

Transcript of the Ninety-Seven Podcast *Episode 2 Part 1 — The Tech Multiplier Effect*

[0:00] *[Background music fades in]*

[0:09] *[Rep. Ro Khanna starts speaking]*

Rep. Khanna: Well, we have to do this. I mean, it's just like we provided everyone with electricity. And there's a famous farmer back in Tennessee in the 1940s who went to a church and said, "You know, the greatest thing is to have a God in your heart," and then he said, "the next greatest thing is to have electricity in your home."

Well, the next greatest thing right now is to have [the] Internet in your home. I mean, I don't think it's possible to have a fair shot in the 21st-century economy without the Internet.

Zack: Welcome to the Ninety-Seven, where we believe rural America is the next place to pioneer. I'm Zack Mannheimer, and I'm the Principal at Alchemy Community Transformations, a McClure team.

I want to begin this episode with a short story. Back, in 2017 I was interviewing a woman in a small Northern Iowa town where we were working on a revitalization plan. She was helping me to understand her hometown, and she said, "You've got to understand something. Here in Algona, we get things seven years after Des Moines." To which I said, "Wait a second, the joke in Des Moines is we get things ten years after New York. So, you're telling me that you get things 17 years after New York?" She leaned in real close and said in all seriousness, Well, yeah I mean, we just got hummus."

[1:37] *[Background music fades out]*

I looked it up – right around 2000 was when most major supermarkets started carrying hummus regularly – it's bizarrely accurate. We shouldn't have to wait for hummus, and we certainly can't wait for the service to order it online.

In a COVID, and hopefully soon to be post-COVID world, we have to be careful, and getting our groceries delivered may be essential. When we can't afford to build a hospital in every community of 2000 people we need telemedicine, when we are forced to do our homework and teach from home, we need online schooling, to keep our economy moving, we need to telework and if we want our economy to grow, we need housing, art, culture, restaurants, breweries, coffee shops, daycare centers, recreation, big city stuff—and to connect it all, we need a simple cable that every urban dweller enjoys: fiber.

[2:31] [Larry Irving starts speaking]

Larry: So, let's get the mapping right. Let's figure out who has what; let's figure out what's really needed, and then let's think creatively about how to get broadband folks who really need it.

Zack: That was my friend Larry Irving. Larry is the man who coined the phrase the 'digital divide' back in the 90s when he worked for the Clinton administration. We'll hear more from him later, but he is talking about, and so many other people are talking about the tech multiplier effect. We need rural to grow along with urban. In a moment, we're going to hear Congressman Ro Khanna, a man who grew up in suburban Philadelphia and went to school with me at Holland Junior High. He now represents Silicon Valley and is a stalwart supporter of senator Bernie Sanders.

Rep. Khanna: If you wanna be marketing to rural America in the middle of the country, having people from rural America be part of your company is a great asset. I mean think about it -- it's like if you were running a political campaign and you didn't have any people from rural, how would you market to rural? Well, if you're a company and you want to market to the whole country and your whole country is your customer base, [it] probably makes sense to have people from all parts of the country in your company.

[3:41] [Background music fades in]

Zack: The modern tech multiplier effect has existed since 1976 when Jobs and Wozniak first hatched their idea for Apple in a garage in Los

Altos. Khanna is on a mission to bring this effect to rural America -- I wanted to know why. How does he square this with his constituents who are decidedly different than the folks in Algona, and what can he do at a federal level to make the Internet a public utility just like electricity became with the passage of the 1936 Rural Electrification Act?

This is the Ninety-Seven.

[4:31] [Background music fades out]

[4:32] [Rep. Khanna starts speaking]

Rep. Khanna: So, I think what people want in this country is the ability to still have community. They want the choice to be able to go elsewhere but they also want the choice to be able to stay, and we haven't done enough to give communities the choice and the ability to be participants in the 21st-century economy.

Zack: And how do you represent Silicon Valley? How do the companies there see this as a positive for them?

Rep. Khanna: Well, post-COVID, it's a game-changer. I mean, as you know, Facebook just announced that everyone can start working remotely and 50% of their workforce, so 50,000 people are gonna be working remotely. It's a win for them, and they know that talent can be anywhere. They get to have cheaper office space; I mean right now the land and the rents are so expensive in Palo Alto and Menlo Park, and they get to diversify the risk. I mean we've seen the risk of having too much density. So, post-COVID you've seen the people-- Twitter has announced this, a number of other tech CIOs are talking about this, and I think you're going to in the next decade see a lot more decentralization and distribution of these jobs.

