

## **Interview 1: The BBC's Nicky Birch shares her experience working with interactive audio storytelling**

[00:00:00] So interactivity isn't just for games anymore. This week, we're looking at how voice platforms have opened the door for interactive storytelling. We're seeing it not just for entertainment purposes, but also for news content. Niky Birch is a commissioning executive for BBC Voice and AI, and she produces interactive audio for both voice platforms and podcasts, including in news content. Niky, thanks for joining us today.

[00:00:24] Hello.

[00:00:26] Give us a rough outline of the borders of interactive audio storytelling. What are kind of the different levels of interactivity that we see in audio storytelling?

[00:00:34] I think it's really interesting. It's so broad, right. You can have audio storytelling in the most linear form, which is a podcast, and that can be interactive. And that's really where the end of a podcast, somebody might say, "Well, if you are interested in following this path A and path B, you can listen to a different bit of audio." But that has some level of interaction, choice. And then you can have a more, I suppose, more in-depth and involved, right up to the point where you can have audio or augmented reality, which I can kind of go on and talk about, which is something which is much more sort of technical and much more kind of enriched your world. But in between that, there's a whole level kind of cascade of different experiences. And they're really determined often by what platform you're listening on, whether that's AR, or VR, or text, or video, or voice, or multiple platforms, or also there's location work. So is the audio interactive experience locative? So based on where you are at any one time. Is it an experiential piece where you have to go? Like if you went to a museum or an art exhibition, you are having an experience in the moment. Is it more of a lean back lesson, where there's less interaction and it's a bit more passive? Like more like a traditional audio or radio experience, but with some interaction. What we might call a kind of lean back. Or is a lean forward where you're, the audience, is asked to interact and engage the whole time? So you can see there's a kind of whole host of different types of audio interactions that are possible. And I think the other thing is, I mentioned, sort of multiplatform, the audio interactions that also involve other interactions like multisensory, like touch as well. So audio is just one part of interactivity.

[00:02:33] So within that range, where are we seeing, you know, people actually doing it? Like what parts of interactive storytelling are kind of becoming a thing, and which parts of it are still in more of the experimental stages?

[00:02:45] So the work in my current position, to be clear, I'm not working on interactive storytelling as a commissioner at the BBC, but I come from BBC Research and Development, where I've done a fair bit of interactive storytelling work. And prior to that, I had my own company, where we did some interactive storytelling for voice platforms, and so I was kind of deeply immersed in this for a few years. And in that time, I felt there was a lot of artwork, especially looking at artists and people doing great things on location, and using mobile devices, and using binaural sounds, and really just really helping to kind of enrich storytelling based on where they are or when the user moves around the space. And I think there's lots of really exciting pieces, and I'll happily send you some links to share with the students to where you can kind of listen to some and find out about them because there's lots of fantastic work out there.

[00:03:54] These are niche pieces in the work. You know, it's not a mainstream. There's no kind of big Pokemon Go of the audio interactive audio storytelling. It's a niche thing, but those are the people who are sort of pushing the technology and exploring what can be done. And they stretch from...I think a lot of people who have have experience in interactive theater who have often moved over and used digital devices to kind of enhance their work or explore what else they can do. So there's is really, really kind of out-there theater groups in the UK like Punch Drunk, who have done lots of interesting work in this space. And so it's a kind of, I'd say there's theatre people. There's the sort of traditional audio people. There's the storytellers. And then there's the sort of brands who kind of have got involved, and then probably, you know, those step back when they realize there's not necessarily big audiences there. So it's an interesting time where technology is making all this possible, but it's quite expensive to do some of these things well.

And so who's paying for it? Who's pushing it? Who's marketing? It means that I'd say, as I said, there isn't the sort of big interactive hits like there is in gaming, which is the final thing is the ones that are more gamelike. So you got the theatre makers, the storytellers, the audio gurus, and then you've got the gamers, and the gaming is where kind of the money is on this side, where a lot of experience in terms of interactivity is. So I think, you know, it's anywhere within that circle of expertise you're likely to find interactive audio storytelling.

