

Transcript for Professor Gernsbacher's Lecture Video: "Broadcasting Via the Internet"

The verb *broadcasting* harkens back to the 1800s,

CLICK - as an agricultural term. Broadcast seeding, was and still is, a method of sowing seeds by casting them broadly.

One of the most dramatic ways that the Internet is changing the way we communicate is the speed and breadth of our broadcast. Let me give you several examples.

(1) CLICK - "School is Closed"

When I taught high school back in the early 1970s, if the weather was predicted to preclude safely attending school the next morning, the school principal made the decision and then initiated a

CLICK – phone tree to notify all the teachers and staff.

CLICK - The principal phoned the first four people on the phone tree. Each of those four people,

CLICK – was responsible for calling two more people on the phone tree

CLICK – and each of those people was responsible for phoning two more people on the phone tree, and so on until all the teachers and staff were notified. The parents had their own phone tree, which operated the same way.

These days, one simple email can be sent to all teachers, staff, parents and even students, demonstrating how much faster broadcasting via the Internet can be. And to demonstrate how much broader broadcasting via the Internet can be, consider the case of

CLICK – Principal Matt Glen Dinning. When Principal Glen Dinning wanted to notify his teachers, staff, parents, and students that his Rhode Island K-12 school would be closed January 26th, two thousand and fifteen, Principal Glen Dinning posted a YouTube video on the school's YouTube channel.

However, Principal Glen Dinning's rendition of "School is Closed," set to the tune of hit song, Let It Go, spread far beyond his school's community. The YouTube has been viewed nearly 4 million times and was showcased on CNN, The Today Show, TIME magazine, and more.

The Internet allows for broader communication.

(2) CLICK - Teach Me How To Bucky

Back in the 1960s, my husband won a high school track meet with a time fast enough to create a new state record. For anyone not at the track meet, they would ordinarily have had to wait at least a week

CLICK - to read the news of my husband bringing glory to his small-town high school because the small-town newspaper was published only once a week.

The good news, however, all puns intended, was that a slightly larger town printed the news in their slightly larger town's newspaper, with the classic headline:

CLICK - Goldsmith shocks the fans out of the stands.

By being published in the slightly larger town's newspaper, the glory spread not only more rapidly, but

CLICK - also a bit farther.

CLICK - However, because this was still way before the Internet, and the fact that even small town newspapers now post their news on the Internet, the glory only spread so far.

Skip forward nearly 50 years when two University of Wisconsin-Madison students wanted to bring glory to their school.

CLICK - In two thousand and ten, two UW students created the Teach Me How To Bucky YouTube, based on the hit song “Teach Me How to Dougie.”

To date, the “Teach Me How To Bucky” YouTube has been viewed over 2 million times, being broadcast far beyond the campus, the state, and even the country. It has spawned

CLICK – t-shirts and other paraphernalia, and it even has an entry in the

CLICK – Urban Dictionary. [pause]

The Internet allows for broader communication.

(3) - CLICK - Miracle on the Hudson. Humans love to witness famous events. For centuries, humans have collected

CLICK - autographs, as evidence of being in person witnesses to fame. Prior to the onset of smartphones,

CLICK - fans would lurch aggressively with pens for autographs. Now, they lurch with

CLICK – their smartphones. [Pause]

We like to take photos of famous or unusual things, as demonstrated by one of the most retweeted photos ever.

CLICK – On the afternoon of January 15, two thousand and nine, Janis Krums was on a commuter ferry riding across the Hudson River in New York City.

He looked out the window and saw a commercial airline jet submerging in the river, and did what any smartphone carrying person would do. He snapped a picture.

CLICK [PAUSE] - He tweeted out the picture with the caption, “There’s a plane in the Hudson River. I’m on a ferry going to pick up people.” Although he had only 170 Twitter followers at the time, Krums’ photo spread fast.

Within an hour, he was being interviewed by all the major news outlets, and his iconic photo appeared in virtually every newspaper around the world, leading to the tongue-and-cheek or maybe not so tongue-in-cheek, safety advice,

CLICK - “In Case of Fire, Exit Building Before Tweeting.”

(4) CLICK – Help Wanted

Prior to the Internet and Internet-based bulletin boards such as Facebook or Reddit, we used actual

CLICK – bulletin boards. A person would post (with literal thumbtacks) onto a (physical) board an announcement or request, for example, Ride Needed, Garage Sale Tomorrow, or Help Wanted.

However, the pool of possible responses to these requests was limited to those persons who physically walked by the Bulletin Board. The Internet’s use of bulletin boards has dramatically increased the breadth of a bulletin board’s broadcast.

