

Application of Augmented Reality in the teaching and learning of Oral Histology

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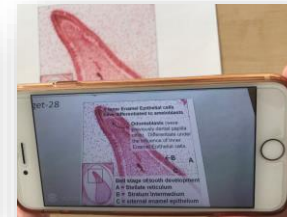
Background

Flashcards are the most popular method of learning. This method is helpful only for motivated students because the amount and timing of flashcard use are critical for success. Current students, who are digital natives, often lack the time and motivation to create and use flashcards effectively. We have used the relationship between students and their smartphones to create new options for higher education.

Augmented Reality (AR) incorporates digital information into real-world space. We have applied AR (using Unity 3D) to develop an application, called 'Dental AR' that allows students to use their smartphones as flashcards.

Dental AR in action

We used oral histology slides as the target image and annotated slides as outputs. Dental AR runs on both iOS and Android devices.



Try it yourself !



Dental AR



Conclusion

Students in the School of Dentistry at the University of Alberta are using Dental AR.

Using this app, students can learn and self-test their learnings at their own ease.

Instructors can use the app to provide additional study-aids for the students.

Surveys and Focus groups will be conducted to gather further insights regarding usability and further improvement of the application.