(Music)

>> Welcome back to Up to Speed, a Verizon podcast. For today's episode, we're sharing a presentation from Derek Thompson, senior editor at The Atlantic. Thompson is the host of The Atlantic's "Crazy Genius" podcast, and the author of the national best-selling book, "Hitmakers: The Science of Popularity in the Age of Distraction." Thompson was the keynote speaker at one of Verizon's leadership events, where he discussed a few chapters from his book that analyze history and human behavior to better understand marketing in the digital age we live in. Let's listen in.

[Applause]

>> DEREK THOMPSON: Thanks a bunch for having me. This is like a perfect audience for the book. And it's a pleasure to be able to talk about some of the ideas in here. So I guess the best way to get into this book is the last word in the subtitle, "Distraction." When I think about distraction and the best way to quantify it, maybe the best way to do that is to think of the rule of seven. Since the 1980s, the number of books worldwide have increased by a factor of seven. Since the 1990s, the number of movies that have come out annually in the U.S. have increased by a factor of seven. And since the early 2000s, the number of originally scripted dramas on television including streaming has increased by a factor of seven. Meanwhile the number of hours in a day remains 24. So this is a world of distraction that we're living in, a world where there is an enormous amount of content, much more than there was 10, 20, 30 years ago, and it's competing for a finite amount of our eyeballs and ears. And there is a Japanese term, Tsundoku, I don't know if I'm pronouncing that correctly. Let's pretend that I am. Tsundoku means a pile of unread books. And we are living
today in the shadow of a multi-media Tsundoku. There is too much time for all of the books and all of the articles and all of the magazines and newspapers and podcasts that we are required to read and listen to and consume. It's just too much. And so the obvious question therefore becomes "How do you get people's attention in this age of distraction?"

The way that I get into that question is thinking about myths. What are the myths I think that we have as a country and as a society in thinking about attention and about sort of the golden formula of why do we like what we like. What is the secret to human affinity? And those two myths that I identify and spend most of the book trying to unpack are called the myth of novelty and the myth of virality.

So first the myth of novelty, which is a content myth. We'll go to the myth of virality, which is a distribution myth in a second. The myth of novelty, the most common word in advertising according to studies, according to the several studies is the word "new." There is the sense that because every new product is by definition a novelty that we should try to advertise its newness, because that's what people like. They like things that are new, of course. But the oldest finding in the history of psychology is called the mere exposure effect. The mere exposure effect. And the mere exposure effect says rather tautologically maybe that the mere exposure of any stimulus to you over time will bias you toward that stimulus. In English, familiarity good. Sneaky familiarity even better. We tend to associate ideas and people and songs and characters and storylines that are familiar, we tend to think of them more easily. We process them more fluently. That's the meta-psychological term. We process them fluently, easily. And we conflate the ease of processing sometimes with the quality of the stimulus. If it's familiar, therefore it's good.

So this for example about music. Ninety percent of the time when we're listening to music, we're listening to a song that we've already heard. And indeed the best way to predict that somebody is going to like a new song is the fact that it sounds like a song that they have already liked. That's precisely how the algorithms at Spotify and Pandora work. If you like songs with this chord structure and this timber, and this syncopation, you will like other songs that have the exact characteristics. This is true in lots of other industries.

This is true in the movie business. Every year this century, the majority of the top ten films in America have been sequels, adaptations, and reboots. Familiar, familiar, familiar. It's even true in an industry that doesn't always strike us always as entertainment, but maybe increasingly so, politics. There is an idea particularly in presidential politics called the law of fourteen. All laws I guess are divisible by seven. The law fourteen says that nobody in the last 100 years has been elected more than fourteen years away from their first year in a governor's mansion or in Washington. In other words, we like relatively fresh faces. If you're in the governor's mansion for too long or in the senate for too long, you sour like old milk. We're not interested in you. We want relatively fresh faces. But what do we want to hear from these relatively fresh faces? "Make America Great Again" is the definition of traditionalism. Hope and
change, Obama's slogan was basically the two oldest cliches in presidential rhetoric just combines like they're magnets on a magnet poetry board. We like in politics, as in movies, as in music new ideas, new people, new songs, new movies that sneakily remind us of those that we're already familiar with. And there's some stories that I'm going to tell you from the book that make that point very clearly.

