

An Introduction to Cyber Security – CS 573

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Working from Home: A Guide to Navigating the New Normal

Kindle Edition

by Edward Amoroso (Author), Rich Powell (Author) Format: Kindle Edition

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If you are in need of some Pandemic entertainment and world-class comic relief, then "Working from Home: A Guide to Navigating the New Normal" is for you! This step-by-step guide, written by a fictitious social media sensation (and sometimes cybersecurity expert) named Charlie Ciso, will teach you to:

•Build a fake Zoom backdrop that will get you promoted to senior VP in ten days or less

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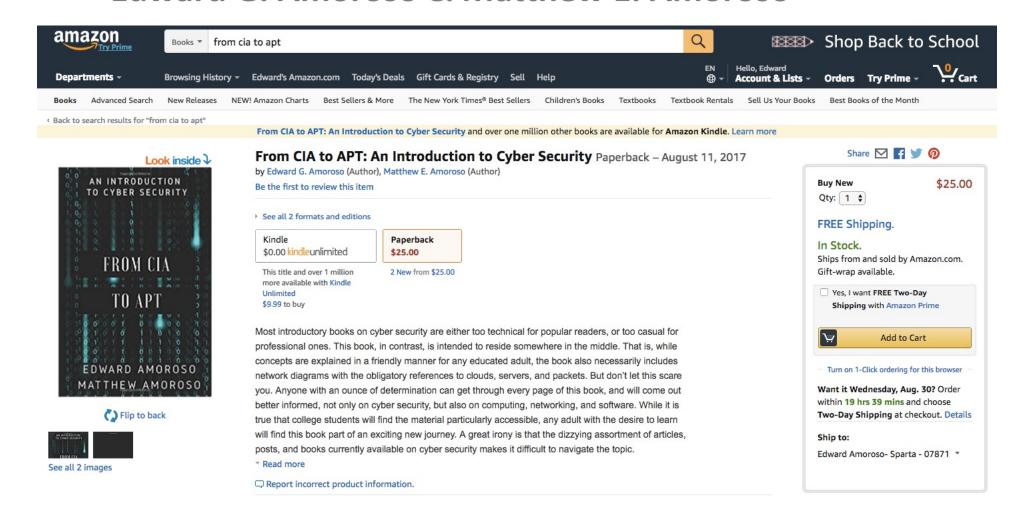








Required Text – \$9.99 Download from Amazon.com \$25.00 Printed Paperback Book from Amazon.com From CIA to APT: An Introduction to Cyber Security Edward G. Amoroso & Matthew E. Amoroso



