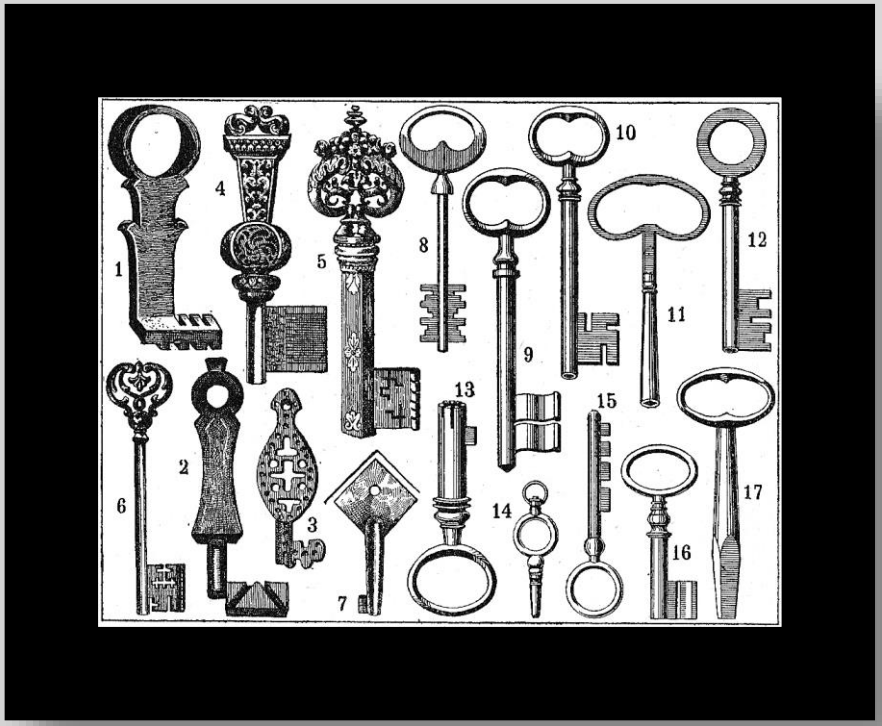
Keys to Employee Cybersecurity



Al Lewis, CISSP-ISSMP, CISM

FISSEA Annual Conference
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NIST HQ, Gaithersburg, MD

“Tell me… and I forget.
Teach me… and I may remember.
Involve me… and I learn.”

