Smartphones, tablets and mobile applications for radiology: An update

András Székely

Kenézy Gyula Kórház és Rendelőintézet Hospital, Hungary

C martphones and tablets have become very popular among the general public and medical professionals, as well. These easy- ${f U}$ to-use devices equipped with excellent displays may be used for diagnostic reading, reference, learning, consultation, and for communication with patients. Mobile devices may be categorized based on the mobile operating system that they use. The aim of this study is to illustrate how smartphones and tablets can be used by diagnostic imaging professionals, radiographers and residents; and to introduce relevant applications that are available for their field. A search was performed on iTunes, Android Market, Blackberry App World, and Windows phone marketplace for mobile applications pertinent to the field of diagnostic imaging. The following terms were applied for the search strategy: (1) Radiology, (2) X-ray, (3) ultrasound, (4) MRI, (5) CT, (6) Radiographer and (7) Nuclear medicine. Two radiologists reviewed the results. Our review was limited to English-language software. Additional applications were identified by reviewing the list of similar software provided in the description of each application. We downloaded and installed all applications that appeared relevant to an appropriate mobile phone or tablet device. We identified and reviewed a total of 413 applications. We ruled out 21 Non-English application and 40 other applications that were created for entertainment purposes. Thus our final list includes 352 applications in the following five categories: Diagnostic reading, decision support applications, medical books, interactive encyclopedias, and journal reading programs. Smartphones and tablet computers offer new opportunities for diagnostic imaging practitioners. They provide limited opportunities in diagnostic reading, but mobile devices will be vital for teaching and learning especially for the younger generations. Decision support applications should be used while observing patient's rights.

Biography

András Székely is a board certified radiologist currently working at Kenézy Hospital in Debrecen, Hungary. He has also enrolled for PhD and his aim is to develop a mobile based decision support tool for Neuroradiology. He has presented the results of his research at numerous Radiological Conferences including RSNA, ECR and ARRS. He has published 5 original papers, and gave presentations at two international conferences.

andraz.szekely@gmail.com

Notes: