

**Bonni:** [00:00:00] Today I have the honor of speaking to Gardner Campbell about what's on the horizon in higher ed.

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**Bonni:** [00:00:17] Welcome to this episode of Teaching in Higher Ed. I am Bonni Stachowiak and 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:** [00:00:44] Coming back to the show today is Gardner Campbell and if you did not have an opportunity to listen to him the last time he was on the podcast. Definitely want to add to your Q episode number 107 where he spoke with me about engaging learners. And today we're going to be looking at his work with the new media consortium and a particular publication that they do each year called the horizon report. Gardner Campbell, welcome to Teaching in Higher Ed.

**Gardner:** [00:01:16] Thank you Bonni, it's really great to be here.

**Bonni:** [00:01:18] I know we actually had a random well it wasn't that random but we had a chance to virtually meet each other through a virtually connecting session about a week ago as of this recording and it was great to actually see you in person. And one of the things we started talking about was this concept of the horizon and all of the different ways we can look at that word the horizon and on today's episode we're going to be talking about the horizon report. But before we get to this extensive and really important report just tell me what comes to mind when you think about the horizon as it relates to higher ed.

**Gardner:** [00:01:57] Well there were a couple of ways I think about it. One that I think is quite explicit in the new media consortiums horizon project is this idea of kind of being smart about anticipating what's likely to happen with technological change and changes in higher education that come about as a result. It can be pretty tricky to try to look in the crystal ball and see what's in the future.

**Gardner:** [00:02:24] But certainly we can see certain patterns we can look at the past and see how the trends have gone. We can look at what we see right now in terms of practices that are being adopted but also technologies that are becoming mature or gaining more interest and so forth. So we can begin to make I think some pretty decent educated guesses about where things might be in the next year two or three years four or five years and that can be very helpful in terms of getting ready.

**Gardner:** [00:03:01] The thing that people like to say which usually resonates with me is that you know the people entering high school today in this technological landscape that's going to be their baseline for their expectations and for the environment that they will have come to accept as normal when we get them in college four years from now. And so it behooves us I always love to say behoove and an interview is possible.

**Gardner:** [00:03:29] It behooves us to be thinking about that and not simply look at where we are in colleges universities right now and say oh that's the way it is. So that's that's one sense. And of course they are educated guesses which I think are better than random guesses. Most of the time but there is still a fair amount of conjecture because I don't think anybody let's say in 2005 would necessarily have figured that the early videos on YouTube would become a global phenomenon where this amazing video platform.

**Gardner:** [00:04:02] By 2010 it would transform everything from the way I teach film studies to the way we listen to music. I mean the most popular and highly used streaming service for music in the world right now is still YouTube which is just completely intuitive. So there are many surprises but we do need to be thinking not just in terms of where we are but the baseline of what condition expectations for young people when they come in at age 18 if they're traditionally aged and we need to be thinking about how to get ready for that.

**Gardner:** [00:04:35] So you know it's kind of the defense of research in many ways the other way that I think about horizons comes from my ability as an English professor because every now that I hear starts to shade over into a

metaphor of one kind or another and I guess we could say that a metaphor is a noun that doesn't mean exactly what you might think it means there's this weird kind of disorientation that I think is very useful when we think about metaphors and you know metaphorically through history the horizon is the thing you lift your eyes to.

**Gardner:** [00:05:11] There's a certain liberatory quality about it if you're looking at the horizon you're not just staring down at the ground in front of you you're not simply trapped within a particular time or context you're not just moving Step-By-Step to an incremental world but there's something really aspirational something that drives exploration something that represents curiosity and a feeling that you know the whole is greater than the sum of the parts.

**Gardner:** [00:05:40] And we can actually expand our capacities to reach a place that's miserable at the very edge of what we can see. So for me horizon metaphorically does signify a kind of aspiration maybe even a yearning and a consciousness that you know it isn't just what you see is what you get it's what you can see when you look out as far as you can possibly see.

**Gardner:** [00:06:06] And that's something that you really want to work toward. The beauty of the metaphorical part also of course is that the horizon is an illusion because the closer you get to it it stays exactly where it was the earth being curved and all.

**Gardner:** [00:06:21] So as we move toward it it constantly recedes. Some people I think would find that very frustrating just as they find the fact that there is no talk to the S-curve of technological progress or at least what we're seeing in the last hundred years or so. You know it's not as if we're going to get to a steady state and then people will just stop inventing things and we can all get used to pick your technology for the next 10 years.

