PECB Insights

Issue 15 | August 2018

When Standards Matter

IS IT REALLY THE END OF PRIVACY?

The Controversy of Fingerprint, Facial Recognition and Big Data





“Discipline is the Bridge Between Goals & Accomplishment”

JIM ROHN

American Entrepreneur, Author and Motivational Speaker

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- Electric cars will one day replace fueled vehicles - but how soon?
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- Why Soft Skills should always be a top priority?
- How will Education benefit from the newly published ISO 21001 Standard?

...and more



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How Leaders Get Better Every Day and Why They Should

Will tomorrow be better for you than today?
Or will today be as good as your life ever gets?

Let's pretend for a moment that someone told you: You'll never be any better than you are right now. Tomorrow won't be terrible, but you will be a little less happy, a little less healthy, make somewhat less money, have shallower experiences and make less impact. And that will continue each day for the rest of your life.

Would you be happy? I don't think so.

At some level, we all hope and expect our lives to keep getting better… but what do we do each day to ensure that happens?

Ongoing improvement requires desire and discipline, passion, and a plan. That's why I wrote "The Potential Principle: A Proven System for Narrowing the Gap Between How Good You Are and How Good You Could Be."

I have been fortunate to work with some of the best companies and highest performers of our time. I noticed that many had succeeded in becoming the best in their field, but once they did, they faced an even bigger challenge: how to become better.

When you're at the top of your game, improvement is more incremental and harder fought. You have got a few, if any to emulate. You now are the leader, and just maintaining much less makes it difficult to increase that lead.

So Why Get Better?

If you are already among the best, or even really good, why would you even want to get better?

First consider this: we all know how good we have become, but none of us know how good we could be. No person or organization I have ever worked with has ever claimed they were living or doing business at peak potential. Why? We simply don't know what is possible, so we keep aiming to get better and find out just how good we could be. That makes life and business incredibly interesting. There are also several practical drivers for the need to improve.

The first is **change:** with so many changes occurring around us, we need to improve our knowledge and skills just to keep up.

The second is **competition:** If our competitors get better and we don't, we lose ground.

The third is **customers:** They have increasing expectations. Ever noticed that the more you do for customers, the more they expect? Most certainly yes. And that's why you need to continue to increase your value proposition.

Finally, your **capabilities** are above whatever level you are performing at now. As a client once told me, we don't benchmark against our competitors, we benchmark against our capabilities.

The Key to Better

Nobody gets better "accidentally." Only wine improves with age without trying. You don't accidentally improve significantly, reach the highest summits or make the greatest positive impact without intentionality. How much do you want to get better? Teachers can teach you, coaches can coach you, and motivational speakers can pump you up, but it is what you do with the information that matters.

Ongoing improvement requires a process and is based on principles you correctly and consistently apply. When leaders are intentional and take action, the door to the future swings wide open. Your willingness to work at improving yourself is the secret to realizing your full potential. You supply the commitment to getting better, coupled with the right plan and process, and your effort will start to pay off. It's well worth it.

Not only will it benefit you, but it will also benefit the people around you. Your customers will be happier. Your boss will be impressed. And your family will see you at your best - the spouse and parent you really want to be. So, you have a choice to make. Are you content with coasting along? Satisfied with the status quo? Or are you ready to make your best even better?

Today can be better than yesterday, and tomorrow can be a little bit better than today. Choose to keep getting better and narrow the gap between how good you are and how good you could be.



About the Author

Mark Sanborn CSP, CPAE
President of
Sanborn & Associates, Inc.



ISO 50001 for Energy Management Gets a Boost

Reducing energy consumption and improving energy efficiency are at the forefront of the global climate change agenda. ISO 50001, the flagship International Standard for improving energy performance, has just been updated.



Energy consumption is on the rise, despite the fact that it contributes to nearly 60% of the world's greenhouse gas emissions. At the same time, more than one billion people still lack access to electricity and many more rely on harmful, polluting energy sources. With that being said, it is no surprise that addressing energy efficiency and climate change challenges make up a key part of the 17 Sustainable Development Goals in the United Nations 2030 Agenda.

ISO 50001:2018, Energy management systems - Requirements with guidance for use, transformed the energy performance of organizations worldwide when it was first published in 2011, giving them a strategic tool to use their energy more efficiently and effectively. It provides a framework for managing energy performance and addressing energy costs, while helping companies reduce their environmental impact to meet emissions reduction targets.

ISO 50001 has just been revised, making it even more effective to tackle the world's energy challenges. Roland Risser, Chair of the ISO technical committee that developed the standard, said the new version features updated terms and definitions and greater clarification of certain energy performance concepts.

"There is a stronger emphasis on the role of top management as well, as it is important to instilling an organizational culture change," he explained. "It is also now aligned with ISO's requirements for management system standards, making it easier to integrate into an organization's existing management systems."

ISO 50001 has become increasingly important since its release seven years ago. A total of 20,216 certificates to ISO 50001 were issued by the end of 2016, according to the ISO Survey, which reveals that certifications to the standard increased by 69% during that year.



Disclaimer: PECB has obtained permission to publish the articles written by ISO.

Source: ISO



Auditing Standard for Management System Standards Now Updated

Management systems help organizations achieve their objectives, and auditing them makes good business sense. The International Standard for auditing management systems has just been updated, giving more guidance than ever before.

Management system standards are growing in popularity as organizations see how they can be applied to manage interrelated processes to achieve their objectives. From quality or energy management to food or traffic safety, the list of standards aimed at helping organizations put in place effective management systems is getting long.

ISO alone has over 70 management system standards, building on international expertise and best practice to help organizations perform better, save money and develop a competitive edge.

In order to get the best out of a management system and ensure continuous improvement, regular auditing needs to take place. Not an easy task if, like most organizations, you have several management systems in place.

ISO 19011, Guidelines for auditing management systems, however, offers a uniform, harmonized approach, enabling effective auditing across multiple systems at the same time.

Denise Robitaille, Chair of the ISO project committee that revised the standard, said:

> It was updated to ensure it continues providing effective guidance to address changes in the marketplace, evolving technologies and the many new management system standards recently published or revised."

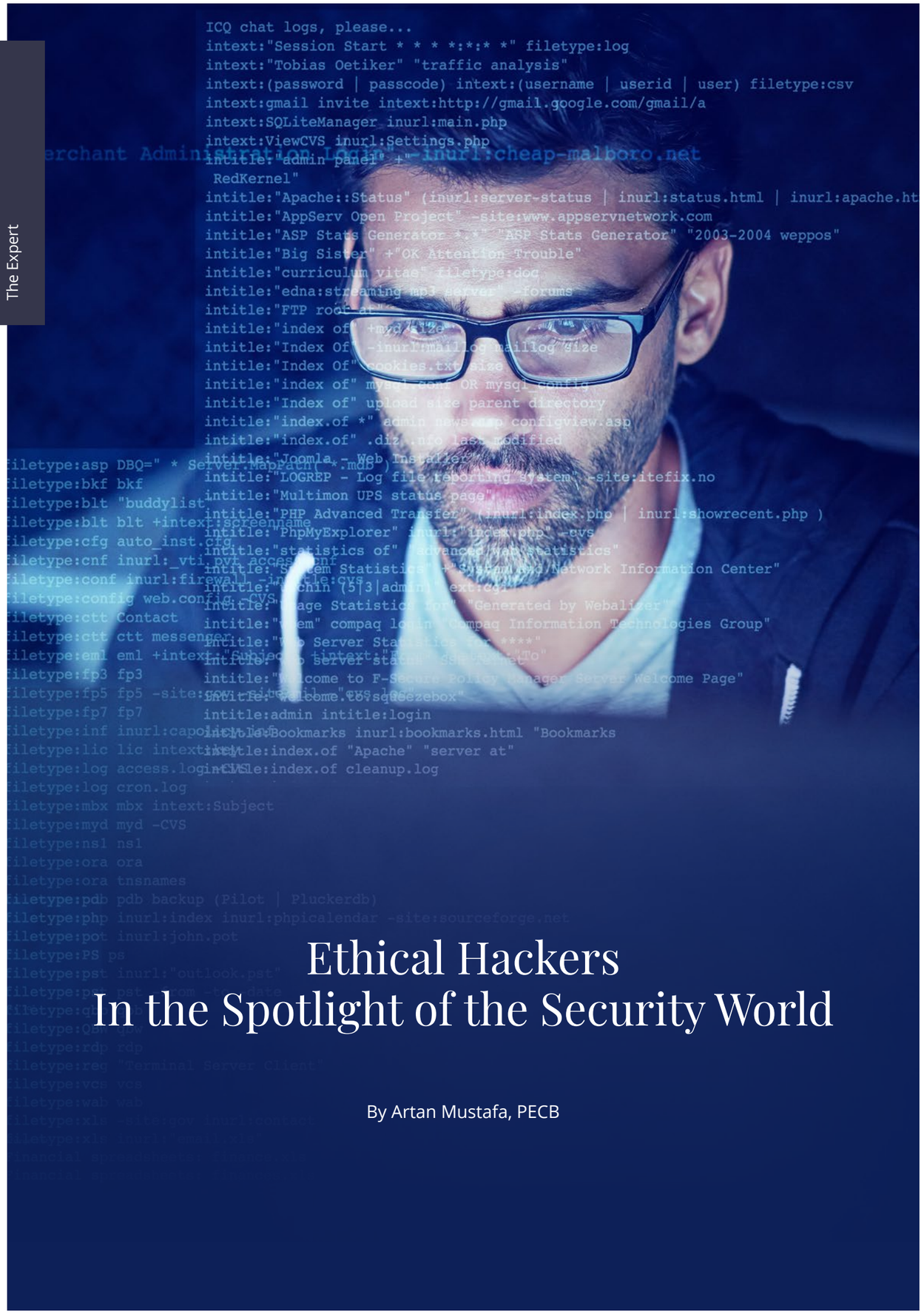
"Other key changes in the 2018 version include the addition of a risk-based approach to the principles of auditing to reflect the enhanced focus on risk in both management standards and in the marketplace," she said.

