



Rick Howard

President 

Email: rick@cybercanon.org

Web: cybersecurityfirstprinciples.com

27 Years: US Army

Tactical Networks, Garrison Networks, ACERT (Commander).

20 Years: Commercial

Security Vendor: Counterpane, iDefense/Verisign, Palo Alto Networks (CSO).

Enterprise: TASC (CISO), The Cyberwire (CSO), N2K (CSO).

Advisory Boards: Cyware, Tidal Cyber, Center for Internet Security, Splunk, Leidos.

Teacher

United States Military Academy (Computer Science), Carnegie Mellon University (First Principles).

Community Projects

Cyber Threat Alliance, ISAO Committee, Stanford Cyber Policy Program Advisory Council.

Purpose



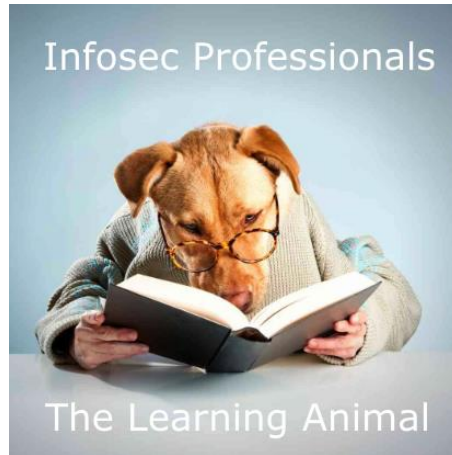
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Problem

Galaxies of
Content

Not enough
time to
consume it all

No way to
predetermine
the quality



THE **CYBERSECURITY** **CANON** PROJECT

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The Infosec Profession's Learning Animal

An insatiable curiosity

Dedicated to lifelong learning

Seek community

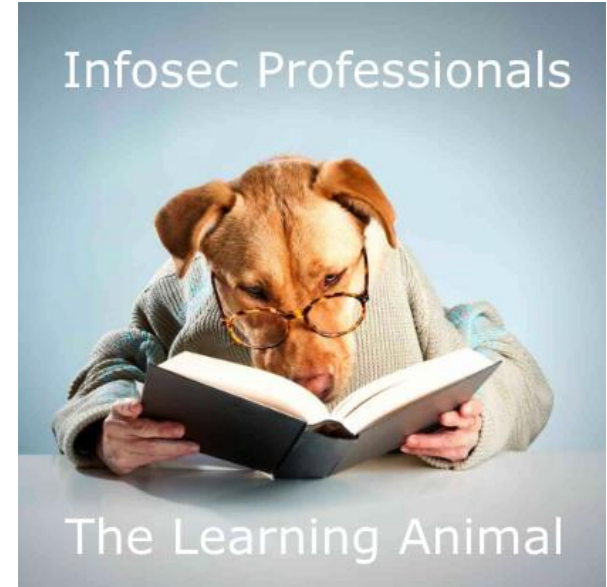
Seek mentorship

Adaptable and forward-thinking

Technically Proficient

In-depth readers

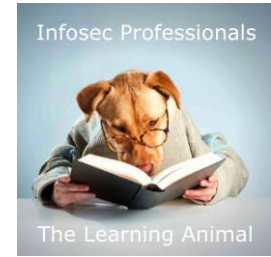
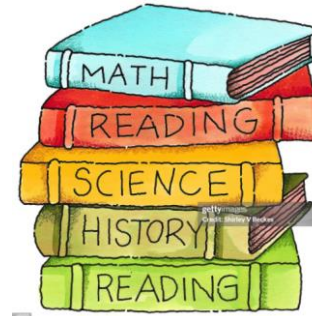
Challenges



~5.5 Million
have jobs today
(Source ISC2 study 2023)



What Most of us Do



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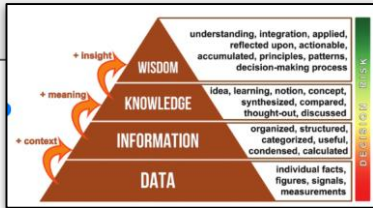
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Our Solution

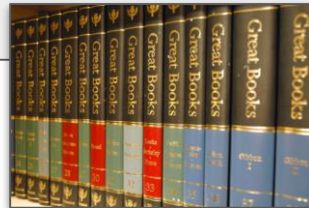
A Learning Hub of accumulated **Wisdom**



