Agenda

- Information Security in Context
- REN-ISAC
- EDUCAUSE Cybersecurity Initiative
- EDUCAUSE Annual Conference
Speaker Bio

Joanna Grama

- Director of Cybersecurity and IT GRC Programs at EDUCAUSE
- Lawyer by training
- Credential hoarder by choice (CISSP, CIPT, CRISC)
- Admitted work-a-holic who becomes bored easily
- Social media addict (@runforserenity)
- (Reformed?) helicopter parent
It’s Scary “Out There”

World’s Biggest Data Breaches

Selected losses greater than 30,000 records
(updated 2nd October 2015)
Information Security is a Top 10 IT Issue

Not Just Once in 2015...

TOP 10 IT ISSUES: 2000–2015

This graphic tracks the rankings of the top 10 IT issues since 2000. Clicking or tapping a year along the top will show the top 10 IT issues for that year. Hovering over or tapping an issue will highlight the trend in importance for that issue across years.

Source: EDUCAUSE Top 10 IT Issues, Trends Interactive Graphic.
Information Security is a Top 10 IT Issue

But Twice.

Source: EDUCAUSE Top 10 IT Issues, Trends Interactive Graphic.
Data Is The Target

- User credentials/passwords
- Personally identifiable information
  - Financial information
  - Health information
- Proprietary information/trade secrets
- Research data
- Information about how networks and IT resources work
- Confidential information that, if released, could cause personal embarrassment
Data Breaches by Industry

Data Breaches in Higher Education

Figure 5. Proportion of single/repeat breach reports by Carnegie Classification in the PRC, 2005–2014 (ECAR data set, n = 324)

Data Breaches in Higher Education

Figure 6. Types of data breaches in higher education, 2005–2013 (ECAR data set, n = 551)

Data Breaches in Higher Education

![Bar chart showing the number of data breaches per year from 2005 to 2014. The number of breaches decreased from 85 in 2006 to 22 in 2014.]

Introduction to REN-ISAC
REN-ISAC
Research and Education Networking Information Sharing and Analysis Center

http://www.ren-isac.net/membership.html

Kim Milford, Executive Director
Mission

The REN-ISAC mission is to aid and promote cyber security operational protection and response within the higher education and research (R&E) communities.

The mission is conducted within the context of a private community of trusted representatives at member institutions, and in service to the R&E community at-large.

REN-ISAC serves as the R&E trusted partner for served networks, the formal ISAC community, and in other commercial, governmental, and private security information sharing relationships.
Ohio Higher Education Members

- OARnet
- Ashland University
- Case Western Reserve University
- Denison University
- Eastern Gateway Community College
- John Carroll University
- Kent State University
- Kenyon College
- Marshall University
- Miami University
- Oberlin College
- The Ohio State University
- Ohio University
- Owens Community College
- Sinclair Community College
- University of Akron
- University of Cincinnati
- Wittenberg University
- Xavier University
- Youngstown State University
REN-ISAC Components

- Private Trust community
- CSIRT for .edu
- Sector ISAC
- R&D
Private Trust Community

- Membership is open to:
  - Colleges and universities
  - Teaching hospitals
  - R&E network providers
  - Government-funded research organizations

- Member representative eligibility:
  - Very specific job responsibility requirements: institution-wide operational protection and response (essentially the IT Security Office (or alike) security engineers, architects, and direct managers)
  - Tightly circumscribed to maintain a high level of trust and interaction among the representatives

- 2 tiers, differing in eligibility criteria, trust vetting, sensitivity classification, and the commitment-level of the institution
Private Trust Community

- Member participation is a cornerstone of REN-ISAC
- Member contributions through participation:
  - Board
  - Technical Advisory Group
  - Microsoft Analysis Team
  - Membership Committee
  - Member Orientation and Engagement Committee
  - Technical webinars
  - Services development
  - Projects, e.g. sensor development
  - Special Interest Groups, e.g. SIEM, Forensics, Bro, etc.
Private Trust Community

- Information products (e.g. Daily Watch, Advisories, and Alerts)
- Benefit from REN-ISAC relationships in broad security community
- Benefit from REN-ISAC / vendor security cooperation relationships
- Participate in technical educational security webinars
- Participate in REN-ISAC meetings, workshops and training
- Access to the 24x7 REN-ISAC Watch Desk
- Develop relationships with known and trusted peers
CSIRT for .edu

- Daily notifications, directly and privately to abuse contacts at .edu institutions concerning compromised or vulnerable systems, credentials, and other incident involvement
  - In service to all of US .EDU regardless of membership, and international members
  - Over 12,000 notifications per month
  - Over 1,800 institutions notified
- 24x7 Watch Desk
- Represent the sector in forums of private, commercial, and governmental CERT/CSIRTS
EDU Sector ISAC

- Trusted partner for the R&E community
- Member, National Council of ISACs
- Formal relationship with DHS/US-CERT
- Cross-sector information sharing
- Public alerts aimed at R&E security practitioners, CIOs and business officers
R&D

- CSIRT Tools
  - RINO (Ren-Isac NOtification system)
    - Receives, collates, and distributes notifications concerning observed compromised or vulnerable systems
  - RIHF (Ren-Isac Human Filter)
    - Process notifications based on data that requires operator vetting and interaction.