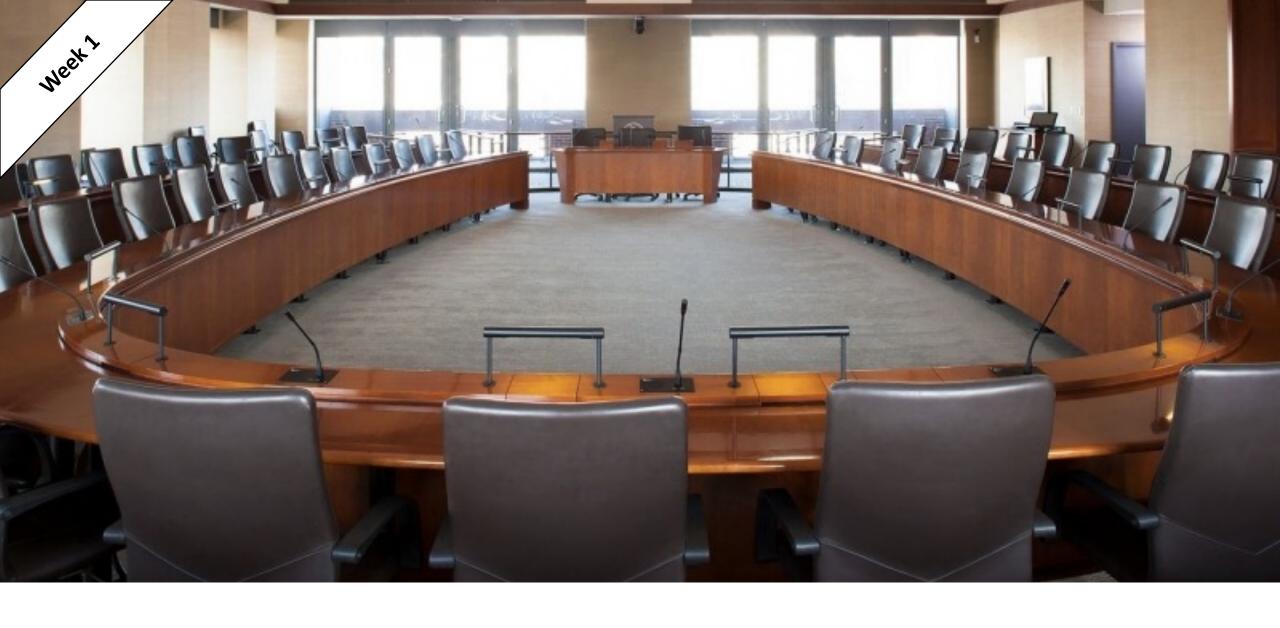
week 1

Required Week One Readings

- 1. "Reflections on Trusting Trust," Ken Thompson https://www.ece.cmu.edu/~ganger/712.fall02/papers/p761-thompson.pdf
- 2. Chapters 1 through 4: From CIA to APT: An Introduction to Cyber Security, E. Amoroso & M. Amoroso

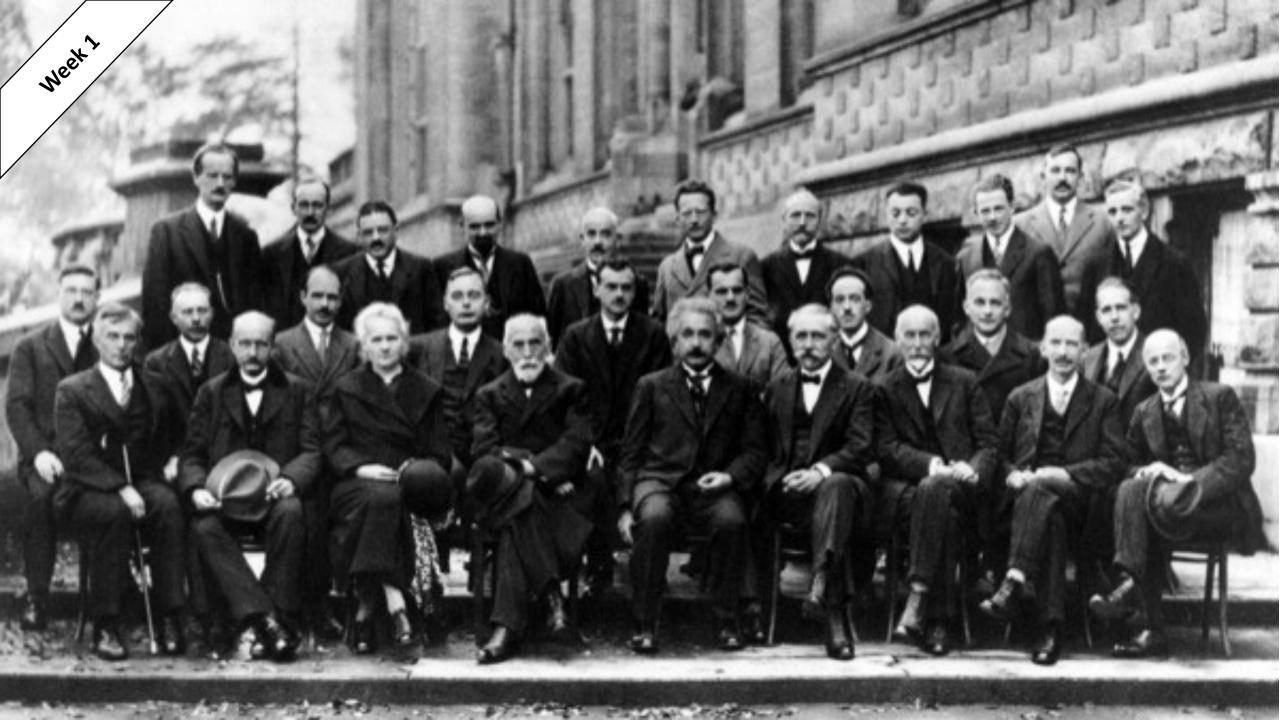
Twitter: @hashtag_cyber

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Week 1: Introduction to Cyber Security Issues

How Does Invention (Innovation) Affect Security?



