tracey ([00:00](https://www.rev.com/transcript-editor/Edit?token=80eGWd_dg6RJoEZb6CNNdnsYWwMbvHbmhTXLqwbAMR1ESwWabSdaj23laiaAncjkN8u6GoNa7UbxeWin1SeAwbFufcI&loadFrom=DocumentDeeplink&ts=0.3)):

Hello, and welcome to NC State's Audio Abstract. I'm your host Tracy Peak. Digital mapping is a versatile tool. It can be used for everything from real time navigation to tracking the course of a pandemic. Adriana de Souza e Silva is a professor of communication here at NC state who studies grassroots digital mapping projects. She recently did a study on grassroots efforts to make the pandemic visible in low income communities. Welcome Adriana.

De Souza ([00:31](https://www.rev.com/transcript-editor/Edit?token=DRMRz2zqYwa-TfiSuZnbZbIsLO1N3OXhTwppPSMIOnyJNgezE2V0gMKugAA8233r2oMrudDJQetC5H2Ka_TVKDkPygI&loadFrom=DocumentDeeplink&ts=31.11)):

Hi, thanks for having me.

tracey ([00:33](https://www.rev.com/transcript-editor/Edit?token=YfV5KtSC-HMEMnKP0fi_ay6F3hNNkP-Z5qfeXFASBI9bZtVguHJdBvkfpNYo-uEYvDaLhRb6LB5JOcHcIkESvxmTjsw&loadFrom=DocumentDeeplink&ts=33.06)):

I am glad you were here. So digital mapping, let's start off by talking about what digital mapping is and then move into how it's used in the context of say, trying to figure out what's going on in the global pandemic.

De Souza ([00:52](https://www.rev.com/transcript-editor/Edit?token=trKxWMmuS7xt1kCVqayxSA_C5O7ZjlaOr01aqxiVH0UtUtVQx-PztZW5NVqJv-8-yij0WWYnd1nAxBpLEzvmqfQahYs&loadFrom=DocumentDeeplink&ts=52.09)):

Yeah, so I think that's an interesting question because we are interacting with maps, I think all the time today, right? And we are used that most of the maps that we interact and that we see today, they're digital. But we sometimes forget that mapping has a long history and they're thousands of years old. the main difference today is that maps, they are built around... They're kind of like an interconnection of GPS, which is a global positioning system in GIS, right? Geographic information systems and GPS allows the map to be centered around ourselves. So whenever you open a map on your phone it locates where you are, right? And GIS is this idea of overlaying data or pieces of information on a map.

De Souza ([01:48](https://www.rev.com/transcript-editor/Edit?token=hQyymI8kWaqHrgc5JKop36Z40qZykDHyPlUyhU63UhCIyC3SLl3s-R3e35tqT6O8LosjQ7n2PNT3onqFs7tr9C-hixY&loadFrom=DocumentDeeplink&ts=108.84)):

So in the past, when they had a map was just a representation of the space. But today if you open Waze for example, you have like information about car crashes and other information that sometimes it's actually fed by the community. So maps are already an amalgamation of different kinds of information that we can plot on a space. Right? But the interesting thing about that is that we actually forget that GIS also has a very long history~~,~~ For example this is a well-known case in the mid 19th century, John Snow, he is credited for making one of the first representations of a cholera outbreak in London. So there was this terrible cholera outbreak and nobody knew where the disease was coming from and why people were getting sick.

De Souza ([02:50](https://www.rev.com/transcript-editor/Edit?token=391qtOJFcVFP-8PdwYTaxxGCCADx0jh6YR9GR8t2IQoR0EGitz2zb5OCES6SKGqQbHkwfiAq1A2SDwO15ZFuOivVi6s&loadFrom=DocumentDeeplink&ts=170.67)):

It was apparently kind of random. And he was brilliant in terms of what he did was he got a map of London and he plotted on the map. And this was obviously a paper map where people were getting sick. And when he analyzed that data, he realized that most of the cases were on a street that were getting water from the same well. And therefore, he deducted that the well was contaminated and were making people sick. And this is considered actually one of the first issues where people are kind of using maps to understand pandemics or disease spread.

