

Introducing a Digital Platform for Clinical Case Portfolios: One-year experience of real-world use at the Faculty of Dentistry



Prof. Mihai Tarce
Periodontology & Implant Dentistry
Faculty of Dentistry
mihai@hku.hk

Introduction

We are currently changing the way clinical briefings are held at the Faculty of Dentistry, by making use of a specialized online platform (available at <https://teeth.hku.hk>). This process started in September 2023, and we would now like to report on our one-year experience, as well as on potential applications we would like to explore in the near future.

Material & methods

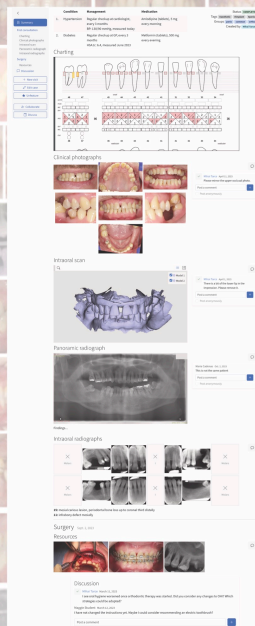
The website is hosted internally on an HKU server and supports multiple media types (such as formatted text, clinical photographs, 2D and 3D radiographs, digital 3D models, videos, whole slide histology), collaboration (so that several students/staff can contribute to the same case), template-based case creation and interaction with the material (by means of feedback/comments from both staff and students).



The initial briefing setting. Each student presents their cases one by one using paper records / tablets. The other students are generally not engaged, as they cannot follow along.



The current briefing setting. Students see each other's cases can follow along in the discussion, making the session interactive and more engaging.



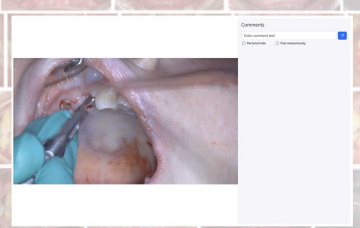
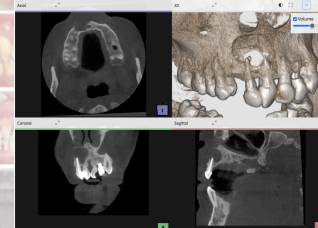
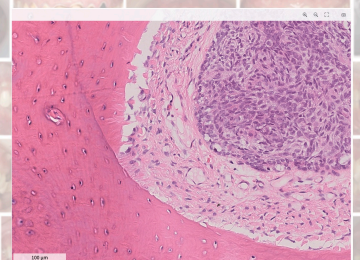
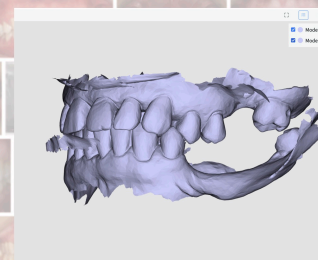
A sample case, showing a template and the multiple content types supported by the platform.

Results

As of today, we can report that 404 users (both staff and students) have registered and have created a total of 911 cases. In the process, they have uploaded 13,102 images and documents. The platform has been used for student assessment as well, with each year 4 and 5 student uploading a case and presenting it. More recently, colleagues from the Department of Pathology at the Faculty of Medicine have started evaluating the platform for their own teaching. Additionally, two dental programmes at other international universities (KU Leuven in Leuven, Belgium and Universiti Malaya in Kuala Lumpur, Malaysia) have expressed their interest and have also started testing the platform with their students.

Future work

We are currently exploring the potential for cross-disciplinary collaboration (integrating clinical and radiological findings with histopathology), and would like to investigate any potential applications of the platform in other case-based teaching settings, both in the medical field and beyond. Finally, ethical approval has been granted to start a student questionnaire study, to better understand student perceptions of the platform, and to hopefully further improve their experience.



Interactive viewers are provided for multiple media types: 3D models (top left), whole slide histology (top right), CBCT volume (bottom left), video with comments (bottom right), going well beyond the limitations of 2D images and allowing users to interact with the material.

If you are interested in using this platform for your own students for free, please contact me.