The second myth that I talk about in addition to the myth of novelty, which I sometimes call the rule of familiar surprises, the idea that we should be in the business of creating surprising products that have within them a sneaky familiarity. The second myth is the myth of virality. In the world today, I think you all would agree when something gets big really, really quickly we tend to default to saying "Oh, that thing just went viral." Right? That virality stands for that thing got big superfast and I don't really know how. So it went viral. Now in epidemiology, virality means something very specific. It means I'm sick, I have the measles, something, influenza, I get you sick, you get three other people sick, and the disease spreads over many, many generations of intimate generation. One to three, one to three, one to three. Lots and lots of generations of intimate sharing.

So certainly some ideas must spread like this. Maybe an urban legend must spread like this. But everyone in this room knows there's another way information spreads, we were just talking about it two minutes ago. A broadcast, a broadcast is the opposite of a virus. It's not a one to one moment at all, it's by definition of a one to one million moment. It would be a little bit absurd for somebody to say the Super Bowl ad went viral. No the Super Bowl ad was watched by 131 million people concurrently and they all saw it at the same time. There's no disease that suddenly infects 130 million people all at the exact same time.

So if you think of this spectrum of ideas spreading either one to one, or as broadcasts, one to one million, this is an interesting question for people who are interested in the spread of interesting ideas. How do ideas spread? Are they spreading like a virus or are they spreading like a broadcast? For the longest time in human history, it was impossible to tell. How would you be able to tell how bell bottoms were spreading? You know? How was jazz spreading? It was very difficult to track. But the internet leaves a pixel trail. We can see exactly how a Youtube video spreads, how a Facebook post spreads, how a tweet spreads. And when network scientist haves looked at the information cascade, the map of these ideas catching on around the internet, they've said does this look like a virus? Or does it look like a broadcast? And they've answered it clearly looks like a series of diffused broadcasts. Lots of ideas that we think are spreading virally are doing no such thing. They're spreading through broadcast mechanisms, but we can't necessarily see those broadcasts. They are what I call "dark broadcasts."

Let me give you a quick example, a really easy example. I work for The Atlantic. Let's say I write an article about Verizon. And I put it on The Atlantic's home page.
And the article is picked up by Drudge for some reason. And a million people, millions of people read this article on Drudge. Millions and millions because he's a huge, huge publisher. And then you sir read the article, you see the article on Drudge and you put it on Facebook. And you ma'am see the article on his Facebook feed. Now according to you it may look like this article is just going viral. You've only seen it spread through social. Right? Through a social means. So you would say oh wow Derek's article about Verizon is going totally viral. All of these people are sharing it on Facebook. But how sir did you see the article? You saw it on Drudge, you saw it on a broadcaster. And because you can't see it that he's founded from a broadcaster, I call that moment a dark broadcast.

And the idea here, and I ma'am that lots of people in this would grok at in a way that many people might not is that there are many popular ideas and campaigns and advertisements and articles that go big because somewhere within that information cascade, somewhere within the story of that idea going from one to one million, there is a moment where it finds an enormous audience all at once. Maybe because it's Drudge, maybe because it appears in Fox News, maybe because it appears on a huge podcast. But there is a broadcast moment in that information cascade. And one thing that advertisers should do is rather than begin in the viral myth, rather than say if I make this thing really funny, it will just automatically go rival. It will automatically be like the measles. It will spread itself. I don't have to worry about the marketing. Understand that virality according to the best network scientists in the country is a myth. And the way that most so-called viral ideas spread is they find the right one-to-one-million moment and the right distribution.

So now I have a few minutes left. I'm just going to tell you three of my favorite stories from the book. Each of them sort of explain one of the ideas that I just mentioned or build on them. And I want to start with a subject that is very near and dear to my heart, and was one of the inspirations for this book, which is music. And the question of why do we like what we like in music. And my chapter on music, which is chapter three begins with a very simple and arguably dumb question, which is "What is music." Why is it that the brain hears all sorts of sounds around the world and some sounds we interpret as cacophony and other sounds we interpret immediately without even thinking as song. There is this musicologist at the University of California San Francisco named Diana Deutsche. And Diana calls herself a detective of musical illusions, which is a super cool job title. And she basically researches how musical illusions sort of play on the brain. And she realize that had if you take a sliver of speech stream, a sliver of any sentence, and you start repeating it again, start repeating it again, start repeating it again, start repeating it again, start repeating it again, start repeating it again the brain starts to hear a rhythm where previously none existed. Dun, da, da, da, dun. And even a melody that you could write out. Dun, da, da, da, da, dun. Start repeating again. And if that melody was in fact embedded in the speech stream, in my language, it was just impossible to hear before I started repeating myself.
So what Diana would say is that repetition is the God particle of music. It is the very thing that separates the cacophony of the world from that which the brain cannot help but process a song. It’s true not only for humans, it’s true for animals, too. Biologists reserve the term "song" only for sounds that whales and birds make that repeat at a common interval. Repetition is music.

