Teaching Cyber Forensics in the Covid Era

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About Me

• 17 Yrs Providing electronic security and surveillance systems for HMG, Military, High Value /Risk target in UK and abroad
• 10 years with Gwent / SW Police JSIU
  • Msc Computer Forensics USW
  • Lead Mobile Device Examiner
• Private Sector (contract work for Police)
• UOG Academic course Leader 4Years
Traditional Module Delivery

- Hi to the students
- Set out the aims for today
- Everybody Logs in !!
- I’m there to help
- Student Assistants are there to help
Work through the Session

• Looking over their shoulders.
• Sharing successes and failures
• Those little conversations that lead to a crucial learning point (something that can never be planned)
• Strong students help the ones who won’t ask.
It’s all in place

• The labs work (fingers crossed!!)
• Problems can be sorted immediately
• Physical objects to work with
  • USB to Image etc
  • Phones to plug in (and break)
• Share the Kit
  • Cables, write blocker, etc
“That Student”

- Every course has one.
- Knows their stuff
- Helps the others
- Encourages conversations
- Is a pain in the neck – But in a good way
When it’s Over

- Questions from the group.
- Shared experience of answers
- The shy student
- The struggling student
- Study buddies
- Direct feedback from the room (how did it feel?)
Teaching in the Covid Era.
Internet poverty

• Lack of suitable equipment (only have a Mac)
• Not the only one using the connection
• Siblings, Children, Noisy environment
Notes on the gentle art of herding cats

1. Cats don't like to be herded (in fact, you can't really herd cats)

2. Cats prefer to herd themselves

3. Cats understand that they sometimes need to be herded (that doesn't make them any easier to herd)

4. Cats don't like being reminded that they are being herded

5. Harsh herding has negative consequences
Where is the personal touch?

This afternoon we're gonna look
Delivery Methods

Teams

- Easy to control
- Easy to update content
- Messaging
- Chat for students
- Breakout rooms for discussions
Teams as a Work Environment
Practical problems of remote delivery

- Large Data sets
- Physical Kit required
Software

- Not just a question of downloading.
- Activation dongles held on local server
- Remote licence very expensive
- How to control unauthorised use?
Crime Scene Module

- How do you deliver a physical search experience remotely?
Enough of the doom and gloom

Let's see what works
Data sets on Uni drive
Scenario based assignments

• Assignment 2
• Operation Gorgon
  • Following an undercover investigation into an “Eco-Terrorist” cell a USB device has been recovered from the home address of one of the lead suspects. An informant has already provided details of an imminent attack on 5G infrastructure in the UK.
  • Your task is to recover any usable evidence from the device and provide information to corroborate details already uncovered.
  • USB to contain details of
    • 1 Location of attack
    • 2 Images of bombs
    • 3 Details of vehicles used
    • 4 Documents detailing previous attacks
    • 5 Contact details for cell.
Workgroups/Teams

• Work well over MS Teams
• Student mutual support
• Common questions / answers (only one point of contact)
• Get used to working with staff in different areas.
• Enhances communication skills
• Enhances employability skills
• Remote working is here to stay.
Students lead the development of new methods

- Feedback is essential
- What works?
- What doesn’t
- What do employers want?/ say?
- Share best practices
IMPROVISE
ADAPT
OVERCOME
Thank You!

Any Questions?

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