**Gardner:** [00:06:46] Really we've reached that kind of a tipping point I think where the pace will continue to accelerate here where in what John Seely Brown calls that kind of hyper exponential world in which the interactions of all sorts of technological and cultural changes really just keeps getting more intense and gets faster.

**Gardner:** [00:07:05] But for me it's probably temperamental but I think it's also the effect of a good education which conditioned you to think about time a little bit differently than if you don't have an education. I think that there's something tremendously hopeful about the idea that the horizon always recedes you'll

always have that yearning and you will always have the satisfaction of trying new things and you have never run out of horizon no matter how far you go you still have as much horizon as you started with. So that's kind of magical.

**Bonni:** [00:07:39] When I first graduated from college my first job was teaching computer classes and that was this would have been in the early 90s and that's when you actually maybe needed an eight hour class to get a jumpstart on one of the major applications.

**Bonni:** [00:07:55] And then I was responsible for hiring and training the other instructors and it was fascinating to watch the different lenses that people might put on in order to learn something complex. There's always the saying that we only use most people only use 2 percent of what's there in a Microsoft Excel or in a Microsoft Word just to give a couple of examples.

**Bonni:** [00:08:15] And so I think about the different lenses that people might put on in order to read the horizon report. I think there would be some who would just avert their eyes from the horizon because it looks too bright. And this is this is everything that I that I. Makes me uncomfortable about it but I think that that most likely someone listening to that episode is going to have a different set of lenses on.

**Bonni:** [00:08:36] But some may be more or less comfortable with the way some people use to learn how to use the software which is just let me just dive in there and start clicking all over the screen and see what I might do this and other people like me I used to actually buy the third party manuals and and actually go through the table of contents and read through to explore it that way.

**Bonni:** [00:08:55] What do you see as the different lenses that particularly may be commenting on different disciplines and how different disciplines might read through this report and have this horizon challenge us in different ways.

**Gardner:** [00:09:08] Well that's a great question and I am aware ever since I've heard Rogers that is diffusion of innovation books but there are at least people believe there are categories of people and some of them are early adopters and some of them are in the middle and some of them are kind of hell no I won't go and I mean I guess there's some truth of that.

**Gardner:** [00:09:28] But but I also think that one of the really helpful lenses even as the pace of change speeds up at least in my own work especially with faculty and faculty development kinds of workshops like the one you're

describing is to try to think about whatever the changes are in terms of what I see as relatively constant human desires.

**Gardner:** [00:09:54] We find ourselves in particular bodies in particular spaces in particular times and that's sometimes a great thing right. We can have a meal together we can have a drink together we can do whatever people do when they're together.

**Gardner:** [00:10:07] But it's also the case that we have memories we can generate counterfactuals and imagine things that have never been or things that might be it's a fact that our bodies don't last forever so we lose the loved ones and sometimes we don't lose them today if we lose them to distance as well.

**Gardner:** [00:10:28] And so I think as human beings we're always struck by the way our our minds kind of seem bigger than any particular physical location or embodiment. And that often we want to be with people. But time or distance or or death or injury et cetera put up barriers to the togetherness we want.

**Gardner:** [00:10:50] And so all of that put together strikes me as ah anything that lets you communicate over distances anything that lets you share presence over distance over time. Anything that seems answerable to the mind's capacities to go beyond particular moments that existence. I betcha somebody is going to invent a technology to do that and it's build on that a little bit. I'd say that a lens for particular applications has to do with how we make what we think and what we're trying to keep track of external to our limited memories external to the various mental limitations we have so that we can track it manipulate it store it retrieve it share it in whole or in part do you think about something like Microsoft Word or word processing generally.

**Gardner:** [00:11:45] What do you get that you wouldn't get otherwise. Well what do you not get. You get completely manipulable taxed which I'm old enough to remember and something I would have loved to have had when I was typing up my college papers. But you know you missed your footnote on page two and I got to go back and read tyed page one and page two and all. It's just it's kind of discouraging you know and it slows you down too much latency as far as Excel goes Excel is an extremely powerful program for all sorts of reasons.

**Gardner:** [00:12:16] But again it appeals to particular human desires to be able to track and manipulate information. I do think that there's a difference did

appear with computers in that we suddenly realized what kind of information and how much added We might want to capture track index store share etc.

**Gardner:** [00:12:41] So I think we have in many ways a new take on the very idea of information. I think you can see that in the disciplines in different ways. So I'll take a couple of examples.

