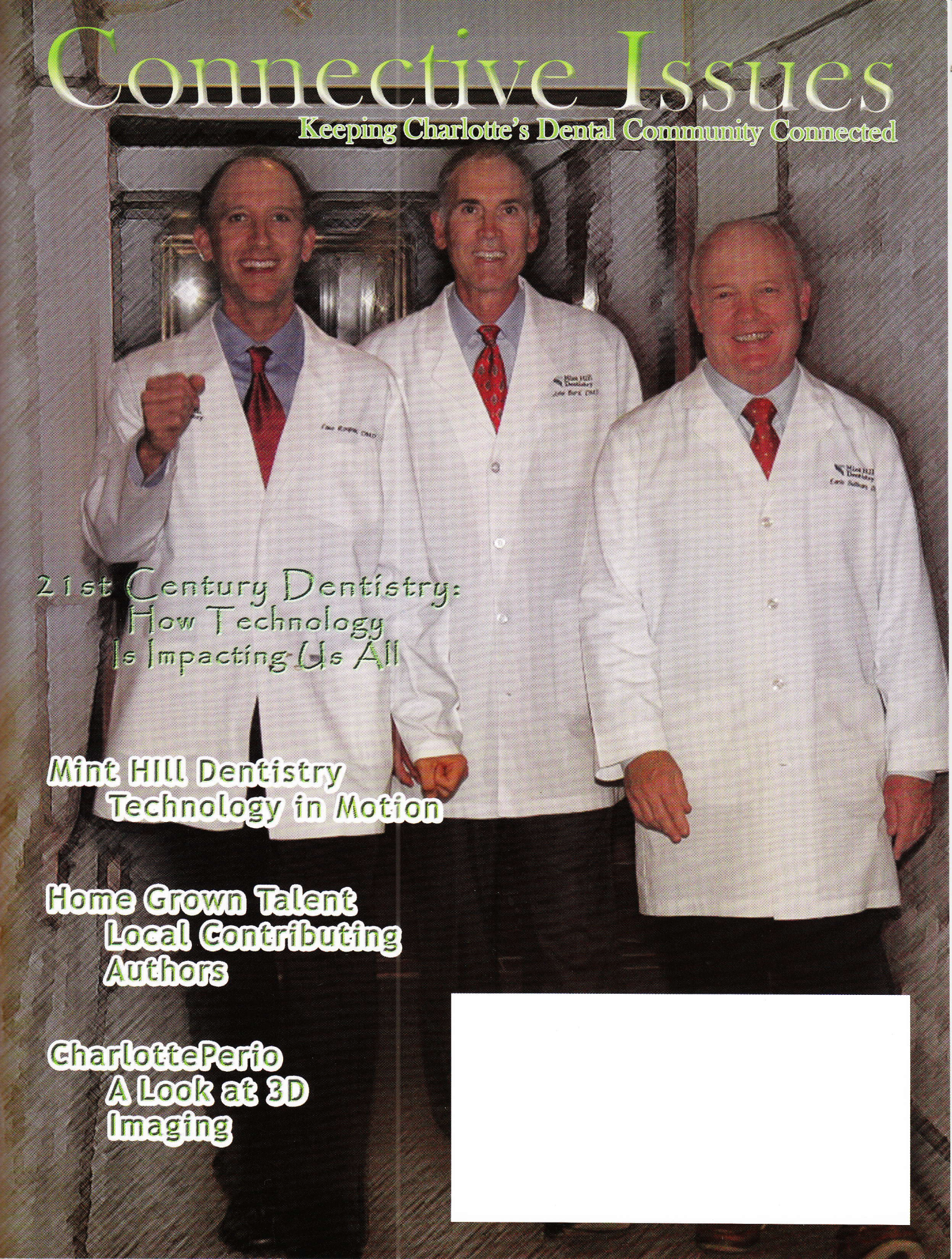
Connective Issues

Keeping Charlotte's Dental Community Connected



21st Century Dentistry: How Technology Is Impacting Us All

Mint Hill Dentistry Technology in Motion

Home Grown Talent Local Contributing Authors

CharlottePerio A Look at 3D Imaging

Doctors Burd, Roupas, and Sullivan are surrounded by the SolutionStart team.