Collected wisdom curated by infosec Veterans



A Canon of Literature

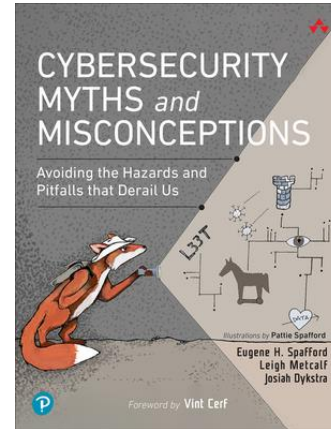
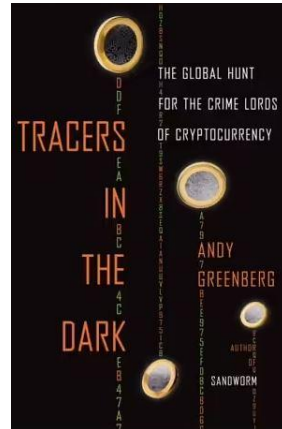


A Rock and Roll Hall of Fame for cybersecurity books



Profession

2024 Hall of Fame Winners



<https://cybersecuritycanon.com>



Free Resource for the Infosec Profession

2024 Hall of Fame Winners

Bad Guys Behind

Silk Road

Colonial Pipeline

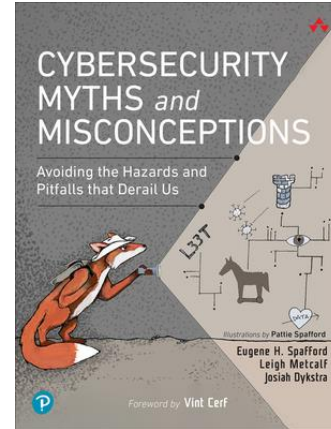
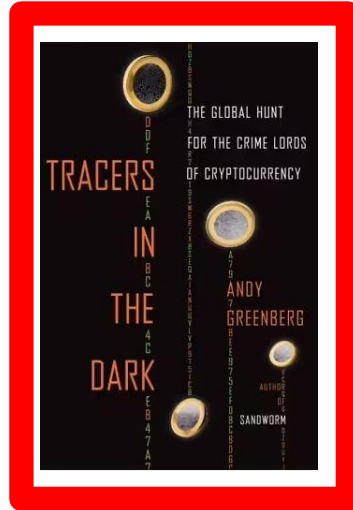
Mt. Gox

BTC-e

Alpha Bay

Welcome to

Video
Mansa

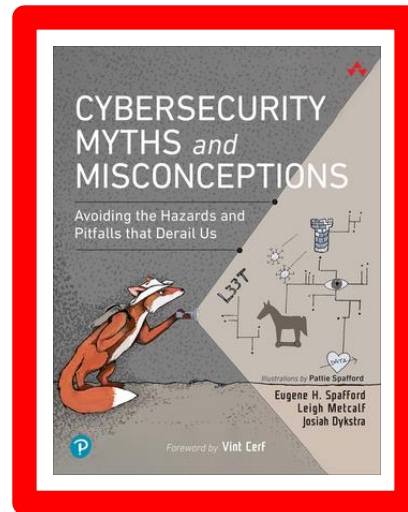
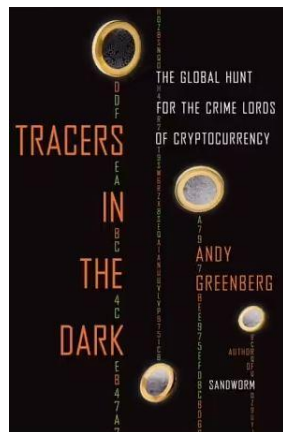


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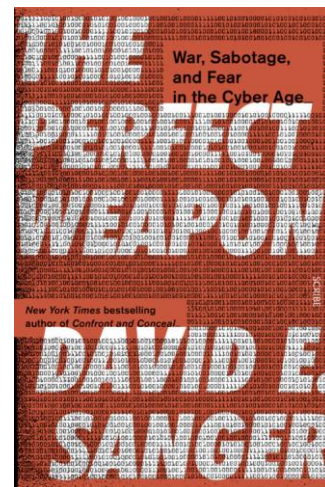
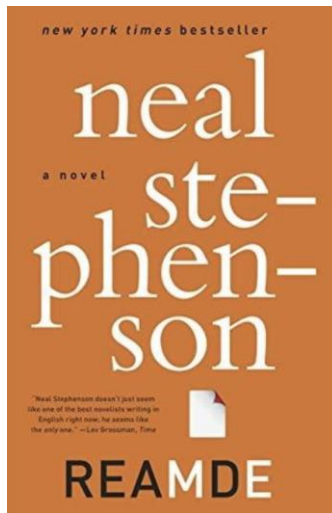
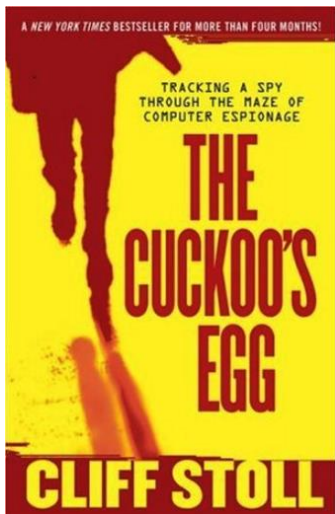


