

CONVERSATIONS ON STRATEGY

PODCAST
TRANSCRIPT

Kristan J. Wheaton “Spatial Anchors and Dangerous Liaisons: Terrorist Collaboration in an Augmented Age”

If leaders of terrorist organizations can recruit, indoctrinate, plan, and operate using AR with little drop-off in effectiveness while staying safely in hiding, the challenges faced by national security and law-enforcement organizations will increase exponentially.

Keywords: animaia, augmented reality, AR, virtual reality, terrorism

E-mail usarmy.carlisle.awc.mbx.parameters@army.mil to give feedback on this podcast or the genesis chapter.

Stephanie Crider (Host)

You’re listening to [Conversations on Strategy](#). The views and opinions expressed in this podcast are those of the guests and are not necessarily those of the Department of the Army, the US Army War College, or any other agency of the US government.

I’m talking with Kristan J. Wheaton today, author of “Spatial Anchors and Dangerous Liaisons: Terrorist Collaboration in an Augmented Age” from [Emerging Technologies and Terrorism: An American Perspective](#), which was published by the US Army War College Press in April 2024.

Wheaton is the professor of strategic futures at the US Army War College, where he teaches the Futures Seminar. He’s the author of *Sources and Methods* blog and several books.

Welcome back, Kris.

Kristan J. Wheaton

Hey, thank you so much. It’s great to be here.

Host

What is augmented reality, or AR?

Wheaton

Most people have heard of virtual reality. Virtual reality is when you put on a headset, and you’re immersed in another world—and that world is fully digitally created, and it’s very powerful technology.

Augmented reality is when you put on a headset or a set of glasses—it’s coming in a variety of different form factors these days—you can actually experience it, oftentimes, on your cell phone. It’s the ability to put digital objects into the real world. And the most common thing that almost everybody has at least heard of, if not experienced, is Pokémon Go. Pokémon Go is an augmented reality application. When you go out and you catch Pikachu—or whatever—you are engaging with a digital object that’s been placed in a particular point in the world. It’s been put there by the computer, and you see it in the park, or on the street, or wherever you happen to be catching your Pokémon. That’s an augmented reality app—application. And so there’s a bunch of other applications like that that all have that same characteristic of putting digital objects into the physical world.

Host

How will terrorists and other criminals likely use AR?



Kristan J. Wheaton
**“Spatial Anchors and Dangerous Liaisons:
 Terrorist Collaboration in an Augmented Age”**

Wheat on

This is not something that’s inherently good or bad. It’s something that can be used for a whole bunch of things. It’s a way for you to communicate in a very powerful, almost physical, not quite physical way, with people such that they are going to feel your presence.

So, in order to get to that point in AR, you’re going to have to see a number of technologies that are coming along, but that’s all happening. So, there’s a whole raft of technologies that are kind of supporting the AR infrastructure. They’re all coming along. And as they start to develop, you’re going to move away from the cartoonish Pokémon Go that very clearly is a digital object placed in this—as interesting as that is, it’s still obvious that it’s a digital object—to objects that are going to look very real to the user and, in some ways, are going to be able to be interacted with by the user, as well. What’s particularly powerful, I think, is when we get to near-holographic representations of people. And, that technology is just advancing very quickly. If we’re both in a digital room together, I would see you as an avatar. You might see me as an avatar. And those avatars don’t look very much like people and kind of [look like] floating heads or floating torsos. It represents a person, and I think there is good research that suggests we interact with that digital object or that digital avatar very similarly to the way we react to real people. But the truth of it is, that’s going to get a lot better. Bandwidth is going to get better as we move from 5G to 6G.

[The] technology of the smart glasses and other applications are going to get better. As those things all get better, that person that you’re looking at is going to look less and less like a cartoon and more and more like you. And the closer it gets to looking like you, the more psychological effect it’s going to have on me. And so, from a terrorist perspective, this is recruiting, retention, doing all of that and doing it from a location that has nothing to do with being in the United States or wherever you are. That, to me, is the real risk. These digital beings are coming into your country, crossing your border without any customs or anything. You have no idea that they’re there because it’s just a telephone call from their perspective, from the user’s perspective. You can easily imagine someone being recruited through all of these novel technologies and then being guided from afar by engineers who tell you how to construct a bomb, experts telling [you] how to place it, where you should place it, and all this sort of stuff. The person here that’s actually doing the actions, the physical actor, is relatively ignorant about all those skills, but the person who knows those skills is distant [and] does not have to come into [the] country to make that happen. That, to me, is the frightening part about this as a technology.

Host

Tell me more about the psychological impacts.

Wheaton

VR and AR—conceptually, they’ve been around [for] almost 20 years. Longer than that. But the research on it is a little thin. And how realistic these AR and VR applications are impacts what kind of effect they have on it. But the trend seems to me to be clear. As time goes on and the technology gets better, people start reacting to these virtual things as if they’re real things. So, you can have a virtual person that’s speaking to you, particularly if they’re speaking to you in a voice you know, and it’s a person that you know, you’re just going to feel like that person’s actually there. And even if you know they’re not, your brain doesn’t. Your brain, at some lower level, is looking at something, seeing something, and interpreting it as being there. And we’ve seen this in science fiction for decades—the [Star Trek] holodeck and all that sort of stuff.

