



Trust and the Duty of Care



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AGENDA

1. IP3 overview
2. The threats
3. Duty of Care
4. Trust
5. Impact on education



IP3 Overview

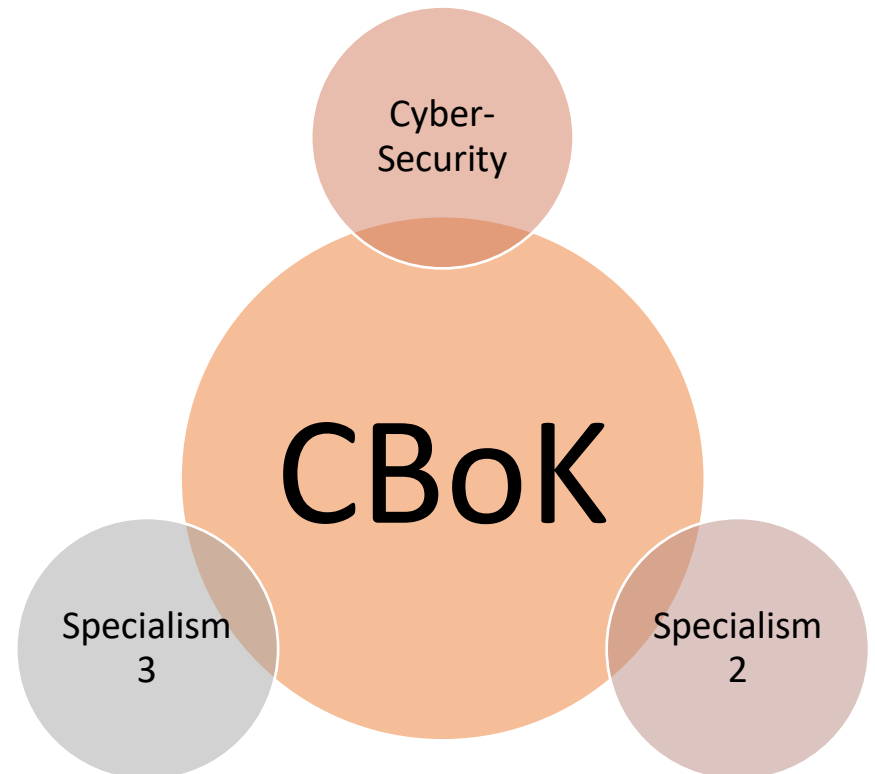




- ❑ Global programme promoting professionalism
- ❑ IFIP led, independent & not for profit
- ❑ Defining and maintaining global standards for ICT
- ❑ Recognising & certifying professionalism
 - ❑ Frameworks essential to process
- ❑ iDOCED Campaign – Trust and the Duty of Care



- ❑ IP3 Professional (IP3P)
 - ❑ Aspirational
 - ❑ Vendor neutral
 - ❑ SFIA Level 5 (Benchmark)
 - ❑ CBoK
 - ❑ Complete requirement for [professional formation](#)
 - ❑ Global recognition
- ❑ IP3 Technologist (IP3T)
 - ❑ SFIA Level 3





Skills & Knowledge

Service

Trust

Accountability

Ethics

Proud of Profession

Assess,
certify and
maintain
professional
standards





- ☐ Almost total reliance on technology
 - ☐ Disaster relief
- ☐ Suppliers & users
 - ☐ Geographically dispersed
- ☐ Who are we dealing with?
 - ☐ Are they even humans?
- ☐ Apps – do we question their integrity





Vulnerabilities & attacks

- ❑ Unforeseen circumstances
- ❑ Compound exponentially
- ❑ Malicious software in IoT
- ❑ Cyber-physical





Who keeps us safe?
From this guy?



The Cyber-Security experts of course!

It's their Duty of Care.....





Who keeps you safe in the physical world?





Cyber-security incidents

- ☐ Self-inflicted wound?
- ☐ Neglect?
- ☐ Ignorance?





What is the Duty of Care?

Professional standard of care. Ethical or legal duty of a professional to exercise the level of care, diligence, and skill prescribed in the code of practice of his or her profession, or as other professionals in the same discipline would in the same or similar circumstances.



SECURING THE INTERNET IS
**OUR SHARED
RESPONSIBILITY**





iDOCED

***ifip* Duty of Care in Everything Digital**

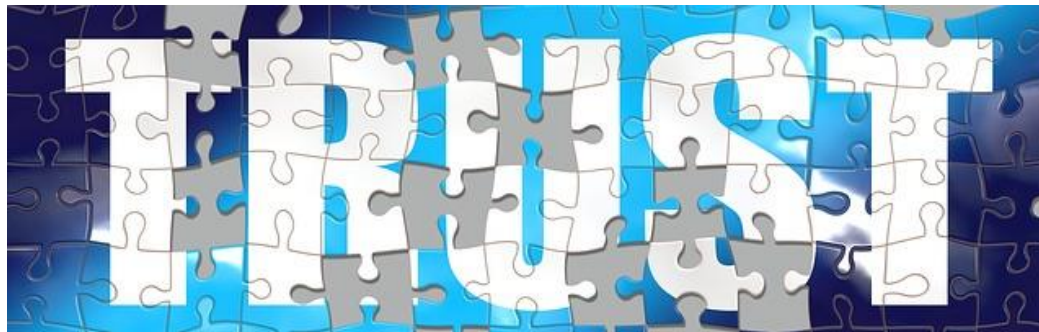
- ☐ Digital World
- ☐ Cost not most important factor
 - ☐ Reliability
 - ☐ Accountability
 - ☐ Ethics
- ☐ Legal liability
- ☐ Digital Skills
 - ☐ Privacy & security

iDOCED is designed to remind and support both providers and consumers of digital products and services that they have a duty of care in ensuring that they act responsibly in relation to the digital world.