BEN FRANKLIN

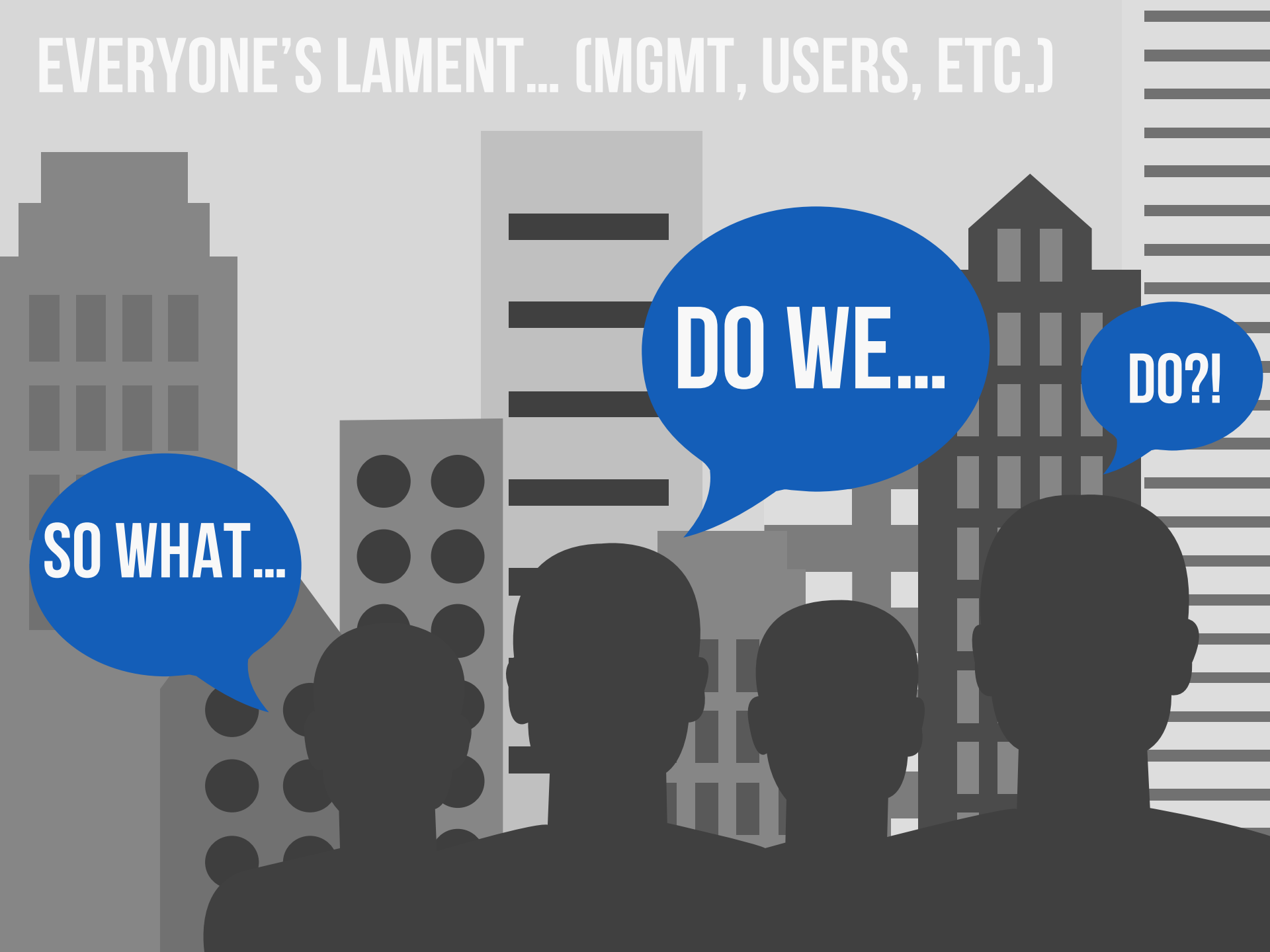
MY TALK IS ABOUT…

- Technology has changed, but people have not inherently changed (much)
- User behavior has adapted to meet technology… but not always in a good way

MY TALK IS ABOUT…

- Security has not evolved rapidly enough to keep up with:
  - Increasing plethora of threats
  - Burgeoning compliance requirements
- Compliance and security – two different animals

EVERYONE'S LAMENT... (MGMT, USERS, ETC.)



MY TALK IS ABOUT…

Never lose sight of the importance of people in the security equation

- **Educated, informed, engaged users**
  = Reduced probability of attack
  = Reduced risk

MY TALK IS ABOUT…

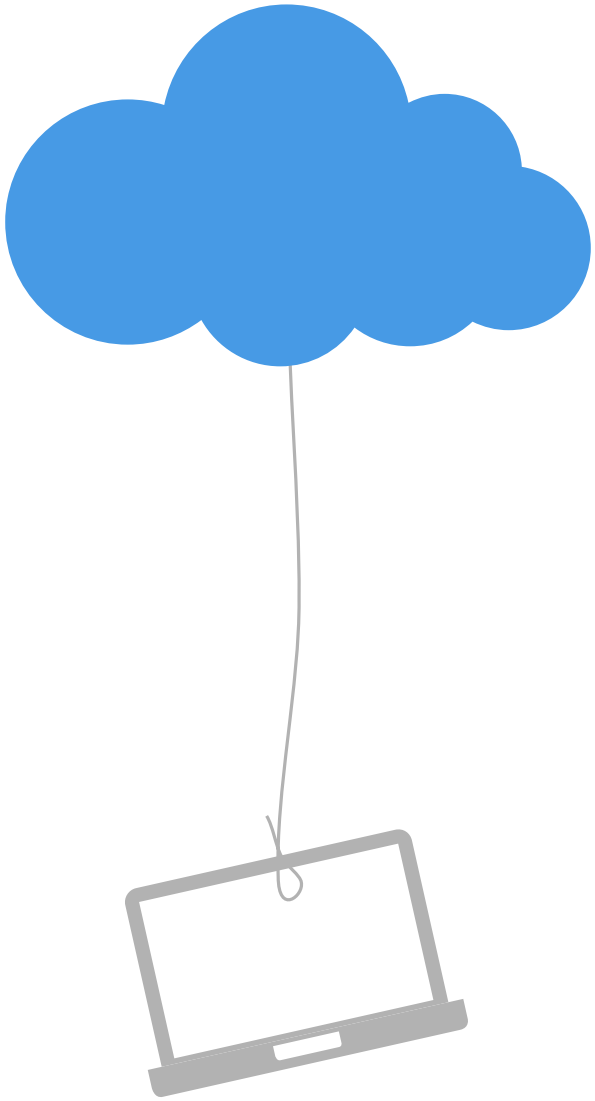
- **Fully utilizing technology to educate and involve users on cyber awareness**
- **Educating, informing, and training your users is a worthwhile effort – and worthy of increased funding**
- **Our job is to educate everyone on the <u>importance</u> of our field – not just content**

WHO AM I?

- 28 years in federal and commercial IT
- 15 years in cyber security operations, program management, policy and compliance
- Companies: HP, MITRE, many medium and small firms
- Former Clients: DoD, FBI, HHS, DOL, Supreme Court, EPA, CMS, etc.
- Member FISSEA board
- I like technology AND I like working to help people understand the role people play in designing it… developing it…using it…and abusing it

THREATS ARE INCREASING

- APT
- Crimeware
- Hackers
- Theft (physical and virtual)
- Domestic and international
- Higher probability of attack



