## Impacts of Technology Close Reads

Read the following texts and answer the questions that follow.

#### TEXT 1

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## In our digital world, are young people losing their ability to read emotions?

by Stuart Wolpert

Children's social skills may be declining as they have less time for face-to-face interaction due to their increased use of social media, according to a UCLA psychology study.

UCLA scientists found that sixth-graders who went five days without even glancing at a smartphone, television or other digital screen did substantially better at reading human emotions than sixth-graders from the same school who continued to spend hours each day looking at their electronic devices.

"Many people are looking at the benefits of digital media in education, and not many are looking at the costs," said Patricia Greenfield, a distinguished professor of psychology in the UCLA College and senior author of the study. "Decreased



sensitivity to emotional cues — losing the ability to understand the emotions of other people — is one of the costs. The displacement of in-person social interaction by screen interaction seems to be reducing social skills."

The research will be in the October print edition of *Computers in Human Behavior* and is already published online.

The psychologists studied two sets of sixth-graders from a Southern California public school: 51 who lived together for five days at the Pali Institute, a nature and science camp about 70 miles east of Los Angeles, and 54 others from the same school. (The group of 54 would attend the camp later, after the study was conducted.)

The camp doesn't allow students to use electronic devices — a policy that many students found to be challenging for the first couple of days. Most adapted quickly, however, according to camp counselors.

At the beginning and end of the study, both groups of students were evaluated for their ability to recognize other people's emotions in photos and videos. The students were shown 48 pictures of faces that were happy, sad, angry or scared, and asked to identify their feelings.

They also watched videos of actors interacting with one another and were instructed to describe the characters' emotions. In one scene, students take a test and submit it to their teacher; one of the students is confident and excited, the other is anxious. In another scene, one student is saddened after being excluded from a conversation.

The children who had been at the camp improved significantly over the five days in their ability to read facial emotions and other nonverbal cues to emotion, compared with the students who continued to use their media devices.

Researchers tracked how many errors the students made when attempting to identify the emotions in the photos and videos. When analyzing the photos, for example, those at the camp made an average of 9.41 errors at the end of the study, down from 14.02 at the beginning. The students who didn't attend the camp recorded a significantly smaller change. For the videos, the students who went to camp improved significantly, while the scores of the students who did not attend camp showed no change. The findings applied equally to both boys and girls.

"You can't learn nonverbal emotional cues from a screen in the way you can learn it from face-to-face communication," said lead author Yalda Uhls, a senior researcher with the UCLA's Children's Digital Media Center, Los Angeles. "If you're not practicing face-to-face communication, you could be losing important social skills."

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Students participating in the study reported that they text, watch television and play video games for an average of four-and-a-half hours on a typical school day. Some surveys have found that the figure is even higher nationally, said Uhls, who also is the Southern California regional director of Common Sense Media, a national nonprofit organization.

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Greenfield, director of the CDMC, considers the results significant, given that they occurred after only five days.

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She said the implications of the research are that people need more face-to-face interaction, and that even when people use digital media for social interaction, they're spending less time developing social skills and learning to read nonverbal cues.

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"We've shown a model of what more face-to-face interaction can do," Greenfield said. "Social interaction is needed to develop skills in understanding the emotions of other people."

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Uhls said that emoticons are a poor substitute for face-to-face communication: "We are social creatures. We need device-free time."

TEXT 2

## Study: Kids can learn as much from Sesame Street as from preschool by Jim Tankersley

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NEW YORK — Most Americans born since the mid-1960s have a favorite Sesame Street skit. Jennifer Kotler Clarke watched hers on a black-and-white television set in her family's Bronx apartment. There were two aliens: One of them had long arms that didn't move, while the other had short, moving arms. The aliens wished to eat apples from a tree, and they succeeded, after a couple of minutes, by working together. "Let's call this cooperation," one of them says. "No," the other replies, "let's call it Shirley."

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Clarke grew up to be the show's vice president for research and evaluation, and she has long believed that the program's laughs and lessons stick with children. Now, landmark academic research appears to back her up.

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The most authoritative study ever done on the impact of *Sesame Street*, to be released Monday, finds that the famous show on public TV has delivered lasting educational benefits to millions of American children — benefits as powerful as the ones children get from going to preschool.

