MC Heartbeat

"Insider Tips to Make Your Practice Run Faster, Easier, and More Profitably"

Why is Google Free?
And other scary stories about the Internet
Justin Shelley

As Halloween approaches, I thought it only fitting to share some stories that will (or at least should) scare the bejesus out of you.

Most people have no concept of what goes on behind the scenes to create the software we use virtually every minute of every day. So let's look at some numbers.

Software is written in one of many different computer languages. In the English language, we think in terms of sentences. A sentence in the software world is referred to as a "line of code" or LOC. Each LOC is an instruction. Put enough instructions together and you have a program, an app, or a website. We measure the complexity of software by the total number of LOCs. Now let's put that into perspective.

In 1969 we successfully put man on the moon. The Guidance Computer of Apollo 11 ran on a piece of software that consisted of 145,000 LOC. Let me bring this back to our own language. The average novel is somewhere in the neighborhood of 80,000 words. If we assume somewhere between 15 and 20 words per sentence, we get just over 4,500 sentences per book. That means that the computer that guided Neil Armstrong, Michael Collins, and Buzz Aldrin ran on a program with the length and complexity of 32 novels. How long would it take you to write 32 novels? And if you wrote 32 novels with the historical impact of putting man on the moon, what would those novels be worth to you? Could you even put a number on it?

While that may sound like a lot, remember, this was 1969. The world of technology has changed just a bit since then:

- In the early '80s the space shuttle ran on 400,000 LOCs. 89 novels.
- Microsoft Office 2013 consists of 45 million LOCs. 10,000 novels.
- The Large Hadron Collider checks in at 50 million. 11,111 novels.
- The average modern car? 100 million. 22,222 novels.

The first point I'm trying to make here is that software is incredibly expensive to develop. The time involved in writing millions of lines of code is mind-boggling. And writing it is just the beginning. Every line of code has to work perfectly with all the other lines of code. There can be no mistakes. If someone misspells a word in a novel, we might laugh at the author for not catching it, but nobody dies. One small glitch in those first 32 novels and poor Neil, Buzz, and Mike become

SPOILER ALERT:

You may have actually sold your soul unknowingly.

No joke.

"As a business owner, you don't have time to waste on technical and operational issues. That's where we shine! Call us and put an end to your IT problems finally and forever!"

- Justin Shelley, Master Computing

October 2015

DENTON, TEXAS

Inside This Issue...

TRICK-OR-UPGRADE

10/31   STAHLER.

©Jeff Stahler/Distributed by Universal Uclick for UFS via CartoonStock.com

eternally frozen popsicles on a never-ending trip to nowhere. Can you imagine the cost involved in creating such a complex series of computer instructions?

Now for my second point. Let's talk about Google. Google is free. Do you have any idea how many lines of code it takes to keep Google doing all the things Google does? Just for fun, why don't you Google it? I mean, seriously, isn't that how you find the answer to *everything*? Don't you navigate your car with Google? Have you ever written or read a document created by Google Docs? Have you ever sent an email to or from a Gmail account? Scheduled an appointment on Google Calendar? Watched a video on YouTube? Did you Google how many lines of code it takes to make all this happen? 2 billion. That's almost a half-million novels!

Who pays for that? The government paid to prevent a Neil-popsicle. Microsoft sold millions of copies of Office to pay for its 10,000 novels of code. But who pays for Google? A few silly ads that we all ignore? Does that really justify 2 billion lines of code?

Let's look under the hood for a minute. We'll start by asking an important question: what does Google sell? On the surface, we're back to those annoying advertisements. But the reality is that Google doesn't sell advertisements, Google sells *you*. Newspapers and TV stations sell advertisements. To the masses. If you want to sell beer to everyone on the planet, spend millions of dollars on a Super Bowl ad. But if you want to sell bonbons to a heartbroken single mother who was just dumped by her new love the same day she was fired from her job which all happened a week after her cat died, *and* she just *happens* to be driving past the local candy store… well, in that case you need Google. And Facebook. And Snapchat. And Instagram. Each and every one of those free services where you openly share the intimate details of every minute of your existence compile a perfect digital image of you. And they sell you. They sell your deepest, darkest secrets. They sell your emotions, your joys, and your heartbreaks. They sell your relationships, your family tree, your mother's maiden name, your pets' names, your past, your present, and even more scary, they sell your future. They know you better than you know yourself. And they sell you to the highest bidder. Every source out there, every free service you use, is stalking you in a way that makes that creepy guy in the shadows look like a saint.

