My Course Journal

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Foundation Program in ICT for Education

Week 1

Moving from Physical to online class rooms

Pedagogic Adaptations:

1. **From physical class room to online class rooms (LeD1)**

   In this video the pedagogic features available in this learning platform to ensure an effective online teaching learning experience.

   Three basic elements in physical class room are the learner, the content, and the teacher.

   Here if teacher explains the contents through notes, ppts then it means teacher- learner interaction, student – content interaction means the teacher delivering the content , learner-learner interaction means students discussing about themselves.

   Three basic elements in online course are videos, problems, discussion forums.

   Here teacher becomes facilitator. Hence facilitator interact with the content through videos and doing problems. Thus instructor-learner interaction and the learner- learner interaction is facilitated through discussion forums.

   This online experience is more learner centric.

2. **Learning platforms- First pedagogic feature-**

   (i).Learning Dialogues (LeDs)

   This is a user friendly learning platform. We can play, pause, move forward, backward, any portion of the video, maximize, minimize the screensize etc. Also reflection Activity is highlighted. This reflection spots will be more helpful to the learner to answer the reflection questions.

   (ii)Learning by Doing Activities (LbDs)

   This helps in answering multiple choice questionsquestions immediately after listening LeD videos. Also it explains the reason for a correct answer and explanations for incorrect answers . Thus learner

get a clear explanation of the content by watching Led videos.Hence this helps the learning process more leaner centric. In physical class room students will lag this opportunity.

(iii)Learning Extension Resources (LxTs)

This is a deep study of a particular content.LxTs may be videos or webpages or documents or even be research papers about a particular content. From this we can able to answer Assimilation quizzes.

(iv)Learning Experience Interactions (LxIs)

This is actually a discussion Forum. This consist of a focus discussion having specific instructions on what and how to discuss followed by graded reflection quiz which provides to improve our own understanding for providing better teaching learning experiences.

3. **Creating a course journal**

A course journal is a continued series of writings made by the learner in response to their interactions with the course content. It is defined as both process and record.

Also from course journal a learner's understanding of the content can be viewed. It means our regular thoughts and experiences. A course journal can be peer reviewed and a feedback should be given.

4. **Basics of ICT by Prof. Prabakar T.V**

This part includes Information technology and Communication technology. Information technology is the ability to do fast computations and store large amount of data and manipulate.

Communication technology is when we are able to send messages over the wild lines or wireless lines and compute the information that comes over very quickly we are in communication level of technology.

Hence ICT means our data is sitting somewhere, huge amounts of data access it, manipulate it and do wonderful and interesting things with it all this.

Date 15.03.18

Time 9.00pm

5. **Maintaining a course journal**

This gives some effective tips of keeping the cousre journal using ICT. These tips helps to write good course journal. It not only record our experiences, but also a clear path showing the direction of our growth during the course.

6. **Learning Experience Interaction 1**

    This helps to create a structured discussion forum to interact. We can introduce ourselves, post feed backs, queries etc.

7. **Learning Extension Resource 1**

    In this we go through the wikibook on ICT. It provides examples, case studies, lessons learned, and best practices that will help planners and decision makers in addressing different strategies appropriate for information economy. This book also reveals different issues in the use of ICTs and key challengesin integrating ICTs in education. Also we watched interesting video which gives an overview of the Learning Techie on the history of technology in education.

8. **Katy Jordan's project page**

    Here the statistical data for completion rate with two parameters namely assessment

    type and course length is shown.

    ------End of Week 1------

Week 2

Web Presence For Teachers

In this week we will learn how to create a website using Word press.
Before that let us see what is Internet and how it actually works.