De Souza ([03:51](https://www.rev.com/transcript-editor/Edit?token=ReIZVNowDfkika62x885225uwbB4zbIogj2Q8hIstYcC3wWb3gJEtGxshqBPHzHOEOGvbyKVOUiFidXYW9MrNkxcONc&loadFrom=DocumentDeeplink&ts=231.64)):

I think it was around the sixties that computers started being used to map this information. So instead of doing by hand, like John Snow did, and this first scientists, you could use computers to overlay information and then any kind of information, right? Weather information, it could be health information, information about social economics status of people who live in a specific area, real estate data. And obviously using a computer makes that much more powerful because you could overlay not just one layer, but multiple layers and then play with these layers and then come up with ideas and understand those spaces in different ways.

tracey ([04:48](https://www.rev.com/transcript-editor/Edit?token=KypXd56FsV_I9I4w5QLQRChDBUFYxCzLYfSHVa8ziaVDRSRUH-yZwC8tOIMcISYcn44i1eVqmq3k5EAPXkwTJk5R20g&loadFrom=DocumentDeeplink&ts=288.28)):

So just sort of summarize, it's gone from being just, we are downloading information from a satellite about where we are to being almost like a more, it's a conversation now where we are inputting or we're giving information about ourselves to this sort of system and getting information from other people. And it's giving you more holistic kind of idea about what's happening in any given space.

tracey ([05:17](https://www.rev.com/transcript-editor/Edit?token=49PPv2vXalDjc1R9w0F2SMDYwNLjlw2LkJcV3ar4aDDtlRi3zbZZtQJ1t42FyOf3HOKDk9WB7OvX7KErKtjDSZrbFn4&loadFrom=DocumentDeeplink&ts=317.03)):

In a pandemic kind of situation. I could see where that would be valuable, but how exactly does that work? So does someone create an app? And then everybody just knows to download an app and put their information in, but how exactly does that kind of work?

De Souza ([05:36](https://www.rev.com/transcript-editor/Edit?token=IzA1CynPBhOqjtayg3JvKbY_E4r1zeAqS_0ZyD4nveV6bqA2xSm1S1pAEoQp5EMUX_nthzinBImCVQNiICGODk0B_f0&loadFrom=DocumentDeeplink&ts=336.3)):

The big change actually came with what we call Web 2.0 or in the mid nineties where people started being able to upload information to the web. And then at that time, like Google mashups became very popular Google maps. So that idea was that you had a digital map and not only a person who would be the expert in creating that GIS would add the layers, but people from anywhere in the world could actually add information or actually download their own Google maps and create their own mashups. So they could plot information about their neighborhood.

De Souza ([06:32](https://www.rev.com/transcript-editor/Edit?token=7HJwbGzrn6JVgayjDPyUfyuDk_Ei9m3ApvsRvvqQPEgoXh-CS9qO7h5rfl4_FVYNu1zqk_GTfkON3LF7auZ7I6VSFic&loadFrom=DocumentDeeplink&ts=392.51)):

So originally, obviously before cell phones became popular in the 90s they were all done online in websites. And afterwards with the popularity of the iPhone regular people started being able to create apps and upload. So you could actually create an app and put it online and people can download that app and input information, or you can request people to upload information about themselves or data. And that's kind of automatically plotted on the map and you can visualize that information back. And I think that was the main change. Well two things, first the ability to collect and crowdsource information. And second, when you use the map on your phone, the phone uses a GPS, so it centers the map around yourself. So when you're walking around, you can see what's around you.

