

# The History, Evolution and Future of Telecommunications

By Fred Boos, Co-Founder & Chief Innovator – RocketBux

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The first form of long distance communications was the electric telegraph invented by Samuel F. B. Morse. It was a basic electronic system using a series dots and dashes which represented letters and numbers. Circa 1840's.

By 1876, Alexander Graham Bell had invented the telephone, uttering the famous words, "Watson, come here, I need you". A massive historic evolution took place at that moment and the voice telephone is still in use today.

Voice phone calls dominated the communications scene until the late 1970's (over 100 years!). In 1980, AT&T developed and quickly sold over one million video phones. AT&T executives were convinced that the days of audible-only telephony was over. The video phones proved to be a fad and never emerged as a sticky evolutionary step.

Email came to fruition and widespread adoption began in the 1990's and has become an important communications tool today. Today, video conferencing (considered a niche market) is used semi-successfully, mostly by businesses.

SMS (Short Message Service) text messaging was developed in the 1990's as an alternative to voice calls, becoming wildly popular in the UK and Europe. In the early days of SMS, customers were rarely charged for roaming SMS but were charged exorbitant fees for voice roaming calls. Customers quickly found this out and adopted SMS as a primary communication tool. Furthermore, SMS became a rapid, polite, private and quiet way to communicate in public settings.

SMS derives its benefit from two absolute advantages compared to any other form of communication. SMS is the fastest form of communication if measured by actual communication throughput including instances such as the counterpart not being able to take a call, being out of radio coverage, listening to voicemail, etc. SMS at its worst is a few seconds slower than a direct voice call or Blackberry wireless e-mail etc, but in the best case is faster by hours or even days than any other form of communication. In many cases, an SMS can be composed, sent, received and responded to faster than a person could make a voice call and leave a voicemail. SMS messages tend to be read within 30 minutes where an email message tends to be read within 48 hours. SMS text messaging has established its own shorthand language due to the 160 character limit per text message. These shorthand abbreviated words are now accepted grammar and have found their way into email and handwritten language. An interesting aside, major publications are now more accepting of their own grammatical errors than they were 50 years ago!

Commercially SMS is a massive industry in 2006 with over 80 billion dollars spent globally. SMS has an average global price of 11 cents per message and maintains a near 95% profit margin. It is projected that SMS consumer prices will fall to near zero as carriers give SMS messaging as a free service to capture larger customer bases that will use more expensive high bandwidth data services and engage in mobile commerce

In summary, SMS text messaging with its own shorthand language is a full circle evolution to 1836 when Morse used his own shorthand language to further communications. Logically, there will be no evolution from here. It is now assumed that in some countries, 100% of newly minted 18 year olds use SMS text messaging as their primary form of telecommunication (many abandoning email altogether). It is foreseeable that SMS text messaging (with even shorter shorthand!) will become the dominant form of telecommunication over the next 100 years.

\*Author Footnote – Just the other day, my son said to me, “dad, I’ll be upstairs, text me when it’s time for dinner!” At that moment I questioned whether we might soon lose our ability to speak altogether.