Zack: Your community has the chance to bring these high innovation jobs into your downtowns. This immediately begs the question: what criteria will these companies be looking for? We know that housing and culture are two major factors that businesses will be looking at, as well as necessary infrastructure like clean water, medical services, and easy transportation. Another major factor that can set a community apart is its relationship with its community colleges and land grant universities.

Rep. Khanna: I think we ought to be investing in rural communities and our land grant institutions or community colleges to have applied tech training. This means we don't need necessarily four-year degrees and even two-year degrees; you need credentials that will give people skills for the jobs of the future. That's I think the model for rural communities -- is how do we get people the skills and the education in the jobs that are going to exist, and then also get the commitment from the companies to hire those folks so if they get that credential they know there's a job at the end of it.

Zack: Is there a tech multiplier effect? If a small percentage of the current workforce decides not to return home to their urban center or choose to continue to tell work as they are now, what can that do to an economy of 10,000 people?

Rep. Khanna: Well look, I think even if it is 5 to 10% of a community that is going to have access to these new technology jobs that could be a game-changer because they have a multiplier effect that's going to lead to more jobs in the building trades, it's going to lead to more jobs for services for masseuses, for dry cleaners, for restaurants. And Enrico Moretti's book, *The Geography of Jobs*, shows this, that when you have a cluster of high paying innovation jobs, it helps all of the other jobs. And then the second point is they don't all have to be in programming. I mean some of them can be in a state like Iowa; it could be in ag-tech where you've got a farmer or someone who is informing understanding the types of technology innovation that's going to be needed uh for the next generation farming techniques. In Washington state, it could be in timber. So, what I would say is that that you have to look at the local community in the specialty there and make sure that the technology education is tailored towards that.

Zack: So how have you seen uh you know with COVID's impact on this, something that we're trying to track and it's obviously too early to do this necessarily, but our basic belief is that we think there is at least 5% of the working economy right now -- 5% of those folks who are going to choose to stay where they are through teleworking, and there's another 5% we think that will choose to leave urban densely-packed places. Some of them were challenged already financially, and some of them were already thinking of it, but many of them are thinking that they may not be the healthiest places to be, so we don't think this will be the majority obviously, but if 10% of the workforce is suddenly looking for another place to go, where will they go, and do you think that number is somewhat accurate?

Rep. Khanna: I think it could be even more than 10% eventually depending on how many tech companies and Fortune 500 companies start talking [about] that remote work. And some of them obviously will go to the suburbs, some of 'em I think will go to rural communities. I saw a poll -- a Harris Poll that 40% of city dwellers are thinking of moving to suburban or rural communities, and that's because of the quality of life there because of the economics of it because people want the support of extended families to raise their own kids. So, I think you're going to see that, but it's going to be dependent on those areas -- as you put it -- having a great place to live which is attractive to folks stay, and also on having a sufficient number of jobs so people feel that there is some innovation economic activity. Now I want to be clear that a lot of rural communities want to keep their own feel and keep their what makes them distinctive.

[10:08] *[Background music fades in]*

They don't want to become urban centers, so it's a balance about how do you preserve a communities' traditions and character while also making it innovative that has some of these new jobs?

Zack: In order to get these new jobs, these communities had to have broadband, they had to have fiber, they had to have access to the Internet at high speeds -- whatever they want to call it. Without it, they'd be left behind, just like the Dust Bowl of the 1930s. In 1935, FDR signed Executive Order 7037, which gave way to the Rural Electrification Act of 1936, bringing an economic boon to rural America.

[10:42] *[Background music fades out]*

Zack: To explain it all, let's do it to the tunes of Kiefer and Scott out of the hummus capital of the North, Algona, IA.

[10:45] *[Keifer and Scott play in the background]*

Zack: [singing] Oh yeah, the Rural Electrification Act of 1936. Most rural homes had no electricity. It made no financial sense to run lines up a road to two homes. When you can't get Westinghouse or General

Electric to light your home, there's only one answer, and that is the federal government. Oh yeah, the federal government. The feds came in and were determined that electricity would lead to the economic boom that the middle of the country desired. The feds gave grants to electrical co-ops to build and manage the lines. These co-ops still exist today – over 700 of them all member-owned and provide power to over 42 million Americans. The feds knew we can't build homes and buildings and start businesses unless we have electricity. That was true back at the turn of the century, but it took about 30 years to really catch on, and for everybody to decide that yes, we're all on the same page with electricity. The same is true today about broadband. We all want broadband. It's been a long time since we all got AOL disks sent to us in the mail. Today, it's impossible to function in the modern world without broadband, whether you're a student, whether you're an entrepreneur, whether you're trying to telework, or whether you're just trying to binge-watch three seasons of Ozark in one sitting (so I've heard). In 1936, we electrified the country, and that gives us the model for what the federal government needs to do today and make broadband public utility. Oh yeah, the 1936 Rural Electrification Act.