BIGGER IMPACTS

- Sensitive Data, UCTI, CUI, ePHI
- New regulations, new compliance picture

GREATER RISK

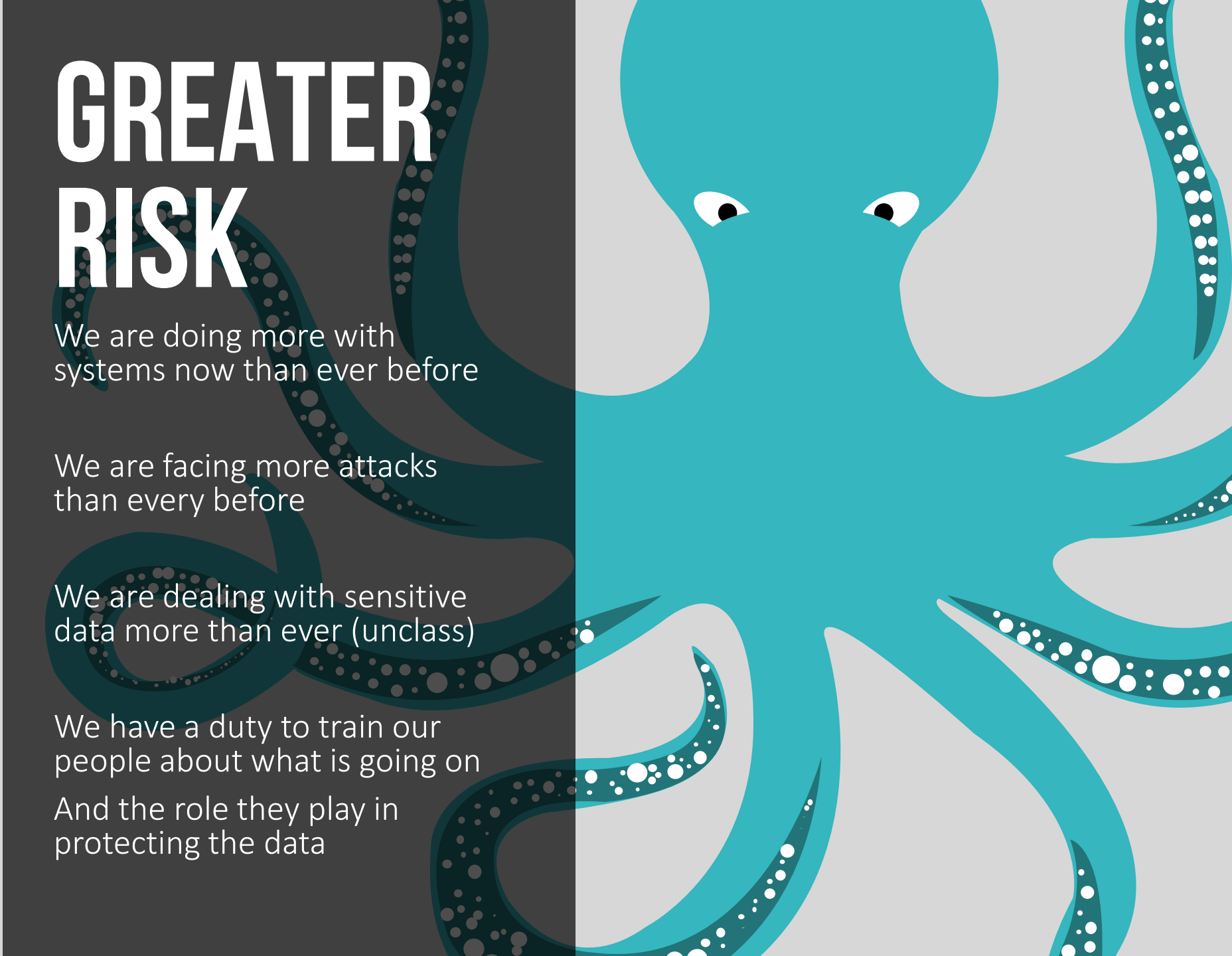
We are doing more with systems now than ever before

We are facing more attacks than every before

We are dealing with sensitive data more than ever (unclass)

We have a duty to train our people about what is going on

And the role they play in protecting the data



THE OLDEN DAYS

Technology has changed a lot over the last 28 years…
but people have not changed very much….
Still want to take the shortest route to get their job done….
But now they also expect to use work PCs as they do at home…

SOCIAL MEDIA, BYOD, ETC.

