

Bonni: [00:00:00] My guest today Audrey Watters joins me to talk about how technology is changing education today in episode 18 of Teaching in Higher Ed.

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Bonni: [00:00:23] Welcome to this episode of Teaching in Higher Ed. This is the space where we explore the art and science of being more effective at facilitating learning. We also share ways to increase our personal productivity approaches so we can have more peace in our lives and be even more present for our students.

Bonni: [00:00:48] Audrey Watters, thank you so much for joining me today on this episode of Teaching in Higher Ed.

Audrey: [00:00:53] Thank you for having me.

Bonni: [00:00:55] I think the most challenging job for me is going to be to talk a little bit through your bio you have a very eclectic background.

Bonni: [00:01:02] I'm going to give it a shot but I love your succinct but also compelling bio that you have on your blog which is that you are an education writer, a recovering academic, a serial dropout, a rabble rouser and some days ed tech's Cassandra.

Bonni: [00:01:23] So you have to - I did some googling because all of that made perfect sense to me except the Cassandra part. So I was trying to figure out if you were referring to Greek mythology or the urban dictionary.

Audrey: [00:01:36] No Greek Greek mythology and I spell it with a K on my site and I get into debates with folks whether or not Cassandra in Greek mythology should be a C or a K.

Audrey: [00:01:49] I do choose it for that for that reference and this idea. I think I feel like I spend a lot of time pointing out of those things that sort of are a bit of doom and gloom about education technology.

Audrey: [00:02:09] Pointing out some of the problems. It's like a counter to some of the overhyped promises that we are that we hear so often about technology being disruptive or transformational or revolutionary. And I'm Cassandra who says, "No. Wait. That's not actually what's going to happen."

Bonni: [00:02:29] Oh I love it and have you seen by chance the urban dictionary definition?

Audrey: [00:02:35] No I haven't.

Bonni: [00:02:36] Just have to read a little because you're going to crack up at my: "Is she going greek mythology, or is she going urban dictionary," because Cassandra is another word for someone who is an amazing kickass, incredible, spectacular, awesome. Without a doubt the most beautiful girl on the face of the earth. She's the best girlfriend the guy could ask for if I were to go on about how awesome this girl is it would take forever. So in short Cassandra who would be the girl you're totally in love with no doubt."

Audrey: [00:03:01] I love that. And that's perfect.

Bonni: [00:03:04] I thought either one of these totally works for her. From what I've read. It's great. You have to describe your profile picture for people who are listening in their car and maybe haven't seen your blog yet.

Audrey: [00:03:15] The photo was taken by my friend Alan Levine who is known as Cog Dog in internet and web circles. We were at the University of Mary Washington last year in their new maker space.

Audrey: [00:03:27] And there was a 3D printed shark jaw that I held up to my face and he snapped a perfect picture. But again you know I feel like I feel like as someone who spends a lot of time joking on one hand about the shark in the water.

Audrey: [00:03:47] Well the ed tech industry but then also wanting to show the eye can be fierce back.

Bonni: [00:03:53] You are a lit geek and beer snob you love tattoos and technology you loathe mushy foods and romantic comedies and you are not ashamed to admit that you like and dislike Tolkin. You are somewhat ashamed to admit you've not finished Ulysses you also haven't finished a few other educational endeavors which I love and you have a master's degree in folklore and I love that you were once considered an academic expert on political pie throwing.

Audrey: [00:04:23] You can see all of those things make me so well qualified to write about ed tech for a living.

Bonni: [00:04:28] I hate to sound too pessimistic on this subject but better you than some of the people with a lot longer CVs in the area, as you well know there's a lot of what we say versus what reality is.

Bonni: [00:04:40] What are we hearing today and what have we been hearing is the promise of ed tech and where has it delivered and not delivered?

Audrey: [00:04:50] It's really interesting to me, because when I look at what my background is in folklore and I'm really interested in stories and interest in the stories that we tell ourselves particularly about technology.

Audrey: [00:05:03] I think that American culture in particular is so caught up with the idea that science and technology provide solutions to make our lives better to make businesses more efficient. But they're very much the future of places that it works with around science and typologies work very well with the future facing ideology that I think Americans believe in progress for example.