"There are tips on auditing risks and opportunities as well as information on applying risk-based thinking to the audit process.

"In addition, guidance has been expanded in a number of areas such as managing an audit programme and conducting an audit."

Disclaimer: PECB has obtained permission to publish the articles written by ISO.

Source: ISO



Ethical Hackers In the Spotlight of the Security World

By Artan Mustafa, PECB

One of the biggest threats in today's digital era comes from cybercriminals. According to CSO, it is predicted that damages from cyber-crimes will cost around $6 trillion annually by 2021.

The term hacker is often used with a negative connotation by the media and the Hollywood industry. Given that this word is constantly linked to activities that are obscure or even criminal in nature, people have a bad impression of someone known as a hacker.

Hackers are portrayed as people who operate in the shadows, who are anti-social and anarchists. Others believe that hackers are the new political social activists. Hacking is generally the desire to outsmart systems. Most hackers are not bad people who commit illegal activities, as they are usually portrayed. They're just curious individuals trying to find loopholes in security systems and fix the issues to make them more difficult to break.

Hacker attacks are making headlines on daily basis, like DDoS attacks on well-known corporations. These headlines, therefore, build the impression that the bad guys are always wreaking havoc.

The black hat hackers are only interested in destroying systems and get joy by doing that. They are the famous hackers and those responsible for the recent global cyber-attacks. Thanks to their skills, they identify banks or other companies with security flaws and steal money or information. Faced with the lucrative business of cybercrime, these hackers have been consolidated as whole organizations that have a well-defined process and hierarchies.

On the other hand, there are also the hackers, part of criminal gangs, who have become millionaires by engaging in illegal activities, be that by stealing personal information, blackmailing companies, etc.

While this still stands, there are also the good ones who possess the same set of skills as the bad guys, and they're called ethical hackers. An ethical hacker, else known as a white hat hacker, is an ultimate cybersecurity professional. The ethical hacker is constantly looking for and exploiting vulnerabilities and weaknesses in proposed or existing networks and systems. Unlike the black hat hackers, ethical hackers use their skills in a legitimate, lawful manner to find and fix weaknesses and vulnerabilities of systems, and patch them before they are hacked and exploited illegally for personal gains.

> People are being exploited daily by illegal hackers, while ethical ones are only there to explore the limits of technology and develop it further.

So, the primary and most important difference between an ethical hacker and a black hat hacker is the way they operate. As explained above, ethical hackers are IT Security Professionals who assess information security, expose vulnerabilities and help protect data from internal or external threats.

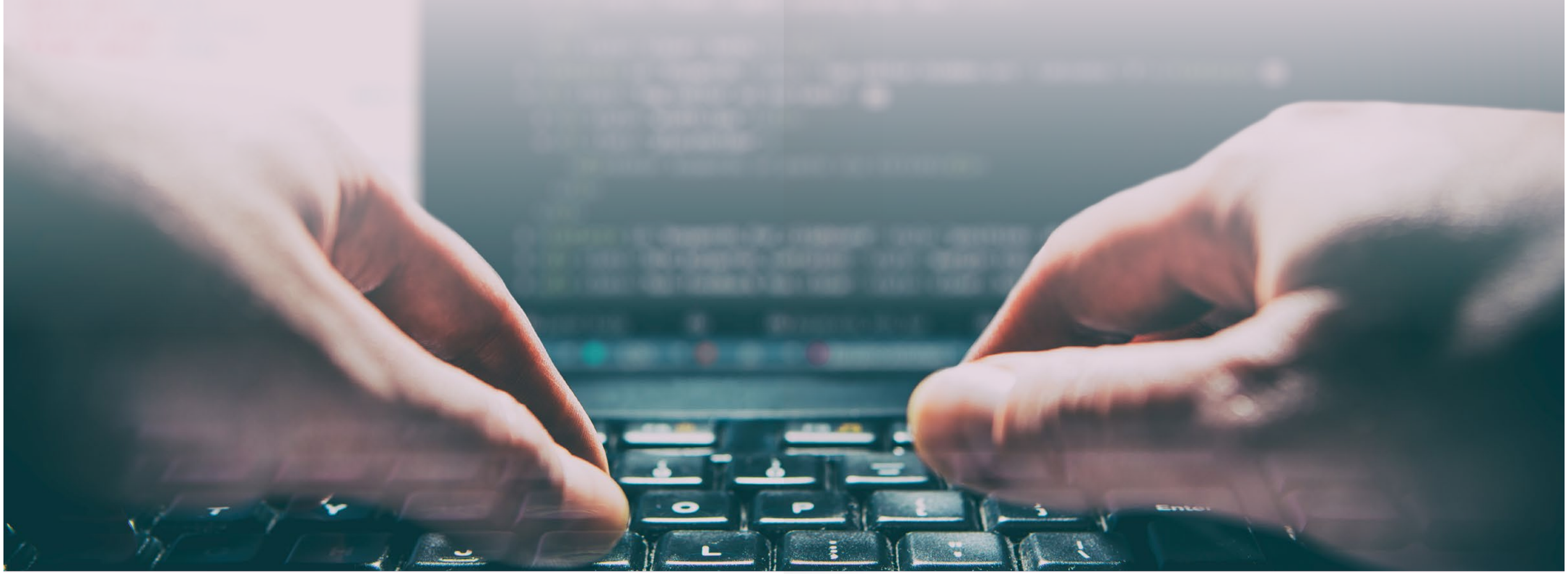
Some claim that ethical hackers cannot be good enough unless they have previously conducted illegal activities. It is argued that in order to know how to correctly protect the IT infrastructure of an organization, one needs the mind-set of a black hat hacker.

However, as long as hackers are up to date on the latest trends on hacking, they don't have to conduct or be part of any illegal activity in order to expand their knowledge on the field. Ethical hacking is one of the few professional fields that finds application across various industries including IT, financial services, government agencies and many more. The demand for certified ethical hackers has never been higher and is constantly increasing, with an average annual salary of $100.000, meaning that possessing these skills is most definitely an advantage.

According to CSO, it is estimated that by 2019 there will be a need of an extra 6 million security professionals worldwide, from which ethical hackers are most needed; therefore, it is the time to brush up on your ethical hacking skills and make the world a more secure place for everyone. According to another report, published by Deloitte, ethical hackers in the IT sector are best paid, with annual salaries ranging from $80,000 to $123,000. The value of ethical hackers is reinforced after recognizing the fact that it is hard to find security professionals that would meet complex requirements of companies and corporations.

Learning ethical hacking might seem daunting and demanding, but so is the case with any unknown task, therefore, the beginners should not get discouraged. The ethical hackers' skill development is a never-ending process, and they should demonstrate a relentless commitment to taking on and mastering ever-increasing challenges. Prior to anything else, a new ethical hacker should get familiar with basic information security concepts, and have an excellent in-depth knowledge in specific areas such as network and application security, as the two are the most common targets of black hat hackers.

Obtaining these basic skills means setting the foundation and stepping stones in the field of ethical hacking and cybersecurity, and this is just the beginning of an exciting journey of becoming a professional ethical hacker. After obtaining a basic knowledge on security concepts and techniques, it is a good idea to start messing around in private networks by employing various hacking tools. Some of the most utilized tools are Metasploit, NMap, Armitage, WireShark, etc. Working around with these tools will introduce beginner hackers with the most basic hacking there is.





The Yin and Yang of The Hacking World

The IT industry, especially its security, witness rapid and constant changes. This field got attackers and defenders of the systems in a constant struggle to gain mastery.

As attackers are highly adaptable and fast learners of new systems and technologies, so should be the ethical hackers who defend these systems. The ability to think outside the box is crucial in order to oversee possible attacks by black hat hackers, who are out there cracking the systems for illegal purposes.

Ethical hackers are professionals who test the security systems of an organization. They use the same skills and tactics as illegal hackers, but with the permission of the system owner to carry out attacks against the system, in order to examine its vulnerabilities and possible issues that might lead to unwanted system breaches.

After testing out the system, ethical hackers reveal the weaknesses and vulnerabilities of a system only to the owner of the system. Responsibilities and restrictions of an ethical hacker are properly stated in a contract between the hacker and the client.

