

2025 GLOBAL TOWARD A FLOURISHING FUTURE

UPSKILL BATTLE: THE RACE TO REWIRE AMERICA'S WORKFORCE

Announcer 00:00

Please welcome the panel on Upskill Battle: The Race to Rewire America's Workforce, moderated by Ben Wildavsky, author of The Career Arts and visiting fellow at the Harvard Graduate School of Education.

Ben Wildavsky 00:41

Well, good morning, everybody. It's great to see all of you here. Anybody who's followed education and workforce discussion in recent years and who sees the imperative to build talent for emerging jobs knows that we've heard repeatedly in the United States and around the world about skills, skills and skills. Sometimes the focus is on hiring for skills. Sometimes it's on the alleged trade-off between skills and degrees. Sometimes it's on the need to focus on refurbishing skills over a worker's lifetime through reskilling and upskilling. But what exactly do we mean about the exact kind of skills people need in the workforce, and how will that change with the rise of generative AI? Is anything missing from our discussion of skills? And there's more. What approaches to education and training are showing promise? What has to happen to scale the most effective initiatives? To help us navigate this fascinating landscape, we're fortunate to have an incredible group of panelists. They lead organizations that are doing fascinating work on technology, on mentoring, on upskilling, and on systems change. We have Art Bilger, CEO and founder of Working Nation; Michael Ellison, CEO and co-founder of CodePath; Lisa Gevelber, founder of Grow with Google and Google's CMO for the Americas region; Mike Kubzansky, CEO of the Omidyar Network; and Artis Stevens, president and CEO of Big Brothers Big Sisters of America. As we start our conversation, remember that we'd love to have audience members here in the room and around the world send in questions for the panelists. I have an iPad here that I think is supposed to get me those questions, and our panelists are going to field some of those questions in the last part of this session. We'll probably trying to leave about 15 minutes for the questions at the end. I'm going to start now with Lisa Gevelber. Lisa, you founded Grow with Google, which is known for its career certificates that focus on very specific in-demand skills. How do you balance the need for people to acquire very targeted skills that employers want right now, maybe in tech, with their need to obtain broad skills or durable skills that are going to help them navigate a whole career. I'd love to have you answer this, wearing your Google hat, of course, as an industry leader, but also with parents in mind, because so many parents are wondering about what mixture of skills their kids are going to need to succeed in the future workplace.

Lisa Gevelber 03:16

All right. Well, good morning, everybody. So I founded a program at Google called Grow with Google, and the entire premise is that we need to make sure that the opportunities created by technology are truly available to everyone. And so for the past almost eight years, we've been focusing on helping people grow their skills, careers and businesses. And we started from a premise that everyone has the opportunity and potential to do all kinds of jobs, but in our society, there's been a lot of restrictions. So, almost all good jobs in our country say they require a college degree. Only about a third of Americans have one. So we created an alternative pathway. Make no mistake, having a college degree is life-changing. We just believed it shouldn't be the only way to change your life. And our investment really was in how do we give people the skills and knowledge to do all kinds of jobs? So we teach things like cyber security, data analytics, concrete career fields that are in demand, growing and high paying. But I think your question is broader than that, which is, how do we give people skills for life? And I think AI is certainly changing things, and I hope we have a chance in this panel to discuss that. But even before AI came along, we have to acknowledge that our society is so far past the point that even if you were lucky enough to get a college degree. you could learn everything you need to know for your future career in the four years from when you were 18 to 22 years old. Those days are past. We see this also in the data of Google search queries. How to change jobs, was at an all time historic high last year, and I think this is not going to change anytime soon. So I think the jobs for-or the skills for today–I have two daughters in their 20s. We spend a lot of time, unfortunately, these days trying to figure out what they want to do. And what I tell them is the skills that are important for today actually aren't that dissimilar to what they were in the past. First, you have to be a great learner, and whether you're using our program or the programs we have to teach people AI, or some of Michael's programs or others-the ability to learn. Second, now more than ever, the ability to be agile. The job that you take tomorrow will look nothing like the job you will take in a few years, and that's true, I think, for all of us. We need to be able to think quickly on our feet, but also to move to where the puck is going, not just where the puck has been. And then I think critical thinking. In a world where answers are more than ever at our fingertips, the most important thing is, what's the question you're asking? And I think that's really important.

Ben Wildavsky 06:11

Super. Well, that's a—I've heard so much there. I mean learning, agile, go where the puck is, critical thinking, other thoughts. You know, we hear so much about the desirability of the short, inexpensive, targeted credentials that are going to help get you ready for what people want in the workplace. How do you find that balance? Just other ideas about how we should think about this, if we're talking to learners.

Lisa Gevelber 06:34

For me?

Ben Wildavsky 06:35

For you, or for anybody else.

Lisa Gevelber 06:37

I mean, our program is based on the idea that we can teach you what you need to know, but actually it takes an entire ecosystem to make our workforce successful. So we created a training and certification program from Google in these high demand fields, like cyber security, data analytics, IT support. Michael has amazing programs as well. But that's not enough. What we need is employers who embrace people with different credentials differently. We need employers who think differently about what they're hiring for. And by the way, we're already seeing this. 70 percent of employers say they'd rather hire someone who's less experienced but knows how to use AI than a person who is more experienced, and that's why we're investing in free and low-cost ways for people to learn to use AI. We have AI essentials and prompting essentials, which are really good ways to get your head around, "what is AI? How do I use it? How do I make the most out of it by prompting well?" And we make those available to anyone of any background, but also specifically, we have special programs for people like small business owners and teachers

Ben Wildavsky 07:48

Super, super. Well, let's now turn to Art Bilger to dig a little deeper into this much discussed idea of lifelong learning. You know Art, why does lifelong learning matter? And what do you think is the key skill that individuals need to make it happen?

