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Bonni: [00:00:00] On today's episode of Teaching in Higher Ed episode number 246, I am joined by Eric Helgren and Karina Garbesi for a conversation about teaching STEM for Social Impact.

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Bonni: [00:00:26] Hello and welcome to this episode of Teaching in Higher Ed. I'm 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 improve our productivity approaches so we can have more peace in our lives and be even more present for our students.

Bonni: [00:00:53] Today I am being joined by two incredibly inspiring people, I just want to give you that warning in advance. I'm joined by Karina Garbesi. She cofounded the award winning Social Impact Solar Program to engage California State University students in the work she discovered as co-founder and member of the board of the United Nations award winning non-profit We Care Solar, which you'll hear a lot about in this episode, sharing solar energy and light to alleviate energy poverty and empower communities. Now shared with five California State University campuses, the Social Impact Solar Program (SIS) engages university students in creating a more sustainable and socially just world through hands on classes centered on building rugged off grid solar power and lighting systems designed to alleviate energy poverty.

Bonni: [00:01:52] I am also joined today by Eric Helgren. Dr. Helgren is the co-developer of the popular course Social Impact Through Sustainable Solar Design, also referred to as The Solar Suitcase Class, which includes active learning activities, community engagement, and mentoring. His background is in experimental condensed matter physics and materials science. His research has focused on renewable energy materials. The course gives students the

chance to learn about the physics behind solar power, the impact of solar power, its impact on the environment, and the practical use of solar power in the lives of those for whom it offers a low cost, sustainable means of having light in impoverished circumstances. The focus of the class is the hands-on building of the solar suitcase, a standalone off grid solar powered electrical system that fits in a suitcase. Suitcases are donated to energy poor regions of the world, for example subsaharan Africa, orphanages, schools, libraries, health clinics, and refugee camps where these suitcases provide maybe the only source of light. The suitcases have also been used for post disaster relief. Last year they were sent to Puerto Rico following Hurricane Maria.

Bonni: [00:03:15] Karina and Erik, welcome to Teaching in Higher Ed.

Erik: [00:03:19] Hi.

Karina: [00:03:19] Thank you very much, Bonni.

Erik: [00:03:20] Thank you for having us.

Bonni: [00:03:21] I have been so excited about getting to know more about your story ever since I heard about you and the work that you're doing. The biggest thing that ignites my curiosity is for each of you- you just have this sense of world changing right at the centerpiece of your teaching. And for so many people that I talk to, both informally and also through the podcast, we kind of had to back into it. And a lot of that tension comes from sort of starting at the knowledge point because people fell in love with their disciplines and in your cases, the physics, but yet how do you get the learners to love physics if it isn't about some sense of meaning and significance? For each of you, did that come naturally for you? Right as you started teaching in this context? Or did you also have some things of missteps going "oh wow, I have to back up a moment and recognize that our students really need a reason to care first." And I'll start with Karina and then we'll hear from Erik too.

Karina: [00:04:23] Well it's an interesting question. I think for me, early on there was this duality. I came from a sort of heritage of being an activist on issues. As a matter of fact, right when I went into physics I was doing it partly from the arms control perspective. But when I went into teaching, I had this feeling that you are teaching knowledge. You're teaching science. You're teaching policy. And I was unable to really integrate those two things because I was feeling "oh you need to do all of this hard and complicated stuff."

Karina: [00:05:06] I have come to a very very different feeling recently that our issues with the state of the world are so great that we need to be working on the heart and hands part and the practical at the same time or we won't solve all of our problems. And I think our students need that too. I think our students and people in general are becoming crippled psychically and emotionally with the feeling that these problems are so big and so complicated that they want to run away. And we're never going to address those problems if people ran away.

Karina: [00:05:47] So my big motivation at this point is how do you keep people optimistic. How do you engage them? How do you engage their their hearts as well as their minds to bring about change and to enable them in the greatest possible sense in all of their realms intellectually and emotionally and with compassion.

