Cyber-Education in the ILLOWA Region

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Dr. John Johnson, CEO
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Background – Solomon Smith

- Solomon Smith is the **COO & CISO at ProCircular**, an information Security and Privacy firm focusing on midsized businesses. A former **Security and Privacy Officer** of a large global education company, he's spent more than 15 years working in **IT and InfoSec**. Mr. Smith is a Certified Information Systems Security Professional (CISSP) and has earned an **MBA in technology management**. In his free-time Solomon **teaches** MBA courses in business development, management, human resources, and information technology. He enjoys sharing experiences, **stories**, and risks so others can be more **aware** of the global security and privacy landscape.

Background – Dr. John Johnson

- Dr. John Johnson has over 20 years of experience as an information security executive and thought leader. He is **Founder/CEO of Aligned Security** where he advises on industry trends and provides vCISO services. John began his career as a nuclear physicist at **Los Alamos National Laboratory**, before becoming Network Security Manager in 1996. John then served 17 years as **global security architect** for a Fortune 100 manufacturing company, where he managed security infrastructure and developed strategy and secure architecture solutions for risk management of a global corporate network, endpoints, industrial systems and the supply chain. John has developed and **taught graduate cybersecurity** courses since 2003. He is founder of the **Quad City Cybersecurity Alliance**, annual security conference: **CornCon**, a frequent speaker at industry conferences and serves on various conference, industry and advisory boards.

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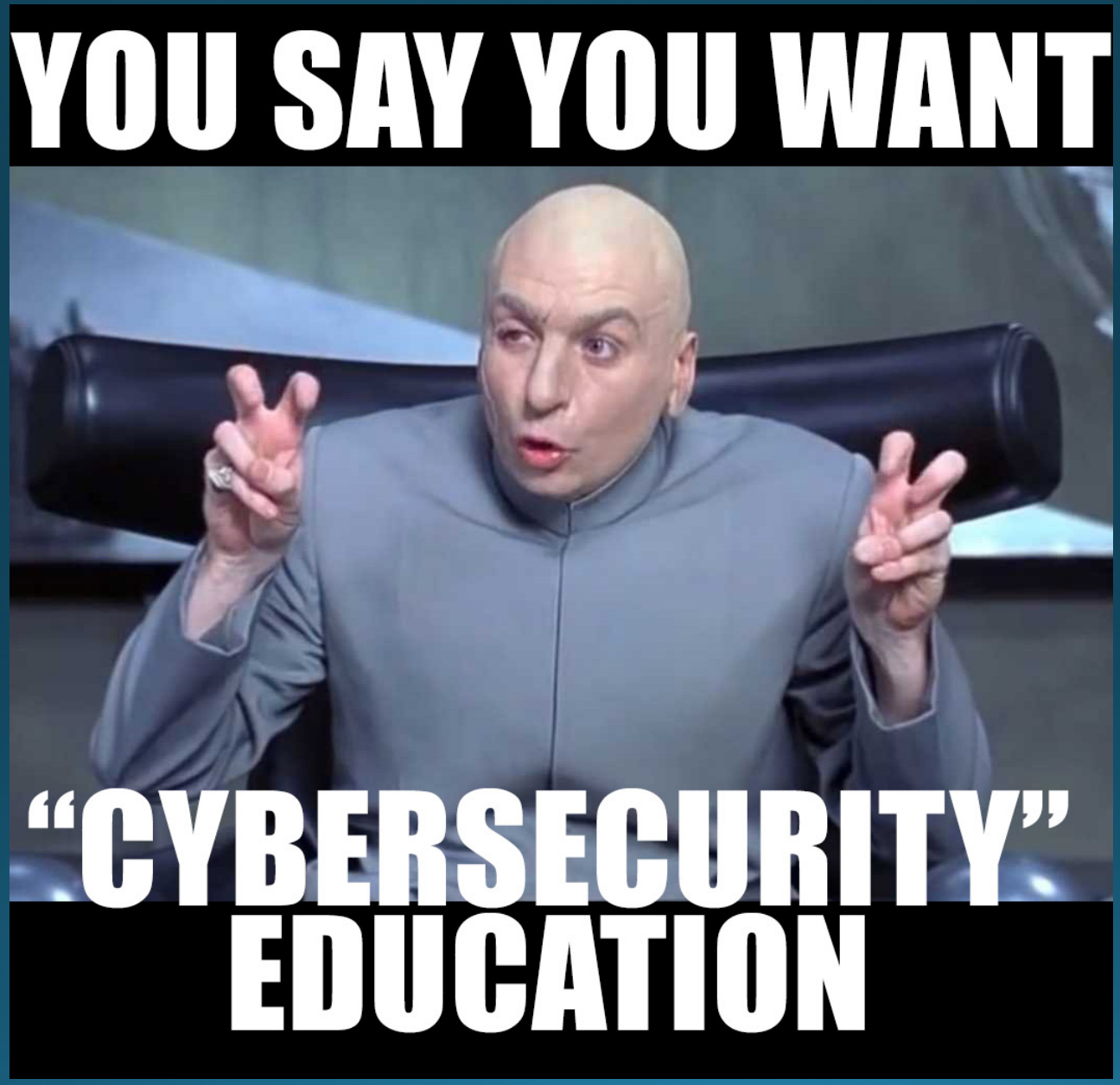
YOU SAY YOU WANT
“CYBERSECURITY”
EDUCATION