Art Bilger 08:04

Ah, that's a good question [laughs]. Well, once upon a time, you would come out of whatever level of education, go get a job, and 30 years later you'd retire. Well, that's clearly not the world that we live in anymore. Lifelong learning is absolutely critical. My organization, Working Nation, which is a not-for-profit media organization focused on the workforce issues and opportunities in our country, we got started when I started thinking about how really four variables were coming together like never before in history: globalization, technology, longevity and broken education. And the first piece that we released, which was in September of 2016 on CNN's platform, it was called "Slope of the Curve." And I named it that because I was saying that the slope of the curve of jobs and skills, when measured against time, was getting steeper and steeper. Well now, the slope of the curve is nearly vertical. It is changing so quickly, and as a result, lifelong learning is critical. We've got—I'm looking out in the audience, and I see people who are very much focused on these issues, as well as the panelists here. You know, because of those factors changing so rapidly, jobs are changing. And you know, when we talk about Al—one of the very exciting things about Al, I believe, is that it offers—and I think Lisa made a reference to this—offers people without credentials the opportunity to participate in jobs and employment that they never would have been able to participate in in the past.

Ben Wildavsky 10:43

Yeah.

Art Bilger 10:44

So it really is broadening the opportunities for society, provided society understands, and that's why we at Working Nation, created what we are—as I said, a media organization to basically educate the people of our country as to the issues in employment, but also, where are the opportunities?

Ben Wildavsky 11:09

Yeah, well, so quick follow up from the rest of the panel. What about—so we hear a lot about AI driving the need for change, but what about the content of lifelong learning? You know, what is it that AI can do to help make you like, lifelong learning, you know, more adaptable, more effective, you know, change as needed over time.

Michael Ellison 11:09

I'm happy to jump in

Ben Wildavsky 11:10

Great.

Michael Ellison 11:10

So, at CodePath, we're very, very excited about AI. And CodePath is the nation's leading trainer of software engineers in the country—on track to serve 20 percent plus within the next couple years—every year. And with that scale, and then our intended scale to 100,000 plus of students per year, then one of the biggest challenges we have is just operational. You're embedded inside of schools. Great teachers are expensive. You don't want to compromise outcomes and quality. The opportunity that we've seen with AI is an opportunity to drive operational efficiency so that for every teacher, for every tech fellow, for every mentor, for every volunteer, you can better optimize where they spend their time. So there's two really incredible benefits to this. Number one is it decreases the cost to do the same thing. So imagine any nonprofit that you love, that is driving tremendous impact, and they can do more with the same resources. For CodePath, that means 20 percent decrease in our cost per student last year, closer to 30 percent decrease in the cost per student this year, and on track for that to continue over the next couple years. Not because we're doing anything special, but just because tech, AI, software engineering is very powerful when you optimize people to do what they do best, and then you remove, say, the faculty member from reinventing the wheel in the curriculum every single semester. The other area, which I think is not yet here, but we're very, very excited about, is the nature of more personalized and adaptive learning. So I talked about just operations, with that opportunity. But what about the opportunity to give every learner what they need when they

need it, before they even know that they have the challenge and the problem. This is a combination of what you're measuring and then ensuring that if you have the right data infrastructure, measurement, evaluation and learning, then that can change the classroom experience across different schools, different school types, different demographics. And so a lot of this is just—the tools are available today. The opportunities are available. And this is not the narrative of the magic AI, anything tutor or anything teacher. This is—this actually starts kind of like boring and straightforward with operationally, you can improve things. And we firmly believe that AI is something that is going to give every educator superpowers—already is—that will continue to accelerate, and then the benefits end up allowing us to serve more of our population that really need that help.

Ben Wildavsky 14:08

Quick from Mike, and then I want to go on to something different.

14:11

Mike Kubzansky 14:11

Yeah, and just to introduce myself, I think I'm here to be the one of these things is not like the other, where we're not involved in directly skilling at all, but we do pay attention to sort of the bigger pictures. For those of you don't know, Omidyar Network, we are both a philanthropy and an investor in this space, and have invested in things in the skilling space, like Andela back in the day, which was training coders to go work for Google and that sort of thing. So we've had some exposure. But that's not where we're coming from on this. And I'll come back more. My job is to be the macro big picture here. But I will say, with our investor hat, we've invested in Anthropic, right? And Anthropic recently-I don't know if you've seen-has published its economic index, which is kind of the first take on-so I think it's worth thinking about, one-one size fits all is not going to actually work here. And it's worth thinking about, where is this showing up in the workplace, and where is this not showing up in the workplace so you can start to think about the skills. So what they found is there's kind of a barbell effect, which is the lowest paid and the highest paid jobs in the economy are not using this much. Weirdly, the OBGYNs are not using Anthropic that much, nor are the hair salon shampooers. But there's a lot of folks in between who actually are using it, particularly in computer and mathematical tasks, programming, obviously, we've all seen about the software. Interestingly, second biggest category, arts, design and sports and entertainment are peoplewho are using the software. And not surprisingly, people doing physical labor, fishermen and foresters, are not using the technology that much at this point. So, I think it's—and then the other—but the important thing, which backs into, what should we be thinking about the skills is—over 50 percent of them were being done to augment labor instead of substituting for labor, right? And so that brings up the question-the question really is, what are the skills we're doing that would help? Because it's not just that the technology is coming, it's who's going to benefit from the technology? Is it going to be the companies who are installing the capital equipment and buying the services from OpenAl or Anthropic or whomever? Or, how are the workers actually going to share in the productivity gains that they are producing? And so I think it's worth thinking about some other skills that aren't actually about at-work skills, but are going to be very important. How do you recognize when the AI is surveilling you, right? How do you

get a seat at the table to understand how you could make that job augmentative and increase wages in a way that would actually build skills, build value, and bring some of the returns back to workers. So I think there's some softer skills that are not about like actual coding, but are actually about, how do I engage in the workplace, and where there's going to be very different relationships between management and employees around the software?

