

**Transcript for Professor Gernsbacher's Lecture Video  
"How is the Internet changing the way we communicate?"**

**CLICK** - Recently the community at Reddit, which is a social networking website, asked its members the following question:

**CLICK** - If someone from the 1950s suddenly appeared today, what would be the most difficult thing to explain? Among the more than 10,000 responses that this question elicited, the most up-voted response was

**CLICK** - "I possess a device, in my pocket, that is capable of accessing the entirety of information known to humanity.

**CLICK** - I use that device to look at pictures of cats and get into arguments with strangers"

Most of us possess such powerful devices in our pockets. They're called smartphones, and two thirds of Americans own one, as do 96% of undergraduate college students at the University of Wisconsin-Madison.

Smartphones have become ubiquitous in just the past decade. For example,

**CLICK** – back in 2005, when thousands of Italians were awaiting the first appearance of the newly installed Pope, only a few people appeared to be checking their phones. Just this guy

**CLICK [AND PAUSE]** And this woman

**CLICK [AND PAUSE]** And only person appeared to be preparing to take a photo of the new pope using their phone. But when the next new pope was installed

**CLICK [AND PAUSE]** in 2013, smartphones were everywhere.

Our current day smartphones are so powerful and so versatile that to obtain just some of the features that our smartphones provide, back in the 1990s, we would have to buy just about all the devices offered on this full-page

**CLICK** – ad from Radio Shack.

**CLICK** – We would have to buy a separate all weather personal stereo.

**CLICK** – A separate clock radio

**CLICK** – A separate pair of headphones, which now come standard with most smartphones

**CLICK** – We'd even have to buy a separate calculator.

**CLICK** – Although in the 1990s, we could buy a mobile cellular telephone, it would not, have fit in our pockets.

**CLICK** – And we'd still have to buy a separate CD player, because that 1990s mobile phone, which we bought for \$199, couldn't store or play music.

**CLICK** – We'd have to buy a separate answering machine.

**CLICK** – And we'd have to shell out another eight hundred bucks for a video camera.

**CLICK** – We'd even have to buy a separate gizmo to speed dial our friends.

**CLICK** – And we'd have to buy a separate gizmo to record audio.

Our smartphones do all of these things and more.

**CLICK** – Our smartphones even let us play games and do word processing, which were about the only things one could do on a Tandy 1000 computer, given its puny 20 mb of memory, which wouldn't be enough to hold more than 5 songs.

**CLICK** – In the 1990s, we'd have to spend over three thousand dollars to buy all the gadgets that come standard with our smart phones today. Figuring in inflation, those three thousand dollars would be over five thousand dollars in today's economy.

Five thousand dollars just to get some of the features in that one device, which almost all of us carry in our pockets.

**CLICK** – Even in developing nations, smart phones are ubiquitous. For example, Africa boasts nearly a quarter billion mobile phone users.

According to a recent report from the World Bank, in some African countries, citizens are more likely to have access to a smart phone than they are to have access to clean water or electricity.

Citizens of countries such as Kenya, Tanzania, and Ethiopia are willing to pay as much as 25% of their monthly income to have mobile phone access. Africans who don't have access to electricity, charge their smart phones through car batteries located in villages.

Just like smartphone users in the Western Hemisphere, Africans QUOTE use their mobile phones for everything: communicating, listening to the radio, transferring money, shopping, mingling on social media and more. UNQUOTE.

**CLICK** - So the redditor was right: If someone from the 1950s -- or even the 1990s -- suddenly appeared today, the most difficult thing to explain would be that

**CLICK** - "I possess a device, in my pocket, that is capable of accessing the entirety of information known to humanity. And

**CLICK** - I use that device to look at pictures of cats and get in arguments with strangers." We'll talk about those pictures of cats another time. Let's talk about those arguments with strangers right now.

**CLICK** – If you Google the question, "How is the Internet changing the way we communicate?," you will find no shortage of opinions – and fears about Internet-based communication altering the way we think, write, and speak. However,

**CLICK** - in my two thousand and fourteen article in the journal, Discourse Processes, I presented the following facts:

**CLICK** – The Internet is not necessarily making communication less formal. Sure, some of us raised our eyebrows when we saw

**CLICK** - Dr. Francis Collins, Director of the U.S. National Institutes of Health, the largest medical research and funding agency in the world, end his tweet about

**CLICK** - the U.S. Supreme Court case ruling that "a naturally occurring DNA segment is a product of nature and therefore is not patent eligible", with the slang expression, "Woo Hoo!!!" -- complete with triple exclamation points,

However, textual slang dates back centuries.

