Lean Innovation Educators Summit - February 2022
Fireside Chat with Rich Lyons

Jerry Engel

So the quick agenda, why are we here? Who is here? And what are we going to do? Well, why we are here we sort of addressed - it's to share best practice. And we raise new topics every time we do this. And, you know, the history - this is our fifth time coming together. When we originally put this together with the support of VentureWell, in December 2019, we were thinking of an in-person symposium. And we did that. And in Silicon Valley, we brought together 200 educators face-to-face and it wasn't unusual. This is what you did, right? Nobody thought about doing it online, there was no need, there was no compulsion. Well, we all know what happened in the world. So by July, we were only going to do it annually. But you know, the world is changing so rapidly with COVID. We said we have to stand up something right now to be responsive, to talk to each other. So we got together for the first time online. And now we're in our fifth session. We consistently have a strong number of participants. Right now we have over 1000 registrants. So throughout the program, there may be people coming and going. But there are 1000 people who have said that this is something they want to do. The themes, of course, we're initially adapting ourselves to COVID and adapting entrepreneurship education and innovation education to a virtual, online environment. For many of us, that's second nature now - we're still evolving it. So by December 2020, we were returning to the post-, we thought, the post-COVID environment. Of course, there may never be a post-COVID environment, it may just be an endemic process. But we were thinking ahead to saying "how can we use our skills of entrepreneurship and innovation to strengthen the INEC economic recovery?" That has to come because we've gone into such an economic slump. And we discussed that with Bollinger, the president of Columbia University. By June, we were ready to lean into this new normal. And with Laura Tyson, the past chair of the Council of Economic Advisers and the Dean of Berkeley Haas, you know, we looked at the role of government and very broadly what could be done to use innovation in a constructive way for society.

And today, we're going to drill in on that and really look at our role, the role of educators and the university, in building sustainable innovation ecosystems. You know, we always understood that our job was to train the next generation of entrepreneurs. But is there a higher mission in encouraging and facilitating high impact technology, or high impact innovation in business models, or high impact innovation in social value development, in terms of addressing the environment, et cetera? And if everybody would make sure they're on mute, we're getting a lot of background noise. So engaging beyond the campus community, you know, how do we personally engage with that? It's not just something administrators do, but it's something that

we as educators do. And I particularly think this is a right thing for us to address, because, "get out of the building" is a core principle for us, right? It's about engaging outside the classroom. It's about engaging beyond the boundaries of our institutions, with the real world, to bring that into the classroom for a learning environment. So how do we do that, in context, with a broader perspective, broader than just the classroom? So Rich Lyons is going to engage with that, in our discussion. So who is here? We can see in the chat. I was going to ask for people to post where they're from, and in fact, you thought of that in advance. And I just have made a few notes. I see Finland, New Zealand, London, Norway, and Germany, and my gosh, we all can see it. So it's incredible. So I would ask some folks to post if this is your first time, or if anybody has been here five times. Oh, I see Egypt and Dubai. Welcome. Welcome. Welcome. If you've been here five times, I'd love to see your post - hey, I've been here every time.

Welcome. So, let's move to our fireside chat and then understand we are going to have reactions from a panel of leading educators, and then we're going to drop into our breakout session. So again, I want to remind everybody to stay on mute and remind our administrators that they probably have the control to put everybody on mute, if necessary. All right. So hi, Rich, how you doing?

Rich Lyons
 Very well. Thank you, Jerry,

Jerry Engel
I see you there. Can I talk about you for a minute while I introduce you?

Rich Lyons
Well, thank you.

Jerry Engel
Okay. So the topic that I wanted Rich to help us address is, what I was just suggesting, is the role of entrepreneurs, and the ecosystem that supports them in helping us help society adapt at a rapid pace of change. So Rich Lyons is the right guy to help us do that. His title right now is really incredible. Rich, I want you to say your title rather than me say it, because it's, I think it's so unusual. I'll get into your introductory comments in a minute. But what is the chair you're sitting in right now?

Rich Lyons
It is a mouthful. It was created two years ago at Berkeley, didn't exist before that - Chief Innovation and Entrepreneurship Officer.

