19 seconds
The new attention span

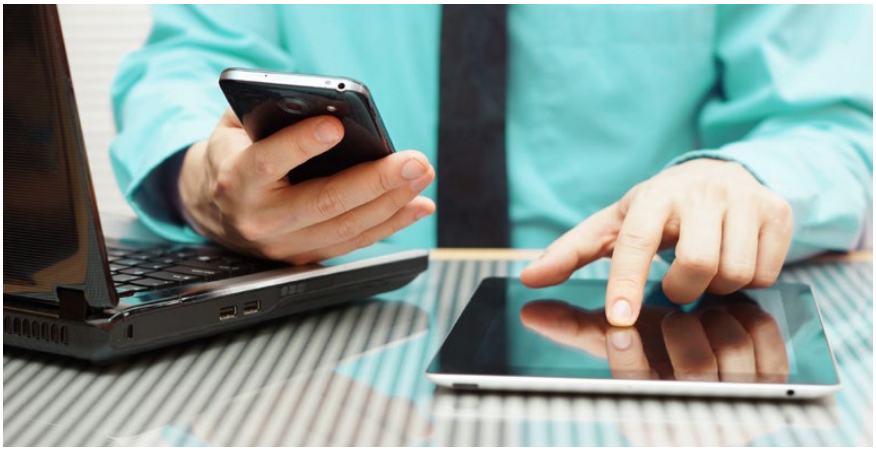
Yes, you read that right. Parents aren't imagining things. Attention spans really are getting shorter, at least at Stanford University where Professor Byron Reeves has carried out what could prove a landmark study on some of the leaders of tomorrow, and he recently spared some time for *WinWin* to discuss what this means for the future of media, technology, and immersion.

By Jason Patterson

It doesn't take an Ivy-league professor

Time Inc. has found that consumers age 35-to-55 switch media platforms (from TV to smartphone or from print to music, etc.) once every three minutes. For digital natives, it's once every two minutes. So yes, attention spans are in fact shortening. But these statistics don't tell the whole story for today's young people.

Professor Byron Reeves of Stanford University recently carried out a study on some of the school's student body. In his words, "We have been studying how students use laptop computers and cell phones to do their work, to play, to have entertainment. We have put software on computers and have been watching what students look at on their screens. So we get a picture every five seconds of what they are doing on their screens. This is one of the first times to actually look at moment-by-moment changes, and what we find is that people switch tasks very quickly. We found on average, the median length of any one thing of what they do is just 19 seconds."



Life is now momentary

Reeves also told *WinWin* that this growing tendency to switch tasks is not purely a screen phenomenon. He stated that people are starting to switch more during all sorts of tasks, including ones where it would be advisable not to, such as driving. When asked as to whether or not all this task switching is good or bad for us on the whole, Reeves stated, "I think the first thing to say is that it's very powerful. And powerful is different from good or bad. It's fire, and you can use the fire to cook or destroy. So we need to be very careful about this.

Most people, especially older people, think it's bad. No further conversation necessary. The younger people, I think, when they try to think about what they are experiencing, view it as a very important way to manage their excitement, to feel like they are in control, instead of the people that are providing the information.

But when writing a paper or doing important work, we often think that you should do that work from start to finish, and not pay attention to anything

About Byron Reeves

Professor Byron Reeves works in Stanford University's Department of Communication and is a former Director of the H-STAR Institute (Human Sciences and Technologies Advanced Research) and its industrial affiliate program, Media X. He is an expert in the psychological processing of media in the areas of attention, emotions, learning, and physiological responses, and has published over 100 scientific papers on media & psychology. He is currently working on the application of multi-player game technology to behavior change, and is Co-Founder of Seriosity, Inc., a company building enterprise software inspired by game psychology.

else in the middle. But a lot of younger people, who are more familiar with this switching, say, 'This is really interesting to be able to write a couple of sentences. Oh, that was very hard. I'm not quite certain what to write next.' Then they go watch a funny video for ten seconds, or one minute, and then come back for the writing. And then say, 'Ah, I have a better idea. I have a fresh perspective.' So there are some interesting things that can happen that are good."

It's very powerful

So, digital natives find the switching appealing. But what about those of us who are a little older? We sometimes catch ourselves switching channels or picking up our smartphones involuntarily, for no particular reason that we're aware of, and hate ourselves for it. What's going on here?

In this case, it might be helpful to think of switching as an exercise of power, of control. And as we all know, power & control are addictive. Reeves, a genial fellow, wasn't quite willing to commit to such extreme language, but he did agree that, "People like autonomy. They like to be in control. They like to decide when to move from one type of content to the next. They often don't like to wait for a message to end. They can end it themselves, or hit the pause button."