For example, in the summer of two thousand and fourteen, a father posted a request on Reddit. He asked if someone skilled in Photoshop would digitally alter a picture of his daughter, who had lived only six weeks.

CLICK – As the father explained, “Because my daughter lived her whole life in the hospital, we were never able to get a photo without all of her tubes. Can someone remove the tubes from this photo?”

He received *thousands* of persons of responses.

CLICK – People made him photoshopped images.

Some people even responded with

CLICK - sketches

CLICK - and paintings

CLICK - and other artwork.

The Internet allows for broader communication.

(5) CLICK – A Weird, Unidentifiable Rash

Over a century ago,

CLICK - Nikola Tesla, the founder of alternating current, the electricity that allows us to flip a switch and turn on a light, or press a key and start up a laptop, had a vision. Tesla wrote:

CLICK – “From the inception of the wireless system, I saw that this new art of applied electricity would be of greater benefit to the human race than any other scientific discovery.

CLICK – The majority of the ills from which humanity suffers are due to the immense extent of the terrestrial globe and the inability of individuals to come into close contact.

CLICK – Wireless will achieve the closer contact through transmission of intelligence ... When wireless is perfectly applied, the whole earth will be converted into a huge brain.

CLICK – We shall be able to communicate with each other instantly irrespective of distance ... the instruments through which we shall do this will be amazingly simple.

CLICK - A man will be able to carry one in his vest pocket.”

Tesla’s thoughts, penned way back in 1926, are eerily prescient.

And his vision of sharing intelligence through electronic broadcast underlie the notion of hive mind. Though hive minds have been the topic of science fiction for decades, they are daily occurrences on the Internet.

CLICK - For example, quote, “A family-medicine doctor recently saw a 13-year-old boy with a weird, unidentifiable rash. It wasn’t itchy or painful, and the teenage boy hadn’t traveled anywhere recently. So the doctor did what any modern physician would do: he took out his smartphone and snapped a photo of the weird rash and uploaded the photo to an Instagram-style app” populated by other physicians.” UNQUOTE

Dermatologists all around the country examined the photo, asked a few additional questions, and soon diagnosed the rash – and its treatment.

Whereas in the past, to gather such expert opinion, a doctor would need to physically take the patient to numerous other specialists. And even then, the doctor might not have access to more than a handful of specialists.

Now, hundreds of specialists can be tapped as easily as a photo can be snapped. This is the hive mind about which Nikola Tesla dreamt.

6) CLICK - Reading Rainbow

The doctor who solicited help identifying his patient's weird rash and the father who solicited help Photoshopping his infant daughter without tubes are illustrations of using the Internet and its breadth of communication for crowdsourcing.

The Internet is also increasingly being used for crowd funding.

In the past, if someone wanted to raise a substantial amount of money for a very good cause, the person had to go to a bank and ask for a loan. Or perhaps the person would ask two or three really rich and benevolent people to each donate a large sum of money.

The Internet is allowing that request to be made to thousands if not millions of individuals. And that way, each person need only contribute a small amount.

One of the best examples of crowd funding was

CLICK – LaVar Burton's Kickstarter campaign for Reading Rainbow. Reading Rainbow was a children's TV show, which Burton produced and hosted and which aired on PBS for over 25 years.

In two thousand and fourteen, several years after the show had gone off of PBS, Burton wanted to continue to bring the show to young children by developing a Reading Rainbow app and by streaming episodes into thousands of classrooms.

His initial Kickstarter goal was a million dollars; that goal was met and surpassed within hours. He ended up raising over 5 million dollars, from over 100,000 contributors. So, rather than asking one or two really rich people each to contribute a lot of money, Burton used the Internet and its breadth of communication to solicit small, \$5 or \$10 contributions from tens of thousands of people.

(7) CLICK - The Ice Bucket Challenge

Just like the Internet makes possible crowd sourcing and crowd funding, the Internet also makes possible crowd donating. Undoubtedly, one of the most successful crowd donation campaigns was the Ice Bucket Challenge of two thousand and fourteen, which gathered donations to ALS research.

As an editorial in the prestigious journal Nature reports:

CLICK – QUOTE “The notion of dousing oneself in cold water for a charitable cause is not new, at least not to anyone who has watched people run into cold bodies of water during the winter months in so-called ‘polar bear plunges’ to raise funds for charity.