**Gardner:** [00:12:53] One of them is from what's been loosely called the Digital Humanities and it's what I would call corpus studies. Google had a particular name for it. They called it cultural mix and you can see if you use a particular Google command etymology and then space and then you follow with the word if. If Google's done indexing on that word they'll show you not only where the word came from but the frequency of use over time.

**Gardner:** [00:13:21] And it does that because enough books about it digitized largely but not exclusively in the Google Books project that you have. All of this data that you could begin to ask you questions about I'm sure somebody back in the day was curious about when El Dorado started to be in decline as a name for a mythical kind of utopia and Shangri-La started to be in the ascendant.

**Gardner:** [00:13:49] But I don't think that it became a very general question. I doubt if more than one or two people wondered about it because we tend not to wonder about stuff that we can't even imagine knowing about we can't even imagine what kind of a question you'd formulate. But now you can do that and while you're not going to get an infallible answer you're going to get a rough approximation. And that kind of data mining that kind of analytical approach to word usage while it resembles something like the Oxford English Dictionary which was compiled on scraps of paper.

**Gardner:** [00:14:24] It's so much more refined and so much more detailed that you just start to ask different questions and it becomes very interesting along those lines but still doesn't tell you everything you want to know about Shangri-La versus El Dorado but it does give you another window onto ways you can think about how meaning develops over time across cultures.

**Gardner:** [00:14:45] Now in the sciences of course you've got numerous examples as well. One of them I like to think about is the way in which these technologies have empowered citizen science because we're all carrying around these enormously sophisticated sensors. I mean really gyroscopes accelerometers I didn't know what an accelerometer was until I got an iPhone.

**Gardner:** [00:15:10] And that's just you think about that. What sense would that have made 20 years ago. Oh I know what an accelerometer is now because I bought a telephone. But but that's the fact right because your telephone is actually sensing many things about your posture your location your pace of walking potentially or heart rate etc.

**Gardner:** [00:15:30] So when the sensors are small when they're portable when we can carry them with us just like putting them in our pockets we don't do any special wiring. They don't have to remember anything we didn't have to think about them and those sensors include location the opportunity to take photographs take all sorts of pretty sophisticated measurements of the world around us.

**Gardner:** [00:15:51] And when computers themselves are becoming so small you know from raspberry pi down to stuff that will fit on the edge of a dime that you can begin to put a kind of a sensor webbed together out in the field. You have astonishing opportunities for people in a fairly informal way to compile a great deal of data about the physical world around them.

**Gardner:** [00:16:14] And when that data comes in then you start to say Well what we'd like to know and you ask those questions and then as you get results back just as with the cultural mix idea those results inspire further questions because you again up the horizon. You don't just ask a question get an answer and stop thinking about it. You can actually see the edge of that question just a little bit to see where the real horizon of inquiry might be at that point.

**Gardner:** [00:16:43] And you can formulate even more questions. There's a great great book I always recommend a book by Michael Nielsen. It's called Reinventing Discovery: The Rise of Networked Science and it goes into great detail about the ways in which the distributed communications environment of the web and the Internet and all the little supercomputers we carry in our pockets has really enabled the explosion of knowing and inquiring across the globe when it comes to various kinds of sciences.

**Gardner:** [00:17:14] So I think both of those things are extremely exciting and the opportunities to share these kinds of questions and experience are also proliferating. And I understand that I would make some people nervous or it would feel overwhelming and I guess I feel overwhelmed at times too. I mean who wouldn't.

**Gardner:** [00:17:33] But it also seems to me like what I remember of learning to read where suddenly and I do remember this the world was full of meaning that I could go and experience in ways that I couldn't before. So I when I learned to read I didn't say oh no I never read all the books in the library that didn't occur to me that that was a thing to grieve about. It just seemed to me that now the thing to celebrate was that I could go and read any book that I wanted at the library. And that was something to celebrate.

**Bonni:** [00:18:05] One of the things that I think is is sometimes disappointing about our colleagues in higher ed is this lack of curiosity around some of these trends and emerging technologies that we're talking about today. What ways have you found to reignite that sense of curiosity and explore exploration in terms of maybe inside the horizon report or maybe even beyond with faculty well.

**Gardner:** [00:18:35] The best approach for in my experience the absolute most successful experience I've had along the lines of what you're describing reawakening a kind of curiosity and a sense of wonder about what these new technologies might represent. Is the new media faculty staff development seminar that I cooked up many years ago. It was an outgrowth of a course I'd begun to teach to undergraduates and when I got to Baylor University I continued to teach it to an undergraduate honors seminar and basically what it was was a set of readings from the new media reader which was published in 2003 by MIT Press.