Okay, I thought. That's pretty cool, that's interesting. But it doesn't help me write a hit. Because if I go into a music studio and I say I have this great idea for a new chorus. It goes "Start repeating again, start repeating again, start repeating again" I'll obviously be laughed out of the label. It's not catchy at all. It's just kind of annoying. Clearly repetition is an important part of music, but there has to be something else. The opposite. Variety. And so my second question with regard to music wasn't what is music, but rather what is a mathematical way to think about the interplay between repetition and variety that makes song popular? And to answer that question, you have to travel from San Diego to Columbus, Ohio, where there is another musicologist named David Huron who does these studies on mice. He'll play a B note for a mouse and the mouse will turn its head. And he'll play a B note again and the mouse will turn its head. And he'll play again, B, B, B, and the mouse's neck is just falling off of its skull. And eventually the mouse will habituate. It will learn to ignore the stimulus, just like we learn to habituate to ideas and songs. We get bored of them. We learn to ignore them. But what David Huron does is at the very moment that the mouse is about to habituate to the B note, he then plays a C note. The mouse turns his head to the C note and it dishabituates the mouse from the B note. So now you can go back to playing the B note to scare the mouse again and again. And it turns out that if you want to scare a mouse, for whatever reason, if you want to scare a mouse. You're actually wearing a mouse on your shirt, sir, so this is very relevant to you.

(Laughter).

If you want to scare a mouse, for the longest period of time with the fewest number of notes, there is a very specific pattern that you play. And it goes B, B, C, B, C, D note to dishabituate from both the B and the C note. And if you take a look at this sequence, B, B, C, B, C, D, and you replace the letter "B" with the word verse. And you replace the letter "C" with the word chorus, and you replace the letter "D" with the word "bridge" you get the following suggested song structure from a mouse dishabituation study. Verse, verse, chorus, verse, bridge, which is of course one of the most common if not most common pop song structure of the 20th century. So the idea is not necessarily that we all live in one metastasized mouse study, but rather that there appear to be something so precisely alluring about that relationship of repetition variety that the same pattern that keeps a mouse moving its neck in a cage keeps us tuned into the radio.

So once again I thought that's pretty cool. That's really interesting. But then I wanted to push it one step further. When I was a kid, I was obsessed with speech writing, speech making. I had one of these books called "Lend Me Your Ears" which was a William Sapphire edited tome of the greatest speeches in world history from like
Pericles to I think Tony Blair was like the most recent in whatever edition I had in high school. And I'm going back through this book and I'm sort of underlining my favorite lines and reading underlining lines that I liked in high school. And I realized my favorite bits of speeches in the history of speech writing all included elements of repetition. And in fact, if you go back to the ancient Greeks, every famous Greek rhetorical device is itself a form of repetition. There is anaphora, which is repetition at the beginning of a sentence. Winston Churchill said "We shall fight them in the air. We shall fight them in the landing fields." There's tricolon, which is repetition in short triplicate. Abraham Lincoln said "Government of the people, by the people, for the people shall not perish."

There is epizeuxis, which is just repeating the same word over and over again. Trump does this a lot. Believe me, believe me, believe me, believe me. I did not have the opportunity to know that he was going to be president when I finished the book in 2016, so I used Nancy Pelosi who advocated for the 2009 stimulus bill by saying "Just remember what this legislation is for. Jobs, jobs, jobs, and jobs."

But then most famously and most effectively, there's antimetabole. And antimetabole is really difficult to say and impossible to spell. And so the way to think of it is "ABBA." A-b-b-a. Easy to remember. They wrote a bunch of hits. Abba goes like JFK said in his first presidential inaugural, "Ask not what your country can do for you, ask what you can do for your country." Mark Twain said "It's not the size of the dog in the fight. It's the size of the fight in the dog." Hillary Clinton said "Human rights are women's rights. And women's rights are human rights" A-b-b-a. And the reason that this works, the reason that it gets us captivated in the music of the language is precisely because it turns language into song. It uses the very principle of repetition as the god particle of music to take complicated ideas and transform them into song. So our brains when we're processing them fluently fall for the music before sometimes we even process the substance.

One example of that I think is if you go back to JFK's first inaugural, "Ask not what your country can do for you, ask what you can do for your country,} great line, immortal line. But also isolate the first part of that. "Ask not what your country can do for you." Don't ask what the government can do for you. That is a really strange advertisement for modern liberalism. JFK's vice president, LBJ, started The Great Society programs. The most famous anti-poverty president of the 20th century, maybe, after FDR. If not more than FDR. LBJ came up with Medicare, Medicaid, he liberalized immigration law, he expanded anti-poverty spending. Like "Ask not what your country can do for you" is actually the opposite of what Kennedy's vice president ended up becoming president for. But we don't even think about it when we repeat the saying because we literally don't think about it. We just listen to the music.