Cyber Education & Awareness

Various motivations and delivery methods…

- To raise public awareness, especially with kids in K-12
- To train the next generation of the workforce
- To train and develop employees
  - Provide career path; develop technical and soft skills
  - To build a culture of security awareness and improve compliance
- For professional development and life long learning
- To learn about industry trends and threats
- To network and advance your career

Kids Security Awareness

- Hak4Kidz
- Rootz Asylum (@DefCon)
- Children of The CornCon
- Project Lead The Way
- U.S. CyberPatriot
- RSA Conference Cyber Safety Village
- Security Advisor Alliance
- Stay Safe Online
- (ISC)2 Safe and Secure Online
- BBBS, BSA, more…

Iowa – high school

- https://www.stemschool.com/schools/iowa
- http://www.iowastem.gov/
- U.S. CyberPatriot
- Project Lead The Way

Iowa – community college

- Kirkwood College
  - Security+
  - Network Admin
  - Cyber Defense Club (CDC)
- Western Iowa Tech Community College
  - Cyber Security & Digital Crime

Iowa – community college

SCHOOL NAME	LOCATION	PROGRAMS
Des Moines Area Community College	Ankeny, Iowa	Digital Forensic Investigation Certificate
Eastern Iowa Community College District	Davenport, Iowa	Associate in Applied Science – Information Technology, Security and Forensics Track
Indian Hills Community College	Ottumwa, Iowa	Associate of Applied Science in Computer Networks and Security
North Iowa Area Community College	Mason City, Iowa	Associate in Applied Science – Information Assurance and Security
Northeast Iowa Community College-Calmar	Calmar, Iowa	Certificate in Information Security
Western Iowa Tech Community College	Sioux City, Iowa	Associate of Applied Science in Cyber Security & Digital Crime Associate of Applied Science in Networking Administration and Security

Iowa – four year college

SCHOOL NAME	LOCATION	PROGRAMS
Iowa State University **(iastate.edu)**	Ames, Iowa	Information Assurance Graduate Certificate Online Master of Engineering (MENGR) in Information Assurance Master of Science (MS) in Information Assurance (IA) Ph.D. in Computer Engineering with a focus on Information Assurance Ph.D. in Computer Science with a focus on Information Assurance Ph.D. in Math with a focus on Information Assurance

Online Colleges

Arizona State University (asu.edu)
TEMPE, AZ
Online Bachelor of Science in Information Technology (Networking & Security specialization)