**Gardner:** [00:19:21] And the book is a collection of many different essays across at that time about 60 years or even more having to do with what the editors and at that time I think many people would have called new media meaning in particular those media we can use to very flexibly manipulate especially digital and audio for dances that we didn't have before. But it wasn't just that.

**Gardner:** [00:19:51] I mean there was a bit in there from Scott McCloud's Understanding Comics. There was a wonderful is a wonderful essay in there from Bill Viola called Will There be Condominiums in Data Space where he thinks about his own work with digital video and video just generally as something that can be edited in a nondestructive way unlike film and so forth.

**Gardner:** [00:20:16] And I would begin by always by reading then ever bushes as we may think which comes out in 1945 and in some respects seems to be a dream about a world really robust information storage retrieval and sharing by means of a device that he calls that mimics which probably stands for memory extender. But in all analog bit of equipment that he has imagined in his head.

**Gardner:** [00:20:46] So it's not really what we would call a computer. And even more than that. And I think more importantly what Bush is imagining doesn't isn't really about a particular machine or set of machines. It's about thinking in terms of the way our brains work naturally or at least what he's supposed to be natural as you read through as we may think you begin to get to these really big questions about what does happen when we think.

**Gardner:** [00:21:14] And what do we make of memory and what do we make of technological progress over many years having to do with cultural context and inventions that have come before. And most poignantly of all for me at the end Bush says you know presumably we could build a better world if we had better access to our shady past and could review it more comprehensively.

**Gardner:** [00:21:39] And I've always hoped that's true is part of why I'm a teacher although history of course I know that if you don't remember history you're condemned to repeat it but sometimes it seems that even if you do remember history you're condemned to repeat it. But that's another conversation.

**Gardner:** [00:21:55] I would start with that essay and I would go up through a number of different ones including early concept experiments with virtual communities the Lucasfilm habitat experiment and I would end with Tim Berners-Lee essay on the worldwide web from 1994.

**Gardner:** [00:22:10] And so I thought this worked so well with undergraduates who quote Alan Kay or the fish that don't know they're wet you know they're in this information soaked environment with a global lightspeed telecommunications network and it just sounds like air just what's there. But of course that's that's not the case. It changes us. So I thought I wonder what this would be like with faculty.

**Gardner:** [00:22:33] And then I thought I wonder what it's like if I asked the faculty to blog and I wonder what it's like if I aggregate the fact these blogs into another blog and I wonder what it would be like if as I talk about this and people get excited at other schools we pull them into a network. So we would have multiple schools simultaneously doing this syllabus and blogging.

**Gardner:** [00:22:58] And I can aggregate all of that blog activity up into a kind of grandmother blog and so forth could we build a network representation of how we were thinking as we moved through these really astonishing essays from

the dawn of the information era that represents some of those basic human desires and yearnings and I described a moment ago and son of a gun.

**Gardner:** [00:23:23] I mean it wasn't perfect but I got better faster more interesting results from faculty and staff in that seminar than I have. Ever got into a workshop or a retreat or anything like that I think it's because we were engaging with really big questions and I was able to tap in to the I guess I would call the natural inquisitiveness and sense of wonder that drove people to get into higher ed in the first place.

**Gardner:** [00:23:54] The other thing was like I worked very hard to make the groups interdisciplinary for humanities persons that are really kind of you know down down the line humanities thing. There were the scientists there to kind of say well what about weight. What about this.

**Gardner:** [00:24:10] I would always bring in librarians because the best librarians are some of the sharpest thinkers about the information world. I would always bring in staff especially from the I.T. Department because lots of times people in I.T. are thought of as kind of digital janitors but also they get into I.T. because their brains kind of think about these things too. And even if they're not faculty they have a very interesting perspective on if nothing else the history of computers.

**Gardner:** [00:24:36] So I would get that mixed group and I would do it by invitation and recommendation. So I always you know capture the cast of the movie carefully especially so we wouldn't get any just you know oxygen suckers in the room that would make it unpleasant for everyone. Towards the end of the experiment at Virginia Tech by the time it reached its peak it was it was really it was highly effective at least by my standards. And I hope to do it again some time.