Jerry Engel

Now, I think this is a bigger deal than, you know, maybe it sounds, Rich. It's a great title. I'm very impressed. You know, it's like, hey, more words. But, you know, you and I remember when entrepreneurship wasn't even accepted in academia, when it was a question whether it had any role to play. And over the years, I mean, I've known you for over 25 years, and over the years, you and I have worked together to sort of help bring entrepreneurship to the front, in some ways. And now here you are, at the highest levels of one of the largest and most respected universities in the world, with this as your personal focus. So let's learn about Rich Lyons. So I'm going to read about you for a minute here. So Rich is not an administrator, okay, he's a true educator. I know he has an administrative title. You know, he has a title, Professor of Economics and Finance at the Haas School of Business, where he was Dean, from 2008 to 2018. And I gotta say, Rich, it was my pleasure to be on your faculty at that time. You're a fantastic leader. In 2020, he became the Chief Innovation and Entrepreneurship Officer for the University of California Berkeley. In this role, Rich oversees the development of a campus-wide ecosystem for innovation and entrepreneurship, including the patenting and technology licensing activities. As Dean, Rich led a sweeping culture change. It really was innovative and drove change across, not only our unit, but really across campus. And he identified four driving leadership principles, and they are something we can all recite - it's to question the status quo, have confidence without attitude, be students always, and go beyond yourself. And this discussion we're going to have really anchors on all four of those. And I'll leave that for you to discuss but it really strikes me. So his bio goes on for pages and pages, and I won't really take us any deeper. I can just tell you as a member of Rich's faculty, he's a leader who engenders respect and admiration. And besides that, he plays the guitar. So what can be wrong? So Rich? If I could turn to you with sort of a provocative question of just leaning off of the head note? Why should a university be engaged with transferring knowledge, transferring capability? And why is that different? You know, you might say, well, that's been true since Plato, right. But why is that different today? What's the urgency? And why your role?

Rich Lyons

Thanks, Jerry. Look, everybody on this call, in this meeting, is engaged in this in one way or another. So I'm not sure I'll say anything that you haven't thought about before. But I think the opportunity is large to get our answer really right. And so I'll tell the story from my own individual perspective. But this is an institutional story, it's not an individual story. So at Berkeley, a position gets created, another high priced administrator, Chief Innovation and Entrepreneurship Officer. It would be pretty easy for someone, faculty, staff, student, anyone, to think, hey, what we are about is teaching research and service and the role that you are occupying is on the periphery, friend. We are a public research university, you live on the

periphery. A reframe of that says, "Let's be precise." A mission statement is about why, it's not about what or how. Berkeley's mission is impact. How we do that is teaching research and service. Innovation and entrepreneurship isn't the only way that Berkeley delivers impact. But it's important. And that puts us central to the mission, not on the periphery. So I think when you can start with mission and values, you talk a little bit about principles and values, when you can start with mission and values. It's a darn good place to start if you have some content to start with. And I think this might sound like, look, those are just words, what's the next step? Go on Berkeley's website, search on mission, see if there's any clarity. It's like, no, there are a lot of our universities that haven't fully embraced enough yet this idea that why we exist, the deep why, actually isn't teaching research and service. And you might find that a controversial thing to say, but its impact. Anyways, I think that's really what got me excited about the role.

Jerry Engel
So what is impact?

Rich Lyons
Well, that's, you know, that's going to be defined in different ways by different people and at different times. You know, for a lot of people, it's like, boy, if we're not building a more inclusive society, right now, what are we doing? And they might not have said that 25 years ago, or even more recently. And so it's got to be a dynamic answer, because society needs different solutions, different address. I think though, when I think about it, look, if you thought about it, we're in the idea and human capital business, right? And by human capital, you know, our students, grad students, postdocs, and we develop our faculty, right. The faculty aren't just on the supply side, you can think about the faculty development as an important part of what we do as well. Anyways, all of that, the impact of our ideas, whether even basic research, it's like we didn't understand the universe, the way we do now that Saul Perlmutter happens to be at Berkeley won a Nobel Prize for, for making it clear that not only is the universe expanding, but it's expanding at an increasing rate. Look, you could say, that ain't impact. It's sort of like, well, okay, I think great research universities need a capacious understanding of what impact is that would include a Jennifer Doudna, or a Saul Perlmutter, for example. But impact, when I think about technology, you talk about getting out of the building, right? Get the technology out the door, get the faculty culture, I'll come back to this later, get the faculty culture oriented, such that the extension of their ideas, whether they carry them forward, or someone else does into society, and society's benefit, is really fundamental to what they do. Anyway, so long winded answer, but, at the end of the day, how much societal benefit are we delivering? And have we thought about all the opportunities for doing so?