Bonni: [00:06:10] Just a few months ago I was able to capture on video our son. He was 6 then. We captured him on video and he says "When I grow up I want to be a dad and I want to be a scientist and I want to invent things" and he said "I want to invent things that don't use electricity" but I know he means not using non-renewable electricity sources. But he is a 6 year old, he doesn't quite have the vocabulary for it yet but he says "that don't pollute the earth."

Bonni: [00:06:35] And it is just so wonderful to think about when we can capture those hearts and not have all the baggage of- I just really grew up with a lot of the mindset issues of "I'll never be good at science" or "I just can't think that way, that's not the way my mind works." But instead to tap into that heart which really can help us press on. And it was fun, Erik you mentioned in a video I got to watch both of you being interviewed, this is not just a project. This is going to change somebody's life.

Erik: [00:07:06] Yeah I would say exactly the same things that Karina had. In academia, you get into the role of professor and teaching and you don't have that much training in how to present your information and teach students in the best way that you can. And so it's really been through learning about active learning strategies, engaged teaching strategies, how to teach STEM better so that we can reach out to those underserved populations of underrepresented minorities. And sort of one of my own passions comes from women in science and women in physics in particular. Such a disparity in the number of women that are in the scientific community in these fields. My own mother was a Ph.D. physicist, she grew up in post-war Europe and they had lots of things that were going wrong of course. And what her parents told her was "look, education is the one thing they can't take away from you," and so they encouraged her to

go and get her education. And so growing up, my mom was a physicist. I never saw that as as a child, but when I got to college I realized that was that was a big disparity in physics classes I was in.

Erik: [00:08:08] And so it has become a passion of mine and in learning about active and engaged teaching strategies, The Solar Suitcase is exactly that. It is the hook that people are going to learn about and want to learn physics and break down those stereotypes of "I can't be a physicist. I can't be a scientist because I'm a woman or an under represented minority." It's for everybody. And when you hook a person's heart and their minds together, you start teaching STEM for a purpose.

Erik: [00:08:34] And that's really what The Solar Suitcase evolved into. And it sort of grew organically, it was not something we really planned from the outside. I think both Karina and I could say that. But we really realized that yes it is such a powerful teaching tool, it's such a powerful teaching mechanism to have this hook where people are building solar suitcases because they know they're helping people around the world less fortunate than themselves.

Bonni: [00:08:58] I want to talk about this idea of a hook. And then I also know that Karina you have some things to share about sequencing because we definitely want to hook in our learners and then- I know for myself, so much of my teaching, even within a class, but then as we look at programmatically, that sequencing is absolutely essential and there's so much we can learn there.

Bonni: [00:09:18] But let's start about the idea of a hook. When Derek Bruff was on the show, he introduced me to a journal article called A Time for Telling by Daniel L. Schwartz and John D. Bransford. You can go look at this article in the show notes. But he is exactly describing that, the authors are describing this hook and how essential that is to captivate the imagination because so many times when we get it wrong in education, we just don't really think about the idea of curiosity and imagination and the importance of that in learning. So what do you talk about this hook? Tell me about this suitcase. And when does it get introduced in a class? And what have you seen are the results of what that does to your students learning experience?

Karina: [00:10:02] We weren't really thinking about it as a hook initially but then talking with our educator colleagues in the College of Education, they were telling us "yeah that's what you're doing." The center of this curriculum that we've been developing is that our students build these devices that were called Solar Suitcases that are destined at least some number of them to provide light and

power to schools and orphanages and refugee camps in the developing world, to have a big impact on the ability of those children to learn and to thrive.

Karina: [00:10:50] And reflecting on Erik's words from earlier, what really surprised us is that this became an enormous hook, particularly for female students. One of the things that concerned me- not only- I mean I love physics. I started out in physics. But I see so many, particularly women, being math foes and science foes. And for me, it is as important for people to be able to use mathematics, to understand basic concepts, even if they're not scientists so that they can check nonsense. There's so much disinformation in the press. You need to be able to have those tools to test if you are being lied to, frankly. So to have this hook of building these systems that improve others lives, we found that the women students were just absolutely galvanized.