Anatomy Of A Technologically Advanced Dental Practice

Mint HIll Dentistry: A team without walls

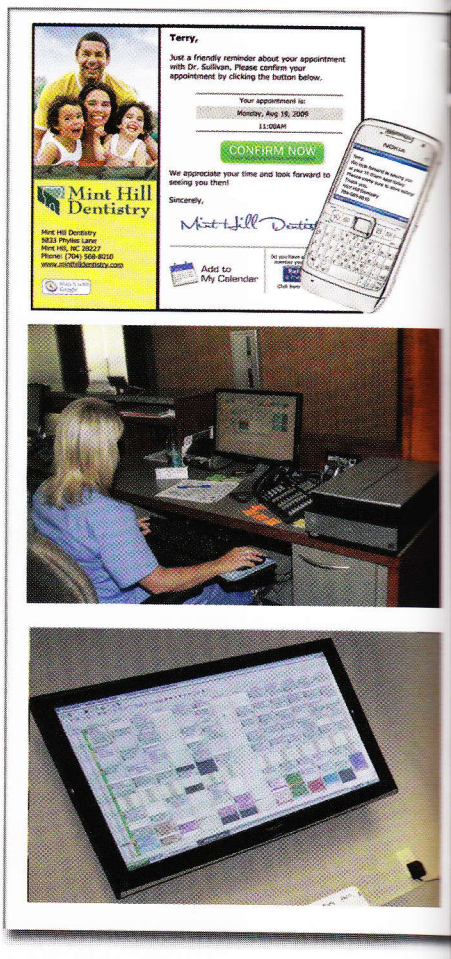
When we were first invited to tour Mint Hill Dentistry as part of our "Dental Technology in Charlotte" feature, we were not sure what to expect. We were informed that this particular office is being considered for top honors in a nationwide contest for the most technologically advanced dental practice.. So, how must such an office look? Would it be space-aged? Would it look like an office befitting George Jetson? Could it be comfortable and appealing? What type of patients would be there?

The first thing you notice, upon entering the office, is how beautiful and inviting the reception area feels. True to its techno-savvy claims, there's a computer check-in station, a HUGE flat panel TV monitor, and surveillance cameras. Amazingly, these fancy features take a backseat to the high ceilings, skylights, and intimate seating arrangements. It's a family-friendly practice, but the children's area is tucked safely and neatly off to the side. Also, just beyond the waist-high countertop, you can see the friendly faces of the front-office staff, which is comforting.

Reception Area

- TV, DVD, and patient education (CAESEY) capability
- Children's TV located behind Plexiglas door (Playstation and Nintindo Wii compatible)
- Patient check-in computer, includes signature pad (all forms are stored electronically and are remotely accessible)

☆ Coolest Feature: **Security Cameras in the children's area can be monitored from any treatment room and/or accessed remotely from the internet!**

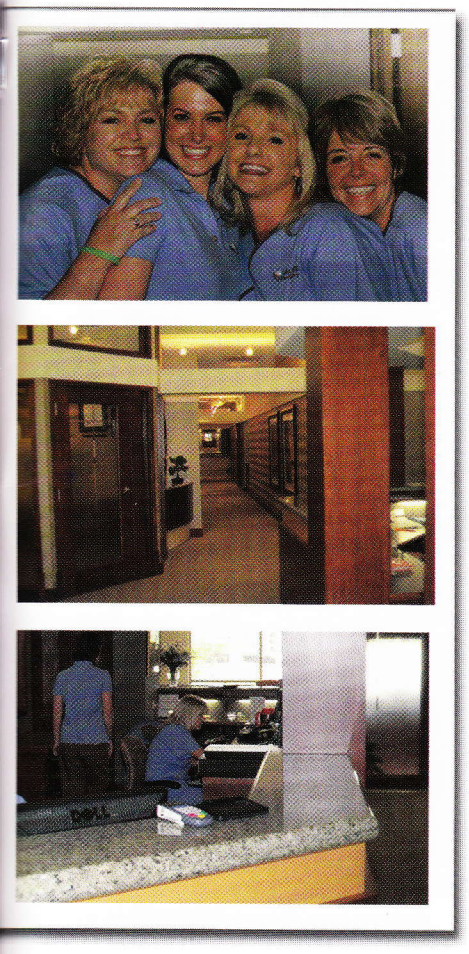


Front Office

- Webcam (for patient identification
- Signature pad
- Scanning station (all files scanned a cabinets)
- Control4 (touchpad control for TV zone within the entire of
- SmileReminders (patient manageme
- Doorbell/Remote Buzzer (for backd
- Keycard Entry for staff members
- Remote Desktop (allows remote acc extra security mea compliant)

☆Coolest Feature: Windows Server in harmony, rather than as separat computers and printers have full fu

This erases any feeling of awkwardness or uncertainty that a new guest may experience.
Once inside, we were greeted by Debbie Long, office manager, along with Jimmy Georgiou and Laura Miller of SolutionStart, the local dental technology design company responsible for the detailed planning and implementation for a project of this magnitude.
Join us, in the following pages, as we tour the office and meet the staff of one of Charlotte's most technologically advanced dental practice....



nd documentation)

d stored electronically, minimal file

nusic, lighting, and security --- per
ce)
t services)
or entry and deliveries)

ss to charts and files, while adding
ures to eliminate viruses; HIPPA

Domain Environment (all computers operate
e computers linked to a network; all
nctionality, regardless of their location)

Consultation Room

- Large flat panel monitor for visualizing and presenting treatment plans
- Computer with wireless mouse (has the ability to double as a laser pointer/clicker when aimed at TV or models

Hallway

- Digital picture frames (tied into the server to display selected pictures, can be customized with pictures from specific case presentations)

Digital Impressions: Virtually Effortless

Many of us have heard of or seen a demonstration of the CERAC or CAD/CAM digital impression technology. Some of us have actually worked with the equipment in the clinical setting.
Here in Charlotte, there are state-of-the-art dental practices and dental labs who are taking digital impressions to the next level.
Here's a look at what's happening:

CERAC (Sirona Dental): Traditionally, this technology has used a still camera to take multiple pictures that are stitched together using the available software. More recently, the CERAC E4D has the ability to take several images using a red laser light to reflect off the tooth structure. The final image is stored in the system and used for chairside fabrication of the restoration.

CERAC Connect (Sirona Dental): With the introduction of this program, the clinician has the option of milling the restoration chairside, or digitally transmitting the image and lab prescription to a laboratory for completion. This option is an advantage for restorations that require milling, polishing, staining, and glazing to a level not practical in the dental office. (This process is currently undergoing Beta testing at Sikes Dental Studio, under the direction of Lindy Sikes).

iTero: This system captures several still views with a camera, then uses a small probe to actually touch the tooth in order to determine the focal length. The digital image is captured without the use of powder (an advantage for patients with allergies and/or asthma), then transmitted to an iTero laboratory where the model is fabricated and the restoration is created.

Upstairs

- All wiring is organized, labeled, and documented
- Telephone, stereo, CATV, and DVR wiring
- Server
- Backup ("jukebox" of tapes that rotate and store data)
- Storage (catalogue of hard drives with the ability to manage multiple Terabytes, or millions of Gigabytes; as space is needed, extra hard drives can be inserted and have the ability to configure themselves)
- Wi-Fi capability for patients

☆ Coolest Feature: **SonicWall (firewall device with content filtering set to the owner's specifications--- blocks viruses as well as unauthorized internet sites such as shopping or pornography)**

Operatories

- Computer with main monitor and secondary monitor (also known as extended desktop, allowing images to be dragged from one screen to the next)
- TV/DVD/CAESY/wireless headsets/digital xray
- Trigger mouse (for pointing and highlighting)
- Touchpad environmental control (music, lighting, security)
- Secondary computer monitor suspended from ceiling via hydraulic base (full range of movement for proper, comfortable positioning)
- Intraoral Camera (attached to the primary monitor; detachable lens)
- Cerac (in-office crown milling unit)
- iTero (off-site digital impression technology)

Sterilization

- Storage for computers and printers
- Flat panel monitor for viewing the day's schedule

Radiography

- Digital Panorex
- ScanX Digital Imaging System (intraoral xrays using Phosphor Storage Plates)

We Asked ...

With so many details to manage, and with such a large staff, what's the secret to your success?

"We operate in a state of organized chaos. Everyone has a job to do and everyone knows their responsibilities. With record numbers of new patients, the reception area is never full, and we still manage to maintain a sense of calm within the practice."

All photographs courtesy of Cecilia Arzate Photography

Points to consider

- Treat your vendors as part of your team, and expect them to work just as hard as the rest of the team.
- Balance- Putting the right technology, processes, and protocols in place to promote efficiency and productivity
- Every technology is not for everyone. Be sure that your choices reflect your personality and level of skill.
- Great planning includes allowing room for growth, for example, installing data storage whose hard drive capacity can be upgraded quickly and easily.

☆ ***Technology is no longer just an Accessory. It is quickly becoming the framework for our lives. It is no longer practical to just add a computer or technical piece of equipment as an afterthought, but rather, after careful planning with an understanding of today's needs as well as a clear vision for the future.***

My Viewpoint

Editors Note
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One year ago, as we discussed the possibility of launching the "Connective Issues" magazine, we sat down and compiled a list of themes for each issue. One of our goals was to examine each theme from every angle, so as to include every member of the dental team. Another goal was to solicit as much reader feedback as possible, to ensure that the voice of the publication was the voice of the Charlotte Dental Professional. While we share a commonality with the global dental community, locally we have our own flavor (or brand) of dentistry. Our unique set of skills and experiences is vastly different from California's dental atmosphere, or Minnesota's dental philosophy.

Keeping these thoughts in mind, this issue's theme is "Dental Technology in Charlotte". Technology is no small subject. We quickly learned that this topic was too broad and too dynamic to be limited to just one issue. It doesn't wrap up as nicely and neatly as we'd planned. Midway through our research for this topic, we learned that another issue was developing that also warranted examination and discussion. The Obama Healthcare Reform is under construction and Dentistry has not been considered a high priority to legislators.

As many Charlotte dental professionals went to battle in Washington, DC, we consider this worthy information for our local publication. But, we also understand that the ramifications of an incomplete healthcare policy resonate far beyond our city's limits.

And so, just like Dentistry, connecting the issues is not an exact science. In each edition, we'll try to stay on topic and we'll try to keep our subject matter local. But, as Dr. Dyer often says, "**We must be firm in Principle, but flexible in Procedure.**"

Then again, as my mother always says, "**Everything happens exactly the way that it should.**" It's perfectly clear why, in the middle of developing our Technology issue, a team of dentistry's brightest stars were storming Capital Hill: **Even the most fantastic advances in dental technology lose their appeal if we don't force our nation's policymakers to respect the value of our service.**

Take your time digesting this edition of Connective Issues. We are forever indebted to the local dental practices that opened their doors and gave us a glimpse of "Techno-Dentistry".

Also, pay close attention to the columns labeled "***Homegrown Talent***". These writers represent some of the resources available right here in our very midst. Check out their websites or contact them with questions or comments.

It's summertime in Charlotte! You may be reading this magazine while you're out on Lake Norman, or having lunch at the U.S. National Whitewater Park. You may be at the beach or in the mountains. Heck, take it to the Summer Pops @ Symphony Park! We don't care **where** you read it; we just want you to read it!

Connective Issues

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