**CLICK** - For example, in an exasperated letter to Winston Churchill in 1917, Lord Fisher not only used double exclamation points, but he also used the abbreviation,

**CLICK** [and pause] - OMG! Similarly, emoticons, like those smiley faces composed of colons and parentheses, are nothing new.

**CLICK** - They arrived in text in the late 1800s, as soon as the typesetters of Puck magazine could re-jigger their typesetting machine.

## **DOUBLE CLICK**

**CLICK [and Pause]** – To be sure many current-day professors are appalled when their students email them, addressing the professors as

**CLICK** - “Hey Prof.” PAUSE

But the reality is that for decades, there have always been some college students who just don’t understand the etiquette of addressing professors -- regardless of whether the communication is Internet-based or in person.

Some professors report having been addressed by students, in person, not just in email, as “Hey Prof” or even, “Hey Teach,” a greeting that reminds me of a Ryan Gosling meme.

**CLICK [and Pause]** – And in the pre-Internet days, those same students who didn’t know the level of formality needed for professor-student interaction, were known to telephone professors at the professors’ homes, at night, to ask about assignments.

Personally, I'm relieved we have email now.

**CLICK** – Therefore, the Internet is not necessarily making communication less formal. We have always had informal registers for communication, even in writing.

I also demonstrated, in my two thousand fourteen Discourse Processes article, that the Internet is

**CLICK** – not necessarily making communication briefer.

**CLICK** - We might scoff at the use of textisms, which condense entire sentences into only three or four letters.

But very few contemporary text messages can match the brevity of a postal letter written in 1862, by the noted author Victor Hugo.

**CLICK** Hugo had just completed his latest novel, Les Miserables, and had gone away on a vacation. But Hugo was anxious to learn how his book was selling. Therefore, he wrote his publisher the following letter:

**CLICK [and pause]** Indeed, Hugo’s correspondence comprised only one character, a question mark. Hugo’s publisher responded just as tersely:

**CLICK [and pause to show the !]** An exclamation point, again, one letter.

**CLICK** – Similarly, we might grouse when we see entire conversations that comprise three- and four-letter textisms, a holdover from the early days of text messaging and mobile phones’ 140-character limitation.

**CLICK** - But Guatemalan author Augusto Monterroso used a 140-character limit way back in 1959, years before mobile phones. The entirety of Monterroso’s ultra-short story, titled

**CLICK** - “El Dinosaurio,” clocks in at only 50 characters.

**CLICK** - “Cuando despertó, el dinosaurio todavía estaba allí,” which translated means, “When she or he awoke, the dinosaur was still there.” Very brief forms of communication have been with us for centuries.

**CLICK** – Consider, as one of the most prominent examples of past forms of brief communication, the venerable telegram.

Across three centuries, the telegram was the primary means of fast communication, similar to text messaging today. Indeed, the very last telegram in the entire world was sent in the summer of two thousand and thirteen. Telegrams became extinct because text messages took their place.

But during the telegram’s heyday, 300 million telegrams were sent each year. And telegrams were, by necessity, a form of BRIEF communication because telegram writers were charged by the word.

Therefore, there were guide books, such as

**CLICK** - this 1928 publication, *How To Write Telegrams Properly*, that instructed telegram writers how to reduce the number of words in their telegrams and therefore save money.

The book advocated

**CLICK** - “eliminating the word ‘please’ from all telegrams because eliminating that one simple word would save the American public millions of dollars annually.”

For centuries, virtually all of the world’s major events were announced by exceedingly brief telegrams. For example, the Wright brothers’ glorious invention of aviation was announced by the telegram

**CLICK** - “Successful four flights Thursday morning.”

Similarly, the Titanic’s disastrous demise was announced by telegram:

**CLICK** - “SOS SOS CQD CQD Titanic sinking fast. Passengers being put into boats.”

An even briefer telegram, written by the head of the British Navy in early September, 1939, rivaled the brevity and informality of many current day text messages.

On the day, Britain had entered World War II by declaring war on Germany, and Churchill’s reappointment as First Lord of the British Admiralty was announced as simply

**CLICK** - Winston is back

And the moment the first hydrogen bomb was detonated was announced by physicist Edward Teller’s very brief 1952 telegram

**CLICK** - It’s a boy.

**CLICK** - So, the Internet is not making communication less formal. Neither is the Internet making communication

**CLICK** - briefer. We have always had brief forms of communication, even in writing, and we have always used written communication in informal modes.

But, as I demonstrated in my two thousand and fourteen article in *Discourse Processes*, the Internet IS changing one way that we communicate:

Internet-based communication is manifesting our profound

**CLICK** - preference for writing over speech. We prefer written communication over spoken communication.

**CLICK** - As heralded by the title of Clive Thompson's two-thousand and ten article in Wired, "On the Death of the Phone Call," we are witnessing a steady decrease in communicating by spoken telephone call.