Karina: [00:11:56] They would start to organize around doing the grid connected solar installations that we made connections to in our class- we presented opportunities basically that the students could use or not. One of them was to organize a spring break where they go and do a solar electric installation on a poor community. And there were various communities around the state of California and disproportionately it was the women students who were doing it. They were then going out and giving demonstrations at science fairs. And these people were self-avowed science phobes. So it was a remarkable transformation to see.

Erik: [00:12:41] I totally agree that it was hook of the solar suitcase that made these students, the women particularly and under represented minorities, less afraid of that stereotypical first physics class where they thought they could not succeed and when they were being taught with the hands on active learning how to build the circuit and how to use a digital multimeter and they saw that they could use those skills to build the solar suitcase, that empowered them to know. Yeah I can do it. I can do science. And I learned this technology because I wanted to make the world a better place. And then once they realized they could do it, they became the best ambassadors to broaden that story.

Bonni: [00:13:18] How long does it take to make one of the suitcases if I knew what I was doing?

Karina: [00:13:24] So it depends on which version of the suitcase. And in addition to the suitcase, there is a lighting extension kit that we have built too to reinforce certain concepts. So all together with the original one, probably about eight hours.

Erik: [00:13:38] Yeah two class sessions where we have two weeks of labs, four hours each or something.

Bonni: [00:13:44] And do you think about it more as let me get her hands on this thing and start to build some confidence and curiosity. And then let's talk about the physics behind it. Or is it more interspersed throughout?

Karina: [00:13:57] It's interspersed. What we're doing- and I believe it's really really essential- we're teaching students basically electric circuits. There's no difference between the solar electric systems and other electric systems, except these happen to be DC systems at low voltage so nobody is going to hurt themselves, which is nice. But we reinforce these concepts over and over and over in different ways.

Karina: [00:14:22] We start a little mini panels and say "well how do you connect them to be able to get more voltage? Or to be able to get more current? How does that relate to getting more power?" And so we're doing that in the lab. We're doing that outside. We're doing that on paper. And just reinforcing over and over and over in different ways so that the suitcase is probably maybe the fourth they are doing by hand in our classes.

Erik: [00:14:47] Right. I think so from the physics pedagogy perspective, this is introduce, develop, and mastery. So by the time they are building the suitcase, we're onto the mastery step of the skills that they're trying to develop in this class. The introduction is well here's your first battery, a light bulb, and a wire, try to get the circuit to light up the lightbulb. See, electronic circuits work this way. You've got gotta have a complete circuit.

Erik: [00:15:09] One of the first things I do whether I'm in a middle school, high school, or even college setting, you can buy these so-called energy sticks where if you touch the two ends of the energy stick, a little light goes on and the buzzers flash and things like that and we have all the students stand up in that sort of kumbaya moment while everybody holds hands all around the classroom up to 40 people can hold hands. And then if you hold the energy stick at the end, it's going to light up. And so that is the electricity flowing through everybody, nailing home that fundamental first idea of introducing the concept of electric circuits that it takes a complete circuit. You must be a closed loop in order for electricity to flow. And that is the concept that takes them through building the solar suitcase.

Karina: [00:15:50] I think that provides these repeated moments of clarity and competence that when the light bulb lights up, they know they got it right. There's always this big grin on their face. And I think that kind of reinforcement of a certainty joy and clarity in learning is so absent from so many lecture experiences that students have partial credit, maybe you've got enough down on paper to pass the test. It's completely different it's it's absolute clarity moment. This worked. I got it right. No question.

Bonni: [00:16:35] I know that you've worked in many different cultures, I got to watch one of your videos and I'll have links to all of them so people can please go explore them. But with Native American communities.

Karina: [00:16:46] Yeah. What we've done particularly going out into the Native American schools there is try to really listen and involve leadership from the Native American community too. We need to be humble in terms of approaching from the outside what processes, procedures, how to how to dialogue. So we got we got a lot of help from that, but it was interesting.