Ben Wildavsky 16:46

Yeah, well, that's great. I want to come back to this question of distributing the productivity gains that we're all anticipating. But, you know, we—it's actually a great setup for turning to Artis, because we've talked about this range of skills, you know, the adaptability, the durability skills, the very targeted skills, and, of course, all the ways in which AI is transformational. But I want to ask Artis Stevens about relationships. So what has your experience at Big Brothers, Big Sisters taught you about where things like mentoring, building networks, you know, the whole package of what's often called social capital. How does that fit into the skills discussion?

Artis Stevens 17:22

Yeah. Well, first of all, just glad to be here with this amazing panel—with all of you as well. I know many of you may know the name, Big Brothers, Big Sisters. You know, 120 years old just this year. You know, we're the largest youth mentoring organization in the country. What a lot of people may not know, though, is that we're the largest youth workplace mentoring organization in the country, right? We work with 350 organizations, companies, right, organically on the ground. It gives us a lot of insights on hundreds of thousands of young people that we serve, the relationships that are connected with them as well. And it's interesting, because one of the things that we've been doing is really engaging young people, right, in their voice, in this discussion, in this conversation. And, you know, I sort of call this idea of, like, rising from trauma to truth, right? Because there's been a lot of trauma that's going on in our country, even if you look at our organization. And I want to just paint a picture for you all, because it's really a seed that goes deep into this conversation. If you look at 120 years ago, we were found as an alternative innovation to the juvenile justice system, right? And that's essentially because kids were being sent through the justice system, and a court clerk started to ask young people who were being sent through the justice system, okay, what's an alternative? What's the ways that we can think about it? It was young people's voice who said, well, what if we created a system, a culture, where adults and young people connected with each other, and if you guys helped us, it could help empower us, and not only help ourselves, but also to help communities at the time. And remember this was like the turn of the 20th century, right? That's how our mission was started, based upon the idea of youth force and youth empowerment. Fast forward 120 years, right? Pandemic, I started four and a half years ago during the pandemic, right? Everybody-

Ben Wildavsky 19:07

Well, you had quite the timing.

Artis Stevens 19:08

Oh, yeah, it was fun time, y'all, fun times. Y'all remember, though, everybody remember what was happening, so think about this, right? What we saw-we traditionally served five to 18, school aged kids. That's what we've done for more than a century. And yet, the fastest growing population that we had started serving was 18 to 25 young adults. Why is that? Because kids are raising their hand and asking a singular question, what do I do next? How do I fill a tax return? How do I interview for that job? How do I think about my financial independence as I'm getting a job. I mean, the questions were endless. I mean, the response—what we did is—we said, okay, we have to listen to young people and what they're saying to us and how they want to organize and orchestrate independence, their life, and their journey. So we designed programs now [inaudible] socialisolation, loneliness, people that lost contact with the COVID response, but in our lives [inaudible]. And what we hear, over and over again, is that young people are saying, yes, talk about us, [inaudible] but don't leave us out of the equation of how we design and how we create. So the part of this discussion for us and how we're making sure [inaudible], is making sure that young people are at the table. Because if we're going to design things for our workforce-if they are not just the workforce for the future but the workforce right now, today-because that's what we're seeing-if we don't start thinking about that 13 year old being in the workforce of today-doesn't mean they're going to start working right now, but it does mean the idea of how we ensure that they're ready is part of their own self actualization, their own self advocacy, in the sense of being and talking about what's important and what's important for their design. So building a design that's talked about skills and developments has to have young people that are engaged in this process, and has to have young people that are at the table and are empowering about how we make decisions.

Ben Wildavsky 22:02

Yeah, yeah. Well, you know that actually makes me—I want to sort of—bring forward something that I was going to do later. But I know, Art that you've been very, really, really passionate about the whole idea of finding purpose in work, and I find myself wondering whether the question of relationships and networks and social capital is also part of that finding purpose journey. Like, what do people need to really answer the why behind—whether it's the very particular skills they're learning, or the AI, or this—the navigation tools. What does purpose have to—how does that come into the whole picture?

