

Building Blocks of Technology

Smart Construction: Business and Environment

Throughout history, architects and builders have designed and erected shelters that protect us both at work and home. Influenced by the cultural needs of the time period, architecture is essentially the art we live in.

Back in the 1800's, architects began incorporating steel into their designs to allow for taller structures, and hence, the skyscraper was born! During this tall-building boom, architect Louis Henri Sullivan was known for the principle of "form follows function" and instrumental in creating a new functional design for these new tall buildings. While working under Sullivan for six years, Frank Lloyd Wright cited him as being a major influence in Wright's minimalistic, streamlined style and approach of incorporating nature into his architectural designs. The importance in the underlining function of the design prevails!

Today, architectural design of office buildings has taken on a new dimension by incorporating technology into its design to manage the overall function of a structure. New designs use the Internet as a scaffold to support and transmit information within its structure. With the rise of smart devices and how the Internet of Things (IoT) brings together devices, sensors, cloud, and data, builders are taking "smart" to a whole new level, with smart buildings rising across the world. These new smart buildings benefit both business and the environment.

Smart benefits for business

Smart construction utilizes a networked ecosystem of "smart" building equipment and devices, and has proven to save energy. Thus, they reduce expenses to building facilities and increase savings to a company's bottom line. Incorporating windows that absorb daylight and buildings that spin around to get the best solar exposure is very cost effective. These windows can be integrated with building automation systems and programmed, along with other building equipment, to utilize natural sunshine and heat to offset the need for artificial lighting and artificial heating from HVAC. Smart lighting systems can respond to the availability of natural light and the presence of occupants. One of our team members experienced this first hand on a recent trip to Europe when she left her tablet and smartphone charging in the hotel. (Or, so she thought.) Unbeknownst to her, when she left the room the lights and power automatically turned off. Imagine her surprise when she returned only to find the devices still void of charge. The research firm ON World predicts that, by 2020, 100 million Internet-connected wireless light bulbs and lamps will be installed to both save energy and improve workplace functionality.

Smart technology opens new avenues for how humans, machines and buildings can interact. Imagine... You arrive at your workplace, park your car in the automated garage, use a retinal scan to pass security, and by the time you walk into your office, everything is ready for you—computer, lights and temperature already set for you to begin your workday. These integrated systems of connected devices with machine-to-machine communication and cloud technology are automating the way we live and work.

(Continued on page 2)



In This Issue

Smart Construction: Business and Environment	1
We Don't Live in Kansas, Ya Know	2
Safe Shopping Online	3
Video Surveillance: We're Watching You!	3
Upcycling... It's New to You!	4

BUSINESS

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www.it-radix.com/blog

We Don't Live in Kansas, Ya Know



That's what my dad used to say whenever I forgot to lock the front door, reflects Sr. IT Consultant, **Mike Oster**. As if he had some sort of insight into the low crime rate of Kansas. Well, now I'm going to say it to you: "We don't live in Kansas, ya know."

I bet you're doing all the right things when it comes to cyber security. You have a good firewall. You're using VPN for remote access—complex passwords...the works. But what are you going to do when some bad guy walks into your office, picks up your server and walks away with it?

People often overlook physical security when thinking about keeping their data safe. Well, they shouldn't. Keeping your data physically secure is every bit as important as keeping it technologically secure.

Physical security starts with the server room. Your servers need to be in a locked room or cabinet with limited access, period. No shortcuts here. Putting your data in a closet with the printer paper doesn't count. Only people that require server access should have access to the server room.

While we're talking about server rooms, it's not just for servers any more. All of your network equipment should be locked in here as well. Having your network switches or firewall out in the open is just inviting someone to plug their laptop in to see what they can see.

Don't forget your backups. Whatever device(s) you're storing your backup on needs to be locked up as well. As long as we are talking backups, let's not keep your backups in the same room as the server. Where possible, try to store your backup in a separate locked room from your server. You know the old adage...something about eggs and baskets.

Let's not leave workstations and laptops out. These devices are particularly susceptible to being physically compromised. It would be difficult, if not impossible, to keep all of your employees' workstations under lock and key. So, what can we do? Well, we already determined you are using strong passwords for all users, right? If not, do that first. Go ahead, I'll wait...Welcome back! With all devices protected with strong passwords, the next step would be to encrypt the hard drives in those devices. That way, even if a thief makes off with the entire computer, they cannot get to the data—even if the drive is removed from the computer. Laptops are especially vulnerable due to their small size and portability. You may want to consider a "phone-home" type service that can help locate, or possibly completely erase, a lost or stolen laptop. Did you know that IT Radix offers a service that protects company laptops that is similar to "LoJack" for cars?