1. Internet

Internet is made up of an incredibly large number of independently operated networks. The incharge of internet is nobody, but everybody.

a. History of Internet

Internet begin in the year 1957.Before 1957 computers only work on one task at a time. This is called Batch Processing. After that the idea of time sharing came up. This is the first concept in computer technology to share the processing power of one computer with multiple users. Inorder to secure America's lead in technology, the US found the 'Defence Advanced Research Project Agency in February 1958. The DARPA planned a large scale computer network inorder to accelerate knowledge transfer and avoid the doubling up of already existing research. This network would become the Arpanet. Furthermore three more concepts were to be developed which are fundamentals for the history of the internet. The concept of a military network by the RAND corporation in America. The commercial network of the National Physical Labortory (NPL) in England and the scientific network Cyclades in France. Cyclades cocept went further more than Arpanet and NPLs. Since Cyclades had a far smaller budget than Arpanet and thus also fewer nodes the focus was layed on the communication with other networks. In this way the term Internet was born. By February 28, 1990 Arpanet was removed and Internet was up and running.

b. How does Internet actually works

Reflection spot: How information travels from your computer to other networks.

Internet works through wires, cables and wifi. Also it works through BITS, means atoms of information. Internet ships binary information

through 1's and 0's. Also here we get knowledge about Bandwidth, BITRATE, Latency.

Bandwidth is transmission capacity measured by bitrate, which is the number of bits we can actually send over a given period of time usually measured. Latency is the time taken for one bit to travel from one place to another, from the source to the requesting device.

c. Some internet Protocols

Whenever information travels from one computer to another and from one network to the other, there are rules and procedures that manage the movement of data packets. These rules and procedures constitute network protocols.

Reflection spot:

Think of what happens when you write and send an email to your friend. What do you think are the activities /processes taking place from the time you send it to the time you receive a response.

About HTTP and HTML- Jasmine Lawrence, Program manager on the X Box one engineering team explains how all computers communicate with each other.

Web browsing: First open a web browser , which is the app we use to access the web pages. Next type in the web address or Uniform Resource Locator(URL) of the website.The two types of protocols are HTTP andHTML .

HTTP- Hypertext transfer protocol and **HTML-** Hyper text mark up language.The text of a webpage is included directly in the HTML, but other images or videos are separate files with their own URLs that need to be requested. The browser sends separate HTTP requests for each of these and displays them as they arrive.

Date 21.03.18
Time 9.00am

2. **Word Press for website creation**

   LeD 2.1: Web presence for faculty

In this session we will see the need and various options available to set up a simple website for teaching and research faculty.

There are two types of websites - Simple website and Multifunctional website

Simple website consist of few pages and a very simple menu, which also have periodic pages known as blogs.

Multi functional websites are pages with much more deeper structured contents. These are independent pages linked to each other. We use wordpress for Simple website and Drupal for Multi functional website. Both of them are open source and freely available.

LeD 2.2: Customising Word Press

In this session we can able to know how to customise the appearance of word press site that we have created using some basic configuration. We can customise the website by clicking on customise in the right bottom here. We can change the title, colours, fonts, header image, menus, widgets and how the front page must appear.

Date 22.03.18
Time 9.00am

LeD 2.4: Managing Content in Word press

In this session, we will see how to manage various contents such as blogs, pages comments in our word press site, To do this we need to understand what a control panel is. A control panel allows us to manage blogs, media, pages, comments and so on.

LeD 2.3: Adding basic content in word press

In this session we can able to add simple content such as pages and blogs in our word press site. Two simple content types are blogs and pages. Blog means web-log which is like a diary on the web.

LeD 2.5: Advanced configuration in word press

In this we can able to know about few configurations which are not there in the default profile and has to be done through the dashboard. Here we can also add media to pages.

Learning Extension resources

Here we can see the word press websites created in different languages.

Learning Experience Interaction 2

Here we use webpresence in regular teaching learning process

Wordpress is a free publishing software and content management system that is popular in America. The software is open-source allowing developers to create a wide array of plug-ins, themes and widgets. **Wordpress** is widely considered easy to use and is the CMS of choice for almost 75 million websites.

------End of Week 2------

Date 27.03.18
Time 9.00am

Week 3

Creating your own video Resources

In this session IITB is elaborating the ideas about how we will be able to create our own video resources using selected screen casting software.

