

عنوان مقاله:

Determining of optimal telemedicine communication technologies with regards to network interactive modes: A Delphi survey

محل انتشار:

مجله پیشگامان انفورماتیک سلامت, دوره 10, شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Mostafa Shanbehzadeh - Assistant Professor, Department of Health Information Technology, School of Paramedical, Ilam University of Medical Sciences, Ilam, Iran

Hadi Kazemi-Arpanahi - Assistant Professor, Department of Health Information Technology, Abadan Faculty of Medical Sciences, Abadan, Iran- Student Research Committee, Abadan Faculty of Medical Sciences, Abadan, Iran

Mohammad Mahbubi - Associate Professor, Department of public Health, Abadan Faculty of Medical Sciences, Abadan, Iran

خلاصه مقاله:

Introduction: Different communication services with varying bandwidth are used to send information in the form of telemedicine technology. Bandwidth management, as defined in telemedicine technology, refers to using the desirable communication services according to the type of transaction and the information size to be transferred. Selection of communication services must be in such a way to result in minimum latency in the process of sending information and maintaining maximum cost-effectiveness. **Material and Methods:** This is an applied research which was conducted in ۲۰۱۹ by questionnaire survey amongst ۶۰ participants, specialized in health information technology and medical informatics, who are working in hospitals and educational institutions of Tehran. Likert rating scale was used to quantify the research questions. Finally, by analyzing each weighted average, this study revealed the desirable communication services that correspond to the required transactions for deployment of telemedicine. **Results:** Transfer of multimedia information, using synchronized teleconferencing via primary low bandwidth technologies, had the lowest number average (۰.۹۶) and transmission of hybrid data (combination of picture, text, multimedia templates in synchronized or asynchronized modes) via Asymmetric Digital Subscriber Line (ADSL) technology had the highest average (۴.۹۶). **Conclusion:** Selection of communication services, with regard to its convergence with the information size and the type of their application, plays a significant role in controlling network traffic and preventing latency in the process of sending information in the context of telemedicine technology. High bandwidth communication services should be used for those telemedicine systems, which are offering services to many users, as well as those in which real-time transmission of information is essential. It needs to be pointed out that with regard to the cost-effectiveness of sending information, it is necessary to use low-cost services with low bandwidth for transfer of light weight information as well as for asynchronous applications in which latency in the process of information transfer is not detrimental.

کلمات کلیدی:

Telemedicine, Bandwidth, Interactive Modes, Communication Services

