On November 10th, 1969, the first episode of Sesame Street aired on PBS. And it was unlike anything that had ever been on television before. It was a collaboration between educators, psychologists, comedy writers, TV producers, and puppeteers like the great Jim Henson, who were all working together to create educational content for children.

Television is such a huge influence on children. There's family or the church or the school and television. And as an industry, we don't generally face up to that responsibility, and I was delighted to be doing that sort of thing.

The creation of the show was laid out in a brilliant HBO documentary that I've now seen three times called Street Gang: How We Got to Sesame Street, and at the heart of it is an exploration of what's possible when next generation technology is used mainly for the next generation. I'm Aza Raskin.

And I'm Tristan Harris.

And some might say that television is itself the problem. Neil Postman actually said, the problem with Sesame Street is that it takes television seriously, even though as a medium it is bad for education.

But even so, what Sesame Street was exploring is the upper bound and upper limit of how do you do television in the most developmental way possible, which has lessons for us in how we think about social media and even artificial intelligence. So today on Your Undivided Attention, what happens when creators consider what lifelong human development looks like in terms of the technologies and mediums that we make?

And what philosophies from Sesame Street can we take away to inform how to steward the power of AI and social media to influence minds in thoughtful humane directions?

Welcome to Your Undivided Attention. We are so excited to have with us today Dr. Rosemarie Truglio, who is a PhD in child and developmental psychology at the Sesame Workshop, which produces Sesame Street, the program for children all around the world. And that I happily watched also as a kid, I think along with Aza.

Now, I think that before we get into this, I wanted just to link this with why are we talking about Sesame Street on a podcast that normally talks about runaway technology that's affecting humanity, the social dilemma issues, addiction, polarization, breaking down democracies. Why in the world will we be talking about Sesame Street? And it's because the question concerns what is a developmental relationship between technology and humanity?
You would think that in a medium like television where it's just an arms race for attention and ratings, that it would turn into this race to the bottom of the brainstem for producing the lowest common denominator drivel for people and for children, you would see the same thing, which is going to be people getting their heads bonked back and forth and green goo splattered all over each other. But *Sesame Street* defied, I think the premise that television is just doomed to a race to the bottom.

Could we do television in a different way where you marry together the best insights of child developmental psychology, comedy writers, musicians, puppeteers with an actual view of what would develop children in a healthy and positive way? Can that actually be accomplished? And one of the most amazing international success stories of this happening was with *Sesame Street*. So Rosemarie, thank you so much for making time to come on. We're so excited to be with you here.

Dr. Rosemarie T...: Oh, thrilled to be with both of you. Thank you for inviting me.

Aza Raskin: One of the things I think might be really helpful for listeners is to get the context in which *Sesame Street* was created. There were so many possible worlds where *Sesame Street* just did not come into existence. And so if you could paint a picture of what television, the media ecosystem looked like before *Sesame Street*, how *Sesame Street* came to be, why it was surprising that it came to be, and the ethos that infused it, like longitudinal studies that are centered around childhood development. We didn't have to live in a world where people even cared about that. So I'm very curious about that context in which *Sesame Street* was formed.

Dr. Rosemarie T...: Yeah, that's a really good question because *Sesame Street* debuted in 1969 and back in the '60s, television for children was called the Vast Wasteland. There really wasn't much in terms of positive content, but it came about because there was this discussion of what is out there for children? What does Saturday morning look like? There's a lot of commercials and certainly not curriculum driven content for children. And Joan Ganz Cooney, our co-founder and visionary, posed a question at a dinner party, "Can we use television for good? Can television teach?" And it was based on her observation of children watching commercials, these little jingles, these little pieces of content that had messages. (Oscar Meyer Wiener, Rice Krispies, and Slinky jingles play).

And children were learning these messages, they were singing these songs, so they were given some research dollars and said, "Okay, let's put this to an empirical test." And Jones said, "This show has to be unlike anything that has ever been created before. And in doing so, we're going to create what we're going to call a *Sesame Street* Model. And what that means is the show needs to
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**What Can Technologists Learn From Sesame Street? with Dr. Rosemarie Truglio**

be curriculum driven, so we need to make sure we have educators, but it also has to be well researched."

