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### How to Use Technology to Make a Better Workplace



In recent years, employers have offered more ways for employees to customize how they see their work environment. These extra features can often go a long way toward improving their productivity and comfort in the office, but they are often held in check by the problems that such technology can create. A smart office was created with the purposes of keeping these...



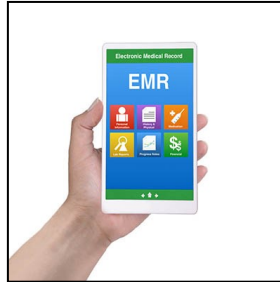
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## EHR and Other Technologies Moving Healthcare Forward



on skyrocketing medical costs.

In 2009, when the U.S. Congress passed the HITECH Act there was an optimism that the legislation would push the medical profession into the information age. As a part of the American Recovery and Reinvestment Act (ARRA), the United States Government invested tens of billions of dollars into improving the healthcare industry's use of information technology, and mandated medical practices to implement IT systems that enhance the flow of electronic health records to improve (and speed up) patient care and to try and use that built-in efficiency cut down

Defined by the term "meaningful use", the health sector implementation of electronic health record technology (EHR), one of the HITECH Act's core standards, has now been going on for almost a decade; and, the landscape has shifted dramatically. The investments that the public made has kickstarted an across-the-board shift to EHR. In 2015, 96 percent of hospitals and 78 percent of doctor's offices used some kind of certified EHR technology.

This changed the way that physicians provide care, insurers reimburse medical organizations, and patients manage their own care. Technology has always been a central part of the healthcare industry, but today, IT usage has significantly ballooned in use. EHR systems are more intuitive, more powerful, and allow for far more integration than the ones that were launched nine years ago. Those platforms always had charting and billing features

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## No More Pencils, No More Books: Technology in Education



In a world that is increasingly centered around technology, it is becoming more important that there is a familiarity with this technology in the younger generations. This is a major reason that many educational institutions are taking strides to adopt and encourage the use of technology in the classroom from an early age. As a result, there have also been some observable benefits.

### Technology in K-12

Again, the world is more reliant on technology than ever before, with no indication that this reliance will decrease - or even stop increasing - anytime soon. This means it is only more important for students to be introduced to technology early and taught to use it for productive, practical applications.

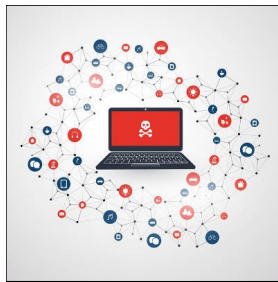
More immediately, education technology carries with it numerous potential benefits for both educators and those being educated.

- **Personalized Approach** - Any educator worth their salt will tell you that the methods needed to teach one child can be (and almost definitely are) vastly different than the approach it takes to properly teach another - not to mention the differences in progress that can be seen in just about every classroom between the students. Technology can be used to not only assess each student's progress, but also to customize their experience so they can progress at a rate that suits their learning style.

Speaking of their learning style, technology also enables each student to learn the way that they are best suited to as an individual. Again, programs can evaluate the most effective

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## Has the Internet of Things Outpaced Network Security?



The Internet of Things is constantly changing and evolving, but this also means that it might be growing a bit

too fast for its own good. So many devices these days have connectivity that it's difficult to keep your business secure from them. We'll discuss whether or not the Internet of Things is outpacing the efforts of security organizations and businesses, as well as what you can do to make sure that your business doesn't fall victim to it.

It's not unheard of for Internet of Things devices to cause security concerns--particularly in the wake of devastating Distributed Denial of Service (DDoS) attacks orchestrated through the use of countless hacked devices. We can use the relatively recent DDoS attack on Dyn, a well-known domain name provider, as a prime example of this. The devices used to initiate this attack were infected with a malware

variant called "Mirai," and it created a massive botnet that was used to bring down the websites of some of the biggest technology companies out there--specifically, those who relied on Dyn's services in order to be active.

The basic idea behind the fear (and now reality) mobile device botnet is that millions of devices will create an infected network that can bring about a massive attack. This attack can target something with a ridiculous amount of traffic that can bring down naught but the mightiest networks. The Mirai botnet itself targeted devices by using their default passwords. Many users don't change the default passwords, making this a viable tactic.