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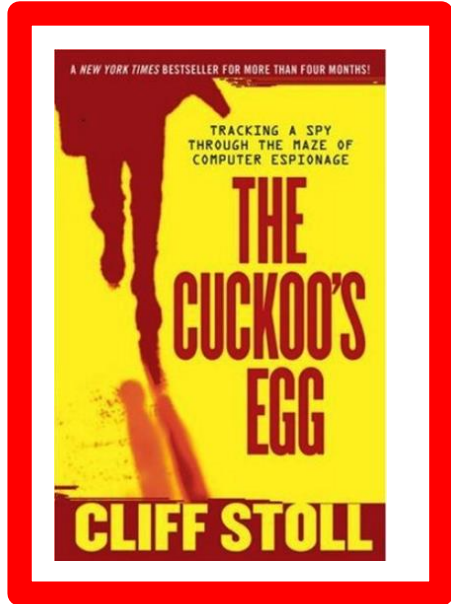
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My Favorites

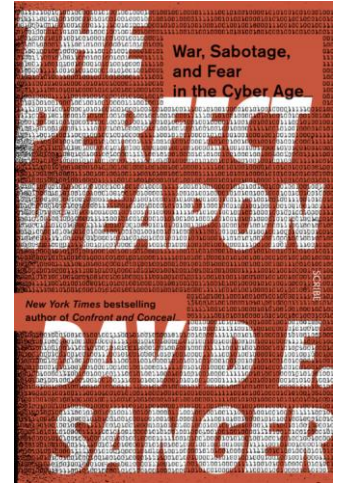
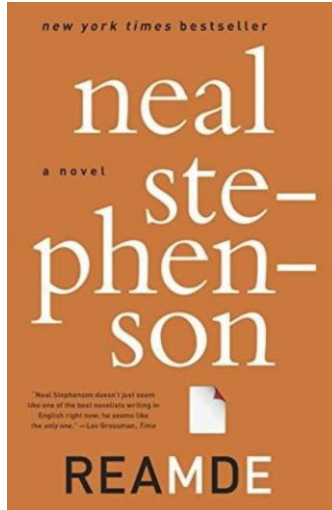


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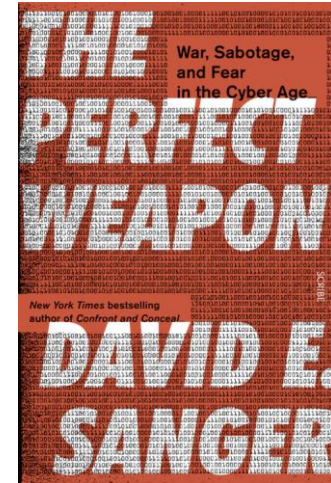
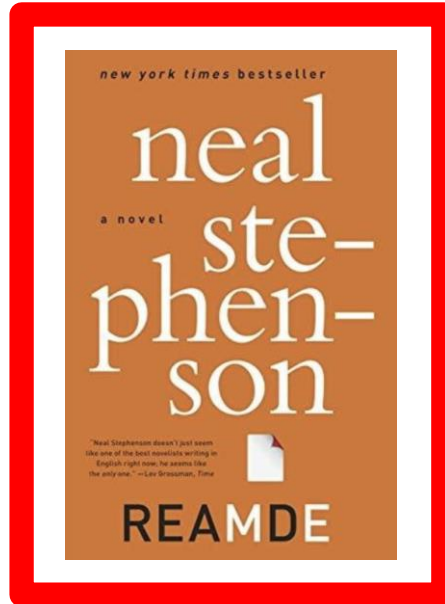
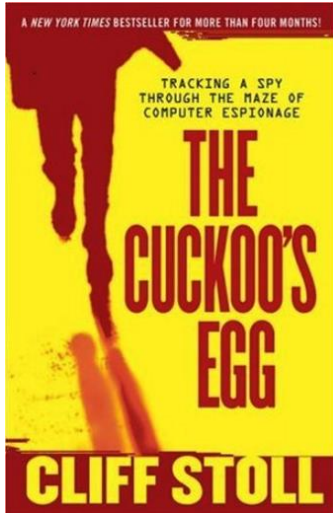