Karina: [00:17:17] I think we got a lot of help in that because everybody has this hidden desire to want to do something meaningful on the world. Right. And from the kids who- I remember that moment on the ABC News with the little girl down at Cesar Chavez middle school. This is a school that's got 80 percent poverty statistics in it. Its vast majority Hispanic then a mixture of primarily other people of color as well. And so you have this little girl who has gone through the class experience of building the solar suitcase with our students helping the teacher. They get to talk with the big kids who are in the university and feel that it becomes accessible so they become a part of this community. But the words the little girl had at the end of all this, she said "I never dreamed I would be able to help other people." Where is this suitcase going? Uganda. It's just like so that was the big moment. Here are kids who are living in poverty in our culture feeling empowered and excited because they got to do something for others.

[00:18:32] For me, that was the rightful moment. It was like oh my god, everybody wants to do something significant to save this world provide those opportunities to people, the opportunity to directly engage in helping others in a personal way. And they will be hooked forever.

Bonni: [00:18:53] I love how empowering that is because I don't enjoy the analogies particularly possibly because of the context they seem to always be used in, but this idea of "we don't give them a handout, we give them a

handup." Sorry I'm not even quoting that right. But but I like this analogy or this way of really helping to empower people.

Bonni: [00:19:13] And you talked about the importance of getting the people of the community involved and that again I'm so excited for people to go watch many of your videos to see that in action.

Bonni: [00:19:23] Erik, you spoke about the word joy- I know if it was you or if it was someone who was talking about your work. But joy in describing what it feels like to save the world. Could you talk about how that joy comes into being for your students?

Erik: [00:19:38] Well I think absolutely. I mean I have always been a proponent of you have to find the right balance in your life and I enjoy teaching. I really love that aha moment when the light bulb goes on. That was the hook that got me into academia was when I could work with students in a one on one lab setting. That's the favorite type of class that I can teach when I'm actively engage with students and having them work with hands on.

[00:20:00] And the joy that I see in their eyes when they finally get it. I've taught many electric classes where they're not getting it because it's on paper and they read it in the textbook, but when they can actually go and make it happen and see the physics with their own eyes. Seeing is believing and that's when the joy happens. The Solar Suitcase is just so full of those aha moments from the time where they're holding hands and they get that little light state to light up and they realize the electricity is flowing through them, and they're energized and they want to get that class going. They learn how to use these tools they might never have had their hands on experience with like a digital multimeter, or building circuits, and learning how Christmas lights are lined up in series and how their wiring in their house is lined up in parallel and they're like "oh is that how the world works?" And they have this fundamental understanding of "oh that's what's happening and yeah I can do that too. It's not just for other people out there, those types of jobs and those types of knowledge and those types of skills. And I really feel that that when I have passed that on I've done my job because they are now better citizens in the world, in the community. And I get my own joy out of seeing my students who have gone through my lab classes go on to become doctors and go on to graduate school and things like that. So I get as much joy out of their successes as I see in their eyes when they're being successful in my classes.

Bonni: [00:21:22] You didn't set up to have a hook, but it turned out that that was really something that ignited your student's curiosity. I know you have also had real lessons that you've learned about sequencing in the learning process, both I believe from a programmatic level but certainly at the class level too. What are some of the key things that you remember learning along the way?

Erik: [00:21:43] Programmatic sequencing. While I think this is something that I've been struggling with in the physics department, as the chair of the physics department, trying to restructure some of the old standard and staid ways of introducing students to the concepts of physics.

Erik: [00:21:58] And in particular using American Association of Physics Teachers recommendations that came out a number of years ago on how to better produce labs associated with physics classes. It comes down to you want to use something called inquiry learning. Don't tell students how to push this button and then you'll see this answer. You want them to explore it. And yeah, equipment gets broken every once in a while because you learn by doing and sometimes you break things, but that's OK we're going to buy more equipment and let students break things so that they can start learning.

Erik: [00:22:29] And that was already something that I was doing in the physics department and wanted to carry that over into the solar suitcase class where we were going to then scaffold the physics learning, the hands on knowledge so that we could see those students succeed and build those suitcases and not get frustrated and not really be part of the learning process throughout the lab.

Karina: [00:22:49] This relates both to the sequencing and also in a way to the hook. There was an earlier part to the hook that I didn't really talk about before. Which is that we really start the class talking about energy poverty and sharing experiences of working in Nigeria and what the conditions were like.