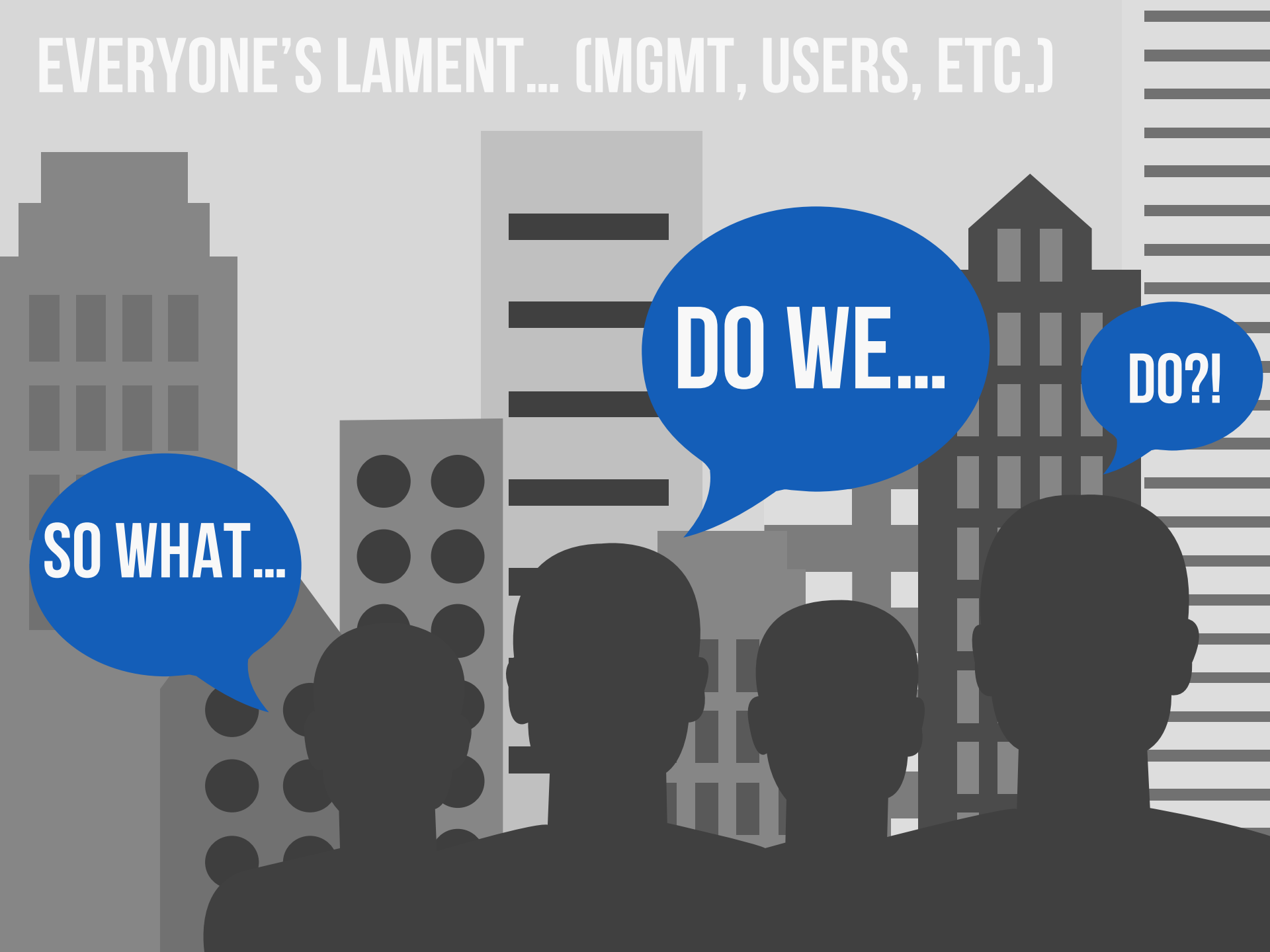
- How do we accommodate users NEEDS (WANTS)
  while accomplishing our Federal missions?
- We need to employ smarter technologies
- Also educate our users about the potential risks inherent in using new technologies

I CAN'T GET NO SATISFACTION

<u>Who are we aiming to please:</u>

- Mission requirements
- User wants
- Compliance mandates

EVERYONE'S LAMENT... (MGMT, USERS, ETC.)



COMMUNICATION IS KEY

- At all levels
- Is your security training education, and awareness a means to and end….what end?
- Better security? Or to lessen risk of non-compliance…or both?

COMMUNICATION IS KEY

- How often do you train?
- How often do you find people out of compliance – signal that more training is needed

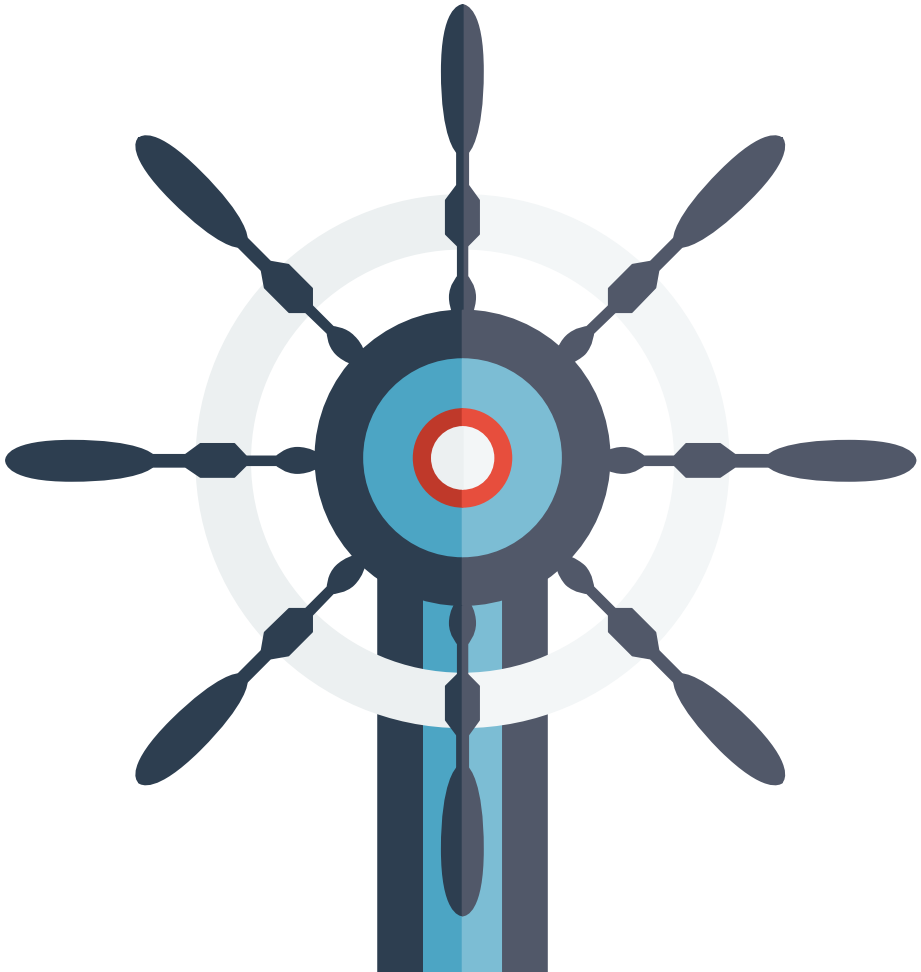
AVOID GETTING CAUGHT

With an inadequate strategy for user awareness

- Policy is not enough
- Compliance program is not enough
- Awareness needs to be constant because risks are constant