75 cent accounting error



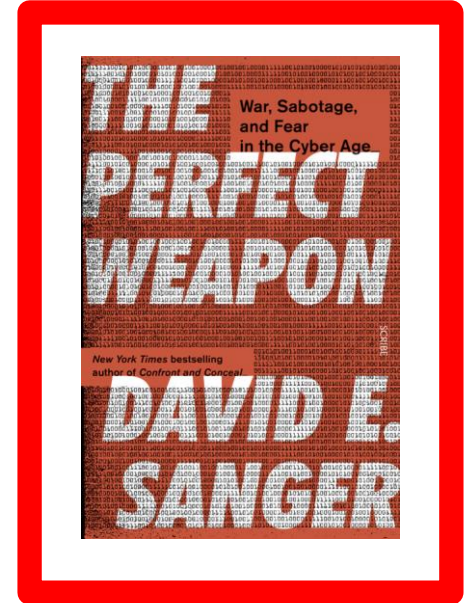
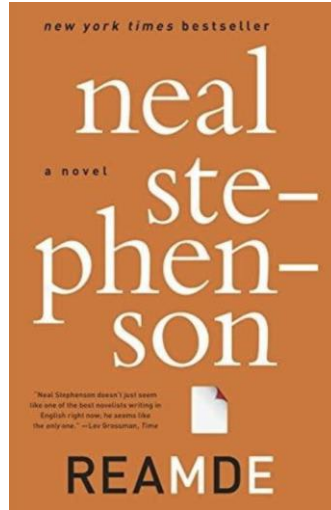
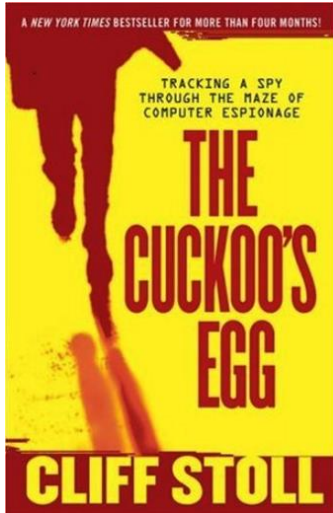
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My Favorites



My Favorites

Nation State 2010 - 2018



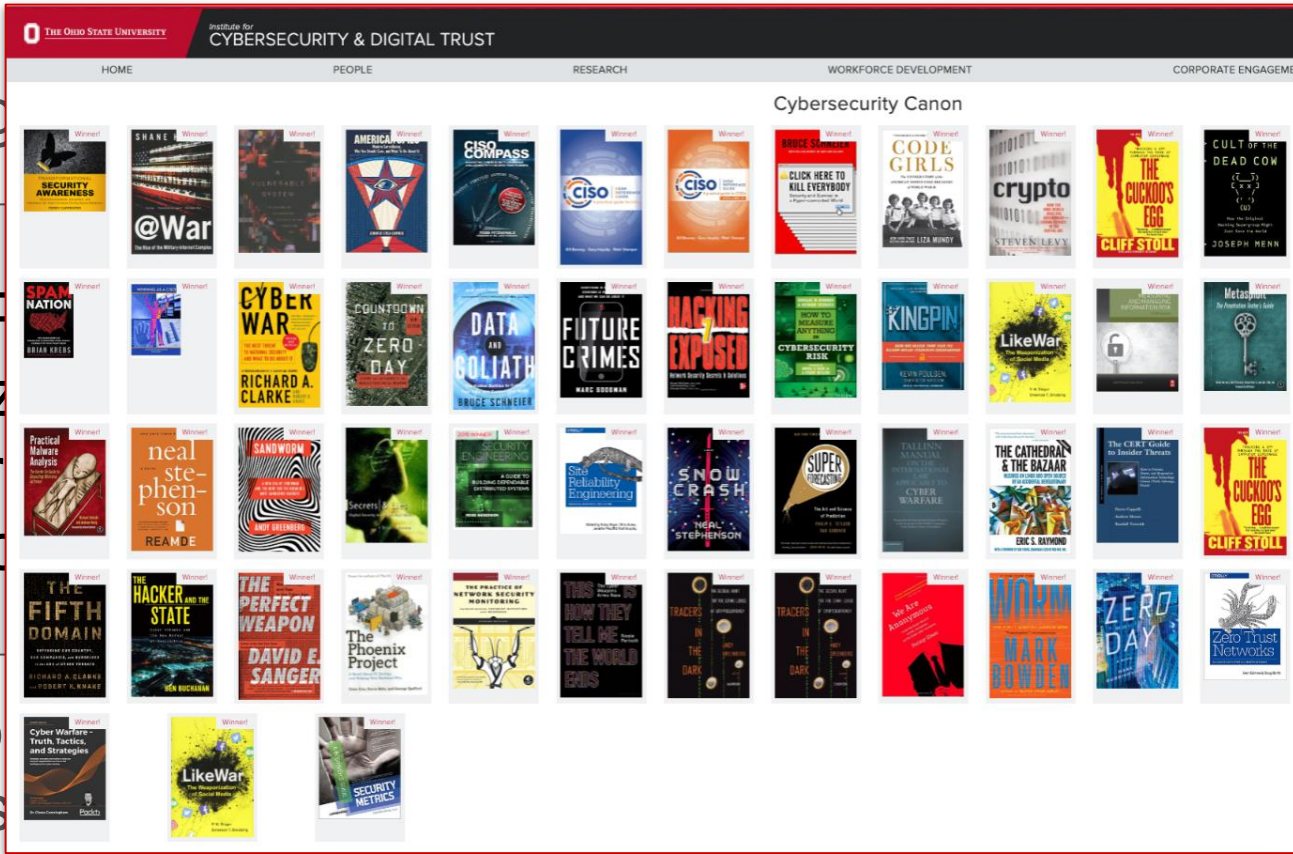
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Vision:

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Make a Difference!
DONATE

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Vision:



If all goes well, what will we have built in five years?

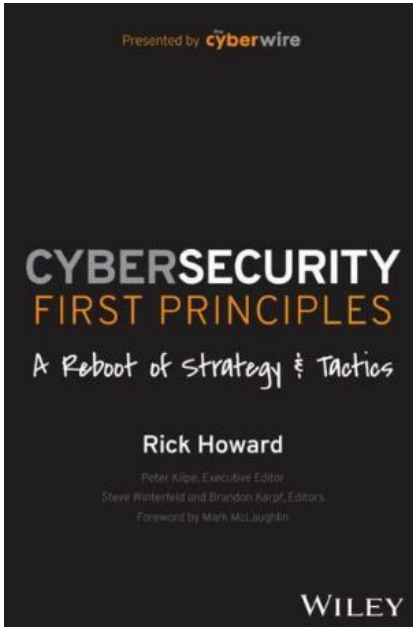
The Pulitzer
Prize for
Cybersecurity
Books

The Rock and
Roll Hall of
Fame for
Cybersecurity
Books

The Nobel Prize
for
Cybersecurity
Books

The cybersecurity learning animal's first source for curated, timeless, and must-understand wisdom.

What's Your Favorite Cybersecurity Book?



Best story gets a copy of my book

<http://cybersecuritycanon.com>

CYBERSECURITY
CANON 

Where does it go from here?



Rick Howard: Co-founder and President

Cybersecurity veteran, serial CISO, former committee chair, started the canon project while at Palo Alto Networks as the CSO.



Helen Patton: Co-founder and Chief of Staff

Cybersecurity veteran, serial CISO, former committee chair, while CISO at Ohio State University, was the primary driver of the University's sponsorship.



Ben Smith: Co-founder and Treasurer

Cybersecurity veteran, serial field CTO, former committee chair, primarily responsible for turning the canon book club into a nonprofit.

Amplify.



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A Reboot of Strategy & Tactics

Rick Howard

Peter Kipe, Executive Editor

Steve Winterfeld and Brandon Karpf, Editors

Foreword by Mark McLaughlin

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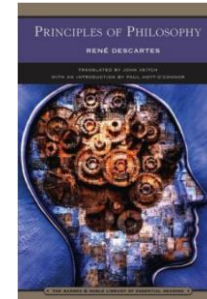


First principle thinking is the idea that **everything you do is underpinned by a foundational belief**, or first principles.

"Cogito ergo sum."
("I think, therefore I am.")

... in order to study the acquisition of [knowledge], we must commence with the investigation of those first causes which are called Principles.

René Descartes



1644



“And Slytherin will help you on your way to greatness. There’s not doubt about that.”

--- Sorting Hat



I think it's important to reason from first principles rather than by analogy.... [With first principles] you boil things down to the most fundamental truths...and then reason up from there.



Elon Musk



2012

What are First Principles?



Designated problem space

So

Fundamental

What are First Principles?



Fundamental

as to be

Self Evident

What are First Principles?



Fundamental

Self Evident

So

Elementary

What are First Principles?



Fundamental

Self Evident

Elementary

No Experts Argue Against them

What are First Principles?



Fundamental

Self Evident

Elementary

No Experts Argue Against them

So

Crucial to understanding

What are First Principles?