Jerry Engel

So, before we go to your specific challenges, when Lee Bollinger spoke to us he said many the same things, right? He had his own vocabulary. He talked about having a fourth pillar, right. You talked about re-lensing, putting a new lens across all three old established pillars. And he said, "Well, what we're doing is adding a fourth pillar and that fourth pillar, call it what you will, he could call it impact, if you will, or translation, getting things out of the building." From a research university perspective, that has a certain flavor to it, right? You can think of technology and getting out of the building, pretty straightforward. But if we broaden our lens, I think of educators across the board, because we have folks here from every type of institution. Can you translate that for me into whether it's an appropriate type of mission and how that mission may translate locally? I know that it's our responsibility to translate them locally. But what would your thoughts be?

Rich Lyons
Well, let me take the teaching part, and we could slice it in any way but personally, I mean, obviously, I said, what I said, four pillars is fine, but it's sort of like no, we're gonna reframe why we exist - its impact. Let's have it out, marketplace for ideas, discussion. But impact nests all three. I think that's actually quite a fundamental difference from the four pillars view of the world. Sensible people obviously can disagree. But going back to teaching and your specific question, I would say this - can we create a wider, more inclusive narrative around entrepreneurship? First of all, on how we deliver entrepreneurship? I mean, for a lot of 17 18 19... I have an 18 year old daughter just starting college and a 21 year old son just finishing college. So this is sweet spot when I think about them. I'll tell the story, I'll use this story to illustrate this. My daughter, Nicole, okay, so she's applying for colleges, it was year and a half ago or so. "What should I write about? What should I do on my essays?" and so forth. It's like, "Well, Nicole, why don't you talk about your business? You know, the business that you founded." She said, "I haven't founded a business." I said, "Nicole, one of the things that you love to do is sell used clothes on all these internet sites, all these platforms, right? And you have to think about your inventory and how you're going to price things and what you want to sell, what you want to buy, how you're going to logistically send it, what happens when you don't send it as fast as the customer wants it, and you get a bad a bad review." You know, she said, "I don't have a business." "Nicole, your dad is the chief entrepreneurship officer. Okay, if this story got out, it wouldn't be good for you or me." All right, no, look more seriously. We like to think of everybody getting what we do. Venture capital: infinitely inclusive. Entrepreneurship: infinitely inclusive. Look, ridiculous. So we need to find narratives where we can generate more agency. I said "Well, Rich talked about human capital and teaching and that's how we do impact" But it's sort of like, well, let's get more specific. How about agency? How about individual impact on the world and this cognitive shift from "other people do that, they do that" to "I do that." Can we affect that transformation while they are in our universities, so that

they live lives of greater agency? That's impact. And that's part of what entrepreneurship education does. But even wider, more capacious narrative around entrepreneurship. I'll give you one example. It's just the example that we're using at Berkeley. We have trademarked and delivered 15 plus new courses, and enrolled over 10% of UC undergraduates in 18 months in a new program and curriculum called Berkeley Changemaker. There are a lot of 18 year olds that can see themselves and their own aspirations in the concept of change making and Berkeley Changemaker that can't, if you say, "Please enroll in an entrepreneurship course" it's too "they do that." Not "I do that." So I hope that's a helpful answer. When we drill into these things, we start to say, look, we are not being inclusive.

Jerry Engel

I definitely think that's something all our Lean Innovation educators can relate to. It is, very much, it's not about somebody else's case study, but it's about their case study, like you were discussing with your daughter. It's about having the relevancy of the business experiment, if you will, be a life experiment, and bringing that to them. So when you look at this money to bring this relevancy of "I do that," increased agency to an educational process. Okay, we have this fantastic education initiative for undergraduates. Super, what about the institutions we live in? And not just thinking Berkeley, but thinking more broadly, these institutions that we live in are not ones that really, you know, are known for being flexible, innovative, responsive pivoting, they're sort of known for tenure and legacy and brand. So, you know, when we look at our educational institutions, what do you think the challenges are for us as educators operating in that context? And, you know, what do we bring to bear?

