



## “Paula Buchanan: An American Girl” Season 2: Episode 2

- Announcer:** Welcome to Stayin' Alive in Technology, a series of conversations with Silicon Valley veterans, touching on war stories from the past and practical advice for today. And now, here's your host, Melinda Byerley, founding partner of Timeshare CMO.
- Melinda Byerley:** I invited Paula Buchanan on this podcast at the suggestion of a mutual friend of ours. I specifically put out the call for people of color, and especially for women of color, because I truly believe that their stories have not been heard, partially because there aren't enough of them in Silicon Valley, but also because their stories have not been emphasized. I had a lovely conversation with Paula, which isn't about being a woman of color in tech, frankly it's all about just sort of her experience in her life. She is a researcher with years of experience in government, non-profit, and corporate sectors.
- Melinda Byerley:** She's an independent consultant right now, and she provides consulting services for data analytics and visualization techniques. She's a self-proclaimed data nerd, passionate about the effective communication of data analysis. She's got a Bachelor's degree in biology, and a BA degree in history with a minor in economics from Tulane. She was a Master's degree in public health and business administration. So we are both sort of visual analytics nerds, but I was especially interested in how she came to her decision not to work in a lab, but to focus on helping scientists accomplish what they need to do by better understanding data, particularly in the public health system.
- Melinda Byerley:** She focuses on the design of user friendly health information systems, on the impact of health information systems, and how technophobia in user communities impacts their use of health information services. So for those of us in tech who think, well, what's wrong with the health system, and couldn't we just fix it out her in Silicon Valley? I think Paula's story is a really interesting one, because it helps us understand that we can't solve the problems without understanding sort of why they were created in the first place. I called her episode American Girl, because she grew up in the Midwest like I did, before moving to Tulane, and now she's in Atlanta.
- Melinda Byerley:** You'll see that she had some great themes in her podcast about evolution, which is fascinating because of her background as a biologist. Sort of how she grew and became a lifelong learner, and how evolution has applied to her career as well. She's very interested in the citizen's science movement. Then



also, she's got some great pictures of herself as a child with all of her computers and Apple toys. So please, you should check out the show notes for more fun images. Thanks again, and as always, here's my plea to leave us a review at iTunes and Google Play. Enjoy.

Melinda Byerley: Welcome to the Stayin' Alive in Tech podcast. My guest today is Paula Buchanan, and she's a researcher with years of experience in government, non-profit and corporate sectors. She's an independent consultant based in Atlanta, Georgia, and provides consulting services in the areas of data analytics and visualization techniques. She is a self-proclaimed data nerd, so she's one of my people. And she is passionate about the effective communication of data analysis to targeted audiences.

Melinda Byerley: In particular, Paula really focuses in the healthcare sector, and that's because she has a Bachelor of Science degree in biology, and a Bachelor of Arts degree in history with a minor in economics from Tulane University. Which sort of blows us all away, puts us all to shame. Then she went on to get a Master's degree in public health and business administration, and she has of course a plethora of professional certifications. I'm looking forward to learning from you today, Paula.

Paula Buchanan: Hi, good morning and good afternoon, depending on what coast you're on.

Melinda Byerley: It is 9:00 AM on the west coast, and noon on the east coast. So we are bi-coastal today. Paula, thanks for joining us today, and I am excited to talk to you a little bit about the evolution of your career, to sort of coin a phrase from biology.

Paula Buchanan: Great. When I was thinking about what I would talk about, I thought well what would be the most interesting part of my life, which as a lot of my friends say, has been all over the place. The first thing I thought of was my parents. One of the interesting or nerdy things about me is I read at age two. I started reading newspapers by age two. And I thought that was normal until I got to junior high school. So I thought, what was it about the way that I was raised that made it so I was reading at age two, which I think is a little earlier than a lot of people.

Melinda Byerley: What do you think it was?

Paula Buchanan: It was my parents. They both worked, both of my grandmothers as I aged would take care of me during the day. They would just fly out to where we lived, my mom and dad both worked out of the household. My mother worked during the day, my dad worked shift work, so he would work other times. One of them was always with me, and one thing that I always did was read with them, or at least listen to them read. Every night before I went to bed, somebody, either my mom or my dad, read me a bedtime story. And not only did they read it to me,

they actually went along and put their finger on the lines of the sentences so I could follow along.

Melinda Byerley: Our parents must have gone to the same parenting school.