Best practices disintegrate like sand castles



Fundamental

Self Evident

Elementary

No Experts Argue Against them

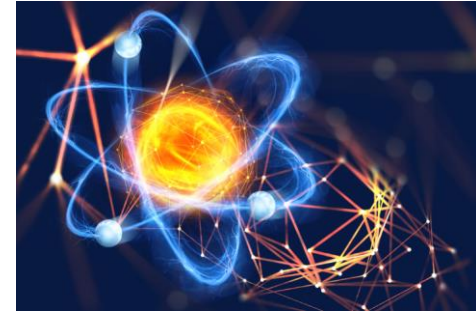
Crucial to understanding

that without them

What are First Principles?



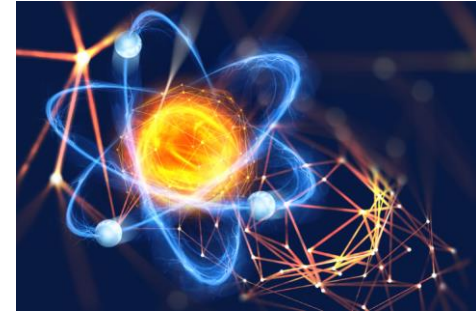
Atomic



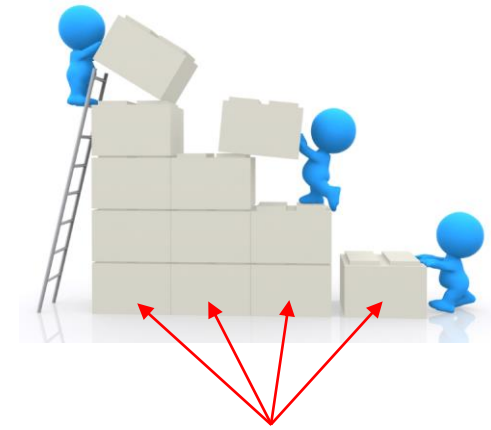
What are First Principles?



Atomic



What are First Principles?



Atomic



What are First Principles?



Problem Domain

Atomic



What are First Principles?



Fundamental

Self Evident

Elementary

Experts Agree

Crucial to understanding

true

What are First Principles?

THE NEXT QUESTION



Fundamental

Self Evident

Elementary

Experts Agree

Crucial to understanding

true

What are First Principles?

CYBERSECURITY

THE NEXT QUESTION



Fundamental

Self Evident

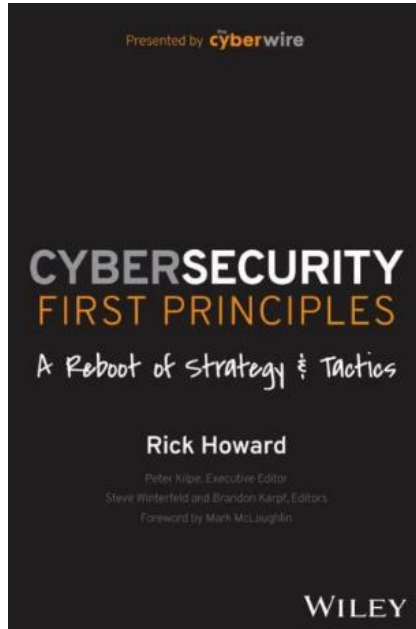
Elementary

Experts Agree

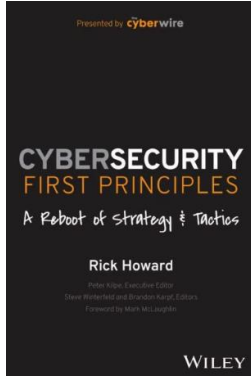
Crucial to understanding

true

What is the Absolute Cybersecurity First Principle?



First Principles Book



1

2

“Reduce the probability of material impact due to a cyber event over the next three years.”