Hacker's role depends on the specific needs of a particular organization. Some organizations have teams of people assigned only to engage in ethical hacking activities.

Ethical hackers must be constantly up to date on new technologies, tools, and vulnerabilities of cybersecurity. It is of utmost importance that an ethical hacker possesses excellent knowledge of types of information systems, operating systems, databases, communication devices and perimeter security, among other things.

Day to day activities of an ethical hacker require considerable attention to take firm steps and analyse the amount of information, which is collected to follow clues, that will lead to the detection of possible system failures and exploitations.

An ethical hacker needs to know how things work and then find a way to break into a particular system. With programmed attacks and in common agreement with entities they serve, ethical hackers make a living by discovering security flaws in a system and recommending necessary measures that need to be taken to fix these flaws.

> The job of an ethical hacker cannot be thought of as: "there's a password and they just have to crack that, and they're in the system". Think of ethical hackers as artists.

An ethical hacker needs to look at the systems from different perspectives, conduct in-depth analysis and use their creativity to find backdoors to access a particular system.

The hacking techniques of black hat hackers are increasing in their prevalence, sophistication and impact. The continual evolution of hacking techniques makes identifying hacking incidents increasingly difficult. Because of that ethical hackers should constantly adapt to the rapid evolution of hacking techniques.

As technology develops, the ecosystem of IT security is constantly changing, and ethical hackers must stay current on new malwares and methods of attack. Ethical hacker's job is to control the level of protection of an organization and protect its customers and employees against cyber-threats.

They test the infrastructure of the system to check for vulnerabilities that would allow a malicious and motivated hacker to enter the defense system and break it. That's why the systems are tested by legally attacking them, same as what black hackers would do, but for illegal and destructive purposes.

One of the challenges of ethical hackers is to understand those who orchestrate the illegal attacks and adapt their modes of operation.

This can be done by replicating techniques and means, which illegal hackers might put in place to breach security information systems.

An ethical hacker's mission is already evolving: there are no longer just exhausting surveys of technical vulnerabilities. The intention is to widely evaluate the efficiency of detection and reaction devices (SOC). The idea is to establish closer proximity to the business context of customers.

Finally, the evolution of the business will logically follow the evolution of hacking techniques and this means an increase in diversification and sophistication of the attack vectors.



CASE STUDY:

How CSIOS and Its Customers Have Unlocked Business Opportunities through ISO Certification

Through our demonstrated accomplishment, we have reached new high levels of confidence when delivering our services. The attainment of quadruple ISO certifications has relayed a message of excellence to staff, customers, suppliers, and stakeholders.

Cesar Pie,
President & CEO, CSIOS Corporation

An Overview of CSIOS Corporation

CSIOS Corporation is a provider of cyber-enabled business solutions and services to the U.S. government. It is a holder of quadruple ISO certifications under ISO 9001:2015 (Quality), ISO/IEC 20000–1:2011 (IT Service Management), ISO 22301:2012 (Business Continuity), and ISO/IEC 27001:2013 (Information Security) with a one–of–a–kind cyber scope: "Provision of Cyberspace Operations (Defensive, Offensive, and Information Network Operations) and Cybersecurity services to U.S. Federal customers worldwide."

Earlier this year, the company was the recipient of Maryland's 2018 Cybersecurity Defender of the Year Award. In addition, CSIOS has earned a spot among the 50 Most Valuable Brands of the Year 2018 by "The Silicon Review" Magazine. Last but not least, CSIOS Cyberspace Operations Team was named the winner of a Gold Stevie® Award in the Information Technology Team of Year category in The 16th Annual 2018 American Business Awards®.

Maximizing the Benefits of Certification

Data breaches and cyber-attacks have been top threats over the last few years.

Organizations are being challenged to become more proactive and provide safe and unique services. Beyond embracing technology advancements, organizations need to balance their cybersecurity needs with other factors, such as workforce globalization, cost reduction, and regulatory compliance.

As organizations continue to face challenges related to cybersecurity they are focusing their efforts towards confronting these concerns. Government entities must also consider cybersecurity as a priority.

Such is the case with the Washington, D.C. National Capital Region (NCR), which has quickly become the cybersecurity epicenter of the world. This area includes the headquarters to the U.S. Cyber Command, National Security Agency, Defense Information Systems Agency, and other top cybersecurity and intelligence organizations.

The NCR has also grown to become the hub to hundreds of cybersecurity firms looking to assist the U.S. government in building a safer future in the cyberspace domain.

The pursuit of excellence and high standards for cyber services incentivized CSIOS to modify its cyberspace operations and cybersecurity services to comply with ISO standards and U.S. Government requirements for cybersecurity.

The combination of cyberspace operations and cybersecurity services with applicable federal requirements and ISO standards resulted in assured levels of regulatory compliance.

This has not only raised the bar but also has unlocked a new service delivery level that is changing expectations and requirements of the U.S. Government.

Cesar Pie, the President, and CEO of CSIOS and its team were committed through ISO Standards Certification to establish a robust framework, which enables them to seek continuous improvement, as well as take advantage of business benefits from this certification. Precisely, they have pursued an Integrated Management System (IMS).

They are a provider of full-spectrum cyberspace operations and cybersecurity services for the U.S. Department of Defense (DoD) mission in the cyberspace domain. Such work includes the protection and monitoring of classified and unclassified DoD networks and information systems deployed globally in almost 150 countries worldwide. Being ISO certified has been important in providing assurance to customers for the high-level quality services.

Pie further explains:

> We have integrated a plan, do, check, act best practice approach, which allowed us and supported the U.S. Government customers to facilitate a continual assessment and improvement of process and to persistently introduce, verify, and validate needed process changes and corrective actions.

Enabling the maintenance of key objectives such as protection, monitoring, detection, analysis, diagnosis, and response; shifting in accordance with the differing attack–surfaces, operational threat environments, and classification levels it supports.



Altogether, CSIOS IMS is devised to recognize more efficient and effective management processes and improve incident response times. Other important aspects of IMS are the minimization of disruptions to cybersecurity services, reduction of operating costs, and maintaining compliance with legislative and regulatory requirements.

As it relates to its U.S. Government customers, CSIOS' culture of top–service–delivery–levels and right–first–time approach has instilled a higher degree of trust and credibility with and among its U.S. Government customers.

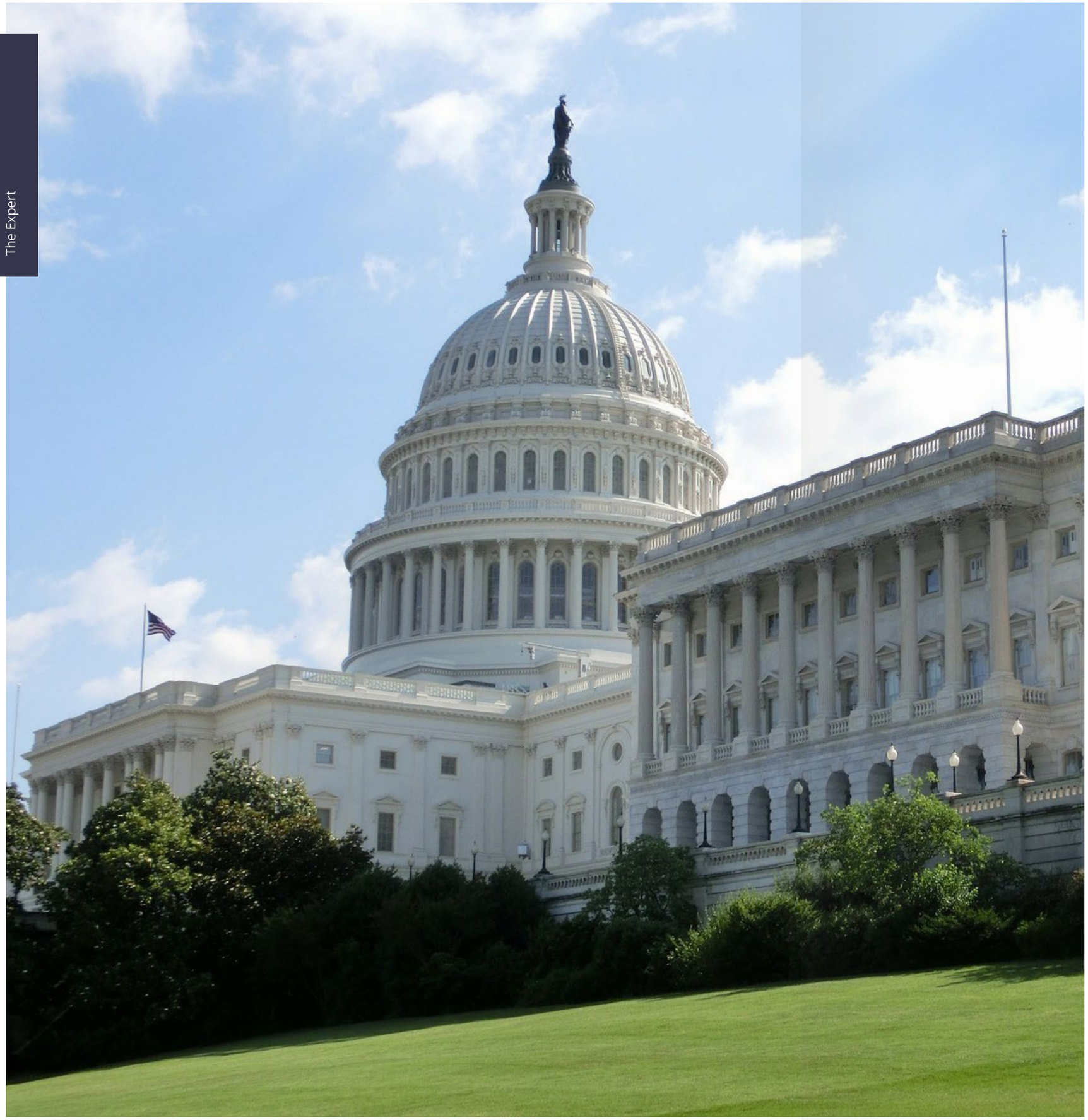
Its customers have benefited from the improved services, quality assurance, and on–time delivery. Overall, their assessment and continual improvement of processes have allowed the company to persistently introduce, verify, and validate needed process changes and corrective actions. This is done to maintain availability, integrity, authentication, confidentiality, and non–repudiation.