- RINO and RIHF aren’t currently released open-source but we’re hoping to get there.
Relationships

- APWG (Anti-Phishing Working Group)
- DHS/US-CERT and other national CERTS and CSIRTS
- EDUCAUSE
- Global Research NOC at IU
- Higher Education Information Security Council
- Internet2
- LE (various)
- National Council of ISACs
- NCFTA
Organization

- Hosted by Indiana University (fiscal and administrative agent)
- Eight full-time staff
- Governed by a Board formed from among the members (2/3) plus sponsoring and host organizations
- Relationship with the Higher Education Information Security Council (HEISC, similar in concept to a Sector Coordinating Council (SCC))
Fees

- FY2016 (July 2015 - June 2016) are unchanged from the rates established for FY2015
- Fees are calculated according to a modified Carnegie Classification (CC) model, based on the CC Basic2010 of U.S. colleges and universities. The 30+ CC classes are mapped to 4 REN-ISAC classes:

<table>
<thead>
<tr>
<th>Class</th>
<th>Fee</th>
</tr>
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<tbody>
<tr>
<td>Very High Research</td>
<td>$2,500</td>
</tr>
<tr>
<td>High Research</td>
<td>$2,250</td>
</tr>
<tr>
<td>Large Master's and Doctoral/Research</td>
<td>$1,500</td>
</tr>
<tr>
<td>All Other</td>
<td>$1,250</td>
</tr>
</tbody>
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Introduction to the EDUCAUSE Cybersecurity Initiative
EDUCAUSE Cybersecurity Initiative

- Lead by the Higher Education Information Security Council (HEISC); an EDUCAUSE and Internet2 partnership
- Working Groups
- Yearly Security Professionals Conference
- The *Information Security Guide* (practitioner resource)
- Mentoring Program
- Security Discussion List

The Higher Education Information Security Council (HEISC) supports higher education institutions as they improve information security governance, compliance, data protection, and privacy programs. Learn about HEISC and its programs at [www.educause.edu/security](http://www.educause.edu/security)
Working Groups

- Awareness and Training
- Governance, Risk, and Compliance
- Technologies, Operations and Practices
- Information Security Guide Editorial Board
- Security Conference Program Committee
- Higher Education Chief Privacy Officers
Security Professionals Conference

- Established 2000
- Only conference for higher education information security practitioners
- April 18-20, 2016 in Seattle, WA
- CFP open now! Submit by 11/9/2015
Information Security Guide

- Effective practices and solutions
- Created by higher ed security professionals for higher ed security professionals
- Based on ISO 27002

InfoSec Program Assessment Tool

- Self-assessment tool
- Based on ISO 27002
- 104 questions
- Appropriate for institutional or unit use

<table>
<thead>
<tr>
<th>Security Policy (ISO 5)</th>
<th>Total Score for ISO 5→</th>
<th>0.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your institution have an information security policy that has been approved by management?</td>
<td>Not Performed</td>
<td>0</td>
</tr>
<tr>
<td>Has it been published and communicated to all relevant parties?</td>
<td>Not Performed</td>
<td>0</td>
</tr>
<tr>
<td>Does your institution review the policy at defined intervals to encompass significant change and monitor for compliance?</td>
<td>Not Performed</td>
<td>0</td>
</tr>
</tbody>
</table>

View tool at: http://www.educause.edu/library/resources/information-security-program-assessment-tool
InfoSec Research from EDUCAUSE

- Core Data Service
- Core Data Reporting (M7)
- Almanacs
- CDS Spotlights
- ECAR
- Infused throughout research
- Infographics
- EDUCAUSE
- Leader materials
Next Week! Security & Privacy at the EDUCAUSE Annual Conference

- DHS Deputy Assistant Secretary Gregory Touhill speak about the Importance of a Cybersecurity Education.
- Briefing: Cyber threats facing colleges and universities today.

Learn more:
Resource List
Resource List


- REN-ISAC Public Alerts and Advisories: [http://www.ren-isac.net/alerts.html](http://www.ren-isac.net/alerts.html)

Questions?

Please ask questions so that I don’t have to tell jokes or show embarrassing family pictures for these last few minutes.

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@runforserenity

Batman moods