1. **Visual Presentation Skills 1**

    In the following learning dialogue, Dr. Sameer Sahasrabudhe explains the different considerations of creating any presentation to our students or peers, we will need to make it in a way that is appealing and easy to use . This starts with a reflection spot .

    Reflection Spot

    Assume that you are planning to create a slide with your subject content and uploaded it to your WordPress website. You are creating this as an open educational resource (OER) so that everyone can access and use it. What visual parameters will you take care of during your slide design so that your website visitors find it easier to understand.

    For this visual presentation skill we have to plan in a particular order. Plan, Execute and then Impress.

    Planning involves techniques like brainstorming, discussions, analysing and organising what content you want. Execution talks about how you provide a particular flow of the whole presentation by

creating an outline and adding bulleted details and most importantly the graphic support. And finally, when it comes to the impress stage when you actually create a presentation which has that appeal and involves the following things, like the colour schemes, choice of fonts, the effects which are given out while presenting this slides and all of these makes into a visual appeal of that particular presentation. Also in the execution stage adding graphics is elaborated. In the impress stage colour schemes, typography, visual effects and overall appeal.

Let us see first graphics.

There are two types of graphics mainly which can be classified, first is about the static graphics, which are photographs or images, drawings, illustrations etc., and in motion graphics or videos you can see things like animations, simulations, video shot by cameras and other things.The first one is pretty easy. It is called the 'Decorative Graphic', which is typically used only to attract the attention of the reader or the viewer. The second type is a photograph, which is a depiction of the realistic way in which the object is. One of the other usage of this type of graphic is a screenshot. The third thing is a very peculiar type of graphic, it is called 'Mnemonic Graphic'. This conveys a content or it communicates an idea with relevant to a visual form.

There are some other graphics which are called 'Organizational Graphics'. A map is a very good example.

However, when there is a changeover period kind of a concept involved, then we require something called a 'Transformational Graphic'. There is one more interesting graphic available which is called the 'Interpretive Graphic'. Here, the structure is depicted in a line art format.

Also the slides which will have the green dot on the top would be the guideline slides. So whenever you want to refer to certain guidelines on a particular topic in this lecture especially just go for the green dot slides.

1. Visual Presentation Skills 2

Dr. Sameer Sahasrabudhe continues to explain the importance of using different colours and fonts when making visual presentations and the general rule of thumb.

Reflection Spot

Given that you know how to design visuals from the previous learning dialogue, what do you think are the considerations you have to make when using fonts and colors in slide design? How many font types, font sizes and colours will you use in the design of your slides?

LeD 3.2

Use of colour is very important and it is so because it communicates a mood. It communicates conventional meanings at times. So remember to use the standard conventions at times whenever you want to depict something. And the thumb rule, all the guidelines for using colour can be as follows.

The basic thumb rule is that more the contrast more the readability. You can see that the title of this slide is written in grey, the colour guidelines and the content of the slide is written in black.The background for both is white therefore you can see that although the size of the title is bigger than the content.

The first thing you see when you look at the slide is the bulleted list. So, this is how you can play around with colour and then you can actually make the content more visible. Another interesting aspect about colour is when you use the presentation in various scenarios. If you are giving a presentation in a dim lit room or a dark room then it is advisable to use a black background and have only the text in white colour or lighter colour. The advantage is that the strain on the eyes is minimal when you use the black background. With a white background, the users or the viewers have to open up their eyes really to the max in order to accommodate the rays being getting inside. Same applies when you are using a presentation in a brightly-lit room then this kind of presentation which is on a white background with

just the black text becomes easier on eyes especially. Simple thing but important, use of vivid colours have to be avoided. The vivid colours will bleed out and they will be very jarring to eyes. Don't choose very bright and colours which have different conventions.