Maryville University
ST. LOUIS, MO
Online Bachelor of Science in Cyber Security
Online Master of Science in Cyber Security

Online Colleges

Syracuse University (syracuse.edu)
SYRACUSE, NY
Online Master of Science in Computer Engineering
Online Master of Science in Computer Science
Online Master of Science in Cybersecurity
Online Master of Science in Information Management

Excelsior College (excelsior.edu)
ALBANY, NY
Online BS in IT, Technology Mgmt & Cybersecurity
Online MS in Cybersecurity

Online Colleges

Utica College (utica.edu)
UTICA, NY
Online Bachelor of Science in Cybersecurity
Online Master of Science in Cybersecurity

Sacred Heart University (sacredheart.edu)
FAIRFIELD, CT
Master of Science in Cybersecurity

Certifications and Training

It is important to build skills:

- Developers should learn secure coding practices
- Staff need to learn how to best use tools
- Certification may drive learning and knowledge and signify currency in the topics important to your business
- Broad cybersecurity education comes from many sources:
  - Computer-based (remote)
  - Webinars
  - Travel to train (i.e. SANS bootcamp)
  - Bring trainers on-site (i.e. train room full of staff at once and save on T&E)
- Consider building project management, leadership and soft skills!

Certifications and Training

Iowa – conferences

- **CornCon**: Quad Cities Cyber Security Conference is a two day event, starting with a full professional development workshop on Friday (9/8/17) for $125 (8PDH) and a full day conference *(DefCon in a cornfield?)* for adults ($75) with Children of The CornCon kids hacker camp ($35). Hacker village and vendor expo. Swag, parties and contests. **www.corncon.net**

Iowa – conferences

- BSidesIowa: Organized by members from Iowa InfoSec and SecDSM, BSidesIowa has been rocking since 2012. Two tracks of local presenters give hour-long presentations covering everything you wanted to know about security but were too afraid to ask. For a fun diversion, SecDSM runs a concurrent Capture the Flag competition. Tickets for the daylong event, which is usually held in Des Moines, are free.

Iowa – conferences

- Iowa Communications Alliance CyberSecurity Summit: The Iowa Communications Alliance organized a one-day summit in suburban Des Moines in 2016, which brought in speakers from state government, local colleges and businesses. By the following year, the telecommunications-centered conference had grown to span two days.

Iowa – conferences

- Secure Iowa Conference: The two-day Secure Iowa Conference in Ankeny has been organized by the Des Moines ISSA Chapter since 2012. It features two tracks — one for technical professionals and one for managers — so everyone can get something out of it. Although the conference is free, the daylong pre-conference workshop is not.

Iowa – professional activities

- Iowa InfoSec: Every third Wednesday of the month, this group meets up in Des Moines for happy hour at Wellman's Pub. Strictly designed for networking and socializing, Iowa InfoSec meetups are a great way to meet other members of the capital's security community.
- **ISACA Illowa Chapter** covering Cedar Rapids thru Quad Cities.
- ISACA Iowa Chapter: Des Moines area professionals interested in information systems audits and controls can join ISACA. The Iowa Chapter's 200+ members meet monthly for luncheon presentations, and its leaders regularly schedule trainings. Students who want to join receive a discount.

Iowa – professional activities

- IEEE/IEEE Computer Society – Iowa-Illinois Section; Cedar Rapids Section; Central Iowa Section: IEEE is the largest professional technological society in the world with >400,000 members and many societies. The Quad Cities IEEE Computer Society focuses on meetings related to computer science and cybersecurity.
- Quad City Cybersecurity Alliance – formed in 2010, this is a group of security professionals who meet monthly for coffee, lunch or host networking events and technical presentations. It is an umbrella group that consists of the QC IEEE CS Chapter, QC (ISC)2 Chapter, Springfield InfraGard Chapter and others interested in attending. Private Facebook Group.
- Consider joining national societies in your area of interest, there may be a Des Moines, Chicago or other chapter nearby: ISSA, AITP, IAPP, InfraGard, etc. Or, form your own local meet-up group!

