

January 2011 | Dental Lab Products

FORWARD TRENDS: **TECHNOLOGY**

The CAD/CAM Chorus

Digital technologies for designing restorations that are then produced via computer controlled mills and printers have had a profound impact on the dental laboratory industry. Here we present an array of voices and opinions sharing their thoughts on what it all means, and what the future of the dental lab may look like.

by Noah Levine, Senior Editor



Photos: (Clockwise from top left) Sirona; Straumann; Diadem Digital Solutions Inc.; 3M ESPE; 3Shape; Nobel Biocare; Sensable Dental Technologies

Change arrives in many forms, and when it comes it means different things to different people. Few observers of the dental lab industry believe CAD/CAM and other digital technologies will be just a passing fad. In fact, there is a sizable majority who feel these technological developments will (and already have begun to) drastically reshape the industry, creating new business models, new opportunities and new approaches to producing dental restorations. While many are excited about what this will mean, not everyone is ready to embrace the digital way of doing things. In this article we present voices from different parts of the industry sharing their thoughts about the impact CAD/CAM has already made and the ways it will continue to reshape the industry.



The most excited person on the planet

Lee Culp, CDT - Chief Technology Officer, DTI



A logical progression

Roddy MacLeod - Vice President of CAD/CAM, Sirona



View from an early adopter

Scott Udell - Manager, Udell Dental Laboratory



Standing apart

Joshua Polansky - Owner, Niche Dental Studio



Weighing the options

Sara Kazan, CDT - President, Nellmar Laboratory



Working out the kinks

Robert Lash - President, Moskey Dental Laboratories



Blurring the lines

Dr. Gary Severance - Vice President of Marketing and Clinical Affairs, D4D Technologies



**Web Exclusive:
A key to our facility**

Melker Nilsson - President and General Manager, Nobel Biocare North America



**Web Exclusive:
Bridging the digital divide**

Bob Steingart - President, Sensable Dental Products

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THE CAD/CAM CHORUS

Standing apart

Joshua Polansky – Owner, Niche Dental Studio

by Noah Levine, Senior Editor

As a relatively young dental technician, Joshua Polansky's approach to CAD/CAM technology surprises many people in the industry. Because of his age, people tend to assume he's a digital devotee, but that couldn't be further from the truth.

The 31-year-old studied under master technician Olivier Tric and with Dr. Ed McLaren at the UCLA Center for Esthetic Dentistry, and now owns and runs Niche Dental Studio in Cherry Hill, N.J. While he isn't against CAD/CAM and technological developments, he's chosen to take an analogue approach to his career as a dental technician. It's something he views as a lifelong journey and never ending educational process, one that he finds extremely rewarding.



"It's not like I'm a purist who is trying to make a stand," he said. "With the proper education and the proper foundation, I think that you can really get the result that you would want to look for without using a computer."

That education goes beyond learning the techniques and processes required to produce dental prostheses. It includes a dive into understanding the anatomy, morphology and function of the teeth being reproduced prosthetically. It's this knowledge that he sees being lost when CAD/CAM systems are relied on too heavily, and he doesn't think there will ever be a day when high-end dentistry can be achieved with just the press of a button.

"I'm not against CAD/CAM. With the foundation you can get by going through higher education, you can utilize CAD/CAM to your advantage," he said. "But I don't want a computer doing work for me. My doctors don't work with a computer. They work with me for the things that my brain can do. A computer is only great if it's guided by somebody with education,"

Still, Polansky chooses to work with wax and layered ceramics for most cases and is constantly striving to create restorations that truly mimic the natural world. While he sees the efficiencies and speed of CAD/CAM production, he also sees what those restorations are often missing, and that's the nuance that makes things lifelike.



Frame design comes from seeing/feeling/and knowing the final outcome. This holds true in any profession and creating work by hand guarantees you that luxury. Click the image to see full size version.

Overreliance on technology can lead to an institutional erosion of knowledge as more and more critical steps are computerized and new technicians learn on digital systems without ever beginning a case in a physical environment. He worries that the focus on cheaper, faster and easier production systems boosts the business side of the industry, but at the detriment of the people receiving the end results.

"We're going away from the basics, and if you go away from the foundation, from the basics, we're kind of in trouble," he said. "It's disappointing because in this field we're all working toward one thing, the end user. Everyone seems to think that end user is their account or their doctor, when in actuality the end user is our patient. And the patient has no idea what they're getting."

He admits that most patients don't know or truly appreciate what goes into creating a natural-looking crown, but just like there are still craftsmen cobbling shoes and tailoring suits by hand, there always will be a place for the high-end, hand-crafted dental restoration.

Creating those restorations is something he views as an ongoing quest for knowledge, and just because he chooses to work in a mostly physical, rather than digital, environment, doesn't mean Polansky eschews innovation. In fact, he finds the processes and materials with which he works so intriguing that he regularly spends his extra time experimenting with new ideas and new ways to approach the techniques and processes he puts to use every day.

While Polansky is not sold on CAD/CAM as ready to outdo what a skilled technician can do in other ways, he is a strong believer in the power of computers, and namely the Internet, as a big part of how dental labs like his can remain viable in the industry. With the Internet connecting everyone to all sorts of information, he and other technicians are able to share high-quality images of their work, discuss materials and techniques, and most importantly make themselves accessible directly to patients.

"The Internet to me is a game changer. Lab technicians used to be in the closet, nobody knew they existed. Today we're out there," he said.

Patients are now seeking him directly, and then asking their dentist to send their case to him, even when they know the fee might be higher than using another lab. Because patients and dentists looking for people like him can just push a few buttons to find him online, Polansky feels secure that even as the industry continues to embrace CAD/CAM ever more tightly, there always will be a place for him and others with similar outlooks.

"The satisfaction for me comes from the work," he said. "I think it's a great field, a great craft. I'm fighting to keep this section of the field alive."