When you think about it, this development isn't nearly as far-fetched as it might seem. When so many devices are being used in a connected fashion, it's only natural that some either won't be properly secured, or will be infected with malware that can do the bidding of external threats. There is a direct correlation between the increase in connected devices and the number of potential

threats out there. The most unnerving part of the Internet of Things and security shortcomings is the fact that so many devices are connected--many of which were never connected before, including automobiles, home appliances, and so much more. How can you protect your business with such a crushing force waiting to be launched at any moment?

It all starts by implementing basic security best practices. If you have any mobile or connected devices in your office, it's best that you change the password (definitely don't leave it at the default password). Furthermore, any devices on your network should be comprehensively protected by a mobile device management solution that's designed to protect any devices that have access to company data.

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## EHR and Other Technologies Moving Healthcare Forward

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(the favorite of the healthcare industry), but today's solutions are hosted in the cloud and have features that push procedural updates to all parties, provide e-prescription services, integrate evaluation and management coding services and lab work data, trigger meaningful use certification, and deliver a pretty dynamic patient portal, which securely allows patients to keep track of their own care and health.

The rapid digitization of the healthcare industry wasn't just dependent on the whopping \$35 billion the American taxpayers outlaid for it to happen, however. Sure subsidy definitely is a main driver of EHR technology integration, but another, collaboration, has become a major part of the growing medical community. Since the EHR provides parties with secure access, parties that

need to collaborate about a patient's health can do so now faster than ever. This not only provides the construct where better care is possible, it increases and enhances the communication between care providers, whether they be specialists, primary care providers, or emergency care providers.

***"In 2009, when the U.S. Congress passed the HITECH Act there was an optimism that the legislation would push the medical profession into the information age."***

### How Does the EHR Work?

For this process to be a success the EHR has to be comprehensive. The modern EHR is set up to work like this: First, through a patient portal, a person can make an appointment to see a doctor, then when he/she arrives the front office person will check you in. A few minutes later a nurse will come get you,

check your vitals and bodyweight and while doing that, will also bring up your medical history for the doctor so that when he/she comes in to see you that they have all the updated and relevant information.

If it sounds familiar, it is the same way they've been doing it for decades, but instead of paper charts in file folder, there is a whole dynamic interface that provides all the patients information in real time. Some of the more advanced EHRs work in conjunction with sensors that are inserted in a patient's body to help track vital levels of a myriad of person medical issues. This gives doctors a comprehensive view of the patient they are treating, allowing them...



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## No More Pencils, No More Books: Technology in Education

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way to teach a particular student and present the material in that format. This also helps the student feel more in control of their own education, and thereby invested in it, motivating them to work harder and learn more.

- **Improved Insights and Data** - One of the most important parts of teaching is to identify if a classroom isn't effectively progressing as they should be, and why. Educational technology can contribute to that end by providing data into the precise places that their students are encountering difficulty in their work. This information could allow teachers to adjust their lessons and address the true pain points that students have, rather

than relying on them to raise their hands and ask.

- **Increased Responsibility of the Student** - Students require engagement in order to effectively learn, something that teachers find it increasingly difficult to provide with swelling class sizes and a corresponding decrease in the time that can be spent with each of their pupils. Again, thanks to the personalization and independence that technology can supplement their education with, a student doesn't necessarily require as much direct attention from their teacher to learn. This allows a teacher to direct their focus to those students who may still need additional, one-on-one assistance.

Furthermore, entrusting devices to students encourages them to be more responsible. Those in younger grades can be taught concepts of respecting possessions (especially those that don't belong to them), while older students can be taught the importance of safe and responsible technology usage.

- **Skill Development and Cooperation** - The purpose of education is to prepare children for their lives as adults, to practice learning so they will have the skills they need to adapt more efficiently to new circumstances and responsibilities in the future. As...



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## We Bring Value with Our Managed IT Services



Technology is great for improving certain parts of your business, but only if it is implemented correctly.

The way you manage your technology will determine whether you are investing wisely or just throwing away money on solutions that simply don't work. How can you make sure that your business isn't held back by the way it manages its technology? It all starts by taking a look at what you currently do versus what successful companies are doing.