Paula Buchanan: It's the Midwestern gene. I don't know what it is. That's what Midwesterners do. I don't know if the other people on the coast do that, but definitely I think it's a Midwestern thing.

Melinda Byerley: Paula, do you remember the first time you put your hands on a computer?

Paula Buchanan: That's actually a really interesting story too. So it's like you're almost reading some stuff from my mind. You're just so powerful as an interviewer. I don't remember the first, but I remember the first one I had at home. I started off on Apples, the earliest ones. I had one of the first, to this day, the first "Apple laptops." It was actually this massive thing that looked like a keyboard with like a big slot for the floppy, yes, the floppy. I think somewhere in my house I still have it. And I probably shouldn't mention that because people will probably be hitting me up on social media asking for it. It is not for sale.

Paula Buchanan: But I think I even have the, there was like a glossy manual that went with it too. The picture was so interesting, because talking about being a woman and being in tech, they actually had, and this was in the '70s, so I'm dating myself, or maybe it was the early '80s, I can't remember which one. But the picture was a girl with a laptop. She had a bag, and she was pulling this monstrosity of a first generation Apple laptop out of this bag. And just thought, wow, that's going to be me.

Melinda Byerley: You ended up going to Tulane, and studying science, particularly biology, and dual majoring in history and economics. Why don't you talk a little bit about starting at Tulane, and how you made the decision to major and minor in what you did.

Paula Buchanan: Again, going back to being fortunate enough to go to a really good high school, I got very lucky. We also had a really good guidance counselor. All the schools would come to us. They would actually come to us and give their little spiels. It was just something about Tulane I liked, and I think it was because, and again going back to the thing of looking at glossy handouts, they said that the school had people from everywhere. And I thought that would be interesting. The joke in their materials was, we have someone from every continent in the world, except for Antarctica, because there's not really people there. And I thought, I would love that. We visited Tulane, I loved the culture. I did not like the humidity, but I got used to it.



- Melinda Byerley: So while you were at Tulane, you majored in biology. Did you take a computer science course while you were there? Or how did you, basically how did you kind of make that journey where you started merging science and technology together?
- Paula Buchanan: That was probably far after my Tulane career, far, far after.
- Melinda Byerley: That's good, so that's the theme of this episode, which is evolution. So you were pretty hard core science?
- Paula Buchanan: Yes, and then I just realized I didn't want to be, as we call it, a bin scientist under a hood all day, not like under a scientific hood. It didn't really appeal to me, so then I started looking at what the lab managers were doing, and that really interested me more. And then I got some jobs in the healthcare sector. I just always was decent, I'm not going to say great, but decent with computers.
- Paula Buchanan: Whenever I'd start a new job, for example, when I moved to DC, people didn't think I was in the grants department, they thought I was the IT person because I was just showing people how to use their computers and the software. It's just something I did. It's kind of that Tulane thing, hey, it looks like you can't figure out whether to right or left click on your mouse. Let me help you. And it's just something I did.
- Melinda Byerley: That's amazing, and similar to my own journey too. I always joke that we're like sisters from another mother, because I started out my career too in tech. Ended up, I was a secretary, and I was the one in the office who knew how to use computers. So I was teaching people how to use a mouse, and a printer. Yeah, and it just sort of went from there. I think it's important for younger people to understand that a lot of us of a certain age, you didn't major in computer science. It was very rare. So a lot of us sort of found our way into this profession as the profession has evolved.
- Paula Buchanan: I joined, President Bill Clinton started the Corporation for National Service, and there was a branch of the Corporation for National Service that was opening up in New Orleans. It was going to be the first year of the AmeriCorps program. And I decided to go out on a limb and try it.
- Melinda Byerley: And what are you doing with AmeriCorps at this time?
- Paula Buchanan: Our AmeriCorps group was split into six different teams. Because I was incredibly educated with all these fancy degrees, and whatever you want to call them, they put me on the education team. So we had two different teams that were based on education, and we served as teaching assistants in New Orleans public schools, which if you love New Orleans, you realize that NOPS is really

struggling. That's why we had two teams for that. Then we had one team that was a housing team that worked with Habitat for Humanity.

Melinda Byerley: And this is pre-Katrina, so this even before it happened.