From colours, we move on to typography or the use of fonts. You can have italics. You can have a underline. You can also have a change of colour. Choose only two fonts maximum in a given presentation or a document.You can use one font for the heading and another font for the body. But avoid yourself from using italic in some slides and bold in another slides that will create a chaos. Left alignment is more readable and reader friendly. The last but not the least is use of a grid. Grid is available in almost all slide presentation tools, but most of us have never used it. Grid is is a particular software which you are comfortable with and use it for aligning your content.

From the typography, let us come to the impress guidelines which is when you are actually presenting it. They are like the text is flowing, and the text appears in animated format, or it opens up the doors and vanish and blinds and what not.

Let the content decide the particular choice of mediums of font, colour, type etc.Do follow well research guidelines before taking any decision about an addition of a graphic or font or something. Importantly test before presenting your content. These days with digital devices all around.

So generally, keep these things in mind. Use 6 x 6 rules. So, not more than 6 points on a slide and within that 6 point, the words should be not more than 6. Choose a template which promotes readability, typically small fonts become very difficult and in fact if you try practising only 6 bullets in a slide probably it should be even lessthen that should be pretty readable.

Use phrases or abbreviated sentences rather than full sentences, because that will minimize your word count and the crowded feeling on the slide will be reduced considerablyand making it easier for the users to read it. Use a Sans Serif font like what I have used here for presentations.

On the contrary, use a serif font like Times Roman, Palatino or Bodoni for printing a document which has to be given in hand for reading.One of the few other guidelines is about using of graphics. Typically use high-quality graphicsand reinforce your message using

them.Use the effects like animation and other things sparingly only if they are required and necessary for communicating something important.

Highlight the important information. So that helps the attention to be scoped for the users and the viewers. If you are called for giving a talk or a presentation on a particular topic, try to make a one-page hand out of this presentation and give it out to all the people who are attending in advance. So that they can follow what you are trying to say.

2. Learning Experience Interaction

In this part we are required to prepare our first lecture consisting of power point presentation and up;oading in our word press website. Also we have to post in the discussion forum.

3. Creative Common Licensing

Creative Common Licence is a type of licence to share our resources to other people through the Internet one way that offers public license that allows you to set the way we want other people to use our content (open educational resources) and how the already available contents can be used by others.

There are different types of creative commons licenses available. There are links given to create Creative Common Licence. Also LbD activity are given.

4. Spoken Tutorial Project

In this learning dialogue Prof. Kannan Moudgalya, explains how Spoken Tutorial Project at IIT Bombay utilizes the video creation process. It is a project that consists of open educational resources available under the Creative Commons.

LeD 3.3

Here we can know about Open Educational Resources (OER) called Spoken Tutorial.

We know about them like Khan Academy, NPTEL, OCW, of course, MOOCs such as, edX do have a lot of open educational resources. We can go and access them any time.

We can see the URL, 'spoken-tutorial.org'. It's an initiative of NMEICT, MHRD Government of India.

It says that it teaches open source software through audio-video tutorials. There are things like software training, creation and so on and so forth we will see some of them later.

Then you have some awards this project has received.

If you scroll down, we will see the license under which this is released namely it is released under CC BY-SA, Creative Commons Attribution. A lot of topics on which spoken tutorials are available . These numbers tell in which order you have to learn and see what all are available prerequisites, assignment, code files there are required to run this

tutorial and the script is extremely important in spoken tutorial. We can see that here is the script that is used

to create the tutorial as a matter of fact we write the script first and then record the tutorials. We ask a beginner

or a novice to go through this script and certify they can reproduce every step in the tutorial. So, only it passes the test do we accept it for recording. So, this helps make sure that

the tutorial that we create is suitable for beginners. And hence, it is suitable for self-learning.

We can see the total number of tutorials available in many Indian languages. We dub these into all 22 Indian languages.

The next facility that we have is what is known as CD creation.

This is for people who don't have access to Internet. So for example, if we want to create an offline package.

So that I can use it even without Internet.