And that's where the developmental psychologists come in. So that's the research part. And educators, curriculum people usually don't hang out with developmental psychologists. So you're marrying those two disciplines, and then you're bringing in the third leg of the stool, which is production, creative, your writers, your producers, your animators, your musicians, and they have to work with the educators and the researchers in this collaborative model.

And Joan called it a marriage, and she was so right to coin it that way, because with any marriage, there's compromise. And you are all committed to the same goal, which we are here at Sesame Workshop, right, to create impactful, relevant, meaningful content for children and the adults in their lives.

**Tristan Harris:**

There's a quote from the film *Street Gang* about the birth of *Sesame Street*, which was the question, what would television look like if it loved people instead of trying to sell to people? And there's all the difference in the world in that. And I just love... that was the original reason we were so excited to do this episode with you and exactly what you said.

And I think it's important for people to understand how unique this marriage of child developmental psychologists was with media people at the time because I think if we take it to our work in social media, it's not as if the people who built TikTok are sitting there, they hired 500 child developmental psychologists with a curriculum saying, "How could TikTok be used to entrain and develop people's cognitive, emotional, relational theory of mind, empathic skills? And how do we test to make sure that those skills are actually being developed by TikTok?" In fact, it's the opposite. It's mostly 20 year olds who are ruthlessly optimizing for engagement with no incentive to care about children at all.

**Aza Raskin:**

Can I jump in there with a question, which is, there's tension that we see all the time in social media where if you ask the companies, they'll say, "We're doing what you're saying to do for children. We are asking people what they want, and they're telling us through their clicks." And I could imagine there's a naive version of like, "Well, what do the children want?" And you show them a lot of things and they just choose the thing which is most sugary. But you're saying something I think deeper, which is there's a way of holding both what the children want and what is developmentally good for them. And so I'd love to hear you tease out and complexify that philosophy of on what basis are you saying, "This is what's good for children," while also taking into account that which they care about and want?

**Dr. Rosemarie T...:**

So character development is key, right? Children are looking for characters that they relate to and good story narrative is key. They're looking for stories that
they are relating to but also find meaningful and they want to invest in. They want to lean in. And the stories are told in a very playful way. There's humor, but humor never at the expense of a child. And what's wonderful is about how it's written is that there's also humor for the adult. So it's not so childlike that an adult can't find something in the show to co-engage with the child.

Tristan Harris: I think that's a fascinating insight. And it also relates to how the designers of a show imagine the show being watched. Do you imagine the show being watched by a child on their own, which is one use case, but then I think that you were thinking about designing the show so that when a parent is sitting there watching with their child, so you have the music, the celebrities like BB King or Johnny Cash are there. (Johnny Cash singing).

Oscar the Grouch...: Wow, that was really great. And say, aren't you Johnny Trash?

Johnny Cash: Cash.

Oscar the Grouch...: Cash, Cash.

Tristan Harris: And in a certain sense, people don't know how to be parents, and we're only as good as the media that we consume about what it means to be a good parent and the people around us modeling good parenting behavior. And one of the weird side effects of social media and the attention economy is the way that parents have become zombified themselves and are not necessarily relating the same way to their children.

And so we lack a role model infrastructure for the conscious development, not just of kids, but of parents and their kids together. I'd be curious if you have any reactions to that in terms of how you were thinking at Sesame Street of modeling parenting, modeling adulthood as you're designing.

Dr. Rosemarie T...: Yes, there are so many children's shows that parents will cringe at the thought of co-viewing with their child. I can't watch that show with my child. It's clearly just for my child and there's nothing in it for me. That's not Sesame. So Sesame Street is looking for that dual audience and how you could address some of these issues, be it learning an academic lesson or a social, emotional lesson, or even a health lesson. I can't tell you, when we had a curriculum focus on developing healthy habits for life, and we had Cookie Monster eat more than just cookies and eat a rainbow of colors, and a cookie is a sometimes treat.

Cookie Monster: What about all those other good stuff over there. There you see there's grapes and there's apples and bananas. (Singing about how a cookie is a sometimes food)
Dr. Rosemarie T...: Parents were saying, "Thank you. I now have a way of talking about sometimes food and any time food." So they are picking up on the language that we're providing.

