Current Impact and Future Trends of Mobile Devices and Mobile Applications

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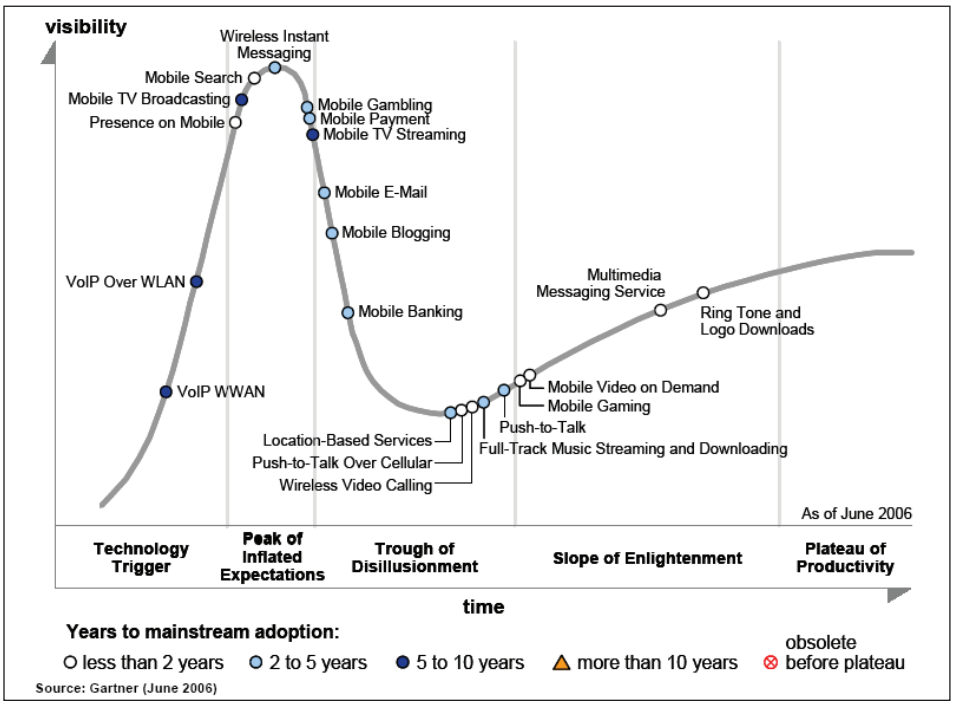
INTRODUCTION: IMPACT OF MOBILE DEVICES ON PEOPLE

People have become accustomed to changes in their environment with every new generation of technology. It is through the shift in technology that people are seeing the world through new views and paradigms. We see these paradigm shifts in phases, such as when our parents went from listening to radio to watching television. We have seen the shift in the paradigm when our generation went from stand-alone personal computers to retrieving information off the Internet (Singh, 2003). But the latest shift in paradigm is the explosive developments of the mobile devices and the applications that are constantly being expanded upon to further the potential use of these devices from everyday personal needs to strategic business processes. People today are reeling from the benefits of mobile devices through increased productivity. The people that are benefiting the most are the mobile workers, especially the executives, middle management managers, and salespeople who are not bound by a desk or specific work locations (Cozza, 2005). Mobile devices have given added levels of service to people by allowing them to stay on top of customer support through improved customer care that has increased the company return on investment (Cozza, 2005). Employees can now access their e-mail, contacts, corporate data and up to date meeting schedules by proving invaluable asset information to the corporate employee of today.

Figure 1. The Hype Cycle for consumer mobile applications



As illustrated in Figure 1, each hype cycle model follows five stages (Shen, Pittet, Milanesi, Ingelbrecht, Hart, Nguyen et al., 2006):

1. **Technology trigger:** The first phase of a Hype Cycle is the "technology trigger" or breakthrough, product launch, or other event that generates significant press and interest.
2. **Peak of inflated expectations:** In the next phase, a frenzy of publicity typically generates overenthusiasm and unrealistic expectations. There may be some successful applications of a technology, but there are typically more failures.
3. **Trough of disillusionment:** Technologies enter the "trough of disillusionment" because they fail to meet expectations and quickly become unfashionable. Consequently, the press usually abandons the topic and the technology.
4. **Slope of enlightenment:** Although the press may have stopped covering the technology, some businesses continue through the "slope of enlightenment" and experiment to understand the benefits and practical application of the technology.
5. **Plateau of productivity:** A technology reaches the "plateau of productivity" as the benefits of it become widely demonstrated and accepted. The technology becomes increasingly stable and evolves in second and third generations. The final height of the plateau varies according to whether the technology is broadly applicable or benefits only a niche market.

The impact of mobile devices on experiences that people have goes way beyond the individual. Corporations feel the impact as they rely on their employees to stay abreast of hour-by-hour changes in the company daily business. Corporate IT staff that are responsible for supporting the mobile devices at the corporate offices have their own set of challenges in their everyday work routines. Many companies are required to staff positions specifically around supporting the mobile infrastructure. This is normally something companies do not take into consideration when they are looking at total cost of ownership in supplying mobile devices to employees (Cozza, 2005). IT staffing personal are also affected by deployment of these devices due to the responsibility of maintaining the control of the hardware, licensing agreements, and the profiles associated with each device. Mobile devices can impact people even if they don't actually have one. If companies do not follow a strict security policy in securing the access and use of mobile devices, all employees can be affected when data is compromised.

IMPACT OF MOBILE DEVICES ON THE ENVIRONMENT

Mobile devices are small data-centric handheld computers (Cozza, 2005). They are about one pound or less in weight. People are incorporating them into their everyday life and use cell phones for talking, but they are also starting to use the cell phone for (SMS) messages, sending pictures, and graphics (Singh, 2003). Personal digital assistant, also called the PDA, is another device that is growing in corporate America. It offers the individual the ability to view high-resolution graphics, handwriting recognition, and a point-and-click pen to make it easier to navigate around the device (Singh, 2003). The devices are impacting corporate data by allowing information to be accessed and downloaded to a mobile device. It is expanding the tools which employees use to function in their everyday jobs. Yet another important mobile device impacting our lives is the pocket pc. It is a fully powered personal computer. It may not have the same abilities as the workstation back at the office, but it does increase the efficiency of the corporate employee by giving them added features to manipulate the corporate data stored locally on the mobile device. The market strength of the mobile devices is currently limited to only a few vendors. The vendors with devices that are known for impacting the environment are Dell, HP, Nokia, Palm, and RIM (Cozza, 2005). The vendors with mobile device operating systems that are known for impacting the environment are Microsoft Windows Mobile, Palm OS, RIM OS, and Symbian OS (Cozza, 2005).

Mobile Applications

People today are thirsting more and more for new and creative mobile applications. The highest impact of mobile applications to date has been surrounded around short message service (SMS) and ring tones (Gartner, 2006). The near future impact of mobile applications will appear to be strongest in mobile messaging applications, like e-mail service and instant messaging, which is gaining ground with the younger generation