S3E5 Maker Movement with Cait and Rowena
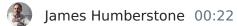
📅 Fri, Feb 09, 2024 12:38PM 🕐 41:09

SUMMARY KEYWORDS

music, sonic pi, maker movement, students, year, coding, playing, rowena, programming, learning, caitlin, idea, education, little bit, teaching, work, day, interested, computer, people

SPEAKERS

Rowena Stewart, finley humberstone, James Humberstone, Zoë Humberstone

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Z **Zoë Humberstone** 00:08

Music Zettel

F **finley humberstone** 00:11

with James Humberstone.

James Humberstone 00:22

Welcome to MUSIC Zettel, a podcast about engaging students in creative pluralist music making, drawing on my own work as an academic, a teacher, and a composer and producer. So, you will know if you have listened to the previous seasons, including the micro season, as I called it Season Two of music settled before that, I have a little bit of a fixation with the idea of the maker movement in music education. And what I've got today is actually some material that I promised that I was going to put at the end of the micro Season Season Two, a few interviews that I did. And in one case, a little bit of writing that one of my postgraduate candidates did about this particular topic. So before I start explaining what the maker movement is, what I think it is, and what I think is important about it, I'm going to hand over to the wonderful Caitlin Sandiford. Caitlin is just about to finish her masters of music in research degree, and her topic is absolutely fascinating. And at some point, I will make a music settle about it. She's been looking at how teachers and students can learn with a website made by the company Ableton who also make the software Ableton Live, which I think I mentioned, just in the last episode or two is what I wrote all of the music for, for a guppy in first. And then I created a score later on for the performance too. But that's my sort of creative door of choice. And so she's looking at how that how how students learn when they're using that website became quite popular, it was actually created pre pandemic, it became quite popular during the pandemic, when people were looking for online lessons that would work. And this is a nice one in that it's asynchronous students can work at their own speed. But you know, it became popular then. But what Caitlin's really getting into the nuts and bolts bolts of is whether students prefer learning being guided through that website by a teacher. So I guess, using that

resource, but using it in a kind of traditionally didactic way. So telling students which particular page they should be on of the website on which particular exercises they should be doing, and maybe supporting that with some extra materials. And Katelyn prepared a whole unit of work to go along with it, you can get hold of her and get hold of that if you if you're interested in implementing that in your own teaching. But she also, with some of the classes in her study, asked the teacher to, you know, stand away get out of the way since the website is wasn't designed in particularly for classroom use, it was just designed for people to learn more about, you know, how to make music electronically. So yeah, and then the other. So in the other. One of the other cohorts, the teacher gets out of the way. And we see what students make of it when they can work at their own pace through it. And then finally, she's got a another group of students who are at home who are self motivated. So these have to be students who say, you know, I'm, I'm interested in this, I want to be able to make electronic music, and then they go away and work at their own speed. So yes, she's, she's finished collecting data for this study now, and she's in the middle of analyzing it. And so we'll know all sorts of interesting things in the in the near future. But when she was a mere undergraduate, she took my technology and music education course. And she created an amazing music machine, or several amazing music machines that used Arduino processes. Remember, one you blew down and a little paddle went around. And so it sort of had a wind control a bit for a computer. And it was all built as part of a team project for technology and music education. So she's she's a bit of an authority on this subject. And she wrote a beautiful paragraph about it for something I was, like I say I'm, I'm going back to the vault here a couple of years because these are materials that I had ready for the last season. Anyway, here is here's Caitlin's his Caitlin's bid, which will just give you a little bit of full academic background on the Maker Movement