De Souza ([07:37](https://www.rev.com/transcript-editor/Edit?token=1h7eQAxb8UvZEfh6Zy0FCzby6l28XwWD-9caTkxab1UoFHYJlv4X1e67fkfa6SKiPazlWIhmzIdKODxjP0zmSKBO3qc&loadFrom=DocumentDeeplink&ts=457.34)):

So I think that kind of changes how we relate to maps, because we are kind of immersed in this data world, right? And maps kind of help us to organize the world around and make sense of the world in a way that it kind of gives us more information about where we are.

tracey ([07:57](https://www.rev.com/transcript-editor/Edit?token=B_uJD4G2byjYciL15BuPpbTy8gbaTuNNiia1B9H28D2a-n8d6You4oL9owRZUNPW25Tbz6T-ubbZH0auZBNDLd2M1i8&loadFrom=DocumentDeeplink&ts=477.25)):

Okay, and so in the particular study that we're talking about here, you talk about how these sort of grassroots mapping efforts were very helpful to particularly populations that didn't have a lot of governmental data, I guess more remote or less socioeconomically prosperous. So how did that help these folks?

De Souza ([08:23](https://www.rev.com/transcript-editor/Edit?token=WtceXX-op1Bw4uPyieEYjoXbPNRAdUeK3EVctErM_4CxznlkFDpzzOauU9wRfSZcHJ7gZf0OXBaMwGF87ORRyDxkeEo&loadFrom=DocumentDeeplink&ts=503.84)):

So in this particular case, so this project is called the [foreign language 00:01:25] unified slums dashboard. Basically there was this, a group of slums in Rio de Janeiro that... And they have lots of non-government organizations, NGO. So in the beginning of the pandemic like March 2020, they were the community leaders. They were realizing that COVID was starting to affect the slums and people getting sick and dying, but nobody knew exactly what was the scope of the pandemic. First because they didn't have access to tests or they didn't know how to respond to the pandemic and they didn't have help from the federal, the municipal government.

De Souza ([09:36](https://www.rev.com/transcript-editor/Edit?token=J1B56MJ6och76P5cjr22i6nWxD2HtXlaUeNmD4v3k1nQVV-bx1N3DyUayUNt5XapMv4g8oz_O6hiSszCmDAeVzjIieY&loadFrom=DocumentDeeplink&ts=576.04)):

So what they started doing was actually collecting these cases. So with community leaders like via WhatsApp or people would knock from door to door and send those cases to the community leaders. And they started creating literally an Excel spreadsheet to map those cases. And just basically to have a register of how the pandemic was spreading in that community. And then a couple months later, Esri which is this international supplier of GIS, they contacted this NGO was working with them and said, look, we have this platform. They have a free platform that can be used by low income communities. And they said we can collect this data for you and build this dashboard, which is basically looks like the John Hopkins University Covid Dashboard that most people know online.

De Souza ([10:42](https://www.rev.com/transcript-editor/Edit?token=c4iR4bkBcG_WHNJLYAtEceXMDDEaEWJqV7HONeEaFM4En66ywMuozOUlWALsQwknwELH5HhIwpovdXaAIm1RNxSi1P8&loadFrom=DocumentDeeplink&ts=642.83)):

So it looks very similar, but with the data aggregated by the community leaders from over 300 slums in Rio de Janeiro, and the advantage of doing that is that they were able to map how the pandemic was spreading in those slums in a way that official municipal dashboards would not be able to grab because those had just official data. So obviously a percentage of their cases would come from official municipal government data, but the majority would come from an online form they had in their website. So people could just go and say, I tested positive and I'd live in this community via WhatsApp. They could send a message to community leaders and collect that data or word of mouth as well. So we, it was a much more robust. So while sometimes the official dashboards in the city were saying, oh, we have 300 cases. This dashboard shows that, well, we actually have 3000.

tracey ([11:56](https://www.rev.com/transcript-editor/Edit?token=VQjGxO7fkhlmHI4A8VxpfWI4jYgNUX9Luc8D49M8uv6g36OKOwEn3JWwDhyooQpGjjOvLR-UhBFmsnhxeWYlktiDlDA&loadFrom=DocumentDeeplink&ts=716.44)):

~~So~~ they were still having to go door to door and collect this information sort of by hand, almost like John Snow did back in the cholera outbreak in London. And then they would, would take this to a community leader who would then from their Excel spreadsheet, upload this into the database, provided by one of the GIS companies. Is that what was going?

