Aya Mouallem:
I've been teaching for around a decade now. I've taught in the Middle East, I've taught in Eastern Europe, I've taught in the States, I've guest lectured in Bangladesh, so very different world spaces, but I always start my emails or classes by telling students that I'm really excited to be here, to be learning with you and from you, and I don't think I've ever left a teaching space where I've taught more than I've learned.
Hi, I'm Aya Mouallem. I'm a member of the 2020 cohort and a PhD candidate in electrical engineering, minoring in education. I imagine a world where STEM education is not only accessible and equitable, but also inclusive to learners of all backgrounds and abilities.

Taylor Goss:
Welcome to the Imagine A World Podcast from Knight-Hennessy Scholars. We are here to give you a glimpse into the Knight-Hennessy Scholar community of graduate students spanning all seven Stanford schools, including business, education, engineering, humanities, law, medicine, and sustainability. In each episode, we talk with scholars about the world they imagine and what they're doing to bring it to life.

Willie Thompson:
Today, you'll be hearing from Aya Mouallem, a fourth year PhD student in electrical engineering with a minor in education. During our conversation, you'll hear Aya's beginnings in Beirut, her passion and tenacity for accessibility and inclusion within education, experiencing Knight-Hennessy as a world within a home, and vice versa, and so much more.
Welcome to another episode of the Imagine A World Podcast. I am one of your co-hosts, Willie Thompson at the Business School, and will be at the Ed school next year, member of the 2022 cohort. And as always, I'm joined by my phenomenal co-host, Taylor Goss.

Taylor Goss:
Hey, Willie, I'm back as well, as usual. I appreciated your multi-syllable-

Willie Thompson:
Thank you.

Taylor Goss:
... Episode.

Willie Thompson:
Yeah, I've been trying new verbal dynamics, verbal gymnastics.

Taylor Goss:
Okay, great. I don't have any verbal gymnastics, but I'm still in the Music, Science, and Technology Master's Program and Master of Public Policy Program. I'm not trying to change. Nothing new for me.

Willie Thompson:
Okay, that's good to know. Well, I know you're not used to doing verbal gymnastics, but I'm pretty sure-
Taylor Goss:
Peter Piper picked a pickled pepper.

Willie Thompson:
She sold seashells by the seashore.

Taylor Goss:
Okay, that's over now.

Willie Thompson:
All right. Anyway, although we're talking about verbal gymnastics, I could probably do physical
gymnastics, so I want to do back flips in exuberance and exhilaration for our guest-

Taylor Goss:
Exuberance and exhilaration.

Willie Thompson:
... Today on the pod. Aya, how's it going?

Aya Mouallem:
Hello. You know we have a verbal gymnastics phrase in Lebanese.

Willie Thompson:
Ooh, no.

Aya Mouallem:
Do you want to learn it?

Willie Thompson:
Yes.

Taylor Goss:
Yes. Jinx, you owe me a soda.

Aya Mouallem:
It features so many sounds. I don't know if we pronounce these sounds in English, but we can try.

Taylor Goss:
Okay.

Willie Thompson:
Okay.
Aya Mouallem:
It says, [foreign language 00:03:27]. Do you want to give it a shot?

Taylor Goss:
Oh, wow. I would like to give it a shot and I reserve the right to cut this out of the pod. Would you say it again?

Aya Mouallem:
All right. [foreign language 00:03:41].

Taylor Goss:
[foreign language 00:03:42].

Aya Mouallem:
Yeah.

Taylor Goss:
[foreign language 00:03:44].

Aya Mouallem:
Yep.

Taylor Goss:
[foreign language 00:03:45].

Aya Mouallem:
Uh-huh.

Taylor Goss:
[foreign language 00:03:46].

Aya Mouallem:
There you go. 75%, we'll take it.

Taylor Goss:
75%.

Aya Mouallem:
For a non-Lebanese.

Taylor Goss:
Duo Lingo at 75%. I've got a long road ahead, I know.
Aya Mouallem:
But I'm so happy to be here with you guys. Thank you so much for hosting.

Taylor Goss:
We're happy to be here.

Willie Thompson:
We're happy to have you on. It's our pleasure, and I'll not be trying... Taylor's our delegate, the delegate from the co-hosts on that Lebanese tongue toaster, but I know we have a lot to talk about just given that Imagine A World statement you referenced and just a life that is full of richness. I want to take a pause really quick before we get into those details and just see, how are you today? How's the day landing on you? It's a Monday, the beginning of another week here in the spring quarter. What's going on for you?

Aya Mouallem:
I'm doing okay. I worked out at 6:00 AM. This is my New Year's resolution. Let's see if it works. I'm on month four, so that's good, but other than that, I'm just really happy to be here. I love the rain, so I'm not very happy about the spring weather, but what can we do? But I know that both of you guys, this weather versus mine, so it's fine, I'll take it.

Taylor Goss:
We're a bit more used to the humidity, I think.

Willie Thompson:
100%, yeah, absolutely. Like I said before, we're going to cover a lot of ground, I believe here, just about your life, which is fantastic, phenomenal, and quite inspiring, if I must say something myself, and you're welcome. Before we talk about the world you imagine and what you hope to envision in the future, let's talk about the world you were born into and the world you've experienced thus far. Where are you from and what was your journey here to sunny, but not rainy Palo Alto?

Aya Mouallem:
Oh, wow. Yes, thank you. I was born and raised in Beirut, Lebanon, which is my favorite city in the world. I grew up with my sister and both of my parents. They both worked in the public sector. My mom was a teacher, and so were my uncles and aunts. So, I grew up in a very education-centric environment, but my parents had never influenced any of my interests or hobbies or what I spent most of my time on, but I will say that I think the common theme throughout different phases of my life up until coming to Stanford were always experiential learning periods. I can maybe narrow them down into four categories. I've had so much experiential learning in Beirut, in community at school, and then in teaching. Beirut per se is... Have you guys been to Beirut before?

