

## Chapter 18

# Mobile Applications as Mobile Learning and Performance Support Tools in Psychotherapy Activities

**Maria Luisa Pérez-Guerrero**

*Universidad Politecnica de Catalunya, Spain*

**Jose María Monguet-Fierro**

*Universidad Politecnica de Catalunya, Spain*

**Carmina Saldaña-García**

*Universidad de Barcelona, Spain*

### **ABSTRACT**

*The purpose of the chapter is the analysis of mobile applications as performance and informal learning support tools that facilitate the development of the psychotherapy process. The “e-therapy” has become a common term to refer the delivery of mental health services, on-line or related to a computer mediated communication between a psychotherapist and the patient. Initially, a background on e-therapy will be provided through the analysis of the existing related literature, the description of the state of the art. After this general view as starting point, the “self-help therapy”—a kind of e-therapy where the concept of patient empowerment is important— will be exposed to depict the importance of patient activities beyond the clinical settings in the rehabilitation process. Then, the integration of mobile devices in the psychotherapy process will be explained considering how their technological features support patient therapeutic activities like behavior assessment and informal mobile learning. The relation of the mobile devices with psychotherapist work activities such as evidence gathering and patient monitoring will also be explained. The chapter follows with a discussion on the mobile learning practices as a source of potential strategies that can be applied in the therapeutic field and finally a set of recommendations and future directions are described to explore new lines of research.*

DOI: 10.4018/978-1-60960-042-6.ch018

## **INTRODUCTION**

The integration of mobile applications with existing therapies or treatments is relatively new, and has not been studied in depth. This chapter falls within the area of psychology, and more specifically within the process of psychotherapy, considered as one continuous interactive process from the perspective of the information systems. The integration of Information and Communication Technologies (ICT) in therapy enhances or facilitates particular stages of the process. The field that relates ICTs to psychotherapy is known as e-therapy, and self-help therapy is one kind of therapy-ICT practices supported by mobile devices. Mobile applications (using mobile devices) provide greater validity and generalizability, since data are collected in the patient's natural environment. Therapy process requires an informal learning process in the patient; performance support and mobile devices are useful tools for these purposes. Therefore, the mobile learning strategies have a potential application and may allow the exploration of new practices in the e-therapy field. This offers an interesting field for the ICT research.

The main challenge in this new field is that application developers and therapists understand the strengths and weaknesses of the technology in order to integrate it into appropriate pedagogical –learning– and therapy practices.

## **BACKGROUND**

### **Telehealth, E-Health and E-Therapy**

The integration and acceptance of Information Communication Technologies (ICT) in the field of psychology is yet an incomplete process. The only activities pursued up to now in this area have been related in most of the cases to applications of personal computers (PCs). Internet tools such as e-mail, websites, videoconferences, chats, and

forums are used to support both synchronous and asynchronous activities between patients and therapists, and even among patients.

According to the existing literature, the integration of mobile applications to therapies or treatments is rare and limited. The potential of these applications as auxiliary tools has not been studied in depth.

This chapter falls within the area of psychology, and more specifically within the process of psychotherapy. The study of the psychotherapeutic process has been conducted from the perspective of information systems, i.e. the way in which ICTs have been integrated as support tools for the system known as psychotherapy. The main goal is to determine whether it is possible to integrate applications in mobile devices to produce tools that facilitate the development of a number of therapeutic activities. This section provides definitions for the most important concepts used to tackle the relation between psychotherapy and ICTs.

Psychotherapy is a relation built throughout a series of collaborative sessions between psychotherapists and their patients. It is a continuous interactive process that takes place traditionally in a face-to-face format, using a verbal language or a written one. For any kind of psychotherapy to be effective, communication must occur and a relationship between patient and therapist must be established. (Grohol, 2001) Psychotherapeutic work is generally supported through communication tools such as paper, the telephone or even videotapes.

Computer-mediated communication (CMC) provides new tools that can be successfully applied to psychotherapy. These ICTs do not substitute traditional techniques and approaches, but they could be integrated into the clinical process, in order to enhance or facilitate particular stages of the process. (Castelnuovo, 2003).

During the integration process, new concepts have arisen, such as telehealth, which can be defined as the use of telecommunications and information technologies to provide access to

11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/mobile-applications-mobile-learning-performance/50593](http://www.igi-global.com/chapter/mobile-applications-mobile-learning-performance/50593)

## Related Content

---

### A Survey of Visual Traffic Surveillance Using Spatio-Temporal Analysis and Mining

Chengcui Zhang (2013). *International Journal of Multimedia Data Engineering and Management* (pp. 42-60).

[www.irma-international.org/article/a-survey-of-visual-traffic-surveillance-using-spatio-temporal-analysis-and-mining/95207](http://www.irma-international.org/article/a-survey-of-visual-traffic-surveillance-using-spatio-temporal-analysis-and-mining/95207)

### A Combination of Spatial Pyramid and Inverted Index for Large-Scale Image Retrieval

Vinh-Tiep Nguyen, Thanh Duc Ngo, Minh-Triet Tran, Duy-Dinh Le and Duc Anh Duong (2015). *International Journal of Multimedia Data Engineering and Management* (pp. 37-51).

[www.irma-international.org/article/a-combination-of-spatial-pyramid-and-inverted-index-for-large-scale-image-retrieval/130338](http://www.irma-international.org/article/a-combination-of-spatial-pyramid-and-inverted-index-for-large-scale-image-retrieval/130338)

### Video Abstraction Techniques for a Digital Library

Hang-Bong Kang (2002). *Distributed Multimedia Databases: Techniques and Applications* (pp. 120-132).

[www.irma-international.org/chapter/video-abstraction-techniques-digital-library/8618](http://www.irma-international.org/chapter/video-abstraction-techniques-digital-library/8618)

### DMMS-Based Multiple Features Fusion for Human Action Recognition

Mohammad Farhad Bulbul, Yunsheng Jiang and Jinwen Ma (2015). *International Journal of Multimedia Data Engineering and Management* (pp. 23-39).

[www.irma-international.org/article/dmms-based-multiple-features-fusion-for-human-action-recognition/135515](http://www.irma-international.org/article/dmms-based-multiple-features-fusion-for-human-action-recognition/135515)

### Expert-Novice Differences and Adaptive Multimedia

Slava Kalyuga (2006). *Digital Multimedia Perception and Design* (pp. 206-223).

[www.irma-international.org/chapter/expert-novice-differences-adaptive-multimedia/8429](http://www.irma-international.org/chapter/expert-novice-differences-adaptive-multimedia/8429)