



# Cell Phones and Toothbrushes: Technology in the Orthodontic Practice

By Chris Bentson

I recently attended the 2017 AAO Winter conference in Fort Lauderdale. The meeting's theme was around technology and the orthodontic specialty. I learned a great deal from some great speakers, Dr. Greg Jorgensen, Dr. Neal Kravitz, Dr. Aaron Molen, Dr. Edward Lin and Dr. Christian Groth presented lectures, along with myself, Steve McEvoy from MME Consulting and Jack Shaw. Jack Shaw, a futurist, kicked off the meeting and spoke about what technology might look like in the orthodontic practice in 2020. That was interesting as he talked of dental tourism, the browning of America, cultural smile preferences, robots at the front desk and in the clinic, 3-D printing and CLIP (continuous liquid interface production), a new plastic called carbomorph that conducts electricity, the IofT (internet of things), intraoral wearable devices, intelligent agents, IBM's Watson, cobotics (human's interfacing with machines), cognitive computing, blockchain technology (a technology, used by bitcoin, that leverages cryptography and group data stored in an immutable chain of transactions that has the capability to transform how we deal with money, crypto-currency, and the

EMR, electronic medical record), and horizon planning, a method of how to plan for all these changes. Wow, indeed.

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In his lecture, Jack Shaw, the futurist, offered a statistic that perhaps you have heard: of the 7.2 billion humans in the world, 4.2 billion had cell phones in 2016 and 3.2 billion had toothbrushes. Yep, more people own a cell phone than own a toothbrush. I was skeptical so I asked one of our team members to do some fact

checking on this statistic. Turns out Jack was likely correct. Here's what we learned.

The Mobile Marketing Association of Asia originally reported this data, stating that, out of 6 billion people on the planet (several years ago), 4.8 billion have a mobile phone while only 4.2 billion own a toothbrush. (<https://blog.dentalimplants-usa.com/more-mobile-phones-than-toothbrushes-fact-or-fiction>).

Jamie Turner of 60 Second Marketer attempted to determine the validity of this statement. Turner did a Google search using the phrase, "number of mobile phones worldwide," and learned that there are 4.6 billion mobile phone subscriptions worldwide. Yet, the true number of phone owners is more complicated than it seems. In some parts of the world, people have more than one subscription. When this variable was considered, the number of mobile phone owners dropped to 4.2 billion.

Mr. Turner had even more difficulty determining how many people own toothbrushes. Colgate reported having 34 percent of the market share in manual toothbrushes. Oral-B stated the yearly toothbrush market is \$5 billion. By calculating

the cost of toothbrushes on Amazon, he determined an average cost to be \$3.00 in the US, but closer to \$1.55 worldwide. Ultimately, Mr. Turner concluded that approximately 3.22 billion toothbrushes were sold last year. And although it is almost impossible to determine the actual numbers of toothbrushes or mobile phones, the statement that there are more mobile phones than toothbrushes seems to have some validity. (<http://60secondmarketer.com/blog/2011/10/18/more-mobile-phones-than-toothbrushes/>)

The toothbrush has been around for a long time. Early forms of the toothbrush are mentioned as early as 3000 B.C. when Egyptians and Babylonians used ‘chew sticks’ which were thin twigs with frayed edges used to rub against the teeth. The first bristle toothbrush was invented

in China in 1498, where coarse boar hairs were attached to handles made of bamboo or bone. Boar bristles were used until 1938 when nylon bristles were introduced by the company Dupont de Nemours. The first nylon toothbrush was called Doctor West’s Miracle Toothbrush.

<http://scienceillustrated.com.au/blog/ask-us/who-invented-the-toothbrush/>

So what, if anything, does this have to do with your practice? In this disruptive era in dentistry and the specialty of orthodontics, are we perhaps over-engineering our approach in our practices by leveraging too much on technology as the “reason to come to my practice” vs. differentiating your practice with more personal, practical, relational messaging like “brush your teeth”? Is the time spent talking with a patient and providing this old school device,

the toothbrush, apt to get better growth results in your practice vs. showing their airway in a consult?

Our company, Bentson Clark and Copple, LLC, has expertise in analyzing how much income a practice produces for the owner/doctor and then translating that data into a conclusion of a given practices current value. The data we see shows that overheads are incrementally increasing, moving from the low 50th percentile range ten years ago to the upper 50th percentile range in current years. The self-reported overheads given over the last 34 years in the JCO published practice studies backs up what we are seeing. The JCO data shows a migration from 49% average overhead in 1981 to 59% average overhead in the most recently published 2015-practice study.

The reasons for this increase in



overhead are many and include the economy, higher fees for certain appliances, orthodontists retiring later since the great recession, more completion from GP's, Pediatric practices and the ever increasing number of DSO's. However, the primary drivers of higher overheads in the last decade have been technology spend and marketing spend according to our data.

Just think about the capital required today for digital radiography, CBCT, scanners and now digital printing on the horizon? The old analog pan-ceph may have cost \$19,000 or so for a top shelf model, but it lasted 25 years and produced a product that allowed orthodontists to accurately diagnose and treat cases. Today digital radiography is the standard of care and these machines are being replaced about every eight years due to mileage (number of images taken) at anywhere from 40-70 thousand dollars a pop. Want to go the CBCT route and you're looking at 125K plus, and these numbers are down from the 200K per each figure for such a machine just ten years ago. Last year scanners were flying off the shelves surpassing sales of CBCT machines at a cost ranging from 25K and up per each. Yes, you can buy a hobby digital printer for about 4K dollars, but a commercial grade digital printer with delivery, installation, and training will run about 25K today. We need a network of computers to run practice management systems and talk to all these technology "investments" we've made. The average practice has eleven

computers according to data presented at the AAO Winter meeting and we've seen practices with fifty or more.

The costs to purchase, maintain, and replace all this technology is one of the biggest reasons behind increasing overheads. Most practices work four days a week, with many working less. Are the DSO's really so crazy thinking that five or six patient days a week and evening hours make sense? If you measure return on capital invested,

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they are the smart ones.

We're also using technology to let consumers know who we are, where we can be found, and what we're about. The time and money we spend on our websites, Facebook, review sites, billboards, print ads, television, radio, producing video's, Twitter, Instagram, patient portals, appointment reminders and all the rest are eating away at the practice budget.

Practice owners tend to want to rely on technology as the reason to "choose me"; however the common thread we observe in growing practices has little to do with leveraging technology as the differentiator and much more to do with practice culture and patient experience. Our observation is that

your deployment of technology is a choice but it doesn't attract patients to your practice or grow your practice. Relationships driven around a leader that expresses his or her values to the employees who then deliver that message to the consumer is the current key metric to differentiation and growth. The coveted internal referral, the desire to bypass the GP and go directly to the consumer, the desire to create an awesome customer experience and grow a practice is driven more by establishing relationships with orthodontic consumers than by relying on your technology deployment to create the difference between your practice and others in your drawing area.

To be sure, the landscape is competitive and a certain deployment of technology is required today. Choose your purchases wisely for the market position you have and the patient you want to attract. Understand what you need and what you don't where technology is concerned and double down on investing time deciding what you're about, what your value system is, and relentlessly expressing those conclusions to your staff, your patients, and your community. Handing out toothbrushes allows you the opportunity to talk to them, and that conversation (not about how to brush) may just be the secret sauce for practice growth you've been in search of. Oh, and send a text to your patient asking how they're enjoying that toothbrush you gave them, don't worry – they all have a cell phone. 📱