We’re not getting to that level, but I don’t know that it matters because our brains just aren’t sophisticated enough. I see this all the time with virtual reality when people put the virtual reality headset on and are immersed in another world. Even if that world is very cartoonish in its rendering, people believe it, and they act as if they’re in this virtual world to the point of where they’ll do things that are dangerous. They’ll feel like you’re supposed to jump from one place to another, and they’ll jump without any regard for the fact that there’s actually a table right over there. There’s countless videos on YouTube of people plunging headfirst into their television or over a chair or something while they’re in virtual reality because it’s so compelling a vision.

Kristan J. Wheaton
**“Spatial Anchors and Dangerous Liaisons:
 Terrorist Collaboration in an Augmented Age”**

And augmented reality is not going to be much different than that. The fact that it’s overlaid on the real world may even make it worse. And by worse, I mean more realistic and your body and your mind reacting to it as if it’s realistic. So, the psychological impact—I don’t know that we’re prepared for that. I mean, you can go all the way back to Stanley Milgram. We’ve known that there is a white lab coat effect and a leader effect and a conformity effect to where if I’m standing next to you and I’m telling you, I’m the leader, and you are one of my followers, and I want you to do this, that’s so much more powerful if I’m with you, even virtually, than if I just sent you a letter or I’m on a telephone call to you or whatever or FaceTiming. It’s just an ability to impel action.

That is my concern about it—and to do that from afar, from anywhere in the world.

There is one other thing I wanted to say.

One of the most interesting psychological effects—and the Intelligence Community, when they studied this back in 2008, they coined a name, a neologism, called the Animaia. The Animaia was this idea of a third-party and identity transaction. You have who you are, and then you have who you’re representing yourself to be in sort of a game space or in a virtual space or anywhere else. And we do that with handles, and we do that with names, and we do that with avatars today. But inevitably, because the space and what you’re doing in it, in this virtual or augmented space, impacts you psychologically, who you are. You’re not the hunter warrior that you are in some video game, but that personality comes through, somehow, to you, and you go through, somehow, to that personality. You talk a certain way; your character in the game probably talks a certain way as well. The idea behind the Animaia was that that is this thing that actually emerges at the intersection of those two things. And that actually becomes a type that you carry from game to game or from situation to situation. And so, you have a set of features—psychological, meta-analytic features—that you carry with you from one environment to another.

There’s a lot of speculative nature here, but it is a creation of another character that’s equally trackable, equally consistent in some of the things it does. It’s neither the actual human nor the game character. It is something somewhere in between. And that fascinated me, the idea of a whole different kind of identity emerging from these kinds of virtual and augmented reality situations.

That has not been studied at all, but there’s just a lot of grist. I mean, we have enough problems psychologically with our own selves, you know, much less creating this Animaia thing that sits out there and is like us but also like every game, every virtual interaction we’ve ever had in some material concrete way. And it was a fascinating concept. I think that psychologically, we’re just at the beginning of understanding what this does. But one of the things it does do is stuff I talked about earlier very clearly. We have a tendency to treat virtual as if it’s real.

Because we talk about the law-enforcement problem—a simple example, you’re doing this in a virtual world and you always do a certain kind of thing. You do a certain kind of keypad [sequence], or you say a certain kind of thing. Like, for example, when I say goodbye to people, I’ve spent years and years in Italy, so I often say, “Ciao.” I can easily imagine a character that I’m playing in a video game or a character that I’m doing in an augmented reality app—I can imagine myself saying the same kind of thing. And so that character, hunter, warrior, whatever they are in the VR is never part of what that character would do, but it’s part of what I would do. And I’ve transferred that over to this character. And again, you can track that.

Another even better one. Oftentimes, regardless of what the e-mail is or what the handle is, or whatever, they use the same thing—like I often use KWheaton, or I go with the same set of three or four or five [handles]. Well, that becomes part of your Animaia. That becomes part of your character. So, it’s a combination of personalities, a combination of the way you type, it’s a combination of, sort of, the shortcuts that you use in a digital world.

But all that’s analyzable, which means that law enforcement can lap onto that, and the surveillance can slap onto that in a way that’s different than targeting me or targeting the character. So, I don’t necessarily need to know your character. I just need to know the metadata about your character because that same metadata is likely to show up wherever you go in the Internet.

Kristan J. Wheaton
**“Spatial Anchors and Dangerous Liaisons:
 Terrorist Collaboration in an Augmented Age”**

Host

Wow. I don't even know what to say.

Wheaton

Yeah. The only place I've seen it is in this 2008 [Department of National Intelligence or] DNI report that was made public through a Freedom of Information Act request. But I thought the idea was really, really, really fascinating because it is true. As somebody who spends an awful lot of time online, you just default to certain patterns when you're engaged in online stuff—particularly the administrivia of online stuff. You just default to certain patterns. And, you know, you tend to play the same kinds of characters. That is all trackable data. So, on the good side, it's helpful for law enforcement. It's also bad for people who are afraid of a surveillance state. It's going to get worse.