R Rowena Stewart 05:19

Hello, but the difficulties faced in integrating technology and music education in mind. Exploring the maker movement in the context of the classroom and education more broadly becomes worthwhile, albeit anecdotal, which encapsulates the ethos of the maker movement, his opening chapter effectively outlining the key features of the movement as making, sharing, giving and learning, while emphasizing the act of creating as a fundamental, unnecessary human experience. The broad definition of the maker movement, a philosophy that encourages the physical making and sharing of creative projects, as well as the emphasis on individuality in this culture means that it manifests itself in various forms. In practice, this movement involves communities of hobbyists, tinkerers, engineers, hackers and artists who design problem solve and create in both formal and informal settings, sharing their physical and digital projects that blur the boundaries of technology and science, craft and art, online and at events worldwide. There are clear potential educational implications of the maker movement, most significantly ideas of individual agency and actor creativity valued in the process of making a merit and current learner centric pedagogies theories of active knowledge construction, and learning through play. However, while these pedagogical philosophies of constructivism and constructionism are present in education more broadly, the specific processes and ways of thinking behind making have been widely connected to Principles of Engineering and Design explored specifically in STEM subjects. As Martin 2015 observes, a growing alignment between the principles of making and current educational standards exists, with increased value being placed on identifying problems and creating solutions, as well as increased student autonomy through individual agency. Furthermore, the demonstration of maker principles in a juvenile prison facility in stagger 2013, while not a traditional educational context is indicative of the educational potential to transform students into active learners. In addition to developing academic skills and fostering engagement. Halverson and shared in 2014 support the notion of

the transformational power of the maker movement in education, recognizing a disconnect between learning in formal and informal contexts, further suggesting that the learning that occurs in informal mega settings can transform what counts as learning in formal education. Similarly, Cohen 2017 recognizes the need for careful consideration and applying the maker movement in formal education, proposing a practical framework for this integration that emphasizes the maker mindset and community rather than the tools to address deliberate learning objectives. However, the nature of the core elements of the maker movement, creation, iteration sharing and autonomy, challenge the traditional modes of instruction and assessment due to the lack of strict correctness in creative projects. The practical solutions offered in the framework include broader ideas that focus on students demonstrating learning objectives and skills, including the deconstruction and reconstruction of knowledge, analysis and evaluation of multiple designs and iterations and regular peer feedback, as well as student choice in determining project parameters and definitions of success.

James Humberstone 08:31

Fantastic, well, a big thanks to Caitlin for her analysis of what's going on there. It certainly sounds as I would say, totes, creative totes constructivist, all about student centered learning and making and doing so I've been interested in this idea for music education. So it's not particularly new in education more broadly, lots of schools have got behind this idea. But I have been really interested in it for music education for a number of reasons, one of which, and there'll be discussed in the in the upcoming second interview we've got here in the podcast today. But you know, the big one being that music education, we are constantly advocating for music education, aren't we and, you know, pushing for our corner in all different kinds of ways enough time in the classroom, to be able to run ensembles to be taken as seriously as other subjects and to get funding for expensive things like instruments.

James Humberstone 09:35

But it seemed to me that when the whole, you know, education movement, this big, this big direction towards this way of learning had suddenly become very important and lots and lots of government people talking about STEM this and stem that, that there might be funding for this kind of thing and why shouldn't music be involved? After all, music is kind As part of so many things in life outside school, isn't it you think about how many experiences you have during your day going to a sporting event going to the shops, spending time relaxing on your own, where music isn't involved in some way. And so I think that maybe we should put the music back in a few things in schools. And maybe if there are setups at schools for making things, why wouldn't we be making instruments and making computers to make music and so on, and so forth. So in my course, technology, and music education over the last four or five years, I've been lucky enough to work with an absolutely inspirational computer programmer. And she'll give you a little bit of background about why she was interested to come and work with me in the music area. Her name is Rowena Stewart. And she when I met her, she was working professionally as a computer programmer.

