost.

But we have to take into consideration like, whether to online whoever I am given is that training delivery is been good enough, is been given by competent person has really helped the employees to develop at a cognitive or an emotive level. So, these needs to be taken care of.

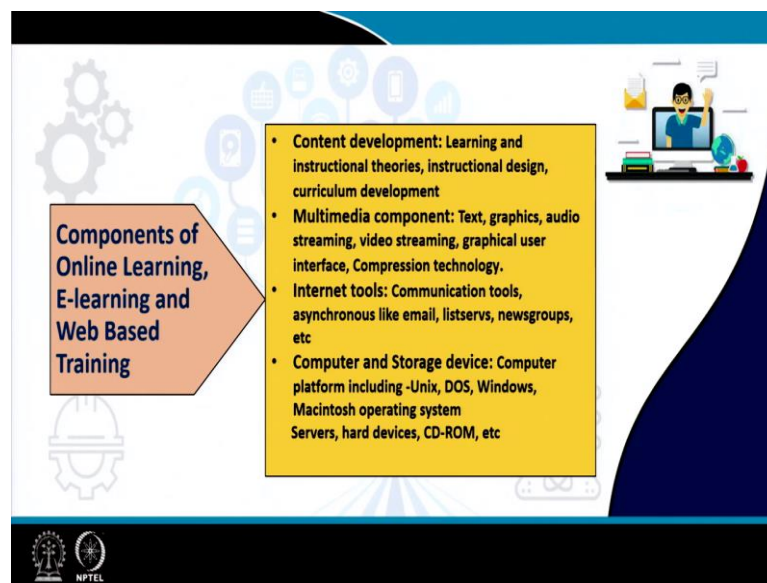
So, another thing could be as for like reduction in management development resources. So, there could be also limited time management and training and development like how so how to take care of this, so within that also like if they want to like collaborate digitally. So, how they can be doing it. So, management there if they are uncomfortable with searching like online HR resources.

So, that it is self will like open up a training domain where people needs to be trained. Because, in this today's perspective technology based training has come in to stay and if

you are not very confident or comfortable with using this technique then there it is self lies a training need.

So, in this way what happens like as computer based training has come up to answer some of the issues, here we have discussed what are the issues which lead to the development of like the learning E-learning initiatives or the web based initiatives.

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When we have understood the issues challenges and like what to do kind of like, whenever we are going for the online learning. So, the next important challenge of course, is that of content development because, we have told like the USP of the technology based training or the computer based training is to more become learner centric to find out the psychology of learning from of the learners and then map oneself towards it.

So, for that content development is a challenge and learning and instructional theories like instructional design, curriculum development. So, these are very important parts challenging parts of like the if you are developing a course content.

Then, multimedia component like how to insert text, graphics, audio streaming, video streaming, graphical user interface, compression technology etcetera. What could be the internet tools if it is an adverse training, then what could be the internet tools like communication tools, asynchronous like mail, then it serves new groups etcetera.

The computers and storage device- computer platform including Unix, Dos, Windows Macintosh operating system like these are like things like hardware that is required. So, like servers, hard devices, CD-ROM etcetera.

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The slide features a blue header and footer. The main content area is white with a blue background on the right side. On the left, there are icons of gears and a person at a computer. A yellow box contains the following text:

- Connections and Service Providers
 - (a) Modems
 - (b) Dial-in (e.g., standard telephone line, ISDN, etc.) and dedicated (e.g., 56kbps, DSL, digital cable modem, T1, E1 lines, etc.) services (<http://whatis.com/dsl.htm>)
 - (c) Mobile technology (e.g., connected wireless, wireless LAN, wireless WAN, wireless PAN or personal area network) (Polivka, 2001).
 - (d) Gateway Service Provider, Internet Service Providers, etc.

The NPTEL logo is visible in the bottom left corner of the slide.

We also need to have some idea about the connections and service providers like modems, dial in then, like the standard telephone line, ISDN etcetera and dedicated like 56kbps, DSL or digital cable modem or the T1 E1 lines etcetera. Services like, http, what is dot what is dot com then, back slash dsl dot htm.