Paula Buchanan: Yeah, way pre-Katrina. Then we had one team that worked on the wetlands, which is the team I really wanted to work on. I also wanted to work on the housing team, because I didn't really know how to use a hammer that well. Again, that lifelong learning. I didn't want to be on the education team. I already knew how to teach and do that, so I wanted to do something different. Then we had one team that worked on community gardens. Then forgive me all my fellow New Orleans youth action corps [inaudible 00:12:02] out there, I cannot remember what the other team was. But we basically did a whole bunch of different community improvement projects around the city.

Melinda Byerley: Did that lead into your next role? What happened there?

Paula Buchanan: That actually was interesting because, when you are in the America program, you just complete X number of service hours to then get money that you can use for school. So once you reach those hours, then you basically are done. I reached my hours about two months early, and I thought, you know, I've done it. I've done all this, why don't I go do something else? So my boss said, yeah, we'd love to have you around two more months, but you know you're not getting paid anything, because you basically make less than minimum wage per hour. So I thought, okay, well let me go and do something else.

Paula Buchanan: Since I did have the science background, I worked for Healthcare for the Homeless for a while. I really enjoyed that, great people. I don't even know if they're still in existence, but they provided such good services to the community. It was kind of a perfect combination of "volunteer community service" and also doing healthcare. And then that's what got me interested in public health in general, and also business a little bit in the form of project management.

Melinda Byerley: How did you get into doing, what are the big problems that you were trying to solve that sort of led you into visual analytics for health?

Paula Buchanan: That again, was kind of doing the computer stuff on the side. Like I was saying earlier, I think a lot of times in healthcare, we're the Google Glass people. Like well, Google Glass is awesome, but no one else likes it anymore. And I think I just realized, looking at all of this research that gets done in academia, it's ground breaking research, it could take years, decades to do. But then, as one of my professors is famous for saying, "So what?"

Paula Buchanan: You've done all this stuff, you found these interesting results, you're going to have this wonky professor who is going to turn his back to the crowd and put histograms, which are actually relatively easy to understand, or box and whisker plots, which to this day I think are one of the worst visualizations ever. You look at them, and you're like, okay, let me go back to my statistics course. Okay, what's the upper quartile? Where's the, you know, you have to actually think about what the visualization is telling you, which is not helpful.

Paula Buchanan: And I just realized, they're doing all this really great stuff, but no one understands it. No one understands it. And I thought, you know, I'm not going to be that. Number one, I don't want to be talking all this fancy language that people don't understand. I don't want to show off how "smart" I think I am. That's just stupid. If I do something that's going to help healthcare, why would I target what I'm doing to the academics? They already get it. Put that paper out there, they'll sit there on a Saturday night and read it. But what about everyone else who's supposed to be helped by it? What can you do?

Paula Buchanan: And I think that's when I got into data visualization or visual analytics. How can I make this so, I think it's called the Flame Challenge. How can I explain fire to a fourth grader? How can I explain the importance of prevention versus treatment to a grandmother who might just have a GED or a high school diploma? How do I make it so what I'm researching can help people not just by my kind of taking a more maternalistic view, but how can I empower them to help themselves? And I thought that visual analytics would be a great way to do that.

Melinda Byerley: I don't want to read into, this is a bad interviewer question. Anybody listening out there an interviewer, don't do it this way. It seems like that there's this, you're very intelligent, you're driven, you're going to school, you're getting degrees in science. And then you start working with the community, and it seems like that's when you really evolve sort of beyond learning for its own sake into why am I learning this and what is my purpose?

Paula Buchanan: That sounds so much loftier than what I was doing.

Melinda Byerley: But in hindsight, the saying goes, you can only connect the dots in hindsight, right?

Paula Buchanan: Yes.

Melinda Byerley: But it sounds like, I could be leading you, that's why I say it's a bad question. If I asked you how it impacted you, working with the community, did it change you? Or do you feel that when you went into AmeriCorps sort of who you were was already there? How did that affect you in terms of your decision to focus in the area of visual analytics in healthcare?



