LITERATURE SURVEY

DOMAIN: Cloud Application Development

TOPIC: Plasma Donor Application

1.Free Blood Donation Mobile Applications.

Author: Sofia Ouhbi · Jose Luis Fern ´ andez-Alem ´ an´ · Ambrosio Toval · Ali Idri · Jose Rivera Pozo

Absract

Blood donation (BD) is a noble act and mobile applications (apps) can help increase awareness about it. This paper analyzes and assesses the characteristics of free apps for BD as regards features and functionality. A search in Google Play, Apple Apps store, Blackberry App World and Windows Mobile App store was carried out to select 169 free BD apps from the 188 apps identified. The results presented in this paper show that the majority of the apps selected have been developed for the Android operating system. Moreover, most of the apps selected are available to help users search for donors. Few of the apps could not be installed and/or accessed. Of those that could be installed: half of them do not require any kind of authentication; a few of them are available in more than one language; half of them have a geographical restriction; around 60 % of them do not

notify the user of BD events and requests; one, which is available for Android and iOS, can connect with a laboratory; around 45 % of them allow users to share information via social networks, and the majority of them do not provide BD recommendations. These results are used as a basis to provide app developers with certain recommendations. There is a need for better BD apps with more features in order to increase the number of volunteer donors.

REFERLINK:

https://www.researchgate.net/publication/274699048_Applying_ISOIEC_25010_on_Mobile_Personal_Health_Records

2. An exploratory study on the evolution of Android malware quality.

Author: Francesco mercaldo, Andrea Di Sorto,Corrado Aaron,visaggio,Anielo cimitile,Fabiomartinelli

Absract

In the context of software engineering, product software quality measures how well a software artifact is designed and coded. Software products must satisfy nonfunctional properties (eg, reliability, usability, understandability, and maintainability), in order to make maintenance and evolution sustainable in the long period. Software evolution is an issue of interest for the malware writers, too, for 2 reasons. First, to evade detection with the minimum effort, malware writers use to produce “variants,” which are obtained by applying little changes to existing malware. Morevoer, recent studies demonstrated that malware is increasingly improving evasion strategies and infection mechanisms and is using more and more complex payloads. This suggests that malware writers are devoting relevant efforts and skills for producing high-quality software. For

this reason, we wonder whether malware writers are devoting effort to improve the structural quality of their code, too, as it happens in the development of goodware. To investigate this question, we (1) characterize a dataset containing about 20 000 Android applications, divided into goodware and malware ones, relying on the Android API version they require, and (2) compute software quality metrics, divided into 4 categories (ie, dimensional, complexity, object-oriented, and Android-oriented metrics) for apps belonging to each population. We then identify evolution trends of these metrics in malware and goodware. The results of our study demonstrate that goodware and malicious applications exhibit similar evolution trends for some of the quality indicators, suggesting that malware writers care about the overall quality of their code. Code quality could be considered an indirect measure of how many and how fast variants of existing malware will be released in the wild.

REFER LINK: https://doi.org/10.1145/2396756.2396759

3.**Municipal WiFi and interactive displays: Appropriation of new technologies in public urban spaces:**

Author: Ylipulli, Johanna & Suopajärvi, Tiina & Ojala, Timo & Kostakos, Vassilis & Kukka, Hannu

Absract

This study focuses on the appropriation process of two public computing infrastructures in the City of Oulu, Finland, a municipal WiFi network and large interactive displays. We analyze the adoption of these technologies in public urban

places with a conceptual technology appropriation model involving three layers of factors contributing to the adoption or rejection of a technology. Quantitative data shows that while the use of the WiFi network has grown steadily, the use of the displays has been declining. Qualitative data obtained with ethnographic methods reveals that the adoption of the displays is hampered by their questionable utility and people's apprehension about interacting with the displays in a public social setting. Finally, we identify issues that designers should take into account when deploying these technologies in urban spaces in the future.

REFERE LINK:

https://ideas.repec.org/a/eee/tefoso/v89y2014icp145-160.html

4. Mobile health applications:the patchwork of legal and liability issues suggests strategies to improve oversight

Author: Y Tony Yang, Ross D Silverman

Absract

Mobile health (mHealth) technology has facilitated the transition of care beyond the traditional hospital setting to the homes of patients. Yet few studies have evaluated the legal implications of the expansion of mHealth applications, or "apps." Such apps are affected by a patchwork of policies related to medical licensure, privacy and security protection, and malpractice liability. For example, the privacy protections of the Health Insurance Portability and Accountability Act (HIPAA) of 1996 may apply to only some uses of the apps. Similarly, it is not clear what a doctor's malpractice liability would be if he or she injured a patient as

the result of inaccurate information supplied by the patient's self-monitoring health app. This article examines the legal issues related to the oversight of health apps, discusses current federal regulations, and suggests strategies to improve the oversight of these apps.

REFER LINK: https://pubmed.ncbi.nlm.nih.gov/24493764/

5. How to identify, assess and utilise mobile medical applications in clinical practice

Author: T D Aungst, K A Clauson, S Misra, T L Lewis, I Husain

Absract

There are thousands of medical applications for mobile devices targeting use by healthcare professionals. However, several factors related to the structure of the existing market for medical applications create significant barriers preventing practitioners from effectively identifying mobile medical applications for individual professional use.

Resources available on the Internet regarding mobile medical applications, guidelines and published research on mobile medical applications. Searching and identifying mobile medical applications requires clinicians to utilise multiple references to determine what application is best for their individual practice methods. This can be done with a cursory exploration of mobile application stores and then moving onto other available resources published in the literature or through Internet resources (e.g. blogs, medical websites, social

media). Clinicians must also take steps to ensure that an identified mobile application can be integrated into practice after carefully reviewing it themselves.

