Designing learner-centric e-learning in STEM disciplines
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Lecture – 29
Forms of E-Learning

Hello everyone, hope you are having good learning experience. Based on your requests regarding information on purpose of e-learning, strategies in e-learning and processes in e-learning from industry per perspective. Today we are having a session which is called voices from the field, where we have Doctor Anura Kenkre who is PhD from Educational Technology, IIT, Bombay. And she is currently working in the Diebold Nixdorf and in the L and D division. And here she is today to share her experience on e-learning from industry perspective. So, before we get started with the session, I would request Anura to briefly introduce herself.

So, hi everyone, myself I am Anura. And I have 9 years of work experience in the e-learning industry, previously I have worked in Accenture and currently I work at Diebold Nixdorf as a senior instructional designer. So, today I will be helping you get an idea about different products in the e-learning industry, how to design them and different processes involved as well as finally how do you conclude like what are dos what are don'ts to make an effective learning product yeah. So, let us get started.

So, Anura, can you tell us the different types of e-learning content designed in the industry?

Sure. So, basically depending upon your client or your client requirement that is better, it depends what kind of product you will be making. So, if you have a facilitator in field like along with you, then you would mostly be creating an instructor like training which is referred to as an IoT, but if that is not there or they are available for a brief period of time, then you can go in for a blended learning, where in your learners have an online training for a brief period of time and then you have the facilitator on field or with them for a different period of time.

And they have assignments or certain work products which they have to finish. Apart from this, there are complete online trainings. Now within that there is a big paradigm of drawbacks which learners have to engage with.

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So, let me just run you through them there is web based training which is called WBTs. In that, it is completely interactive learners have to engage with it and complete the entire thing in a self-based mode. Second is videos, when you can sit back and simply watch it at your own speed, your own time. Third is gamification that is where in your learners have to have some motivation right why would they even take your web based training.

So, basically throughout taking your modules, they are given leader boards or they are given certain ranks or they are given something where in a gamified you have a competition between your learners, and so that they try and compete the entire session, they try and win it. So, you gamify it, it is not a serious game, but you add elements of games to it that is referred to as gamification.

Third thing is telestration. So, if you have seen a telestration, you will simply see your hand and in the hand it is continuously drawing and there is audio in the background. So, the audio will be speaking and whatever graphics you need at their on screen and a hand will be continuously sketching it ok. Then after that now there are some simpler versions wherein your participants

can read it at a later span of time, they are called as guides or interactive PDFs or simply case studies that is wherein your relevant audience that is suppose if you are in on boarding, then previous onboarding case studies, you are given that to read, they could simply be interactive PDFs as simple as that. Other than that, for information sake, you can have a subject matter expert SME led videos or you can have webinars or simple podcasts.

And lastly I guess other than all of these, you can simply have pages to read as extended learning that is you simply read at your pace and time later on when your course is over for more information. So, this is I mean. So, glimpse into what all stuff we develop. I have question about telestration. So, why are you exactly telestration is used in what is the target audience?

So, your audience will remain the same. So, suppose you get the requirement of creating a product for content that is what content could be a process, or it could be simply information. So, in that if you have to create a video, you will be capturing something. But instead of that it is a contrast to a video, your final product will be an mp4 file.

Ok.

But it is simply the way you see it, the presentation style differs.

Ok.

Instead of capturing the entire screen and showing an animation over there or just screen capture, instead of that you see a hand sketching everything, the presentation style differs.

Ok.

Ok. So, based on your experience, you have said of 9 years of experience in e-learning, can you and give a difference or examples of e-learning designs that you think are effective, in those e-learning designs that you think are ineffective?

Sure. So, let us to get into that, your you can just see a very good example of good e-learning. Now, what do I mean by good e-learning? In this basically you do not force the learner to do anything. So, whenever you see throughout this entire session, a thumps up it means good. When you see a thumbs down, it will mean no so cool. And also later on when I refer to thumps up again, it will mean a good way to proceed; and the thumbs down would mean a challenge that you may face.