Every Gmail message is mined for data, every Facebook "like" is analyzed and recorded, every comment, every connection, every location you've ever visited on this planet, every search phrase you've ever typed into a search engine, every link you've ever clicked. Everything. It's all locked away indefinitely. It's then sold to a giant data aggregator like Acxiom, Epsilon, or Datalogix (to name just a few) who pieces it all together into a near perfect picture of you. And don't think this is anonymous data. This is *your* data. It has your name on it.

Want some examples? Google this phrase: "officemax daughter killed in car crash". A guy named Mike Seay received a mailing addressed to "Daughter Killed in Car Crash or Current Business". Yes, his daughter had in fact died in a car accident a year before.

Insensitive, for sure. But mistakes happen, right? After all, it was just an ad. Besides being a bit creepy (maybe *a lot* creepy), what harm is being done? The problem is that this data is now more valuable than gold or oil. Advertisers buy it. Attorneys buy it. Law enforcement buys it. The NSA buys it. And worst of all, criminals buy it. Just Google "2013 Experian Vietnam" and you'll read how Experian sold your data to an ID theft service. What data? Your Social Security numbers, your drivers license number, your bank account numbers, and your credit card information. Oops. It was an honest mistake.

So who gives these creepy digital stalkers the right to all of your personal information? You do. It's all buried in the Terms of Service (ToS). You know, the never ending fine print we all agree to every time we check that box and click "I Agree". Have you ever actually read one of those? Google this: "ToS sell your soul". You'll read about 7500 shoppers agreeing to a clause that would "grant Us a non transferable option to claim … your immortal soul."

OK, now what? Do we close our social media accounts, throw away our phones, and go 100% off-grid? Well, I have an uncle who did that. Sorry, not for me.

I will not pretend I have *all* the answers. But I do have one very important answer: **ignorance is your greatest enemy!** Education is key. We must be informed and we must make intelligent decisions.

With this in mind, Master Computing will be starting a series of weekly webinars and monthly seminars to put us all back in the driver"s seat.

For details, give us a call at **940-220-7817** or drop us an email: **connect@master-computing.com**

This Month In Technology History
Jay Hathi

In July, I touched on the sale of Atari to Commodore International, an event which marked the death knell of the American video game industry in the early-to-mid 1980s. This month, we're going back to 1985 to discuss the event that brought the video game industry back to life in this country – a renaissance that persists to this day. On October 18 of that year, Nintendo released the Nintendo Entertainment System to the American market and made home video games cool again.

In 1983, Nintendo, a company that had enjoyed a great deal of success with arcade games such as *Mario Bros.* and *Donkey Kong*, decided to enter the home video game market. In July of that year, they released the Family Computer, or Famicom, to the Japanese market. Although the console got off to a slow start – largely because of quality assurance problems that caused many of the first batch of consoles to crash mid-game – by the end of 1984, the console had become the biggest selling video game device in Japan.

As Nintendo prepared to release the device to the Japanese market, they began exploring the prospect of releasing the console to the North American market as well. Nintendo entered into negotiations with Atari, then the biggest name in video games in North America, to work out a distribution deal for the Famicom. The partnership was to be announced at the Consumer Electronics Show in Las Vegas in June 1983. However, mere weeks before the announcement, Atari discovered that Nintendo had broken their side of the agreement.

A clause in the partnership agreement gave Atari exclusive release of all Nintendo titles, regardless of platform. However, Atari soon discovered that Nintendo had allowed Coleco to bundle a copy of Donkey Kong with its new Adam computer system in violation of this clause. Incensed, upper management at Atari and the board of directors at its parent company Warner Communications began to try to find a way out of the deal. However, Atari CEO Ray Kassar, concerned that the company could not rebound without the agreement, did everything in his power to keep the agreement moving forward. As Atari's fortunes worsened throughout 1983, however, Kassar was ousted as CEO by Warner's board. With the partnership's primary advocate out, Atari allowed the deal to lapse.

Bolstered by the success of the console in Japan, Nintendo decided to market and manufacture the console themselves in North America. Well aware of the problems that had caused the video game crash of 1983, Nintendo instituted a series of standards and practices that would set their console apart. Nintendo would only allow licensed manufacturers to make games for the system, and all games, including their packaging and instructions, would have to be approved by Nintendo. To enforce this, the console included a lockout chip (the 10NES) that would keep the system from playing games that had not been approved by the company (and therefore did not have a proper authentication code). The console was redesigned to look less like a video game system for the North American market. Nintendo also eschewed common vernacular for the terms for games and the system – the console was called the "Control System" and the games themselves called "Game Paks" to try to avoid some of the stigmas then associated with video games.