Rich Lyons

That's all the time we have Jerry, thank you very much for the session. Um, look, it's a fundamental question. Leadership and change management are almost inseparable concepts. So what are some of the things people have taught me about change management or leadership in, you know, effectively, these are influence beyond formal authority organizations, right? We do not live in a command and control world and it's getting even less so in the academic world. So you know, I think just a few things that people have taught me over the years. Um, number one, look, paint the picture. You can see the pit - don't use the word vision, you'll confuse too many people! - paint a picture of what it can and should look like. And then, provide that clarity. People just don't see it as clearly as you do, and then remind and remind and remind. All right, paint the picture. It's like, imagine three years from now. So I'll go back to Berkeley Changemaker. I just mentioned that as one initiative on the Berkeley campus. So when I'm pitching that to donors and others, one of the things I say, okay, it's three years from now, and a 17 year old just like my daughter from Sao Paulo or San Diego or Stockton, wherever and that person saying, I have to go to Berkeley. I'm not seeing a narrative anywhere near that clear

from school x or school y. And there's a curriculum to back it. And I've talked to the students and they're loving it; I have to go to Berkeley. Now, will that happen? The time will tell. But when you start helping people understand why it's going to be a talent magnet, not just some interesting classes to take once to get to Berkeley, it opens them. Alright, paint a picture. That's number one. Number two, start from the premise that resistance is rational. Start from the premise that resistance is rational. If you suggest to your faculty that they are just resistant to change, even inadvertently suggest it, you're going to get buried. Understand the other side and where they're coming from and what problem they're trying to solve. Gotta start there, if you want something to happen. The third thing, and I'll stop here, is to put a benefits lens on everything. Help people see the benefits. I mean, the vision is the vision that's important. But for example, you talked about the culture change stuff we did at the Haas School and somebody asked, maybe they're already in the chat. But those four defining principles: question the status quo, confidence without attitude (i.e. True Confidence comes without arrogance), students always, beyond yourself. Now, for the faculty...I'm an economist for crying out loud. 20 years ago, I would have been deeply skeptical of a leader that comes in and says "we're going to do culture," deeply skeptical. It's not the way I was geared. Alright, I used to send, you remember this email, probably, but I would send an email to the faculty roughly annually, "benefits to you from our culture strategy." We signed on these three executive education clients that said, we got great proposals from these other schools - we're choosing you because of the culture fit. We've got data on surveys from students that say, "Wow, this was the deciding factor. I got into these other schools. I'm coming to Haas; this place stands for the right stuff." Okay. Look, you gotta keep reminding people that they are benefiting. And those are the three biggies for me.

Jerry Engel

So, quite a challenge. It was interesting how it resonates with what we teach in Lean innovation. You're talking about painting a story, showing the image, right? And just one of the key tools we rely on and in many curriculums, but especially in the Lean Innovation one, is the power of storytelling, and that people remember by hearing a story, and if you tell a story, you will convey the message. So there's a lot in what you're suggesting. That resonates strongly. But it all requires leadership. And, you know, stepping back from your specific situation, to a broader context. Tell us about leadership and the role that we might play. I mean, we can be good examples. You know, we've always been the Renegades. I mean, at least from my perspective, entrepreneurship educators have been on the fringe, as you said, and now we've come closer to the center, as institutions have recognized the attractiveness of entrepreneurship, or the power of it. But that puts us in a new position, a position to have influence. But many of us are practitioner-based or not necessarily traditional educators. What does it mean to have leadership and have influence in this construct?

Rich Lyons

Important question. I think one of the ways is - at least for me in my role, but I think my role is very similar to a lot of people's roles on this call - I think of it as platform building. Like if I'm a short order chef, and I'm just dealing with email at rapid speed, I'm not doing what this role was created to do. If I'm doing a lot of one-offs, look, that's not a great use, from the University's perspective, of my time. What platforms can we build that will be transformational, that help solve the problems of the people that matter around UC Berkeley? So I'll give you an example, I'll tell you a story. There's certain things that for people at our level of our organizations are going to be harder to pull off. But platform creation isn't too hard to pull off. Now, the story I'm going to tell - I did not do this by myself, I did this with a team, and so forth - But I think when you start hearing this story, you'll realize, "Oh, I think if I heard that story at my own institution, I would do everything I could to sort of get the obstacles out of the way and see whether we could do that or not." Alright, here's the story. We just created something called the Berkeley RIC, the Research Infrastructure Commons. So let me take a step back. I'm an economist. We've all read and heard about and participated in the share economy. You own an automobile, it's used 1% of the time. Not a great use of a very important asset class, or the built environment in Airbnb. Okay, now, here's the question, what's the capacity utilization of scientific instrumentation at UC Berkeley or any of our universities? How about on weekends, how about late at night, etc.? So, here's the platform, the Berkeley RIC, I'm reaching for my phone. We're 80% built. But by the way, there's an FAQ on the Berkeley website. If you go to Berkeley's website and you search for "RIC," you should find this or "tech transfer, RIC". Alright. Imagine, a small company, wants to use a mass spectrometer or a DNA sequencer, goes on an app, sees that there's one available two Fridays, two Saturdays, hence. Here's the fee. Here's the click through - this is key, somebody could say we're already doing that, sort of like mp3's existed before the Apple iTunes Store also - click through DocuSign, contract doesn't have to go through legal, doesn't have to go through risk, doesn't have to go through business contracts at Berkeley. I have access, I own all the IP for using it on that Saturday night. Here's the fee. The resources, importantly, come back to the lab leader and go back into Berkeley's instrumentation. Alright, that's it.