Right. So, let us move ahead in these screenshots that you are seeing these are examples of good e-learning. Now, in that, what all do I mean by good what does that term mean? So, basically you allow the users to go in and navigate as for they wish, you do not force them that you see a, b, c, d in this order itself, they can watch whatever they want at their convenience ok. And you start by simply taking their idea how much do they know because if your learners are at a very basic level as opposed to your learners who are at a very advanced level, you cannot possibly start at the same pace.

Right ok.

Right. So, you give them a certain scenario or a simple question and when they have answered that, you proceed based upon what are the answer it right; other than that you can also have

multiple activities in between to gauge where your learners are, are they even understanding what you are saying. So, this is what you must have heard as formative assessments.

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Right. So, there you can have multiple things like drag and drop, you can ask them to enter text, and then judge it later, you can do multiple such things MCQs are very basic. But other than that you can like increase the interactivity level true or false, all of these are very simple.

Right.

They are MCQs. So, do that in between have formative assessment. Most importantly do not force navigation have an exit button, if they do not want to see it, let them close it, it is ok. They can come back and see it later.

So, first navigation is a completely no, no. So, other than that have in between like wherever you can see on the screen like when people click on any area, then you allow them to see information regarding that area do not clutter the screen with too much, it is not cool, because people would not read if there is so much of text on screen, nobody is going to read that. And also font size if you would have like 40 font size here and 10 here, I would not read it.

So, nobody is going to read that right. And if you fill the entire screen with too much that is there is text on screen which is too much, there is audio playing in the background and the videos also playing somewhere down, where do I know your multimedia principles tell you this that never have all three together, audio, video and text right.

And text.

You must have heard this. And lastly personalization because it is a person who is dealing with the entire thing if a machine is going to speak to them, you know you cannot have that connect. So, always in your audio have a human voice, your personalization principle tells you this.

That always have a human voice as opposed to a machine generated voice. Text to speech is cool, but that is if your budget is seriously on the lower side, if you cannot do anything then only text to speech. But other than that preferably you know preferably just go for a human voice that

is better. And also give them real life scenarios. When you give them an example, do not give an arbit general thing which they cannot even understand, because for example, if your audience comes from a finance background and you tell them about farming, how will they ever no relate to it, they would not understand. So, better give them a finance background.

So, see to it that mostly your scenarios can be something that they can relate to it ok. Quick surveys we have already covered that. Minimal text on screen and also color scheme you know you may feel that colors what is the big deal with that. But I will show you an example of a very unpleasant e-learning example, and which the color your in your eye, you will not look at the screen, forget reading the text ok. We will go to that. And also be very consistent like if you are using a certain font like your using Calibri or you are using Arial as the font, later do not change to something else. Your scheme looks inconsistent.

Throughout the entire course and believe me your audience picks it, they do not like it. You know it is in your eye, it is not cool. Let me show two examples. So, these were examples of good e-learning.

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Now, let us just see bad. This is a terrible and eye sour. The screen itself has too many colors on it. And it is such that you know you can even see blurring to some extent. You will not reading this. And another thing is that there is no way to exit, you see the entire screen, you cannot exit

this page until then unless you finish the entire course. So, you have to forcefully complete the entire thing. And also as you move ahead, you will understand that the previous and next shift somewhere. And your audio is just playing in the background; your audio has to be in sync with what the user is doing. If you are audio is not sync, again it is meaningless ok. So, confusing navigation is just not cooled, spelling mistakes are there on screen.

This in e-learning you may feel that you know it is not such a big deal why are we even talking about it, but attention to detail ATD issues are something in which you will be caught big time and all your money is getting spent on this. So, if in quality analysis, your e-learning product gets into ATD issues in issues and you get you know caught for that you will be in a very big mess. So, it is better that you make sure that are no spelling errors, your consistency is taken care of. And also whatever graphics you want on screen once this is fixed nothing is going to change.

Now, if you see the example of the lady on screen it supposed example. So, looking at the screen and also it is not a very pleasant example. So, if you freeze this graphic later on it would not change because many times we take license graphics, so you pay for it. If you already purchased it, then you again cannot give it back, you will have to purchase more, so your budget is getting hampered.