So the next story I want to tell is, well let me introduce it this way. I'm very interested in fashion. I'm very interested in the idea that if the brain is just like this ancient meat organ whose architecture is like 200,000 years old, then why does what we like change so much? Like why are we constantly enjoying a certain kind of fashion and clothing
and then not? And then it comes back again and then it goes away? Like how does that work and why? And you know, I'm a macroeconomics writer. Well first I thought it has to be about price and scarcity, marketing, all the things that they teach you in economics drives decision making. But I thought, you know, what if there were an infinity store that had all the clothes that could possibly exist and they all cost the exact same amount of money. And let's imagine that this infinity store that had all the clothes that cost us the exact same amount of money that marketing didn't exist. No one was marketing anything. No one was creating advertisements for any of those clothes. You would think wow, this would be a social scientist's dream. It would be amazing to be able to watch people in this store, track their decision making, and see what does fashion look like when you remove the external factors. And what's amazing is that this store exists. And you have all shopped at it. In fact, more specifically your parents have shopped at it. Because it is the store of first names. All first names exist, all first names cost the exact same amount of money, and there is no real corporate marketing campaign for any single name. Like Verizon isn't like we have great service, and also if it's cool with you like name your kid Verizon.

(Laughter)

Nike isn't like buy our shoes and if you really like them, please name your daughter after the Greek goddess of victory. This never happens. There is no corporate marketing for naming. There's obvious stuff. Like in the 1930s, the name Franklin became slightly more popular and the name Adolf really fell off a cliff for reasons that are totally unmysterious. But for the most part, there is no marketing. And yet it's sort of intuitive that first names have hype cycles. They have fashion cycles. They become popular and then they lose popularity.

If you hear in an e-mail that your friend is going to brunch with Edna and Ethel, you have a pretty good idea what the median age of that brunch is going to be, like right off the bat.

(Laughter)

Whereas there are a lot of names now like Madison or Aphelia that seem to have come out of nowhere for baby girls. And suddenly they're the most popular names in the country. So what is going on here? And there is a sociologist named Stanley Liberson who answered this question very satisfyingly. There were two answers. The first answer is first names weren't always a fashion. They used to be a custom. Everyone just shared the name first names for the vast majority of human history. In fact, it was the same with clothes. Clothes only became a question in about the 1200-1300s in Europe. What people think happen is that global trade allowed the merchants, the middle class, to dress like the aristocrats because they could get like the fabrics for cheaper. And the aristocrats were like I can't be seen looking like a merchant. I have to change the way that I dress to show how rich I am. And the merchants kept chasing the aristocrats. And thus, fashion cycles were born. Same thing happened apparently with first names.
Half of all British men in the 1700s were named Thomas, James, and Jonathan. Half of all the women, the baby girls in Sao Paulo according to baptismal records from the 1700s were named Ana, Gertrude, and Maria. Everyone just shared first names, recycled them down.

And then in the 1800s, the turnover rate of first names, which had been like a flat savannah for all of human history suddenly whoop, did a little Kilimanjaro thing and it took off and first names became a fashion. And not just in England. In Hungary, in Canada, in Denmark, and Brazil, and the U.S. And the only possible external factor that could explain this is the industrial revolution. And the theory is the industrial revolution encouraged people to move into cities to find work.

And when 20,000 Thomases move into London at the exact same time, it's a bleep show. Because you go to the tea line asking for Earl Gray and someone is like "I have the tea for Thomas" and everyone raises their hand. But more seriously, also it's really annoying if I'm a catholic Thomas and you're a Protestant Thomas, and you're an Episcopalian Thomas and you're a Jewish Thomas, and an atheist Thomas, Thomas no longer tells me who I am. I have to change my name to claim my identity. So the very idea that names were an identification badge, the idea that names and individualism could be synonymous, that was invented by the industrial revolution. That's answer number one. First names used to be a custom, now they're a fashion. And it suggests that lots of things that used to be customs can become fashions when there is choice and competition.