Jerry Engel

That's what I wanted to hear. I was curious where the hook was, or the owner of the instrument. Yeah. Anyway, messing with it.

Rich Lyons

That's it. So we needed to put stuff on the platform. This isn't a completely decentralized solution. It's like, we have labs applying to be on the platform. They've been approved to be on

the platform. Here are some of the guardrails - you can't have people wandering around labs, looking at Jennifer Dowd in his research at night, right. But these are solvable things. And then when you look at it in the large, it's sort of like, oh, my gosh, you just opened the boundary of the university. Berkeley doesn't have one mass spectrometer, it's got like, eight, I don't know the number, there are a bunch of them. Alright, so back to your question. It's like, look, this is not something a chancellor or the president of the university is going to get involved in. Platform building. Like I could give some other examples. What other platforms have you and your teams built? I'd be happy to answer that question. But when people ask me, What are the biggest advances? Usually it's a platform story that comes out of my mouth.

Jerry Engel

So in terms of leadership, in terms of how you, how one affects... As leaders, should we go out and just do our experiments, and then talk about our successes, do our storytelling and say, imagine if this was multiplied? I mean, how do you find that it's been effective - you're been a very part of it, you've been a very effective leader, you've been a change agent. What are the things that you've done that you've found to be effective? What are the resiliency? What's the internal strengths, the capabilities for yourself that we might look for in ourselves and using you as an example?

Rich Lyons

Well, thanks. I mentioned those things earlier, paint a picture, start with resistances, rational, etc. Those are at least partially answers to this question, but more specifically to this question. I remember when somebody said a couple of things - this again, these are stories, this is advice that people have given to me - and we were talking about another leader and somebody said to me, does he/she - can't remember who the person we were talking about - does this person understand the importance of working through and with other people? Bang. Bang. It is not an individual contributor thing. It's sort of like Berkeley Changemaker - what percentage of the work on Berkeley Changemaker have I done? I don't know, 1.2 2.1. Look, there's a team of people that all of a sudden got galvanized, and they want to run with the ball. So working through and with other people as entrepreneurs, some of us as entrepreneurs - I'm not an entrepreneur, like a lot of people on this call are, but I started a business or too small back when I was in college, and so forth - and sort of like I was, I was still operating like an individual contributor, I was still like it's my company. And that mindset of you will get your most important work done by working through and with other people. Boom. I think that's the single most important answer to your last question. And that doesn't come as naturally, I think, the way a lot of entrepreneurs are geared. Now, obviously, entrepreneurs are great at building teams, the successful ones, and so forth. But anyways, that feels like, from the leadership perspective, as fundamental as it gets.

Jerry Engel

So I want to give a heads up to Steve Blank and Pete Newell and Steve Weinstein that I'm gonna turn to you and give you an opportunity to ask Rich a question directly. But before we do that, I'll give them a chance to get prepared. Can you just address for us the age old question of technology transfer, because that is under your bailiwick. And it's oftentimes seen as, you know, sometimes Stanford's held up as a model, sometimes Berkeley is mentioned, sometimes MIT is mentioned, but more often than not, it's seen as either attacks on the process or a bureaucratic challenge. So let's just look at tech transfer narrowly for a minute and say, What do you see as the opportunities or challenges? And where do you see leadership emerging in this area?