James Humberstone 11:02

But also volunteering, teaching and was interested in doing more teaching things. She'll talk a little bit about the girls programming network in here, which is a charity that she was involved

in, and has been involved in for absolutely years. It's a charity which encourages girls and gender diverse young people to get into programming. But as you'll hear, that's not all they do. It's pretty amazing organization, and Jiro in Arizona as an amazing person who volunteers lots of time to that kind of thing. Now, as I say, This interview is several years old now. So there are a few things that are a little bit out of date, probably including where the girls programming network is at, at the moment, but also where Rowena has career is up, because I know she's been busy retraining as an instructional designer, instructor herself. And I think this is this year coming is going to be the first year that we don't actually have her teaching into technology in music education, at the con. So that's, that's very sad. In this particular year, though, Rowena was, was this is either the first or the second time she came, did it, I can't remember. But she was teaching the program, Sonic Pi. And she's the first part of our conversation, we talk about that a lot. Now, if you don't know anything about that at all, I would say this is a good time to pause the podcast, and go and watch. There is a good TED talk on Sonic Pi, or just go to Sonic PI's website and have a look, if you Google that P P, PI is spelt P ai, as in the Greek letter. And you're basically it's a programming language for music. So you learn how to program code, and out pops sound. And that's that's probably enough. But yeah, it would be easy for you, for you for you to understand by seeing one of the many, many, many fantastic demos online before you before you have listened to our conversation about that. But in the following interview, I asked Rowena, about her background about how she became to be interested in Sonic Pi. And generally, these ideas of maker in the making movement in music and where that crossover might be. And in addition to that, I also want to mention that in the years since because this is a historical interview that I hadn't got around to putting in the in the podcast series, I want to mention that she has actually gone off in all sorts of directions over the years since she did this. So we didn't even look at Sonic pie at all the last couple of years. And this year, we had lots of Play Doh around the room and a little computer called the Makey Makey. And students were learning to program in Scratch, which you've probably heard of, well, at least there's a good chance you've heard of it, because it's very popular free, graphical programming environment from MIT. And so the students were programming in that, but they were connecting that their program to the real world, and making Makey Makey playdough xylophones. So maybe that's something that I will take on and teach myself this year. But yet, we've had so much fun working with Rowena over the years and ruiner of your listening. Thank you very much for all of the work and the time that you gave and all the care that you've given to students working on their projects as well. I should mention that, Caitlin when she did her project had help from Rowena. So yeah, here is this, this interview that I should have published a few years ago, but I think it's still very interesting. And I'll see you again at the end.

James Humberstone 15:07
Welcome to Music Zettel

Rowena Stewart 15:09
Thank you for having me.

James Humberstone 15:13
So you've just taught my undergraduates, and I would imagine that a bunch of 20 Somethings who are classically trained musicians is quite unusual for your usual teaching experiences

Rowena Stewart 15:24

Yeah. So I usually teach upper primary or high school students. So yes, very different. Yeah.

James Humberstone 15:35

The first group were had lots of questions, and were quite chatty. And the second group actually managed to keep up with you and looked a little bit blown away. I was

Rowena Stewart 15:43

very surprised. So I wasn't expecting everyone to be typing along with me. That's why I had the cheat sheet with all the code snippets in there it was so that they could copy paste afterwards and actually focus on trying to understand the code as I was going through it.

James Humberstone 16:02

Yeah. There you go. Yeah, they did. I'm not surprised at all, because we told them to install it beforehand. So they were hands on. So I'm, let's start off on a little bit of history. Like, why do you like Sonic pie?

Rowena Stewart 16:23

It's cool. But I'm guessing you want to talk about what I mentioned at the start of that class.

James Humberstone 16:29

So what you mentioned, you started a class.

Rowena Stewart 16:32

So I actually studied piano through the Konservatorium open Academy, from way back when this current building was being renovated. So we're actually learning from the tech Park in Redfern. And I was probably a terrible student, I hated practicing. And my parents actually had to convince me to practice and go to lessons each week. So I did that until grade one, piano grade six, and I think I was in Year 10, at the time, and then HSC was starting next year. So I thought, maybe give it a break. And once I've gone through uni and started working, I started to appreciate music again. And my piano was had become furniture. So I hadn't touched it for five years. And it was now out of tune. And I thought, what's a way that I can get back into

music? So as a software developer programmer, I was teaching with Code Club Australia at the time, and we did a lesson using their Sonic Play content. And I saw that as my way back into music. Cool.