- Paula Buchanan: Well, I think for me, going back to what I first said about learning to read at two, which like I said is very atypical. Because I have, and I'm going to call myself on this, there's something called unearned privilege, and a lot of people have it. And I definitely had it growing up. And I think for me, I thought-
- Melinda Byerley: Hold on a second. I think it's worth explaining what unearned privilege is, especially from a woman of color. I think it would surprise a lot of white people like me to hear you say that. So talk about that for a second, just for people who don't know what it is.
- Paula Buchanan: So unearned privilege, and I could Wikipedia it, but I'm just going to use it through my brain. That was like a joke. Unearned privilege is having something not because you earned it, but you're born into it for whatever reason. A lot of people talk about unearned privilege or white people, unearned privilege of being a white male, or being a white person, or the unearned privilege of being born in the United States. As a woman of color, as a black woman, I also experience I guess, and for some people could be surprising, I experienced a lot of unearned privileges.
- Paula Buchanan: Both of my parents were really hard working, so I got the work ethic from them. My mom was college educated, and all of her siblings were. So I knew I was going to college. I didn't even have to think about well why do it. It was like my mom said, you're going to college. You can major in whatever you want, you can go wherever, but it's just something you have to do. I didn't even second guess that. So I had the unearned privilege of having two parents pushing me to go to college. I had the unearned privilege of growing up in a really nice house, it wasn't fancy, but I had my own bedroom.
- Paula Buchanan: I had the unearned privilege of going to a really good private school, for various private schools almost all my life. So all of those things are total unearned privilege. And I do think a lot of times people do, because there are so many people of color, especially black people, who just struggle to maybe get to the point I was when I could just go the college. But there's a lot of black people who have unearned privilege, and they're not like the Will Smiths or the-
- Melinda Byerley: The LeBron Jameses.
- Paula Buchanan: The LeBron Jameses.
- Melinda Byerley: Although we could argue that he's earned it.
- Paula Buchanan: Yeah, he's definitely earned it, definitely. But yeah, I guess I am a part of the ever-shrinking middle class in the sense that I did have the unearned privilege of I didn't work my way to get to this point. I was born being middle class.



- Melinda Byerley: So going back to your experience in AmeriCorps then, you mentioned the unearned privilege, you went into it kind of unaware of that unearned privilege would you say?
- Paula Buchanan: I knew that, when I was growing up, I didn't think we were poor, but I knew that there were a lot more people who had more than what we had. And never have been very competitive, it's just some people had more, some people had less, and some people had less than that. When I was in AmeriCorps, we were 80 people, and I think maybe eight of us had a college degree. We had a couple girls who were in the Corps who were in their early 20's, late teens, already had two or three children. And I think for me, not growing up around that, it was a little bit of an eye opener, and it made me have more perspective.
- Melinda Byerley: So the AmeriCorps program sort of opened your eyes. By the way, I think it's also not uncommon for us as young people, until you sort of leave your experience, how do you know how anyone else, it takes a while to learn to see the world through other people's eyes. I don't know that we're necessarily born, because you only know your own experience. And until you experience something else, how do you know? Regardless of unearned privilege, if you've grown up in one place your whole life and that's all you know, so how will you understand it until you've gone somewhere else?
- Paula Buchanan: Exactly, and that goes back to the concept of lifelong learning. And I think for me, I was just thinking about the value today of a US passport. It's like gold, right? But you know what's really sad is there's a lot of people in the United States that don't have a passport, not because they can't afford it, but they don't want one for whatever reason. And there's people that have a passport that have never even used it. So I almost want to say, if you get a passport, it is mandatory that you at least get one stamp, even if it's from Canada or Mexico, countries that are really easy to get to, at least have one stamp before you have to turn it in at that 10 year mark. It's so important to see other people's perspective.
- Melinda Byerley: I also find it fascinating that you started in sort of pure science, and then as you worked with the AmeriCorps, you became sort of more applied science. Like how do I take science and figure out how to make it actionable? Or as we would often say, go to market.
- Paula Buchanan: Yeah.
- Melinda Byerley: Or, take it and make it real and tangible, and useful for people. Do you think that science is getting better at that? Do you think that's the nascent movement? How is that happening right now in science?