Taylor Goss:
I have not.

Willie Thompson:
Not yet.
Aya Mouallem:

Not yet, exactly. I like that way. Beirut I think is one of the most extravagant cities in the world in terms of so much culture, so much belonging, but also so much war, so much instability, so much food, so much love. It's a very special place to me, and I think growing up there completely shaped who I am today and whom I will be wherever I end up in the world. So, that's also who I am right here in Palo Alto. I remember I spent my last year of undergrad going back and forth between classes and protests, and then I left that and straight came here. So, I think just growing up in a space like Beirut, I got to go through a lot of experiences that I wouldn't have had if I had a more shielded life, if we can say so. Maybe transitioning from that to school, I grew up in a traditional Lebanese schooling system. It is a relic of French colonialism, so it's very focused on memorization and going through very systematic thinking processes. The only time I'd say had experiential learning was when my high school teacher, who recently passed away, her name was Ms. Elena, she volun-told me into a math fair project, and that project had to do with coding, so I had to build some code with the team and we had to go to that math fair. We ended up designing code. I learned from scratch. We designed code to build spiral staircases that were usable by different people and people have different abilities and ages, but that was my first experience with going into this learning space with something I didn't know, which was coding, and then being fascinated with how digital code and software can solve things in real life. So, that pushed me into engineering, and today I'm an engineer. I experiment, I tinker, I break things, and that's my identity. And that also kind of falls in line with All Girls Code, which is this nonprofit that I founded. I was one of two girls in a software engineering lab of more than 20 students during my first year of undergrad. And I came, again, from a family where I was never influenced in terms of what I can and can't do, but that wasn't the case for so many other women in the field. So, we started All Girls Code as this experiment, just wanting to see what the space out there is for young girls, whether they even get exposure to science, technology, engineering, and math, or STEM before university, and apparently they did not, and so that's how we started this initiative. And now it grew into a movement that's bigger than any of us, and it's across the Middle East. That had so much experiential learning, because I was learning from other people's experiences on the ground with people, and then the last area is probably teaching. So, I've been teaching for around a decade now. I've taught in the Middle East, I've taught in Eastern Europe, I've taught in the States, I've guest lectured in Bangladesh, so very different world spaces. But I always start my emails or classes by telling students that I'm really excited to be here, to be learning with you and from you. And I don't think I've ever left a teaching space where I've taught more than I've learned. So, I think that's where the core of my experiential learning comes from, but that's kind of an overview of how much experiential learning has shaped me to where I am today.

Taylor Goss:
Wow, thank you for giving us this map-

Aya Mouallem:
Thank you.

Taylor Goss:
... Through which to navigate your experiences. I like how you categorize each one. I think that I'm seeing a common link amongst all of them, which is something I'm not surprised about seeing you very
often around Denning House and knowing you as a person. You're very passionate, and connected to that passion is commitment to introducing yourself to unfamiliar experiences. I heard that again and again is a theme, what you were just talking about. Maybe a good place to start would be talking about the beginnings of All Girls Code. Was it an unfamiliar experience for you to decide to found your own organization? What was the beginnings of that? What was hard about it? What did you learn from it and how do you think that that propelled you in this direction toward where you are now?

Aya Mouallem:
Yeah, totally, Taylor. I think when we started All Girls Code, we were two 18-year-olds. Me and my co-founder Maya and-

Willie Thompson:
Aya and Maya.

Taylor Goss:
Aya and Maya.

Aya Mouallem:
Aya and Maya, Maya and Aya.

Taylor Goss:
Willie and I are always on for the alliterations.

Willie Thompson:
100%

Aya Mouallem:
We were 18-year-olds. We were both going into computer engineering. We had met in high school before, and we were both alarmed by this percentage in terms of representation of different genders in engineering.

Willie Thompson:
So 25%, right, in engineering or STEM are women, right?

Aya Mouallem:
Even less in so many countries, which is actually very alarming, but what was very concerning was for both of us, we were just perplexed by why that's the case, and we're in Lebanon. And Lebanon is an anomaly in the Middle East in terms of we don't necessarily follow expected stereotypical or sociocultural trends in the region. Lebanon is considered to be a progressive country, relatively. It's considered to be a country where there's so much emphasis on STEM, even though the emphasis comes from families and parents, not necessarily from government, because again, there's a lack of support from government on all fronts. But when we started the camp, we called it a camp the first summer, we did reach out to a few entities at our undergrad university/in the community, and we were always shot down. We were just reaching out for mentorship. Tell us how you got to where you are or give us advice on what we can do to get started with outreach, with creating content.
It was a big deal for us to create localized content to make sure that these girls aren't being thrown with some random content online. We just wanted to create something localized, Lebanon, very relevant, and we were always receiving the same response of, "You're just two 18-year-olds. You need some time to be toughened up before you can found or start something." And that was the first time in my life I had done anything beyond the traditional. I grew up in this educational system in Lebanon, it's very rigid. I had that one experience with the high school fair where that literally transformed my life in terms of going into engineering. But beyond that, I had never been shut down. I had never been told that I'm not good enough or too young. So, all of that kind created the sense of, I wouldn't say anger, but it would just reinforce this passion that I had for this is an area where there's a problem and I think we can do something about it.

And so, that's how we got started. I remember we used to meet at this local coffee shop and just send out hundreds of emails, go to offices and talk to people at the universities, until we were able to get some people at our university on board in terms of just offering us space, space and a computer lab so we can run things. And then beyond that, I think it was a lot of experiential learning again, and kind of learning by doing. So, we had no clue how to start something grassroots. We had no budget. All the volunteers were our friends. We were creating educational content. Now looking back, I'm shocked by how that kind of came together and ran, but I do think that what keeps us going is we had 100 girls show up that first summer. That was crazy.

Willie Thompson:
How many were you expecting?