[00:05:54] So my sense has been with the interactive audio storytelling that most people, if they're familiar with it, is kind of like the museum tours or those, you know, tourist based on location, and you get a piece of sound that kind of relates to where you are. Or on the other end of it, it's more the choose your own adventure story on voice platforms like Alexa or Google assistant. But I feel like we're now starting to see some of those same capabilities applied to news, and I know BBC has done some work with interactive news bulletins. Tell me a little bit about what's happening in the news with documentaries and news bulletins and that kind of approach to interactive storytelling applied to journalism.

[00:06:29] Yeah, it's really interesting what's happening in terms of the news because I think like anything, you know, attention spans are short. Yeah, tiny, even micro. And people are looking at new ways to try and push information, and I think also facts. You know, it's really important to get them, particularly the BBC. It's really clear to try and get the messaging correct and get the information out, and so people are experimenting with how you deliver news in many different ways. And the BBC has got a department called News Labs, which is looking at kind of technology meets news. And we also in the voice department, we also are exploring new ways to deliver news, though it's kind of coming at it in different angles.

[00:07:18] And I thought I'd just cover some of the some of the things that the BBC is doing because I think it's interesting. It's storytelling in not in the kind of boldly interactive way that perhaps some of the locative artwork is, but it's taking essences of some of that. So we launched an interactive news service, yes, over a year ago on Amazon Alexa, and that is you can ask for BBC News and what you get is a normal, traditional audio bulletin. But if you don't want the story that you're listening to, you can skip on to the next one, so I actually don't want to hear about coronavirus today. Thank you very much. I'll skip onto the next one. But if you want to hear more from any story or you want to have it explained in a bit more detail, you can ask for more. So you effectively have a kind of skippable news with dropdown ask for more tabs. So it's doing that same kind of thing of like I want to tailor my knowledge, right. It also...What it helps it's about giving people control. Right. So true personalization in this instance isn't really possible, but we can kind of tailor its view a bit more. And it's especially good, so we, the BBC has public service values. It's paid for by a license fee, and it really kind of represents those public service values by it helps us to kind of understand by asking for more. I can understand the background, the content, the perspective. And I think the other thing is it helps people discover additional BBC content. So one of the things they're doing is you may hear in the bulletin, you may hear a story on coronavirus, but actually earlier that day there was a great piece about the vaccine trials going well. And what they're doing is they're really using the small bulletin at the top, the headline news to sort of tease this great piece of a longer piece about the vaccination trials. And so it's sort of saying, "Hey, look, if you're interested in this story, here's this sort of headline. But really, there's a load more interesting stuff here." And we're finding, the evidence is showing, that actually audiences aren't really interested in skipping, but they are interested in asking for more. And that is one of the things that has been...And actually the success is slowly creeping up. The numbers of the use case of interactive news is like a lot of news over the last six months has gone up. But this has done very well, and we're very pleased with the outcome.

[00:10:03] How hard has it been to almost train people on how to get work? I think when we've done some work at NPR in the space we've found that's kind of tricky. Like what did you do? How hard was that? You know, have people really taken to this, do you think?

[00:10:17] Yeah. I mean, I can't take credit for this because I don't run the news operation. But I know that Julian Bukhari, who runs the news team, they've started off doing the bulletins like you would do normal radio bulletin, and then they realized that that wasn't the right approach. You know, you had to as I said, you had to start thinking of them as teasers rather than here's a straight bulletin, here's a bit more information. It was really like one is leading on to the other. And

really what you're doing is a shop window, and I think it's about changing the script and really just using it as a way of kind of enticing people in. And it seems to be working. It's definitely increased, and I think we're trying to roll that model out in other areas. So where does that go beyond news, and where can we use that kind of ask more across other BBC estates as well.

[00:11:16] So are there some other ways that the BBC has been experimenting with interactivity in some of its news coverage?

[00:11:22] Yeah, they've done a fair bit. They want to try and encourage, as I said, knowledge and encourage people to inquire and ask questions. And so they've done a bit of work on something called expanders, and I can show you a link on expanders.