ISO certification demonstrates an ongoing pursuit of excellence for delivering high-quality services, building customer confidence, exceeding basic requirements, and striving to achieve maximum customer satisfaction.

The Selection and Scoping of ISO Standards to Support Cyberspace Operations

CSIOS Integrated Management System (IMS) has leveraged ISO/IEC 27001:2013, ISO 9001:2015, and ISO 22301:2012 to address internal quality, information security, and business continuity needs and ISO/IEC 20000–1:2011 to address external service delivery level requirements. In general, CSIOS has:

- An Information Security Management System designed to establish, implement, maintain, and continually improve the cybersecurity of the U.S. Government customers.



- A Quality Management System designed to consistently provide cyberspace operations and cybersecurity services that meet U.S. Government customer's applicable statutory and regulatory requirements. It also focuses on enhancing customer satisfaction through the effective application of the management system, which includes improvement processes of the management system and the assurance of conformity of cyber services through their life cycle.

- A Business Continuity Management System designed to plan, establish, implement, operate, monitor, review, maintain, and continually improve the management system. Thus, enabling the organization to protect against, reduce the likelihood of occurrence, prepare for, respond to, and recover from disruptive cyber incidents when they arise.

- An Information Technology Service Management System designed to plan, establish, implement, operate, monitor, review, maintain, and improve the cyberspace operations and cybersecurity serviced it provides.

The Results

Voluntary standards developed by standards bodies, such as ISO, are beneficial in achieving government policy objectives and in conducting government activities. ISO standards are available to anyone looking to empower their customers through innovation. ISO standards provide clear and concise requirements that are easy to follow, adaptable, and easy to fuse with organizational cyber mission priorities.

U.S. Government policies encourage federal agencies to use international standards such as ISO whenever feasible and appropriate. Even though the usage of ISO standards can reduce federal government costs for developing separate standards and benefit from current standards, the necessary steps have not yet been taken.

Nevertheless, for organizations willing to consider advancing their services through ISO standards, the rewards will go beyond the expected customer satisfaction ratings.

CSIOS IMS allowed the company to reach new highs and unmatched service delivery levels for cyberspace operations and cybersecurity services. These services are preferred by U.S. Government customers and recognized worldwide.

IS IT REALLY THE END OF PRIVACY?

The Controversy of Fingerprint, Facial Recognition, and Big Data

by Endrita Muhaxheri, PECB



Remember when unlocking our phone or tablet with fingerprint sensors or face recognition seemed futuristic?

As technology is now a vital part of our daily lives, we are more willing to provide personal information in exchange for a more easy and interactive experience. The most recent technology that enables organizations to take advantage of this opportunity is known as biometrics.

Biometric recognition system has made a major impact in the society by helping people get rid of passwords, ID cards, PINs, and many more, as means of proving one's identity. It is also making life easier by eliminating the need for carrying belongings all the time. Certainly, many of you may have had that frustrating moment where you have been denied access just because you didn't have the identity card or the necessary documents for verification with you.

Based on the latest trends of developments in the tech world, we will probably encounter a rapid adoption of new technology features that scan our face, fingerprints, eyes, and voice. One can safely predict that this is just the beginning of the face biometrics era, as its application is constantly evolving worldwide. However, not so long ago, using a fingerprint or a face scan to unlock a phone seemed futuristic.

The biometrics field offers both a promising future, which is related to convenience but also involves challenges including privacy concerns and finding the appropriate technology to manage the massive data volume.

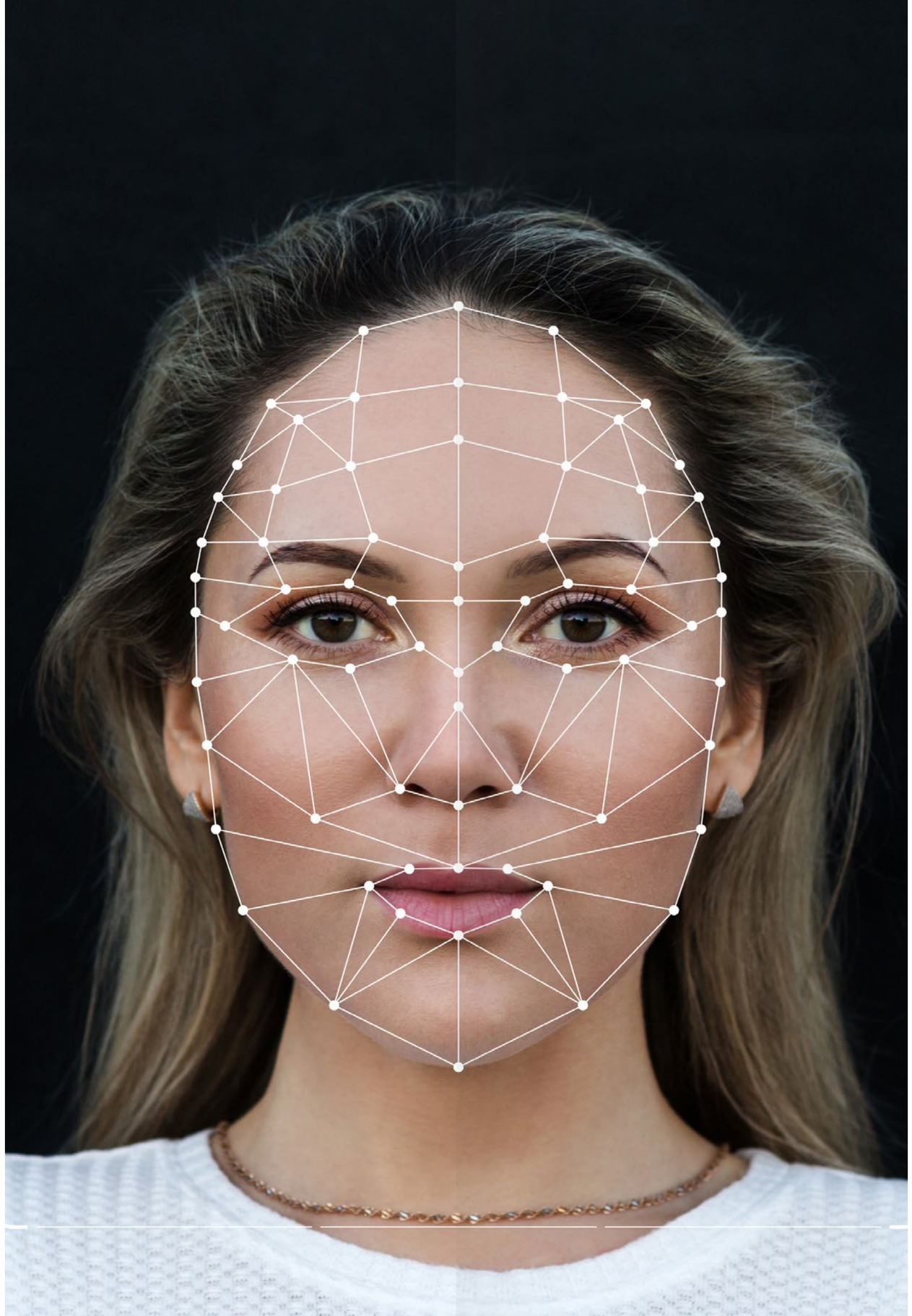
Biometric technologies are becoming an important element for information security systems in many big organizations such as Standard Chartered Bank which already introduced biometric login services as a faster way to log on to its mobile banking app. But, biometric technology producers do not always take into account the security requirements of the technology, which are essential, given the fact that the identification systems like passports and ID cards hold sensitive user information. Many publications highlight the weaknesses and drawbacks that might compromise the technology.