Karina: [00:23:16] But also again of social entrepreneurship of the backyard nonprofit where people are scrambling to put stuff together to the journey of winning the million dollar check from the United Nations to continue the work, to share a path where you're both looking at profound problems but also solutions that can be engaged in rapidly.

Karina: [00:23:48] From the sustainability end, we also look at how few years it would take to replace all fossil fuels with solar energy. You can do it in less than 20 years at the current rate. Well less than actually depending on rates you're

looking at. But that's another kind of hook, the hook that- emotional stuff grabs people immediately. Right. So there's that hook.

Karina: [00:24:15] But then there's also all these different ways of getting them to know that they can have a difference. And I think there is sequencing involved in that as well.

Bonni: [00:24:27] I was so captivated by one of the videos, and again a link to it. I was so captivated by the story that gets told about the hospital that you visited. And it is just the most masterful storytelling, the video screen is pitch black and you're describing people helping you navigate through this hospital without any light. They just do it all by memory. And then there's the image of you and then the light came on. And I mean I just talk about captivating people with those emotions. I do see so much of that tension of the heart then translating to the hands. And so centered in your values and then also in your pedagogy too. And Erik, I know you have something to add.

Erik: [00:25:08] I can't talk highly enough about how Hal Aronson, the founder of We Care Solar, a good colleague and friend of Karinas and I've gotten to know him over the years now too. And what's really amazing that we have him in and he visits our classroom and tells his own stories. And being a scientist, I'm a data driven person, I love to have numbers.

Erik: [00:25:26] And he tells a story about how he met this doctor, I think his name was Dr. Jacques back in 2014 in New York. And Dr. Jacques heard about the Solar Suitcase, wanted one and he gave him a Solar Suitcase to take for his next trip over to Africa. And then he sort of lost track of Dr. Jacques, hadn't heard from him in a couple months and then when he got back he said. Dr Jacques told the story of how he first got to the village where he was in Africa and there was a cholera outbreak that next day. And so the traditional statistics are that up to 50 percent of the people die in a village if there is no electricity. And Dr. Jacques who had the solar suitcase could turn the lights on at night and check the medicines and check on his patients. And of the 120 people in the village, they all survived that outbreak of cholera. And that's just a heartwarming story for me.

Erik: [00:26:13] I love hearing it and I get a tear in my eye everytime he tells it in our classroom. And I know that the students are impressed with that like this is what I'm building? I'm going to do something that could save lives where were previously without light people were dying. I think it's powerful.

Bonni: [00:26:28] In my class the other day we watched a documentary about fast fashion called The True Cost. And it helps the students see, and myself too, see that going and buy in the five dollar T-shirt, what that actually costs. And there's just this vivid vivid image of a woman who has to be separated from her daughter because her daughter can't live with her where she works in Bangladesh in the garment producing factory there. And she's holding these clothes and she says I don't want people to buy things that were made with the blood of us.

Bonni: [00:27:04] And one of the stains afterwards was saying "I'm never going to forget that." And I see so many times with people that are just my heroes in social justice that they don't stop there though because those horrors of people dying from energy and poverty. Like yes, stir up the emotions but then give them something to do with that. And they're so hungry for it once you have ignited that in them. And one of the ways I know you do that too is through your work with schools. I realize universities are schools too, but with some of the younger children.

Bonni: [00:27:37] Could you talk a little bit about what you've learned from having your students go out and work with elementary school and other other school children?

Erik: [00:27:45] Yeah so I have a little background before coming with Karina to develop the Solar Suitcase in developing a program here on campus at Cal State East Bay called The Host Labs, Hands On Science Teaching Labs. And that was a program that was funded through the Bechtel Foundation where we would have local middle school students come onto the Cal State East Bay campus and our own university students would then deliver small teaching demonstrations to the students.

Erik: [00:28:12] So our college students would get a sense of is teaching and becoming a K through 12 teacher something for me? We had the middle school students come on the campus and interact with college students. So there is this whole mentorship aspect of things as well as just learning science and seeing some hands on demos and things like that. That was really powerful when I was teaching my class and developing those courses here.