De Souza ([13:11](https://www.rev.com/transcript-editor/Edit?token=PchiBvjqw4O_YsaieGKp7zPEAEscKLGi-y8FCM3iyjyHdC6ygRU_iZrz8rtAZZwT-61chhZIzyNdLGKX2Q0QoutomD4&loadFrom=DocumentDeeplink&ts=791.39)):

Yeah. And that point that you made a comparison with John Snow and getting the data by hand. It's very important because obviously cell phones are everywhere, right? So the people in slum, they do own cell phones, but they might not have the state-of-the-art cell phones. And just the other day I was reading an article saying that 99% of people in low income communities in mostly in Rio, they use WhatsApp. So it's the main social media app they use. So they sometimes would communicate via WhatsApp and they could communicate with the community leader and send those cases via WhatsApp. So that was one way. The other way they provided a form on their website, this dashboard that was built by Esri. And then you could just say, well, I tested positive. I live in this community and the other one was word of mouth.

De Souza ([14:05](https://www.rev.com/transcript-editor/Edit?token=MwO8QaqmLcgAmNu__MTOXbAA3b0hMjFfyQNgJ_Z9SPNmJEiyUyxDAxqJAMb0XehT_--5Yg6kceGbpCB2JE6IRDUdb4U&loadFrom=DocumentDeeplink&ts=845.65)):

I think one of the critical aspects of this project was the fact that the municipal government often doesn't have the number of cases because they just get the official cases and people who live in slums, they often don't have official addresses. So sometimes they don't even show in official maps because the streets are not part of the city and they don't have numbers and they don't have zip codes.

De Souza ([15:14](https://www.rev.com/transcript-editor/Edit?token=umjFHA7EcVyLMdHMIOIrjqNQgd86-RSFiYt-aSAs8gW2JKak4BFZ1gYg4W5EWTr320nG3BsD5RzLCfN1qdf04DUxQOU&loadFrom=DocumentDeeplink&ts=914.1)):

So when people get tested, they have to provide an address. They're going to provide an address of the neighborhoods, the closest neighborhoods or a store that's in a closed neighborhood. And when that data comes and the test result comes, it's assigned to that other neighborhood and not to slum. So in the official dashboard, it doesn't look like slums have cases because the cases are not assigned to the slums. So when you see the map of Rio with COVID cases, there are some black spots, or that say, well, this region here has no cases. And if you use that to make decisions about public policies, you're like, well, we're not going to attend this area because it doesn't have any cases. And the goal of the dashboard was exactly to show no, this data is being collected wrong because this zip codes don't belong to the people who live in slums, or they don't have the zip code. So this is the actual data, and this is what you should be looking at.

tracey ([16:13](https://www.rev.com/transcript-editor/Edit?token=eHA3DwNbMLH7Skv9jfHEHY3W-JdYGspDiY6OlHIh9S-j7G2ScS_MmrPvSSQUbaJupFAdigGvwWg1v62X7u8NQGjvVcE&loadFrom=DocumentDeeplink&ts=973.9)):

That's really amazing. So it's not so much, it wasn't so much a difference in technology, right? It was just a difference in the way those communities are organized. Official government agencies have no way to really sort of keep tabs on effectively, what's going on in these communities, the way they would in a suburb in the US, where everybody has a little mailbox and everybody knows exactly where they are. So that leads me to my next question, which was you did this work in Brazil and I wanted to ask why that was the focus.

De Souza ([17:08](https://www.rev.com/transcript-editor/Edit?token=X_C6prNmJqWkkFORovgpRxivAAflezfD13jamNTcGmJGkxmoVQgF0H1GoWQq2E2ECg6mH93E2KhqJbKt9aUXKBUA_E8&loadFrom=DocumentDeeplink&ts=1028.78)):

I mean, obviously I started doing this work in Brazil because I'm from Brazil and I've been doing research and especially in low income communities in Brazil for the past 10 years. So that was my original motivation. But obviously, I mean, when the pandemic started, I started seeing that the US and Brazil had the worst responses to the pandemic in the whole world, I would say So one of my motivations was saying, well, how does that compare? And what can we look at in terms of how pandemic is mapped?