Art Bilger 22:42

Well, as some here know, and you know a little bit, one of my passions is the whole idea of the linkage between employment and purpose in life. When I began Working Nation, and I'd explain the thoughts—some of which I conveyed a few minutes ago—a lot of what came back at me was, "Art, you're wrong. The solution to all of this is universal basic income." And, that happened all the—you know, quite frequently. And I used to say, one, I don't know how you pay for it, but two, where's the purpose in life piece of that? I really believe purpose in life, and it comes in many different ways, in society and for each individual, it comes many different ways. But employment is a very important piece of that equation, and, you know, I've been on, you know, multiple panels where, you know, four people on the panel, I'm the last one. Here I'm the first one, but most panelists, I'm on the last one, and everyone else is younger than me, and they all just cheer about the idea of virtual employment. And then they get to me, and no, I probably shouldn't use bad language [laughs]. I totally dismiss that, because such an important piece of that purpose in life piece is three dimensionally engaging with others. And I think, you know, back on the subject of AI, you know, here, I think one of the key questions, and I don't really know the answer, but one of the key questions is, to what extent will AI bring people together and thus provide greater amount of purpose in employment? And I'm not sure—I have the idea, you know, I know the answer to that, but I do believe that's a very, very important piece of the equation. Just for society—for an organization, or for society overall, to operate smoothly with emotion. I do think purpose is an important piece.

Ben Wildavsky 25:36

Well, as you know, one of the big fears is quite the opposite, right, that AI will take away purpose, that it's going to take the rug out from under a lot of people and what they're used to. So are you—I don't know if you have a leaning, but do any—do people on the panel feel like we have reason to be more optimistic than this sort of worst case scenario?

Art Bilger 25:56

Going back to something I had said earlier, I do believe—take that group of people who you know, made it through high school, but not beyond that, they—to Lisa's comment about the credentials of college—beyond that—the fact that those people who just made it through high school, I believe, are going to be able to participate more broadly in the employment world, utilizing the skills that come with AI, I think, could be a real positive.

Ben Wildavsky 26:43

Lisa

Lisa Gevelber 26:44

I'll jump in for a second. I think that we're in a really important moment in society, right? And jobs of all types are going to change. I'm encouraged by some of the research already that shows—and this is research from McKinsey and BCG, but also Stanford and MIT and others-that shows if you take a less experienced or less skilled person and you teach them to use the AI well, they perform at the level of a more experienced or more skilled person. And I think the implication of that is reason for optimism, which is that potentially, AI is an incredible equalizer like none we've ever seen. But that's not going to happen automatically, and that's why I think it's all about, what do we all do as a society to lean in on this? How do we help people learn to use this technology. The great thing about this technology, and Michael and others have alluded to this too, is it's not just for the engineers. It's actually for all of us, right? It can make everyday tasks, either at home or work, easier for everyone, but you have to learn how to use it. Like anything else, if you're not good at asking the question or doing what's called a prompt, if you're not good at prompting, what you get isn't as good as it could be, right? And so there's a little bit of a learning curve about using these tools, and that's why just getting some basics around prompting essentials-you don't have to do prompt engineering, that's a whole different thing, but some prompting essentials will dramatically affect the results you get. I'm lucky I have the opportunity to talk to people who are, you know, heads of AI for big multinational companies. And one of the things they say to me is, we're building all this AI for people to use, but if they don't use it well initially, they kind of back off and they don't see the value. If it doesn't add value to their

lives, they don't use it. So then the companies are investing, but the people aren't creating the value from the tools. And so we're partnering with lots of companies on things like prompting essentials—companies from like Southwest to Albertsons to Citibank and others, to teach people just the basics of prompting so that they can use the tools well. And as we all say, there's a difference between, like, easy to learn and easy to use. And if you can get people up the learning curve, then these tools actually are kind of miraculously easy to use, so they see the benefit.

Ben Wildavsky 29:16

Thank you, Lisa. I love the emphasis on prompting, because I had this really fascinating discussion last year with Ethan Mollick, who's a professor at the Wharton School, wrote a book called Co-Intelligence, and he talks about—for someone like me, who's just kind of trying to, like everyone, trying to figure things out. He talks about the idea of generative AI is a really, really hard working sous chef, but who knows nothing about cooking, and so it's all about giving the right kind of direction. So I just—I think that's a really important point.

Artis Stevens 29:42

Can I add one thing to that too? Yeah, just real quick. The other part, I think, that is important in this conversation is one of trust, right? And I think that as we talk about AI, and particularly as we talk about entering and emerging workforces, right-that's utilizing, leveraging AI. I don't think the idea a lot is always, do we trust AI? Sometimes, do we trust the people? Right? Do we trust the institutions? Right? AI is a tool like anything, and like any tool it's, how about-how you leverage it? And what we've seen and what we know is that any tool can be used for incredible purposes, but they can be used for other purposes that are not so incredible, purposes like bias, right? Or thingsthese are the types of things that young people right when they talk about the institutions that they trust, the institutions that they don't trust, who they trust the most? Right? And they tend to trust each other the most, right? When you really look at—when you hear about a lot of the 18 to 25 workforce and a lot of the engagements that we do with young people, it's about, hey, I trust my peers, right? The idea of how we see them and how we see them entering this workforce, I think, is critically important. I will tell you one of the things that we've seen very clearly, even in our mission, right? Our mission for 100 years have been matching, right? So we match a positive adult with a young person. There's a science to that, right? You got to do it right. You got to think about safety issues, all the different things that come. So there is a science to actually matching strangers, people who have never met in their lives. And you're going to basically put them together, and you're going to say, hey, this relationship is now going to flourish, and that's what we've seen: lifelong relationships, over 100 years, of people organically doing it. There's some power to that, but what we've seen young people really get into is helping us even think about how AI can play a powerful role into that. So what we're now doing is smart matching. So it doesn't take the adult out of the equation, but it helps the adult to be able to facilitate. Hey, what are the things that we can learn about the components of matching: relational interest, needs, skill set. And then when we talk about careers, or we talk about, how can we enable things like that, the young people are helping us to actually inform that technology, so that when we use the technology even more effectively, not only are those matches latching longer in terms of the relationships, but now, if there's a kid who is in rural Georgia and there's somebody who has a skill set in San Francisco, those two can be safely matched, where now that young person can learn about skills and experiences that they would have never had exposure to in their life. That's the idea—when we use Al, in the most perfect and most profound way-of the type of power that we can create.

