A Brief History of the Internet - Miss Lowe Style

(A bonus guide to understanding your Generation X parents and teachers)

1940s - The Cold War Begins...

Let's go back to World War II for this one. Hopefully, you know how the war turned out. We won, but life wasn't all peaches and cream. One of our former allies, the Soviet Union (now Russia and other countries), had a very different idea how the world was to be run. They said communism, we said capitalism, and suddenly the two biggest kids on the playground were mortal enemies. This plunged us into what is known as the Cold War, which wasn't a war in the classical sense, and it wasn't cold, except maybe by comparison to a thermonuclear meltdown.

Early 1950s - Commie Hysteria...

The Cold War swings into full gear. The USSR and China are big players in the East and they spread communism wherever they went. The Korean Conflict (or war, for those of you who call a spade a spade) started. North Korea was aided by the Soviets and China, and South Korea was aided by the United States and others. Back in the States, Senator Joseph McCarthy and others were trying to purge the U.S. of commie sympathizers. Hysteria and fear were rampant. In the Soviet Union, their distrust and loathing of America was also building. All this came at a time of rapidly increasing technology.

1957 - Sputnik Panic and the Origin of the Internet...

The USSR launches the first artificial satellite, Sputnik. This freaked out the United States. We couldn't let the Commies take over space the way they were taking over the far East! Besides, if they could launch a ball of metal into space, they will eventually launch cameras and weapons. Driven by fear and anti-Communist feelings, the U.S. creates the Advanced Research Projects Agency (ARPA) within the Department of Defense (D.O.D.). This was a group of brainiacs whose goal was to make the U.S. better than the Soviets in military science and technology. They emphasized science and mathematics in public schools, funded major ideas for new weapons technologies, and probably started a lot of evil weapons. This department may have also been responsible for the crew-cut hairstyle so popular in the late 1950s. The United States became science-crazed and a little bit too militaristic for my tastes. It seems that everybody became very involved in technology. One cool side effect of this fervor though - it produced a lot of campy science-fiction movies in the 1960s which eventually led to the mocking of these movies. Hurray for America!

1960 - 1963 – Kennedy...

Let's face it - the 60s were both a cool and scary decade. We start out with John F. Kennedy winning the election in 1960. America was still in the throes of the anti-communist movement and it seemed as though the world had gotten a lot smaller. President Kennedy announced to the world that the U.S. would land someone on the moon within the decade. Science hysteria was rampant, and people were frenzied. Even a quartet of British crooners could get people to pass

out. In 1962, the Soviet Union threw a bunch of nuclear missiles in Cuba, which is only about 90 miles from the soil of the USA. We freaked, they freaked and the world could taste impending doom. The Cuban Missile Crisis became a serious threat. It turned out to be a war of words, but people were really scared. We came to the very edge of a nuclear war at that time, and I think it made both sides realize that blowing the daylights out of each other was a pretty ominous idea.

Meanwhile, the RAND Corporation (a government agency), was commissioned by the U.S. Air Force to do a study on how it could keep control over its missiles and bombers after a nuclear attack. There needed to be a military network which would survive a nuclear strike. It wouldn't be controlled by a single location, but it would be decentralized so that if any cities in the U.S. were attacked, the military could still have control of nuclear arms for a counter-attack. This was the start of the concept of the Internet. They figured out how to send information in packets from one point to any other via a network. Meanwhile, it was a turbulent time in America and people started hating the idea of war while the government was still improving its ability to kill. Anyway, Kennedy was assassinated in 1963, and this further traumatized the nation. Kennedy's death focused the attention of the nation on fulfilling Kennedy's goals, but meanwhile, the military machine worked on.

Late 1960s - Revolution and Online Genesis...
America was involved in the Vietnam War. There was still the threat of impending doom from Soviet missiles, and the Internet was starting to take shape. The military agency ARPA, formed in 1957, paid a company to start the network of cities. They linked four colleges together in the first Internet ever. These colleges were UCLA, STI in Stanford, UC Santa Barbara and the University of Utah. By today's standards, the Internet was slow and poorly powered, but it existed.
Meanwhile, when Neil Armstrong stepped onto the moon, another vision concocted because of the cold war was also fulfilled. The country as a whole was losing its fascination with science and the issues of civil rights, womens rights and social causes were taking the forefront.

Early 1970s - All About Connections...
The Baby Boomers were now in their late teens and early twenties. They had a different vision of the world than their parents. They survived the fear of the early 60s and the expanding vision of the late 60s and were starting to tire of the causes they once championed by the early 1970s. There was a general distrust of the military, fueled by the ongoing Vietnam War. This prompted ARPA to change its name to DARPA, adding Defense to the beginning so that they wouldn't be accused of being war-mongers. By 1972, there were now 23 hosts on the Internet, instead of the original 4. The first e-mail program was created at this time. I'm sure the first junk e-mail was created just moments afterwards. In 1973, two events of significance happened. First, a new way of computer communication was invented. This is called a protocol, and this allowed different types of computers to communicate with each other. Yep, even Apples and IBM

compatibles could chat. The other event was my birth. :-) The very next year, the term *Internet* was first used officially. The "inter-" comes from international and "-net" was short for network.

Late 1970s - Stagnation, or Local Success?

Well, we didn't exactly win the Vietnam war. Actually, it was a pretty lousy end, and the nation was disillusioned and somewhat bitter. It seems as though the "Children's Revolution" of the 1960s was also bitterly defeated and the U.S. was no longer a happy place. The hippies of the late 60s had started to settle down and the country started to recognize the seriousness of the drug problem which resulted from all this. There were even people who resorted to disco to ebb their depression. It was a horrible time. The national economy was in stagnant inflation and fuel prices soared. Jimmy Carter was elected president in 1976 and failed to wow the American people. There was light at the end of this tunnel though. The talk of peace increased greatly. With the end of the Vietnam War and the Watergate years behind us, perhaps now we could work our differences out with the communist nations.