[00:11:43] So there's a thing here called an explainer builder, which what they've done is it's a kind of there's a nice blog post here that explains how they've done the explainer builder, and it's really about what they've done is they've asked little questions. They basically sort of thought about in advance what questions people might have. In this case, this was, I think, the American elections. So you get to ask your question, "Do you have a question about the primaries or the election?" And they basically they thought, OK, we pretty much know what people are going to ask, but then it sort of jumps to that information there. So, again, it's a sort of level of interactivity by making people feel like, oh, OK, you've answered my question here. And that's within the story. And from there, I'm going to give you once I've asked, "OK, what's the difference between a primary and caucus?" OK, up it comes. All that information. So it sort of helping you explain the story in a bit more detail.

[00:12:50] I can imagine from the point of view of the folks working on this, there's some real editorial challenges, both in figuring out, OK, what questions might people ask and then some technical challenges in how do you then get the systems to learn to recognize the questions that are asked? You know, news, as we talked in one of the lectures, involves a lot of new concepts and the systems haven't always learned about those concepts. Have you run into both those editorial and technical challenges in making the systems able to recognize questions that humans have?

[00:13:21] Yes, and I think we've done a bit of work on boats as well, so in the same way, I think it has a similar or even more complicated situation. So we launched a corona bot, which we put inside Facebook, BBC's Facebook page. And within that, we actually had a team of people who were working seven days a week answering questions, or writing answers, that people would ask. And, you know, the news was changing. You know, when can I go outside? You know, how many people can come at my house? If the US is anything like the UK, it was incredibly complicated or still is complicated to get that right. And so, you know, we're having to have people. It was a very high staff, you know, well-staffed operation. And I think, you know, to say that we have that sort of, I think misconception that it's all going to be AI doing all of this, whereas actually it's not, right. This is difficult information and needs to be, particularly when you're working for a news body, you need to be dealing with this properly. You can't rely on, you know, you can't leave that to computers to get that right. I think one of the interesting things about the corona bot, and Quartz, and I think ABC did a bot. I don't know if NPR has done a bot. It's quite a challenge, I think we found it. It is an interesting thing to sort of marry with news, and so for us like perhaps Facebook was the wrong platform for it to go on. But for various reasons, you know, how these things kind of go, it was a good test to see whether audiences are interested in it. But I think we need to look, you know, about what's the advantage for audiences to be communicating and asking. Is it how people ask questions, or are they more likely to do it as the demonstration I just showed you within a story that they're reading when they want more information? So it's a bit of like there's a lot of technical challenge. There's also some editorial. There's, you know, there's ethical. There's kind of resourcing. It's a really interesting project.

[00:15:36] Take us through, really quickly, what are some of the ethical challenges?

[00:15:40] Well, I think, you know, getting that in people asking questions and you getting the news line correct. It's an information service as well as...So in the time of a pandemic, it's an information service that's very key to you getting it right. And it's not you know...we have public service, we're meant to be unbiased, but it's very important that you're surfacing the correct

information that is published by...so we have a National Health Service, and so we work in conjunction with the National Health Service in order to provide the correct information from them. But then you've also got the government issues, and then you've got lots and lots of new ones in there. So, you know, but why is it OK for me to go to the pub when it's not OK for me to have the same amount of people over to my house? And, you know, these kinds of questions, which it's full of really difficult, challenging questions, so you have to kind of be able to respond in a way that, you know, is correct, but isn't telling anyone the wrong information, but also isn't an opinion because you're representing the industry.

[00:16:52] So with your own production company, you've worked on some interactive podcasts and projects like the Financial Times' Hidden Cities. When you approach an interactive production, what do you kind of have to do that's different from if you were doing a more normal non-interactive production?

[00:17:05] OK, good question. So, yeah, Hidden Cities is an interactive storytelling piece where using Google Assistant, you travel around Berlin, and you can go and experience different locations of Berlin just in audio. And then using your voice, you can move around. And there's a sort of, in some places, there's a number of different people you can speak to depending on who you'd like to choose. I'm just going to show you. I've got a little deck, which I did, which I think explains a little bit about some of the decision making. And I'll skip through it because it could be quite long. Otherwise we'll be here forever.

[00:17:45] So Hidden Cities Berlin is an interactive audio tour around Berlin. It was done in conjunction with the Financial Times, which is a newspaper in the U.K., and Google Assistant. So what we did. I come here. OK, Google talked to Hidden Cities. Hidden Cities Berlin from the Financial Times is an interactive audio experience where you get to choose which side of Berlin you want to hear. From the collapse. Maybe two hours past, maybe 15 or 20 hours passed. To the lakes. We prefer most of the Berliners to swim naked. Explore Hidden Cities Berlin by asking your Google Assistant, "OK, Google talk to Hidden Cities."