Almost all small businesses use technology, but they don't necessarily have an in-house department dedicated to overseeing how it is used or maintained. If you don't have enough operational capital to employ dedicated staff whose job is to effectively manage your business' IT solutions, chances are that this responsibility falls to your other employees. Even if they are the ones doing the maintenance, it's likely that they can't provide the specialized services required for each and every piece of

hardware and software that your organization uses on a daily basis; not to mention the background in the organization and management of business technology. In any case, you're risking your organization's future with every software patch not being implemented on time, or security update not being applied as needed.

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What about in a worst-case scenario? In a situation like this, where your business's data could be compromised by external factors, would you have an answer for the inevitable tough questions? Natural disasters and hacking attacks are two cases where you could experience crippling data loss or corruption. If a scenario like this were to play out, you want to make sure that your organization has a way to back up and restore data. This way, you can maintain a reliable and recoverable copy of your organization's data off-site just in case. After all, future events like this are, quite frankly, impossible to

predict. If you're not using an automatic system, you never know how much data you could lose in the event of such an attack.

Ultimately, the most important part of preventive IT maintenance and management is that it saves your business a considerable amount of capital. By making sure that all of your services are operating at full capacity, you create more opportunities for your employees to be productive. Furthermore, by making sure that all of your patches and updates are applied properly, you gain the peace of mind that entities that threaten your organization's profitability are being repelled. Outsourcing all of these responsibilities to a managed service provider like Global Tech Solutions lifts the weight of these important responsibilities from your organization's shoulders, and it keeps you from expense associate with maintenance and repair of critical IT components.

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## Sports Are a Training Ground for Smart Technology



Smart technology and the whole Internet of Things revolution has been underway now for some time. One vertical market that has embraced this shift was that of sports and fitness. Of course, you've heard of (and possibly own) a fitness band that is designed to track your steps, your vitals, and some other things to allow you to be the best version of yourself. This technology has been around for years and, while useful, isn't transforming the face of sports like the technology you are seeing being introduced today. Today, we'll take a look at how the IoT is transforming the sporting world.

### The Games

Sports are important throughout the world. With so many people claiming to be sports fans, and so much money spent on viewing sporting events annually, it stands to reason that one of the biggest technology trends in history hit the sports world (and athletics as a whole). To this point the Internet of Things has been a conceptual strategy in some industries. Not in sports, where athletes, teams, and leagues are using sensors and smart products to help quantify and track elements of an athlete's

performance, while using the immense amount of data that's produced to formulate plans to make sports safer. The analysis of this data has become big business, and is, in some cases, transforming the games themselves

### The National Pastime

One example is happening in baseball. Several years ago, the use of data began to change the way teams value players. Called sabermetrics, it took all the raw data that was collected from the game (and there is an awful large amount of data in every game), plugged it into algorithms that were used to compare every player to every other player. This provided a map of how to put together a winning team for fewer dollars. Later named "Moneyball", the strategy began to make its way through the major leagues, into the minor leagues, and beyond. With so much impetus put on the numbers, a lot of teams started finding new algorithmic approaches to try to get an advantage.

When the IoT was in its infancy, the shift toward analysis has only quickened the pace of innovations. Today, so much raw data is taken from a baseball game that all 30 major league teams have come to employ huge analytic departments to sort through

and quantify the data. This has not just been used to determine the acquisition (and value) of players, it has been used to determine lineup configuration, defense configuration, pitcher effectiveness, and all in the name of situational advantage.

Once general managers, managers, and players knew what they were looking for, they began to use the newest technologies to track specific parts of a player performance. One way that IoT is working to improve player performance is by introducing technologies like SwingTracker that attaches to the bat and captures a player's swing in 10,000 separate data points per second, and the mThrow wearable sleeve that pitchers can wear on their arms to measure pitching mechanics. Since millions of dollars are spent on contracts for players, teams are trying to be as diligent as possible as to not waste available capital. Beyond the dollars and cents, these IoT wearables not only help athletes fine-tune their craft, they do it in a way that helps them avoid injury.

Other major sporting leagues including the NFL, MLS, Premier League, NHL, NBA, and...



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We partner with many types of businesses nationwide, and strive to eliminate IT issues before they cause expensive downtime, so you can continue to drive your business forward. Our dedicated staff loves seeing our clients succeed. Your success is our success, and as you grow, we grow.



Abraham Brown  
CEO

### Tech Trivia

Facebook Messenger and Whatsapp handle 60 billion messages a day.

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