

Interactive Mobile Telecommunications Systems

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Abstract

In the last years mobile communications market has experienced an accelerated growth through the introduction of the third generation of mobile technology (3G), followed in late 2009 by public launch of the LTE standard (4G Long-Term Evolution). Mobile communications have continued to rapidly evolve beyond the need for voice use only. With the development of Internet, mobile networks offer now data services, multimedia streaming and access to files and applications stored in cloud, thus increasing technical challenges and complexity of equipment which must perform the required services in terms of quality. A telecommunications complex system can be seen as an interactive system in which built-in functions must be in compliance with the requirements of the tasks which the user will perform by interacting with it. In addition to evaluation in terms of functionality, it is very important to measure the impact that the design of a system has on the user. This may include aspects related to ease of learning of systems' facilities, usability and the user's attitude toward the system. This paper is an overview of mobile telecommunications systems, describes the concept of usability in the design of telecommunications networks and presents aspects of monitoring network devices.

Keywords: mobile systems, telecommunications network, 3G, 4G, UMTS, usability

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