In its wake, we are witnessing a steady increase in communicating by written text message. U.S. teenagers are leading the pack, each sending, on average, over 4000 text messages a month.

**CLICK** - Even senior citizens are moving toward texting. U.S. adults over age 65 send, on average, two text messages a day, as demonstrated by NBA basketball player Kevin Durant's

**CLICK** - grandmother, who texted to congratulate Kevin's team, the Oklahoma City Thunder, on their win over the Phoenix Suns

**CLICK** - Thunder struck again & the Sun(s) went down (Great W)!

and to add some good old-fashioned grandmother scolding

**CLICK** - Kev kev stop cussing so much. They be showing u on TV when u do"

to which the dutiful 6'9" grandson texted back:

**CLICK** - "sorry grandma ... I be so emotional ... I love u,"

PAUSE. The more we text each other, the less we phone call.

**CLICK** - As the New York Times asks

**CLICK** - So, why talk when you can text?

**CLICK** - In a class of 120 undergraduate college students at the University of Wisconsin-Madison,

**CLICK** -- 66% reported having sent a text message within the past hour but

**CLICK** - only 2% reported having left a voice mail message within that same time frame.

**CLICK** - Nielsen surveys reports that

**CLICK** - "Teenagers growing up now don't even think the phone is primarily for voice. It's primarily for text"

The phone call is becoming so passé that a recent

**CLICK** - cartoon demonstrating a tongue-in-cheek flow chart for deciding which mode of communication should be used, placed phone calling at the end of the line, suited for persons

**CLICK** - who have an hour, and who haven't taken a shower - I honestly don't know what that's all about.

**CLICK** - Making a phone call is down there with "Try smoke signals, gramps."

**CLICK** - As the ultra hip Grumpy Cat has tweeted:

**CLICK** - I should just change my voice mail greeting to: "Please hang up and text me, thanks."

**CLICK** - And in response to U.S. President Obama's "We The People" mechanism, for which heavily endorsed petitions are forwarded to the President himself, there was a petition to

**CLICK** - make it a felony to respond to a text message with a phone call. I note the slight irony, that the We The People mechanism is billed as “Your Voice in Our Government,” but it is indeed a written, not spoken, petition that you fill out and submit.

**CLICK** - Thus, the major influence the Internet is having on the way we communicate is by manifesting our preference for text over speech.

But why? I have proposed that the preference for text and written communication over speech and spoken communication derives from two features of written communication:

First, written communication is more intransient or long-lasting than spoken communication; therefore, our preference for text over speech derives, in part, from our

**CLICK** - preference for intransience, or permanence, over transience. In contrast to speech, which can go in one ear and out the other, text can be saved, retrieved, reproduced, and searched.

The advantage of intransient text over more transient speech undoubtedly motivated the decision way back in the 1960s

**CLICK** – to use a teletype machine as the hotline between the U.S. Pentagon and the USSR’s Kremlin, rather than

**CLICK** - a bat phone.

**CLICK** - “I’m bound to have problems if I communicate numbers [via phone],” confesses one business professional.

**CLICK** - “Who wants to sit with a paper and pencil and jot down these numbers? I would much rather have it on email where I can see it”

**CLICK** - Thus, the major influence the Internet is having on the way we communicate is by manifesting our preference for text over speech.

And one reason we prefer text over speech derives from a fundamental feature of text; it is intransient. Thus, some of our preference for written communication over spoken communication derives from

**CLICK** - our preference for intransience over transience. However, another, and even more powerful feature of written communication is that written communication is most often asynchronous, whereas speech is almost always synchronous. Therefore, the other reason we prefer text over speech is

**CLICK** - our preference for asynchronous forms of communication over synchronous forms of communication. And the fact that written communication is more likely to be asynchronous, whereas speech is more likely to be synchronous

**CLICK** – If we compare Spoken versus Written modes of communication, we see that the majority of spoken modes of communication, such as in-person conversations and phone calls, occur synchronously.

They occur in real time in synchrony. Most all of our spoken modes of communication occur synchronously.

**CLICK** – In contrast, very few modes of written communication occur synchronously. Most of the time, when we write something, someone else reads it at a later point in time. One minor exception is text-based chat, like I use in many of my courses, which occurs synchronously in real time. But beyond IRT text-based chat, written modes of communication that occur synchronously are quite rare.

**CLICK** – Similarly, very few modes of spoken communication occur asynchronously. Things like voice mail or previously recorded podcasts are examples of spoken communication that occurs asynchronously, meaning not in real time. But examples of asynchronous spoken communication are rare.