How can media do better?

During the same discussion, Reeves offered three very important insights that are potentially actionable for media providers looking to better engage an increasingly "switchy" customer base.

User data is vital

First, Reeves stressed the importance of user data collection, and not just bulk collection taken across a certain age group at a certain point in time, but rather long-term, fine-grained collection for each individual user.

When asked to elaborate, he stated, "Right now in media, if I wanted to know your media habits, I would say, 'On an average day, how many movies do you watch? How often do you

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watch the news? How often do you do your homework?' These are such big time units, and the answers may not provide useful information. What we are doing is to see how you watch a movie moment by moment, collecting millions of data points in just a week, and looking at how those are pieced together. We can now know that you are switching tasks very quickly, what you are switching to, from work to play back to work. We have so much more information – a level of detail that we have never had before."

Timing is everything

So why is the collection of Big Data, or perhaps "long data" in this case, so important? An answer, according to Reeves, is that if a person's level of psychological and physiological arousal (excitement, mindfulness, etc.) is monitored carefully, it is possible to predict the exact moments when a viewer will be most receptive to what Reeves calls an intervention, which might be a message, or advertisement, or choice, or perhaps an option to upgrade. And the more data you have, the more accurate you can be.

According to Reeves, "I think we will do better at prediction. The more data we have, the better we are going to do. How you organize that data would be important. The predictions get better. If we analyze the data over long periods of time, the predictions are very difficult when trying to make a general comment about all people, all men, or all people under the age 20. That would still be very difficult. But if I can know what you do moment by moment, I can model that over time in a time series. And the predictions will be better for single individuals than for larger groups. It will be possible to deliver a persuasive message, an intervention, at a better time, when you are more excited, more receptive, or when you have just done something that sets up the message. That will be more possible."

Make 'em feel special

So, what does all this data collection and clever timing add up to if you are a user? A feeling of being special. According to Reeves, "It's very pleasurable and satisfying to have control over your environment, to be able to do what you want to do, when you want to do it, and to be acknowledged by the other people that are interacting. And a lot of times the media, the old media, mostly don't. There is some choice, but you can't interact and choose what's going on during the presentation, or you haven't been able to easily. When there is more choice, personalization, and customization, you feel that an experience is just for you. We don't even say the word mass communication or mass media anymore. If it's one-to-many, then I'm not special. It's one of a million, or one of a hundred million. But if I have some autonomy, some choice, and I can construct a relationship that's totally unique this moment, I'm special."

Can immersion cope with switching?

Immersive technology is the future, and an area of interest for Dr. Reeves. But this tendency to switch that he describes seems almost anathema to the notion of being completely immersed in a task or experience. When asked about this, he stated, "I'm very interested in whether these immersive experiences can win over the tendency to do the switching. So you could imagine that I have a set of VR goggles, I'll be so engaged that I will forget to switch, that I just don't want to leave it. And I think that is a favorite thought among those developing that technology. You might keep the goggles on a little bit longer, but I think the interest in coming and going will still be there."

In other words, Reeves thinks that task switching is here to stay and that tomorrow's immersive technologies won't be able to completely overcome this newfound tendency to switch and render us all once again passive viewers of long-form media content. But, that doesn't mean that immersive tech is futile, and Reeves had some advice for future directions.

Shorter timeframes

Reeves stated, "One of my colleagues who studies VR experience is Jeremy Bailenson at Stanford. He is one of the leading scholars in this area. He is very interested in tuning VR to short timeframes, using VR for training, learning how to manipulate a piece of machinery in one minute, five minutes, for example. Playing a game in VR for three hours? There are some adolescent boys who will do this. But I think that will be too much for a lot of people. They are going to want the autonomy to come and go."

More fidelity & interaction

When asked as to what makes something immersive, regardless of the length of time, Reeves responded, "I would divide immersion into two dimensions. One is fidelity. Getting digital information into my eyes that makes me think I'm actually there. 4K is better than 2K; 2K is better than the old 500 lines of television. And the same for better sound and other forms of sensing. But interactivity is the second dimension. I think I'm involved in a real interaction, even if I'm interacting with media, if there is turn-taking, a back-and-forth. If I create some input, maybe it's just with my mouth, or my voice, and the experience changes as a result of that input. Then interactions seem real, just like interacting with humans. The best gift you could give me in a conversation is to say something that indicates that you understood me. We say there is contingency. So more interaction, more contingency in the interaction, absolutely creates more reality."