Although much of the electronic and computer press asserted that Nintendo would fail spectacularly, the company released the system (renamed the Nintendo Entertainment System for these markets) on October 18. 1985 to New York City and select other test markets. Initial reception to the console was lukewarm, with some retailers going so far to say that the test release "failed miserably". Nintendo expanded the number of test markets in Feburary 1986; the console enjoyed more success during this second phase, and Nintendo released the NES nationwide in September of 1986. The console would go on to become the dominant gaming platform for the remainder of the 1980s – by the 1988, more games were being sold for the NES than the rest of the computer and video game market combined.

The Nintendo Entertainment system breathed life back into the video game industry after its rapid descent in 1983. The console would become one of the best-selling of all time and its games would set new standards in game-play, music, and graphics. The controls that Nintendo implemented to keep game quality high and production under control would become standard industry, and persist to this day.

Passion Is Powerful

A few months ago I had the pleasure of working with Germania Insurance at their annual sales conference. The night before, at dinner, I was fortunate to sit at the table with Matt Sodolak. I use the word "fortunate" because I was about to witness what I would best describe as TRUE PASSION for your profession.

I asked a question of Matt that I have asked countless times, "How do you like being in the insurance business?" His response surprised me. Without any hesitation he said, "I love it. It's my job for life."

In all my years of interviewing people, I have never had anyone say, "This is my job for life." The passion, sincerity and conviction in his voice just knocked me over. He sat forward in his chair and followed his statement with, "I love helping people, and I get to do it every day."

There was NO DOUBT in my mind the passion Matt felt for his job, career and the company he worked for. I felt that anyone who had Matt as their agent was so fortunate. He never mentioned commissions … he talked the whole time about protecting his clients and how people counted on him to make sure they had the proper coverage in case something disastrous happened.

Unfortunately, something disastrous did happen; Texas has been slammed this year with enormous floods destroying millions of dollars in property and causing havoc to people's lives. I heard from Matt last week and he shared a quick story about one of the people who works in their claims department. She said,

"Being in the insurance business, all of our customers' problems become our problems and we have to be here to help them through it… that's why they do business with us and that's what keeps our lights on; you gotta love it or you are at the wrong place!"

It doesn't surprise me that anyone who works with Matt would also have a passion for their job; he would attract other people who would want to do, help and care for others. Let me share a few anonymous quotes with you about the Power of Passion:

"Maybe the one thing that is keeping your career from taking off … is that you aren't looking at it as a career; it is simply a job to you; and your customers, associates, managers and boss can sense that."

"There is always going to be frustration, toil, hassles, problems, glitches, hitches and difficulties in any job (that is why they call it work). But, if you look at it from a different perspective … that what you are doing is helping people in some way … then it all becomes worthwhile."

Galileo, the great Italian astronomer, physicist, engineer, philosopher and mathematician, once said: "Passion is the genesis of genius." So, let your passion become the start of something great for your career.

Robert Stevenson is a highly sought after, internationally known speaker. He is the author of the best-selling books *How to Soar Like An Eagle in a World Full of Turkeys* and *52 Essential Habits For Success*. Robert is a graduate of the Georgia Institute of Technology (Georgia Tech) and is a former All-American Athlete. He started his first business at 24 and has owned several companies. Robert has international sales experience dealing in over 20 countries, and his client list reads like a Who's Who in Business. He has shared the podium with such renowned names as Generals Colin Powell and Norman Schwarzkopf, Former President George H.W. Bush, Anthony Robbins and Steven Covey. www.robertstevenson.org/

Shiny New Gadget Of The Month:

THE AMAZON ECHO: LIKE SIRI FOR YOUR HOME

It's not Rosie the Robot, but your first voice request to Amazon's new Echo moves you one step closer to living like the Jetsons… Think of it as a plugged-in version of Apple's Siri or Microsoft's Cortana.

This "smart" speaker in a 9¼ x 3¼-inch cylinder can order products, turn off lights, set a timer, look up and give you sports scores, read you a book from Audible and more.

You might even get it to tell you terrible jokes…

It won't replace a high-end stereo, but its sound quality compares with any Bluetooth speaker, and it can fill a good-sized room in your home.

Bottom line: Echo offers hands-free, at-home audio access to just about anything on the web, with better sound than a smartphone or tablet.

All in all, it can make your life easier. And maybe just a little more fun.

The "Blood Moon" Lunar Eclipse
By Jessica Shelley

On September 27, 2015, we experienced a super moon lunar eclipse. This is something that, according to NASA only happened 5 times in the 1900's.