**Bonni:** [00:25:05] It sounds wonderful while I've been typing away as you're talking and we'll link to as many things as I can and especially to get people thinking about perhaps doing a similar thing at their campuses and it sounds wonderful. I've also loving loving the mother blog and grandmother blog and hopefully great grandmother.

**Bonni:** [00:25:22] And actually this this does transition us nicely into the recommendations segment because I mentioned that one of the things that was not talked about in the horizon report I'm sure you hear this all the time. I mean I certainly do not pretend to be a future Futurist around such things but

one that I just wanted to talk a little bit about today and I wanted to recommend to people is this whole idea of social reading.

**Bonni:** [00:25:47] And so this is going to be the recommendations segment and my recommendation is generally that people think a little bit about social reading and specifically that they look at a tool called Hypothesis and I'm going to sort of give you a little bit of my recommendation time if you would would you tell us a little bit about what social reading is generally. And then specifically what hypothesis is and does.

**Gardner:** [00:26:11] Well social reading is something that is in some respects a contradiction in terms. Most of the time in the West we are by ourselves reading our books silently and not even moving our mouths. But there was a time back in the early part I guess what 400 or so in the common era in which the Guston was very surprised that people would read silently to themselves the thought of reading is something that was also a kind of a performance.

**Gardner:** [00:26:42] And I think that there's something really great about that because it's very easy when you read without any sense of being kind of turning these empty marks into something that that have a sound when the reading can be kind of dull and lots of times when I hear people read aloud they they don't really do it with a kind of resonance I would expect.

**Gardner:** [00:27:05] And I always kind of worry is that the voice that you hear when they're reading to themselves and while hypothesis isn't about audio but what you can link to on here and there it is like other social reading endeavors a way to experience the pleasure of an individual activity in a kind of a group context and it's an hypothesis is even stronger in many respects than a book which is where a lot of people have encountered social reading you read on your own and you come together and talk about it.

**Gardner:** [00:27:35] It's more like to me some of the ways. Commentary existed specially in the Middle Ages where you have the text but the text is surrounded by commentaries so it's always text plus conversation about text and the beautiful thing about hypothesises you can turn that off and just see the attacks but you can turn it on.

**Gardner:** [00:27:57] And as we read together it's one of the great things about being together you're going to see something I didn't see. It's not just about disagreeing about things it's actually helping us to sharpen and focus and

broaden our individual attention. So this for me is not just about well I think this. No I think that although you can do that too.

**Gardner:** [00:28:19] It's about oh I never this that or oh that sentence kind of went by me but I see it that way we we lend our minds out to each other. Quote Robert Browning And we we become more than just our own set of tensions. So that's really interesting to me.

**Gardner:** [00:28:38] And the idea that there are many ways to do that is also interesting hypothesises is one of them it is actually reshaping what it means to link to a website which I'm happy to talk more about if you like but the other thing is I was experimenting with social reading before our Kopassus when the Kindle and I assume the Nook has something like this.

**Gardner:** [00:29:00] But the Kindle is platform I use put a little thing in there where you could do quotations. Highlights from the text and share them to Facebook or Twitter. And I tend to share them to Twitter pretty habitually. And if the author is on Twitter I'll usually notify the author of the tweet.

**Gardner:** [00:29:20] And so there's this interesting little moment that happens when something I've noticed that seems interesting or striking or I wanted to use it as a way to kind of make contact with the author suddenly gets a response you know somebody likes other quotes or retweeted or every now and then the alter will actually say something back and you'll you'll have a little conversation that way as well.

**Gardner:** [00:29:45] So I really think that there's a whole dimension of bringing texts to life in a social context that taps into ideas about culture and learning and that can actually make reading an even richer experience.

**Bonni:** [00:30:01] And one of the things I like that you said too is that there is a way to turn it off. This is just a pair of lenses that we can put on but also take off and I think that there would be times when I might find myself becoming a bit lazy in my reading then just letting my eyes go to the highlights and letting other people mold my thinking instead of really doing that deep reading that I need to keep conditioning myself to do so I like that it's we can have this great amazing network experience as you said but at the same time we can put on a different set of lenses and do something different with it.

**Bonni:** [00:30:37] And I just love the flexibility is kind of like what you've been saying as a theme throughout this is just this idea of molding and shaping and

changing the tools to suit whatever purpose it is that we are looking for and then of course sometimes the trouble is we don't know what purpose we're seeking to do with it yet because we we haven't quite comprehended exactly what this thing is and what we can do with I think some of the things around the idea of the maker movement or the maker spaces is kind of fun because I was talking with someone about the horizon report now say was probably one that wouldn't touch you know necessarily a business curriculum too much and as soon as the words were out of my mouth I thought I'm sorry can we put those back in my mouth because also I just thought started 20 things you could actually do with it.