Aya Mouallem:
20, 30 I'd say. And we were up to the challenge, and then at the end, these girls, before they'd leave, they'd say, "You've changed my life," or they'd reach out again and be like, "I'm now studying engineering," and I think those statements are what keeps us going in terms of it's a very rigid system, everything's very traditional, but as long as we're changing one person's life or perspective, that's enough to just fuel our passion, I'd say.

Taylor Goss:
Do you think that helped with buy-in from third party entities that would contribute?

Aya Mouallem:
Yeah, totally. I think after that first summer, we ended up running a lot more initiatives. And again, we were young, so we had a lot of energy to spend on this effort. We ended up grabbing the attention of the Lebanese Prime Minister.

Willie Thompson:
Yeah, honored by the award.

Aya Mouallem:
Yeah, exactly. We ended up getting featured by international entities. We ended up getting fellowships to have more training on advocacy. And I think those stories are the ones that we don't hear enough in terms of when you're starting something so grassroots, it takes a lot before you can get off the ground and someone notices you, and then things
become more sustainable, and clearer, and easier to run. And we've been running for six years since, so that's been a long journey.

Willie Thompson:
Now, you're an advisory member to All Girls Code.

Aya Mouallem:
Yes.

Willie Thompson:
And so, Taylor mentioned the passion. I think something that comes through for me, hearing you tell this story, which has been documented in so many different ways, even in written form on the Knight-Hennessy website, definitely check that out, it's a lot of really rich detail, there is also a sense of tenacity, I think. And you've landed on this idea of the benefits of experiential learning as opposed to, I guess rote learning. I don't know what the opposite of experiential learning or what we do in the US is, but it's not experiential. The majority is not experiential, at least when I was coming up. And something that I've learned in one of my classes at the GSB, touchy, feely, which is OB 374 interpersonal dynamics, but-

Aya Mouallem:
Super famous class.

Willie Thompson:
That class is also an experiential learning experience, and something that I've experienced in that class, and I'm wondering if you've experienced the same, is that experiential learning is inefficient by design. That's something that we've talked a lot about in the class is that there is no sort of clean and clear way to do it. And so I'm wondering, how do you square the reality of experiential learning being inefficient, and what do you get from that as opposed to some of the things we're exposed to maybe at Stanford and grad school about they're centered on the need to be efficient in your thinking and in your learning? How do you square that circle?

Aya Mouallem:
I love this reflection. Thank you, Willie. I think I had noticed that earlier on, and I was never eloquent enough to phrase it the way you did. But I do think what I noticed was growing up in that system in Lebanon that rewarded high grades, cutthroat competition in terms of, again, high grades, I admired experiential learning for it being that rugged and extremely experimental. You were uncertain about the outcome, you were uncertain whether this was worth your time, but you still ended up learning something whether you failed or succeeded. I think what ended up grabbing my attention the most since and up until today is focusing more on, given that these systems that already exist kind of exclude experiential learning, how can we address the conscious exclusion of people from these experiences? And I think to reflect on that, one question that I asked during an All Girls Code graduation ceremony was asking young girls, how many of them had been called at home to help change the light bulb? I think we had maybe 200 attendees, and then maybe two girls raised their hands.
And I think when I think of this, I think of how, because our lives and our cultures, and these educational systems are set up in a way to never prioritize experiential learning, regardless of whether it's an efficient or non-efficient form of learning and teaching, we end up at the same time from the start, kind of completely obliterating this chance of these very diverse groups of people getting the opportunity to explore this space for starters, and then check if it’s an efficient form of learning for them or not. And then again, that also transitioned into the work I do now where I work with groups of people with disabilities. And as someone who grew up and completely adores STEM, it's crazy to me that we're privileged enough to take so much for granted in STEM. I can go to a lab, I can solder, I can set things on fire, things go wild. That's completely fine, but then what about a blind learner who's interested in making something at the lab?

And I think now my frustration and my passion is focused on that area of as people in education... And again, I come from an engineering background, and I can elaborate on this shift more, but I'm just extremely shocked by how much exclusion there is in terms of access, and then in terms of inclusion in these spaces where you're encouraged to try something out. Let's see if it works, let's see if it doesn't, try something out with people, try something out with tools. So, I think that's where I'm now my mind is boggled the most, I'd say.

Willie Thompson:
It reminds me of Angela Glover Blackwell's writing, who's the CEO of PolicyLink, and she wrote an article that resonated a lot in a previous job around the idea of a curb cut effect and how curb cuts apparently came out of UC Berkeley during protests, which is not surprising, but they sort of poured cement over these curbs to create these curb cuts. And now people use curb cuts when you move. It's designed for people who are the most marginalized, you get spillover effects. And so, hearing you talk about how do you design something in a way that allows people to make and create things without... If you design it for someone who cannot see and who's blind, imagine the things you'll unlock for people who never would've thought about that.

Aya Mouallem:
Exactly.

Willie Thompson:
But for those attributes, so it's really cool to hear that.

Taylor Goss:
And this is really getting into the heart of your Imagine A World statement that we heard up top about accessibility and equity in learning throughout STEM. You've touched about it, especially in the sense of access, but when did you start to think more about equity in the space, especially when it's related to disabled persons? And could you go more into your current work you're doing?

Aya Mouallem:
100%, and I think you raise a really important point in terms of access is not inclusion. So again, I had said that I'm an engineer at heart and I'll always be an engineer. I came to Stanford wanting to design biochips. That was what I had started getting into during undergrad, and then I-

Willie Thompson:
What’s a biochip, by the way, just for the listeners?

Aya Mouallem:

Yeah, biochips, again, because I came from Lebanon, we didn't have resources there to do all this sci-fi stuff, but biochips are essentially implantables, like chips you can implant into your body, chips that can regulate your bodily functions to improve your health system. So, that space was really fascinating to me. And I think, again, it came from a place of these were limited opportunities in Lebanon. I wanted to do something with engineering that helped people directly. So, I came to Stanford wanting to do biochips and electrical engineering, and then I started feeling this decreased sense of fulfillment, because working with... I admire the work of bioengineers and biochips designers, but you spend so much time, like years, working on and iterating on designs of these miniature chips until you get to the point where you deploy them and then you can get to meet humans who might be using them.

