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## What's cooking in my lunchbox? Make sure your diet is right for Digital Dentistry



By Geoff Staples

Recently I was invited to spend three days with a major institution to provide general research, technical advice and a review of their services to support further integration of digital technology including CAD/CAM across multiple disciplines within that organisation. The institution already had various pieces of digital and CAD/CAM equipment and differing levels of experience and knowledge within their team of professionals.

So there was trepidation amongst the technicians and clinicians as to what I thought about the contents of their "lunch box". Systems are often bought by the few for use by the many and as was evidenced here, there was a resultant lack of understanding of the systems purchased and their clinical and technical applications. Combined with personal bias or a lack of first-hand experience, there was some misconception as to what was possible. There were differences in how the various CAD/CAM and digital technology solutions were being used - such as intraoral scanners, lab scanners, design software (CAD), milling and 3D printing (CAM) devices and available materials - and levels of education, support and of course vendor/manufacturer bias played a role. As part of the consultancy process, we all learnt that we absorb knowledge and experiences differently whether it be oral, visual or written - in a nutshell, our perception of the same information presented in the same way varied.

In situations like this, I look at everything that is available to me without fear or favour, a process I liken to my hobby, baking. Baking bread by hand with only four or five ingredients has its challenges. I'm always trying new flours and sometimes different ovens and techniques. Each time I bake an organic sourdough (yes it's yum), the results can be different and after 3-5 baking adventures, I find the formula that works for me. So like Jamie Oliver who cooks for the masses and Heston Blumenthal who cooks for himself, both chefs can boil an egg. However, their toolbox, their results and our expectations can be very different. Perceptions are different for everybody. So the message here is understand what you want to do with what you have, how much you're willing to learn, what else you may need and that you can achieve a lot with very little. What's good for one laboratory or clinic is not necessarily good for you.

In reviewing an institution's menu of tools and techniques, the questions that I ask include:  
How are you going to set time aside for ongoing training (internal and external) and maintenance?  
What are you using now versus the ever evolving smorgasbord of techniques, workflows and equipment available?

Who will establish the IT requirements and implementation strategies for new equipment and materials?

- 1 How will jobs be sent, received, allocated and the files stored?
- 2 What are the increasing CAD and CAM requirements in your clinics and laboratory (e.g. workstations, changing workflow)?
- 3 How will the financial costs of equipment, ongoing costs of consumables, licencing and the

planning for the inevitable obsolescence of high end work computers be managed?

4 What benefits can a digital workflow offer the organisation?

5 What are the disadvantages of a digital workflow?

In this case, we answered each of these questions and more initially with a cross or tick in either the Easy, Manageable, Difficult, Impossible or Unsure/Not Applicable column.

We looked at the level of difficulties that the organisation may encounter when implementing digital CAD/CAM technology, e.g. an integrated digital workflow strategy and their IT roadmap. IT infrastructure, data retention and data transfer is potentially moving forward quicker than most have anticipated. This has the potential to slowdown the process of evolution as IT becomes the reason why something does not work. IT is certainly going to become the new plumbing or model storage room.

Further discussions revolved around the many advantages to using digital technology. Unfortunately many people look to digital dentistry to replace what they are doing and really miss the point that the digital process allows us to do things that were previously impossible.

*So what did we achieve you might ask and how can I apply some of these concepts to my own laboratory or clinic?*

Well we completed the audit and there was plenty of knowledge transfer and an enhanced understanding of what is possible. There was consideration in evolving the way they manufacture prosthetics and an understanding that there is a future pathway in dentistry for all. On the lighter side of life there were certainly some “ah ha” moments - “now I get it”, “is that why we struggled?”, “you can do that with this!”, “no-more special trays by hand if we go to digital impressions” and “we don’t need to own everything!”. It’s important to understand that whatever technology you’re considering should not take away from sound clinical and technical applications but instead it should enhance what you do now. The clinician and dental technician need to understand each other’s roles and how technology can enhance it.

Develop a plan and review each stage with this in mind. At DDC we can engage with you at the level matching your needs when and where you require specific advice or support to ensure your digital workflow is optimal.

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