Third important thing that we know is that of mobile technology, that is connected wire lessness, wireless LAN wire, wireless wan etcetera. Wireless PAN or personal area you know network. So, the gateway or the service provider, internet service providers also needs to be like known before we think of getting into web based trainings.

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The slide features a blue header and footer. The main content area is white with a blue background on the right side. On the left, there is a blue arrow pointing right with the text 'Components of Online Learning, E-learning and Web Based Training'. In the center, a yellow box contains a list of 'Authoring and Management Programs'. On the right, there is an illustration of a person at a computer. The NPTEL logo is in the bottom left corner.

Components of Online Learning, E-learning and Web Based Training

- **Authoring and Management Programs**
 - (a) Programming languages (e.g., HTML - Hypertext Markup Language, VRML - Virtual Reality Modeling Language, XML - Extensible markup Language, XSL - Extensible Style Sheet language, XHTML - Extensible Hypertext Markup Language, WML-Wireless Markup language, Java, Java scripting, etc.)
 - (b) HTML Converters and Editors, etc.
 - (c) Learning Management Systems
 - (d) Authoring Tools and Systems (easier to use than programming languages)

Components of online learning E-learning and web based training. The authoring and management programs for authoring the web based training it there are certain things which needs to be known. The first is the programming languages that is HTML-hypertext markup language, VRML virtual reality modeling language, XML-extensible markup language, XSL extensible style sheet language, XHTML extensible hypertext markup language, WML wireless markup language java, java scripting etcetera.

There need to be HTML converters and editors learning management systems, authoring tools and systems which are easier to use than programming languages.

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The slide features a blue header and footer with the NPTEL logo. The main content area has a light blue background with gear and network icons. On the left, a blue arrow-shaped box contains the text 'Components of Online Learning, E-learning and Web Based Training'. To its right, a yellow box titled 'Servers and Networks' lists three items: (a) HTTP servers, HTTPD software, Web site, URL - Uniform Resource Locator, etc.; (b) Wireless Application Protocol (WAP); and (c) Common Gateway Interface (CGI)—a way of interacting with the http or Web servers. CGI enables such things as image maps and fill-out forms to be run. A small inset image in the top right shows a person at a computer. A larger inset image in the bottom right shows a woman speaking.

Components of Online Learning, E-learning and Web Based Training

- Servers and Networks
 - (a) HTTP servers, HTTPD software, Web site, URL - Uniform Resource Locator, etc.
 - (b) Wireless Application Protocol (WAP)
 - (c) Common Gateway Interface (CGI)—a way of interacting with the http or Web servers. CGI enables such things as image maps and fill-out forms to be run.

Servers and networks are also important points in whenever we are thinking of computer based training. So, what kind of servers like HTP servers, HTTPD software, website URL which are uniform resource locator etcetera. Number b we need to have wireless application protocol then, common gateway interface a way to interacting with the HTTP or web servers. CGI enables such things as image maps and fill out forms to be done.

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The slide features a blue header and footer with the NPTEL logo. The main content area has a light blue background with gear and network icons. On the left, a blue arrow-shaped box contains the text 'Components of Online Learning, E-learning and Web Based Training'. To its right, a yellow box titled 'Browsers and Other Applications' lists three items: (a) Text-based browser, Graphical browser, VRML browser, etc.; (b) Links (e.g., Hypertext links, Hypermedia links, 3-D links, imagemaps, etc.); and (c) Applications that can be added to Web browsers such as plug-ins. A small inset image in the top right shows a person at a computer. A larger inset image in the bottom right shows a woman speaking.

Components of Online Learning, E-learning and Web Based Training

- Browsers and Other Applications
 - (a) Text-based browser, Graphical browser, VRML browser, etc.
 - (b) Links (e.g., Hypertext links, Hypermedia links, 3-D links, imagemaps, etc.)
 - (c) Applications that can be added to Web browsers such as plug-ins.

Now, browsers and other applications - text based browser, graphical browser, VRML browser etcetera. Number b as links hypertext links, hypermedia links, 3D links, image

maps etcetera and number c is application that can be added to web browsers and as plug-ins. So, these are the things like whenever we are talking of browsers and other applications.