Audrey: [00:05:33] And I think that when we talk about when we hear about new technology in education it seems to dovetail with all those other stories some how higher ed is outmoded, traditional, stuck in the past that hasn't changed for hundreds of years. And that now it's always now. Now and in the future technologies will be the sort of transformational tools to make things more relevant and more efficient.

Audrey: [00:06:10] I mean I think that that I don't I don't subscribe to that story but you knew that story almost everywhere these days. And it was interesting to me was the history of ed tech we've actually been telling the story drove very very long time that one of your books is on that very thing

Bonni: [00:06:31] Looking at the history. Tell me about the early days and where the echoes are still sounding a lot the same today?

Audrey: [00:06:37] One of the things that really it's sort of fascinating to me. I think it is high as well to our focus on the future our focus on technology will tend to look good for.

Audrey: [00:06:50] And we tend to- I live in California and you live in California and California is very much like it is actually sort of like the perfect example of that in America in a sort of American places like California is all about the promised land and the future.

Audrey: [00:07:08] So what is fascinating says the tech sector is hoping to become more and more powerful in our society. That sort of I notice that we're definitely not paying attention to even the stories around technology so I'm working on a book on the history of teaching machines. And for how long have we in the US been thinking about ways that we can be machines. And this predates computers certainly using machines make education an automated, make instruction automated, make assessment automated. Make the whole process look a lot more like a factory, perhaps and then this dates back to - there were patents in the late 1800s and for folks building very early devices. They argued would teach people and relive the history of 20th century. If you look at the history of ed tech there are new devices being developed again and again and again that people argued would make education more personalized. Students can learn at their own pace. The teachers have been freed from lecturing in order to give individualized report. These were the argument of 1920 and the arguments in 2014.

Bonni: [00:08:39] What do you see the promise of ed tech - if that's not it. If we can't make it faster - better - where can we see a way to leverage these new tools.

Audrey: [00:08:52] Yeah I like to think about that. We have I mean I think we have that legacy of education technology falls quite neatly into the work that called the development of educational psychology and a lot of that increase slack to work B.F. Skinner.

Audrey: [00:09:11] He was one of the developers of teaching machines not the first but perhaps the best known inventor that's teaching machine. He had this idea that we would have programmed instruction right so that we would have machines that would sort of handle the instruction and assessment per student.

Audrey: [00:09:29] I think that's one model of thinking about what technology can do. I think a different model is one that comes from the web and that's about the people that have programmed instruction we have the programmable web

Audrey: [00:09:44] And that really put technology to in the hands of students and teachers in an interesting way rather than being just their recipient of knowledge.

Audrey: [00:09:59] Students now particularly with the need for the active contributors can actually be building their own knowledge sharing their knowledge and doing so in the meaning into a meaningful way

Audrey: [00:10:13] Not simply going out exercises on whether on a machine or on a computer. They're really actually sort of constructing large and sharing that and developing that with a network within networks that are readable and writable and programmable

Audrey: [00:10:34] I think is much more interesting than just using technology to make flashcards more efficient.

Bonni: [00:10:42] And how do you see than the classroom changing and the space between where learning begins and ends? Has there been evolution there or should there be evolution in terms of...

Audrey: [00:10:56] Yeah I mean I think it's I think that we're in a period of not just not just for education but culturally I think we're in a period of really profound shift because of the Web and Internet technologies not just because of the computer per se right the ability to sort of process things algorithmically and processing more rapidly than humans.

Audrey: [00:11:22] But because of the Internet and the web I think that how we think information is changing, how we think about knowledge access distribution is changing as well. And I think that I think to an educational institutions they are conservative and traditional in many ways in some of those ways there are are good.

Audrey: [00:11:52] This is how we talk about how to preserve some of the stories and the things that matter that matter outside the business world - is true school. But I do think that we will see in coming decades we're going to have to think

we evaluate what we expect to be able to do and what we expect them to be able to learn from school.

Audrey: [00:12:24] Because it's becoming to sort of to master content. Is it sort of seems like a less central piece to what sort of what's the future. That's the expectations of the future.

Audrey: [00:12:42] I think that in a world where you don't have to know about Franz Ferdinand assassination in 1914 in Sarajevo like got that little bit of you know that but I ever from a history class is going to be full of lost. So knowing those factors are important and be able to talk talk more broadly and situate those.