James Humberstone 17:45

So did you were you kind of falling in love with programming or, or moving towards that new career at the same time, you were falling out of love with playing having to play the bloody piano? No,

Rowena Stewart 17:58

I didn't start computer science or programming until first year university.

James Humberstone 18:02

Oh, really? Yeah. Okay, so how did that happen?

Rowena Stewart 18:09

I've been one of those people who doesn't, who never really knew what they wanted to do. And by process of elimination, when I had to put the courses on my UX home for university, I looked at the directory structures, I knew that it would be something in science or engineering. So both my parents are scientists, and that's kind of something that I've grown up with. And I looked at the degree structures and the computer science degree at the University of Sydney, had a very flexible structure. So I've always been really interested in natural languages, and I wanted to study linguistics and languages. And I saw computer science as a way that would allow me to do everything that I wanted, because it allowed for electives from any faculty in the university. So I use my free electives to do a couple of linguistics courses.

James Humberstone 19:03

Wow. Look at undo. Have you found ways of applying that in your programming career?

Rowena Stewart 19:10

Not directly, but programming languages and natural languages are both languages. So they've both got syntax, they've both got vocabulary, and I guess it's just humans are better at understanding errors and nuances in language, whereas a computer if you get one thing wrong, it throws an error. So I don't have anything off the top of my head at the moment, but I have drawn some parallels between spoken languages and computer languages. Okay, record

James Humberstone 19:47

James Humberstone 19:47

and tell us we're going to come back to the music in a second but tell us first because you were just saying to me what does the teachers day look like or week look like? What does it what does the program has day or week look like?

Rowena Stewart 19:58

Um, Surprisingly enough, we actually do talk to other people. Yeah, everyone has the stereotype that programmers hide in a hole and Dungeon somewhere and don't see daylight and sit behind a screen all day. We're actually quite collaborative. So we'll start off the day with what we call a stand up meeting. Which is to make sure everyone's on track with for the rest of the day, it's also a opportunity for everyone to call out major blockers. And then the project manager, project managers in the team will do what they can to help you unblock those blockers, whether it's you need to talk to someone you need special assistance from someone else. They'll manage that, and then start coding. Well, in the startup, we'll talk about what tasks we're going to do for that day. So it's also a little bit of planning your day out. And then that's just coding. As soon as you get a problem, you call your friend over back. Hey, can you can you have a look at this for me, because I've been looking at it for half an hour, and I can't see the issue. There'll be something as simple as you've mistyped something. So I'm not sure there's more else I can talk about, I

James Humberstone 21:15

have to say, I wish that the day of an academic or a school teacher was as structured as starting up with us. So with a stand up meeting and sharing our blockers, I think we do that over the over the tea making, but it's not quite as well structured. Cool. So I think we can assume that people who listen to my podcast know lots and lots about music, education, but don't know very much about coding. I think that many of us, because if they're listening to the podcast, we're also going to assume that they're fairly, you know, progressive, they're interested in new things, because that's what the podcast is about. So they would get the idea that kids need to learn programming, and that there are tons of really cool things just about doing programming as a completely separate thing. But I think a lot of them will be saying, Yeah, but why programming in music?

Rowena Stewart 22:05

I mean, stems a big thing at the moment. And this is a way in. So a lot of them through the teaching that I've done, I've learned about the new digital technologies curriculum, which is been introduced to New South Wales for the first time this year, all the other states have been teaching it for a couple of years now. And it's all about teaching computer science concepts and programming to students. And one of the ways of getting through all of that content, as well as everything else that teach us to study, teach, sorry, is through something called CS plus x. So it's combining computer science with other aspects of education. Whether it's history, technology, I mean, history, geography, arts, things like that. So I guess, the government is trying to alter the world in general is trying to say that technology is the future STEM is the future. I mean, AI is the next generation. So understanding how computers work, and knowing

computer science concepts, is really useful for everyone and anyone, because I feel that it will be important for future jobs to keep progressing in the future. Why music in particular? Not sure. Yeah. Think about