Iowa – professional activities

- ISSA Des Moines: Iowa's chapter of the Information Systems Security Association (ISSA) gathers on the fourth Monday of each month for networking and presentations from area experts. As a professional organization, ISSA costs money to join, but students get a huge discount.
- OWASP Ames: The Open Web Application Security Project (OWASP) is a worldwide organization that's free to join. The Ames chapter meets quarterly for fascinating presentations from ISU research scientists, local security analysts, and even FBI field agents.
- OWASP Des Moines and OWASP Iowa City also have registered OWASP chapters.
- SecDSM: One last recurring date for your monthly calendar: the third Thursday of the month. That's when another group of security pros, many who also attend Iowa InfoSec events, come to The Forge in Des Moines. Unlike Iowa InfoSec, SecDSM combines its drinks and apps with short presentations.

Regional Midwest – conferences

- Secure360 Conference
  May 16 - 17, 2017
  Minneapolis, MN
- The premier educational conference in the Upper Midwest for the information risk management and security industry, Secure360 is a top infosec conference in the U.S. This year's keynote speaker lineup includes national security and foreign policy columnist Juliette N. Kayyem and visionary technology leader Aneesh Chopra, with the full schedule available after the call for presentations closes in early 2017.
- Cost to Attend:
- Local UMSA Affiliates: $499 (through February 13th)
- Regular Attendees/Non-Affiliates: $549 (through February 13th)
- Pre-Conference Add-On: $149 full-day; $129 half-day (no lunch)
- Pre-Conference Only: $179 full-day; $159 half-day (no lunch)
- Full-time Graduate Student: $100
- Full-time Undergraduate Student: $75
- CSO Executive Summit + Secure360 Conference: Pricing available soon

Regional Midwest – conferences

- **THOTCON**
- THOTCON (pronounced 'thȯt and taken from THree - One - Two) is a small venue hacking conference based in Chicago IL, USA. This is a non-profit, non-commercial event looking to provide the best conference possible on a very limited budget.
- Once you attend a THOTCON event, you will have experienced one of the best information security conference experiences combined with a uniquely casual and social experience.
- THOTCON 0x8 is the eighth incarnation of this event and will be held on Thursday and Friday May 4th and 5th, 2017.
- It will be held at a location only to be disclosed to attendees and speakers during the week before the event. For more information, explore this site or contact us at info@thotcon.org.
- **Cost:**
- $118 - Early Bird
- $168 - GA
- $298 - VIP

Regional Midwest – conferences

- Cyphercon
- Welcome to CypherCon 2.0. Wisconsin's Hacker Conference! Our conference provides hackers with an outlet to openly demonstrate and experience creativity and ingenuity through hands-on enlightening activities and thought provoking presentations and technical projects. Come listen to over 25 security speakers, learn at 12 mind-blowing, but approachable villages (specializations), and relax with friends in a casual environment.
- **Cost:**
- $125 - analog badge
- $175 - digital badge

Regional Midwest – conferences

- **GrrCon**
- GrrCON is an information security and hacking conference that provides the Midwest InfoSec community with a fun atmosphere to come together and engage with like minded people. We keep GrrCON small with around 1,500 attendance to allow us to provide those things other events leave out. Whether you are a Fortune 500 executive, security researcher, industry professional, student, or a hacker of flexible morals you will find something for you at GrrCON.
- **Cost:**
- $50 - Student
- $90 - Early Bird
- $150 - GA
- $350 - VIP

Regional Midwest – conferences

DerbyCon 7.0
September 20-24, 2017

- DerbyCon 7.0 is the place where security professionals, hobbyists, and anyone interested in security convene to socialize, learn, and gain valuable connections with fellow professionals and enthusiasts. This five-day event includes training sessions as well as the main conference experience. More than 2,000 people attended DerbyCon 4.0, three years ago, and the organizers aim to make it bigger and better year after year.
- Cost to Attend: Contact for attendance cost