3

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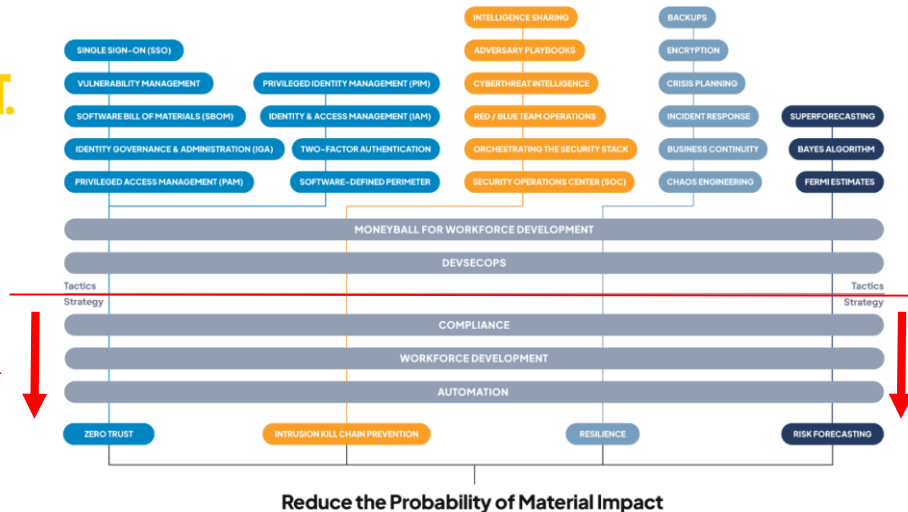
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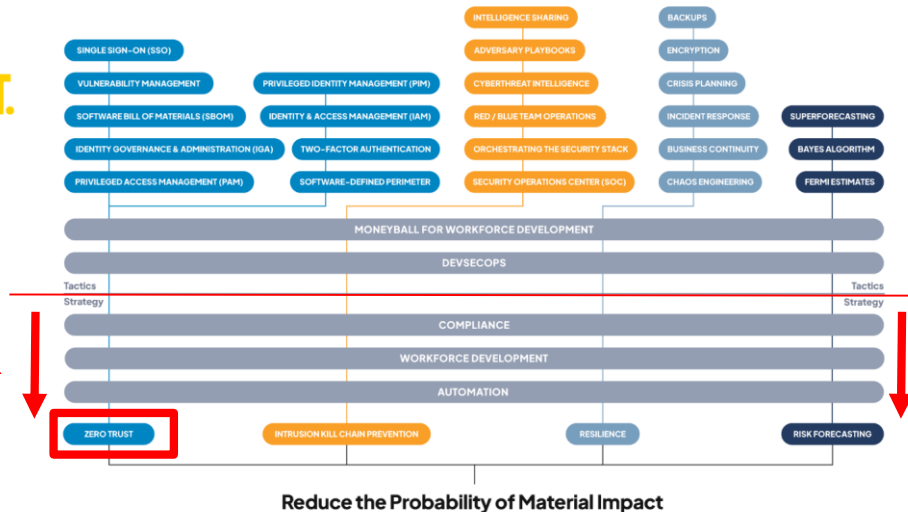
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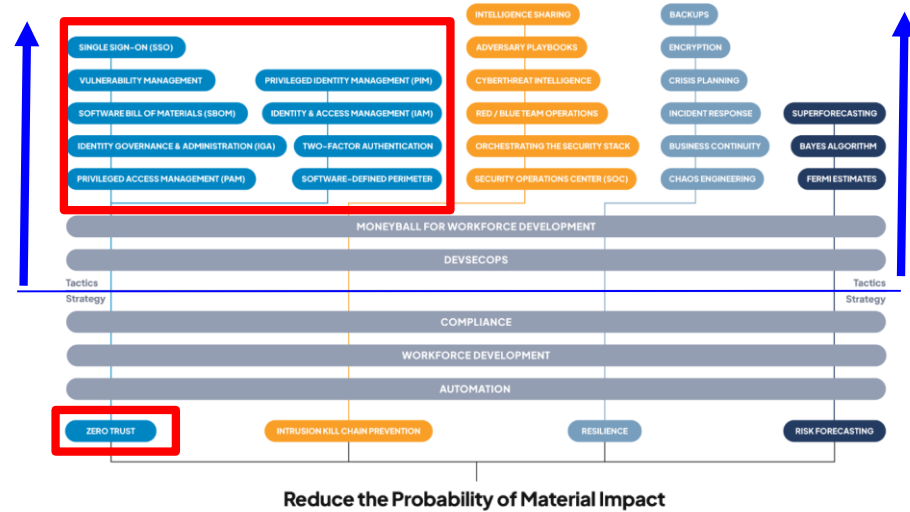
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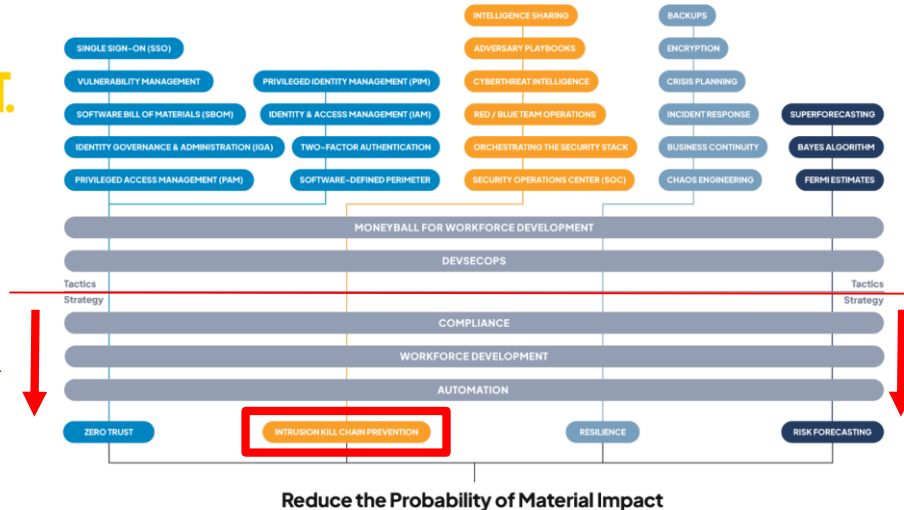