James Humberstone 23:39

it. That's honest. I mean, look, I'll jump in right, you have a think? I would say that. One of the things we know about about music, and I think I've probably mentioned the, the youth music, Ipsos MORI report that came out of the UK this year in my podcasts before, but if I haven't, check it out listeners, in which they noted that over the last 13 years, the number of kids who are making music, and by making we don't just mean listening to we mean actually performing or composing, producing whatever has doubled from 33%, about one in 31, and three, to around two thirds, you know, I think kind of remember that 66 or 67% of students have kids. And that is in the corresponding time since we got YouTube and social media, you know, like Facebook and stuff. So it seems to me that kids are actually incredibly motivated to make music and to make music with technology. I think the great majority of those new and extra young people making music and this is outside school in the UK, you know, this isn't even or at least for a lot of them. It's not within the system, because we know that the system only retains between five and 10% and that's in most countries. So to me why programming in the music classroom is all about engagement and the intrinsic motivation that that that students bring in I don't know if that rings true to you at all.

Rowena Stewart 25:03

But I'm not sure. Yeah, music. So I don't really have anything, dad. But one thing I've thought of is possibly cost. So, musical instruments are expensive. But, you know, I brought in a Raspberry Pi today that's a little computer that costs $50. What instrument can you buy for $50? That isn't a recorder. So, and a lot of schools might already have that in the classroom already. So it's using available resources. Yes,

James Humberstone 25:32

yes. Or there might be a pile of old PCs that people assume can't be used because they're too slow. And you might be able to run this on that. My first thing that I loved Sonic Pi, as soon as I saw it, because as a teenager, I taught myself to program in fact, even preteen, I taught myself, I did a lot of programming, but then being a composer has kind of took over for me. And I've always wanted to go back to programming. So I loved it immediately and enjoyed it. I did feel however, that there's a little bit of a step where the coding seems to be taking up a disproportionate amount of time over the music making. But now you've done as much stuff as you've done in it. Maybe some of which is playing as our Background Music in this episode, do you feel like you are equally coding and making music at once once you've got a little bit proficient? I

Rowena Stewart 26:27

feel like you definitely are. I mean, it's coding is the only way that you can make music with Sonic Pi. I mean, you can bring in samples. From other instruments, like you can record another

Sonic Pi. I mean, you can bring in samples. From other instruments, like you can record another instrument and bring it in as samples, but it's still to get the music to play. You're still writing code, even though it doesn't seem like much, maybe one or two words. It's still coding.

James Humberstone 26:54

And that becomes pretty quick and intuitive. Once you've been doing it for a while. Definitely,

Rowena Stewart 27:00

I mean, if you I, I haven't done anything fancy with it. So I've been sticking to a lot of the basics, but even still, there's so much more that I can learn. And one thing that I found really useful with Sonic part is the inbuilt tutorial. So in the actual screen that you see, when you open up, there's a Help section. And it's full of tutorials with examples and everything. So even if you feel a bit daunted by this concept of programming, what is it? How do I do things? There's a lot of help around to help you get started. Yeah.

James Humberstone 27:36

So we went pretty fast. Today, as you said, with you were quite surprised and impressed that some of the students managed to stick along, do you want to just tell the listeners, what you covered for an adult group and how that compares to what you might do with some young kids.

Rowena Stewart 27:53

So I'll start off with what I do better, which is talking about the young kids. Okay, so with my students, I will go through the material that CCO club Australia has, so they don't focus on one topic. We start off with doing drum beats. So make you do an intro and then you've got a couple of loops, like drum loops, and then you've got an ultra. They, I mean, you've got six sessions, six one hour sessions. So you can actually cover a little bit over the six sessions. Whereas today, I had one hour to cover all the cool stuff that Sonic Pi can do. So I tried to cover a little bit of that as well, everything we definitely do not cover the OSC stuff with the kids, because that requires an external device. But what I covered today, right, take your motor, yeah, we started off with playing notes. So playing one note, simple notes. Showing that you can use MIDI notes as well as musical notation. So you can actually tell it to play a C or C sharp and then multiple notes. So intervals playing two notes at the same time playing two notes with asleep in between. So one note after the other. And then I went on to playing multiple notes. So chords scales, too, turning chords into a picture. So playing each note of the chord one after the other, you get in that picture.