Some skeptics even suggest that since biometric data can be hacked, it is better to not ditch password verification, but instead use biometrics only for two-factor authentication. Main issues raised against biometrics are that they're hackable, public, and that sensitive information can be stolen and used for illegal purposes. Biometrics technology is constantly advancing, especially security-wise, according to Meaghan Johnson, director of research at Fintech consultancy. She believes that the 'second-generation' of biometrics will be safer and more secure, especially for organizations that possess very sensitive information, such as banks and other financial institutions.

> With the introduction of vein and pulse recognition, as well as iris recognition, biometrics will develop to the point that it will be almost impossible to hack or manipulate it.

From Fingerprint to Facial Recognition

Facebook's facial recognition technology is the perfect example of facial recognition deployment. This feature is widely used in smartphones, with Apple being one of the first companies to implement the feature, which was made available by using integrated biometric data.



Firstly, Apple started integrating a fingerprint scan and now the company uses the face recognition feature to unlock the phone. iPhone's 5s model, launched in 2013, was the first to use fingerprint recognition (Touch ID), and the company later continued introducing faster, second-generation, Touch ID for iPhone SE, iPhones 7, 7s, 8 and 8s. With the launch of iPhone X, Apple introduced facial recognition technology (Face ID), as a safer option. According to Apple executives, the possibility of hacking an iPhone X using Face ID is about 1 in 1,000,000, compared to the Touch ID where the possibility was 1 in 50,000. This fact is one of the reasons that led Apple to remove Touch ID from their newest model, iPhone X.

The 'Ambiguous' Relationship Between Big Data and Biometric Technologies

Big Data is everywhere. Big Data analytics, along with the latest data–storage technology advancement and high-resolution imaging has made biometrics a practical option for organizations that are looking for new ways to engage with customers, manage risks, and improve customer experiences. According to a Spiceworks survey, conducted with around 500 IT companies in Europe and North America, 86% of organizations will use some sort of biometric technology for authentication purposes by 2020.

Biometric technology and the general trend of the cutting-edge technologies are driving the so-called 'big data movement'. According to IBM, 2.5 quintillion bytes of data are created every day. Thanks to big data and digital fingerprinting, news, movies and ads are tailored specifically to readers' digital profiles and preferences. As this technology continues to expand, the new development of techniques and methods of gaining insights into customer's behavior will evolve, so that the content that users encounter can be tailored.

The Future of Biometrics Technology: Convenience or Privacy?

The constant advancement of technology is pushing hackers to advance their ways of cracking the system, and the best defense is continual vigilance, such as monitoring of all the activities in devices that use biometric technologies. With the increase of customers using facial recognition, can we indicate that everything points to the fact that consumers prefer convenience over security? The fact that biometric data is essentially linked to an individual's identity makes it more controversial than other forms of big data.

Facial recognition has many advantages, it's almost like not have a security code at all, at least until someone tries to unlock it. With facial recognition and fingerprint sensors, a phone and other digital devices can be unlocked fast without writing a password, which is a grand convenience for users in today's fast-paced world. The willingness of individuals to give up their data in order to simplify or improve the services they receive is more related to the age of users, meaning that young individuals are much more comfortable with having their biometric data shared around. Even internationally acknowledged companies such as Microsoft and Google are looking forward to facial and fingerprint recognition, which will enable them to have a password-free future by replacing passwords with biometric authentication. This form of authentication in mobile devices is constantly increasing, with mobile manufacturers installing biometric authentication in devices as an added layer of security. But, is the technology installed in these devices, in fact, secure and safe for consumers?

If we compare biometric security over other forms of identification, we can say that the latter has important advantages due to its user-friendly and fast solution, unlike passwords and PINs which require memorization and are easily replicable, compared to facial or fingerprint recognition.

When we're thinking about the biometrics era, we should take a moment and ask ourselves how our information is being used and if it's really making our devices more secure. Biometrics data are stored in devices which can be hacked and compromised by hackers, who by now have most probably found "ways" to manipulate the technology. But for now, biometrics are the safest form of authentication, thus its use in most devices is increasing.

Technology innovations have led to an increase in the advancement of security measures, however, it is of utmost importance that organizations and individuals examine the options thoroughly, before implementing technologies such as biometric authentication in their personal and business life. Even though the biometric authentication has its flaws, it does not mean that one should stop using it or be intimidated by it.

> It is safe to say that these biometric technologies will be more sophisticated over time as the market demand for these types of features is rapidly growing.



Redefining our Living with Smart Home Technology

by Endrita Muhaxheri, PECB



Technological developments are intensely shifting our possibility frontiers by changing the way we interact, think, and operate. Smart home gadgets and products are becoming increasingly popular due to their genuine usefulness.

If you are thinking about transforming your home and turning it into a 'smart home', you are not alone. According to the Smart Home Market Report, it is estimated that the smart home devices industry will reach $107.4 billion by 2023.

Several factors encourage customers to turn their homes into a smart one, mostly because of the convenience and the increase in efficiency and security. What if apart from our phones and computers we can connect any device, like speakers, cameras, clocks and lights to the internet? What about controlling your home devices with nothing but a voice command or a simple push button?

To provide quick and better solutions, we present some of the most unique smart home products.

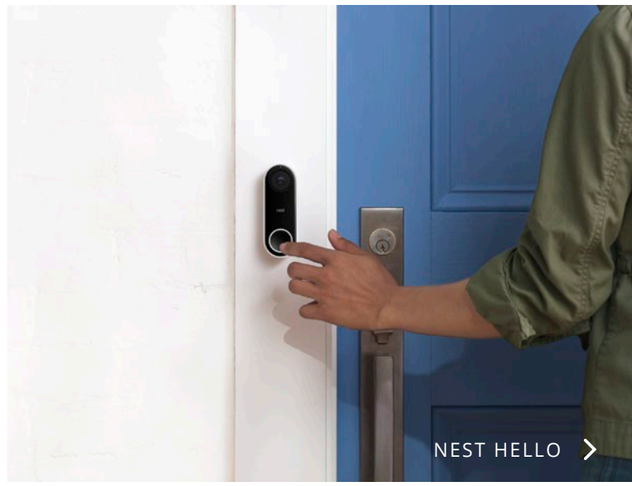
Sonos Beam

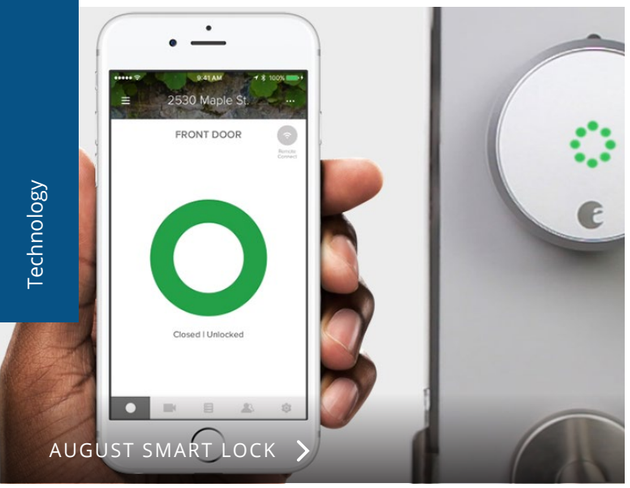
The Beam is a smart sound-bar, designed to be used with TV sets. It supports HDMI connection, Amazon Alexa, AirPlay2 and Siri, and soon it will be adapted to support Google Assistant. Beam can detect sound and motion in the room, even when the speaker is playing music or a movie, and if you're concerned about data security, you can always turn off the microphones. During the night, you can turn the device to night mode, a feature that enables balance between quiet and loud sounds. This small and light device may be the upgrade your living room deserves.



NEST Hello Video Doorbell

Are you tired of guessing who's ringing the bell at your front door? Is it the mailperson, a friend or just kids playing around? A video doorbell with exclusive features is the answer to this. Nest Hello has an integrated camera that streams videos in excellent quality, offering a night vision feature which enables you to detect visitors head to toe, even when it's dark outside. You can feel safe at your home because Nest Hello detects motion even before visitors make it to your front door. This is not it. It can also identify familiar faces and send special alerts on your device. The integrated microphone enables users to communicate with the visitor right after the doorbell rings, and to make pre-recorded messages for quick responses.





AUGUST SMART LOCK

August Smart Lock

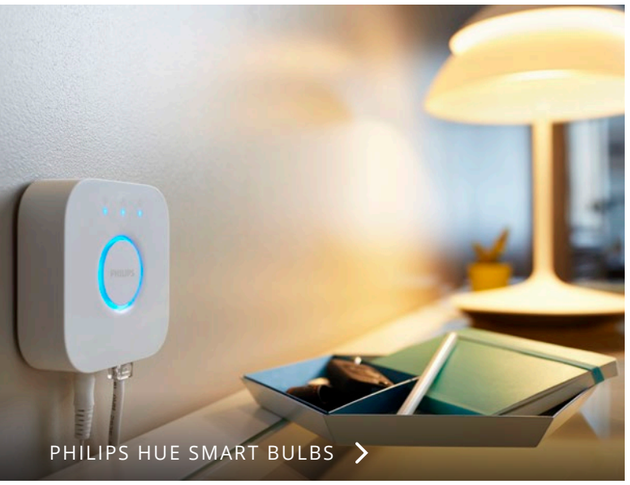
Do you ever find yourself worried about where you left your keys and if you locked the door? With August Smart Lock you don't need keys to enter your home anymore. This lock offers both flexibility and security by providing access control over your door through your smartphone. Thanks to the Auto-Unlock feature, the device locks and unlocks the door automatically as you leave or come back. August Smart Lock allows you to monitor the door from anywhere and can be controlled remotely or through voice commands with Google Assistant, Alexa or Siri. The product can be costly, but it's all worth, because being cost-effective when it comes to home security, is not always the right approach.