Host

I agree. That is fascinating. What are the implications then for counterterror operations?

Wheaton

I think this is a big problem. We have a history of regulations and police training and law enforcement—your first line of defense on this. The policy and the equipment and the training on the good guy side is going to struggle to keep up with a multi-trillion dollar telecommunications industry that's just racing headlong to this future. People who will be required to try and stop this may have very little understanding that it's even coming, or what it's capable of, until it's too late. I don't anticipate this world that I'm describing to really become realistic until around 2030 when 6G technologies start to roll out. 6G is going to add another whole bump. How fast it actually is depends, right? That's just the nature of telecommunications.

But it will be faster than 5G, and it will allow the kind of bandwidth necessary to have these hyper-realistic and the other technologies—the glasses themselves, the batteries, all of those pieces and parts, are moving forward, and moving forward in a fairly predictable way towards a future where you're going to have these kinds of technologies. But by 2030, you're going to start seeing some of these things.

And so, now it's time for law enforcement and the policymakers and people who are concerned about this sort of thing to start thinking about what does that mean for us? And what do we need to start thinking about now in order to be able to be there? I mean, if you're a counterterrorism unit and you don't know anything at all about virtual reality or augmented reality, you need to start learning would be my recommendation.

Host

Do you think there's a way for law enforcement to catch up and keep pace with these issues?

Wheaton

Yeah. I mean, I don't think it's that hard to do because the technology is so accessible. I don't know what the Meta Quest 3 is going for. It's the most popular virtual reality and augmented [reality], I mean, it has an augmented reality, very sophisticated augmented reality, capability to it. And it's 400 bucks. I forget exactly what the price is, but it's in the hundreds of dollars, which makes it not outside the realm of any person. And they're commercially available anywhere. And through devices like that, you can start to understand what the capabilities are. And once you start to understand that, I think you see the same thing I do. It's not hard to see it. It is hard to see it if you're not looking.

I think you need to start looking, start practicing, and start thinking about the implications of it. That's really why I wrote this article. I don't think I'm seeing something that a lot of other people aren't seeing, but I know that law enforcement has a million things that they have. I mean, they worry about Bitcoin and, you know, and cyber and, you know, crypto, and all the things are coming down the pike at them. And this is just one more thing that's coming at them that I think has, for the counterterrorism community, more meaning than some of the other things that are coming.



Kristan J. Wheaton
**“Spatial Anchors and Dangerous Liaisons:
 Terrorist Collaboration in an Augmented Age”**

Host

Do you have any concluding thoughts you want to share on the topic?

Wheaton

I do think that it is the technology that has an awful lot of potential, both for training and for utility, on the counterterrorism side. There's going to be a lot of good things about this technology. I think that it's certainly what we think, and that's why we have so many sets of AR and VR glasses in the Futures Lab where our students here at the War College can come and try this out. And they can check the glasses out, take them home, and play around with them and start to understand really what the capabilities and limitations of the technology are today. But, I think it is something that—you want to be ahead of this one; you don't want to be behind it.

I'm not a huge terrorism expert. Technology is more my field, but my sense of the terrorist community, and all of the non-state-sponsored actors, is that they are fairly aggressive about seeking asymmetric advantages. And so, if they see an advantage in this technology and they don't perceive anybody else is using it, they will use it.

The Intelligence Community has actually been thinking about this for a long time. Back in 2008, 2009, there were a couple of reports that looked at virtual worlds and, at the time, I think they were probably more prescient. And so, people looked at them and said, “Oh, this is pie-in-the-sky stuff.” And it's not. They were actually very accurate on those reports about what has happened and how it has evolved. One of the things they're concerned about is the way in which this technology is going to evolve and the impact it's going to have. And at the time, they were looking mostly at virtual worlds where as opposed to augmented reality worlds. But the augmented reality is, if anything, I suspect, worse than virtual worlds. It's easier to get lost in it in a way that it just looks like the world around you is normal, but you've augmented it somehow in these digital objects.

Host

Where can people follow you or find your work?

Wheaton

The easiest place to find my work is on my blog, [Sources and Methods](#). It really is the best place to, to keep up with me.

Host

Thank you for being here today.

Wheaton

Alright. Thanks for having me. I really appreciate it.

Host

Listeners, you can download the collaborative study at press.armywarcollege.edu/monographs. For more Army War College podcasts, check out [Decisive Point](#), [SSI Live](#), and [A Better Peace](#).

Download this podcast:

<https://ssi.armywarcollege.edu/SSI-Media/Podcasts-Lectures-and-Panels/Conversations-on-Strategy-Podcast/mod/67381/player/581/audio/81922>

More information about the programs of the Strategic Studies Institute (SSI) and US Army War College (USAWC) Press can be found on the Institute's home web page at <https://ssi.armywarcollege.edu/>.



SSI Website



This Episode



Press Website