Ben Wildavsky 32:23

I love that. So that's really—there's so much discussion of the balancing of the human dimension. You know, the human, the human in the—what's the expression, there's some technology expression—the human in the loop. Thank you. That sounds like, that's—you're finding way of doing that. But I want to move to a very kind of, in a way, it's an implementation question. And I want to ask you this Michael Ellison, because CodePath, you know, I know works with a lot of colleges and universities on changing how computer science is taught. And you just wrote on LinkedIn just the other day that reprogramming higher ed is a national imperative. So that led me to wonder, if we're talking about all these great ideas, the why, the purpose, the relationships, the very kinds of skills that we need. Are you finding, like, receptive partners? When you talk to some of these big, important institutions, like, do they share a sense of urgency? Do you feel like they're ready to dive in with you to help make things reachable for more students?

Michael Ellison 33:21

So the current macro environment is really interesting, where we sit. At the beginning of the year, we weren't sure if 2025, was going to be deceleration for CodePath, you know, we have colleges, universities—it's an existential crisis with research, with funding. We work across lots of different states, you know, red, blue, and everywhere else. And so then there's a lot of risk aversion across colleges and universities as well. And there's also kind of this interesting narrative—we're in this AI arms race—at the same time, there's this urgent need when schools are thinking about AI, they're thinking about computer science. When they're thinking about re-imagining drug discovery, looking at computer science combining with other majors. When they're talking about space exploration, but looking at computer science and physics. So what we've seen on the ground this year is all across the country, this massive acceleration in interest in partnership. CodePath being large, but then expanding our growth rate 100 percent plus year over year. By the end of this year, we'll have over 50 colleges and universities where we're serving 10 percent plus of the computer science students. We've also seen many schools such as Florida International University, Georgia State look at CodePath-even though we are focused on computer science, we are focused on economic mobility-look at CodePath as a way that they can change their school rankings, getting into a top 50 school, getting into a top 30 school. And as I've been thinking about it, it makes a lot of sense, because computer science is the major that has the highest earnings, best job outcomes. They want to be able to build trust with their local community and say that AI is changing everything. There's chaos. But look where we're investing and look how we're driving impact. It's also it's shockingly rare to see quality at scale. When we're talking about workforce development, we're looking at different regions, oftentimes you see numbers in the hundreds. You often do not see numbers in the thousands, of actual, deep impact. And what we've seen is we've scaled across different regions, for example, South Florida, serving 20 percent plus of the computer science students today. Then, government starts to fund your acceleration. The Workforce Development Boards are opting in to work with you, the schools-schools targeting zero cost tuition are paying us in order to offer courses. These are coding courses. These are computer science courses. But we've seen this really interesting dynamic. There's the macro narrative that you might hear, and then there's the urgency that we see on the ground from just a jobs, from an economic mobility standpoint. A couple other stats that might be surprising. We're not on track in order to meet the demand or win the AI war right now. The majority of colleges and universities, not the top 20, Ivy Leagues and so forth, but many of the schools are trying to figure out whether or not AI should be a part of curriculum, or, more importantly, thinking about, can we just stop students from cheating? What this does for a lot

of students is they're playing around with generative AI. And I have, you know, freshman, sophomore computer science students, and they tell me, you know what, I think AI made me a lot worse. You hear stories about students acing every homework assignment and then the lowest test scores with the final exams that they've seen in decades. Copy and paste is not proficiency. It's not mastery. And I think what's really important as we are—you know, CodePath, embedding our programs, as we are thinking about AI—is how do we ensure that AI is a tool that drives deeper mastery? Can we learn more in the same amount of time? Can we have—can we be deep in more areas versus fewer areas? And I think that also intersects with probably the most resilient skill set, which multiple panelists have talked about, your relationship to learning, analytical, problem solving skills. I mean, we've always been talking about this. We've always viewed this as important. I just think it is dramatically more important in this age of AI.

Ben Wildavsky 37:26

Yeah, well, I want to pick up on what you said about scale, because I do want to—before we go back to you, Lisa, I want to go to Mike Kubzansky to talk about the whole question of urgency and scale, in historical perspective. You know, we've seen previous periods of big economic change, major job displacements. What can we learn from what we did or didn't get right in the past as we're trying to figure out how to address today's moment?