[00:18:33] OK, it's not going to be such a big advert for it the whole way through, I promise.

[00:18:38] And I'm just going to jump through, and what we did in terms of thinking about it before we started is really kind of think about some key questions. Why would you interact rather than listen passively? How do we make it so it's intuitive? How do you feel when you're in this experience? What is it that's compelling in here? Who's the audience? How can we tailor this experience for multiple users? How do we keep them listening? I don't think we answered all of these successfully, but I think this is a really interesting thought to set it up at the beginning. We had some design constraints, and I think particularly one of the key things when you're working in audio interaction is when you've only got voice and you haven't got visuals, is that people cannot remember two, possibly three options at any time. You can't say to people. Right, you know, the option one, do this. Option two, three, four or five. You're only really going to remember two or possibly three. And so I think, you know, it's really understanding how people's brains work in audio. And I think crucially, which I sort of touched on before, audio generally is a passive medium. And so with this experience, we're asking this is very much a lean-forward experience. And so trying to think about where they would be when they were doing this because most people have their Google Assistant...well they do in the UK, they're not in cars that much yet. They're mostly kind of in the home, and people don't tend to use them when they're out and about. So this is again, it's not a perfect environment for sitting there and interacting with audio because you're generally when you're listening to audio, you're kind of moving around and doing other things. So, you know, we accept there are some limitations. But so we looked at the story. We looked at kind of the sound design. We designed for inattention, so you could drop in and out of this experience and come back to it any time. And we sort of set up expectations, and we're telling the user how long this is and what you need to do all the time. So that was really key. And then we thought about the flow. So we ended up, this is what I call the string of pearls flow, so you start off in one place and you basically move around the pearls to each location. One is a lake, one is the castle, you know, and one is the club scene. And within each sort of pearl, you can move around and speak to any number of people, but you're always going in the same direction. So you're never lost. And so you can kind of jump between locations, but you can never go backward.

[00:21:21] I think that in audio it's tricky because, you know, you don't have the visuals to orient yourself to, and I think it's hard to remember that, you know, almost mental model or that map and the things you need to say to be able to get from point A to point B. So it almost seems like audio has some inherent challenges when it comes to interactivity?

[00:21:35] Yeah, absolutely. It really does. And I think, you know, not only that you also have to explain everything in audio.

[00:21:44] Yeah.

[00:21:45] And it's really hard to explain things in audio because without just being really, really verbose and having really long explainers. What you don't realize is when you've got a screen, there's lots of things you can do that really kind of cuts corners. Right. You can have a kind of little settings. I know that's settings. I can have a little play screen. A triangle. I know that means play. You got these simple sort of tools that help us get to that point or shortcuts. But in audio you don't. If you just have audio, you don't have any of that. So you've got the scripting, which is absolutely key because you have to think, "OK, how can I say everything I want to say in as little as possible words?" So, you know, it's just being really clever. So we had two types of interaction questions. We had a simple kind of binary question, which would, you know, do you want to hear this clip or this clip? OK, so you've chosen my next content, but we also had any response interaction. So it's like, you know, "Hey, man, do you want to go and see"...I can't remember the name or the text of it now because it was a while ago, but it was like, "Hey, you know, let's go. Do you want to come with me to see the next part of the club scene?" And you go, "Yeah." Or, "What do you like about going on holiday?" And you go, "I love just relaxing." And that takes you on to a new piece. So it doesn't really matter what you say, but it moves you on to the next. Everyone has the same journey at that point, but it helps you feel like you're having a conversation or part of a more natural dialog that isn't always choose A, choose B. So I think that really helps. I'm going to jump out of it because I think that probably explains it all, but I'll send you the deck anyway so you can kind of see.

[00:23:29] And there's one thing that might be useful. The final thing actually was that when we made this, we had...Yeah, I mean, if you can see this sort of map there ended up being 125 different locations, 330 individual audio files, 650 uploads. So it becomes a kind of really quite a complex piece, even what was a relatively, when you're listening from an audience perspective, and it might feel quite simple, but from a technical perspective, it's actually still quite challenging.