The Super Moon, or Blood Moon, lunar eclipse is a pretty rare type of Lunar Eclipse. During this Eclipse the moon is the closest it ever is to the Earth. According to NASA, the next time a Super Moon will be in a state of Total Eclipse is 18 years from now, in 2033.

Unlike Solar Eclipses, you don't need special eye protection to see Lunar Eclipses. They can be seen clearly with the naked eye and happen just after the moon rises.

The Eclipse is part of an Eclipse Tetrad, meaning that there have been 4 lunar eclipses in the last year. They have all been exactly 6 months apart with 5 full moons between them.

It has been called the Blood Moon in recent years because of it's red color when fully Eclipsed. Some say that it is the moon that is talked about in the Bible, but as you may have noticed, the world did not in fact end. The term blood moon is not endorsed by any scientists and is purely colloquial.

Unfortunately this is the last Lunar Eclipse of 2015, so if you had your heart set on the next one, you might end up waiting at least a year. If you missed the Super Moon Total Eclipse, you'll have to wait another 18 years!

Are You Using Social Media To Market Your Business?
Here's Why You're Likely To Be Wasting Time And Money On False Marketing Metrics

John Wanamaker is famous for saying, "Half of the money I spend on advertising is wasted; the trouble is, I don't know which half!" With an ever-growing number of sophisticated online tracking tools, you'd think that wasting advertising dollars would be a thing of the past. But, in fact, companies are wasting just as much (if not more!) on online media and advertising due to a number of factors, but mostly because they're confusing *activity* with *results*.

In business, the only thing we can take to the bank is money – checks, credit card payments, cash and any other forms of monetary deposits. Leading indicators to revenue, as we all know, are paying clients (orders, contracts, sales) and actual leads from qualified, genuinely interested prospects. However, much of the social media marketing I see is a heck of a lot of activity metrics (clicks, followers, open rates of e-mail, visitors to a site, etc.) that cannot be directly tied to generating a qualified lead, much less cash in the bank; so, unless someone can directly show me how an increase in Twitter followers turns into more profit for a company, I'm not impressed. In fact, I believe management of all the social media sites ends up taking an enormous amount of time away from more productive lead generation and marketing activities and opens the door for customer service and PR failures.

For example, if you have a Facebook fan page, you now need to monitor it daily – even hourly – for negative client comments, which are now public for the world to see, unfiltered and out of context, instead of a client simply e-mailing you their complaint, where it can be addressed privately. Further, clients will assume they can message and/or post their requests to your Facebook page instead of going through the proper channels; if you fail to address their request in a timely manner because it didn't go through your normal process of handling such requests, you've just created a customer service failure that is open for the public to see.

To be clear, I'm not suggesting that you should shut down all social media sites and marketing; there are situations where it's a very smart and strategic part of a business strategy. But, as my mother would say, "Don't jump off a cliff just because everyone else is." Be sure that whatever you're doing online in social media can be measured and quantified to tie in to key sales, service and growth goals you have for your organization, and do not accept "getting our name out there" as a sufficient result for your marketing efforts.

NOW PLAYING...

Webinar Wednesdays

Beginning October 7th, Master Computing will be presenting a series of weekly webinars every Wednesday at 2:00 PM.

Topics will be based on feedback we receive from our friends and clients. Some examples include security, ID theft, data backup and disaster recovery, regulatory concerns, marketing automation, and productivity.

Monthly Seminars

Some people like to remain in the comfort of their own office for a webinar, but others prefer to lose the distractions of phone calls and emails while making new connections.

The choice is yours. Starting November 5th, we will begin our monthly seminar. Similar topics to the webinars, but a bit more social. Oh, and there's food involved…. You're welcome!

New *Legal* Reasons Why All Businesses Need An E-mail Archiving And Management System

It's a classic he-said, she-said case that ends up in court on a daily basis...

Widget buyer Ms. Robinson testified that Mr. Smith, the Widgets Corp. sales manager, told her that if she put her order in immediately, the price would be discounted by 20 percent. Mr. Smith argued that that was not what he said. According to his testimony, he agreed to give a 20 percent discount only if Ms. Robinson ordered at least one million widgets, which she did not. The widgets were manufactured and delivered, and the client was billed for the full amount. The client is refusing to pay the full amount and the manufacturing company is throwing it to a collection agency. If brought into a court of law, who would be right?

Provided that neither party can produce a signed contract to back up their case, there is no way of knowing who is right.

However, let's suppose Ms. Robinson produces an e-mail she sent to her boss copying Mr. Smith that says, "I made a deal with Mr. Smith, the sales manager at Widgets Corp., to get a 10 percent discount for 500,000 widgets ordered." Let's also suppose Mr. Smith cannot produce any e-mails, contracts, or memos to the contrary. Now the chances of Ms. Robinson winning her case go up exponentially. When faced with two credible witnesses whose recollection of an event or agreement are in dispute, the court is most likely to favor the person who has corroborating documentation to support their side of the story.