Albert Einstein Old Grove Rd. Nassau Point Peconic, Long Island

August 2nd, 1939

F.D. Roosevelt, President of the United States, White House Washington, D.C.

Sirs

Some recent work by E.Fermi and L. Szilard, which has been communicated to me in manuscript, leads me to expect that the element uranium may be turned into a new and important source of energy in the immediate future. Certain aspects of the situation which has arisen seem to call for watchfulness and, if necessary, quick action on the part of the Administration. I believe therefore that it is my duty to bring to your attention the following facts and recommendations:

In the course of the last four months it has been made probable through the work of Joliot in France as well as Fermi and Szilard in
America - that it may become possible to set up a nuclear chain reaction
in a large mass of uranium, by which wast amounts of power and large quantities of new radium-like elements would be generated. Now it appears
almost certain that this could be achieved in the immediate future.

This new phenomenon would also lead to the construction of bombs, and it is conceivable - though much less certain - that extremely powerful bombs of a new type may thus be constructed. A single bomb of this type, carried by boat and exploded in a port, might very well destroy the whole port together with some of the surrounding territory. However, such bombs might very well prove to be too heavy for transportation by air.

The United States has only very poor ores of uranium in moderate ... quantities. There is some good ore in Canada and the former Czechoslovakia, while the most important source of uranium is Belgian Congo.

In view of this situation you may think it desirable to have some permanent contact maintained between the Administration and the group of physicists working on chain reactions in America. One possible way of achieving this might be for you to entrust with this task a person who has your confidence and who could perhaps serve in an inofficial capacity. His task might comprise the following:

- a) to approach Government Departments, keep them informed of the further development, and put forward recommendations for Government action, giving particular attention to the problem of securing a supply of uranium ore for the United States:
- b) to speed up the experimental work, which is at present being carried on within the limits of the budgets of University laboratories, by providing funds, if such funds be required, through his contacts with private persons who are willing to make contributions for this cause, and perhaps also by obtaining the co-operation of industrial laboratories which have the necessary equipment.

I understand that Germany has actually stopped the sale of uranium from the Czechoslovakian mines which she has taken over. That she should have taken such early action might perhaps be understood on the ground that the son of the German Under-Secretary of State, von Weizencker, is attached to the Kaiser-Wilhelm-Institut in Berlin where some of the American work on uranium is now being repeated.

Yours very truly.

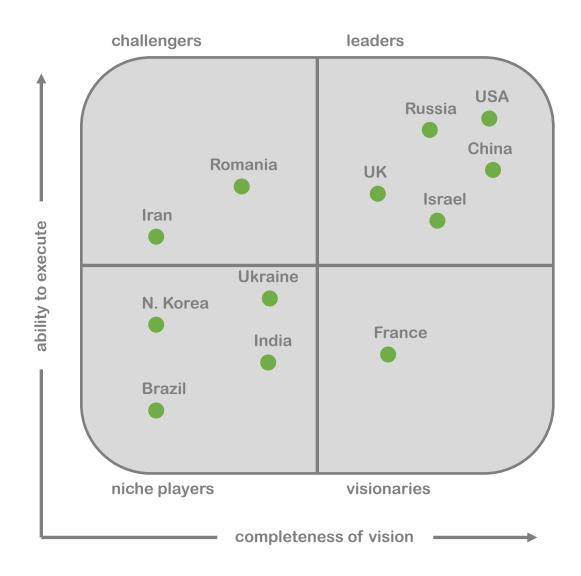
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(Albert Einstein)





Advanced Persistent Threat (APT) Global Actors



- 1. USA, Russia, China, Israel, and the UK have ~ 100% success rates on offensive APT cyber operations
- 2. North Korea derives ~100% of its APT cyber operations capability via training and support from China
- 3. Romania, Iran, and Ukraine have large populations of technically trained, under-employed youth

What Can Be Learned from the Earliest Hacks?