REFER LINK: https://pubmed.ncbi.nlm.nih.gov/24460614/

6. Features of Mobile Diabetes Applications: Review of the Literature and Analysis of Current Applications Compared Against Evidence-Based Guidelines

Author: Taridzo Chomutare, Luis Fernandez-Luque, Eirik Årsand, and Gunnar Hartvigsen.

Absract:

Interest in mobile health (mHealth) applications for self-management of diabetes is growing. In July 2009, we found 60 diabetes applications on iTunes for iPhone; by February 2011 the number had increased by more than 400% to 260. Other mobile platforms reflect a similar trend. Despite the growth, research on both the design and the use of diabetes mHealth applications is scarce. Furthermore, the potential influence of social media on diabetes mHealth applications is largely unexplored.

REFER LINK: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3222161/

7. Use of an agent-based simulation model to evaluate a mobile-based system for supporting emergency evacuation decision making

Author: Yu Tian [1], Tian-Shu Zhou, Qin Yao, Mao Zhang, Jing-Song Li

Abstract:

Recently, mass casualty incidents (MCIs) have been occurring frequently and have gained international attention. There is an urgent need for scientifically proven and effective emergency responses to MCIs, particularly as the severity of incidents is continuously increasing. The emergency response to MCIs is a multi-dimensional and multi-participant dynamic process that changes in real-time. The evacuation decisions that assign casualties to different hospitals in a region are very important and impact both the results of emergency treatment and the efficiency of medical resource utilization. Previously, decisions related to casualty evacuation were made by an incident commander with emergency experience and in accordance with macro emergency guidelines. There are few decision-supporting tools available to reduce the difficulty and psychological pressure associated with the evacuation decisions an incident commander must make. In this study, we have designed a mobile-based system to collect medical and temporal data produced during an emergency response to an MCI. Using this information, our system's decision-making model can provide personal evacuation suggestions that improve the overall outcome of an emergency response. The effectiveness of our system in reducing overall mortality has been validated by an agent-based simulation model established to simulate an emergency response to an MCI.

REFER LINK: https://pubmed.ncbi.nlm.nih.gov/25354665/

8.The aging population poses a global challenge for blood services

Author: Akif Ali, Marja-Kaisa Auvinen, Jukka Rautonen

Abstract:

The Finnish transfusion registry data suggest some alarming signals and future challenges that are likely to be faced by transfusion services as populations continue to age.Computerized data collection was performed on all potentially transfused patients in Finland, thus covering approximately 70% of all blood usage. We simulated the red blood cell (RBC) usage according to the Finnish practice on different age groups but the population demographics from other countries. A large part of the variation in RBC use per capita can be explained by the age distribution of the different populations and not by the different national and regional treatment policies and protocols used. If current efforts are not enough to serve the changing population demographic and if increasing demands for blood products cannot be met, there is need to consider unprecedented measures such as reversing certain donor deferrals or even exporting blood from country to country.

REFER LINK: https://pubmed.ncbi.nlm.nih.gov/19912582/

9. Mobile Blood Donation Application

Author: Hassan, Otman Mohamed M.

Abstract:

The importance of blood in human existence and wellbeing cannot be underrated. Blood has been regarded as the basis of human living, thus if it is not in short of, human healthmight be at risk. Thus blood banking and blood donation in any medical operation for saving human's life must be readily available. In this study, the researcher proposed the development of a WAP-based blood application system that enables voluntary blood donors to apply to donate blood anywhere and at anytime, with the aim of solving the problem experience in the traditional blood donation application.

REFER LINK: http://etd.uum.edu.my/2353/

10. Evidence-based selection criteria to protect blood donors

Author: Anne Eder

Abstract:

A safe and adequate blood supply depends on healthy,volunteerblood donors. Blood centers have instituted various screening procedures in an effort to determine that donors are free of diseases that can be transmitted to patients by blood transfusion and are able to tolerate the collection procedure without experiencing significant complications. This review focuses on selection criteria intended to minimize the risk to the blood donor. Defining a rational, evidence-based approach to donor selection is crucial not only to take reasonable precautions to protect the donors' health but also to eliminate practices that lead to the

unnecessary deferral of large numbers of people without improving the safety of the donation process. Donor selection criteria, including predonation pulse and blood pressure, donor weight and total blood volume, minimum hemoglobin and donation interval, are considered against the available evidence that support or suggest the need to modify the current approach to protect blood donor health.

REFERLINK: https://pubmed.ncbi.nlm.nih.gov/20824625/

11. Investigating the increase in mobile phone evidence in criminal activities

Author: Glisson, W. and Bromby, M

Abstract:

The magnification of mobile devices in everyday life prompts the idea that these devices will increasingly have evidential value in criminal cases. While this may have been assumed in digital forensics communities, there has been no empirical evidence to support this idea. This research investigates the extent to which mobile phones are being used in criminal proceedings in the United Kingdom thorough the examination of appeal judgments retrieved from the Westlaw, Lexis Nexis and British and Irish Legal Information Institute (BAILII) legal databases. The research identified 537 relevant appeal cases from a dataset of 12,763 criminal cases referring to mobile phones for a period ranging from 1st of January, 2006 to 31st of July, 2011. The empirical analysis indicates that mobile phone evidence is rising over time with some correlations to particular crimes.

REFER LINK: https://pubmed.ncbi.nlm.nih.gov/20824625/