

Utilising technology for impossible hands-on

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Technology has become an integrated part of our lives. We rely on our smartphones to find our way around, our laptops as an essential tool in our jobs. As the influence of the digital age grows, we may start to see it as a replacement to hands-on activities, making hands-on science centres look obsolete. Instead, the digital age can be utilised as a value-adding tool for effective science communication.

Science Centre Singapore have been utilizing technology to value-add to our programmes. 2 such programmes we offer are "Flight Science Crash(ing) Course" and "(Not) Rocket Science". As the names suggest, these 2 programmes seek to impart the knowledge of science behind flight and rockets. However, some hands-on activities related to these 2 areas would be challenging to conduct in a typical classroom. Learning the theory without any practical experience would not be as effective a way of science communication as if there was. Therefore, we use the programme, Kerbal Space Program, to allow students to modify their planes and rockets, and experience how theory translates into practical. They are able to launch their modified planes/rockets and "feel" how simple changes to their designs affect the flight experience. Having "practicals" added to their theory lesson, the digital age has allowed us to reinforce learning for the students at an otherwise impossible level.

This is just our first few attempts at value-adding using the digital age. We seek to further expand this field in the near future.