James Humberstone 29:42

What else did I do? And each one of these things just for the benefit of the listeners who didn't get to watch you do it basically involved learning a little bit more code and where to put that code because of course if you have doesn't help just to learn the little term if you don't put it in

the right place, it doesn't work.

R Rowena Stewart 30:00

And then your answers of where to put spaces and semicolons and commas and things like that. That's I mean, that's, that's something you learn as you go. What else did I do? Playing samples. So using an existing samples, but also bringing in your own samples, which you might have pre recorded and that file sitting on your computer. I briefly covered since synthesizers, just how to use them. And then loops. So live loops, and regular loops, though the pieces of code that will just keep going on and on forever. So they're really good for using his background. Maybe like a guitar motif? Yeah, like a riff. Yeah, that way. And then as the last thing, I showed the LSA connections, that open sound control protocol, it's similar to MIDI, I connect to it from my phone. So my phone app has got a slider and a couple of buttons. And I use the slider to change the notes. But you can also use that to change the amplitude or the volume. And then you can also use that to fire off specific samples at certain times. So it's like manual control.

James Humberstone 31:21

Yeah. Yeah, I've had this, I've had this sort of theory about, you know, I'm very, I'm really interested in the idea of group, electronic music making. I've really, I've really enjoyed studying both sort of practically as somebody who sort of been relearning production since I first started it in the 1980s. But also, theoretically, through, you know, literature on how the modern producer makes music. And I've, I've been really interested in this idea that I think quite often in composition, you know, Western art, music composition, but just generally, the way we teach writing music in schools, it's all about, you know, getting the exact musical idea and then writing it down in notation, or even if you're working on a computer, getting it down as MIDI, and it's all very kind of fixed. And the idea that for the modern music producer, you know, you hit play before you do anything before there's anything in there. And then it's looping and cycling around. And you know, in a program like Ableton, you might just be developing and duplicating, duplicating and then developing a bit more and duplicating a bit more, you might actually be, we've been lucky to have some amazing guest speakers in here who talked about the fact that they start working on, you know, the production, adding effects and mixing and things very early on in the songwriting process, whereas in the sort of old linear process that used to come later. And I love this idea as well. In in the world of just coding and music making for young people, and I set up a thing using a big Ableton thing with a bunch of different devices using OSC and Luma. Do you know that one not heard of that? Yeah. Anyways, so it runs a hosting thing, which meant that I could have like, say, 14 Wireless inputs to one MIDI session, that was all in sync. And Ableton have got a protocol that allows you to do that much easier now, but to allow everyone to be making music at once from a different device, and all in sync. Yeah, sorry. I'm just ranting about stuff that excites me.

R Rowena Stewart 33:29

No. It's all really interesting, useful. But I was just thinking another way that you could use Sonic Pi is to, you mentioned earlier about riffs, you could actually record a guitar riff have that playing in the background, and then you can have acoustic instruments on top of that. So

rather than having a teacher in there with a guitar, you could have that playing in the background and everyone can be on xylophones voice capping sticks or something like that. Yeah. You can combine electronic and acoustic Yeah, in one. Yeah. Okay.

James Humberstone 34:05

Excellent. I want you to tell us a bit about the girls programming network. Which isn't necessarily to do with Sonic Pi. But I'm just interested what you've been doing what what is that group and what's your role?