TILE KEY TRACKER

Tile Key Tracker

Keeping track of our keys and misplacing them is a daily occurrence in an age of constant distraction. If you are not fond of having a Smart Lock, you're lucky because there is a simpler solution for you. Key Finder lets you track your keys through the phone app within seconds, by attaching this small device to the keys. Even in the cases when you cannot find your phone, you just double press the Tiles and the phone will ring even if it is on silent mode. The phone app can also track your product and show the last location of your keys.



PHILIPS HUE SMART BULBS

Philips Hue Smart Bulbs

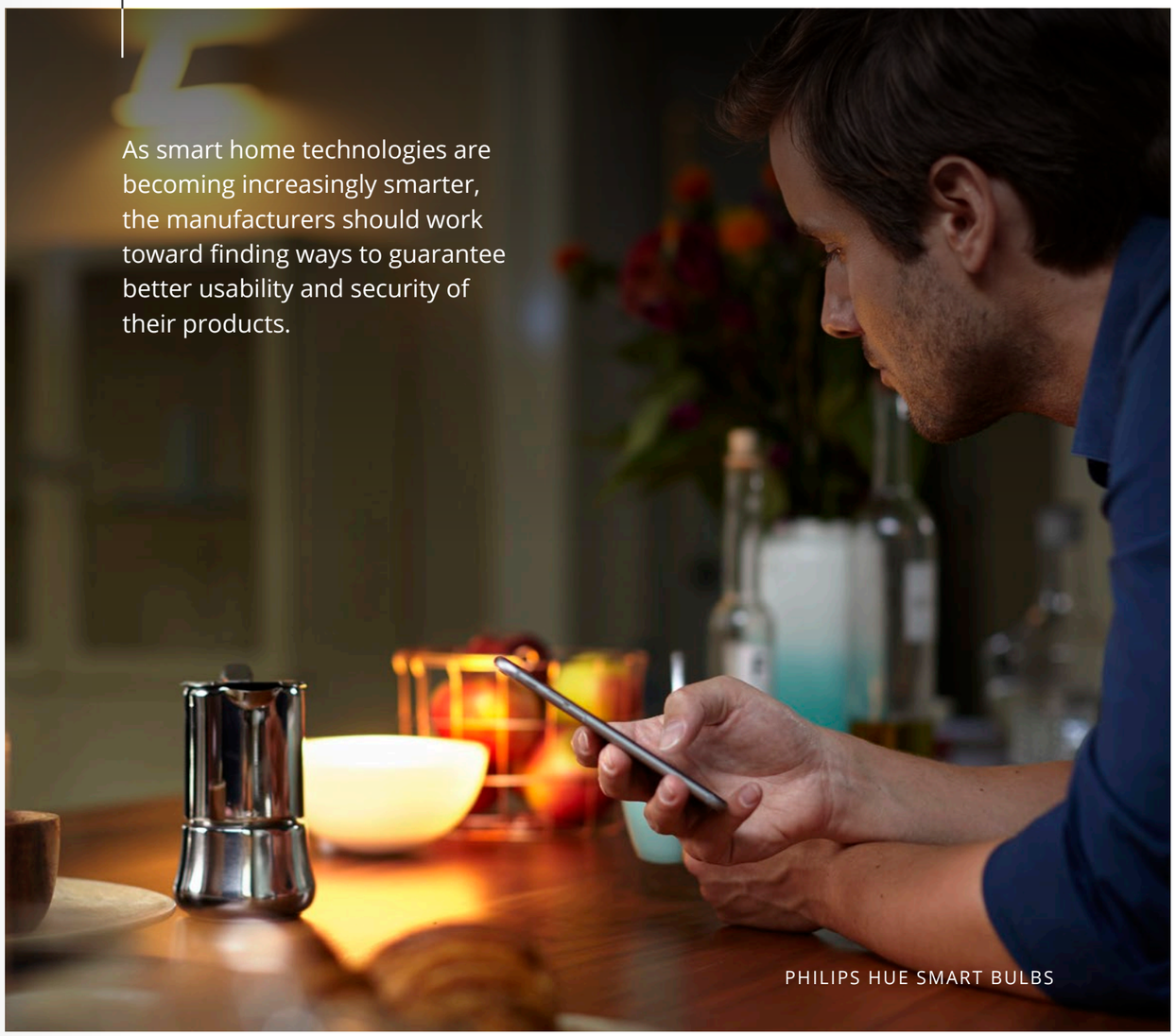
With the introduction of the Intelligent Lighting System, home lighting has become more convenient. The new-age smart lighting system will take away the burden of switching the lights on and off all the time. This new system allows you to control your lights through a tablet or phone and you can schedule their working time ahead. These bulbs can be a bit costly, but in the long-run are more cost-efficient, considering that they use less energy and last longer.

The Future of Smart Homes

In this technology-driven world, technological innovations are constantly changing our tomorrow. The Smart Home Technology has experienced a series of evolutions, transforming the way we live by making our lives much easier and convenient.

Looking back at science fiction movies from some years ago, we can most certainly say that what was then considered ultra-futuristic and high-tech technology, nowadays, is simply common for many of us.

Given the constant technological advancements, smart homes will become more user-friendly and custom-made. The ultimate smart home will be able to act like a personal assistant. Doors can be locked and unlocked, lights can be switched on and off, and homes can be set to the perfect temperature remotely through the use of a phone. With countless exciting developments on the horizon, Smart Home Technology is an inevitable part of our future and now is the time to prepare for it.



PHILIPS HUE SMART BULBS

THE EXPERIENCES YOU CAN TREASURE IN THE

'San Francisco of Switzerland'

When we think of Switzerland, the first things that cross our minds are cheese and chocolate. But Switzerland is not only about that. Surrounded by vineyards, rolling down the hillsides to the lakeshore of glimmering Lake Geneva, Lausanne, which hosts the world headquarters of the Olympic Committee, is one of the most beautiful cities of Switzerland.



Lausanne offers its tourists various activities and sightseeing locations. A visit to the Alps to enjoy the panoramic views, a hike to vineyards overlooking Lake Geneva, or wine and cheese tasting in some of the best wineries, make a tourist's visit to this beautiful city worthwhile.



Being born in Turkey, I have visited many places in Asia, the Middle East, Europe, America, and still, my favorite place remains Switzerland, especially Lausanne. Even though I have lived here for more than 30 years, one can never get bored in Lausanne, as this place has so much to offer. The city welcomes many internationals throughout the year, giving its citizens the opportunity to meet people from around the world. The Swiss nature, which is well-preserved, means that you can use your free time to hike in the mountains, walk along lakes and rivers and also visit famous cities such as Lucerne and Geneva. Lausanne is a city where education is the main focus; accommodating prestigious universities that offer degrees recognized worldwide in different areas, with a focus on technical and technological studies.

Touring a Fairytale Land

Lausanne is home to the International Olympic Committee, but there are also museums, award-winning nightclubs, breweries, and some of Switzerland's most famous vineyards to explore. Lausanne is perfect for adventurous and outdoor activities during the summer.

The Olympic Museum

Musée Olympique is an impressive 3-floor museum which offers a great social commentary on how the sports movement has evolved. Every possible aspect is covered in a lively and engaging way with stunning designs, fascinating exhibition floors with inspiring interviews and historical facts. The scenery is amazing and when you are done visiting the museum you can rest on the rooftop in Tom Café, which sports gold-medal-worthy views. Afterward, you can take a walk to the lakefront in Ouchy, on the shore of Lake Geneva.

Notre Dame Cathedral

….and now it's time to explore the old town of Lausanne.

The Place de la Palud is one of the Old Town's main square which holds an impressive fountain near the city hall. In the old town, you'll find shops, restaurants, delicious pastries, and a chocolatier. There you will also get the chance to see the Clock Tower, with a moving narrated story of Lausanne (every hour). A few steps from there is the medieval Escaliers du Marché, a steep wooden staircase which takes you to one of the picturesque sites that date back to the 13th century. If you get tired by the long walks, you can stop by chic cafes and have a rest while enjoying the view.

It is highly recommended to visit the most attractive building of the Old Town, the Cathédrale de Notre Dame, which is one of the most beautiful Gothic Cathedrals in the world. It takes around 300 steps to get to the hill where the Cathedral is situated, but once you're there, you will find out that the view is worth every step.









Accomodation

If you're looking for luxurious and exclusive places to stay, Beau-Rivage Palace Hotel, is an ideal choice. Located in front of Lake Geneva, a historical building, constructed in the early 1900's. The property is very close to the Olympic Museum and offers exclusive views to a big private garden. The delicious breakfast served in the gardens of the hotel with scenic views of the lake and the Alps is a great kick-start for a busy day ahead of you. The hotel is built in neo-baroque style and offers quality restaurants and 1st class service.