LEAD

- The Educator is often the first-level contact with all users
- This represents a lot of **POWER!**
- If you know your users – AND you know your threats and risks – then you can lead the BoX with initiatives
- What are the targeted training, education, and awareness initiatives that matter most? **Why?**



GUIDE

...your leadership with targeted training initaitives tied specific threats that exist in your organization

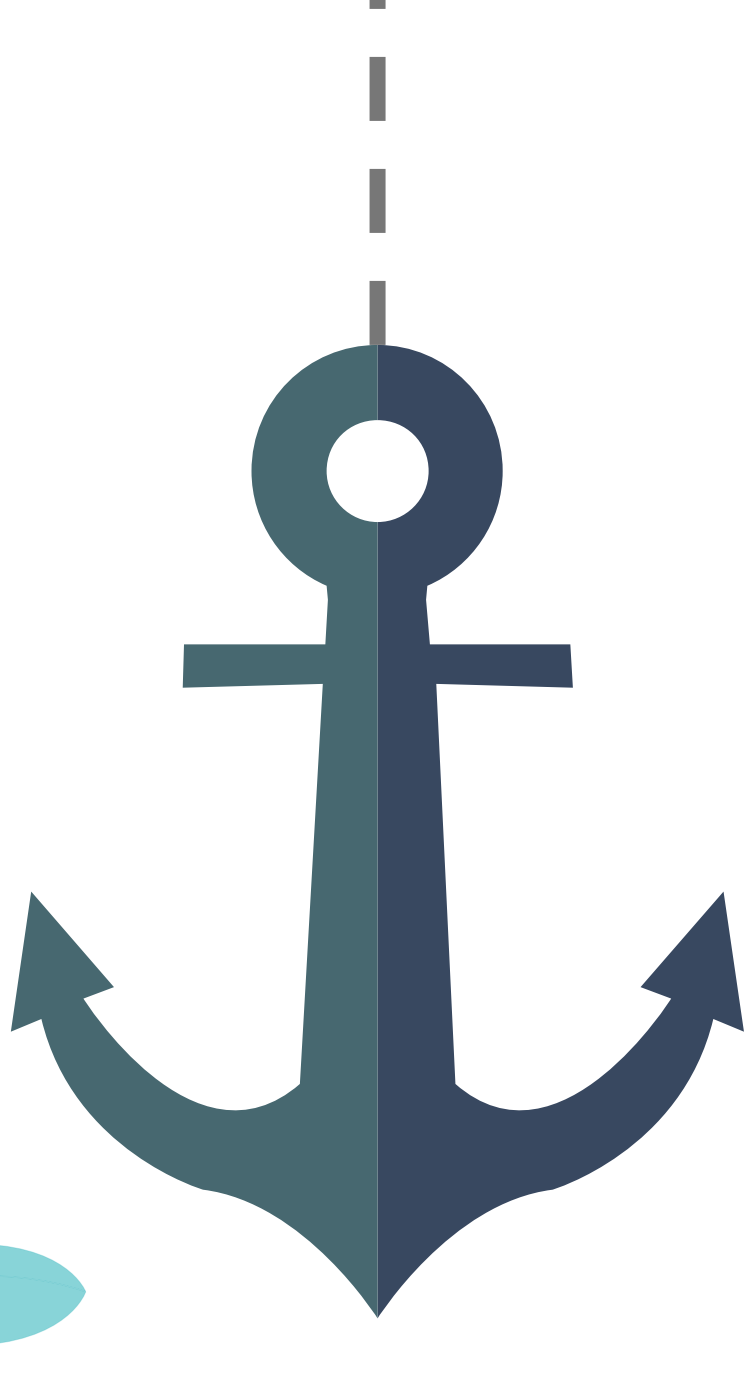
...your users with Insider Threat, Cloud Security, Risk Assessment, and other user engagement activities to enhance cyber security awareness

HELP VS. PUNISH?

- Is your compliance program all about sanctions?
- Is there an emphasis on ensuring people better understand policy up front? When it is published? Do you monitor your waiver volume as an indicator of policy effectiveness?

AWARENESS AS AN ANCHOR

- How do you engage users and keep them engaged?
- “Human sensor” concept
- Interactive awareness activities
- Talk about IT risks at home



FOCUS

Security educators need to understand risks that face their organization –

- Probability of compromise
- Impact
- Mitigations

ONE WAY?