Regional Midwest – conferences

- **ForenSecure**
- We invite your participation as a sponsor/exhibitor, speaker, or attendee of ForenSecure'17: IT Forensics and Security Conference and Expo at Illinois Institute of Technology. This is an industry-focused technical conference (not an academic conference) with multiple tracks. It attracts 200+ professionals for an intensive one- and a half-day schedule that includes discussion and debate over forensics, security, data/information governance, cyber crime and security, cyber security legislation and legal issues, ethical hacking, eDiscovery, cloud forensics, steganography, policy and compliance, privacy, wireless security, cloud computing, identity theft, and more.
- **Cost:**
- $150 - Early Bird
- $200 - GA
- $40 - Student

Regional Midwest – conferences

- **BSidesKC**
- BSidesKC is a non-profit organization designed to advance the body of Information Security knowledge, by providing an annual, open forum for discussion and debate for security engineers and their affiliates. We produce a conference that is a source of education, collaboration, and continued conversation for information technologists and those associated with this field. The technical and academic presentations at BSidesKC are given in the spirit of peer review and advanced knowledge dissemination. This allows the field of Information Security to grow in breadth and depth, and continue in its pursuit of highly advanced scientifically based knowledge.
- **Cost:**
- $20

Regional Midwest – conferences

- **CircleCityCon**
- CircleCityCon is a security conference held in downtown Indianapolis. Our cons last years were big successes and we are only looking to grow and make it better.
- CircleCityCon is about the community. Our signature offering is the community led training classes offered to all participants. Events and contests are organized by members of the security community, including both CircleCityCon staffers and community partners. Three tracks, incredible entertainment, and technical villages help round out the CircleCityCom experience. Of course, don't forget the chance to meet and talk with your peers about all topics including security, hacking, and the latest superhero movies.
- **Cost:**
- $100 - Early Bird
- $125 - GA

Regional Midwest – conferences

- **BSidesMSP**
- Security B-Sides MSP 2017 is a Minneapolis based security conference which will be held on Saturday and Sunday, June 24th and 25th 2017 at the Minneapolis Convention Center. We do not sell our speaker positions to the highest bidder. Anyone submitting, as a speaker, has an equal chance to be selected as we use a community vote process to decide. The number of speakers will be dictated by the space/time constraints of our venue. Contests, Workshops, Villages, and Training events are chosen at the sole discretion of our volunteer organizers. Again, space and time constraints of our venue will impact those decisions.
- **Cost:**
- $50

Regional Midwest – conferences

- **BroCon**
- BroCon '17 offers the Bro community a chance to meet face-to-face, share new ideas, and better understand and secure our networks. The conference is composed of presentations from members of the community and the Bro Development team.
- **Cost:**
- $100 - estimated

National – conferences

- RSA Conference United States 2017
  February 13 - 17, 2017
  San Francisco, CA
- RSA Conference is the must-attend event if you want to discover new security approaches, demo the latest technology, and interact with the world's security leaders. An engaging experience that will inspire and empower you, RSA Conference USA 2017 features an expanded campus, a CyberSmart Parents Workshop, and a seminar focusing on industry diversity, as well as an Innovation Sandbox with a new location.
- Cost to Attend:
- Standard Period (January 14 - February 10, 2017):
  - Full Conference Pass: $2,395
  - Full Conference Academic Pass/Student Pass: $895
  - Full Conference One-Day Pass: $1,435
  - Full Conference Group (5+) Discount: $2,295
  - Full Conference Group (20+) Discount: $2,195