Audrey: [00:13:07] And I think that I think we're going to move away from them. I think we'll have to move away from fact - from sort of thinking about how we assimilate, how we process, how do share knowledge? And those are the skills we have to focus on, how to help students.

Bonni: [00:13:27] So we recognize that knowledge is just changing the access to it. There's the whole idea of students just used to have such a high regard for that authority figure up front and today that authority figure is amazingly in our pockets and this tiny device that we could get so much more information than what this person up front has in their in their minds. I think we can participate. I mean this is one of the things that I you know as I do say I am a covering academic but I see myself as a scholar and I think the scholarship is really changing because of the way that I think we have the ability to participate in scholarly conversation in new and exciting ways that live outside of the academia. You have access to - you know thanks to things like Twitter - you have had access to experts and professors and politicians in ways you didn't have before and it's easier I think to participate in the discussions in social media and the blog.

Audrey: [00:14:42] And you know in the discussion page on Wikipedia - then it is in some of these other more traditional more exclusive locations like you know like the academic journal or the University.

Bonni: [00:14:59] I noticed that you recently wrote about Apple's new smartwatch and that kind of begs the question who we look at how knowledge is changing. Can we talk about distractions? I'm I've still I'm not a zealot in either direction. I'm someone who has embraced technology to help facilitate

learning for a long time and yet I also say let's shut everything off and just talk to each other and have that dialogue.

Bonni: [00:15:24] I will admit to being a complete fan of the Apple stuff and watching the keynote when they did it and be initially excited about it and then it was funny it didn't even dawn on me. Just the opportunities for cheating that it could potentially introduce, let alone just one more thing that distracts because it was already in our pockets. But now it's actually on our wrist. So where do you find yourself in terms of the potential for just more distraction than ever? Or is it just different distraction where we were always distracted?

Audrey: [00:15:55] I think it is different distractions. Certainly I mean I am a doodler. I always was a doodler in class and I can definitely say that I spent - I found recently back at my dad's how to the my spiral notebooks from high school and they were not they were not filled with notes. They were filled with my favorite rock band names drawn in fancy lettering.

Audrey: [00:16:25] So I know that students fail to pay attention in class too long before we had these digital distractions. I do think that a lot of the digital tools demand our attention in different ways. It is different than me sort of not paying attention because my mind wandered there because I'm daydreaming.

Audrey: [00:16:50] That's a very different thing than the push notification - the buzzes, the beeps that demands our attention and I think that those are the things that we need to sort of navigate. I have to turn off a lot of things that actually have time to focus on my writing.

Audrey: [00:17:12] You know I can't I can't get anything done if I'm always responding to the little red number that means that I've got email to check or that I've got twitter notification to check.

Audrey: [00:17:24] And I think though those pushing notifications really do change what is being demanded of us. And that's a different thing we have to navigate and help student's understand.

Bonni: [00:17:40] I'm not sure if you are a viewer of The Colbert Report, but...

Audrey: [00:17:46] I'm not. No.

Bonni: [00:17:47] He have recently interviewed the guy who has written a book on the marshmallow studies are you familiar with those?

Audrey: [00:17:55] Yeah. Yeah.

Bonni: [00:17:56] And it was just a great reminder I mean there's Walter Mischel is his name. By the way the author of the marshmallow test and that's either just come out or it's about to come out. They would give children a marshmallow and then say if you don't eat this one and I'm going to come back I don't know if it's five minutes or 10 minutes

Bonni: [00:18:14] If I come back you can have two more. And so is this delayed gratification. And they did studies on them 10 years and 20 years and 30 years down the road.

Bonni: [00:18:23] And there's just this huge correlation between a lot of different success factors and that ability to delay. But the other thing that comes up around this research that I think is really an inspiration for those of us in education is that it's not a fixed trait that we actually can work on this all of us at any age and get better at it.

Bonni: [00:18:44] And so I think in terms of these distractions when we create a culture that says I care too much to just let just sit there and do this to yourself or let the device do it to you.

Bonni: [00:18:55] And also we see the research showing that it's not just that student who chooses to do it but that it impacts the people sitting around them too in terms of their learning ability to retain.

Audrey: [00:19:07] I think that it's definitely like I think that we are at this really interesting moment of technological change.

Audrey: [00:19:16] Although people think it's funny - because people have been saying for quite some time that once this generation become teachers then everything will change because they'll be more tech savvy and they'll introduce more technology in the classroom.