For me, I needed something that was more direct where I would be working with people and with communities from the start, and I wanted to co-design with people. So, I didn't want to come in as someone who was the expert and knew what to do and knew how to fix things. I wanted to talk to people, I wanted to see what their concerns are, and then to bridge those with what's already out there in the world and how we can co-design something that works for everyone. So I came to Stanford, wanted to do biochips, started doing that, and then I came across this experience of a student who's blind and who's in mechanical engineering and who wanted to take this dynamics course or a course that had a lot of visualizations, visual design, graphs, plots, that kind of thing.

And my advisor, who is incredible, Professor Sheri Sheppard, basically she's the godmother of engineering education, this field, and she brought this up to me and we were just talking about how crazy it is that we have entire fields of engineering that are not accessible to all students. And for me, because engineering had opened up all these spaces of, you can build something that works and helps communities, I kind of got hung up on that experience and then I looked into it a bit more, and then I discovered that in parallel to all the beautiful things that engineering has enabled us to do, there are entire communities of people who have not been able to access these wonderful creations of engineering, because of the exclusion of the field, the inherent ableism of the field.

And then if you take a step back, there's also more isms that factor in, there's elitism, there's racism, there's colonialism, and how these fields were designed, set up, structured, and maintained. And I think where I'm at right now is building educational tools in line with my Imagine A World statement, educational frameworks, anything that can support teachers in including the most marginalized students in their classrooms and teaching environments. But at the same time, we're also making sure that what we're building goes directly to practice. So, we had just built the first accessible electronic simulator, which sounds like a bunch of random words, but it's actually a really important tool, because as an introductory engineering student, you need to learn how to design circuits. Taylor, I think you might've taken some electronics here and there maybe.

Taylor Goss:

Well, for the Music, Science, and Technology degree, I had to take some signal processing classes, specifically audio signal processing classes. And at a fundamental level, the manipulation and analysis of signals is very similar amongst several different fields.

Willie Thompson:

Oh, interesting.
Taylor Goss:
And so I would run into Aya and she'd be like, "Oh, what are you taking?" And I'm like, "I'm taking this class on Fourier transforms and audio signal processing." And she's like, "What? Have you done this before?" It was a zero to 100 for you, because I did not go to school for engineering, but your encouragement simply helped, but I feel your pain is what I'm trying to say.

Aya Mouallem:
And you're about to get your degree, so you made it, but yeah, this is an example of how interdisciplinary and cross-cutting these areas are and these tools are.

Taylor Goss:
Sure, yeah.

Aya Mouallem:
And so, what does it mean if a student who's really interested in exploring engineering design and making can't use these basic tools to build what they imagine? And so, that is where the frustration started. So, what we're doing now is we're never designing any tool on our own. There are entire communities out there. I work closely with the blind community in the Bay Area, but there are so many other communities that are marginalized in STEM fields. We work together to identify, from their experiences what they think needs to be addressed, from our experiences as educators and other stakeholders, what could be addressed, and then we work together to co-design, evaluate, and then deploy, free of charge, everywhere, open source these tools so anyone can use them. A really wholesome story as I got an email maybe two weeks ago from this student in Poland. I've never been to Poland, I have nothing to do with the country-

Willie Thompson:
Not yet.

Aya Mouallem:
I would love to teach in Poland, but the student reaches out to me and he's like, "Hi, Aya. I'm a blind student. I'm studying engineering and can I use your tool?" And I'm like, that is crazy. There's such lack in addressing accessibility and inclusion in STEM that this student across the world in Poland is reaching out to us, somehow found out about our tool, and this could open up his world to engineering and to more advanced studies in the field. So, that's kind of what we've been doing so far. And I think the most interesting part about this work for me is going back or circling back to the ideas you brought up, there's so much tenacity and passion that goes into this. We're going up against a very established system with all the isms that I mentioned. And so we need to be vocal, we need to push, we need to challenge the system, we need to be critical. But then again, when this one email that you get from Poland tells you that you're doing something right, I think it's all worth it.

Taylor Goss:
That makes sense, because you were articulating that the reason that you started doing more of this work is because you wanted to make an impact on a ground level. So, of course that Polish student emailing you going light your fire.
Aya Mouallem:
Exactly, 100%.

Willie Thompson:
So, we mentioned that you were the co-founder and acting director of All Girls Code, and we'll come back to that, and now you sort of transition to an advisory role. As someone who's at the Business School, we talk a lot about managing growing enterprises and sort of making that transition from being the scrappy, sort of doing everything by yourself, to then becoming the manager, leader, and then successioning the organization effectively. How did you go about that and what did you learn from that in terms of being able to allow All Girls Code to flourish, not without you, but because of your ability to steward it well?

Aya Mouallem:
Oh, I'm going to enjoy reflecting on this one. I think, again, because we had started All Girls Code very young and we were not able to find and convince mentors to help us out, there is a lot of learning that we did along the way. So, the first summer we ended up just having a bunch of volunteers where our friends joined, helped run things, things worked out. We decided we wanted to help out more girls, so we had to scale up, recruited more volunteers. The thing that made the difference, and I think it still makes a difference till today, and that's why All Girls Code is still sustainable, is there's still this sense of very strong passion and urge to change the status quo, which we think we have not been able to achieve yet, and that's what keeps us going. Along the years, we ended up, again, because we were starting to expand our outreach, people started hearing about this initiative joining...