Mike Kubzansky 37:54

Great. Thanks. Yeah, so if you think about we are—the Apple One came out in 1976. We're about to hit the 50th anniversary of the digital revolution, for lack of a better marking point. And maybe it's earlier, when they built ARPANET and DARPANET and that sort of thing. But the Apple One, by the way, Wozniak built so that he could muck around with what became the internet in the time. So if you think about we're 50 years into the digital revolution, and go back to the automotive revolution, sort of early 1900s, right? By 50 years into the automotive revolution, what had we done? We had made a bunch of choices about liability. Who's responsible if somebody you know, hit somebody crossing an intersection? Tail lights, stop signs, red lights, highways. Actually, Eisenhower built highways within those 50 years, right? There's a bunch of things that we did. And most importantly, relatively quickly after the automotive revolution, we went back to the education system and said, gosh, lots of people are going to be working in Henry Ford's factories. How do we retool the education system in the first place? We have made no comprehensive national effort along those lines, on the digital revolution, whatsoever-let alone AI, right, and that sort of thing. We've kind of let this kind of seep into the system in a very laissez faire way, without taking a national or even state level priority. And there some states who are outliers and that sort of thing. But if you compare it to how we as a country geared up around biomedicine, how we as a country geared up around, you know, the automotive revolutions. None of that is present. And, in fact, it's even like, you know-just project this forward to sort of the tariff policies, you know, for a second, right? What's going to happen under the current incentives to build factories here in the US? Right now we're talking mainly about generative AI as it affects thinking work, right? Which is, by the way, this is the first technology that ever affects thinking work instead of manual work. But we're coming back to the manual thing. The tariffs are supposed to be producing manufacturing. Well, the only way to be cost competitive in manufacturing is going to be to put a lot of industrial robots, you know, into factories. And by the way, 96 percent of those robots are not produced here. So first of all, we got to train people to build robots in America. But secondly, the you know—so what the lesson is—you can't just talk about skilling. You need to have a comprehensive approach. What's happening in the education system, what's

happening in the labor relations framework for our country? How are you giving workers a seat at the table? What is being done to write the rest of the rules around it, whether it's on the front end in terms of the educational system or the back end in terms of the safety net, the UBI reference. We started out funding universal basic income.

Ben Wildavsky 40:40

Universal basic income.

Mike Kubzansky 40:40

Universal basic income. We started out funding that too, and took a step back, because that can't be a substitute for all the things that need to happen. But we are going to need a better safety net. We utterly botched it on the China shock, right? So we didn't do much reskilling, as the stories have now been famously told all over the industrial Midwest. And by the way, while the China shock happened—all those manufacturing jobs—we actually lost more jobs as from administrative assistants in the same time period, right? Quietly, two at a time, four at a time in any given company. But those are low-level, entry—those are low entry-level white collar jobs that used to require some skills, and would be an entry point on the ladder, those have all gone away too, but we've not done any planning. So this is not at all a call for a Stalinist five-year plan, no, just to be clear, but it is a call for a comprehensive approach on everything, across the board, start to finish. And by the way, they're going to open up the tax code this summer. You know, I live in Washington, DC, although I pretend that I'm from Silicon Valley. And, you know, right now we tax labor more than we tax capital. So what do we think is going to happen? Right? And so call your congressperson, call your senator and tell them like, no, let's equalize this—if we want this to result in jobs, like even things like the tax code are part of the equation as well. [applause]

Ben Wildavsky 42:05

Well. [laughter] Without talking about, you know, Stalinism and so forth—I guess the question would be—and maybe I'll ask Lisa first, you know—but the group you know, are we at a moment where, if you agree—you know, with Mike's idea that there is a need for some, maybe not a centralized top down, you know—certainly not gonna be led by the Department of Education right now. [laughter] But do we need a national strategy? And are we in a moment where that kind of national cohesiveness is even possible?

Lisa Gevelber 42:40

I mean, I think what you're hearing here is, for sure, the stakes are high. The implications for getting this right are gigantic. And I think it's incumbent, actually on every institution to be thinking about, how do they want to lead the way here, and what are the guardrails that they want to put in place for their organization. We've all heard the stories where a company doesn't have clear principles or guardrails around AI, so the employees pretend they're not using it. That's not so useful. [laughter] And I think the same is happening in education, and I think the

problems, Michael that you raised—those have to be solved. We have to learn to teach with, right? Help students to learn to use with, and learn at the same time. There's been some research that shows, for example, that banning the use of these tools in schools actually leads to huge gender differences. The women think, "Oh, I can't use that. That's cheating." And I'm speaking in general, the men use it anyway. [laughter] And these studies are showing that women's usage of AI is dramatically lower than men's, and over time, there are going to be repercussions for that, right? We don't want to leave anyone behind, and this technology is accessible and useful to all. But schools need to figure out how to teach with—schools at all levels, K-12, higher ed—companies need to figure out, what are our policies and principles, and how do we make sure that the people who work for us know how to use the tools well, and also know what the guardrails are and what our policies around privacy and other things are. And obviously there's a huge role for the public sector to play here, and we're seeing that. We're seeing people step up and try to encourage the teaching and usage of these tools. They're not going away, and they are very powerful, and that's why it's incumbent on all of us to be smart about how do we teach and use them.

Ben Wildavsky 44:45

Yeah, well, look, we're down to just about 15 minutes. I want to get to some audience questions, and this is actually you mentioned, not leaving people behind. So one of the questions I have on the iPad here is—really for anybody in the group, what strategies and resources will be available to low wage workers who may not be able to take advantage of some of these learning pathways that are often talked about.