Audrey: [00:19:33] You know and myself. As a child of the early Apple II - I'll computers I could say that I would I would have been you know one of those generations that I grew up around computers that people my generation aren't necessarily the ones who sort of have introduced technology in the classroom.

Audrey: [00:19:56] I think that we are always sort of thinking that somehow students are going to somehow... It actually ties back to the whole digital natives thing, which I can't stand, but somehow if you're born in a certain generation around certain tools that you're automatically adept and critical and savvy. And I think that we need to do a much better job as educators in helping students - helping all of us really - understand exactly where we're taking our technology adoption - to what end.

Bonni: [00:20:42] Mozilla has done a lot of work around this to define digital literacy or digital literacy competencies. And it's because I do think as educators I have been witness to the idea of oh you know we don't even need to teach these young whippersnappers technology anymore because oh they're just so good at it.

Bonni: [00:21:02] And I am one who I grew up by my early career was in computer training particularly in applications. And so it is hard to tell you this. There are still students not many. But there are still students that I teach at the undergrad and also at the grad level who are hitting enter at the end of every line twice to double spaced their papers.

Bonni: [00:21:27] And I think that this is colleagues who don't collect things electronically so they would never know that they would just think this looks great and then you just think - But it's not great they're not literate they enter in a course that's just an example of word processing. But when we think about the literacy that it takes to do well to go out and find the information we need to do good at our jobs that we haven't really thought about. That's why I will link to that in the show notes at Mozilla's digital literacy.

Bonni: [00:21:58] I think there's a lot to say to our faculty too like you started to talk about because we are woefully underprepared...

Audrey: [00:22:06] And the stakes are getting higher, too. Think that that's the piece of it is that while you know while educational has been very slow to to address this in fact for many schools particularly the case K-12 level their response to the digital device is still to ban it, right?

Audrey: [00:22:24] You aren't allowed to bring your cellphone. You aren't allowed to bring a device from home if you're going to use a computer it'll be during the computer lab once a week and that you can practice test taking.... Maybe A little word processing lesson. But, we don't... We really don't teach this and as education has for the rest of the rest of the tech sector has moved

rapidly and I think that we you know we are helping students, we aren't helping teachers understand things like the terms of service or the privacy policy, or what happens to their data? Who owns their content? What happens when they use technology - what sort of digital footprint are they leaving behind? What sort of digital portfolio are they building for themselves or are they for those accruing value to either have technology companies' profit margins.

Audrey: [00:23:27] And we just aren't helping them ask these questions. I think the Mozilla framework does a good job of thinking about the all the different pieces because it isn't so simple as learning to program. It certainly much more complicated than I learned to be a basic user of a computer.

Audrey: [00:23:50] There are a number of ethical questions that play out very different very differently. If you're a woman online. There are so many things that we just aren't talking about.

Bonni: [00:24:04] What has your research looked into as far as in regards to privacy the idea that we hope one of the things a college education can bring is a change of perspective that it's no longer about what my parents told me or what I saw maybe on the news what someone else told me they saw in the news. But now I actually get to rediscover really what I truly think.

Audrey: [00:24:30] I struggle with this a lot and as someone you know and for me a lot of the writing that I do although it is for the public, I post on my blog at Creative Commons license definitely with the idea of it being shared and read by others.

Audrey: [00:24:47] It really is me working through ideas. There is a certain inherent vulnerabilities I think that that involves but there's a certain amount of vulnerability that learning always involved

Audrey: [00:25:00] But it does take on a different a different sort of level to it in public. Right. It isn't just a matter of writing this essay and the teachers the only person to sees it

Audrey: [00:25:13] Or I'm writing this essay and my teacher uses peer you know peer grading so three of my peers and my class we're going to see it when you're writing online. There's the potential that you know anyone with access to the web can see it.

Audrey: [00:25:29] And I think that that I think that that changes the stakes in many ways. Many good ways. I mean I think that students can get in can get feedback outside the classroom I think that to think about... They think about their work in a different way when it opens for public consumption.

Audrey: [00:25:49] I think that they think about that. I think that it hopefully ideally prompts professors to think about are they asking students to do meaningful work.