CLICK – Which, might make it all the more surprising, that videos of people pouring buckets of ice water over their heads,

CLICK - and challenging others to do the same within 24 hours and donate money to the ALS Association, set off a global craze

CLICK - Within a month, the campaign went viral, spawning countless videos online and

CLICK - eliciting contributions from over 3 million donors. UNQUOTE

CLICK - From the Ice Bucket Challenge, the ALS Association raised over \$100 million in donations, which is 50 times the amount of donations they usually receive.

The Internet allows for broader communication.

(8) CLICK – United Breaks Guitars

For as long as our society has had goods and services there have been

CLICK – complaints about those goods and services. In the old days, one could write a letter of complaint to the offending company.

A few years ago, the US Government even set up a consumer complaint letter wizard, which guided complaining consumers through the process of writing such letters.

And writing such a letter was the approach initially taken by Sons of Maxwell, a musical duo who had a complaint with United Airlines. What was their complaint? It was that

CLICK – United Airlines broke their guitar. But after nine months of complaint letter writing bringing no compensation from United Airlines for breaking a \$3500 guitar, the musical duo took to YouTube with a catchy song, United Breaks Guitars.

The video has been viewed 15 million times, and, as you might imagine with such breadth of bad PR broadcasting, the video was successful in bringing financial compensation from United Airlines when all of those one-to-one letters of complaint had not.

Most all the examples that I've provided so far, the Sons of Maxwell's "United Breaks Guitars" video, the Ice Bucket Challenge, and other crowd-sourcing, crowd-funding, and crowd-donating campaigns, have been intentional uses of the Internet for broader communication.

However, there are also numerous examples of viral sensations that were never intended to be broadcast so broadly.

(9) CLICK – Charlie Bit My Finger

In two thousand and seven, a British mom wanted to upload a video to YouTube of her two young boys for other family members who lived in another city to see.

CLICK - The notion was simply to capture the two boys hanging out and having fun together. But with the camera rolling, the younger boy

CLICK - took a chomp on the older boy's finger,

CLICK - and a viral sensation was born.

Now, you might be thinking, if the mom didn't intend to broadcast the antics of her adorable children to the world, if instead she intended to post the video only as a means of updating her close family, why did she post it to YouTube?

Well, back in two thousand and seven, YouTube was much more of an amateur video hosting site than it is now. Very few companies were using YouTube, and very few videos garnered over a handful of views.

Moreover, for decades, individuals have posted interpersonal communication to public outlets, as demonstrated by these

CLICK - Public Notices published in the New York times way back in 1942.

CLICK – Attention Jack “Yank” Cohen of Baltimore Maryland. Your father died. Please come home. Mother. Or

CLICK – Al, Dear. All is forgiven. Phone me at mother’s. Hil – your wife. Or

CLICK – Alan. Try your best. Uncle Jack.

Like these Public Notices published in 1942, which were intended for only specific persons, the video of Charlie biting his brother’s finger was intended for only specific persons.

But the whole episode was just so cute that what was intended as a personal communication became broadcast around the world.

CLICK - Even today, the “Charlie Bit My Finger” video is THE most frequently viewed non-commercial YouTube of all time.

Let’s take a look at another unintentional viral sensation.

10) CLICK – Cool Wand!

Thirty-five years ago, when I was in graduate school, one of the primary ways I communicated with my colleagues and friends was asynchronously and in text. Because this was 35 years ago, none of us had access to either text messaging or email, but what we did looked a whole lot like text messaging and email looks like today.

Whenever I wanted to set up a meeting with my advisor or go to lunch with another graduate student, I walked to the

CLICK - departmental mailbox room. There, each of us had our own wooden cubbie mailboxes, where we not only received postal mail but also personal notes. Nearby, the wooden cubbies that each of us was assigned, lay a pad of

CLICK - hot pink “While You Were Out” note paper. Whenever I wanted to communicate – asynchronously – with one of my friends or colleagues, I would write my message on one of the note papers, for example, “Wanna Go To Lunch?”

I’d then tuck the note into the recipient’s mailbox, and I’d wait until the person replied to my note by

CLICK - writing on it, “Can’t today,” and tucking the note back into my mailbox.

CLICK – Sometimes we chain linked the messages, similar to forwarding an email message today. One person might write:

CLICK - Who wants to review tonight?, and stick the note in another person’s mailbox.

CLICK – I’m in. Joyce would write, and stick the note in another person’s mailbox.

CLICK – I’ll be there. Gary would write, and stick the note in another person’s mailbox.

CLICK – Me too, Zig. Etc

Everyone – faculty, graduate students, and staff, walked by that wall of mailboxes multiple times a day, sending messages or receiving messages, much like we use text messages or email in current day.