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The paper from the University of Maryland's Melissa Kearney and Wellesley College's Phillip Levine finds that the show has left children more likely to stay at the appropriate grade level for their age, an effect that is particularly pronounced among boys, African Americans and children who grow up in disadvantaged areas.

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After Sesame Street was introduced, children living in places where its broadcast could be more readily received saw a 14 percent drop in their likelihood of being behind in school. Levine and Kearney note in their paper that a wide body of previous research has found that Head Start, the prekindergarten program for low-income Americans, delivers a similar benefit.

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The researchers also say those effects probably come from *Sesame Street's* focus on presenting viewers with an academic curriculum, heavy on reading and math, that would appear to have helped prepare children for school.

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While it might seem implausible that a TV show could have such effects, the results build on Nixon-era government studies that found big short-term benefits in watching the show, along with years of focus-group studies by the team of academic researchers who help write *Sesame Street* scripts. Several outside researchers have reviewed the study, and none are known to have questioned its results.

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The new findings offer comforting news for parents who put their children in front of public TV every day and/or memorized entire Elmo DVDs, unwittingly.

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They also raise a provocative question, at a time when many lawmakers are pushing to expand spending on early childhood education: Do kids need preschool if a TV show works just as well?

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Yes, say the economists — and the *Sesame Street* educational team. Head Start, Kearney and Levine write, was designed to provide more than an academic boost: It delivers family support, medical and dental services, and development of emotional skills that help kids in social settings.

Levine and Kearney see the study as a clear lesson in the value of a (very cheap) mass-media complement to preschool. The potentially controversial implication they embrace from the study isn't about early-childhood education. It's about college, and the trend toward low-cost massive open online courses, or MOOCs.

Sesame Street, Levine and Kearney write, was the original MOOC. "If we can do this with Sesame Street on television, we can potentially do this with all sorts of electronic communications," Kearney said in an interview. "It's encouraging because it means we might be able to make real progress in ways that are affordable and scalable."

The research can't say whether the show continues to deliver such high benefits to children, said Diane Whitmore Schanzenbach, an economist at Northwestern University's School of Education and Social Policy, who has read drafts of the paper and given feedback to the authors.

But, she said, it clearly shows "the importance of childhood education, which is really having its moment right now."

This study was brought to you, so to speak, by the letters U, H, and F.

Sesame Street debuted in 1969 with a diverse cast of humans and brightly colored fuzzy Muppets, including Oscar the Grouch, Bert and Ernie, and, of course, Big Bird. It was the country's first explicitly educational children's program, and it was an immediate hit: In the early 1970s, one-third of all American toddlers watched it.

That's a Super Bowl-level audience share. But it's even more striking because another third of the nation's toddlers couldn't have watched the show if they wanted to — they didn't have the right antenna to tune in to their local public television station.

This was well before the popularization of cable. TV broadcasts arrived over the air, on two different kinds of signals. The higher-quality signal was known as VHF, or Channels 1 to 13 on a standard TV set. The lower-quality signal was called UHF, and many households at that time were unable to tune it in. By a quirk of federal licensing, the public broadcasting channels in many major cities, including New York and Boston, aired on VHF channels, while others, including Los Angeles and Washington, aired on UHF.

As a result, about two-thirds of the nation's households were able to watch *Sesame Street*. The other third weren't.

Levine read about that divide in early 2014. He realized it was the sort of rare natural experiment that economists live for — two groups of people, divvied up by fate and the Federal Communications Commission, who could be compared over time to see whether there was a difference in their educational outcomes.

### 1. PART A

What does the word displacement mean as it is used in paragraph 3 of Text 1?

- A. substitution
- B. advance
- C. support
- D. establishment

#### **PART B**

Which quotation best helps the reader determine the meaning of displacement?

- A. "Decreased sensitivity to emotional cues..."
- B. "... understand the emotions of other people..."
- C. "... one of the costs."
- D. "...in-person social interaction by screen interaction..."

#### 2. PART A

#### Which sentence best states the central idea of TEXT 1?

- A. New research shows that teenagers are more likely to have positive social relationships when they spend time at the Pali Institute.
- B. New research indicates that technology has a negative impact on teens' ability to understand the emotions of other people.
- C. New research demonstrates the importance of establishing friendships through both social media and face-to-face interactions.
- D. New research reveals that teenagers spend the majority of their evenings interacting with technology.