Aza Raskin: I think this is a really critical point to double click on, especially for our audience of technologists, because Sesame Street makes normative claims. It's saying some things are good for a childhood development. And I'm very curious, how do you wrestle with the fact that you're trying to do this children's development across so many countries?

Is there such a thing as a universal moral curriculum? If I put on my cynic hat, and I really, I'm bringing this up so you can push back as hard and as powerfully as you can. Some people might say, "Well, who are you to say what's good for children's development and mental health? Doesn't that depend on what country you're from? You're putting memes from your Muppets into the mouths of children." Probably we saw something like this in the COVID-19 vaccines, the pushback for Big Bird getting vaccinated.

Granny Bird: The vaccine is going to help my bird and all the kids out there stay safe and healthy,

Big Bird: Yeah. And it'll help me keep playing with my Granny Bird and all my friends at school.

Granny Bird: Yeah.

Dr. Rosemarie T...: Of course, we have co-productions where Sesame Street airs in 150 countries. Sometimes it's dubbed, but sometimes we create what we call co-productions. And these co-productions, what's really wonderful about them is that they're developed with us, but most importantly, in development with their learning scientists, their ministers of education because they're creating content to meet the needs of children in their country, in their society.

What's important for them to tackle, just like we're looking at domestic issues of what's important for us to address, they're doing the same thing. So there are universals and then there's also localization. So math and science, that's universal. Lessons about empathy and understanding your emotions and being able to regulate your emotions, that's universal. So there's a lot more universality than there is specificity, but it is important because you want to make sure that the content is localized so that the characters are meaningful, the setting is meaningful. But what keeps us focused on what is normative, and I love this word normative, is we are grounded in the learning sciences.

Tristan Harris: It's one thing when you say there's normativity around moral development or relational development, but as you start getting into more and more
controversial and difficult subjects, *Sesame Street* has never shied away from topics like death, divorce, AIDS, racism, bullying. Even more recently with COVID, the topic of vaccines. You address refugee children, parents who've been incarcerated. How does *Sesame Street* rise to this level, this occasion of difficult topics?

Dr. Rosemarie T...:

All right. First, I want to make a distinction between what we do on the show for difficult topics and then what we do on our website because not all topics are appropriate for mass media. So as I've been saying, we have to be child first, child focused, and we got to be mindful that some topics may not be appropriate for a child to be introduced to if they're watching the show alone and there's not an adult present.

So when we talk about incarcerated parents and we talk about divorce, these topics are covered on our website, not on *Sesame Street*, the show. So that's really ... because everyone gets it blurred. And AIDS that was not talked about domestically. That was a curriculum that was developed for our co-production in South Africa because the show, *Takalani Sesame*, their Department of Education said, "We have to address this issue because there are so many young children who were orphaned because their parents died of AIDS and they were HIV positive and children were not interacting with them or playing with them."

So it was really important for children to understand that you can play with someone who is HIV positive and you're not going to get sick. So it was the de-stigmatization of HIV, AIDS. And so that was important for South Africa. We did not talk about this topic domestically here in United States. So tough topics, yes, death. It's unfortunate that children do experience the death of a loved one or a death of a pet.

And especially now with coming out of COVID, so many young children have experienced the death of a loved one. So the first time we've done this was with Mr. Hooper and the actor who played Mr. Hooper dies in real life. And there was a discussion as there always is on *Sesame Street* when you're dealing with child issues, "What do we do? Let's bring in all the experts, let's learn from the experts."

Now we could get a new actor and just say, "He went on vacation and here's the new owner of Mr. Hoopers," or do we really address this? And so Joan was very instrumental and said, "No, this occurs in children's lives and we want to be able to give children the tools to cope, but more importantly, model for the adults in their lives how to help their children."

So with experts through formative research, they dealt with the death of Mr. Hooper through the lens of Big Bird who was very close to Mr. Hooper. And if you remember the ending of that story when Big Bird, he doesn't understand
the permanence of death. And it's like, okay, he's not here now, but when he comes back, I'll give him his picture that he drew of Mr. Hooper. And it's like, no, he's not coming back. He's never coming back.