- Paula Buchanan: That's a very interesting question. I think one movement that's been really interesting is the citizen scientist movement. I would say that some people, and I'm not going to speak for Tulane at all, because Tulane loves doing new things. So I'm not going to speak for Tulane at all, but some schools I would definitely say, there is so much power in academia to have that data, and to know the scientific method, and to do research. And some academics, not all, could see the citizen scientist movement as a threat to their livelihood, instead of seeing them as potential community partners.
- Paula Buchanan: I think in that way, I am not your typical academic in the sense that I love using open data. When I do research, like where can I find me some open data? I'm so excited. Oh, someone can actually see the data that I'm using to write a research paper, and they could actually prove me wrong and out me on Twitter or whatever. I'm like, okay, do it. Show me where I messed up. Again, that's how you learn.
- Melinda Byerley: This is very interesting. And I think it also comes into the meaning of how people are sort of learning to talk to each other, where tech is sort of bringing us all together. So what are the problems you're trying to solve now with data in healthcare, and in healthcare tech?
- Paula Buchanan: For me, I think one of the big things is, and I actually wrote an article on this, it's called "The Concepts and Uses of Open Data," and it's at Data Management University, shameless plug. But I think what's interesting from the healthcare perspective is there are open data sets out there, but there's a big pushback because there's something called private protected data, or HIPAA compliant data. And that's stuff you can't publish anywhere. You would get sued left and right, and you'd be in big trouble.
- Paula Buchanan: But as long as you scrub the data or tidy it up to not have that HIPAA compliant data in there, the private data, there's so many open data sets out there that citizen scientists can play with, that researchers can play with. The open data science movement is huge. It dovetails nicely into citizen scientists and citizen journalists who work in kind of health and medical journalism. It's big, but there is unfortunately a lot of pushback.
- Paula Buchanan: But schools I think like Harvard maybe, and MIT, actually we have a lot of professors that post on their website, here's the data I use. Go play with it, find me wrong. But unfortunately, those are like the cream of the crop schools. A lot of the professors that do that are tenured, so they're not as worried about getting tenure. But I think that's where academia should be moving more towards, is having more community involvement with what they do, and more practically applied research.

Melinda Byerley: How do you think that having a background in healthcare and public health and in science helps you when you're dealing with technology, as opposed to people who have started on the technology side, like say in computer science?

Paula Buchanan: That's a really hard question. The only thing that I could think of to answer that with is that I think most people, especially if they're involved in public health or health services research, which is like an area that encompasses public health, and medicine and other things, is you are to a degree a public servant. What you do is serving a population. So one thing that I find hard, and that's why I pick on Google Glass for example, and I pick on it left and right when I do presentations, I make fun of it. A lot of times tech and apps and things are made because they're cool.

Paula Buchanan: Whereas, in healthcare, the first thing I think of is how can people use it? So there's a lot of programs that use apps, for example, to communicate information to patients. Let's confirm your appointment. Here's a map that can get you through that is going to a hospital. And the first thing I think of, well a lot of people don't have smartphones. Is there a way you can do this with short message service, or SMS text? Most people, even if they don't have a smartphone, have a "dumb" phone, a flip phone, and they can accept and respond to SMS text. Even though that seems kind of retro, you have to think about not the technology but how the technology serves the people.

Melinda Byerley: I think that's a really powerful statement. I think you undersold it when you said you could only think of one thing. I think you undersold your answer, which is that, when you have the background, you approach the problem differently. There is something in that power of, and again, I'm sort of leading you because it happens to dovetail with my personal belief, full disclosure.

Paula Buchanan: Shameless plug.

Melinda Byerley: Shameless plug for my personal beliefs, which is that having more people involved in tech who don't have tech backgrounds is good, because they understand the problem that needs to be solved. And technology should serve people, not the other way around. I think that's really where you're going with the Google Glass. If we're going to help people navigate the maze of the hospital, it shouldn't matter whether it's SMS or a smartphone. It just should matter that the user gets what they need from the technology. And I think you raise an excellent point, which is we can be snobby in tech about, well it's a smartphone app. Well if it's not what people need, who cares?

Paula Buchanan: And that goes back to one of my professors, who always said, "So what?" What's the so what behind that? And that actually makes me think of yet another shameless plug. There is something you said, and I'm going to try to remember exactly what you said. But it was something about when you take



people, in tech a lot people create stuff just because it's cool, but it's really important to make sure that all kinds of different people learn how to code, or to use technology. Because then they can better understand how to practically apply it.

Melinda Byerley: You got it.

Paula Buchanan: Yes, thank you. So last week, I was a guest speaker for a non-profit called Girls Who Code.

Melinda Byerley: Great organization. Woo hoo.

Paula Buchanan: Great organization. Shout out to Girls Who Code, wonderful organization. Please go to their website, check them out. They do wonderful stuff. So again, going back to the Tulane thing, one of my colleagues from Tulane mentioned to me that one of the Atlanta offices was looking for guest speakers. And my response was, I haven't really worked in tech for a long time. What would they want? And I'm not trying to second guess or disrespect what I do, it's been a long time. She said one important thing, because my friend's Chinese, she's American born Chinese. And she said, "Look, these are a whole bunch of black girls, maybe a few Latinas in there. They need people who look like you to be up there and say things."