So when you're thinking about keeping your data safe, don't forget to lock the front door!

Smart Construction

(Continued from page 1)

Smart benefits for the environment

Public interest in sustainability has triggered a surge of green building innovation. Increased water concerns and energy costs have sparked resource-efficient building operations among commercial businesses. New regulations in many states provide further motivation in the form of energy disclosure ordinances or tax incentives for sustainable construction and building operations.

Research has shown that green buildings are good for employee health and well-being. Utilizing air-cleaning paint reduces harmful emissions in power plants and factories, by interacting with light to break down harmful gases into harmless substances. This same technology prevents the growth of mold, algae and bacteria. Corporate tenants are willing to pay higher rents for the resulting workplace productivity gains, while employees and consumers alike prefer companies that are socially and environmentally responsible.

Smart construction is not the stuff of science fiction. The technology is out there today! Buildings where lighting, air conditioning, security and other systems pass data freely back and forth—leading to higher efficiency, more safety and comfort, and lower cost operation of the facility are here today. As a continued effort to help the planet, reduce energy consumption of older equipment, and safely recycle electronic waste, we invite you to participate in **RED Month**. During the month of November, IT Radix offers free recycling to all of our IT Radix clients. Learn more at www.it-radix.com/red.

**OUR CLIENTS
SPEAK OUT:**

THE BUZZ

"You have an excellent crew in your company. Thanks to your suggestions, we got a vast increase in bandwidth without costing us an arm and a leg. With a much, much quicker connection, folks here at Maher & Maher are smiling again."

Richard Chen, IT Manager — Maher & Maher

Safe Shopping Online

Online shopping has become a multibillion-dollar revenue stream and is predicted to grow steadily to \$370 billion in 2017. Consequently, identity theft is on the rise and online shoppers are easy targets! Last year alone, 17.6 million U.S. residents were victims of identity theft.

Here are our top three cybersecurity shopping tips to stay safe online:

- Research the merchant before buying. The Federal Trade Commission maintains a website (www.consumer.gov) that provides many buyers' guides, lists of tips, and links to helpful resources.
- Make sure you are on a secure website before giving your name, address or credit card details. Look for a padlock and <https://> in the address bar at the top of the web browser screen.
- Read the company's privacy policy carefully. Uncheck any boxes giving the vendor permission to sell or share your information with other vendors.

Get ready...Cyber Monday is around the corner. Happy and safe shopping!

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SPECIAL OFFER

Building a Foundation

Sign up for a year of IT Radix Management and Support during the months of **October, November and December**, and receive a Kindle!

All three plans are eligible:
Capstone, Cornerstone, Keystone

Visit www.it-radix.com to learn more about what's included in each of these proactive maintenance plans. Call **IT Radix** today to learn more!

Video Surveillance: We're Watching You!

As technology has progressed, so have the capabilities of keeping buildings secure through surveillance cameras. Surveillance cameras are critical to monitoring a building's premises in real-time.

Adding an extra layer of security will enhance the safety of your staff and clients. Additionally, video cameras may also increase employee productivity—unmotivated employees will know they are being watched!

Undoubtedly, you'll agree, that no business is immune to theft and liability. There are many reasons to consider video surveillance for your business. But one thing is for sure, surveillance cameras make a great visual deterrent which at times is enough to discourage criminals.

Consider this... all the firewalls in the world won't help you if your server is on the premises where anyone can gain access. You work hard to protect your business, why run the risk of letting it go out the door—literally!

Locking the door to your server room is good business practice. However, someone with malicious intent could break in. What if someone who has authorized access misused their authority or if someone gets inside your office and connects a device to your network to steal data? Video surveillance is often overlooked, but should be an integral part of your security plan.

You may think securing cameras is a straightforward process, but there are a lot of questions that should be addressed. Some of the things you'll want to consider are to make sure it's an IP-based solution which provides remote security—even through smartphones or tablet apps. Bandwidth requirements, storage, hardware restrictions and compatibility issues should be discussed with your security integrator.

IP and wireless video surveillance systems deliver a wealth of benefits. By using a completely wireless system, you can connect right to your existing system and get alarm signals.