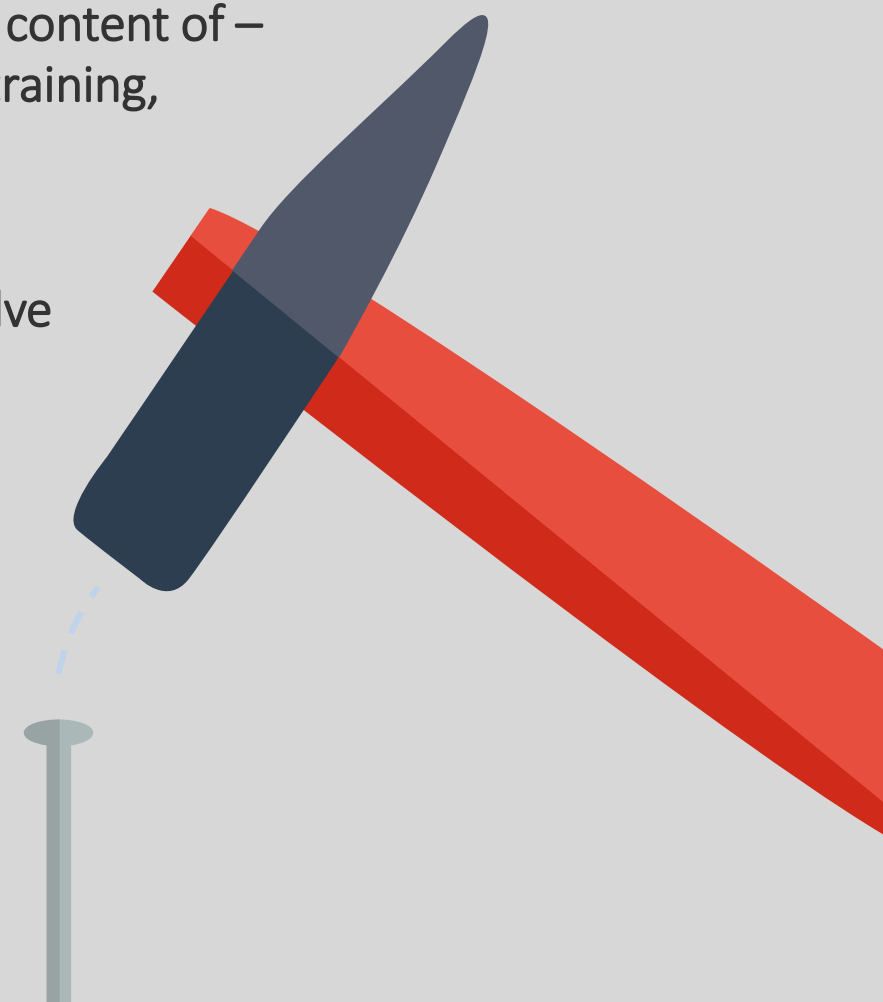
There is no single solution to employee education because

Every organization is different

- Every employee is different
- Risk appetite
- Budgets

HAMMER TIME

- When is the last time you revisited the content of – and revised –your security education, training, and awareness programs?
- Does delivery technology delivery involve interaction… or just pushing buttons?
- Compliance oriented (therefore may be boring) or security oriented (more exciting) or a combination?

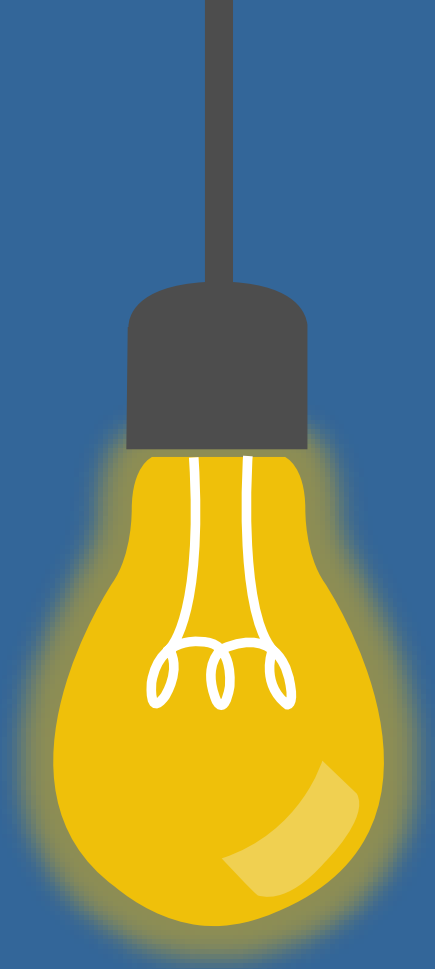


MEASURE

- How do you measure success with your security education, training, and awareness programs?
- Are your initiatives tied into a GRC tool?
- Do you encourage and log employee feedback?
- Do you review incidents and tie the data back to informing your users?