[12:34] *[Keifer and Scott fade out and background music fades in]*

[12:42] *[Zack starts speaking]*

Zack: The future congressman Khanna talks about is alive and well in rural. Two companies, in particular, are changing the landscape: Cultivating Coders in Albuquerque, NM, and Base Camp Coding Academy in Water Valley, MS. They share a similar goal that Khanna talks about, creating the next generation of [the] workforce in the place where they live, where they grew up. The goal is to train recent high school graduates and those looking to change their careers to enter into the high-tech world. They start by training people on how to code. This skill could lead in many different directions from software engineering, to teaching you how to breakdown complex problems in order to become a better leader, programmer, parent, or teacher. These skills apply to a wide range of careers from the sports field to the engineering office, to the performing arts. The vital work that each group is doing offers a glimpse into what the future working landscape might look like. As teleworking becomes more commonplace and the tech world continues to dominate the economy, learning basic tech skills will

likely become equivalent to learning a foreign language or how to fix a car – a basic skill that can lead in thousands of directions.

[14:01] *[Charles Ashley starts speaking]*

Charles: There is way more money out in the world to skill people up than most people realize, so we have a team dedicated to just finding funding sources that have to be spent on training.

Zack: This is Charles Ashley, CEO of Cultivating Coders in Albuquerque, NM.

[14:24] *[Background music stops]*

Cultivating Coders works in small communities all over the country and internationally, and they are on a mission to train the next generation of [the] workforce.

Charles: Zuni, which is a small town in Mexico, a small tribal town. So we say, "Hey Zuni, there's this federal grant out here that specifically is speaking to your community." So, we work with the communities and we apply together for these grants. These were communities where we would sit down with certain community leaders and stakeholders or people who had never been to those communities, and you would hear things like, "Oh, you're just wasting your time. They can't learn that. You know, they're never going to learn this."

Zack: This is Kagan Coughlin, co-founder of Base Camp and Alderman of Ward 1 in Water Valley, MS, population 3,500.

[15:15] *[Kagan Coughlin starts speaking]*

Kagan: And we ran Base Camp for three years, graduating three classes. The structure there is to identify a person that is coming through the high school system and identify them right before they graduate from high school, understanding that we're looking for a person who does not have [a] career opportunity after high school.

Zack: Base Camp works with 20 to 30 kids a year who have just graduated high school in northern Mississippi, and they put them through a year of boot camp learning how to code in their Water Valley location. Where Cultivating Coders goes to a community, Base Camp takes an opposite approach. They train them in Water Valley and ship them out to locales throughout the Delta in Mississippi and Tennessee.

Kagan: We work in industries where there is absolutely money in your business budget to source new talent, and it is a quantifiable cost to a company to source talent, retain talent, and then replace it if it does choose to move. And so, we pitched Base Camp [as] essentially the farmers market version of IT talent – just source it locally, grow it where you are, and the economic pitch was [that] we know what it costs today to solve this problem. Can we take those same funds and bring them to the local communities that do not have those funds? And rather than outsourcing and sending that money away to hiring agencies and talent finding agencies, if we have a system where we can spend that and produce a stronger output – that culturally-tied young person who has the technical skill set – then is that not a win?

[17:00] *[Nicole Hughes starts speaking]*

Nicole: Yeah, so I'm from a small town, Water Valley. I actually got introduced to Base Camp because I worked for Kagan the founder of Base Camp's wife, and so he was asking what my plans were for the future, and like any other high school graduate, we have no idea.

Zack: This is Nicole Hughes, a graduate of the first Base Camp class of 2017.

Kagan: And if we identify the right candidate, we put them through 2,000 hours of training at zero cost to the student because we are working with under advantaged rural students. They do not have the economic foundation to pay for this type of opportunity, and after 2,000 hours, that's a 40-hour workweek for 50-ish weeks.

Zack: The cost per student is \$9,000 each for a year of training or 2,000 hours. Kagan sources these dollars directly from the companies who

will eventually hire them. He's growing the talent for these companies in the community they grew up in.

