'I am very proud of what I have achieved'

A day in the life of **Christopher Stokes**,¹ a dental technician turned senior university teacher who created an online course called *Discover Dentistry*. By Ruth Doherty

Fresh brewed coffee

There are two small children in my house so we're usually up early, between 6 and 7 am. After a quick check of the children, the constant for me in the morning is fresh brewed coffee. I can't function without it! Breakfast, usually cereal, is eaten in between helping get the children ready for the day.

I grew up and started my dental career in Southampton but am now based at the

University of Sheffield. My working week is spent at the School of Clinical Dentistry, where most of my job is located. I'm not desk bound though and manage to keep quite fit as my role also takes me around the large University of Sheffield campus – and as anyone who has visited Sheffield will know, it is quite hilly!

I drive to work, which takes just over an hour. I use the commute in the morning to catch up with the news and other things I'm interested in (usually through podcasts), and the commute on the way home is usually reserved for reflecting on my day and planning for the next.

Wrestling with pink wax

I got into dental technology after seeing a table full of dentures at a careers fair. Up to this point I had not known the job existed, but I was soon researching it as a career. My local college (Southampton Tech) offered a BTEC in dental technology, and after visiting for an afternoon and spending a few hours wrestling with pink wax and a hot knife and attempting to make a registration rim, I applied. I had

wanted to get a job in computing, but my Dad said there was no future in it and I needed to learn a proper skill!

At college I found the subject to offer a wonderful mix of art and science, and thoroughly enjoyed the three years I spent there. At the end of the course I was nudged in the direction of applying to study further at university, and I ended up leaving home to move hundreds of miles away to Yorkshire to do a BMedSci in Dental Technology at Sheffield. I enjoyed that so much I stayed for a masters and a PhD, and I will soon be marking 20 years at the University of Sheffield.

Lightbulb moments

I'm lucky that my job is very varied, and every day is different. In my main role as a senior teacher, I teach students in small practical classes and big lectures. In the dental school most of my responsibilities involve working with different teams, such as researching new dental materials with the Biotechnology and Health Technologies Group or the Digital Learning Team working on the next run of the

¹ Christopher Stokes originally qualified as a dental technician and is now a senior university teacher at the University of Sheffield. Chris followed a BMedSci at Sheffield with a PhD in materials science, and while doing this became interested in learning and teaching. He now specialises in dental technology and education. Chris is behind the popular FutureLearn MOOC (massive online open course) Discover Dentistry which is open to everyone interested in the subject. www.futurelearn.com/courses/discover-dentistry

Discover Dentistry online course. I also really like committee work, so can often be found working on teaching enhancement projects.

My favourite part of teaching is without a doubt the feedback you get from a student that they have understood something that they previously didn't (a 'lightbulb moment'). It's an addictive feeling and I never get tired of it. Online is different, as you don't have the same connection with a student, but it offers other benefits of reaching a large number of people, and those who you would never normally be able to teach. For me the challenging part is trying to offer something that all learners can engage with. This takes time as it requires you to really understand your students. You deal with it by inviting feedback (or reading your online video comments!) and constantly updating your teaching.

in another project I have been involved in that goes much further back. As a profession we are working to reduce the inequalities of access to higher education but dentistry is a subject that is still relatively difficult to gain access to. I strongly believe that if we need a dentist in every community, it would be beneficial if those dentists could be from those communities but this is still currently far from the case. I have been working for nearly ten years on widening participation activities to promote access to dental careers.

I have been fortunate to have collaborated with a great team at the University of Sheffield to build a scheme that actively supports students from underrepresented groups to get onto dental courses in university – the ADOPT scheme. This is now a flagship scheme for widening participation in dentistry,

ended up covering dental history, an overview of what happens during a check-up, the dental roles and specialties, dental technology and materials, public health and ethics, and concluded with a look at future developments in dentistry.

The first run of *Discover Dentistry* was in March 2014, and attracted over 4,200 learners from 77 countries. Just under half of these learners were active (they clicked on stuff), with a quarter of them completing the course in full. Nearly a third were under 18 (an unusually high amount for a MOOC), showing that we had attracted the intended audience of aspiring dentists, with the other learners split between dental professionals and the public.

Continued success

The course ran again in October attracting a further 3,000 learners from over 85 countries. We have had dentists, dental nurses and dental technicians taking part, and, apart from learning themselves, they have shared their knowledge and experience with the other learners and I think they must take some credit for the course's success.

There is also another distinct group of dental patients, particularly those anxious about dental treatment, taking part to counter their anxieties through understanding. There have been some wonderful accounts of patients learning charting on the course, and then asking to follow along with their dentist, reporting back to their fellow learners about the experience. Feedback has been really positive, and we are planning to run the course again in 2015.

MOOCs are great for people who want to engage with a topic for the first time to try it out. There is usually no cost to the learner, and you can quit without penalty if it is not for you.

For dental professionals, MOOCs could have an established place in the provision of CPD as they provide not only the learning material, but an active community of learners to engage with on the subject of the course.

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The changing role of the dental technician

The introduction of CAD/CAM and 3D printing is totally changing the role of the dental technician. Although the technology has been around for decades, the last few years have shown a massive jump in the technology we now have for making restorations and prostheses (such as laser melting, 3D printing and automated milling). It's a shame as I will fondly remember the smell of burning shellac and the pride of a gleaming cobalt-chrome, but I think the role of the dental technician in the future will increasingly be to master these new production methods to make prostheses for patients faster and cheaper.

At the moment my evenings and spare time are mostly spent with my children. I really enjoy doing the bathtime and bedtime story. After that, my main enjoyment is reading, keeping up to date with the latest technology news, and old video games. If the weather is good I enjoy walking in the Yorkshire countryside. I'm usually tucked up in bed by 11pm.

THE FUTURELEARN COURSE

The FutureLearn *Discover Dentistry* massive online open course (MOOC) has its roots

providing support for students who are first generation in higher education with a desire to apply to a dental course. I am very proud of what I have achieved with this scheme, but it has limitations in scale and flexibility, meaning that we cannot possibly support all the students who want to access it, when they want to.

When the University of Sheffield had the chance to become a partner with the Open University's FutureLearn MOOC platform, it offered the technology that would allow for a widening participation and public engagement themed dental course as part of their course roster. Together with our friends at Birmingham University and their dental photography MOOC, FutureLearn hosted some of the first dental MOOCs.

Discover Dentistry

Discover Dentistry was specifically designed to both support students applying for dentistry, and also to attract the interested public and dental professionals wanting to engage with a general audience on their subject. It was a big team effort, and I ended up collaborating with 25 dental academics and professionals and a small production team to provide the learning materials for the course. The course

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