Erik: [00:28:33] And my idea to Karina that I floated when we were starting this whole issue Suicase class was can we do something like that? Can we get the middle schools involved? And having come from the We Care Solar background where there already was curriculum developed around the middle

school, I thought okay well we can have the added value and the added benefit of trying to get the university students involved in the middle and high schoolers.

Erik: [00:28:53] And our Cal State East Bay students- Cal State East Bay is one of the most diverse universities in the United States by the Chronicle of Higher Education. Our students represent the same types of underrepresented minorities that are in the Cesar Chavez middle school in the Hayward unified school district here. And so like you said, we were leveraging our partnerships in order to get this off the ground. We went and met with the college education faculty and Dean, Dr. Carolyn Nelson who linked us up with the Hayward Promise Neighborhood Grant that they were running where they had connections in the schools and things just snowballed from there. They wanted us in the school because they heard about the suitcase and the teachers and principals were hooked as well because they saw that this was going to be transformative.

Bonni: [00:29:35] Karina, what are some of the lessons that you've learned through those experiences? And in terms of whether it's partnerships with external organizations or-.

Karina: [00:29:43] That was exactly the word that I was going to come up with. What we've really done here is leverage partnerships over and over and over again. As Hal mentioned, the We Care Solar non-profit has this We Share Solar element, a program that Hal Aronson developed initially. And he was also the developer of the Solar Suitcase.

Karina: [00:30:11] So we partnered very intensively with Hal when we started developing the university level curriculum. Hal was really excited to have us do the university level curriculum because from all of our perspectives what you really want is not just a single touch, you want a pipeline. We need to develop capacities societally to get people to be working on renewable energy at a lot of different levels, from both the science level to the entrepreneurial level that has to happen quickly.

Karina: [00:30:41] So you want to have the connections from the middle schools through the universities and into careers. We partnered with Great Alternatives to be able to have our students to do grid based installs, larger systems. We partnered with Hayward Promise Neighborhood in order to get directly into the schools. We partnered with Trees, Water and People when we were doing the Native American work because they do a lot of Native American leadership

type programs. We partnered with Hoopa tribe in Northern California where we were going to be doing the work. And so this has all been leveraging partnerships. The reason it's been doable, despite the difficulty with partnerships, is that all of us get hooked on wanting to do this stuff for other people.

Karina: [00:31:34] For example, people want to help you when you're doing something for somebody else. When you do something for yourself, they're not so interested. Right. But that's been the entire story of all of this. I remember talking to our dean of our College of Education. At first I went to her, we know you already have the connections in the schools, could you do this? She just was out of her mind how excited she was. And she says this is the perfect curriculum piece for Hayward Promise Neighborhood. So it's just organically not just grown, but sort of exploded because of the joy of doing it, frankly.

Bonni: [00:32:10] I was so glad to hear you add that last piece because both of you do have you have such passion and you're so eloquent but it has to be messy. But it just compounds the complexity and the messiness when you start talking about working then with other educational organizations or you talk about working with external partners. And I mean you're in a bureaucracy too and there's no- I mean as progressive as it may be, there's still just the nature of larger organizations like that where it can be hard to get things done.

Karina: [00:32:41] Well we have the perfect balance here. Me being over 60 and I've got nothing to lose, right. So it's like let's do this really crazy stuff because it must be done. Admittedly it's insane to even start to think about it. But then you have Erik who's so calm and centered and never gets ruffled. And so it can work. I think finding that balance is- finding the perfect partner is where it's at.

Bonni: [00:33:18] Before we go on to the recommendations segment, I wonder if there's anything else that we haven't explored that you'd like to give advice? You are talking to thousands of people who just care about teaching in lots of different disciplines. Any advice that you want to give them before we go on to that recommendation segment?

Erik: [00:33:34] Well I'd say follow your passions. As was my circuitous route to Cal State East Bay was I was doing fundamental physics and I realized I was not passionate about the fundamental physics, as beautiful as it is. And know late in my career, I started writing grants towards studying renewable energy materials because that's what I was more passionate about. I wanted to do something that was going to affect the world. And that was the direction I started going

late my career. I was very fortunate to get the job here at East Bay and be able to pursue research in renewable energy technologies and materials. And then I wanted to share that with students. And that's how it grew. And when you follow your passions, good things are going to happen.