National – conferences

- Black Hat United States
  July 22 - 27, 2017
  Las Vegas, NV
- Black Hat USA is one of the most widely recognized information security conferences, offering a breadth of courses and training opportunities. From beginner hacking training to master-level black ops hacking training for pentesters, Black Hat USA is one of the leading events for infosec professionals looking to get valuable training to stay at the top of their field.
- Cost to Attend:
- Briefing Pass Early: $2095 (ends May 19)*
- Briefing Pass Regular: $2395 (ends July 7)*
- Briefing Pass Late: $2695 (ends July 21)*
- Briefing Pass On-Site: $2795 (ends July 27)*
- Business Hall Regular: $595 (ends July 21)
- Business Hall On-Site: $695 (ends July 27)
- Training prices available on training description pages
- *Includes Business Hall pass

National – conferences

- **DEFCON**
- Originally started in 1993, it was a meant to be a party for member of Platinum Net, a Fido protocol based hacking network out of Canada. As the main U.S. hub I was helping the Platinum Net organizer (I forget his name) plan a closing party for all the member BBS systems and their users. He was going to shut down the network when his dad took a new job and had to move away. We talking about where we might hold it, when all of a sudden he left early and disappeared. I was just planning a party for a network that was shut down, except for my U.S. nodes. I decided what the hell, I'll invite the members of all the other networks my BBS (A Dark Tangent System) system was a part of including Cyber Crime International (CCI), Hit Net, Tired of Protection (ToP), and like 8 others I can't remember. Why not invite everyone on #hack? Good idea!
- **Cost:**
- $260

National – conferences

- ShmooCon
  January 13 - 15, 2017
  Washington, D.C.
- An annual East coast hacker convention, ShmooCon provides an open and informative atmosphere spanning three days for demonstrating technology exploitation, inventive hardware and software solutions, and open discussions on the most pressing infosec issues impacting the field each year.
- Cost to Attend: $150 for general admission

National – conferences

- SANS 2017
  January 23 - 30, 2017
  Las Vegas, NV
- SANS is the global leader in information security training, offering a variety of events and conferences throughout the year. SANS 2017 takes place in January in Las Vegas, Nevada, featuring a comprehensive roster of courses for industry professionals packed with the techniques and tools you need to advance in your career. You can also get an OnDemand bundle that provides access to the e-learning programs for your chosen courses, lecture materials including audio and video, quizzes and labs, and more.
- Cost to Attend:
- Pricing varies by course and options
- Most courses - $5,910
- Full course list and pricing information available here

National – conferences

- Gartner Security and Risk Management Summit
  June 12 - 15, 2017
  National Harbor, MD
- The Gartner Security and Risk Management Summit provides attendees with best practices and strategies to maintain cost-effective security and risk programs to support digital business and drive enterprise success. The Gartner Security & Risk Management Summit 2017 is taking place from June 12 - 15, 2017 in National Harbor, MD. Find information on other upcoming Gartner Symposiums and Summit Events here.
- Cost to Attend:
- Gartner Security and Risk Management Summit 2017: $3,400 (Standard Conference Price)
- Public Sector Price: $2,750
- Early bird discounts available for pre-registration for most events

National – conferences

- IAPP Global Privacy Summit
  April 19 - 20, 2017
  Washington, D.C.
- The IAPP Global Privacy Summit hosts more than 3,000 privacy professionals annually. The Global Privacy Summit 2017 features thought leaders such as attorney, advocate, podcaster, and author Rabia Chaudry, design ethicist and author Tristan Harris, and bestselling author and journalist Rebecca Skloot, along with informative sessions like Vendor Risk 2.0—Are You Sure You Know Where Your Data Is?, Sextortion, Doxing and the Real-World Harm of Online Data Insecurity, and more. In addition to the two-day conference, attendees may be interested in the two-day Training and Active Learning events on April 17th and 18th. The IAPP, a non-profit organization founded in 2000, is the largest and most comprehensive global information privacy community and resource.
- Cost to Attend:
- Conference and Training Pass (4-day): $2,740 ($2,540 until February 17th)
- Conference Plus + Pass (3-day): $2,145 ($1,945 until February 17th)
- Conference Pass (2-day): $1,445 ($1,245 until February 17th)

