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By Dental Tribune MEA/CAPPmea

During the 11th CAD/CAM & Digital Dentistry Int’l Conference, which recently took place on 06-07 May 2016 at Jumeirah Beach Hotel in Dubai, Dental Tribune MEA had the pleasure of interviewing several international experts about the latest dental technologies. The organizer, CAPPmea, had gathered together an impressive scientific lineup consisting of renowned international speakers, so we managed to ask the same questions to some of them. Let’s compare their different opinions.

Dental Tribune MEA/CAPPmea: Have digital solutions changed the way dentists are performing nowadays?

Prof. Jan-Frederik Güth, Germany: The principles of dentistry. They have more to do with the way we work as dentists, bringing more predictability and analyzing 3D datasets, using those restorations have been in the patients’ mouths for years, thus providing us valuable test results. A lot of dentists struggle to do tooth preparations correctly. For instance, they have used technologies such as metal-based restorations for a certain period of time and now all of the sudden they want to use ceramic restorations, so when performing the preparations, they do not have immediate feedback. They have taken impressions and the dental technician has to deal with the end result. However, when they take a scan, they receive immediate feedback and that’s what makes them better dentists. It is not about the technology itself, but the technology leads to the fact that dentists have become better.

What part does CAD/CAM and digital dentistry play in the development of dental specialties?

Prof. Jihad Abdallah, Lebanon: Yes, digital dentistry was something I had been looking for that I found in CBCT. I thought it would be great to use in the field of implant dentistry. When the patient comes into the office and you have a CBCT machine, you can easily find the data you need to plan and execute the case. Sometimes you need to do CBCT during surgical planning in very complex cases. Only when we received the CBCT machine in the office, did we understand the power of digital dentistry. The technology also allowed me to take it a step further by acquiring an intraoral camera and a milling machine.

Do you think that digital dentistry is the future of dentistry?

Prof. Jan-Frederik Güth, Germany: Absolutely. What is happening at the moment is that we have what I call different island solutions in digital dentistry: intraoral scanning, face scanning, digital articulators, everything is now connected together so we can put bridges between all those islands. This is where development takes part. If one day this connection happens to become complete, digital dentistry will make even more sense because its value will increase.

Prof. Jihad Abdallah, Lebanon: Yes, the development of digital dentistry will give more prospects for different in-office treatments and dentists will be able to offer better treatments to their patients.

Michele Temperani, CDF, Italy: Technology is a good thing and it’s something that can’t be stopped. Eventually, most of the work will be done by machines but the handcraft of dental technicians will always be the best. What might happen is that dental technicians would do high-quality work using their own hands, which would come to be considered of the highest value and probably not many people would be able to afford it.

What are the advantages of digital dentistry?

Dr. Eduardo Mahn, Chile: The main advantage of digital dentistry is that machines are accurate and can
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do repeated work. For example, if you need to redo a crown because it broke, you can keep the same prep, press "Play" and you receive exactly the same crown. Dr. Tif Qureshi, UK: The advantage of digital dentistry is that you have the ability to predict where you are going to go, to control things. So, the orthodontists could be very easy to lose control of the inclusion if you weren’t able to see where the teeth were going to move to. When we know where the teeth are going to move to we can then plan our anterior guidance, canine lateral guidance and we can make sure that the patients are functioning not only as well but potentially even better after the orthodontic treatment. The digital step forward we have had in orthodontics has been enormous. The other thing, we are able to do with digital dentistry is that we can actually start to preview the shape of required teeth. Sometimes it is hard to understand but when you have teeth that are crooked they tend to be wide and bulbous. When teeth have been straightened and put in the full arch they need to be slightly arrowed and having seen this digitally all upfront, dentists have much better guidance how to shape correctly to get a much better result.

Are there any limitations of digital dentistry?

Dr. Eduardo Mahn, Chile: Machines still do not complete the entire work process. They can create a crown but you still need to polish it, glaze it and give it definition. The software and the database of patients’ teeth do not automatically create a beautiful smile so there is still the need of a human touch.

Prof. Jan-Frederik Güth, Germany: I think they vary, depending on the individual system you use and whether it is open or closed. For example, full arch intraoral scans are still very dependent on how you scan them and whether you need powder or not. We must be aware of the specific technology and look for treatment concepts to use with it.

Dr. Tif Qureshi, UK: Yes, definitely, there should be limitations in orthodontics. Something that’s very important and that we teach is to make sure that GP dentists start at first with very limited cases. They should be primarily working in the anterior teeth only. If the teeth require movement in the back of the mouth, that should be treated by an orthodontist, unless the dentist has a huge matter of experience. So, with Inman Aligner and Clear Aligner and with everything we teach in the IAS Academy, we are making sure that the dentists are focusing on the front region and only treating minor tooth movement, if at all.

Dr. Michael Dieter, Switzerland: Frankly, I do not see any limitations in general. Currently, the question is rather how many dentists are using digital technology specifically when they need to go into a big investment. This applies for both dentists and dental technicians. The fact that there are different systems, open and closed, can be seen a limitation. In my opinion, the bigger problem are the investments. Also, the systems should be a little bit adjusted so that dentists can work with different software and hardware manufacturers.