#### **PART B**

## Which sentence from TEXT 1 best supports the correct answer to PART A?

- A. "Children's social skills may be declining as they have less time for face-to-face interaction due to their increased use of social media, according to a UCLA psychology study."
- B. "The group of 54 would attend the camp later, after the study was conducted."
- C. "The students also watched videos of actors interacting with one another and were instructed to describe the characters' emotions."
- D. "Students who participated in the study reported that they text, watch television, and play video games for an average of four-and-a half hours on a typical school day."
- 3. The table below notes that the scientists took 6 steps to complete the study described in TEXT 1. Complete the column labeled "What the scientists did" by writing in the letters of the details from the bottom row of the chart in the order that the scientists used. You will not use all of the details, but you will use some details twice.

STEP	WHAT THE SCIENTISTS DID
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WHAT THE SCIENTISTS DID	
A. Send all students to the Pali Institute.	
B. Take electronic devices away from half of the students.	
C. Regulate the number of hours students spend with their phone every day.	

- Regulate the number of hours students spend with their phone every day.
- D. Show students pictures of people who are expressing a variety of emotions.
- E. Record the number of errors students made.
- F. Teach children about the importance of face-to-face communication.
- G. Allow five days to pass.

## 4. Which sentence from TEXT 1 provides the <u>best</u> support for the claim that "social interaction is needed to develop skills in understanding the emotions of people"?

- A. "The psychologists studied two sets of sixth-graders from a Southern California Public School: 51 who lived together for five days at the Pali Institute, a nature and science camp about 70 miles east of Los Angeles, and 54 others from the same school."
- B. "The camp doesn't allow students to use electronic devices a policy that many students found to be challenging for the first couple of days."
- C. "The children who had been at the camp improved significantly over the five days in their ability to read facial emotions and other nonverbal cues to emotion, compared with students who continued to use their media devices."
- D. "Researchers tracked how many errors the students made when attempting to identify the emotions in the photos and videos."

# 5. In TEXT 1, the author states: "Many people are looking at the benefits of digital media in education, and not many are looking at the costs." How does this quotation impact the article?

- A. It explains why the researchers were interested in sixth-grade students rather than students of other ages.
- B. It explains why the researchers believed the study would have negative results.
- C. It explains why the researchers considered the results of the study consistent with other findings.
- D. It explains why the researchers initially chose to undertake the study.

#### 6. PART A

## Reread paragraph 16 from TEXT 1. How does the author's choice to conclude the article with these sentences impact his overall message?

- A. In concluding the article with a reference to "emoticons," the author highlights the researchers' belief that future researchers should use tools that are familiar to teens.
- B. In concluding the article with a reference to "face-to-face communication," the author provides support for the researchers' perspective that all forms of communication are equally important.
- C. In concluding the article with an explanation of humans as "social creatures," the author reveals the researchers' belief that social media can help teens to develop social skills.
- D. In concluding with a statement in favor of "device-free time," the author emphasizes the researchers' perspective that teenagers should spend more time engaging with each other.

#### **PART B**

## Which sentence from TEXT 1 best supports the correct answer to PART A?

- A. "At the beginning and end of the study, both groups of students were evaluated for their ability to recognize other peoples' emotions in photos or videos."
- B. "If you are not practicing face-to-face communication, you could be losing important social skills."
- C. "Greenfield, the director of the CDMC, considers the results significant, given that they occurred after only five days."
- D. "We've shown a model of what more face-to-face interaction can do," Greenfield said.

### 7. PARTA

## Which word gives the best definition for complement as it is used in paragraph 11 of TEXT 2?

- A. to change or adjust
- B. to complete or make whole
- C. to analyze or study
- D. to relate or associate

#### PART B

### Which detail from TEXT 2 helps the reader determine the meaning of complement?

- A. the description of the history of Head Start
- B. the explanation of the theory that Sesame Street is a model for MOOCs
- C. the explanation of why researchers study Sesame Street
- D. the description of the benefits of Head Start

#### 8. PARTA

## What is the central idea of TEXT 2?

- A. Sesame Street has been positively impacting preschoolers for over 40 years, but more research is needed to see if it will continue to have an impact on young children.
- B. Children who watch *Sesame Street* are more likely to have academic success than children who do not watch the show, but only if they watch it regularly.
- C. New research shows that *Sesame Street* has more impact on children now than it did when the show was first created, but the positive impact stops at preschool.
- D. Research shows that watching *Sesame Street* can have academic benefits for preschoolers, but more information is needed to see if the results can apply to other settings.

