Abstract

Medical services on the Internet are modern alternative to traditional medical care supporting many functions of healthcare process. In order to improve quality and usability of upcoming tools, evaluation of existing solutions may provide valuable insight for further developments. Therefore the objective of this study was to analyze functionalities of selected telemedical applications. Our analysis provided overview of most widely-used tools and their functionalities. We discriminated three important groups of telemedical applications which were further characterized by ascribing specific functionalities considering also main and supporting role of these functionalities in each group. Our analysis resulted in extensive yet non-exhaustive list of functionalities. Based on data ontology commonly used in medical applications we distinguish three main groups of applications: Communication and social networks, Self-observation, monitoring and diagnosis, Support for medical professionals. Functional analysis for each group of medical applications was performed based on selected cases. According to the findings from our study the major criterion that allows to disentangle the heterogeneity of medical application functionalities is professionalization of the medical application. It is plausible that in future different groups of applications will become even less distinguishable due to increasing applicability of social network features in web applications but also because of increasing popularity of e-health add-ons and tools which are becoming
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increasingly integrated with complementary solutions. We also identified some unexplored potential of medical applications in the field of disease prevention.

References

- Cryer, L., Shannon, S. B., Van Amsterdam, M. and Leff, B. Costs For Hospital At Home; Patients were 19 percent lower, with equal or better outcomes compared to similar inpatients. Health Affairs. 2012, 31(6), pp. 1237-1243.

**Index Terms**

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**Keywords**

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