Big Bird: But I don't like it. It makes me sad.

Actor: We all feel sad, Big bird.

Big Bird: He's never coming back?

Actor: Never.

Big Bird: Well, I don't understand. Everything was just fine. Why does it have to be this way? Give me one good reason.

Dr. Rosemarie T...: And Big Bird asks, "Why? Why did he have to die?" And the adult response is, "Because," and I thought that was a very interesting ending, because, because we wanted parents to then fill in the dot, dot dot after the because and put their own cultural lens in talking about death, be it religious or spiritual or cultural. It was for the parent to fill in the dot dot dot with their child.

We dealt with 9/11. I was here for that and we were in production when the planes hit the towers. And the question came to me immediately, what are we going to do? We have four shows still yet to be written. Once again, bring in the mental health professionals, bring in the writers, have a writer's room put together.

And we decided, hopefully young children did not see the destruction of the planes crashing, towers coming down, but we know that they're going to be ripple effects in children's lives. So we put together four shows and we didn't want to do death, but we wanted to deal with the coping strategies. So in this particular case, we had a turtle wander into Big Bird's nest. And because it's a natural environment, the turtle actually wanders back to the nearby pond. So he goes through the same sense of grief and loss because he's lost this so-called pet that he just recently adopted.

Big Bird: He was a great pet even though he really wasn't a pet.

Actor 2: I'm sure he was. Yeah. I'm sorry I didn't get to meet him.

Big Bird: I think you would've liked him.

Actor 2: I bet. Hey, you know what? I have a great idea. Why don't you tell me a little bit about him?
Big Bird: Tell you about him.

Actor 2: Yeah.

Dr. Rosemarie T...: Big Bird is introduced to the various strategies. Let's talk about the things that you did with the turtle when he was visiting you. Let's draw pictures. Validating the children's emotions. So that's another example. Not death exactly, but the strategies are the same.

Tristan Harris: One of my favorite examples watching the film, Street Gang, was the example of the Kermit the Frog song, “It's Not Easy Being Green.” (Singing). Which is a beautiful song. And when I think about developmental education, which is layered, right, where you're entertaining and educating, and there's things that carry multiple levels of meaning depending on where you're at developmentally. Because from one perspective, “It's Not Easy Being Green” is a song about being sad and what it's like to feel in the dumps, but it's also a song about race, what it's like to be a different color of skin.

And Sesame Street, very early on in the 1960s was I think, so far as I understand, explicitly designed to create an atmosphere of tolerance and inclusion where they even invented different characters that they had Muppet characters that had different skin tones. They had human cast members who were representative of the different demographics of the country at the time and specifically around race. And I think that's actually a beautiful vision.

We had on this podcast earlier, Stanford history professor Fred Turner who talked about the idea of democratic propaganda, that there's no such thing as not social engineering. If you are engineering a television show that's going to reach a hundred million kids, you are going to impact their moral development whether you want to or not. The question is just what are you putting in front of them? And there's this very uncomfortable feeling that comes over people saying, "Well, who are you or me or anyone to say, especially when it comes to influencing children, what's good for them?"

And gosh, get off your high horse if you think what's good for kids. And one of the reasons we're so excited to have this conversation with you is because that there are things that we know about moral development, relational development, theory of mind, the ability to model other people's feelings. And we can be conscious about that.

And in Fred Turner's book, The Democratic Surround, he gives many examples of democratic media that is actually imbuing tolerance, imbuing inclusion. And if you can get to a semi-normative place, how should we carrying these lessons forward for the development of technology? Because right now we do not have a technology environment where we have passionate, caring, child
developmental psychologists who are designing Snapchat, Instagram, TikTok, or Facebook or YouTube for that matter.

Aza Raskin: Frankly, after watching Street Gang, I was incredibly inspired because I got a real sense of maybe what it was like to be sitting at that table creating really developmentally appropriate for the benefit in a fiduciary relationship to children. And I could really see you get to work with the very best puppeteers, the very best developmental psychologists, the best writers and comedians. And that it was all created in this environment of $60 million worth of essentially non-profit mode of funding.