Second, what's going on here? What is the mechanism pushing these names up and down? And the answer is familiar surprises. Most people like names that are a little bit surprising, and a little bit familiar, not too weird, but not ubiquitous. They have the same taste in first names as they have for politicians and songs and music. They like familiar surprises. And so what will happen is you'll have a name like Samantha. In the 1980s it's like the 40th most popular baby girl name in the country. And in 1992, 224,000 parents will decide that is a perfectly surprising name for my baby girl. And they'll name their baby girl Samantha, making Samantha the second most popular baby girl in the 1990s. But then what happens in 1997, every kindergarten has five Samanthas in it. And all these parents who thought they picked a unique name or a familiar surprising name for their baby daughter suddenly realize that everyone is named Samantha. So their friends who are slightly younger think oh my God, my baby girl is going to be a precious snowflake, she's totally unique. I can't name her Samantha, because that's like everybody else. I need to think of a name that is still familiar, but much more surprising. And thus without any external factor, without prices, without marketing, without scarcity, the name Samantha will rise in popularity until 1992, and then fall off that cliff for probably decades.

What I find so interesting about this idea is the way that it shows how we think about our own individuality in relation to other people. And how we decide what is cool and not
cool in relation to those around us. In sociology, the definition of a cult is a group that offers a positive rebellion against the illegitimate mainstream. That's a cult. It's a group that offers a rebellion against an illegitimate mainstream. Sociologists define coolness as a positive rebellion against an illegitimate mainstream. The definition of what is cool and what is cultish is the same. The difference is how far away it is from the accepted cultural median. But everyone defines their own coolness in the same way. Both positively and negatively. Positively here is who I am, negatively, here is who I not. And one thing you see increasingly in advertising, in brand campaigning, in politics, in journalism is that individuals and companies are realizing that it's more and more important to define yourself not only positively but also negatively for the purpose of cultifying your audience, cultifying your consumers. Because it tells them who they are and it tells them who they're not and that is identity. And you see this in some of the most famous branding campaigns in American history. I mean the 1984 ad from Apple. It wasn't just with the Here's who we are, we're creative. It's here's who we're not. Big brother, big blue.

And lots of advertising I think that's very, very successful. And like branding campaigns who are successful are good at showing who we're not. Apple did it again with the I'm a PC ads, where what was the name of the comedian who would dress in the boring looking suit? And then the Justin guy, the actor. I did not prepare this part for the speech obviously because I don't know what any of these people are called. They would go up and he would say I'm a PC, I'm a Mac. It wasn't just finding a way to advertise Mac and mainstream it as a product and get it out of the attic of dweebs in San Francisco. It was also to show we're not dweebs. This is who we're not. This is who we are. And this is who we're not.

The last story that I want to tell, and I'll tell it really quickly is because Verizon is a distribution company. And in so many ways it's my favorite story about distribution in the history of American culture. "Rock Around the Clock" is the second best-selling song in the history of American music, after "White Christmas." It came out in 1954. Bill Haley and His Comets. And it was a dud. It sucked. No one listened to it. No one bought the record. And the band was beside themselves with grief. And the label didn't understand it. And the song was doomed to reside in the dust bin of cultural history. But one of the people who bought that album, one of the several thousand people who bought that album, Rock Around the Clock was a 5th grader named Peter Ford, 5th grader, 10-year-old kid. And Peter Ford's dad was an actor named Glenn Ford. And Glenn Ford was in a movie called Blackboard Jungle that was directed by a guy named Richard Brooks. And one day this was one of those movies like Rebel Without a Cause that was about how scary teenagers were in the 1950s. And Richard Brooks visits his star actor at his home in Los Angeles. And he said Glenn, I need a dangerous-sounding song to kick off this movie. I need a really scare adults about how freaky kids are. And Glenn said I would love to help you Richard, but my favorite kind of music is Hawaiian folk, and I do not think that will satisfy the criteria that you have put forward. And so I'm going to ask you to talk to my 5th grade son, Petey. And Peter Ford hands Richard Brooks a stack of vinyl records that
he's bought. Something by a band called The Orioles, one by a band called Bill Haley and His Comets. And Richard Brooks hears the B side, Rock Around The Clock, and he puts it at the beginning of Blackboard Jungle, and he puts it in the middle of Blackboard Jungle, and he puts it at the end of Blackboard Jungle. And it's only then after Blackboard Jungle comes out that this song that America six months earlier had rejected becomes the number-one song in the country, the first rock 'n' roll song to ever hit number one in the Billboard Hot 100, and the second best-selling song in the history of American music.

Anyone who believes in virality, anyone who believes that great stuff just automatically else is itself because it's like the measles couldn't explain to you the story of Rock Around the Clock because the song that conquered the world in 1955 sounded the exact same as the song that failed in 1954. And the difference was not content. It was marketing. It was distribution. And it was the power of moments. Thank you.

[Applause]

(Music)

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(Music)