It's a weird initiative. We basically have no budget, we have no structured business model, I'd say. We did end up starting this very organic idea of let's create teams, let's have team leads, let's have volunteers. And then we started noticing this trend of on average maybe a quarter of each year's cohort of girls participating in the program would tell us after the program that they've enjoyed it so much, they want to do more and they want to give back. And for them, they thought giving back would be joining All Girls Code as a team member.

So, we started noticing this trend of a girl comes in as a participant at probably maybe like 16 years old, joins the team as an intern during the summer, maybe at around 17 years old, and then at around 18 years old, once she starts college or higher ed, she'd join as a team member as a volunteer. She'd stay on, she'd end up going up to team lead, taking on more tasks and then would even move up to become a director of a group of teams. Right now, almost everyone, I'd say in leadership in All Girls Code, because my co-founder and I transitioned out when we moved out of the country, almost all leadership people are girls who went through that process, who started off as participants in All Girls Code years ago and got this chance of exploring what it's like to take on more leadership roles in an environment that's so nurturing and supportive.

Again, I think one of the benefits of this being a very grassroots initiative where everyone's just doing it out of passion is there is space to make mistakes, there's space to learn, to bring in fresh ideas. And when it was time for me to leave Lebanon, so that was around maybe three to four years after we started All Girls Code, I was not very scared of stepping down because I knew that people who would take on my responsibilities, my roles would influence the direction, the vision of All Girls Code had gone through, tenaciously, through all aspects of All Girls Code.

They experienced it as a participant, they led it as a team member, they brought in new ideas as directors. So, it was a very organic transition. And I think that's why today it's also still sustainable, because we never perceived it as a business where we're emphasizing only... We have no profit, but we
never perceived it as the sense of it's a business, we're making money. This is people's job. It's something that people put in their extra 10% of time into extra weekends into, and that's what has kept it so motivated as an initiative to scale change, I'd say.

Willie Thompson:
That's a really great reflection and it reminds me of a conversation that I had recently in one of my classes in the Business School, because what I'm hearing you say is that the long-term success of All Girls Code as an organization is a function of y'all's ability to identify latent potential and provide pathways for people to grow and just take those opportunities. Whereas if you had sort of done it... Another way you can do it is say you would've said, "We want people who have a particular type of skills," and we would've said, "People with the skills, we'll take you up and train you," but in this case, you were just basing it off of people's natural interest and their willingness to engage. And surprise, surprise, when people are engaged, and you give them opportunities to become more engaged, to become more engaged, they build a pathway for themselves.

Aya Mouallem:
And I will say, Willie, I also do recognize the All Girls code is a very niche type of initiative, because we're functioning specifically at that turning edge of high schoolers to undergrads. It's not the case for any initiative out there, but that has worked out well for us. I fully agree with you.

Willie Thompson:
Yeah, absolutely. I do have two quick questions. I think these are quick. Is there any significance in the necklace that you're wearing?

Aya Mouallem:
Oh, yeah.

Willie Thompson:
Okay, great, so I want to hear about that. And then we'll see the picture of your Imagine A World drawing. I want to know what was inspiring your drawings here.

Aya Mouallem:
I got you very quickly. I'm wearing a necklace that my friends always say it looks like a lightning bolt, but it's actually Lebanon's map. I actually find this so weird. I think maybe because Lebanon is such a small country, we do feel a lot of pride in being Lebanese, also maybe because it's a very tough country to grow up in, and we do feel the sense of belonging and wanting to give back wherever we are. I do wear this when I have big events during the day, like this podcast.

Willie Thompson:
Oh, the podcast is a big event.

Taylor Goss:
Wow, well, well, well.
The podcast is a special event for this necklace to come out, but I really do love wearing it, because the longer I've been here now for four years, I might stay outside of Lebanon for many years to come, I think there is significance for me in remembering where I come from, people who I can help wherever I am. And now obviously this does not only represent Lebanon, it represents a lot of the communities that I work with, but I cherish it a lot. Also, my mom got me this necklace, so shout out to my mom.

Willie Thompson:
Sweet, shout out to your mom.

Taylor Goss:
Shout out to Aya's mom.

Aya Mouallem:
Exactly. The art on the board, so I came into this podcast and Willie and Taylor asked me to draw Imagine A World, how I imagine it. There's Imagine A World with some sparkle, that's my most used emoji.

Taylor Goss:
Recently used.

Aya Mouallem:
I have a home and an earth because Knight-Hennessy has impacted the way I see the world. There's this very famous statement that I got to say last year at Knight-Hennessy graduation, "Knight-Hennessy is a home in the world and the world in a home." So, there are arrows connecting these two earth and home drawings, and then I have a bunch of random symbols. There is a screw from a lab, there's women, braille, Arabic, love, and then a microphone for protests. So, it's symbolizing a lot of, again, the experiential learning I've gotten to have growing up. And I hope that the world I'm imagining for the future will end up accumulating much more symbols with many new learning experiences.

Taylor Goss:
You just mentioned that you have the megaphone, you're drawing, and you earlier briefly mentioned about being part of protests back home, and I guess this is a little bit of a two-parter, but could you talk about the origin of your political activism and the types of political activism in which you've engaged and what's motivated that? And especially given your activity in your home, not being in Lebanon, could you talk about what it means for you to be away from home, what you miss about it, and especially what it means to be politically active in Lebanon and be away from there?

Aya Mouallem:
Yeah, of course. I grew up in a very apolitical household. I think as a very quick crash course, Lebanon went through 15 years of catastrophic civil war, and that ended in the 1990s. So, it's relatively still fresh out of that phase. That also affected people's day-to-day living. We do have a lot of sectarianism in Lebanon, because that civil war was sect and religion-driven. And so, my parents made the decision that my sister and I would grow up in an apolitical household where we have a lot of love for Lebanon, a lot of love for anyone and everyone who lives in this country, but no love for any political party.
It's actually crazy when you think about it. Almost all political parties in Lebanon today are led by warlords, like people who led militias and factions in the war, and so I thank my parents every day for them making this decision. And this decision came at a cost. Like in Lebanon, if you're affiliated with a political party, you get job referrals, you get access to services in government easier than other people, but again, that was not our case. And I'm really grateful for that, because that meant I got to grow up free. So, I got to grow up independent, free, I would think, and I would criticize, and I would do whatever I want, but I was never involved in any political activism until the revolution in 2019. And that started because we discovered that we had a director of the central bank in Lebanon, who had effectively set up some sort of a Ponzi scheme.