Indeed, we used these departmental mailboxes for file sharing: If we wanted to share a file, we simply paper-clipped the note onto the file folder and stuck that into the person's mailbox.

At any point, these asynchronous messages could have become public, although we never intended that they would. But, it was possible.

In the same way, thirty-five years later, in two thousand and seven, a college student who was interning at a bank didn't intend that a picture he posted for his friends to see on Facebook would become public.

CLICK – The picture shows the student enjoying himself at a Halloween party, wearing what looks to be a Tinkerbell costume.

The only problem was that this same college intern had asked his boss to have off a couple of days off around Halloween because, as the student told his boss, QUOTE “something came up at home” UNQUOTE and he had to travel out of town.

Due to the broadcast power of the Internet, the picture spread more publicly than the intern intended, and when his boss emailed the student asking if everything was ok at home, the boss signed off, Cool Wand!

11) **CLICK** – Fair Trade Organic Bananas

As the saying goes, everyone is entitled to their opinion. And years before Facebook, Instagram, Pinterest, and Twitter existed, people posted their opinions, their likes and dislikes, on their cars.

CLICK - On bumper stickers.

Bumper stickers reached their peak popularity in the 1960s and 70s. Like Tweets, communication via bumper stickers was also limited in length.

Bumper sticker communication ran the gamut from

CLICK – advertising to proclamations about the communicator's achievements, for instance,

CLICK - “My Child Is an Honor Student”

CLICK - “I Don't Have a Child But I'm still Proud of All of the Honor Students”

CLICK - “I was an honor student. I don't know what happened”

CLICK - “My Boston Terrier is Smarter than your honors student.” To imparting opinions, such as

CLICK - religious tolerance, and to philosophical inquiry:

CLICK – What if the Hokie Poke IS what it's all about?

The popularity of bumper stickers, as a form of public communication, has diminished so much over the past couple of decades that archivists are now calling for the bumper sticker's historical preservation.

In the bumper sticker's place we have Facebook, Twitter, Pinterest, Instagram, and the like. However, even though bumper stickers were seen by the public, their reach was limited to only those persons driving by. For Facebook, Twitter, Pinterest, Instagram and other Internet-based modes of communication, the reach can be phenomenal, as demonstrated by Scottish Labour Party candidate,

CLICK – Stuart MacLennan who tweeted,

CLICK - “God this fair trade, organic banana is expletive. Can I have a slave-grown, chemically enhanced, genetically modified one?”

For this tweet and other similarly questionable tweets, MacLennan was removed from political office.

Lastly, we come to

12) CLICK – Texts from my Ex.

When I was in sixth-grade, my boyfriend broke up with me by sending me an asynchronous text message. However, because that was way back in the early 1960s, rather than texting me on a mobile phone, my ex-boyfriend wrote his break up message on a sheet of notebook paper.

CLICK - 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,

CLICK - note passing in class was a favored grade-school communication medium for decades.

CLICK and PAUSE

CLICK - Note passing occurs in just about every school

CLICK - And culture

CLICK – Note passing was intended to be a private communication, but we all know what happened when

CLICK - The teacher spotted note passing going on in class. As this cartoon illustrates, the teacher read the note aloud to the other students.

CLICK and PAUSE. As embarrassing and humiliating as it was to have your private note read aloud in front of the entire class, imagine having your text message posted on Instagram. And read aloud by Ellen DeGeneres, which is just what happens with Texts From My Ex, such as this one:

CLICK – I miss you. Come back to me.

CLICK – Where are you?

CLICK – My apartment

CLICK – Go to the window.

CLICK – I’m here.

CLICK – Jump. Ouch.

Why did this Text from an Ex get broadcast so broadly on the Internet? In other words, what made it go viral? And more generally,

CLICK - What makes content go viral on the Internet? Several studies have researched this question, and all point to the same three principles:

CLICK – the content must be emotionally salient. Texts from an ex, as well as a father’s request about his recently passed away six week old daughter are all emotionally salient.

CLICK – The content must have a point of connection to the person who passes it on. Why did so many people contribute to the Reading Rainbow Kickstarter? They most likely remember fondly watching Reading Rainbow as a child and want other children to have that experience.

CLICK – And the content usually has an element of surprise. A school principal singing “Let It Go” has an element of surprise. The Ice Bucket Challenge is loaded with surprise.

Emotional salience, a point of connection, and an element of surprise, those are the critical features that allow the Internet to speed and amplify the broadcasting via the Internet.