Understanding the Hack: 70's Vintage Soda Machine

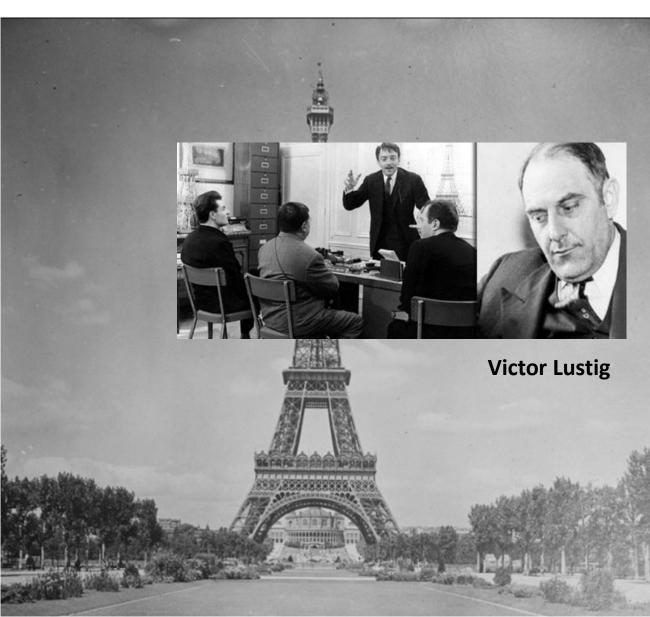




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Understanding the Hack: Early Scams and Social Engineering





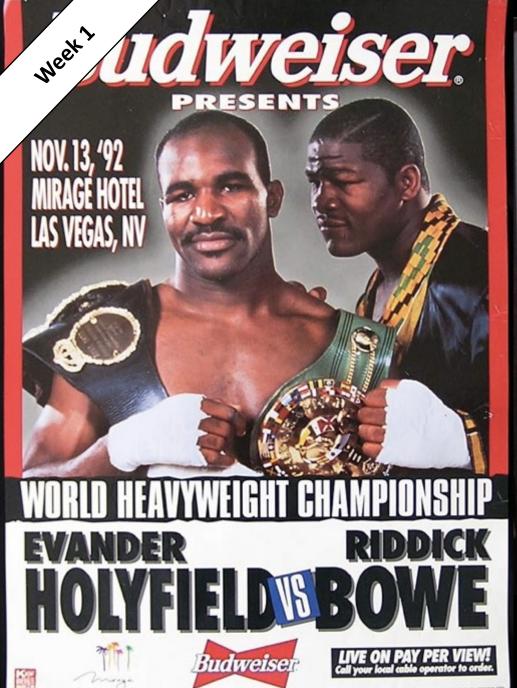
Understanding the Hack: Unauthorized Infrastructure Access

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RICK DEES IN THE MORNING

AUGUST 18, 1990

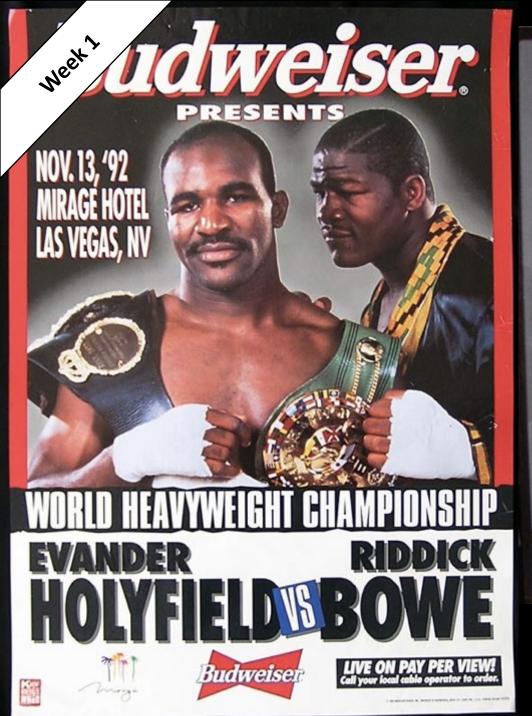






Scrambled Picture for Non-Payers

Continental Cablevision of Hartford broadcast a special offer of a free T-shirt during last fall's Holyfield/Bowe fight (14 Nov 92). Unlike most pay-per-view broadcasting, this one did not show up through legitimate decoders. The ad and its 800 number only showed up when watched through illegal decoders. 140 freeloaders called the 800 number within minutes of the ad's broadcast. Continental sent the T-shirts by certified, return receipt mail, and then sent them a follow-up letter reminding them of the federal law (fines up to \$10,000) and demanding a \$2000 fine. [Chicago Tribune, 3 Feb 1993]