Another alternative located at the center of the city is the Lausanne Palace Hotel, just 1-minute walk to St. François square, a 10-minute walk to the 12th-century Lausanne Cathedral, and a 1.8 km walk to Lake Geneva. The Coté Jardin restaurant offers a variety of Mediterranean cuisine with a great selection of wines, served on a wooded terrace, overlooking Lake Geneva and the Alps. Their dessert buffet is a must-try, as it offers some of the most delicious sweets you will ever eat.

Indulge Yourself in Chocolate Heaven

A trip to Lausanne will not be complete without treating yourself with the country's famous chocolate. Swiss chocolate has conquered the world, and it always makes us think what is so special about it. One of the most famous chocolatiers in Lausanne is the Blondel, founded in 1850.

Their pretty little shop is located in Rue de Bourg 5, and you can't miss it because there's always a long line of tourists coming up to taste the chocolates. These chocolates are packed with delicate ribbons and handled by the hosts with so much love and care.

These delicacies are the perfect gift for your loved ones. *Tip: Don't miss the delicious chocolate-dipped dried fruits!*

A Swiss Taste

This lively city features many great places to eat, from bistros to fancy gourmet restaurants, as well as bars, lounges, and clubs.

The Anne-Sophie Pic restaurant is one of the most exquisite restaurants situated at the Beau-Rivage Hotel. The famous chef Paolo Boscaro will cook you unique and delicious meals, or you can get a food-tasting menu and enjoy a little bit of everything.

If you're up for something simpler, like a café-style bistro, then Café Romand is the right place for you. The bistro, located in the center of Place Saint François, close to the railway station and the main shopping area, is decorated in wood and is famous for its fondue (melted cheese dip, served with bread cubes).

> The bistro offers a cozy atmosphere and is a great place to enjoy the authentic local cuisine. The famous fondue is not to be missed once you visit Switzerland and Café Romand will give you the real flavor of this Swiss specialty.

Besides fondue, I recommend you ask for the daily menu, which is usually written on the blackboard on the wall, and the wine menu which offers some really nice local wines.



Where the Green Blends with Blue

Another must-see place is the Lavaux Vineyard Terraces, a UNESCO World Heritage Site, where you can have a glass of wine while enjoying a breathtaking view. Whichever season, be that spring or autumn, this place will not let you down. The three-hour walk path called "Terrasse de Lavaux" will take you to the vineyards. The path is easy to walk and enjoyable because of the beautiful scenery throughout the whole trip. Once you get to the vineyards, you can go wine-tasting of delicious Lavaux wines, some of the best being Dézaley, St-Saphorin, and Epesses. Wine lovers will be thrilled by the views of the Alps, lake, vineyards and chateaux.



Business and Pleasure: The Winning Combination

It's no secret that when it comes to business trips, I always enjoy adding a few days to explore the destination I'm visiting.

Business trips have given me the chance to visit many interesting cities and meet new people, which is so inspiring. PECB clients can enjoy a trip to beautiful city of Lausanne, while getting a high-quality PECB training at ACTAGIS training facilities, just a 3-minute walk from the lake shore with a splendid view of the Alps.



About the Author

Jeff Primus
Founder, CEO & Principal Consultant
at ACTAGIS

Jeff is involved in Governance, Cyber Security, Risk and Business Continuity Management. As an experienced manager and expert of the subject, Jeff leads teams of consultants, and for over 25 years he has actively implemented ISO compliant Governance, Cyber Security, Risk and Business Continuity Management Systems for the public sector and multinational companies in Switzerland, Europe, and the Middle-East.

Dingwall

A GEM IN THE SCOTTISH HIGHLANDS

The cultural tradition, being both unique and endlessly fascinating, makes Dingwall - a beautiful small town in the Highlands - a treasure-trove of quaintness into which tourists may delve into. The landscapes, big skies, the exceptional food, and friendly locals are all you need to have that traveling experience you were looking for.



To truly enjoy Dingwall, one should take the time to explore its rich history and hidden treasures, the mesmerizing and historic buildings, and the monuments located all around the town. With a high variety of fashion and gift shops, restaurants, bars, and cafés, it is certain that this place offers something for people with varying tastes and needs.

The Experience

Due to the magnitude of work commitments, I wasn't planning on taking any long trips this year, but when my friend told me about his visit to Dingwall, I knew it was the time to answer Dingwall's call. This idea came at a time when I needed a weekend of peace and serenity after a period of intense work-related stress. A remarkable journey through the stunning Scottish Highlands was exactly what I needed.

Days after, I found myself on my way to Dingwall, sliding past animal footprints in the snow, the small rocky hillsides, fir trees, and white birches - a 935 kilometer journey that would last approximately 10 hours.

The Accommodation

Dingwall offers a large selection of vacation rentals - hotels, cottages where you can unwind in an unforgettable charm, or cabins where one can enjoy the calmness of nature. I stayed at a lovely place called The National Hotel near the Train Station, Local Buses, and Main Shopping Street, decorated with beautiful vintage furniture. When I arrived at the hotel, I was promptly greeted by very friendly and helpful staff. The hotel was exceptionally clean, warm and very cozy. My room was located directly above the entrance - really lovely. In addition to the clean and comfortable room, there was also a balcony, where one can have coffee or tea.

The Taste

Given the good reviews about this place called The Victoria Restaurant, I decided to have dinner there. And undoubtedly, this was a good choice. The combination of exceptional food, the friendly and helpful staff, and the warm ambiance, make The Victoria Restaurant a must visit place in Dingwall.

The Wimpy Restaurant, on the other hand, with its very delicious, much bigger hamburgers than those we have in London, took me back to my childhood days.

After lunch, I went to enjoy an afternoon coffee and stopped at the Museum Café, a lovely place at Old Railway Station, with two small rooms, separated by a short corridor. If you happen to go there, make sure to look for a seat in the other room if the tables by the counter are all taken. I really enjoyed the coffee and the homemade scones in that cozy atmosphere, whilst sitting at a table on the charming station platform. The old Victorian station was certainly being put to very good use. The building itself is worth a visit but the café and museum are added treats.



The Attractions

Dingwall Museum does a great job in communicating all the stories about Dingwall's history, people and heritage. The museum presents many local artefacts, local civic and military collections, and fascinating tales. You can also find out all about the town's famed general Hector.

Another must-visit place is the Picaresque Books which appears almost magically on Dingwall High Street, amongst the butchers, cafés and boarded up shops. It is run by a truly enthusiastic and knowledgeable person called David. As soon as I entered, the owner was on his feet to welcome me. How lovely to meet a smiling and welcoming shopkeeper. I truly enjoyed spending time in this treasure trove of a bookshop. An added bonus was also the locally crafted gifts, where I ended up buying many presents for my friends and family.

Less than 25 km away is Inverness - the largest city and the cultural capital of Scottish Highlands. From visiting the sights made famous by films and books, to enjoying the picturesque River Ness, and a cruise on Loch Ness, this place indeed offers a unique experience.

For more cultural experiences, you can take a trip to nearby places such as Culloden Battlefield or spend an afternoon at Inverness Museum and Art Gallery. To enjoy the outdoor scene, make time for green spaces such as Ben Wyvis, Bellfield Park, and North Sutor Cliffs. Also, a trip to Upper Pump Room or Fortrose Cathedral might be what you need.

This journey has given me mesmerizing experiences, great memories to remember and the true sense and feel of the region's wild soul.

Through the locals' eyes, through their pains and joys, I learned to see how the landscape speaks of the past, and by doing so I satisfied my eagerness to learn all that I could about Dingwall. And this makes me believe that I am not and never will be just a tourist in Dingwall.



About the Author

Roy Biakpara
Director/Principal Security Consultant
at Cryptv Ltd

Roy is an enthusiastic and dedicated professional with extensive experience across a variety of industries, including Retail, Finance, Oil & Gas, Education etc.

Wine & beyond

IN BEAUTIFUL BORDEAUX

Perfectly preserved 18th-century architecture, uncountable sunny terraces, great wines and all sights within walking distance... welcome to Bordeaux! Lonely Planet ranked this French city Nr. 1 on its 'best in travel 2017' -list. And for a good reason. At the moment it receives little tourism but this is rapidly changing, so don't push off your Bordeaux-plans for too long!

BORDEAUX
CITY-TRIP BY

NO ROAD BACK

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Bordeaux can be visited throughout the year but time to visit Bordeaux is from April to June and from September to October. In the summer months the temperatures can rise to almost 40 degrees Celsius and from December to March the days get shorter and there is a higher chance of rainy weather.



In & Out

The two main ways to get to Bordeaux are by plane or by train.

Train
If you are on a Eurotrip (possibly with an 'Interrail-pass') you'll be pleased to hear that a new TGV line has cut the travel time from Paris to Bordeaux to just 2 hours. The Saint-Jean railway station (Saint-Jean Gare de Bordeaux) is located 25 minutes south-east of the old centre (Saint-Pierre area) but there are also tram-connections departing from the train-station to most locations in the city.