De Souza ([18:06](https://www.rev.com/transcript-editor/Edit?token=RoicSbjMr0JhlXSxL2XCQymWnlLs1DFSBdd8HbQjgx_d0AKgyYX6BuodOKtuxZUQE1DcjhklfeD14CNYbS3H33aqZcE&loadFrom=DocumentDeeplink&ts=1086.69)):

So I started doing this kind of survey about pandemic apps and was part of my research is also about mobile technologies and location based services. So I was kind of curious to understand how people were using cell phones and mobile applications to interact and help manage the pandemic. One of the things that I realized is that in the US, there was a lot of this talk about contact tracing apps and the privacy implications and fears about contact tracing, but not so much in Brazil. When I started looking at, there was very little about contact tracing. And if there was some contact tracing apps, the privacy issue was not really an issue because I don't think people understand privacy in the same way, or as worried about personal privacy as here.

De Souza ([19:07](https://www.rev.com/transcript-editor/Edit?token=0SuzGArnCKvUerQygPDIcDzRuyjd4DP7q2DUlSei2pTKEq0KP9CTMoNsBlkcKEA8kBgvda0EFlMuIAhIPartU9lP7Ew&loadFrom=DocumentDeeplink&ts=1147.6)):

So that's like a cultural difference. But also, because, obviously the US had issues with testing in the beginning, but doesn't compare to BrazilAnd a lot of the apps in Brazil as compared to contact tracing was actually symptoms apps, like people had to report symptoms. So, and then they would build the maps or risk areas based on self-reported symptoms instead of test results.

De Souza ([20:04](https://www.rev.com/transcript-editor/Edit?token=S1IRl6KWZcPN-tyW_yfe1Y37HbO0ll2455n0tUlhfs8MyXyGTrZGUa5EJR8MfPLgRI5uXBZLq2TtFNey2YO3_mUnDhw&loadFrom=DocumentDeeplink&ts=1204.86)):

So I do think some of this could be helpful in the US, but , I think one of the important things that this project did was actually called the attention of the municipal government to this problem in this irregular settlement. So right now the community leaders are working with the NGO who developed the dashboards and the municipal government in remapping, these slums, and actually assigning official zip codes to some of these slum areas. So I think a very important outcome of this project, not only like making the pandemic more visible with these territories was actually calling the official government attention to the lack of mapping and addresses in these slums and how these areas are kind of invisible to some of this mapping. And now they are actually working to remap these slums. So that doesn't happen in the future. So I think that's an important outcome that came out of it.

tracey ([21:00](https://www.rev.com/transcript-editor/Edit?token=Vt0c6EAkuDmrQC9l6zAML3Fvw9j5sKvZjCYw33WqV5gzRxIjMdvlCmYrS082mg0x5d_mcPdWiCOPwGo2sy8ffaoM8B8&loadFrom=DocumentDeeplink&ts=1260.8)):

Okay. I was just wondering if something like this would be helpful to like a homeless population in the US.

De Souza ([21:29](https://www.rev.com/transcript-editor/Edit?token=0sWMNW7RMhbdb7rkd85nffKWHrCquxExtIxHGi312Yc7CCyGL3BwgPXkF-7SjBh9fxTtxy8Lq2FzIv8CmtzFhaK-G7A&loadFrom=DocumentDeeplink&ts=1289.37)):

I think that's actually a very good idea. Especially, because I think this works for people who don't have official addresses. So if you have people who are inherently mobile and then don't have a home, those cases are often sub-notified or ignored, they are just not part of the official counts. And obviously we know that here you have sub-notification too. The numbers we have in the official dashboards are not the actual COVID numbers. And that's why sometimes you look at positivity rates, or hospitalization so that you refer how widespread, because not everybody tests. But in Brazil, the amount of people who test are much lower.