Fake Enticement for Fraudsters

Understanding the Hack: 70's Vintage Soda Machine

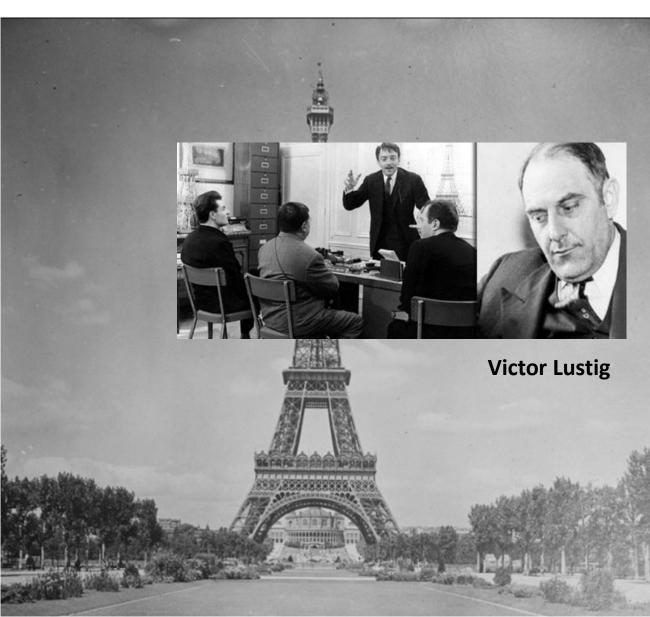




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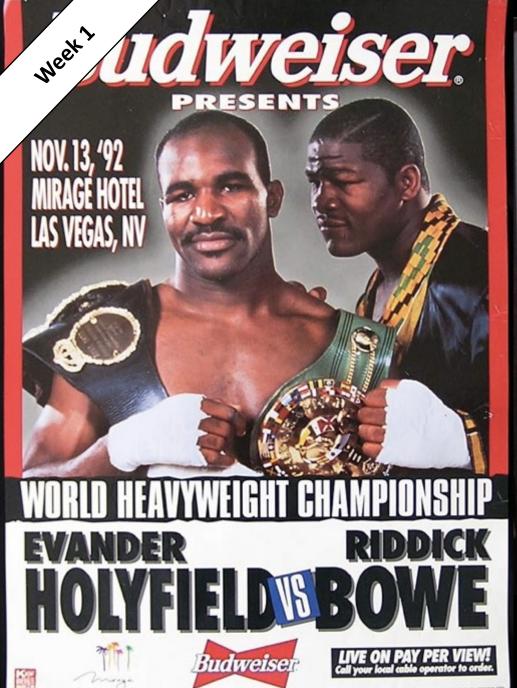
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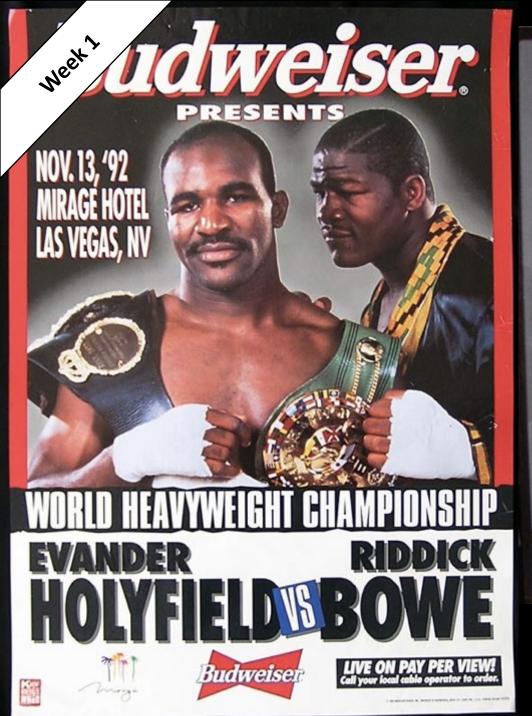






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