Rowena Stewart 34:25

That was ghost programming network is started out of the University of Sydney, as a way to encourage young girls to pursue careers in STEM. It's not necessarily being a coder, but it's for girls who want who really like tech, to come together and see how many other girls like tech, because often they're the only girl in the class of boys at the after school club and they feel a little bit left out and there's no one else like them. So this is an opportunity for them to see that there are hundreds of us Other girls who are also interested in tech, and I believe friendships have been made in those groups. Sometimes students will come and really enjoy it and bring their friends next time. So we're now all over Australia. We've got nodes in Cannes, Adelaide, we might be starting up one in Melbourne next year. There's one in Perth. So the weekend workshops, full day nine to 10 to four. And we'll have a topic, not the topic or product at the end. So we'll do something like Tic Tac Toe, we've done. What else have we done some sort of game we did a Flappy Bird one. It's on a programming language called Python. And my role as a tutor is to effectively go around and help students. So I structured in the way that we've got a little bit of lectures and a little bit of coding, a little bit more lectures and a little bit of coding. So slowly builds up something that they can take home at the end of the day. And it's designed in a way that if they don't finish everything in the workbook, they still have something that works and they can take home and show their parents cool. So after lunch, we've got a little bit of activities, mostly to get kids to run around. So I do something called computer this computing activities, or CS Unplugged. So it's teaching computer science concepts, without actually having a physical computer in front of you. It often involves a lot of paper and drawing chalk on the ground and things like that. But it's also something physical and hopefully allows this girls to relate to what they're learning about in the code better. And then for the 10 to 12 students will have something called mentor hands, which is talking about university HSC career progression. So it's, it's a time where they're actually thinking about what they're going to be studying. And that's where we talk about, you don't need to be the best at maths to go into computer science. You don't need to if you're really into tech, programming is not the only option for you. computer science and programming concepts can be applied in almost any career field, including music. So sometimes they really liked music, but they also want to card that's curious for them, or they want to work at a tech company, but not necessarily programs. So there's things like designers like graphic design, designing websites and the layout of it, or that's project management. There's tons of stuff that they can do. So it's getting students who have just thought about those kinds of things, as well as seasoned industry mentors, who are the tutors to come and talk to the girls about that. Yeah,

James Humberstone 38:11

right. And the network. So you have these weekends, but is there something sort of ongoing between the events, how many events you have per year, like online? Or do they just all hang out on Facebook? In between?

Rowena Stewart 38:26

We do have a Facebook page and a Google group for the tutors. But there's no, there's no like, there's no social events. And

James Humberstone 38:38

this sounds so lame music camp or, like I grew up playing in County Youth Orchestra, I guess here it would probably be state orchestra. Yeah, it's all the same kind of thing.

Rowena Stewart 38:47

Occasionally

James Humberstone 38:48
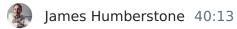
intensives

Rowena Stewart 38:49

occasionally, we'll have what we call hackathons. But that's about the time where we need to make content for the next one. So it's really just a content creation slash ideas get together camp. Just for the tutors. There's no students around. Yeah.

James Humberstone 39:04

So do you have anything else that you want us to talk about? Or you just want to say and I'll, for me to work in some way? Because I didn't ask you the right question.

Rowena Stewart 39:19

I'm just gonna say that Sonic Pi, it's really cool. And I am sort of on a mission to get more people aware of it in Australia. So it's a really big thing in the UK. Sam, our the Creator does live performances. He's done a couple of conferences in Australia, but his main moneymaker is gigging. So there's a pinned tweet on his Twitter page of him with a full orchestra in something like the Opera House. And I think that's pretty cool. But I don't do any of that cool stuff. I'm more on the small scale, creating little short snippets. But it is a big thing and I want more people to know about it and use it. Great.

James Humberstone 40:13

Well, thank you for sharing it with our 27 undergraduates today but also thanks for coming on music settle and telling another hopefully 1000s So listeners

R **Rowena Stewart** 40:26

about it here. My pleasure. Be happy to come again if you need me next year.

James Humberstone 40:31

Be careful what you wish for because you might get it. Awesome.

Z **ZoÃ« Humberstone** 40:49

Music Zettel was written, presented and produced by James Humberstone.

40:56

Music in this episode was composed by James Humberstone