

Millennials, think you're digitally better than us? Yes, according to science

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Results of the study show that there is no need to 'pardon the interruptions,' at least not for Net Genners, since information technology is woven throughout their daily lives. Credit: Alex Dolce, Florida Atlantic University

Emails, instant messaging, app notifications, RSS feeds, and a plethora

of social networks inundate almost every aspect of daily life from work to home or just keeping in touch socially. Some people average more than four information technology (IT) switches per minute. This barrage of IT interruptions makes it increasingly difficult to focus on the task-at-hand.

Legend has it that millennials, specifically the "Net Generation," use many technologies simultaneously, masterfully switching from one to the next. They claim that it's easy and that they can do it much better than older generations. Research, so far, hasn't proven this claim and the consequences of these incessant interruptions on attention and performance.

Florida Atlantic University researchers in the Charles E. Schmidt College of Science are one of the first to examine this phenomenon in college-age students. The study provides some of the first results on whether or not "Net Genners," who have grown up with widespread access to technology, are developing greater digital literacy than generations before them, and if this has enriched them with an ability to switch their attention more efficiently.

For the study, researchers simulated a typical working environment, complete with IT interruptions, to allow them to track the effects on participants' inhibitory processes. One hundred and seventy-seven mostly college-age participants were divided into three groups: those who received IT interruptions; those who did not, and a control group. Researchers compared the three groups' accuracy and [response time](#) on completing tasks, gauging their level of anxiety.

Results, published in the journal *Applied Neuropsychology: Adult*, indicate that there is no need to "pardon these interruptions," at least for this younger [generation](#).

Findings show that switching between technologies did not deplete or diminish performance in the group that had the IT interruptions compared to the [control group](#) or the group that did not receive IT interruptions. Unexpectedly, however, researchers discovered diminished performance in the participants from the group that did not receive any IT interruptions.

All three groups reported low levels of anxiety during the study. Seventy-five percent of two of the groups reported their anxiety as "not at all" or "a little bit," and the researchers did not find any significant differences between groups.

"We were really surprised to find impaired performance in the group that did not receive any information technology interruptions. It appears that the Net Generation thrives on switching their attention and they can do it more efficiently because [information technology](#) is woven throughout their daily lives," said Mónica Rosselli, Ph.D., senior author, professor and assistant chair of psychology in FAU's Charles E. Schmidt College of Science, and a member of the FAU Brain Institute (I-BRAIN), one of the University's four research pillars. "Because [younger generations](#) are so accustomed to using [instant messaging](#), pop-ups like the ones we used for our study, may blend into the background and may not appear surprising or unplanned, and therefore may not produce anxiety."

Prior research in the general population has found that it takes about 25 minutes to return to an original task following an IT [interruption](#) and 41 percent of these interruptions result in discontinuing the interrupted task altogether. Emails alone cause about 96 interruptions in an eight-hour day with an added one-and-a-half hours of recovery time per day.

Results of the new FAU study sheds light on younger generations who have commonly used instant messaging as a major communication tool

and this communication preference may reveal a perception gap between generations.

"How we adapt to technology and leverage it to our advantage by deciding what information we attend to at any given moment has substantial implications on our ability to remain valuable and productive in our respective work and education domains," said Deven M. Christopher, co-author and a graduate psychology student at FAU. "Results from our study may provide a basis for further research, especially because younger generations are developing in a more connected world than preceding generations."

More information: Deven M. Christopher et al, Information technology induced attentional switching effects on inhibitory control, *Applied Neuropsychology: Adult* (2019). [DOI: 10.1080/23279095.2019.1633535](https://doi.org/10.1080/23279095.2019.1633535)

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