Kagan: They are a level one software developer who is not required to work in the state of Mississippi or with any of the companies that helped fund this opportunity, but we found that it's an amazing beginning to an employer-employee relationship to have an employer invest in you as a person, and visit you throughout a year where you are working very hard to learn the skill that has never been in your sphere of experience and is encouraging you all through that process, and then trying to recruit you into their workforce.

Zack: I remember signing documents saying that I will work for such and such company for a period of time if they help me cover some, not all, of the schooling I needed to learn new skills. Imagine an employer who pays to train you in a new 21st-century skill and does not require you to take the job with them when you're done. Imagine the risk. Apparently, that risk is nonexistent.

Kagan: We have— so we graduated— we actually just had a virtual graduation for our 4th cohort and one company C Spire, which is a large telecommunications company in Ridgeland, MS, and they have helped fund Base Camp since the first day, they were our first corporate partners to sign on. They have hired 19 graduates from this program.

Zack: Nicole is 21, she's worked at C Spire for three years.

Nicole: I can honestly see myself retiring from C Spire.

[19:55] *[Background music fades in]*

Zack: Cultivating Coders come to you. They identify a community with the right leadership in place to carry out the concepts that they will learn, and the instructors move there to teach their methods. Leadership is vital. Without buy-in at all levels of the local community, the skills and concepts Coders teaches won't go beyond the few weeks that they live in town. This means leadership buying in from the usual suspects of city officials and business leaders to the unusual suspects of small business owners, minority leaders, and a creative community. Everyone needs to be on the same page, every demographic needs to be represented.

[20:40] [Charles Ashley starts speaking]

[20:40] [Background music continues]

Charles: So it's one of those things where once we prove [to] everyone— and not us— once the young people prove like hey, anyone can learn it you just gotta take the time to be committed to helping and actually sacrificing our lives and inconveniencing our lives.

[20:51] [Background music fades out]

Charles: You know we were leaving our homes for 8-12 weeks and staying there the entire time. Now I'm talking not one bit of this was virtual. This is like every day, Monday through Friday, you know, weekends. If you were close enough you can go home, but you were truly, you know, deployed in these communities for that time. So once we proved that model 3 times, we started getting calls from different people just who are reading things or word of mouth 'cause we've never marketed, we've never had a fundraising campaign, none of that stuff that most people do — we've done none of that, and we've been in over 20 communities.

So how we decide a community is once someone reaches out, you know, we open dialogue and figure out what they're trying to do. Is it young people meaning is it high school, right? Or is it young adults or is this you know, you're trying to upskill people who are looking to have a new skill? So – we determine what you're looking for. Then we determine the commitment from the community.

So before we can decide if we're going to even work with you, we need to know that you have community buy-in, meaning like the people who— the powers that be and let's be honest here, we know every community has gatekeepers right, so the powers that be— are they bought-in? Are they going to allow us to come in, and do we do and continue to support that program once we're gone? That's number 1.

Do you have buy-in from the people who actually need the training? So that's important. You need the community to say this is something we need, so we're gonna take this work, and we're gonna maximize that opportunity when this program gets here. That's number 2.

Number 3 is, which is the last thing, is, do you have the funding sources in your community that's going to allow the program to take place? So think about that, before we even start talking about money we want to know how committed is that entire community to this program, because without the community you can go in and do the training it could be great if you could have the press releases, you can have, you know, those shiny glossy news articles that people love and whatnot, but if you don't have that buy-in once we leave, this is just a one-off and we don't want a one-off. We want it where once we're there, the first participants go through [and] we want to stand up an after-school coding club or a or a meetup group. We want to identify two or three people from that cohort that we can say, "Hey do you want to work with us and allow us to skill you up to the point where you can bring your own program?"

So, we literally work ourselves in our communities because if you can get that commitment for a year where you can train people [and] skill them up, not just being in some type of entry-level web developer or QA or a project manager some type position. But then there's also the instructor app element there that we really value the most because if you have someone from the community who looks like you and they speak like you and they understand your culture or whatnot, they're leading these programs – we feel like that multiplier is just gonna reach that entire community. So, we always try to identify two or three people from our cohort that we can bring into our own fellowship program.

They work with us for a year learning how to actually be an instructor, and then we send them out and say, "Hey, go back to your community and teach programs." They don't have to go research and put together their own curriculum because they always have access to our curriculum, so once you go through our program, you're a part of our family, and you have access to that curriculum and we don't even charge for that. It's like "Here take it," because there's so much need out there there's no need to have to be charging everyone for it. Just hey go out there and run your own little camps or whatnot.