Michael Ellison 45:09

I'm very opinionated that I think one of the biggest opportunities, if not the biggest, for us to do at-scale up skilling-instead of talking about thousands, we're talking about hundreds of thousands, millions-put in perspective one of the largest programs, Department of Labor, Job Corps training program, 50,000 students a year cost them 1.3 billion. Some of the lowest performing programs they have are 500,000 plus per person to try to get them five to 10k in additional earnings. The math doesn't math. And so-but I become just extremely passionate about supporting community colleges and state schools as opportunities for dramatic change. And technology does open up new opportunities to-just look at some of the existing consensus that have already existed, and then to be able to drive deeper change fundamentally. So one example would be—as we're thinking about changing student outcomes, are we decreasing-are we looking at the pain points of faculty members and professors and designing in a way that will save them time while also improving student outcomes? That's worked very, very well, grassroots, bottom up. You can think of it from—you can approach the systems change from a top down, but you can also think about it in terms of different stakeholders. What are their incentives? What are they going to do, and what are they trying to do? And then does that enable leveraging technology that's actually a lot cheaper, a lot more efficient, a lot more effective, to then drive that level of change that you're looking to drive so community colleges and state schools—we can—we have an opportunity right now to transform them into engines of innovation. Instead of you were looking at five to 10 percent undergraduate internship rates or 20 to 30 percent job placement rates, there's a real opportunity we have—and they're more willing than they've ever been in the past, in this current moment, in order to explore new initiatives, new partnerships, new opportunities.

Ben Wildavsky 47:05

Do you think, I mean, like I'm thinking, though back to the question about low wage workers. They're not necessarily, not in college. They're not necessarily—

Michael Ellison 47:11

No, no, no, this is why community college is great, because so—Miami Dade College, 150,000 plus students enrolled, but you can be part time. You can, you know, single mother, work multiple jobs. Where do they go to? They go to the place that's accessible and visible. They target zero cost tuition so—and then they have wraparound supports. And the people that they are used to serving are the exact same people we're talking about, from the opportunity youth to the non-traditional learner. So we love community colleges, because that's how you really embed inside the community. If you talk with local mayors, you talk with the workforce development organizations, then they see the large community colleges—and then feeding into the large state schools, that is their primary tool for driving change for their future population. So, we certainly can't ignore it. Now, you could say, well, maybe we can't change it, but the question is, what if we can? And then if we can, then we should certainly be taking a closer look at that.

Lisa Gevelber 48:07

Okay-

Artis Stevens 48:07

l wanna-

Lisa Gevelber 48:08

I can build on that.

Mike Kubzansky 48:08

Yeah we all have-

Lisa Gevelber 48:12

Sorry-

Ben Wildavsky 48:12

[laughter] Please let's have Artis, then Mike, and then Lisa.

Artis Stevens 48:14

Yeah, I'll be really quick here, because, you know-I think the point around community colleges, educational system is spot on, right? Absolutely spot on. I'll also go on to say is—what about those kids that don't get there? What about the folks that don't get to those places, right? We're seeing more young people who are deciding not to go to college, any form of college, right? We're seeing—and that's a challenge, of course, in some aspects, but that's the way, in the track that they're going. And when we think about this, the idea is, How does everybody play a part in this role—institutions, but also people, right? And that's why I want to come back to the idea of mentorship, because you've seen it in mental health, right? Where there's this conversation around mental health, that I may not be a mental health expert, but I can be a mental health support, right? Those are one of the things that we've seen even in our movement—of how do you empower people to be able to identify things around mental health and help young people to be able to identify and support. The reason why I bring that up into this entire discussion is because there are people who are barbers in communities. Those are people who have technical skills in communities that may not be in your institutional structure but that can be just as powerful of creating levels of exposure, right? I was the first of my family to go to college and graduate. My dad had a fifth grade education, right? But he empowered me enough from the sense of having the level of exposure to get somewhere. So imagine if we're able to empower mentors across this country, no matter what your luck of life is, no matter where you are, but with the idea of how we empower people and create connection. That's the power that each and every individual, and I agree it has to come all direction but the individual that we have as powers—and that, to me, is the collective power that we have-that a system of mentorship, whether it's in the workplace, whether it's-now, we have mentors in schools. They're standing beside teachers because teachers can't do it alone. So now school systems are paying mentors to come in to help with absenteeism because it's hard to teach a kid about AI if they're not there, or they're having truancy issues, right? So the idea that each and every one of us can play a role in this helps to bolster everything that we're talking about-top down, institutional wise, with grassroot people on the ground, but also intentionality of empowering mentors to be able to do really good jobs.

Ben Wildavsky 50:38

Many pieces of the puzzle. Mike.

Mike Kubzansky 50:40

I have a short, sharp and completely orthogonal suggestion, which is—and this will not apply to people who are not in the workforce, right? So the 13-year olds you're talking about, I'm not sure how to solve it—your approach sounds better. But employee ownership, right? Everybody—you know if the employee owns—if the employees own the company. Pete Stavros is running around here somewhere. He's got a very interesting model from—you know, that KKR has pioneered on this. But if the employees own the company, even the lowest, you know, even the lowest skilled workers have a seat at the table in terms of deciding how AI is going to go at work and how it's going to get deployed, and what it's going to get used for. And so one of the ways that would actually get that exposure and the decision rights, a little bit about how that does—and this can't apply to every company, obviously—but on the other hand, particularly in small businesses, it's a massive silver tsunami of retirements. Lot of companies are going to change hands. Most people are employed not by Google, but by much smaller businesses in the economy and that sort of thing. So, that is one way, whether or not they have a college education, if they're already in the workforce, where you could have more exposure, more say and more agency over how to work with the Al.

Ben Wildavsky 51:52

Okay. Lisa.