Most people, if they're feeling sick, they're not going to get a test because tests are expensive even for the middle class or if you are going to go get a test in a pharmacy, you have to pay for the test. They are sometimes you can run by your insurance, but still a lot of people don't have insurance. So it's not something that's available.

tracey ([23:35](https://www.rev.com/transcript-editor/Edit?token=27QqNsbnLISv3PT29B5FgVwkvxzJk8xyAvM4zrk-6gY5Ex1eYN5W185zpDz9TjUaYmduckKpH00FNBirnIMRqRZpmmw&loadFrom=DocumentDeeplink&ts=1415.82)):

Your work isn't just about crowdsourcing, a pandemic in Brazil. You also do things like online gaming databases or mobile gaming databases and stuff like that. So what drew you to this line of work? What is so fascinating about maps?

De Souza ([23:57](https://www.rev.com/transcript-editor/Edit?token=jko8D2rJ98QQZnAYu2D4HjU2U6z0lPv1T8T4b_-UC7NIa4Bk1okaLbAQKKdELiODpqaH_466ftc9cSUERPoDeUtBvXY&loadFrom=DocumentDeeplink&ts=1437.71)):

I've always been very interested in two things. First of all, space and spatial representations on how we move through, not just like online spaces. I think a lot of my early research was about virtual worlds and how people communicate in virtual environments. And the way you build this world is actually constructing maps. And also urban space, like how we interact with cities and therefore how these cities are represented. But on top of that, how people can contribute to the creation of this space.

De Souza ([25:00](https://www.rev.com/transcript-editor/Edit?token=qMMtNi3sz5mRgN94pwIjje_X9Of03gfhSzpSmPP00wF330ddmdoIxTlmU3ry7V-amM1QMLZilUn8pfaJKrmMuC5YIvs&loadFrom=DocumentDeeplink&ts=1500.39)):

And then of course, when you start getting cell phones in the picture, that you have apps that people can contribute information to where they leaveSo for me having this connection between the way we map space and the way we can add digital information to the spaces where we are and interact with other people with that is very interesting.

De Souza ([25:49](https://www.rev.com/transcript-editor/Edit?token=e6vXYb-UH0pySENOHrnA_rJO47FT4Xl3692UZRdqMlCBD6Flm2lZHHvL_QXQhsm1_YwDhP2SnhkCnm2R6ajw0KUfKCQ&loadFrom=DocumentDeeplink&ts=1549.72)):

And another one of my interest is obviously I look a lot of at games and especially location based games. And then a lot of these games, players can add information to games. So for me, it's all about how you create communities. How people can collect information together. So if you're using Waze, for example, which is another completely different example, but you can supply information about car crash and then you're helping other drivers online, or in the case of the dashboard, you are contributing information with COVID cases and you're helping your community. So how people can contribute information about their environment in order to help their community. I think that's the main idea that interests me in this interconnection between mapping and location based information.

tracey ([26:53](https://www.rev.com/transcript-editor/Edit?token=chroJsYzE_k58s6QTWxEchhlPD0lBfOUG60ZsL1lfHZqbzB0EHC06gIVbd40PsshPWBURANdGfAt1FUWNKEgV5zCTLs&loadFrom=DocumentDeeplink&ts=1613.5)):

And that brings me to the question I always like to ask everybody that I talk to on the podcast, which is what is the coolest thing that you either have, like found out, a finding you've made, a fact you've come across the coolest thing about your research?

