# Emojis: Just another way to miscommunicate?

By Rochelle Olson, Star Tribune (Minneapolis) on 04.27.16
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This is what the "grinning face with smiling eyes" emoji looks like on devices for each of these platforms. Photo: GroupLens Research at the University of Minnesota

Smiling eyes might be lying eyes.

University of Minnesota researchers have found that anthropomorphic emojis, like language, can get lost in translation, causing significant misunderstandings.

This happens two ways.

There's the technical translation glitch. What's sent as a smiling face from a Google Nexus would appear as a frown on the recipient's Apple iPhone and vice versa.

Then there's the human component: People interpret identical emojis differently.

Hannah Miller, a third-year doctoral student, is part of the university's GroupLens research lab and posted the findings on the GroupLens blog. Miller said she researches human-computer interaction, studying how to design technology to improve quality of life and social interaction.

To demonstrate the study's findings, Miller's blog post showed how the "grinning face with smiling eyes" appears across 10 platforms. The emoji is varied. Some show teeth. Some mouths are open while others are just a straight line. Some have open eyes while others are closed. The corners of the lips are turned up on some while others are turned downward.

To study how emoji diversity can cause miscommunication, Miller and the researchers used five of the 22 most popular human-appearing emojis. They asked participants to describe the emoji in words and assess their personal emotional reaction as well.

"We found that in many cases, there is quite a bit of potential for miscommunication," Miller wrote.

For example, the grinning face with smiling eyes from Apple's iPhone to a Windows phone, Samsung, LG or Nexus, is sent as "mildly negative emoji" but will be received as a "relatively positive one," the study found.

Researchers had recipients rank the emojis on a scale of negative 5 to positive 5 in terms of emotional response.

For nine of the 22 emojis tested, the average difference in emotional rating between two platforms was greater than two points.

People also described emojis differently.

When seeing an Apple emoji of a person raising both hands in celebration, people described it as "stop" and "clap." When describing Google's version of the same character, people used "praise" and "hand," Miller wrote.

Miller said the finding that "really surprised" researchers was that a "good deal of the potential for miscommunication may come from different interpretations of the exact same emoji rendering."

In other words: People see things differently.

Here's the kicker: Whether people use the same platform and see the same emoji or whether they see different emojis, the variance in emotional interpretation is almost identical.

On the -5 to +5 scale, researchers found that the sender and receiver will differ an average of 2.04 points in terms of reaction to the emoji — when the image is translated across platforms.

However, even within the same platform, say comparing Apple to Apple reactions, the average difference is 1.88 points.

In her comments, Miller pointed out that some scholars argue that emoji use represents a seismic shift in language, so understanding its role in human communication is important in developing the next generation of technology.

The idea for the study started germinating when Miller noticed that an emoji she saw on Facebook wasn't identical to what she saw on her phone.

“That’s kind of an important thing,” she said in an interview. “I think people aren’t aware of it and now they can realize someone on the other side isn’t seeing what they’re seeing.”

Co-author Isaac Johnson said the students had fun with the study. “It really caught our imagination,” he said.

The study involved 304 people in various pairings to replicate how reactions would differ in two-way conversations.

Miller posted on the blog April 5 and saw interest slowly expand. “I honestly had no clue it was gonna catch fire like this,” she said. “People are really reacting and some people are taking it very seriously. We do think that it could cause miscommunication but we don’t think ... (emoji interpretations) will cause World War III.”

She and her colleagues already are preparing follow-up studies. Areas of interest include cross-cultural interpretations of emoji as well as how emojis are interpreted in the context of language and messages. “That might disambiguate and obviate the problem,” she said about context.

The ultimate goal is to make life better for humans, Miller said.

The paper on the research will be published as part of the 2016 AAAI International Conference on Weblogs and Social Media in Cologne, Germany, next month. The GroupLens lab is part of the Department of Computer Science and Engineering.

## Quiz

1 Read the following paragraphs from the article.

> *"We found that in many cases, there is quite a bit of potential for miscommunication," Miller wrote.*
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> *For example, the grinning face with smiling eyes from Apple's iPhone to a Windows phone, Samsung, LG or Nexus, is sent as "mildly negative emoji" but will be received as a "relatively positive one," the study found.*

How do these paragraphs develop the CENTRAL idea of the article?

(A) They summarize a key finding and present a relevant example.

(B) They describe the central idea and point to a direction for future research.

(C) They highlight an interesting example and ask the key question of the article.

(D) They provide evidence that supports a central idea and indicates how to utilize this research.

2 Which of the following statements BEST represents the relationship between the article's central ideas?

(A) A study has shown that emojis are interpreted differently across platforms and cultural groups, which will likely lead to a push for industry standardization.

(B) A researcher was interested in learning more about emojis after she realized one of her emojis looked different on different platforms; her findings were surprising.

(C) A researcher discovered that emojis are interpreted differently across platforms and among people, which raises questions about changing communication forms and suggests future study.

(D) A new study has shown that emojis cause miscommunication because people do not know how to interpret them correctly; researchers are suggesting further study to learn why this happens.

3 Read the first five paragraphs of the article. Why does the author choose to begin with these paragraphs?

(A) to tell an amusing story about emojis

(B) to present the main problems with emojis

(C) to provide the historical background of emojis

(D) to show how emojis have altered communication

4 Which of the following answer choices BEST describes the structure of the article?

(A) The article presents the findings of a study and then goes into the details of the study.

(B) The article shows the results of one study and then compares it with another similar study.

(C) The article chronicles a study and then describes what people learned from the study.

(D) The article describes the problems people faced in conducting a study and how they solved these problems.

## Answer Key

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