Paula Buchanan: So when she said that, I was like, "Okay, where do I need to go? What do you need me to do? I'll do it." And it's funny, because you go in this room of girls, and almost all of them are black, there were a few Latinas, a few South Asians. And this is funny, like the one token white girl was in the room in the back. And I was like, oh, it's reverse now. Okay, you're the token person in the room. This is funny. And it was a room of about maybe 15, 20 girls.

Melinda Byerley: Awesome.

Paula Buchanan: And their teacher was a white girl, and then the co-teacher was a black guy. It was so funny, they were asking me the same questions as you are. How did you get from doing what you did to where you are? What was it like to be at a school like Tulane that's predominantly white? And I told them what that was like. I think that was the other co-teacher, I think his name was Michael. And he said, "Thank you, they need to see people like you." And he was like, "You rocked it. They need to see people, even though you're not a traditional coder, or developer, or tech person, they need to see people like you." And he said, "Thank you, will you come back?" And I said, "Yeah, of course."

Melinda Byerley: It's really fun to talk to kids, they're so curious and interested. We do a lot of talk about the pipeline into tech. It's also my personal belief, I'm doing it again.



Paula Buchanan: Shameless plug.

Melinda Byerley: That it's not just about getting more girls to code in college. It's like getting more girls to get passionate about a problem. And then, when we get excited about a problem, then we are motivated to push through coding, because we see the purpose for it.

Paula Buchanan: That makes me think of something that I completely forgot about.

Melinda Byerley: Go there.

Paula Buchanan: So I got the wonderful first generation Apple laptop, but there's something else my mother did. And being an English major, and my dad maybe, he actually just crammed for the GED and took it. I don't know where this came from, but my mother put me in, I think it was in my late elementary school years, maybe between again fourth and sixth, she put me in a computer science camp.

Melinda Byerley: Really?

Paula Buchanan: Yes. And I really enjoyed it. I learned BASIC for the summer.

Melinda Byerley: Yeah, I hear you. Those people who have been listening to the podcast know I talk about my junior high experience with BASIC all the time, so yes. What did you code in BASIC?

Paula Buchanan: I honestly do not even remember. But I do remember that I loved it, except for one thing. This shows you how long ago this was, and it also shows me how much I appreciate almost how long you can have a file name in modern computers. I lost so many different files because every single file name could only be six characters.

Melinda Byerley: Oh my gosh, yeah. Remember those days? You're like, what is it? I can't remember.

Paula Buchanan: I had no-

Melinda Byerley: There was no finder on computers in those days. You had to go to the command line, right? Or pull it up on the floppy, or whatever, yeah.

Paula Buchanan: Yeah. And so yeah, I only did that two or three times, but I was so annoyed. And then I started thinking more analytically, like when I was away from class. And I thought, okay, let me create some kind of file naming protocol so I can always see what's in the file. So I did that, and then I never lost anything. I was really good, because I knew what to pull up, because I had my little file naming protocol.



- Melinda Byerley: How did you persevere then? So this is great, because we went back. You had taken this coding camp when you were what, junior high, high school?
- Paula Buchanan: No, it was a summer camp, it was between probably four and eight elementary, year four.
- Melinda Byerley: So very early. So when you saw computers again, you weren't intimidated, be you at least had some knowledge. The dialect may be different, but the language is the same.
- Paula Buchanan: Yeah. And I think also, you know, my parents buying that laptop really helped too. My elementary school, which also was my high school, they charged parents money, right? So they used that money and bought us the latest computers that they could buy. We were an Apple school before we realized we were an Apple school. I didn't really even see a PC until I went to Tulane.
- Melinda Byerley: So when you had to solve problems in your science or your job, you didn't go, what is this hulking thing? I don't know what to do. You were like, oh, it's just a tool, I know what to do with it.
- Paula Buchanan: Or if it were a PC, I was like, why are you using that? And now I use a PC every day. But it was just really funny, because at Tulane we had a really nice computer lab, but it was really funny. I felt sorry for my friends who were the computer science majors, because they were always working on PCs. Because they were like in the corner, away from everyone else. And everyone else was on the cool Macs and stuff, so I felt sorry for them.
- Melinda Byerley: So, Paula, I thought it would be neat to talk about, you mentioned Girls Who Code, and maybe for those girls who might be listening to this podcast, or people who are thinking about tech or possibly getting involved with tech. What advice do you have for anybody who is sort of in your younger years? As I like to say, if you could go back and talk to your younger self, what advice would you give her?
- Paula Buchanan: Well I tried to actually give, since like everyone knows who is listening to this, I'm not your traditional tech person. So I tried to give them more kind of a philosophical set of advice, a couple little philosophical tools to put in their toolbox of life, so to speak. And I'm going to shamelessly plug Will Smith right now. There is a great video that he has out on the internet. I think it's like all these different little Instagram videos put together. And it's the power of positive failure. He talks about the importance of learning how failure can actually help you grow.
- Paula Buchanan: I think in today's age of everyone having a perfect score, or having like a 4.5 GPA on a 4.0 scale is ridiculous. It's just not good. It's basically setting your kids up to