Airplane
Getting there by plane is just as easy. Bordeaux has a big budget-terminal so it shouldn't be too hard to find a Ryan-Air, EasyJet, or WizzAir direct flight in. From the budget-terminal, you walk 2 minutes to the main terminal (big arrows will show you the way) from where you can take the public bus (line 1) to the city center for only €1.60, that leaves every 10 minutes and takes about 40 minutes. Alternatively, there is a shuttle bus that only stops twice on the way, takes about 30 minutes but costs €7.40 which in my eyes is just a waste of money.

Budget

Hotels in Bordeaux are quite pricey and you will be hard-pressed to find a hotel for under €50 per night. A better option is Airbnb, where you should be able to find a reasonably sized room with small kitchenette & bathroom for about €30-50. Food, wine and getting around is actually pretty cheap when you compare it to other Western-European cities. A 3-course menu can be found for about €14 (not the best quality though) and a carafe of wine to accompany it goes for as little as €7. If you prefer a hot meal at lunch-time, even better! You'll pay only €10 for the exact same meal.

The cheapest way to get around is to buy a Metropole City-pass for €29 (at the 'Office de Tourisme' located at the Place de Comedié). It will give you 24h (or 48h or 72h) of unlimited use of trains, trams, ferries, and buses.

But what is even better is that it gives you free entrance to the La Cité du Vin (the main wine-museum which costs €20 to visit), a few churches that normally cost €5 to enter and includes an open-air bus-tour through the city. I recommend buying the 24h pass and exploring the rest of town by foot.

What to do in Bordeaux





Old City Center (Saint-Pierre)
The heart of Bordeaux is the old center where you can wander through the many streets and alleys all lined with 18th-century facades that connect the main architectural sight in town. Bordeaux is a reasonably sized city, but small enough to be explored by foot. And that is exactly how you should spend your days here. There are excellent free walking tours starting at approximately 11:00 and 15:00 o'clock (check trip-advisor for details) that provide an insight into the history and meaning of the old buildings, but Bordeaux is perfect for self-guided tours as you really can't go wrong.

Me and Lisan are the kind of couple that is really bad at finding good places for a drink and some food. Most often we will find a place that looks okay but we reject thinking 'we will find a better place', only to stroll around for 20 more minutes not finding better places and getting hungrier, thirstier, more tired and grumpy by the second. Bordeaux is filled with so many pretty little authentic squares all giving host to at least 5 cafes and restaurants with sunny terraces and great Bordeaux-wines that you really don't have to go look for a place as you will stumble upon it when in need!

Architecture
The main sights worth visiting are the stunning Place de la Bourse, where the slave-market used to take place which has a 'water-mirror' in front of it making it also very photogenic. The Monument au Girondins, Porte Cailhau, Cathedrale de Saint-André, Basilique Saint-Michel, Grosse Cloche de Bordeaux, and the Opera building across the street from the old Grand Hotel (that is now serviced by the InterContintal and hosts a restaurant ran by Gordon Ramsey). A little further away is the Marché des Capucins – a beautiful indoor market where locals come to get the best local produce. It has a little coffee-corner that serves breakfast overlooking the market and of course, you can sample most wares before buying them.

The Best Places for Food and Wine
As I stated before, Bordeaux has a large number of terraces and nice eateries but some are slightly more charming than others. A nice little square (especially during the day) that is situated a bit south of the center is the Place Général Serrail and located next to a the bigger (but less charming) place de la Victoire. Even better is the Place du Palais with is small trees and wide terraced steps. One of the better squares at night has got to be Camille Julian with beautiful facades on all sides of the square. Rue de Parlement is filled with small wine-bars, a 'Gineria' which specializes in local Gin and many eateries making it the perfect place to go after sundown.

Shopping
This isn't my favorite activity when going on a city-trip (after all why would you undertake the horrendous task of shopping when you are on your holiday?!) but the Rue de Saint-Catherine that connects the Place de la Victoire to the Place de Comédie (where the Opera-house and the tourist-office is located) is the place to go. It is pedestrian only and gives host to all major clothing brands as well as authentic little Bordeaux-boutiques.



Winery Tours
A trip to Bordeaux without visiting the wineries is an absolute no-go. There are dozens of tour-companies providing half-day and full-day tours that visit multiple wineries in one (or more) of the micro-wine-regions surrounding the city. On a tour you'll learn about the different grape-varieties, how they produce the wine, the history of the winery you visited. Since most wineries are located in beautiful castles, you're also visiting French Chateaux at the same time.

I decided on going with BordoVino which provided an excellent tour. It gives fun and light tours in small groups (6-9 persons) and all guides have an excellent command of English. The tour provides little bites to go with the wines you sample at the wineries. It is not the cheapest tour out there but it is worth the money spent.

La Cité du Vin
Next, to the city itself, the recently opened La Cité du Vin (wine-museum) is a must-visit. When you enter, it is obvious that the municipality spent good money on making this the Nr. 1 wine-museum in the world. The amount of information can become a little overwhelming and I found the set-up a bit unstructured but the use of digital media is impressive. To top-off the visit you get a free glass of premium wine of your choice which you can enjoy in the beautiful wine-bar on the 8th floor of the building, which also provides a nice view over the Garonne - river.

Eating & Sleeping

As the hotels in Bordeaux are a bit overpriced, you can opt for an Airbnb. For food and drinks apart from the squares and streets there are two places worth mentioning; Simeone dell'Arte at the Place Camille Julian serves good food at reasonable prices. The service is a bit slacking but while the prices are similar to many fairly average places throughout the city, the chef here ensures that the preparation is on par. A great place to sample excellent premium wines without paying the full price is by going on a 'blind tasting' at The Wine Bar at Le Boutique Hotel Bordeaux. The wines they serve there are all premium wines, but on a blind tasting, each glass costs €7. Considering the quality of the wine and the allure of the place, this is excellent value for money.



PECB UNIVERSITY
A DIFFERENT WAY OF THINKING

Online education has become one of the most popular alternatives to traditional education. Initially, as with any other new venture, there was skepticism in the beginning. However, as many prominent traditional universities began offering online courses, the perception of students, employers, and the public shifted. Now an increasing number of individuals have favorable views on online education.



The shift in perceptions comes also as a result of the realization that faculty and curriculum utilized in online courses are comparable to those of the traditional formats. And certainly with advancements in technology, online learning will become even more common and one of the most practical ways of progressing towards a rewarding career.

As with all aspects of life, the professional aspect has become increasingly demanding, necessitating the modern society to actively seek new learning opportunities to upgrade their skills and remain relevant in their fields of operation.

Hence, as the day-to-day life becomes busier, individuals worldwide stand in need for diversified and flexible learning options that allow students to prosper, but at the same time afford the opportunity to juggle between different personal or professional commitments.

With that in mind, PECB University offers degree programs that meet the rapidly emerging present needs and provide a greater level of flexibility.

Through a blend of online and in-class instruction, the university encourages student learning and activities that broaden their horizons and help them develop the required skill set to successfully adapt in the business world.

Not limited to physical boundaries, students have many networking opportunities with a worldwide community of faculty, staff, and fellow students, allowing them to meet professionals from different fields and walks of life.

PECB University offers MBA and Graduate Certificate programs in the following main tracks:

- Information Security Management
- Business Continuity Management
- Information Technology Service Management
- Quality Management
- Risk Management

The distinctive feature of PECB University programs is the combination of field related subjects with business-related aspects. Because of this arrangement, several courses required as part of an MBA program are the equivalents of the corresponding PECB training.

Students, therefore, have the chance to receive course credits from their existing PECB certificates and fast track their way towards an official degree.

Licensed by the Higher Education Licensure Commission (HELC) in Washington DC, PECB University is now accepting applications for its first academic year that will begin in September 2018.

For more information on PECB University, please visit our website or review the University Catalog.

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ISO 22301 Lead Auditor	German	NEW!	›
ISO/IEC 17025 Foundation	English	Updated	›
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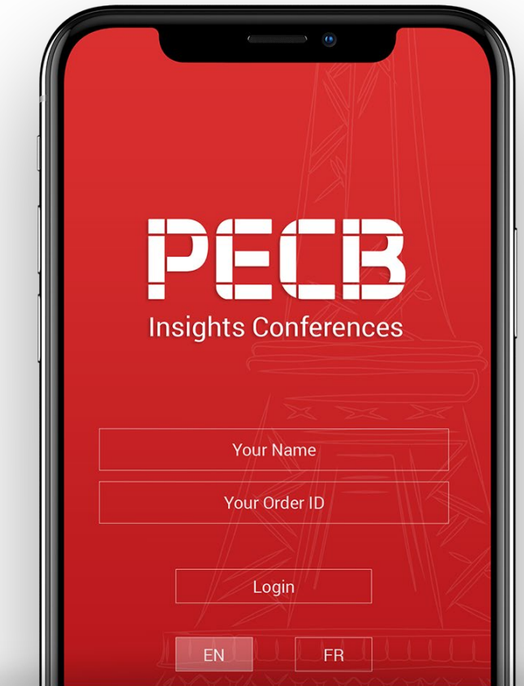

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