### PART B: Which two quotations from Text 2 best support the correct answer to Part A?

- A. "...The most authoritative study ever done on the impact of *Sesame Street*, to be released Monday, finds that the famous show on public TV has delivered lasting educational benefits to millions of American children..."
- B. "Levine and Kearney note in their paper that a wide body of previous research has been found that Head Start, the pre-kindergarten program for low-income Americans, delivers a similar benefit."
- C. "....the results build on Nixon-era government studies that found big short-term benefits in watching the show..."
- D. "The potentially controversial implication they embrace from the study isn't about early-childhood education."
- E. "The research can't say whether the show continues to deliver such high benefits to children..."
- F. "'But,' she said, it clearly shows, 'the importance of early childhood education, which is really having its moment right now."

### 9. PARTA

### How does the author of TEXT 2 develop his point of view about Sesame Street?

- A. by acknowledging the skepticism around the claims of *Sesame Street's* effectiveness and explaining the additional scientific evidence to support these claims
- B. by noting the way parents feel about *Sesame Street* and explaining that they will find value in the results of the study
- C. by highlighting the importance of early-childhood education and explaining the reasons *Sesame Street* makes early childhood education more important
- D. by explaining the strategies *Sesame Street* uses to teach children and explaining how they can be applied to other situations

## **PART B**

### Which paragraph best supports the correct answer to Part A?

- A. Paragraph 3
- B. Paragraph 5
- C. Paragraph 6
- D. Paragraph 7

## 10. How does the author of TEXT 2 make a connection between Sesame Street and college?

- A. She proposes that *Sesame Street* provides cost-effective programming to young students but colleges do not have the ability to be as cost effective for older learners.
- B. She explains that the academic and social benefits that children gain from *Sesame Street* will help them as they make their way to and through college.
- C. She highlights the idea that lessons learned from *Sesame Street* could be applied to make higher education more accessible.
- D. She describes how the format of *Sesame Street* has been proven to be effective in teaching college students.

## 11. How does the explanation of VHF and UVF television signals in paragraph 18 impact TEXT 2?

- A. It explains what types of children Levine was interested in studying.
- B. It explains where Levine studied viewers of Sesame Street.
- C. It explains how Levine became interested in the study of children and television.
- D. It explains why Levine was able to study how Sesame Street impacts children.

## 12. Each text presents a different perspective regarding the impact technology has on children. Choose *two* quotations, *one from each text*, that support these differing perspectives.

- A. "Most adapted quickly, however, according to camp counselors." (TEXT 1)
- B. "In another scene, one student is saddened after being excluded from a conversation." (TEXT 1)
- C. "Uhls said that emoticons are a poor substitute for face-to-face communication: 'We are social creatures.'" (TEXT 1)
- D. "After Sesame Street was introduced, children living in places where its broadcast could be more readily received saw a 14 percent drop in their likelihood of being behind in school." (TEXT 2)
- E. "Yes, say the economists and the Sesame Street educational team." (TEXT 2)
- F. "It's encouraging because it means we might be able to make real progress in ways that are affordable and scalable."(TEXT 2)

## 13. Which quotation from TEXT 2 <u>best</u> indicates that the author may agree with some of the conclusions of the research described in TEXT 1?

- A. "The new findings offer comforting news to parents who put their children in front of public TV every day and/or memorized entire Elmo DVDs, unwittingly"
- B. "They also raise a provocative question, at a time when many lawmakers are pushing to expand spending on early childhood education: Do kids need preschool if a TV show works just as well?"
- C. "Head Start, Kearney and Levine write, was designed to provide more than an academic boost: It delivers family support, medical and dental services, and the development of emotional skills that help kids in social settings."
- D. "If we can do this with Sesame Street on television, we can potentially do this with all sorts of electronic communications,' Kearney said in an interview."

## 14. In both TEXT 1 and TEXT 2, the authors describe the implications of each study. Based on the information in both texts, what does *implications* mean?

- A. results
- B. achievements
- C. conclusions
- D. significance
- 15. Based on the information in both of the texts, is technology beneficial or harmful to children and teenagers? You must support your claim with evidence from <u>both</u> texts. Elaborate thoroughly in order to receive full credit.