Why is trust an issue?

- ☐ Confidence – limit or enable economic growth
- ☐ Improve trust:
 - ☐ In technology
 - ☐ Amongst humans





A breach in *any one* of these areas will ***diminish trust*** and ***discourage users from engaging*** with systems/technology



What do we need?

- ☐ Assurance of skills and knowledge of service providers
 - ☐ Certified ICT Professionals
- ☐ Governments
 - ☐ Agree a set of binding norms for nation states
 - ☐ Legislate for data breach reporting to assist consumers
- ☐ Develop a reference model for personal data protection guidelines
- ☐ Understand contribution of ICT to economy

The most expensive thing
in the world is...

T R U S T

It can take **YEARS** to **EARN** &
Just a matter of **SECONDS**
to **LOSE.**



*“Ensuring cyber security and cyber resilience is also a **duty of care** of the individual **ICT professional**, in all stages of a system life cycle (design, development and operation). This means that most, if not all, types of **ICT functions and jobs must contribute to cyber security and cyber resilience.**”*
Leon Strous, Immediate Past President, IFIP





- ☐ Better definition of Cyber-Security
- ☐ Cyber-Security content in an ICT degree
 - ☐ Is it fit for purpose?
 - ☐ Updated continuously?
- ☐ What should a Cyber skilling framework look like?
 - ☐ One outcome – ACS framework
- ☐ What does International Best Practice look like?
- ☐ How do certification programmes fit in?

Education



Meeting the needs

- Cybersecurity labor crunch to hit 3.5 million unfilled jobs by 2021 – CSO
<https://www.csoonline.com/.../cybersecurity-labor-crunch-to-hit-35-million-unfilled-j...>
 - Jun 6, 2017 - The cyber crime epidemic is expected to triple the number of open ... alone will need 1 million cybersecurity professionals by 2020 to meet the demands ... If that's true, then the cybersecurity workforce shortage is even worse ...
- Cybersecurity Jobs Report 2018-2021 - Cybersecurity Ventures
<https://cybersecurityventures.com/jobs/>
 - Feb 23, 2018 - A 2016 skills gap analysis from ISACA estimated a global shortage of 2 million cybersecurity professionals by 2019 (a half-million more than ...)
- The Evidence Is in the Numbers: We Need More Cyber Security Pros
<https://www.tripwire.com> › Home › News
 - Mar 18, 2018 - Fighting Cyber Crime Requires Professionals, Talent Which is in Short ... primary factors contributing to today's cyber security talent shortage:.
- Global Shortfall of 1.8 Million Cyber Security Pros Expected by 2022
<https://www.esecurityplanet.com/.../global-shortfall-of-1.8-million-cyber-security-wor...>
 - Feb 16, 2017 - A recent survey of more than 19,000 cyber security professionals found that the world is expected to face a shortfall of 1.8 million cyber security ...



Meeting the needs

- Cybersecurity world faces 'chronic shortage' of qualified staff
https://www.theregister.co.uk/2017/.../chronic_shortage_qualified_cybersecurity_bods...
 - Aug 24, 2017 - Cybersecurity world faces 'chronic shortage' of qualified staff ... per cent of them have reported a shortage of information security professionals.
- Cybersecurity Faces 1.8 Million Worker Shortfall By ... - Dark Reading <https://www.darkreading.com/careers-and.../cybersecurity...18...shortfall.../1329084>
 - Jun 7, 2017 - (ISC)2's Global Information Security Workforce Study, which queried 19,000 cybersecurity professionals worldwide, found 66% of survey ...
- Cybersecurity Workforce Shortage Projected at 1.8 Million by 2022
...blog.isc2.org/isc2_blog/2017/02/cybersecurity-workforce-gap.html
 - Feb 15, 2017 - The workforce gap is estimated to be growing, with the projected shortage reaching 1.8 million professionals by 2022. While the gap is not ...

Challenge: Educating new, while updating existing!



- ☐ Cyber-Security – a core skill for all students
- ☐ Privacy & security – for everyone with ongoing refresher training
 - ☐ Certified ICT Professionals
 - ☐ Cyber-security specialism
- ☐ Duty of Care understood and practiced
 - ☐ Don't leave it to the experts
- ☐ Users & consumers – *your students, colleagues & families!*
 - ☐ Security awareness
 - ☐ Safe at home, safe at work
 - ☐ Change behaviour, reduce risk
 - ☐ Good habits – like locking the front door!
- ☐ Set the example

Education



In summary

Getting to a cyber-secure society....

- ☐ Like learning, it's a never-ending journey – not a destination
 - ☐ Threats increase, bad guys get smarter
- ☐ Same attitude as for physical world
 - ☐ Threat less visible
- ☐ Ongoing education, for everyone
 - ☐ Experiential learning?
- ☐ Duty of Care
 - ☐ Personal protection – e.g. strong passwords
 - ☐ Know where products are coming from



Denial exists because
human infants, though
equipped with
trust-o-meters, are built to
trust, blindly and
absolutely, any older
person who wanders past.

– *Martha Beck*

Double Quotes
doublequotes.net

Thanks for listening

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