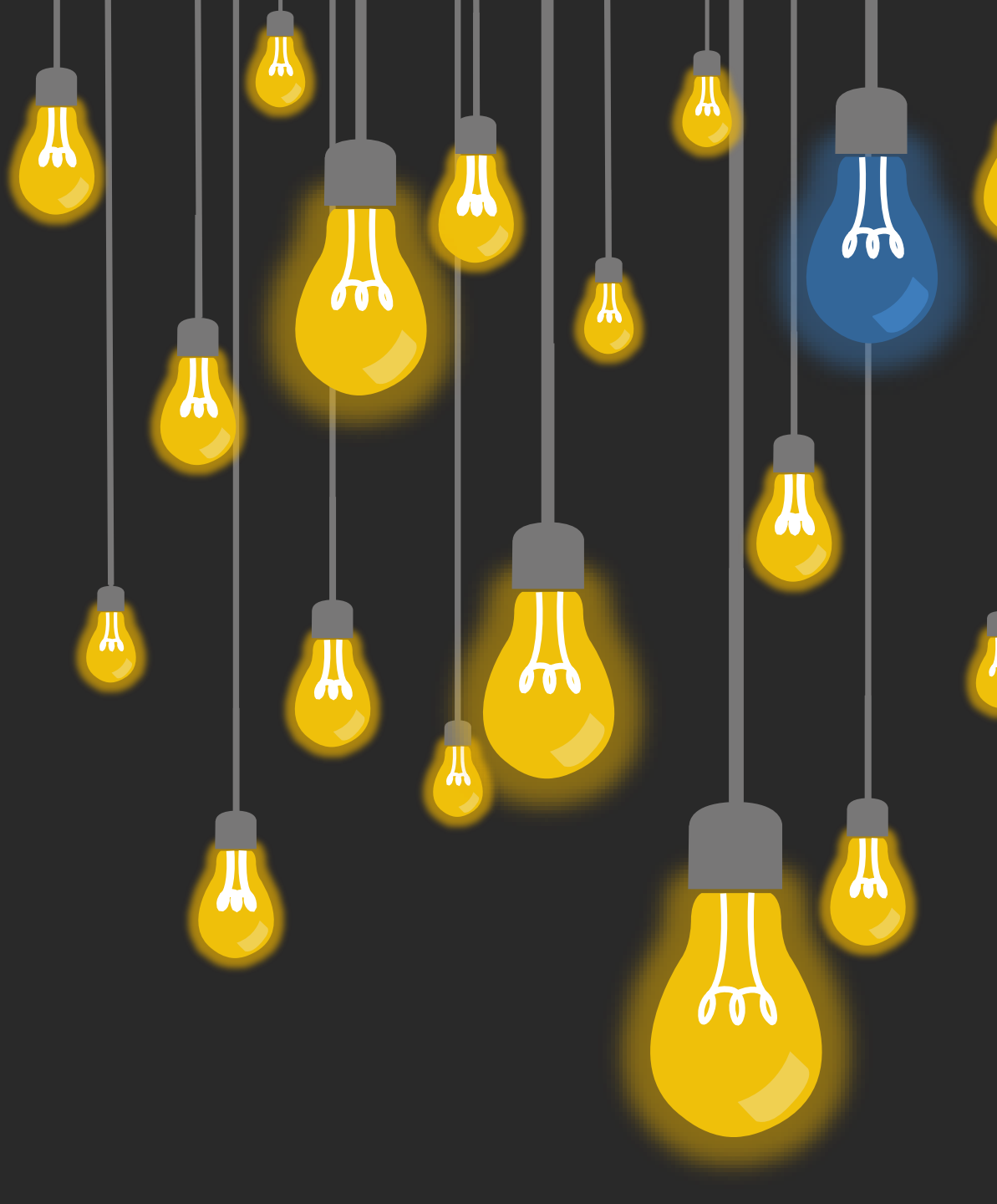
POWER OF MIND

- The reason why FISSEA exists is to support you – the Federal IT security educator
- This conference offers an opportunity to get new ideas and introduce them into your organizations



MORE IDEAS

By sharing your ideas with others – and learning from others – you can leverage the power of your network to solve your problems



EVERYONE WINS

…when the entire organization is aware and committed to safeguarding data and systems

How do you obtain that commitment?

ECONOMIZE

- Everyone needs to do more with less
- Which activities will provide the biggest bang for the buck?