Rich Lyons

Well, so I'm not a tech transfer expert, but there's a team naturally underneath me that is. But if there's a strategic parameter that I've been most engaged with, or change management program, if you prefer, it is this - and it's another platform story, and it's consistent with everything we've said. So, you know, I am an economist, I understand the alignment, get things aligned. So the starting point of this is, folks - and I'm not saying we're ahead of everybody but we've tried to build... Here's the name of this story. The name of this story is "X for equity partnerships." I will explain what I mean - x for equity partnerships. Okay. So alignment - the simple answer is alright senior licensing officers, let's just lean a little bit more into equity in the startup licensing agreements, and a little bit less into milestone payments and royalties, and a little bit less into patent reimbursement for crying out loud, because that's like right now, and they don't have the cash. And let's figure this out. Okay, so that's level one. Level two is in 20 years - this is the provocative proposition - in 20 years, I think it's likely that Berkeley will be generating more revenue, on average, from its equity positions in startups than it gets from the state of California.

Jerry Engel

Well, I'll drop the mic on that.

Rich Lyons

Now. But let me be very clear now about why this is a platform point, and not a micro point. The first thing that people think about is licensing acquired equity. Berkeley's been generating that in dribs and drabs for 20 years. It's generating it much more generally now, but that ain't going to do the trick. So if x the variable is licensing, licensing acquired equity, there's no way you're going to get the ball through that goalpost, not in 20 years, not ever probably. What else are we partnering for on equity? I can tell a story for every one of these, but this is the

platform. We are partnering equity for research. We are partnering equity for space. We are partnering equity for access. We are partnering in other ways - I could go through the whole thing. But all of a sudden now you're saying now we don't have one channel through which we're acquiring equity. At licensing, we have n, where n might be 7,8,9,10. Now, it's like, oh, this is getting very interesting, you have to remain aligned with the mission of a research university, we are not a venture capital fund, and we are, you know, etc. But when you helped make the case to the campus that this is not third order. In a steady state give us 10 plus years, this is going to be an engine for the university. That's the kind of thing I'm talking about. That's a platform vision. That's not "let's lean into equity in our licensing negotiations." And it's the kind of thing that I think people like us can help affect change around.

Jerry Engel
It's something that a lot of people on the call here have a lot of experience with. And we're seeing some nice comments in the chat about different models that have worked well. And I think the empathy and attractiveness of equity is something this group understands. Steve, want to give you a chance to come in and of course you know, Rich well, and engage with him for a moment? What's coming to your mind? Steve Blank.

Okay, I missed that beat. I'll come back to Steve Blank for a minute. Pete Newell. Could I ask you? Yeah, with the mission of the Common Mission Project, you're engaging with major institutions like the government? And, you know, trying to change their mindset? What type of challenge would you have for Rich, or something that you want to ask him?

Pete Newell
So I got a bazillion questions. But the one that I think struck me at the very end, and it almost sounds like equity for anything. And I have to ask what the potential downside of that is in the long-term for the relationship with the university. And I say this, because, for instance, we built Hacking for Defense. Everybody brought something to the table. And everybody shared equally and what was produced in the class - I know there's, there's no IP in the classroom. Most of the people are teaching for free. I think the only people who are paid are the teacher's assistants or the course assistants. The students brought their intellect and energy, the government brought the problem, industry brought their experts, and the university brought the credibility, and put that all in the same place. I guess my concern when I hear equity for lots of things is, the first conversation you start having with people about anything is, who owns IP? And immediately, it turns into five different platforms you're talking to. So what's the downside?

Yeah, well, look, it's an important question. And I think, at the end of the day, we need to think at the broadest level about what this does to our university, or sort of maybe unintended

