App Review Series: CTisus iPearls

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Abstract

Thousands of “pearls” or facts related to radiology or imaging are accessible through a categorically organized user interface. Pearls are divided up into anatomical regions, as well as non-organ-specific categories. Information is easily accessible with an ad-free interface matched with full offline capability. User interface leaves much to be desired as it appears dated and difficult to navigate at first. Pearls are not easily searchable within the application and unexperienced users may find it difficult to quickly answer targeted questions using this application alone. This application compiles pearls of wisdom pulled from thousands of peer-reviewed publications and organizes them in an easy to use format. While this is designed with the well-informed user in mind, it can serve as an excellent resource for users of all levels of experience seeking bite-sized pieces of imaging-related information.

Keywords Radiology · Imaging · Pearls · Clinical pearls · Reference · CTisus · iPhone app · App review

Introduction

CTisus is a web-based company headquartered in Baltimore, MD, that is dedicated to providing high-quality content for professionals in the field of radiology. The focus of their work, as noted by their name, is Computed Tomography and CT Scanning. Their website has developed an expansive collection of content ranging from imaging protocols, weekly and daily lectures, medical illustrations, case studies, monthly quizzes, and over 250,000 images to date.

Outside of their website, CTisus has developed over a dozen applications that aim to consolidate their wealth of information into clinically usable platforms. One of the key features of CTisus is their publication of between 40 and 100 clinical pearls each month, and with this CTisus iPearls application they sought to organize these pearls in a format that was of use to professionals on a daily basis. Starting with Version 1.0 in 2013, CTisus routinely updates the application with new clinical pearls, and as of this review, Version 5.0 is available with thousands of pearls in 28 individual categories.

Purpose/Features/Content

The purpose of this application is simple: to provide a resource for professionals to quickly scan and utilize the thousands of clinical pearls which CTisus has been publishing for years. While it would be simple to create a list of all the published pearls and just simply categorize them, CTisus wanted to create a usable interface with which users could quickly pinpoint the exact piece of information or category of information they are searching for.

When you open the app, you are immediately taken to a home screen that includes a letter from the author which describes the purpose of this application, as shown in Fig. 1. On the bottom of the screen two icons read: Anatomical Regions and Non-Organ Specific Categories. Click on the Anatomical Regions icon and you are taken to a new screen showing a labeled diagram of the human body, as seen in Fig. 2. This diagram displays the 17 organ systems or anatomical regions from which you can choose to investigate further. Clicking on any of these labels takes you to another screen that displays a list of further subcategories to choose from, as shown in Fig. 3. These subcategories are presented in alphabetical order and are the groupings under which the pearls are presented. Finally, clicking on any of these subcategories dims the background and presents one of the clinical pearls in full quotation format, with a citation followed at the bottom, if applicable, as shown in Fig. 4. Should you choose a category that has multiple pearls associated with it, two arrows are displayed on the

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Fig. 1 Main menu

right side of the screen which you can click to browse through the various facts. Going back to the home screen and choosing the second icon, you are brought to a screen that lists several subcategories that include the miscellaneous pearls independent of the listed anatomical regions, as shown in Fig. 5.

One of the best features of this application is its lack of dependence on internet connectivity. Once you download the app, you never have to connect to the internet again. While this does leave room for the application to become outdated, the developers have consistently delivered updates about once a year to ensure it remains relevant.

Fig. 2 “Anatomical Regions” screen

Fig. 3 Sample “Chest” subcategory screen

It should be noted that this application is intended to be used by radiologists, and is not necessarily directed towards students. Usability of this application is dependent on the users' knowledge base, and the uninformed user, such as a medical student, would likely have a hard time pinpointing the specific subcategory that would answer his or her question.

Usability

While the user interface is clean and straight forward, the design seems a bit dated. On first use, it is initially unclear where you are supposed to tap and how the application is meant to be used, but it is a quick study. The inclusion of a

Fig. 4 Sample “Lung Cancer” pearls screen with sample pearl displayed

Fig. 5 “Non-Organ Specific Categories” screen

diagram of the human body, as opposed to a list of organ systems, serves to highlight the clinical utility of this application and is a nice addition. Although some pearls are presented in paragraph form, many are presented in bullet point format which allows the app to be used quickly in the clinic setting. The lack of a search bar severely limits its utility and may force users to individually browse through multiple subcategories before completing their search, limiting its reference capability.

Good

Overall, the developers did a great job compiling a wealth of data into a meaningful format that is of use to both professionals and students alike. The application is relatively easy to use and can function on the go, regardless of internet connectivity. The inclu-

sion of references is one of the most important components that makes this such a wonderful application. Whether used as a reference or a means of study, members of the medical community will benefit greatly from using this app.

Room for Improvement

The lack of a search bar is a real limiting factor for this application. Users of medical applications often want to spend as little time as possible in order to answer their specific inquiry and the addition of a search bar would drastically increase the usability of this application. The UI could use some visual improvements. Links that connect you directly from the pearls to the references would really enhance the user experience for further study. Lastly, support for other iOS devices and other platforms would increase the reach of this wonderful application and should be considered.