Audrey: [00:25:59] Are we asking students to just write another essay on you know the role of gender in Merchant of Venice or are we asking them we will do something different or meaningful about the Merchant of Venice that might be working on Wikipedia or annotating.

Audrey: [00:26:19] But I do think that I do think that again we don't we don't we don't often rate these practices and we don't let practice was there for our students and to the same time if we are only asking our students to work within the confines of the learning management system for example. It's not as though that data. It's not as though.. There is still the tracking of data. There's for the observation and the use of that content by other technologies and that we should probably should talk more with our students about what it's like and what this means.

Bonni: [00:27:01] When you look out at the higher ed landscape where are the places where you're feeling inspired today?

Audrey: [00:27:09] One of my favorite initiatives started at the University of Mary Washington it ' s called the Domain of One's Own and it's an effort... They piloted it a couple of years ago and it's officially a program that every student and faculty member university their own domain. And I don't mean they get a bit of web space on the university website.

Audrey: [00:27:38] They actually let students purchase their own domain so they can buy - you could buy Audrey Watters.com. The university helps to set up a wordpress blog on it or some other software that they make it really easy to install. It's your site, you own it. And at the end throughout the university they really encourage students to put their work with their school work on their site build a portfolio.

Audrey: [00:28:17] Think about what it means to have a digital professional and more personal digital identity on the internet. When students graduate, they get

they get it. The university transfers ownership of their domain to the student actually has their work.

Audrey: [00:28:37] They can decide to not pay for their domain, or let it go away, or they can maintain it themselves. I think that that's really powerful. That's a really powerful skill set and that the really powerful tool that they get to use - and that's what I was referring to earlier as well with the programmable web. These students go to a liberal arts university. Even though they aren't majoring in Computer Science they have learned enough web design web development WordPress to be to have them marketable job skills no matter what they majored in. If you can say I've I'm perfectly adequate and I how to install Wordpress. I How to work with HTML and CSS. That's an important skill.

Bonni: [00:29:26] When we think about the people that are likely to listen to this show they are very likely to fit in the demographic of openness to embrace technology but perhaps not where they want to be in terms of their own competency.

Bonni: [00:29:40] So I'd love to have you just give a little bit of advice for if we're not quite where we want to be some initial steps. And also if you'd share a little bit about your ed tech guide which I linked to in the show notes.

Audrey: [00:29:56] I'm glad that you're linking to the Mozilla piece because there's lots of things within that that can help folks whether it is wanting a better understanding of HTML for example whether it's thinking about what is you know thinking about digital identity whether it is about security practices.

Audrey: [00:30:14] Right. Do we need passwords for every Web site do you have any sort of inventory of all the things that you've signed up for the username and password for all of the sites you signed up for on online. Are you thinking about what does that know what does it mean to participate in in the world wide web. I think Mozilla has a lot of great resources that that can apply to a very different individual might have is really not as simple as you know while on the program.

Audrey: [00:30:52] We all have different demands and needs based on our personal and professional selves. The ed tech guide was my initial attempt for help bridge the gap that remain between those who work in education and are interested in tech and folks who work in tech and are interested in education.

Audrey: [00:31:18] Because - you know - never the twain shall meet - if you will. They just don't have enough conversations with each other. They don't understand the language.

Audrey: [00:31:29] This is true that philosophy the practices of the other the other industry or organization or entities and so I tried to get a list of suggested meanings that if you're a technologist for example who decided that you want to start an edtech company you should prophethood it. You should probably do a bit a bit of research and if you're an educator who is interested in looking more closely at technology - you should be aware of the culture history in an way.

Bonni: [00:32:10] What have I not asked you about in terms of Ed Tech and higher ed that we should chat about before we get on to recommendations?

Audrey: [00:32:18] I think that one of the things that I would I would stress certain questions around data and privacy and politics. I think that this is a conversation that education technology has for so long.

Audrey: [00:32:36] And tech folk have had to sort of be cheerleaders for tech like are you should have computers in the classroom. Yes. Yeah you should put your material on the internet. Yeah okay if you tell your student to go to Wikipedia

Audrey: [00:32:50] And I think that now we've reached the moment where I think we have had a little bit more critical than just the cheerleading and out there with the cautions on the politics the implications particularly around data and privacy.

Audrey: [00:33:08] So those are those are the things I would that I notice more and more particularly when I go to education technology. Then I notice the gender ratio. Are more men than women speakers.