5. Creating Spoken Tutorials

With the introduction to the Spoken Tutorial Project and the Creative Commons license, Prof. Kannan Moudgalya continues to explain how they prepare spoken tutorial videos using many software tools.

LeD3.4

In this presentation, we will get a brief overview of how we make tutorials? How we create spoken tutorials?

Professor is going to focus on a topic called 'Spoken Tutorial Technology'.

CamStudio is an open source software that is available for windows.The next tutorial uses a software called recordMyDesktop. RecordMyDesktop is a software available on Linux systems but lately, we have started using another

recording software called 'Kazam' which can be used to produce videos of slide presentations with a sound narration.

The next tutorial talks about dubbing a spoken tutorial using Movie Maker.

Now let us see the processes. What are the processes involved in creating a spoken tutorial? It says that you have to create a checklist, first, it says that you have to satisfy the requirements in a checklist and then there is a learning activity and then outline for the whole series of spoken tutorials and then we write the script.

Remember, we write the script first pass it through the novice before we accept it for recording. So that script undergoes admin check, novice and domain expert check and then we go for video recordingand then we come to timed script.

So timed script is useful if you want to dub the spoken part from one language to another recall that we dub every one of our tutorials into all 22 languages.

Let us see the guidelines checklist.

So if we click guidelines checklist we will see the a file called guidelines.zip, now if we unzip it, there will be a whole directory

and there is a pdf file. So we need to decide how much to cover in each tutorial. How to sequence them? How to provide examples?

Spoken tutorials are based on demonstration, for example, we insist that 75% of every tutorial is devoted to demonstrations that learner has to reproduce. Remember, the learners learn on their own that is through self-learning and so we believe that

this requirement is important.

Remember this for IT tutorials and then how to keep it simple?

How to time the length of a tutorial? How to use grammar? How does one use the slides? Okay. What to put in slides? We have a lot of other things like punctuation, novice check, before novice check, what you have to do? What happens during the novice check stage? How do you prepare for recording? How do you choose the screen size? Recording speed, font size, for example,we insist on 24 point font

size.which will be easy for those watched by students in mobile phones. So having a big font size really helps and so on.

6. Other Softwares

There are many software packages that we can use to create our own open educational resources. There are various Screencast softwares available.The softwares marked with GPL (GNU General Public License) in this list come under the Copyleft, allowing users to freely distribute and modify the original program.
The following non-GPL softwares are also popularly used.

1.Screencast-o-matic
2.Techsmith Jing(for Windows and OSX)
3.Techsmith Camstatia (for Windows)
4. Quicktime (for OSX)

7. Learning Experience Interactions
Resource Creation in various local languages
From a list of screencast softwares with us it is asked to, select the one with which we feel more comfortable to create a screencast on "How to create a webpage using WordPress?" with audio narration in your local vernacular language. After we have created the screencast, publish this in YouTube by keeping the video in Creative Commons. Share the creation experience in the discussion forum by answering the focus questions.

8.   Multimedia Principles
Whenever we want to develop any teaching-learning content such as a PowerPoint presentation, a video resource, an animation, a learning site such as the one you have created with wordpress or we are developing an online course, we will need to consider how we will get our students engaged while using the materials without distracting them. Multimedia principles help learners to learn better when they are using different learning materials of our course. There are videos of Prof. Richard E. Mayer to give us important considerations we can consider when developing your teaching-learning resources such as the screencasting activity. Multimedia principles help us to design our resources that help learners who are using them to get the intended message without distraction. Prof. Richard E. Mayer explains about "Coherence Redundancy, Coherence and Spatial Contiguity principles. Prof. Mayer answers: "How might we best design video to

achieve its learning objectives in a higher education setting? What do teachers or lecturers need to know in order to be able to use video and/or multimedia effectively? How should we produce video in order to increase the odds of it achieving its learning objectives for those who use it?" This will help all of us, who are planning to create screencasts for our flipped/ blended/ online classrooms, to create pedagogically sound videos.

------End of Week 3------