Lisa Gevelber 51:56

There's so much here, and I think it's probably not an or it's an and for a bunch of these ideas that we're sharing, but we love community colleges. We partner deeply with community colleges. I think there's like 10 states where the Google Career Certificates are offered in every single community college in that state, and we hope many more states will do that as well. But we also know that about 20 percent of Americans don't even know their work schedule for next week, and they certainly don't control it, and that is a giant inhibitor for people sitting in a classroom of any sort. And so people do really need kind of online, on demand, asynchronous options too, and that's not for everyone, right? Some people want a cohort, they want an instructor, but what we're seeing in our experience over the last several years is that having asynchronous opportunities actually does bring incredible scale. Again, it's not for everyone, but we've graduated 1.3 million people from our program over the last few years. Those are people who are getting better jobs, better pay, they're getting promotions. 70 percent of our graduates within six months say they got some positive career outcome from doing the program. So, I do think there's hope and optimism for doing this kind of learning at scale that'll be hugely beneficial to our societies.

Ben Wildavsky 53:28

Yeah, yeah. Well, I want to turn to a specific sub-population that's mentioned in one of the questions I got on my iPad, which is about people over 50. And it just is a very general question, you know, what about people over 50 who want to continue to work and supplement their income as they age. So, I think it's really about like, what can we point people to, in terms of, you know, this range of possibilities we've talked about that it's going to help them? And I should also add, you know, since you talked about some of the good results you've had from Grow with Google, but I did just learn—I got kind of a preview of a new study that's coming out from, excuse me, from—let me find the name of the group—Burning Glass Institute has done a very big study of non-degree credentials, which we often look to because they're short and they're less expensive and they're targeted. And it found that only 12 percent of those from a very large group of people getting these non-degree credentials actually ended up with a better wage outcome than similar people who did not take those credentials. So, if we're talking about an older population, we want to direct them to something that's going to be—help them, you know, get along in the workforce, but we want to make sure it's effective. So, that's a big question. But what would you point people to?

Lisa Gevelber 54:41

I mean, first I want to say that, just like everything else, not all short term credentials are created equal. And for sure, there are good ones and less good ones. I think one of the things that makes our program special and unique is the engagement of actual employers. So, employers engage in the content creation that we do. So, all of our certificates are built by experts at Google. But then we engage employers to help us make sure that we're teaching the content that they're actually hiring people for. And then we have employers in our Employer Consortium. We have our own job board. They post jobs directly into that job board because they honor our credential. We're actually a preferred hiring credential at over 150 big national employers. So, 100 percent they are not all created equal.

Ben Wildavsky 55:30

What about older learners?

Michael Ellison 55:32

I'd love to jump in. So I think we already kind of know what creates really effective learning environments. You know, the human-to-human connection, especially people who are disconnected to learning—maybe they even kind of have deep anxiety as it comes to studying and tests and procrastination, all that stuff. So I think this reinforces how critical it is we shift from the one size fits all to the more personalized approach for every single individual learner—for older Americans, or for opportunity youth. And I think we—you start with community, you start with emotional engagement. That's humans. But then it doesn't have to be a state school, community college, but there needs to be a place where people are able to build those connections, where they can build community, where, ideally, they can build friendships so that then it enables them to have the comfort and the trust to then be brought along. So I—that's what I would point to. And yeah, I'm broken record, because I think we have schools. We spend a lot of money on them. Let's use the buildings we have.

Ben Wildavsky 56:35

Yeah. Yeah.

Michael Ellison 56:36

But I think there is—you know, whether we're talking about older younger, there's a community piece. An interesting element is leveraging AI, leveraging different software systems in order to better drive friendships. So, we like to measure in CodePath, did students build friendships with other students inside their school and across schools? And then you have a variety of different individuals, from mentors, especially from two other student

leaders and so forth where—if done well, if designed well, then it can be incredibly emotionally engaging. We like to think about, can you make students addicted to the learning process? Well, a big part of that is the peer-to-peer connection. And then if they're building friendships and they're building networks, and then I think that, you know, community is a really important element of that.

Ben Wildavsky 57:28

Yeah, no, I love bringing that back in. Now we're just down to the last couple of minutes. I want to try and squeeze in one more audience question. I'm actually gonna—you say what you want to say first, then I'll ask you the final question.

Art Bilger 57:36

I was just—when you talk about older workers, I'll then bring it back to purpose, as you asked a few minutes ago. Life expectancy, I really believe can be elevated when someone has greater purpose in their life. Now, purpose comes in other ways. It doesn't have to be a job, but that can be a very important piece. But having purpose in life, I do think is very important for life expectancy.

Ben Wildavsky 58:14

Absolutely. Well, so one more thing, I know, that Working Nation does so well is storytelling. And one of the questions—maybe this is a setup—but someone says, you know, how do we go about doing a better job of getting the message out to the general public about the benefits of AI in education, in healthcare, and more? So, what are your thoughts about, what are the stories that we can tell? If there are some that will encourage people to say, "No, all is not lost. AI is not going to make us all obsolete. There are opportunities that we can seize."

Art Bilger 58:43

I have no idea. [laughs] No, no, that's that is our mission [laughs] at Working Nation. As we've been discussing, change is coming so fast. And you know, someone sitting at, you know, at the top of something—including some of these people [laughs]—have access to a tremendous amount of knowledge coming at them non-stop. But the average American, or even—and the below average American doesn't have that knowledge, and that's why we're doing what we're doing at Working Nation—is that it's so important—things are changing. You know, going back to our say—the slope of the curve is getting so steep, we must be able to educate. This conversation that we're having here is very applicable to audiences. Even if we were put in the giant international room [laughs]. We should be talking to millions of people.

Ben Wildavsky 1:00:00

Well, this has been a great conversation. We're out of time. So Art, thank you. Thank you to all of you. It's been really fascinating. A lot to absorb, but thank you for joining us, and I really appreciate the conversation.

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