**Bonni:** [00:31:20] But since I've never had the chance to play around with the one yet and just play and experiment that's probably why my vision is limited for what we might be able to do in my disciplines.

**Gardner:** [00:31:30] So I think that's a really crucial point. And I guess as I hear what you're saying I I can see that there is some fatigue that's always going to be there. That's not really specific to this technology but it's about having so many more things that you can be mindful about and it takes a certain discipline. You know I've I'm a social reader from way back. If you count scholarship as social reading because when I am doing research on something let's say in John Milton.

**Gardner:** [00:32:01] I don't have all the annotations necessarily popping up I usually will be notes in the edition I'm using but I don't have all the things that critics have said necessarily but I try to do that in another way by going and reading as responsible as I can so I have a sense of the critical conversation about whatever it is I'm trying to think about.

**Gardner:** [00:32:20] And so it's interesting there's a certain discipline that is trying to make the commentary useful without being just a parrot or a kind of you know just a sheepish follower of what everybody else is saying. And that's actually kind of a struggle. It's interesting to think of that because it is a struggle I think is a struggle worth having but it can be tough. Yeah.

**Bonni:** [00:32:46] It reminds me of when Peter Newberry was on the show he talked about specifically he was mentioning learning within the Twitter network and the importance of following people that are like you and following people that are not like you and just what that can allow us to do in terms of our own learning. What is it that you have today to recommend for the listeners.

**Gardner:** [00:33:08] To think about emerging technologies. Oh my. Well I really do recommend that people think hard about. Well I would say is the re-emergence of virtual reality. Part of this is because I really like things that are playful I really like stories and I really like dreams the good ones anyway. I think they all have kind of mind expanding and sometimes very satisfying kinds of effects just on the way we live our lives there's a beautiful way in which if you go see a really strong movie and you come out of that theater the the world looks a little different for a while.

**Gardner:** [00:33:47] So last week at the new media consortium conference we had the great opportunity to go to the magic lab at the Rochester Institute of Technology which has a lot of experimentation around new forms of virtual reality.

**Gardner:** [00:34:02] The Oculus Rift the HTC VIVE and even the augmented reality which is not fully in a virtual world that kind of puts things in the world that you're seeing around that. You know that's physical but it but it's almost like hypothesis that it makes things appear that aren't real.

**Gardner:** [00:34:21] But maps them onto the real things and in all those cases I mean they weren't my first time thinking about or experiencing virtual reality but I was just so struck once again that it was you know just a wonderful mode of experience could potentially be quite addictive in ways that would not be so great of course but also just a way to keep keep your eyes up on the human capability and have some fun while you're doing it.

**Gardner:** [00:34:48] So I recommend folks to really take another hard look at virtual reality. It's not just second life anymore and it's not just it was never just hype in my view but it's going to be doing some interesting things now that it's portable and lower cost and you can actually kind of walk around inside of it.

**Bonni:** [00:35:09] Gardner thanks so much for that recommendation. I will link to as many of those things as I can find and just want to say thanks for your time today talking about the horizon.

**Gardner:** [00:35:20] My pleasure. Thank you.

**Bonni:** [00:35:22] When there are so many things that I want to go back and explore that Gardner talked about thanks once again to him for being on the show for a second time I hope maybe it's just the second of many times. It was such an honor to speak with you. Gardner thanks to all of you for listening.

**Bonni:** [00:35:39] As always if you have ideas about the show you can share those at [teachinginhighered.com/feedback](https://teachinginhighered.com/feedback). And if you want to help other people discover the show the best way to do that is leave a review or rating on iTunes or whatever service that you use to listen to the show.

**Bonni:** [00:35:58] And if you don't want to have to remember to go to [teachinginhighered.com/111](https://teachinginhighered.com/111) to find the show notes you can just subscribe so they come into your e-mail inbox just once a week. You can do that at [teachinginhighered.com/subscribe](https://teachinginhighered.com/subscribe).

**Bonni:** [00:36:14] And when you do that you will receive the ed tech essentials guide and that has 19 tools that will help you both on the teaching side incorporating technology into your teaching. And also on the productivity side so we can have that peace thing that we talk about in the intro every week. Thanks so much for listening and I'll see you next time.

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