Johns Hopkins Atlas of Pancreatic Pathology iPAD Application

Published date: Feb. 24, 2017

Technology description

The Johns Hopkins Atlas of Pancreatic Pathology
Invention novelty:The invention is a software app developed for Apple iPad platform as an educational tool for learning about the pathology of human pancreas.
Value Proposition
With the advent of improved mobile display and gesture-based user interface, several educational tools are being developed on mobile operating systems such as the iOS and Android. The Johns Hopkins Atlas of Pancreatic Pathology is a one of a kind software app developed on the Apple iPad enhancing learning of medical concepts through interactive exposure to a broad range of examples.
Technical Details
Johns Hopkins researchers have developed an educational software application for the Apple iPad called 'The Johns Hopkins Atlas of Pancreatic Pathology'. It serves as an educational tool for medical practitioners and medical students for the pathology of the human pancreas. The software application consists of three modules namely an interactive teaching algorithm, a searchable image atlas and an image-based quiz. The teaching module consists of series of usually dichotomous decision points, such that the user can view atlas images with relevant features at each branch point. The teaching algorithm is enriched with 26 original medical illustrations and links to six instructional animations streaming from YouTube. The modules share a single database which contains 1481 images and 115 diagnostic entities. The application effectively exploits the iPad's intuitive and gesture-based user interface. The application was programmed using the Objective-C language, Xcode4 IDE and iOS SDK version 4.3. The app's atlas and quiz data were authored in Microsoft Access 2010 and imported into an SQLite3 database on the iPad. Teaching algorithm data were stored in property list files using extensible markup language (XML). Use of XML as a data source allows the application content to be developed and managed independently outside of the application runtime environment.
Publication(s)/Associated Cases: “Not at this time”

Advantages

· High-resolution photographic illustration of concepts and diagnoses, which cannot be obtained

through textbooks.
· Incorporates three modules namely an interactive teaching algorithm, a searchable image atlas, and an image-based quiz.
· Assists in providing a logical, expert-based approach to arriving at diagnoses for several pancreatic ailments.

Institution

Johns Hopkins University

Inventors

Ralph Hruban
Professor
Pathology SOM
Corinne Sandone
Associate Professor
Art as Applied to Medicine
Toby Cornish
Assistant Professor
Pathology SOM
Bona Kim
Employee
Pathology SOM

联系我们

叶先生

电 话：021-65679356

手 机：13414935137

邮 箱：yeyingsheng@zf-ym.com