Proper planning is essential. Before hiring a partner to head this project, the ideal candidate should be fully trained and provide the following:

- Full technical support for the length of the project
- Integration and configuration services
- Experience in designing high-performance IP camera systems
- Ability to customize a system to your company's needs

Don't rely on a handful of Legos strewn around your floor to build up your security. Video surveillance allows you to keep watch over your building at all times. Not convinced you need a security system? Think again! You've heard us quote this before, "An ounce of prevention is worth a pound of cure!"

LEGOS



Why waste hundreds of dollars on a high tech security system when you can just lay a few of these around the house?

“One of the secrets of life is is to make stepping stones out of stumbling blocks.”

— Jack Penn



“News, sports, weather, comics, advice, politics, opinion — it’s the Internet in a biodegradable, easily recycled format. The latest thing in green technology!”

From the desk of: Cathy Coloff

I’m lucky. I’ve had the good fortune to have “handy” people in my life. It definitely started with all my grandparents who lived through the Great Depression and were masters at repairing, repurposing or recycling all sorts of things. The result was that both my parents were avid DIYers—building our first TV, furniture for our home, and much more. Growing up, my dad would often call me out to the garage to help him hold a piece of wood he was cutting and taught me how to use a hammer and screwdriver. I wasn’t allowed to drive away in my first car until I could successfully tweak the carburetor so it wouldn’t backfire in the winter at college. It was only natural that I would marry a man who is good with cars, carpentry, and in this more modern era, computers. We met at Exxon, my first job out of college, and I can remember one of our first dates included me handing Doug tools to do something to his Monte Carlo. Yes, I know, very romantic! I use the beautiful maple table we made almost every day as my computer desk at home. Being able to create something or provide a quality service—in the case of IT Radix, computer consulting and support services—gives me great pride. I’m fortunate to have a team of people who also take pride in providing quality service. We are constantly trying to improve our own performance—sometimes we “repair” processes that aren’t working well or “recycle” a good idea from one area of our business to another. Just as building construction has evolved over the years and is getting “smarter” with the help of technology, so are we at IT Radix by using technology to improve our products and services. I’m always open to new ideas and ways of doing things; so, please share any thoughts you may have to help us improve.



Email or call me anytime. Happy Thanksgiving!



November is RED Month

Recycle | Energize | Donate

Recycle... Keep electronics out of landfills and help our environment.

Energize... by doing good.

Donate... Help others in need. For every recycled computer received, IT Radix will donate \$1 to the **Jersey Battered Women’s Service**. Would your business consider matching?

During the month of November, drop off your items at our IT Radix office between 10am-4pm. Visit our website at www.it-radix.com/red for a complete list of acceptable items and to learn more about **RED Month**. By working together, we can make a difference in the world around us!

Upcycling: It’s New to You!

Out with the old, in with the old? Old...is that a typo? No! Upcycling is the latest craze, and our environmental enthusiasts couldn’t be happier!



Upcycling is the practice of turning things people would typically throw away into something useful and often beautiful. It’s an improved form of recycling that, instead of breaking down the materials, uses them in their original form, giving them a new purpose. Upcycling gives recycled goods a second chance—reinventing them for another use.

This chic, new trend is sweeping through small businesses who are embracing this new concept of making cash from trash by turning trash into treasure! Upcycling has become a popular trend among online bloggers. Also, thanks to sites like Etsy and Pinterest, upcycling and DIY tips are the most popular trend. More than five million home décor ideas are pinned daily on Pinterest alone. It may not be practical or easy to turn every single item into something entirely different. However, if nothing else, items can be repaired and refurbished and made functional again, instead of wasting consumer money to buy another, completely identical item.

Why should upcycling be encouraged? To keep things out of our landfills! The United Nations reported that by 2017, the world’s electronic waste is expected to reach 65.4 million tons. That’s the weight of 200 Empire State Buildings! Many businesses have come on board to reduce e-waste. In fact, “Zero Waste” is one of the latest practices in the manufacturing industry, based on the idea of sending “zero” amount of waste to landfills.

So, are you wondering what to buy for your computer geek friend this holiday season? Avoid the crowds during Black Friday shopping and the stress of Cyber Monday. Instead, go green on Tuesday with some homemade upcycled ideas. Our favorites are iMac pet beds and aquariums. Remember, it may be old but it’s new to you!