



# The future of digital dentistry

Dr. Lou Shuman and Marty Jablow, DMD, discuss where digital dentistry is headed—and what it means for dental practices. [curated by Dr. Lou Shuman with Marty Jablow, DMD]

Each month, Dr. Lou Shuman consults with a dental technology specialist to discuss the latest developments in digital dentistry, data security, social media trends, SEO strategies, website optimization, online reputation management, marketing and more.

This month, Dr. Shuman sat down with Marty Jablow, DMD to discuss the future of digital dentistry, and how it will affect dental practice workflows and diagnostics.

## Where is digital dentistry heading in the dental office in 2017?

The progression continues. Front office staff are still migrating to the paperless office but are now incorporating many more online digital technologies. We've gone from just reminders to online reputation management, reviews and overall office efficiencies and production goals. The back office continues to evolve with patient treatment enhancements, such as digital caries

detection and diagnostic devices, to digital impressions, CAD/CAM and 3D printing.

## Where should dental practice front offices be right now with their digital workflow?

Digital workflow for the front office is really about efficiency. What we need to do is increase the efficiencies so we don't do work that bogs down the front office. The easiest examples are online reminders for patients about their appointments.

But, we need to incorporate other things such as digital delivery of new patient documents, since we know how many times that new patient visit gets delayed because the patient needs to fill out paperwork. Then we have the transcription issue from paper to digital to get the information into the computer. Scanning documents into the practice management software reduces the wasteful time of filing papers into charts.

The biggest detriment for change in the front office is shaking off "we always did it that way" mentality. There are so many technologies to make the front office much more efficient but dental staff and the dentist may be getting in their own way. Go online and see what other offices are doing in the move towards the paperless office. You need to take the baby steps which many of already done by incorporating digital radiography now it's just about the chart notes. The most underutilized asset in a dental office is the practice management software. Find ways to maximize its use.

## What's new in digital dentistry diagnostics?

Digital diagnostics continues to grow. Digital radiography is now mainstream, and about 80 percent of the offices in the US have gone digital. Caries diagnostics continue to evolve with various devices making caries easier to monitor and diagnose. 3D imaging is gaining ground in the GP dental offices. The prices have come down and we see a lot more competition in this space.

We are seeing greater adoption as we are finding more uses for this diagnostic information. CBCT is not just for 3rd molar removal; it has evolved into a tremendous way to plan implants, examine teeth with endodontic problems, and assist in orthodontics and sleep apnea treatment. Intraoral scanners are now being used as part of the diagnostics. Being able to merge CBCT Dicom sets with intraoral scanning STL file scans allow more precise implant and orthodontic planning. We can

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now see what effects our treatment can have on the TMJ before we start treatment restoring arches.

The more information we acquire and the greater the data set for each patient, the better treatment planning. The better we treatment plan the more predictable our outcomes will be.

### **The big buzz is about the digital dentistry workflow. What does that mean in 2017?**

At the 2017 ADA conference in Atlanta, the Cellerant Best of Class Technology Lectures will attempt to answer many of those questions. We will be discussing many aspects of the digital dentistry workflow. The problem is there is no set definition what a digital dentistry workflow is. It depends on what equipment you use and what the ultimate end game is. For most, digital dentistry means an intraoral scanner. So, instead of taking a conventional impression, you use an intraoral scanner to acquire a 3D image of the prepared tooth and then upload the information to the lab. The benefits of these digital impressions are increased accuracy, easier inserts and reduced costs. In many cases, you get back a crown in a box as there is no model and the entire process is virtual. This increased efficiency results in turnaround times of under a week from many dental labs.

Some others don't consider that digital dentistry unless you add an in-house restorative component and that means CAD/CAM. There are now more choices for in-office milling than ever before from CEREC, Planmeca, Glidewell and Roland. These various mills will allow you to complete in-office restorations. The costs and mills will be based on the different material types you want for your final restorations. It is now possible to mill composite, eMax and zirconia in your office.

### **What is on the horizon for digital dentistry?**

That one has an easy answer and it is 3D printing. 3D printing will transform dentistry. It's already started. Printers are already producing implant

surgical guides, implant restorative setups, orthodontic aligners and retainers, dentures, nightguards and even temporary crowns. Lower cost printers are now within reach of many dental offices. That means we can produce these printed devices in our offices on demand. Treatment can be started sooner. We can now print surgical guides for implant placement making the procedure much more predictable enabling more dentists to place implants.

Orthodontic aligners can now be reliably printed at much reduced costs and no more need to worry about cost of corrections. All of this will take some training and you will have to learn some software. Go try it out as BlueSkyBio has implant and orthodontic software available for free just go download and play with it.

The biggest jump will be as the dental printing materials evolve. As the companies develop more and better materials the ability to produce varied restorative options will grow. The cost of the printers will decrease and 3D printers will become a standard piece of dental equipment.●

#### **ABOUT DR. MARTY JABLOW**

Martin Jablow, DMD is a clinician, speaker and author. He presents and publishes worldwide on many topics, including state-of-the-art dental technology and dental materials. Dr. Jablow is president of Dental Technology Solutions, a lecture and consulting company. He is an active member of the ADA, NJDA, Middlesex County Dental Association and has achieved Fellowships in the AGD and International Academy of Dental Facial Esthetics. For over 20 years, he has been a member of his local peer review and was an attending at the JFK Medical Center in Edison New Jersey, where he worked with patients and trained residents.

#### **ABOUT DR. LOU SHUMAN**

Dr. Lou Shuman is a long-time contributor to Dental Products Report, and president and CEO of Cellerant Consultant Group. He is also the chairman of the Technology Advisory Board at WEO Media, a Venture-in-Residence at Harvard's Innovation Lab, and founded a dental-education internet company.