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The slide features a blue header and footer. The main content area is white with a blue and white background pattern of gears, a lightbulb, and a network diagram. A central orange arrow-shaped box points to a yellow box containing a bulleted list. The NPTEL logo is visible in the bottom left corner.

Features of Online Learning, E-learning and Web Based Training

- Online program that uses video may make it an interactive experience for trainees.
- Trainees watch the video and have the opportunity to answer question using keyboard or touchpad.
- Interactive video is valuable to help trainees learn technical or interpersonal skills.
- Online learning can also give opportunity to collaborate with other learners through discussion board, wikis, and blogs.

Now, we need to understand over here like we have just listed out the things that are important. If we need to understand these things in details, we really need to refer to materials which discusses in details about these like materials suggested in terms of like the browsers or the servers and networks or like what could be the authoring and management programs.

These are some of the names that we have shared uttered and to make you aware of whatever is there, but if you need to understand it in greater details maybe it is beyond the scope of this particular module that we are doing.

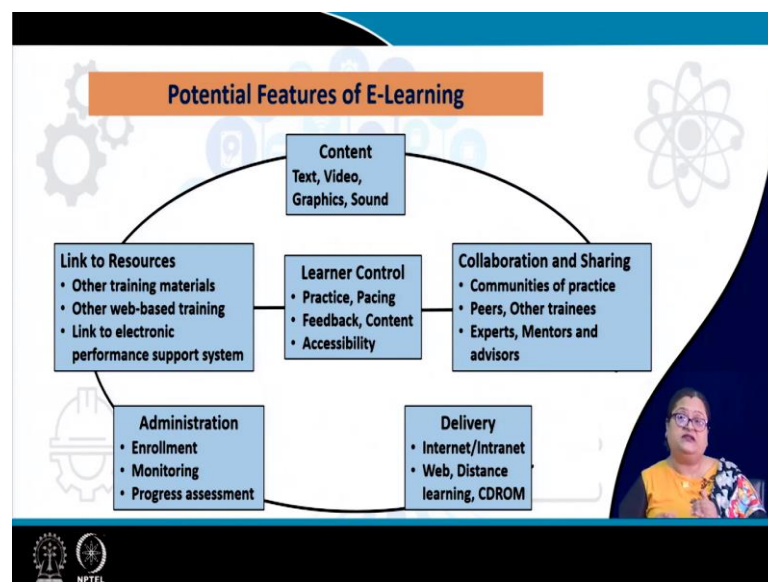
But you can always refer to it from extra like, other resources or you can refer to other NPTEL courses running on this maybe this or some specialized systems which talks of like where you get to understand the different programming languages or the or more about learning management system or the other authoring tools and systems that is going to enrich you.

Here we have tried to like list down the names which we can club under the headings of like what are the authoring and management programs in order to do that what are the

essential things that needs to be know. Now, what are the features of online learning programs and E-learning and web based training. Online program that uses video may make it an interactive experience for trainees. Trainees watch the video and have the opportunity to answer questions which the key questions using the keyboard or the touchpad.

Interactive video is valuable to help trainees learn technical or interpersonal skills. Online learning can also give opportunity to collaborate with other learners through discussions in the discussion board, wikis and blogs.

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Now, what are the potential features of E learning? As we can see on the first is of course, the content, if you are finding it is moving towards two sides one is a link to other resources and another is the link of one person to the other person which we talk of collaboration and sharing. So, whenever we are talking of link to resources which is on the left hand side, he talks of like other training materials that you have seen other web based training link to electronic performance support to system.

So, it starts with like, whether you have viewed other training programs or other training materials and how your content can be linked with those concepts. So, that is link for the resources again there is a link between person to person in terms of sharing the workload or enriching the topic that is called collaboration and sharing.

So, under that is come communities of practice like peers and other trainees they interact with each other mentors and advisers they have formed a group together to share their knowledge with each other. So, these are the two things linked with the resources and link with the one person with the other person which are the very two important aims of learning the content based training or the task video graphic sound etcetera that has been developed and these two things needs to be taken care of.