[25:08] *[Background music fades in]*

Charles: Then hopefully ten years from now, you know, we can say look at how many communities that we worked with and partnered and look at where they're at now.

Zack: The DC Metro is a first city. Clad with people, buildings, and politicians. DC will always be a major city as long as it remains the capital, but its rents are, to borrow a New York City phrase, 'too damn high.'

[25:35] *[Background music stops]*

Zack: Fairmont, WV sits at a three-hour drive from DC and boasts a population just shy of 19,000. Fairmont is home to the High Technology Center of West Virginia; whose mission is to institutionalize a knowledge sector for the entire state. Their strategy focuses on being the federal anchor model luring federal agencies to West Virginia, which will inevitably bring high-tech jobs with it. Jim Estep has been their President and CEO since 2000 and has lured thousands of high-tech jobs into a state not known to be on the cutting-edge technology. As pandemics rise, the health and well-being of living in a major metro like DC is being questioned daily, and here is an entire state only a few hours away ready and willing to welcome new tech workers.

[26:19] *[Background music fades in]*

Zack: I asked Jim about the importance of broadband to bring these jobs in and how it might relate to the Rural Electrification Act of 1936.

Jim: You know I've wrestled with that a lot because I believe that it is— I think the same arguments that were made for that original act resonate with broadband. I think broadband has become every bit as essential. If you think about it, I mean, we have a very, very serious national security problem with the density in the DC area. We have a very, very serious spending problem with the cost of operations in DC. It has to be fixed and nobody believed we could have a pandemic, nobody thought we'd really have a [inaudible]. Well, guess what? So, if ever there was a motivation and justification, this is it.

[27:22] *[Background music continues]*

Rep. Khanna: People wanna stay with their families. They wanna stay with people they grew up with. They don't necessarily want to leave. I mean, some may want to leave out of a sense of adventure and that's great and they should have that opportunity, but if you want to stay where you grew up, you shouldn't be forced to leave because of a lack of economic opportunity. So, what I said is we need to diversify, decentralize the tech economy right now. It has been concentrated in Silicon Valley and Boston and Austin, [but] there's no reason these jobs can't be done from rural communities. Even if you don't have the unicorns – the billion-dollar companies – there, you certainly can have many of the mid-level skilled jobs in robotics, process automation, tech design, and tech support there, and if you get a cluster of these innovation jobs, they have a multiplier effect. They increase the tax base that creates more revenue for the type of work that you do in terms of revitalization and reimagining downtowns and having cultural amenities and having all of the types of attractions for young people to stay.

[28:40] *[Guitar riff]*

[28:40] *[Background music continues]*

Zack: Oh yeah, tech multiplier effect—

OK, we've had enough of me trying to sing or whatever that was. What is evident throughout this entire pod is that tech jobs don't only work in urban settings. In fact, they might be leaving them in droves. The headquarters of these companies are likely never to move, but with the migration shutdowns and the cost of housing and officing people in San Francisco or Seattle or New York or Boston or Austin or any of the other places that Congressman Khanna mentions, we have to consider that they're going to be moved elsewhere. If these communities are going to gain people, they have to be preparing to offer the quality of life amenities, housing options, and yes, high-speed Internet in order for any of this to work. All of this comes at a cost. To lay fiber, it's roughly \$20,000 a mile and again, we find ourselves in the 1936 place where it's just not cost-effective for most companies to lay fiber in a town of 5,400 like Algona. So, we need funding and we need Congress to act.

In our next episode, we're going to hear more from Congressman Khanna and our friend that we heard earlier in the pod, Larry Irving

explain to us what the solutions are. What are we going to do to get the money and how are we going to equally disperse it?

Thanks to our guests: Congressman Ro Khanna of California; Charles Ashley in Albuquerque, NM; Kagan Coughlin and Nicole Hughes in Water Valley, MS; Jim Estep in Charleston, WV; Larry Irving in Washington DC; and our musical guests, Keifer and Scott from Algona, IA. Our original music was composed by Mike Hogan. This podcast was co-produced with our partner, Just Place, and by our executive producer Joe Crimmings. To learn more about Alchemy please visit alchemycommunities.com, and to learn about McClure please visit mecresults.com. To see photos of guests and learn more about them, please visit ninetysevenpodcast.com.

This has been the Ninety-Seven.

[30:55] [Background music fades out]