fail in a bad way. You're not going to be perfect. We are human beings, we are fallible. But you have to learn how to learn from that failure. If you as a girl feel uncomfortable sitting around a whole bunch of boys the first time you go in a coding class, and you decide to drop out, go back again. Maybe you didn't have brothers, or you're just uncomfortable around boys or whatever. You've got to get over that.

Paula Buchanan: Most of my life, I have been "a minority" in some way. The only black person in the room, the only woman in the room, and I've succeeded. I'm not rich and famous, but I'm very comfortable, and I won't be eating dog food in my senior years because I have a retirement account, thank you very much. And I think parents at times set their kids up for failure by almost conditioning them that they can't fail, and that's wrong. So get used to failing. I'm not saying, don't do your homework. But like I was telling the girls, try it, and if you're having trouble with a problem in stat, or math, or writing, ask for help.

Paula Buchanan: And I think that's one thing that I've always done. I am not the smartest person in the room, but if you look at the people I know, a lot of them are. And if I don't know, for example, how to code in R, which is still something I struggle with, I know three or four different people who can help me. And then that also teaches how to work collaboratively as a team. And then maybe when you're in a group or a team, it's easier to fail. But I think as an individual, you have to learn to fail, or to constructively fail.

Paula Buchanan: Learn from your mistakes, have a pity party, lick your wounds, and get back up. This is what I always think of whenever something bad happens in my life. One of my cousins, her name is Deborah Carter and she's a jazz singer in the Netherlands. She has this great saying she always says, I think it's a Chinese proverb. "Fall down seven times, you get up eight."

Melinda Byerley: If it's not hard, sometimes the fact that it's hard is the sign that you're onto something important.

Paula Buchanan: And it's a sign that it's worth it. If it's too easy to come by, then you get to that point, and again, you go, "So what?" Okay, I got my 4.4 GPA out of 4.0. Now what do I do?

Melinda Byerley: Now what? Yeah. So last question, you keep referring to the fact that you're not a traditional tech person. And I actually think that there's no such thing as traditional tech person, because so many of us came in. There's a theme in this podcast in how many people, especially of a certain age, came to tech through different places. Some people were lawyers, some people were English majors. One woman, she majored in Southeast Asian languages.



- Melinda Byerley: People come into this profession in many different ways. So what advice do you have, especially living outside of Silicon Valley? As you look back at Silicon Valley, what do you wish we knew about, this is your platform to talk to people who live out here in Silicon Valley, or people who do work in what you would call traditional tech. What do you want to say to them? Or what advice do you have for us?
- Paula Buchanan: I would go back, I sound like I'm a broken record. But I'd go back to the "So what?" And I'm going to go back to the Google Glass. You create this great product, so what? You're working for Apple, or Microsoft, or Google, and you create this great app, so what? How will it be used, and how can it be used for good? Going back to using data visualizations and making graphics, they could be used for bad or for good.
- Paula Buchanan: But think about, how can that be practically applied? How can it make people's lives better, or as one of my MBA professors would always say, how can you do good by doing well? So you could actually make a profit and feed your family by also doing something that's good for society.
- Melinda Byerley: That's great advice. As you probably guess, I agree 100%. So thank you, Paula, for joining us. I really enjoyed hearing your story. And I hope you'll keep us informed. For all the resources that you mentioned, we're going to put up links in the show notes, so we will have those for you. Thanks for joining us, Paula.
- Paula Buchanan: Thank you.
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