So, a random dated clip art just do not pick that up because it is screen, do not do that. Another thing is that meaningless pictures like what do you see in that lady over there, nothing, it is a meaningless thing what does that got to do with the topics. So, this is an example so very badly made e-learning is what I would say.

And lastly monotonous voice, now here when you are speaking to each other, at least you can hear a different punctuation, can you hear a different tone, but when a machine speeds it will be monotone one tone continuous throughout for or maybe half an hour 1 hour session if the content is that long that is not cool for you have learner to hear.

Secondly let us go to the next example here we will see in the examples of what I was saying till now, split attention there is too much of text on screen, your audio is playing I can see the audio down, I cannot even shut that. Your audio is playing the text is so big on screen on one side the text is in a lower font, one side it is on the higher font, everything is playing together. So, I cannot relate to it that is a no forced navigation again, they no, no. And background there is so many layers I can see all shades of green. So, when you are designing an e-learning, make sure you do not do these things you know your color scheme talk to your graphic designers, talk to an expert in that, I am finalize and freeze that do not change it later ok.

Another thing is characters. If you are you going into characters that there is somebody who will be talking to you either to show, you to lead you to do anything have a conversation on screen like a dialogue. They cannot post why because they are speaking right, who does thanks like this and just talks, no, no, nobody does that. So, your characters cannot be posing.

Have real life examples like people who are speaking to each other or doing something that is much more relatable and also overlapping images. Here you can see clearly the background is there somewhere behind and the characters are one on top of the other, a layer you I can see it. So, these things are something which you should seriously avoid while creating an e-learning product.

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Effective	Ineffective
• Spaced out crisp modules	• Too many pointers to external pages Lengthy pages filled with text
• More visuals, less text.	• Generic images (Models posing)
• Personalization	• Layers of content –too much time spent in locating topics.
• Visuals based upon content	• Repetition
• Self contained – no pointers to different pages outside the screen	• Lengthy videos (more than 15-20 min, max 30 min)
• Intuitive navigation/self paced	• Forced navigation
• Help given when asked – How To/Help Me/Show Me	• URL's that don't work
• Graphics – realistic, no cartoons, copyright free	• No attention to detail
• Text – Consistent font type, size, color	• Overuse of animation

So, basically to summarize I have just said a few pointers. I will just repeat it once more for you for quick recollection. Effective is just have spaced out modules. Do not have something going on for half an hour or 1 hour, it is too much of you know in memory, you are not going to listen for that long. Have something very short crisp like 5 minutes, 15 minutes maximum.

You know have small chunked modules and also more visual, less text. You can have audio which is in sync with the video, but as far as possible keep the text minimal. Then visuals please select them carefully. And based upon what content are you kind to show based upon that you select your graphics and have it self contained. Do not keep too many url's which are going to point to time different places.

There e-learner is going to get confused big time, are you supposed to see your module or are you supposed to go and read 10 different pages. So, turn avoid that intuitive navigation we have already spoken about that graphics, we have spoken about that text and also navigation, do not have forced navigation. So, similarly in the effective, you will see the opposite of this. What you should not be doing all of this which I just said, if you do anything against it, it did not affect it.

So, at one point you discussed about navigation as one of the point that we have to consider when you are designing e-learning. And you spoke about forced navigation and continuous navigation, could you explain more?

So, forced navigation is where (Refer Time: 16:08) pre decided how the learner should proceed.

Ok.

So, there are different people who would interact with your screen or with your module in their own way, every learner is unique. So, if you have pre-decided something I am suppose I am your learner and I can understand it like if I see module a, after module b, and I just want to see module e first.

Ok.

I do not want you see module d in middle, it is my choice. I wish to read that or I want to go do your additional reading, and then read that and come back.

Ok.

But if you force me that you cannot go anywhere just go to see after this see, I may not even relate to them, because they are not understood. I want to go and read your additional reading first, but your forced everything finished stopped. So, then for your learner it becomes a pain. Somebody might just shut your course about your not even allow him to exit. So, nobody even know value take away from your course, I am sure that was not the good.

Thank you so much Doctor Anura.