So you really had the ability to ask not what will make us money, but what is in the best service of children? And I'm like, "Well, I want that but for technology," I want to build, is the feeling that arose in me, that kind of thing for the next generation of technology. Imagine if that was inside of Facebook, you had that same kind of writer's room or inside of TikTok.

And now with ChatGPT, Bing, there are going to be more and more agents that form strong relationships with people. And it is more important than ever that instead of a children's development workshop that we need a human development workshop, that we should be throwing tens of billions of dollars of public funded research into how do we use the best of what's known to create products that people use and also take a normative stance about how we develop not just through childhood, but lifelong.

Tristan Harris: What you're making me think of, Aza, was what if the Apple App Store basically said, "We want to know which age demographics are currently impacted by which kinds of products." So you just do this quick mapping. What are the most popular apps affecting which demographics? And then for Apple to say, and Google to say, in the future version of the app store and the Play store, "If you're affecting seven to nine year olds, here's the kind of developmental curriculum for seven to nine year olds that we want to be checking you against."

And we could make sure that there's a good fulfillment of developmental criteria, or at least some consciousness and awareness of it, where you can't even post an app that's going to be reaching certain young developmental audiences unless you're meeting some of these basic requirements. And part of the meta issue we talk about in our work is we have Paleolithic emotions, medieval institutions and god-like 21st century technology.

And the Department of Education, which might have previously set some standards or curriculum for television, what can appear on Saturday morning TV or something like that in the past, we don't have that as the institutions have not placed themselves inside of the Apple App Store or the Google Play Store. Could Apple and Google App stores have a baked in curriculum that's developmental,
not that they're deploying it, but that they're asking app developers, "If you're touching these demographics, are you complying or how are you thinking about how your application relates to moral, developmental, relational development, education?"

And I actually started tearing up quite a lot watching Street Gang and seeing Big Bird and just reminding myself of what my relationship to that character had been. Today, kids are going to be interacting with ChatGPT. So instead of relating to the moral emotions of Big Bird and his naivete and his growth and orientation and development, I'm relating to ChatGPT, which has all these dark shadow sides and is putting god knows what into our children's brains.

It's interesting to think about this as what is responsible communication writ large. And when I just think more broadly about the amount of care and the amount of attention and the amount of thinking that goes into how do we responsibly communicate these things that you are all doing at Sesame Street versus again, our automated social media user generated content and now synthetic media generated content from AI ecosystem.

The gap should be stark that we have no amount of moral discernment going through user generated content platforms. And we have an incredible amount that we used to do. And the reason we're so excited to have had you on this program with us is to try to leverage these hard won lessons about responsible developmental media and education so that we can create a media environment in which children and all of society can really thrive. So just so grateful to the work that you've done over the last many decades to-

Dr. Rosemarie T...: Thank you.

Tristan Harris: To chart a course that there is a possibility for doing this thoughtfully.

Dr. Rosemarie T...: Thank you. Thank you so much. This is very enjoyable for me so thanks.

Tristan Harris: Dr. Rosemarie Truglio is the Senior Vice President of Curriculum and Content for the Sesame Workshop, the nonprofit behind Sesame Street. And she's written a number of books about parenting and early childhood education, including Ready for School: A Parent’s Guide to Playful Learning for Children Ages Two to Five. She’s also co-edited the book, G is for Growing: 30 Years Of Research on Children and Sesame Street. We'll include links to those books and other resources for parents and educators in the show notes.

Your Undivided Attention is produced by the Center for Humane Technology, a nonprofit working to catalyze a humane future. Our senior producer is Julia Scott. Kirsten McMurray and Sara McCrea are our associate producers. Sasha Fegan is our managing editor. Mia Lobel is our consulting producer. Mixing on
this episode by Jeff Sudakin. Original music and sound design by Ryan and Hays Holladay.

And a special thanks to the whole Center for Humane Technology team for making this podcast possible. Do you have questions for us? You can always drop us a voice note at humanetech.com/askus, and we just might answer them in an upcoming episode. A very special thanks to our generous supporters who make this entire podcast possible. And if you would like to join them, you can visit humanetech.com/donate. You can find show notes, transcripts, and much more at humanetech.com. And if you made it all the way here, let me give one more thank you to you for giving us your undivided attention.