And so, all the hard-earned money of a lot of people in Lebanon got stuck in the banks, and we still can't access this money to this day. And so today, more than 70%, if I'm not mistaken, of Lebanese people had fallen under the poverty line in a matter of two years. So, that is catastrophic if you think about it, and that was shocking when it happened, and it made sense that people went to the streets. And my mother in particular, that was the first time I saw her feel like, "Yeah, this is the time when we need to get political. There's something happening. We need to stand up for our rights."

And that was the first time we had ever engaged in anything political, and we went to the streets and we protest many, many times for a year. The last protest I went to before I left Lebanon was a protest against the dollarization of university fees. Lebanon, again, because of the way it's set up, there's an oligarchy that runs the country. There's only one public university in all of Lebanon, and then there's more than 20 private universities, and what had been happening then was the people in political power wanted to dollarize all university fees, and the Lebanese pound had lost its value against the dollar. So, that meant that many people would not have access to education.

And education had been for so long, the primary driver for upward social mobility in Lebanon, so that meant many people would get stuck out of the educational system. So, that was the last protest I went to, and I think that's very symbolic in terms of what I still work for. So, I moved out, I'm still very politically engaged, though I can't protest for educational systems in Lebanon here, but I did write a lot of opinion pieces. I did write a piece about encouraging people to go out and vote these people out of the system.

I started this fellowship that we are running here. We're a bunch of people in technology in the States. We're all Lebanese, and we started this first fellowship in Lebanon to help students complement their higher education with the hidden curriculum, which is again, educational experiences that you wouldn't have access to if you don't belong to a political party. So, how do you get an internship? How do you network? What opportunities are out there for you? How can you go study abroad? This kind of thing that we take for granted day-to-day, but many people do not have access to. So, I do think I'm very connected to Lebanon still now that I'm abroad. I make great Lebanese food, which I...

Taylor Goss:
Okay, that sounds like an offer.

Willie Thompson:
Yeah, that sounds like an offer.

Taylor Goss:
I'll take it that way.

Aya Mouallem:
Take me up on it any time. That is stuff I learned here. I never learned how to cook very strong Lebanese food when I was home. So, I think being awakened a lot of sentiment in me for the country, but it also gave me a much clearer outlook on where the country’s going, what I can do as an individual to contribute, and then what I can do with all, again, this tenacity and passion. And again, for me, it was always very clear that education is the space that I can impact the most, and that's what I've been focused on since.

Willie Thompson:
Fantastic, so you mentioned Lebanese food and how good you are making it. Taylor's from Louisiana. A food that is known to Louisiana is gumbo. I'm from Georgia, Alabama, I don't know, I guess soul food is also just like a thing. I don't know if [inaudible 00:39:40] a particular thing. What's a go-to Lebanese dish? What's the, bam, that's Lebanese food?

Aya Mouallem:
What a question. I think if you're being introduced to Lebanese cuisine, your go-to is going to be tabbouleh, the Lebanese salad. Have you had tabbouleh before, the one with parsley, tomatoes, lemon?

Willie Thompson:
No, I don't think I've had that.

Taylor Goss:
I don't think I've had that combination.

Aya Mouallem:
That's going to be the salad when you take me up on the dinner I'm cooking. And then I think the homey food that I really miss is moghrabieh, which is made of these... It's very similar to couscous, but I think it just reminds me of my mom a lot. I think my mom makes it better than anyone in the world. This one is not served at restaurants though, so you will definitely need to eat it at my place. But tabbouleh, you can find anywhere and so many variations, too, nowadays.

Taylor Goss:
Okay, something for us to look forward to.

Willie Thompson:
Awesome.

Aya Mouallem:
There you go.

Taylor Goss:
Sorry, if you're listening, you don't have the pleasure of access to Aya's food.

Willie Thompson:
Unless you become a Knight-Hennessy Scholar.
Taylor Goss:
Unless you become a Knight-Hennessy Scholar.

Aya Mouallem:
There you go.

Willie Thompson:
It's that simple.

Taylor Goss:
Something you mentioned just a second ago was the fact that you've written a lot of opinion pieces about home, and I believe about your work as well, correct?

Aya Mouallem:
Yep.

Taylor Goss:
Something I noticed about you in some of our research was that I believe, at least to my knowledge, you're one of the select group of Knight-Hennessy Scholars that have a dedicated Wikipedia page.

Aya Mouallem:
Oh, no.

Taylor Goss:
You have a Wikipedia page and you have a significant online presence and platform. You were featured in a really lovely article that the New York Times posted, and there are several pieces about your work with All Girls Code.

Aya Mouallem:
Verbal gymnastics.

Taylor Goss:
Verbal gymnastics, exactly. How do you feel about having that visibility, having that platform? Does it appear in your life very often, and how does it influence the way that you present yourself to the world?

Aya Mouallem:
I actually have a really wholesome story about how this Wikipedia page came to be. I think last year maybe, there's a group of three or four undergraduates at my alma mater in Lebanon, the American University of Beirut, and they emailed me out of nowhere and they said, "Hi, we're three undergraduates taking this digital humanity course, and our professor is working on contributing to Wikipedia by creating more pages about Arab women who have impacted our communities, and can we write something about you?" And I said, "Sure, I'm happy to help however you want me to." So, we just had one call. They just asked me very general questions. They never emailed me again, but then one of
my best friends here at Knight-Hennessy actually brought this up at a random high stakes dinner and was like, "Yeah, Aya has a Wikipedia page." And I'm like, "No, I don't have..."

