

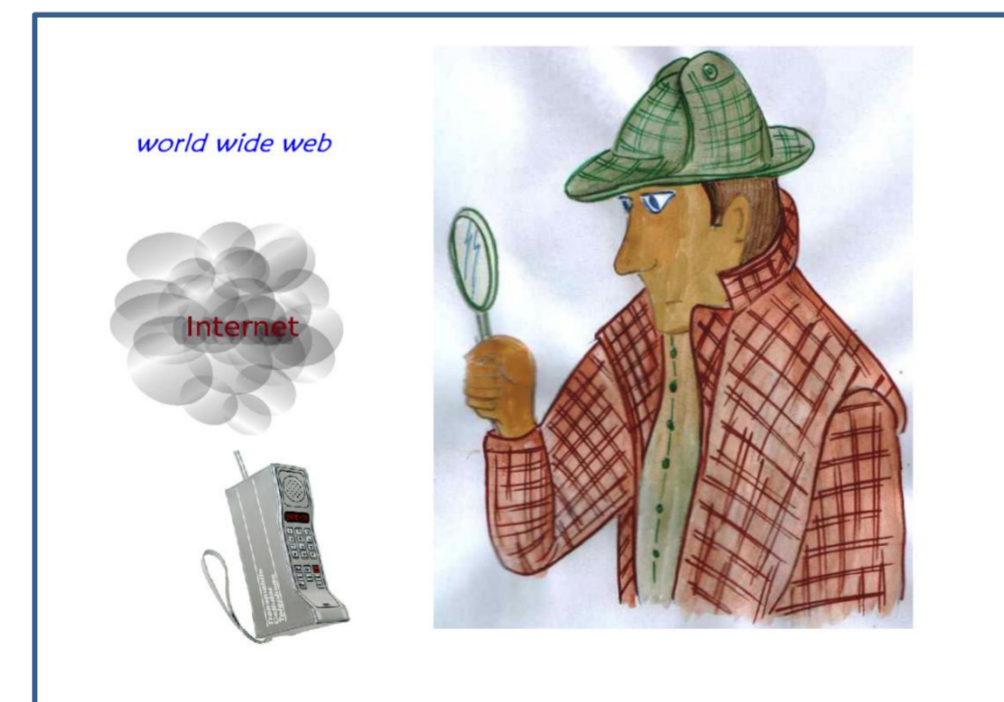
Cyberwarfare in an Evolving Technological Landscape

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Introduction

Cybercrimes, propelled by the rapid technological advancement in consumer electronics, have evolved over the last several decades to a point that their investigation is posing increasing challenges to the investigator. The focus has changed from the simple personal computer in the early days to a plethora of modern digital devices, many of them closely resembling a computer. The ability to have on-line access to resources on the Internet has created an entirely new breed of crime while also giving a new life to conventional crimes.



Much talked about Cyberwarfare

- ❖ Large scale DOS attack in Estonia
- ❖ Stuxnet capable of sabotaging industrial plants, especially electricity grids and nuclear plants
- ❖ WikiLeaks
- ❖ Trojan Horse style virus attack on the French Finance Ministry to steal G20 related documents
- ❖ Attack on Sony Play Station Network
- ❖ Theft of Google's intellectual property



Final Remarks

- Cyber criminals are becoming increasingly sophisticated
- Cyber criminals increasingly target corporate organisations or governments
- There is a need to develop coherent policy
- Recent US announcement of *International Strategy for Cyberspace* is an important landmark
- Need to focus on more cybercrime forensic related research and development



It is a fact that ...

Tools and techniques are constantly developed and enhanced to investigate cybercrime but cloud computing and social networking coupled with the ease of which data can be encrypted and password protected will have a big impact on how easily the evidence can be carved out in a manner that is suitable for law enforcement purposes.

- ❑ 6 billion mobile phones are used worldwide
- ❑ 70 million in the UK
- ❑ Mobile penetration in Europe to reach 135% by 2012
- ❑ iPhone market share is:
 - 17.25% of smart phones
 - 4.2% of all phones
- ❑ 1 in 1000 devices surfing the Internet is an iDevice

- Cyber criminals nowadays have more ways of concealing evidence
- Hand held device technologies and computer technologies are converging rapidly
- Investigators face challenges when
 - handling large storage capacity
 - Information is stored in the cloud
 - data is encrypted and password protected
 - a wide range of investigation tools have to be used requiring a range of skills sets