Now, how to link the link the different resources that get linked to the main topic with the collaboration and sharing amongst the team members. It passes through the path of learner control, which is practiced, pacing, feedback, content, accessibility. So, this is important in the sense, the learner is able to control the whole situation when to practice? Where to practice? How to practice?

When do I give the feedback at what frequent intervals and then, if a content analysis is done and we get to understand like what are the ways that the learner is exercising the control and it also it talks of the content accessibility, it is the freedom of the learner to access certain contents.

And what can do based on the like level of people in the organization because, we were somewhere if we have to understand like there will be information asymmetry in sharing information based on like, whether this is certain information needs to be kept confidential and which is only for the higher people in the organization and cannot be led to percolate down.

So, you can like also understand, how to control for the content accessibility and then whether to like make it accessible and usable for all or you give certain conditions of like on before accessing the content. So, if that warning matches with like the if till the level you want the information to percolate down. So, there you can restrict your information flow also and restrict the access like the content being accessible from for people whom you feel like should not be having an access to this information. So, that this learner control situation is very important.

Now, coming back to this left hand side which we talk of the linked to other resources and other training material etcetera. So, that will lead to again after that is done it will lead to like administration like enrolment, what is the enrolment? What are the like how to monitor? Who is attending? Who is not attending? And what is the progress means

delivering importance a given after the training program in terms of like improving the behavior of employees or the skill set of employees in terms of from where I started and presently where I am in terms of progress assessment.

And finally, is the delivery which is the in internet or intranet web based and distance learning CDROM. So, these are the methods and through which you can deliver of training program and for again each one of these whether we talk of internet, intranet web, distance learning, CDROM of each will have their own special features and each will have their own drawback also.

And it is for you as a leader, who is aware of all these things. All these challenges need to decide on which is the media or which are the media that we would like continue in future also for maybe the information about the organization shared with the trainee information about the skill set and the different ways of doing the particular job shared with the trainee. So, and how do you do it? So, that is very important based on so many factors, you based on so many factors you generally like find out what will be your mode of delivery.

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Advantages of Online Learning, E-learning and Web Based Training

- It supports the company's business strategy and objectives
- It is accessible at any time any place
- Audience may be employees, managers, vendors, customers and clients
- Can be delivered to dispersed employees
- Can be delivered faster and larger employees in shorter time period
- Paper work can be eliminated .
- Can link learners to other content, experts and peers

What are the advantages of online learning, E-learning and web based training? So, it supports the company's business strategy and objectives. It is accessible at any time any place. Audience may be employees, managers, vendors, customers and clients. Can be delivered to dispersed employees. Can be delivered faster and larger and to larger

employees in shorter time period. Paperwork can be eliminated and can link learners to other content, experts and peers also.

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The slide features a title in an orange arrow pointing right: "Advantages of Online Learning, E-learning and Web Based Training". To the right, a yellow box contains a bulleted list of four advantages. The background is white with blue icons of gears, a smartphone, and an atom. A video inset in the bottom right shows a woman with glasses and a floral top. The NPTEL logo is in the bottom left corner.

- Providing links to resources such as webinars, videos, articles related to learning new content
- Determining future training needs and issues based on feedback using tagging capabilities
- Reinforcing and sustaining learning, coaching and mentoring
- Linking learners before, during and after the formal training event

Now, what the other advantages of online learning and web based training are- it is provide links to resources such as webinars, videos, articles related to the learning new content. Determining future training needs and issues based on feedback using tagging the capabilities. Reinforcing and sustaining learning, coaching and mentoring and linking learners before doing any before during and after the formal training event.

So, linking learners before during and after the formal training event, which helps in establishing communications, sharing of ideas, the new ideas generate about coming like coming up with research areas and problems. So, this is where like the socialization happens and this is where people develop new maybe understanding of each other's and they can find like opportunities for collaboration like working on jointly on a particular idea. So, these kinds of things happen.