De Souza ([27:13](https://www.rev.com/transcript-editor/Edit?token=rnaRNSEf8iAI-veD28H1olFOPC-RKKCGS532iJI80TNPM6uUOiefEWbXk144bDy68AWN2S4xf0mVCDAk57g8FhtXA2k&loadFrom=DocumentDeeplink&ts=1633.15)):

There are many, many interesting things, but specifically in this mapping research on the pandemic mapping, for me, actually, the coolest thing was this specific project, the unified slams dashboard. And that's why I decided to write about it. Because I actually surveyed a lot of pandemic mapping apps in Brazil. And a lot of them were created by startup companies or some individuals who decided to plot cases on their neighborhood or in Brazil. But this was a very unique initiative. That was a grassroots project created by the connection or the network efforts of over 300 slums in Rio. And I haven't seen that anywhere else. I think one of thethings that was important about this dashboard is not just the representation of the pandemic itself is how it created and strengthened community ties within their slums

So it's more than just plotting numbers on a map. It's about how you connect to other people, how you help. So at some point in the pandemic, for example, they created a petition to ask the government to prioritize the slum areas in vaccinations, because they are highly exposed because these are people who live in multi-generational households and they cannot social distance. And, but they are majority young. And in the vaccination schedule in Brazil, they started with older people and so it took months to get to the 20 30th populations, which is like the majority of people who live in slums.

De Souza ([29:34](https://www.rev.com/transcript-editor/Edit?token=9woIugu4ouxEZDHZ_cgBRsbNzDfF_NZBmZXGazgSJyws6uefwpmIoJ3lRvFUQ5-QC--pskDsxziCxOTJzmz_I8vVRps&loadFrom=DocumentDeeplink&ts=1774.73)):

And so they kind of do some grassroots initiatives to kind of try to influence public policies as well. And the other story I wanted to tell, which is, was very interesting that I found out while it's actually interesting to collect these stories. And understand and see what's happening in the communities. So there was one day that in this vaccination in Rio, and actually mostly in Brazil, it's done on this vaccination site, which are public house sites. And they were still vaccinating people in their 50s or so, or 60s. And then the slums are normally they have drug dealer groups who kind of coordinate, or they roll some slums in Rio. But they also protect that community. So that group of drug dealers, they came to this public health site with fuzils and heavy armory and guns and said, "Look, we all want to be vaccinated here because we are young, but we need to protect our community and we just think we should have priority. And we want the vaccine."

De Souza ([30:39](https://www.rev.com/transcript-editor/Edit?token=eOImtXa94FgyF0pgFs2O2HSiy9x0xKCqhJ3dWg2P3URCoWk2pF7r9E1KxP8pmAhBBJQtwdaCA2JFVNyjFWQFpJTfQzc&loadFrom=DocumentDeeplink&ts=1839.37)):

And then whether the doctors are going to say, it's like, okay, they just vaccinated everyone. So that was an interesting story of how the pandemic is managed and works in this communities as well.

tracey ([31:32](https://www.rev.com/transcript-editor/Edit?token=bFgx0xgbGY6sVoBtUiU0ABk00pqAk8WVqLrJii0B8cFPpvyk6pOIEo567CGT5EB2UhYpNQHKCajCc-RSFQQVdUgt0JA&loadFrom=DocumentDeeplink&ts=1892.01)):

Well, thank you so much for being here today. Adriana it has been very interesting stuff. I've enjoyed having you.

De Souza ([31:40](https://www.rev.com/transcript-editor/Edit?token=MV6BYN-fI3fcpIvDWRwWdOx8Xa6w9vVpNACJH2N1FfEwRZRROVit8rHU6UD-Gx6Q_grD82wcMu3F-kAFvPecMNOOqY0&loadFrom=DocumentDeeplink&ts=1900.12)):

Thank you.

tracey ([36:16](https://www.rev.com/transcript-editor/Edit?token=35d-GU7Urg2RUMILC3RxgswVeC5nXPrfm_nDZaNChU-1ldy-SKpIWgxqvJifXhCQQiUDy-ATNW09Dyv25I5qhYuXdoA&loadFrom=DocumentDeeplink&ts=2176.33)):

We've been speaking today with Adriana de Souza e Silva, a professor of communication here at NC state. This has been audio abstract. I'm your host, Tracey Peak. Thank you so much for listening.