Audrey: [00:33:23] I know lack of people of color that education technology. And so I think that we need to have asking a question around social justice data. The implications are aren't necessarily the money.

Bonni: [00:33:42] And for anyone listening to it like a good first step I had the opportunity to see that dean of the law school at the University of California Irvine and he was not speaking on the topic of privacy but we had a chance to

correspond with him afterwards and see if we could read anything on another topic about privacy that we have an interest in.

Bonni: [00:34:00] What would you recommend and he recommended a book by Lori Andrews. It's called I know who you are and I saw what you did: Social networks and the death of privacy.

Bonni: [00:34:09] And I think what at that particular time when I read it and also when it was published there was a lot going on about the privacy implications of governmental actions and so we were reading a lot about that in the press.

Bonni: [00:34:23] But what the book really the takeaway for me and her takeaway is worried about the wrong thing you should be worried about these companies.

Audrey: [00:34:32] I think that you know this is the scene when we sort of I hear the comments made oftentimes by education technology companies I'm shocked that they get to be so cavalier about the amount of data that they're collecting on students.

Audrey: [00:34:48] The CEO of Newton says that they have millions of data points each user millions of data points what are you tracking and why?

Audrey: [00:35:02] Coursera, one of the MOOC start-ups claims that you know they're going to students biometric data in a quick patterns how they assess and identify and identify students and prevent cheating and I think that these questions are questions around privacy are really important.

Bonni: [00:35:25] This is the time in the show when we get to give a recommendation or a series of recommendations and mine is real quick so I'll do it. It's the actor who plays a part on the show Parks and Rec. His name is Aziz Ansari.

Bonni: [00:35:39] He just did a little bit on Letterman where he defined feminism and it is just a delightful couple minute clip and just like his no nonsense business where he has everybody in the audience you know clap.

Bonni: [00:35:51] He says he's a feminist and he says clapping the audience if you're a feminist and he gets some claps and then he says okay those of you who didn't clap.

Bonni: [00:35:59] You're lying because if you look up in the dictionary what the word feminist means it means we believe that men and women are equal. So you don't believe men and women are equal and it's just that he just does this great bit. And it's just very accessible I think to lots of people that have a lot of emotions packed around that word.

Bonni: [00:36:17] And so my friend teaches in women's studies I'm going to be passing the clip on to her because she runs into that a lot of what we what comes behind the word feminist and it's just fun to see someone who's a celebrity talk about it in such a lighthearted but powerful way. And what recommendation do you have for the listeners.

Audrey: [00:36:35] I often make that recommendation for folks that are interested in education technology to pick the book. Mindstorm written by Seymour Papert in 1980.

Audrey: [00:36:47] And that all in all it boggles my mind to think that this book came out in 1980 that Papert it was the inventor of the language logo which talks you might have actually come from early programming when they were in elementary school with logo.

Audrey: [00:37:03] So we think how well they came to about what and what computing machine can do when they're in the hands of learners and that it is about giving students agency to do incredible things to actualize powerful ideas and very different than the role ed tech sees students as objects to fill with information, so mine is Papert's Mindstorms.

Bonni: [00:37:34] Well thank you so much for joining me and taking a chance on me who you'd never met before and just got a little you. I really appreciate your contribution to all of these conversations I've really enjoyed following you on Twitter reading your blog.

Bonni: [00:37:47] And I'm going to be linking to all those things and it really was an honor to get to have this conversation with you Audrey.

Audrey: [00:37:54] Thank you thank you so much for having me.

Bonni: [00:37:57] This has been episode 18 of Teaching in Higher Ed. You can reach the showboats at teachinginhighered.com/18 where you can leave comments for Audrey or for myself and ask any questions you have or make suggestions.

Bonni: [00:38:13] Speaking of which if you'd like to make suggestions for future shows or guest please do that at teachinginhighered.com/feedback. And if you haven't yet subscribed to the Teaching in Higher Ed weekly update. It's an email a week that automatically sends the notes from every podcast that we air along with an article per week on teaching in higher ed thanks to those who have subscribed already.

Bonni: [00:38:36] You've got your free ed tech essentials guide and when you subscribe if you haven't yet you'll get your own copy too. Thanks so much for listening and being a part of teaching the higher ed.

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