Taylor Goss:
At a random high steaks dinner?

Aya Mouallem:
Yeah, so that exists. But Taylor, I do love your question in terms of what implications does online presence have? And this is a conversation we've been having here in Knight-Hennessy as well. I think when this online presence started, it started because we were very clear on wanting to expand the outreach of All Girls Code. And if that had to do with us being interviewed or us writing pieces, then so be it. So, that was us doing things for All Girls Code to grow. And then beyond that, as I started having this platform where I got to say more things and I got to define what I could comment on areas that I was interested in writing about, I was faced with the decision to either just reject and maintain a more of a low-key profile or take up these opportunities and define what I believed was important to amplify.

And I ended up going with this latter option. I don't regret it at all, and I'm very privileged and fortunate to have these opportunities where I get to write and I get to criticize, and I get to support initiatives and amplify voices that otherwise wouldn't find their way to be in heard among larger groups and communities. But at the same time, I would definitely say this comes with the responsibility. I still get a lot of emails from former students whom I've taught in different spaces around the world and from All Girls Code alumni, and that always reminds me that as long as I am in this position where people remember what I said or something that I've done that have influenced them, that also comes with, I should be very careful and clear on my motivations and my goals and why I do what I do.

Taylor Goss:
Yeah, that makes a lot of sense. I really respect the level of thought that you put into your stewardship of your online presence and your image, I guess you would say. But what I really mean is that that thoughtfulness makes sense to me knowing you, because we've gotten to know each other through the Knight-Hennessy community.

Aya Mouallem:
Yes.

Taylor Goss:
And I really do think that you're a person who is consistently curious about other people's lives and how they're doing in the sense of we see each other. You are very vocally, how are you doing? And I feel-

Aya Mouallem:
And you, too.

Taylor Goss:
Yeah, we all try, but there's something about you that we're talking about your passion, about your tenacity that I think you bring into your personal life as well, not just with your career and what you want to see for your vision of the world, but how the people in your community play into that. I think
you’re very perceptive and kind and thoughtful about the way that you move through our Knight-Hennessy community.

Aya Mouallem:
Thank you, Taylor.

Taylor Goss:
And I appreciate that.

Aya Mouallem:
Thank you so much.

Taylor Goss:
And actually that leads to another question, which is you come to America for your graduate degree at Knight-Hennessy, and you arrive at Stanford. How has Stanford and the Knight-Hennessy community influenced, been a part of your experience in graduate school? And would you talk about this community and maybe other things you’re up to outside of work?

Aya Mouallem:
Yes. Wow, I think the best decision I ever made was going to Stanford and joining Knight-Hennessy. I think graduate school at Stanford on its own is just surreal. You have access to abundant resources, experts in any field that you can think of, but I think Knight-Hennessy in particular, complemented and rounded up that experience in some transformational way that I probably could not have gotten anywhere else in the world. First of all, it’s definitely access to community. Taylor, like you, like so many of our friends, I think I want to try to describe how important these people are to me. They’re like more than colleagues. They’re definitely family, and they’re definitely family for life, but these people had been there for me celebrating and grieving, 3:00 AM breakfast, last minute trips, random concerts, thesis, research together.

It’s just a very interconnected community in terms of interests, passions, just reflecting, having fun, just being there for each other and being in community is something that I have not experienced that much outside of Knight-Hennessy, where I am part of many communities. I’m just not actively and aware of me being in community with these people. Knight-Hennessy in terms of programming is just incredible, and especially with the team that does an exceptional job at all the programming that we get access to. And I know you’re smiling at that, but I don’t think... I never imagined having access and participating in so many events on climate change and Indigenous rights and healthcare system reform; areas that I don’t really have any expertise in, but I still felt strongly about contributing to or learning more about, and the team is also just very accessible.

It’s crazy, I remember last year I had a career existential crisis, and I told Tina, the director of Knight-Hennessy about it, and the very next day, we just had more than an hour long conversation, just figuring things out. And I think that also shows how supportive and how nurturing the team is of this community coming together and flourishing. One area that I got into with Knight-Hennessy, completely separate from my work or anything that I do, is art. I grew up in Lebanon and we have a small, I’d say, budding art scene in Lebanon, but nothing on the scale of the ballet, the opera, Broadway, immersive pop-up exhibits, shows that Taylor has played. And this is stuff that I got involved in here. I signed up for the Knight-Hennessy Art Committee, and then after that I joined the Denning Art Committee where I got to
be part of this process of acquiring new art for Knight-Hennessy, for Denning House. And I got to help organize Art Night led by Jocelyn, who is the art superstar on the team.

Taylor Goss:
Shout out to Jocelyn.

Aya Mouallem:
Yes, we love you! But this art as a space was something I never imagined spending so much time and just I truly enjoy it. And I got to do that because of Knight-Hennessy, and I would really encourage you if you join Knight-Hennessy to join the Art Committee. Beyond that, I really love my life here at Stanford. I work out a lot, I'm outdoors a lot. There are so many initiatives to get involved with volunteering. I have found family here. So, there's this concept of biological family, and I love my biological family back home, and this concept of found family. And these are also my family for life, and these are people I just love, and I got to meet through Knight-Hennessy, through Stanford. So, I think I am very fortunate to have a very busy life doing things that I find fulfilling and things that are just really fun to do.

Taylor Goss:
That's so lovely. We have a similar experience, especially regarding art and community in Knight-Hennessy. Something you touched upon was the fact that Knight-Hennessy has so many people in different fields and from different backgrounds, especially with academic fields, it can really break open what could be otherwise a more siloed graduate experience.

Aya Mouallem:
100%.

Taylor Goss:
But in terms of community and cultural backgrounds and differences there, we actually had a little experience in San Francisco. I was going to a concert by this Palestinian-Chilean artist named Elyanna.