**CLICK** – In contrast, most all modes of written communication occur asynchronously. Most always, when we write something, someone else doesn't read it until a later point in time. It might be minutes later, as with text messages, or hours later, as with email or discussion boards, or days or even years later, as with books. But written communication is most always asynchronous.

It is writing's asynchrony that I propose underlies the preference for writing over speaking that the Internet is manifesting.

**CLICK** - As the National Science Foundation explains: Asynchrony provides convenience, and

**CLICK** - The popularity of [Internet-based text communication] lies in its convenience. No more games of telephone tag, no more staying late to wait for a phone call." Such convenience was illustrated in 2013 when

**CLICK** - the Nobel Peace Prize winner was notified through Twitter because the Peace Prize Committee was unable to contact the winner synchronously by telephone. Instead, they turned to an asynchronous, Internet-based form of communication.

**CLICK** - The convenience of asynchronous Internet-based text over synchronous in-person speech perhaps explains why, in a class of 120 undergraduate students at the University of Wisconsin-Madison

**CLICK** - 80% have sent a text message to another person who was, at the time, in the same house as the sender, and

**CLICK** - 51% have sent a text message to another person who was, at the time, in the same room!

**CLICK** – In his Wired article, titled "On the Death of the Phone Call, Clive Thompson philosophizes:

**CLICK** - "For all the hue and cry about becoming an 'always on' society, we're actually moving away from the demand that everyone be available immediately."

Empirical data show that persons in numerous capacities overwhelmingly prefer communicating via ASYNCHRONOUS text-based communication as opposed to SYNCHRONOUS spoken communication. For example,

**CLICK** - Parents overwhelmingly prefer communicating via asynchronous Internet-based text as opposed to speaking synchronously on the phone when contacting their children's pediatricians (for learning test results, for scheduling appointments, or for discussing a particular symptom).

**CLICK** - Corporate employees, from clerks to vice presidents, overwhelmingly prefer communicating via asynchronous Internet-based text as opposed to speaking synchronously on the phone when negotiating, explaining, and exchanging technical information.

As one employee reports QUOTE: "If an issue requires back and forth communication, I am much more comfortable on email. Messages are more understandable since people have thought the message through" UNQUOTE

**CLICK** - College students, enrolled in traditional face-to-face courses, overwhelmingly prefer to contact their professors through asynchronous forms of Internet-based communication for example, email or discussion boards,

as opposed to asking questions in person at the beginning or end of class, attending in-person office hours (which was preferred by only a fraction of a large sample of university students) or telephoning the professor (which was not preferred by any student).

**CLICK** – College professors, teaching traditional face-to-face courses, also overwhelmingly prefer to communicate with their students through asynchronous forms of Internet-based communication rather than synchronous, in-person forms, like phone calls.

**CLICK** - Adolescents overwhelmingly prefer the ‘controllability’ of asynchronous forms of Internet-based communication when developing and maintaining friendships.

And

**CLICK** - Young adults overwhelmingly prefer to break up from romantic relationships using asynchronous Internet-based text as opposed to synchronous speech (in person or on the phone).

For example, a break-up text message that went viral in 2014 listed 6 reasons for the split, including

**CLICK** – Number 1: You refuse to update your relationship status on Facebook.

And

**CLICK** – Number 3: You are rude to my cat and that makes me feel uncomfortable.

Of course, people have preferred to break up by asynchronous written communication as opposed to synchronous spoken communication for as long as writing – and romantic relationships – have existed.

**CLICK** - During World War 2, the term “Dear John” letter was coined for all break up letters, even when the addressee wasn’t named John – or Jane – as this stock photo illustrates.

And when I was in sixth grade, my boyfriend broke up with me by asynchronous text based communication. However, because it was the early 1960s, rather than texting me on a mobile phone, he wrote his break up message on a sheet of notebook paper.

**CLICK [and pause]** - folded it into a triangle and shot it across the floor of the grade school classroom. Those folded notes were the precursors of Internet-based text messaging. Like text messages, these folded notes were asynchronous and intransient.

And as I’ve presented in this lecture,

**CLICK** - The Internet is not necessarily making communication less formal. We have always had informal registers for communication, even in writing.

**CLICK** - The Internet is not necessarily making communication briefer. We have always had brief forms of communication, like telegrams, and one-sentence novels.

Rather, the Internet is manifesting our

**CLICK** - preference for text over speech.

**CLICK** - For centuries we have preferred text and written communication, over speech and spoken communication partly because

**CLICK** – of our preference for intransient modes of communication over transient modes

But MOSTLY because of

**CLICK** - Our preference for asynchronous modes of communication over synchronous modes.