Cybersecurity in Exponential Times
being a cybersecurity professional/hacker is a lot like being a doctor. you keep pressing until it hurts.
Run Time for Exponential Times: 4 minutes

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The “Pale Blue Dot”
Sunlight reflected from the Earth took 5½ hours to reach Voyager 1 in 1990

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when Voyager 1 launched in 1977

Population: 4.2 Billion
Global GDP: $7.2 Trillion USD
Apple II went on sale
running at 1MHz w/ 4KB of RAM

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1990 – 3.7 Billion Miles Later

Population: 5.3 Billion
Global GDP: $22 Trillion USD
Windows 3.0 is released
First web server at CERN

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2013 - Web Servers: 850 million

Population: 7.1 Billion
Global GDP: $75 Trillion USD
7 billion global networked devices
4 ZB (billion TB) of digital content globally

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By 2022

75 to 300 Billion Networked Devices
Population: 8 Billion
Global GDP: ?? Trillion USD

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By 2022

7 Billion Humans Online & 96 ZB of Data
Digital Content > All Human Eyes/Year

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What does this all mean?
We are living in exponential times preparing for threats and risks that don’t exist yet...
using technologies that haven’t been invented
247 BILLION emails are sent every day
Phishing

malware-laced email phishing attack sent to employees at an HVAC firm

Multiple sources close to the investigation now tell this reporter that those credentials were stolen in an email malware attack at Fazio that began at least two months before thieves started stealing card data from thousands of Target cash registers. (KrebsonSecurity)
In the 2013 DBIR, phishing was associated with over 95% of incidents attributed to state sponsored actors, and for two years running, more than two-thirds of incidents that comprise the Cyber-Espionage pattern have featured phishing.
~50%

Users open emails and click on links within the first hour

2015 DBIR - The data showed that nearly 50% of users open e-mails and click on phishing links within the first hour.
How long do you suppose you have until the first message in the campaign is clicked? Not long at all, with the median time to first click coming in at one minute, 22 seconds across all campaigns.
"BARRY IS A FINE EXAMPLE OF THE SUCCESS OF OUR CLEAN DESK POLICY."