Aya Mouallem:
Yes.

Taylor Goss:
And I was there because I knew Elyanna's guitar player, shout out to Janus.

Aya Mouallem:
Janus?

Taylor Goss:
Yes, and I was attending the show by myself, and I was very excited about this, but I saw you and some of our mutual friends walking down the street, and I lit up and I thought, "Oh, well, great, now I have a curator," like you are the superstar curator of Denning House Art Night. You also helped to curate this Middle Eastern pop experience for me who was less familiar with the music, and it was so much more joyful to get to experience that with you and our mutual friends than it would've been by myself. So, I
thank Knight-Hennessy for bringing you into my life and for moments like that, because we get to celebrate art in that way.

Aya Mouallem:
Taylor, just to let you know, we were beyond the clouds to know that you were there, because for us, you're the music expert and we're like, "Oh, this is about to be real." But no, thank you so much for reflecting on that. That actually has been one of my favorite art moments in Knight-Hennessy, getting to see you there in that line, too, with our friends.

Taylor Goss:
So, as we are finishing up today with this conversation, we like to ask a couple of questions at the end of the podcast surrounding Knight-Hennessy. And specifically, I would like to know how writing improbable facts were for you. Everyone who filled out an Knight-Hennessy application has to provide eight improbable facts, things that people would be surprised to learn about you. And for me, it was probably one of the aspects that took the most time and the most consternation to actually make the choice of what those were going to be. So, what was that experience like for you, and would you mind sharing one or two?

Aya Mouallem:
Yeah, for sure. I think that was the first prompt in the application that... There are so many prompts in the application that caught me off guard.

Taylor Goss:
Sure, yeah. It's a creative application.

Aya Mouallem:
That prompt was definitely really off guard for me. What I remember doing is I remember just... I was working on the application at home and I just walked around the house and asked my parents and my sister, "What'd you find weird about me?" And they were not helpful with that. I do think that in particular did push me out of my comfort zone in terms of you're working on a scholarship application. Are you trying to hit a checklist of what the admissions committee is seeking in you? And I decided that I wanted to go all out. If I was going to write stuff in there, it was going to be the quirkiest, most random, weirdest things about me. And if this community will take me as I am, that's my plan.

Taylor Goss:
You decided to be vulnerable.

Aya Mouallem:
Exactly.
And I think that's also kind of the tone of the entire application. It's a very introspective application. And I think I would definitely strongly recommend making use of that and taking advantage of the fact that this is a space where you get to be way more vulnerable than what you're writing, and for me, my PhD application. I remember one of the improbable facts that I wrote was, I have this rule... Maybe this has to do with experiential learning again, but I have this rule of visiting at least one museum in every city that I go to.

Taylor Goss:
Oh, I love this.

Aya Mouallem:
And so far, I've visited more than 50 museums, which is for me a really big number, but I remember writing that and I came to Knight-Hennessy, and then one of the scholars had seen this on the portal on my profile, and we ended up having this one hour conversation about museums and what our favorite museums are. And I've had wacky experiences at museums. I remember I touched the real moon rock once at a museum.

Taylor Goss:
Oh, wow, from the moon?

Aya Mouallem:
From the moon. That was a big deal for me. So museums, I love them. That was one of my improbable facts.

Taylor Goss:
Do you have a museum in particular that you'd like to shout out?

Aya Mouallem:
Yeah, I think it's the small art museum in Lyon in France. It's called the Museum of Fine Arts or Musee des Beaux-Arts, beautiful. If you're ever in Lyon for one reason or another, that's your place to go, Taylor.

Taylor Goss:
I haven't been, yet.

Aya Mouallem:
There you go. Yet. There's so many yet's today. I love museums.

Taylor Goss:
That's beautiful.

Aya Mouallem:
Thank you.
Taylor Goss:
And then finally, you actually offered a little bit of your thoughts about the application as a whole, but would you have any closing thoughts for people who are considering applying to Knight-Hennessy?

Aya Mouallem:
Definitely, definitely apply. I applied with no help, I'd say. I was not actually planning on applying, because my timeline, the summer before the application had been caught up with GRE and then research internship that I was doing, but one of my friends and mentors who also got his PhD from Stanford had told me, "If not now, when?" And that made a lot of sense. And back then, Knight-Hennessy applications weren't open to first year PhDs at Stanford. So, that was going to be exactly my only chance to apply. So, I did apply and I really genuinely was so vulnerable with my application. Some parts of it I just reflected open-endedly on ambitions, some other parts of it I delved into details about experiences I've had, and it worked out. And Taylor, I'm assuming for you, too.

Taylor Goss:
Well, yes, that's how we've ended up in this room right now.

Aya Mouallem:
Exactly, so I would really recommend take the time to apply. And I think it's an investment in terms of how much you end up learning about yourself through the process.

Taylor Goss:
Agreed, yeah. I think that's something that can be taken away regardless of what happens is that if you make the choice to be vulnerable like you're talking about, I think you, one, really will learn something about themselves by filling out this application.

Aya Mouallem:
I fully agree.

Taylor Goss:
Aya, this has been such a pleasure. Willie and I are so grateful for you choosing to spend your time with us today and for sharing your vision and I'm so excited for everyone to get to hear about the world that you imagine and hear little about your life and wish that they could come to your apartment to get some food.

Aya Mouallem:
Thank you so, so much, Taylor and Willie, and I'm excited to hear your podcast at some point and you being interviewed.

Taylor Goss:
All right.

Aya Mouallem:
We can have a listening party and I can make dinner.
Taylor Goss:
Perfect, sounds like a plan.

Aya Mouallem:
Thank you so much.

Taylor Goss:
Thank you for joining us for this episode of Imagine A World, where we hear from inspiring members of the KHS community who are making significant contributions in their respective fields, challenging the status quo, and pushing the boundaries of what is possible as they imagine the world they want to see.

Willie Thompson:
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