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Effectiveness of Online Learning, E-learning and Web Based Training

- Online instruction is more effective than face-to-face.
- Learners are equally satisfied with web based and class room instructions.
- Web-based instruction appears to be more effective than classrooms : -
 - when learners are provided with control over content, sequence and pace.
 - In long course, and
 - When learners are able to practice the contents and receive feedback.

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Now, what are the effectiveness of online learning, E-learning and web based training? So, online instruction is more effective than face-to-face. Learners are equally satisfied with web based and classroom instructions. Web based instructions appears to be more effective in that classrooms.

The control of the learning material is when it is with the learners. So, they have the control over the content sequence and pace, but here again we want to repeat which we have told in the last class also, we need to understand the developments levels of the followers, the maturity level of the followers to learn anything new, imbibe anything new and the that will and intrinsic motivation also to register to a particular course and know something.

So, that will of course be guiding the learner's control over the material, if the control is given to someone who does not want to learn. So, that person can decide not to like attend to any of the sessions also.

So, that is one of the threat points whenever we are talking of learner centric training which are when the control is mainly on the learners. In long courses and when the learners are able to practice the contents and receive feedback.

So, these are the three conditions where in a like the instructor based training is less effective and where we find like the web based instruction which is more learner centric becomes more effective than the classroom or the instructor based training.

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Effectiveness of Online Learning, E-learning and Web Based Training


- Web-based instruction and class room instruction are equally effective when similar instructional methods are used
- The employees who get the most from online learning take more time to complete the training compare to those who complete more of the available practice opportunities.
- E-learning is not effective for all learners, specially those with low computer self-efficacy.

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Effectiveness of online learning, E-learning and web based learning. Web based instruction and classroom instructions are equally effective when similar instructional methods are used.

The employees who get the most from online learning take more time to complete the training compared to those who complete more of the available practice opportunities. E-learning is not effective for all learners especially those with low computer self efficacy.

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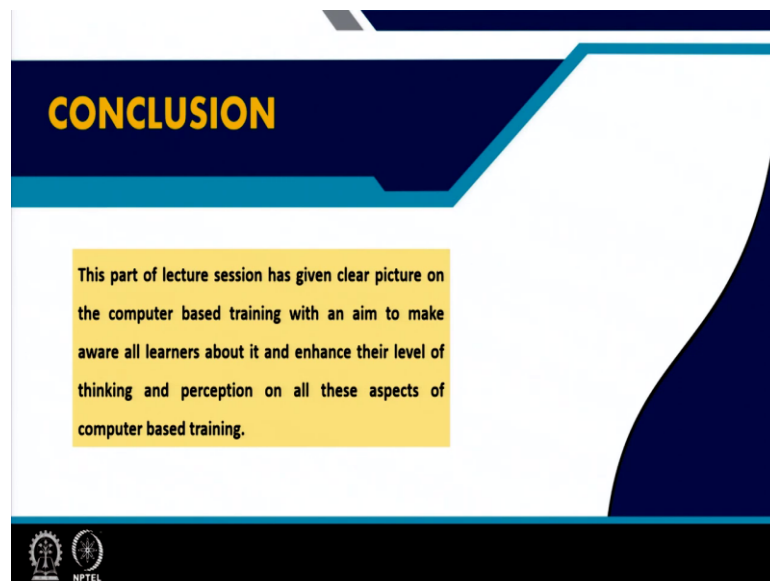
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These are some of the references that we have used for preparing this slide.

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CONCLUSION

This part of lecture session has given clear picture on the computer based training with an aim to make aware all learners about it and enhance their level of thinking and perception on all these aspects of computer based training.



And we hope this part of the lecture session has given clear picture on the computer based training with an aim to make aware all the learners about it which enhance their thinking and perception about the computer based training.

And not only on the advantages, but also the challenges of the computer based training where we need to careful about the control given to the learners because, there could be

information on the organize of the organization which are very confidential in nature to till what level you can share or not share.

These kinds of questions come up and also when you are like tying hands with you are entering into a like agreement with the other organizations. So, how do we collaborate with them what are the rules of this collaboration? So, that what happens, we are able to address these issues properly. So, these are the learning from this particular session.

Thank you.