Bonni: [00:34:13] And what about for you, Karina?

Karina: [00:34:15] Well retroactively trying to understand what it is that we've done here, I stumbled upon a paper that was put together by faculty at the University of British Columbia and Davis actually. And they described something called transformative sustainability learning. Terrible name, right. But I think it actually applies to transformative learning in general. And it's this idea that you're bringing together head, hearts, and hands. Each of them with equal importance and resonance. And I think at that fusion point is where we have our big leverage, head,, hearts and hands.

Bonni: [00:34:56] I love it.

Bonni: [00:34:57] Well this is the point in this show where we get to recommend things that have had our attention in recent weeks or months. And I have been really enjoying Middlebury's Digital Detox series. And they're really looking critically at both information literacy and also just how our devices can not be in charge of us instead of us using them for the wonderful things that they can bring into our lives.

Bonni: [00:35:22] And they did one recently on digital detox 2.9 Responding to Online Harassment. And this is one of those things that I feel fortunate to have not encountered too greatly in my experience, but I recognize the fears and the realities that exist for others and I want to be more sensitive about it. And I thought it was a really nuanced wonderful view with lots of links to different examples for how to take action both in personal and non-professional context so I'd recommend that people go check out the article Digital Detox 2.9 Responding to Online Harassment. But the whole series is really really wonderful and they've built it in a very open way so that you could use that on your own campus and have these dialogues with students and faculty alike. So I'm gonna pass that over to Eric for your recommendations.

Erik: [00:36:12] My recommendation is go get out into nature. Right. So you know as much digital greatness as there is out there, that's my digital detox. The reason I love doing Solar Suitcase, the reason I love doing what I do is because I'm an avid hiker, I'm an avid outdoorsman, I love to be out there. I'm a little bit

Edward Abbey-esque in the sense of I consider that nature is when I have been hiking for a few miles and haven't passed a single person. So I would highly recommend go get out into nature, go get off the beaten path. Go explore for all of your listeners, your regional parks, your state parks, and the national parks. But find those ones that you've never been to before but not a million people are going to go find some nature up there.

Bonni: [00:36:53] And I'm just curious for anyone that was to visit your area, is there any real treasure that we should make sure we don't miss?

Erik: [00:36:59] I would love recommending, I was told about this a few years ago, big trees. California state park has some of the most amazing giant sequoia groves that I think are better than Yosemite's. Now that I've given it away, I won't have the solitude out there anymore but it's a beautiful state park.

Bonni: [00:37:16] Thank you. And Karina, how about you?

Karina: [00:37:19] My recommendation is that everyone with open hearts and minds, go look at the Green New Deal resolution and see what the kids are doing in the sunrise movement. If anyone's going to save us, they are.

Bonni: [00:37:33] I was thinking about the New Deal movement as you were speaking earlier about how fast we could switch over to renewable energy. And I've been enjoying some of the debates and things talking more about the Green New Deal. But you are both such an inspiration to me and to anyone listening to this. Thank you so much for your time today and being willing to invest in this community of learning more.

Karina: [00:37:55] Thank you Bonni, thank you for doing what you're doing.

Erik: [00:37:57] Yes. Thank you very much Bonni.

Bonni: [00:38:01] Thanks so much Eric Helgren and Karina Garbesi, what a pleasure it was to talk to each of you.

Bonni: [00:38:07] And thanks to all of you for listening. If you'd like to look at the show notes for today's episode you can do so at teachinginhigher.com/246. You'll see the show notes and also links over to the various recommendations that were made toward the end of the episode. This is a page of show notes you don't want to miss because there's so many great video links and articles to hear more of their stories.

Bonni: [00:38:35] And if you don't want to have to go remember to go find those show links, just go to teachinginhighered.com/subscribe and get a weekly email with those show notes automatically forwarded along with an article about teaching or productivity. Thanks so much for listening. I'll see you next time for episode 247.

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