

The Last Inch (A White Paper on the New Frontier in Man-Machine Interface)

Most people in the technology industry, particularly the telecommunications sector, are familiar with the term "The Last Mile." Wikipedia defines it as "the final leg of delivering connectivity from a communications provider to a customer. The phrase is therefore often used by the telecommunications and cable television industries. The actual distance of this leg may be considerably more than a mile, especially in rural areas."

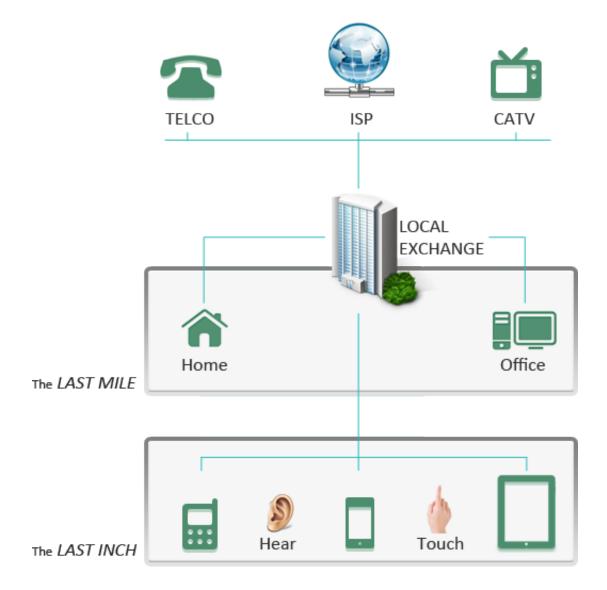
Today, as technology becomes more and more ubiquitous, as electronic communications devices become more and more personal and smaller, and as the applications that are delivered become increasingly granular and specific, "the last mile" ceases to adequately define the final leg of delivering the information, productivity, convenience, or entertainment to a customer - the end user. The Last Mile refers only to the connectivity to a premise, to a fixed physical location. Everyone now knows that the user does not remain there in one place - home or office - for long. A dizzying array of smart phone and tablet products are the instruments that actually transport the application to the user's eye, ear, mouth - and yes, their fingertips.

This trend is rapidly accelerating. The dynamic nature of the constant advances in hardware devices and mobile operating systems, the enormous variety and depth in application functionality, and the revolution in mobile deployment of social media networks has completely obsoleted the concept of The Last Mile. This leads us to suggest updating the metaphor to "The Last Inch". As we define it, The Last Inch represents the final distance linking the end user to the technology. This last gap is closed by a combination of connectivity, mobile device hardware, software - OS (iOS, Android, Blackberry, Windows Mobile) and application, and the user interface.

The entire mobility field, from global infrastructure to hand-held products to hundreds of thousands of "apps", is arguably a new frontier in technology. Never have all the elements of computing and automation individually and collectively changed so rapidly and continuously over time. As an example, traditional software development for mainframes, mini computers and personal computers was usually a larger expensive project. The development cycles could be measured in years. The revision cycles could also be annual or bi-annual.

Mobile apps have spun that model around. If you take the aggregate effects of new versions and updates to devices, operating systems, cellular infrastructures and social network platforms, mobility applications potentially need revision on a daily basis, and the development should be considered continuous.

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The Last Inch, mobility specifically, truly closes the final gap and creates a new paradigm in the man-machine interface. Devices will undoubtedly get even smaller, possibly even surgically imbedded under the skin behind your ear.

However, even anticipating this "Last Micron", it will be a long time before the characteristics of the technology phase labeled here as The Last Inch will itself become obsolete.

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