[00:24:05] Impressive. Thank you for that walkthrough on that. So tell me, where do you see interactivity and audio storytelling going? What's next?

[00:24:14] So if you'd asked me this a year ago or even...yeah, I'd say a year ago, I was really excited about audio augmented reality, and the Bose headphones. And they had released the Bose glasses and headphones, where you had kind of just head tracking and you had vinyl content, and you could create content for these devices. And they also had voice control. And I was like, wow, this is everything. There's head tracking, voice control, you know, binaural content. And we were creating a really... We had a really... A couple of really interesting projects on the go in BBC R&D, where we had a multiplayer audio experience where people were using sort of physical game playing, role playing, with each other. And there was four of them and everyone having these the glasses on and headphones on. And that was really exciting. We were understanding how that works. And then we had another piece, which was a drama where you were based in a park, any park around the world. It understood. It used the map of Google Maps, and it recognized where the boundaries of this park were. And you had to kind of go and explore the park and find different bits of audio. And it was really involved and really great. And then they canned it. And there wasn't enough sales, and they took it back. So I feel like slightly broken by that experience because that was really exciting. But I think if I'm really honest, that goes back to what I was saying right at the beginning, which was it was quite arthouse house, it was quite niche, and it's trying to find the mainstream experience. What is going to work for mainstream audiences? And I think that's why BBC News and the work that's been done around there is actually much more kind of likely to hit home. And so I would suggest in terms of where I'm interested in, from a sort of platform and technology level, I'm interested in what Apple AirPods

could do and whether Apple would open it up and allow us to use the airpods because they are so mainstream and people have them. A lot of people have them. And what that allows us to do in the future. And then from a kind of content side, I think it actually is not about... I'm saying this as someone who's looked at it from a technology side... I would say it's not about the technology. It's about delivering the best content in kind of emotional ways that connect with your audience and not be driven by what the technology can do. So I suppose on the one hand I'm saying I'm excited by technology, but on the other hand, I recognize that when you put all your eggs in one technology's basket and it all falls apart, it can be quite depressing.

[00:27:15] So for the journalists and storytellers in this class, what advice do you have if they're interested in working in interactive storytelling and journalism that uses an interactive audio component? What advice do you have?

[00:27:30] I would say there's a couple of things. So from a technical perspective, I would play. Right. I would play with some of the technology, like use voice flow. I know the Amazon has got a lot of new voices they developed, so they've got this sort of long form speech style which is open to US developers, which means you can have different voices reading longer texts and you could kind of amalgamate that with a tool like voice flow, which enables non-developers very easily to have a go at making their own voice enabled audio, interactive audio experiences. So I think that's worth just having a play with, and you might find if you put journalism at the heart of that, then you've got something really interesting. And what I mean by that, I'm going to rewind. I don't know if you saw a few years ago the Financial Times did a piece about what it's like to be an Uber driver, and they interviewed a lot of Uber drivers. And what they did is they then turned their interviews into a bit like a game, where you could experience. And you could be, you are an Uber driver, and you are having to make decisions of whether you should pick up this person despite the fact that you've only made so-and-so money today. And this person, you know, you get there, and it turns out they're not there, or it turns out that the percentages you're making that day you've lost it because something happens. And these are all based on real experiences from Uber drivers. And what it's done is as a player, you're suddenly seeing, you have to... From the players perspective, you have to kind of get through the day and earn enough money to take home to kind of pay your living. You know, help yourself for that day. But it's suddenly transformed because it's all based on real information, and real data, and real interviews that it's so much more powerful.

[00:29:39] So my kind of second point is, is although play around with the technology, it's still about the simple stories, well told. You know, mixing journalism with storytelling like that FT Uber driver experience is where the sort of powerful, you know, hit home is going to work. I think, you know, although it's good to understand the platform and technology, it's really about the stories that matter.

[00:30:04] Nicky, thank you so much for joining us today.

[00:30:07] Thank you very much.

[00:30:09] If you want to see any of the projects that Nicky and I have been discussing, we've got links on the screen. You can also follow her on Twitter.