consequence. So I think the perspective there real quickly is, you know, it could have a lot of unintended consequences. It's a really important question. All of that said, though, the licensing and IP question. So let me give you another couple of examples. We didn't have any of these five years ago, but we now have seven shared carry venture funds at Berkeley. These are venture funds, with affiliation agreements with UC Berkeley. They can use the UC Berkeley brand to gather assets. Each of them, the general partner has committed contractually, not "I will make a gift," but contractually half of the 20% of the carry going to the GP is coming back to Berkeley. Now, you don't sign an agreement like that as a GP, unless there's some quid pro quo there. And so let me give you a simple example. For some of these venture funds, we had an accelerator, we had no fund connected to it. We were already running the accelerator, it's called Skydeck. We connected a fund to it. And that fund has some privileged access to the company coming out of the accelerator. We didn't change what we were doing. The accelerator was already there. We didn't build the accelerator to serve the fund. But the fund said, "I'm very interested." Boom, value for both sides, deep value. Now, let me go outside of the licensing acquired category where I think that's where the magic is. I don't think the licensing acquired category can get enormous without us trying to use it. At the end of the day, if we own the IP, it's like, we can prevent this from getting into the market unless you give us all your equity, right? It'd be like No, you're going to start to slow the process. If you go too far, yeah, alignment alignment. It's too high a price. Don't go there. But let me use some other examples. Here's another - I won't go through a lot - here's a good example. We have something on the Berkeley campus that looks like what many of you would have on your campus, we call it the BAIR Lab, Berkeley Artificial Intelligence Research Lab. If you go to the BAIR lab at Berkeley, and the website, you will see that there are affiliate sponsors, there are companies that are partners. It's big companies, it's Intel, it's Adobe, big companies. I don't know the exact price but I think that the annual subscription for those companies is $250,000. And what do they get - they get access to faculty, they get access to the evolving research agenda. Now these are mostly open source CS people, okay, so this is not IP. This is not an open source Gestalt, but they're seeing the freshest stuff first. And they're paying $250,000. That's research. That's not IP. And there aren't too many startups out there that have 250,000 to pay for that per year. We got an exemption from the Office of the President, to allow us as consideration back to Berkeley to take equity in startups. So that startups could participate as affiliates of the BAIR Lab. Boom, there is no IP. We were de facto censoring startups from participating because we didn't have a second currency. We created a second currency: interest. So now you could probably come up with some unintended consequences even in that instance. But I think, you know, don't just use the licensing frame to calibrate what unintended consequences might arise, I think we need to think about all the pipes that we are considering.

Jerry Engel

So thanks for that. Rich, that shows the complexity, but it also shows the opportunity. Let's turn to Steve Blank for a closing question to Rich Lyons.

Steve Blank
Rich, congratulations. Innovation Entrepreneurship at Berkeley has certainly moved forward under your leadership in the last decade or so. But in listening to the partnerships and relationships you're building, I find it amusing is probably the wrong word, just surprising, that of all places Berkeley is kind of leading the path and the corporatization of kind of the relationship between universities, students and entrepreneurship. You can almost imagine the next thing we'll do is take a cut of the students' future earnings. How do you kind of keep that line between the role of a research university and a public institution versus corporatizing? The output of what they do? How do you balance that in your head?

Rich Lyons
Yeah, well, it's a fair question. I mean, I was a business school dean, so the word corporate and the phrase corporatizing is not one that gets under my skin, but it's a word that gets under a lot of people's skin. And it's an important question. I mean, if what we're doing gets under people's skin, we better recognize it and understand it and communicate with those folks. So I think here's, here's part of what I'd say. Is it mission advancing? Is it mission advancing? Are we investing in the scientific instrumentation that makes Berkeley second to none? In STEM research? Are we investing in programs like Berkeley Changemaker, that are signature programs, and that are much more inclusive ways for getting students connected to lives of agency? Now, if somebody starts saying, it's not, you've gone to a different place, this is not universal. But that's ultimately the question we have to ask. And at the end of the day, it's less about in my mind, it's not just about the fact that we are earning revenues in new ways. It is to what ends we are putting that revenue. Berkeley does things and invests in things differently than Stanford, differently than private schools. Elite private universities operate at one, one quarter to 1/5, the scale of UC Berkeley. We have a very different mission in those senses. And that's where this funding is going to go. So if you're able to say, we're generating revenues that we weren't before, we're going to be very careful to not distort things at the margin, but we better keep our eyes open. And we're going to advance Berkeley's mission, the Berkeley way, and then hold me/us accountable for it. So I think that's my answer. I like to think we can deliver on that.

Jerry Engel
And that's a challenge. Rich, this has been a rich discussion. And I just want to thank you very much for..I think everybody on the call right now I can see the leadership that you bring to any situation. And you're a risk taker and an experimenter and you iterate, and pivot and create. I

saw you do it as a dean. I've seen you do it in the classroom. And now I see you do it as an administrator, and it's fantastic to be part of it. Thank you for joining the program with us. Certainly hope you can be with us longer in the program. But I understand this is our time commitment. And we thank you for your time. Thank you very much. Let's all express our appreciation.

Rich Lyons
 Thank you. Thank you. Thanks.