National – conferences

- SC RiskSec
- SC Magazine presents the information security industry's must-see conference and expo, formerly *SC Congress*. Prospective attendees can choose from five cities: London, Toronto, New York, Chicago, and Boston, to gain perspectives from top risk experts and network with cybersecurity leaders.
- Cost to Attend: Contact for attendance cost

National – trainings

- (ISC)2 Secure Event Series
  @ISC2
  (ISC)2 offers a comprehensive range of quality, high-level educational events. Professionals can earn CPEs at (ISC)2 e-Symposiums and (ISC)2 Security Leadership Events. (ISC)2 Secure Events take place throughout the year and in cities across the globe. Upcoming Secure Events focus on managing risk in the ever-changing threat landscape, advancing the cybersecurity workforce, and other pressing topics of interest to the information security community.
- Cost to Attend: Contact for attendance cost

National - trainings

Other Training Sources

- **YouTube**
- **Cybraray**: Free and Open Source Cyber Security Learning - https://www.cybrary.it
- **Hack Naked Podcast** - http://securityweekly.com/portfolio/hack-naked-tv/
- **SecurityTube** - http://www.securitytube.net
- **Lynda:** 5,880 courses in Business, Technology and Creative Skills taught by industry experts. - https://www.lynda.com
- **Hak5 HakShop** - https://hakshop.com *buy gear and set up your own lab!*

Event Calendars

- B-Sides: http://www.securitybsides.com/w/page/12194156/FrontPage
- Concise Cybersecurity: https://www.concise-courses.com/security/conferences-of-2017/
- Infosec Events: http://infosecevents.net/calendar/
- https://digitalguardian.com/blog/top-50-must-attend-information-security-conferences
- **There are many, many events around the world so Google!**

News Sources

- Organizations you belong to may have newsletters: (ISC)2, IAPP, IEEE, ISACA, ISSA…
- Naked Security - https://nakedsecurity.sophos.com/
- Krebs on Security – https://krebsonsecurity.com/
- SANS News Bytes - https://www.sans.org/newsletters/
- SecureWorks RSS Feeds: https://www.secureworks.com/rss-feed
- The Cyberwire - https://thecyberwire.com
- SC Magazine - https://www.scmagazine.com
- Follow top bloggers on social media - https://digitalguardian.com/blog/top-50-infosec-blogs-you-should-be-reading

Security Dashboards (Threats)

- BlueCoat Labs – Malware - https://www.bluecoat.com/bc-labs-malnet-dashboard
- Arbor Digital Attack Map – http://www.digitalattackmap.com/
- Team Cymru Malevolence and Graphs - https://www.team-cymru.org/malevolence-monitoring.html
- T-Mobile Network Attack Map - http://www.sicherheitstacho.eu/
- Kaspersky Cyberthreat Map - https://cybermap.kaspersky.com/
- FireEye Cyber Threat Map - http://www.fireeye.com/cyber-map/threat-map.html
- F-Secure Global Threat Map - http://globe.f-secure.com/
- Norse (pew-pew) Attack Map - http://map.norsecorp.com/#/

Closing Advise

- The Internet has LOTS of free or cheap resources you can use to learn. Many very good YouTube videos free!
- Lifelong learning and development is REQUIRED to be a security or technology professional! Find the resources, conferences or seminars that give you CEUs to maintain certifications, which fit in your budget!
- Join professional societies, you get a lot for your membership and network with other professionals!
- Make good use of social media to network, learn and keep up with industry activities and news!
- Volunteer to help with a conference or local event!
- Find a local group who shares your interests and start a meet-up!

Find this presentation @ **http://is.gd/CyberED042517**

Questions

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** Please send John any additional links and he will compile this on alignedsecurity.com!*