In 1976, an important event happened in the Internet realm. Ethernet. This allowed coaxial cable to carry information at nearly the speed of light. Hurray for the co-ax! This allowed several computers at a single location to be hooked together and work as one. The school network is hooked together this way. This is called a LAN, or Local Area Network. Also, satellites could now be used to transmit information. This linked the U.S. with its friends in Europe, and the network moved forward to being global. By 1979, better systems for sending, receiving and storing information were created and most major computer companies were involved. The system was still slow (50 Kbps), but there were over 100 hosts now.

Early 1980s - It's All About Funds, Baby!

Ronald Reagan won the 1980 election and promoted a hope in the resurgence of America. It seemed as though the gloom of a decade was being changed into a vision of the future, though not a vision all shared. Economic prosperity was promised (with both good and bad results) and an end to the Cold War was hopeful. Music styles changed, fashion changed, and America renewed itself. A change in economic policies brought a resurgence in the economy while plunging the nation into debt. Defense spending increased at an unheard-of rate and it seemed as though Reagan was going to either end the Cold War for good or get us all killed trying. The arms race had hit a new peak and our nuclear stockpile increased. It was as though the US and USSR were trying to outspend each other. It was a war we could win. Even the average citizen caught the fever and purchasing power was all the rage of the 80s.

On the Internet front, this increase in funding and spending also caught on. The National Science Foundation, an agency stemming from the 1950s and 60s, created a system to work with the original ARPA system. It was a little faster and could network more schools and institutions together. They were compatible, and now instead of over 100 Internet hosts, there were now over 200. The University of Wisconsin created a program which would translate domain names into

numbers. Now to access another system, all you had to type was its name instead of a long series of numbers. This made the internet way easier and you didn't have to write down a long string of meaningless numerals. During the early 80s, the number of hosts ballooned. By 1984, it numbered over 1000. The network divided into military and research branches. More network connections were created.

Late 80s - Open For Business..
  With talk of Glasnost and Perestroika in the Soviet Union, the Cold War thawed significantly. Openness and freedom seemed to be all the rage, but the world was shifting again. A new disease was on the horizon. AIDS was first discussed openly in the mid-to late 80s after actor Rock Hudson died in 1985. The economy seemed well, if one could overlook the debt. It was also in the mid 80s that the compact disc was first patented by James T. Russell, sounding the death-knell for vinyl records.

  In the Internet world, the first T1 line was developed in the late 80s. This allowed information to move 30 times faster than the old 50 kbps lines originally created. Also, a couple scientists in Europe developed "hypertext-markup language" (better known as HTML), and the modern Internet format, so the people at CERN can claim credit for the "web". The National Science Foundation spearheaded improvements and growth of the Internet. The Internet boomed from under 2000 servers to somewhere in the neighborhood of 100,000 by the end of the decade. Speed increased and the concept of the T3 line was adopted. This would be about 30 times faster than a T1, or 900 times faster than the 50k lines. Suddenly, there was more and more Internet traffic and new lines were being constructed to keep up with demands.

Early 1990s - Global Concerns Strike Back, and Online!
  George Bush (that's George H. W. Bush) rode Reagan's coat-tails into the presidency. Tensions with Iraq were heating up as the economy started to slow. The Gulf War erupted in January of 1991, giving the nation something other than re-runs to watch in the evenings. Cable TV and CNN let us see the events half-way around the world as they were happening. Global consciousness resurfaced as people re-thought the purposes of science. Greed was no longer considered good, but it didn't slow the need for Americans to acquire. Bill Clinton becomes the first president online.

  Similarly, technology boomed. Cheap and easy electronics were all the rage. Because of the development of the T3 lines, the old ARPANET with its 50k lines was disbanded. The 56k lines soon followed, and the whole Internet was brought up to speed. The "World Wide Web," a tool for navigating the Internet, is released. Graphics are first used effectively. A new society, called the Internet Society, is put in control of the web and all its functions. 1994 sees the web going commercial with the first cyber-bank and Pizza Hut orders on line. Growth of the Internet is exponential. In 1991, there were 600,000 servers. By 1995, there were over 6.6 million servers. It seems as though everyone was online in the 90s. Everyone from the White House to the Vatican to the country of Swaziland had a

website by the mid 90s. President Clinton commented, "When I took office, only high energy physicists had ever heard of what is called the World Wide Web… Now even my cat has its own page."

Late 90s - Explosion…

By the late 90s, the Internet WAS the headlines. Access for every American became the slogan for political and educational representatives alike. Wireless phones began displaying Internet messages, making communication a constant for everyone. The economy was holding steady with a boom for computer-related fields. Scandals and events were no longer saved until the evening news, but instant information became available to all. Technology was so integrated into daily life that the two were hard to separate.

It seemed as though everyone was on-line by the end of the 90s. I personally have talked with a grandmother in New York and someone in Tonga at the same time. In 1997, there were 19.5 million servers on the Internet and growing. By January 2001, the number of servers was 190 million.

Currently - Anyone's guess…

With the spread of hand-held devices, wireless everywhere, and more growth ahead, who knows where we will end up. More people in the world have cell phones than televisions. Internet use worldwide grew from 361 million in 2000 to about 2 billion in 2010, and it's growing still. We are in a great revolution, moving from the industrial age to the information age. Where do we go from here? The sky's the limit.