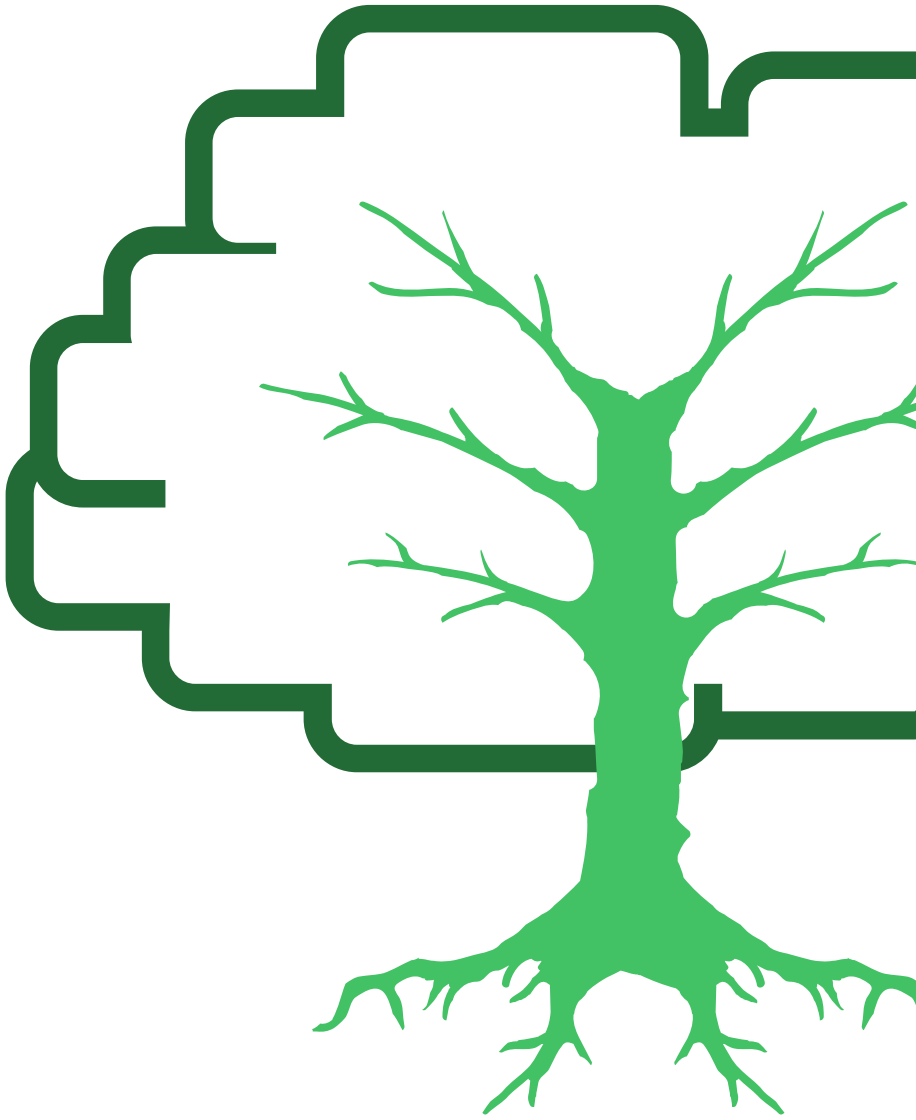
FOCUS ON VALUE

- Proving ROI is difficult at best
- Link activities to biggest threats facing your organization

ROOT CAUSES

- Many cyber incidents are caused by lack of awareness, or insider issues:
  - Phishing
  - Intentional and non-intentional non-compliance

- People are at the root of many problems with security



STRENGTHEN YOUR PEOPLE

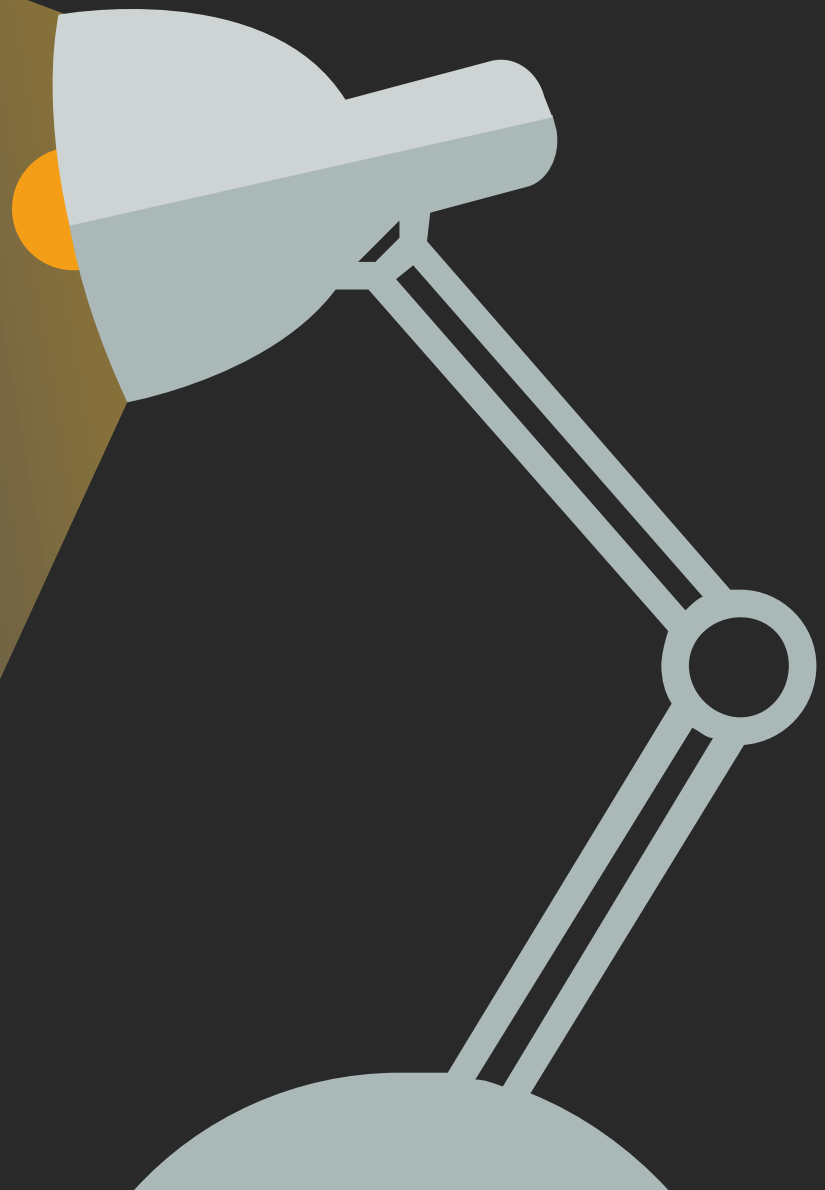
- Arm them with the tools they need to face the challenges they will encounter
- Engage them fully

ENLIGHTEN

Everyone….

- Executives
- Managers
- Employees
- Contractors
- Vendors

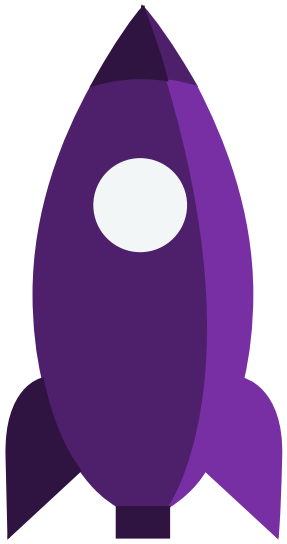
- Wherever a threat vector resides
- Wherever funding comes from



HAVE FUN!

This work can be fun when done properly!

Your work can have a tremendous impact on the security of your organization.



The Sky Is

THE LIMIT!

THANK YOU