E-mail has Become the Primary Means of Communication and Negotiation

In the not too distant past, business people would communicate primarily through face-to-face meetings, telephone conversations, faxes, and the occasional paper document. When a "my word against your word" dispute arose, a court case could be awarded to the person who seemed more confident or credible.

Nowadays, e-mail has become the default mode of communication. It's very common for a buyer to communicate to a seller entirely by e-mail. Transactions are done without the two ever meeting and in some cases, never speaking. As a result, the "my word against your word" conundrum becomes more of a contest between e-mails, as opposed to a competition between the memories of the people involved.

The upside of this situation is that if you can produce an e-mail that supports your version of the facts, you have a leg up if it goes to court. The downside is that most people are careless about what they say in an e-mail. They don't think about it ending up as an exhibit in a courtroom under close scrutiny leaving them with the only explanation, "I know that's what I said, but that's not what I meant."

Food Service Company Awarded $2.5 Million Thanks To A Few "Innocent" E-mails

*Example: A food service company was contracted to provide all meals at 48 nursing homes. Ultimately, the food service company claimed that it was underpaid over $2 million and sued in federal court. The president of the nursing home company claimed that the food service company had made certain oral cost guarantees that were not honored, thereby justifying the underpayments. However, a detailed review of the nursing home company's internal e-mails revealed that its executives had "privately" expressed substantial doubt about the supposed oral guarantees. The e-mails were given to the jury, which awarded the food service company $2.5 million.

What Should You Do To Protect Yourself?

The most important thing you can do is think twice before hitting "send." If you are a manager or employer, train your employees to be careful about what they communicate via e-mail and constantly remind them of the dangers. Once an e-mail is sent, you cannot get it back. Another good practice is having a system for archiving and managing e-mail communications. This goes double for certain companies because of regulations like the Sarbanes-Oxley Act.

*Story reprinted from How E-Mail Is Revolutionizing Litigation -- and What You Should Be Doing About It by Michael G. Trachtman, The Corporate Counselor, www.law.com

3 Big Lies VoIP Salespeople Will Tell You To Get Your Money

Considering a VoIP system for your business?

Beware: The truth you need to make a good decision can be hard to come by. Here are a few "gotchas" to watch for when talking to VoIP system sales reps:

Big Lie #1 – "You'll need to replace your firewall (or router)."

Chances are, the rep telling you this needs to get around some limitation of his or her system. VoIP phone lines were never designed to go through your firewall. Being forced through a firewall can have a severe impact on the sound quality of your phone system.

Not only that, but going inside your network means competing with the data traffic of your existing PCs, laptops and other devices. Plus, it would cause you to open up a hole in your firewall… Don't go for it!

Big Lie #2 – "Our network uptime is the best in the industry!"

Ask for exact stats – and proof. If it's anything less than 99% guaranteed, don't buy it!

And don't let anyone tell you 99% uptime can't be done. As of this report, our carrier was up 99% of the last 6 months.

Big Lie #3 – "Your new system will have all the same features as your current one."

Do NOT assume this to be true. You'd be amazed by how many VoIP systems fail to provide even the most basic features. Be sure to get a hands-on demonstration to see for yourself how it will work. This will help you avoid any unpleasant surprises once your new system is installed.

Remember, it's "buyer beware" when shopping for a new VoIP system. This one decision could have a drastic impact on your company's ability to communicate with customers, suppliers and employees. Your bottom line is at stake, so take the time to shop carefully.

For our complete guide to how to get a VoIP system that will keep you and your staff "smilin' and dialin'" – without getting fleeced,

Call: 940-220-7817

Email: connect@master-computing.com

The Lighter Side: Could Your Laptop Battery Revolutionize The Way We Drive?

If you like hot cars and green tech, you may have started hankering for a Tesla as far back as 2008…

Yet, aside from cool looks and speed, did you know the simple design edge that's putting Tesla in the spotlight?

Other car builders, like Nissan, GM and even Mercedes, have electric cars on the road. But they all use costly, high-tech lithium ion batteries.

Tesla, on the other hand, simply uses the type of batteries you have in your laptop – thousands of them…

With over a billion of these cells made every year, their design and pricing is driven by the same fierce competition that drives the consumer market.

And if Tesla Motors can put a car on the road with enough battery life, they may just revolutionize the way we drive – like Henry Ford's Model T did over a century ago.