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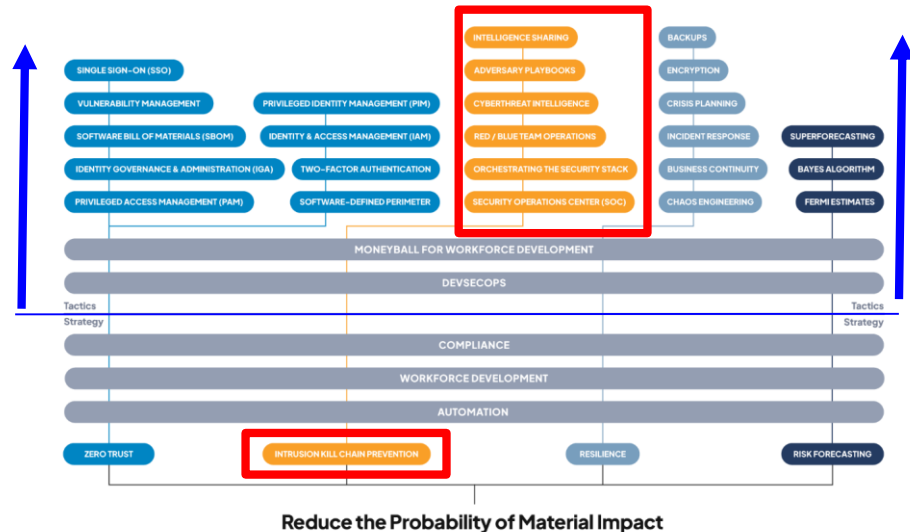
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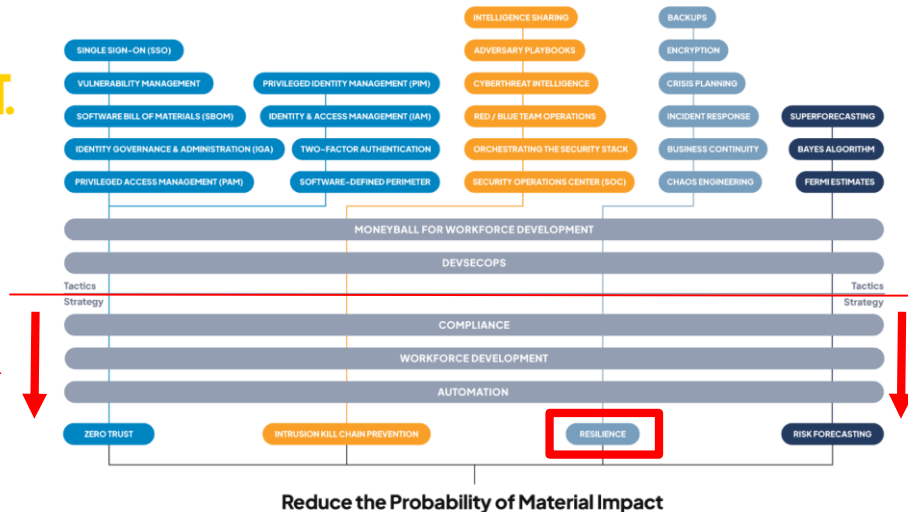
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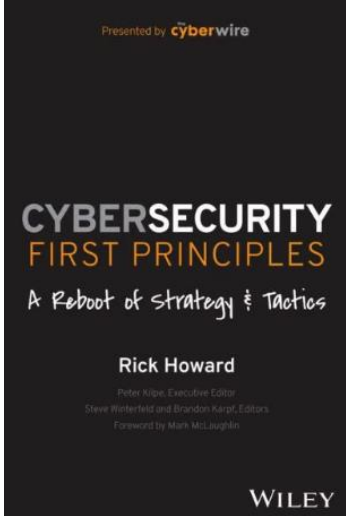
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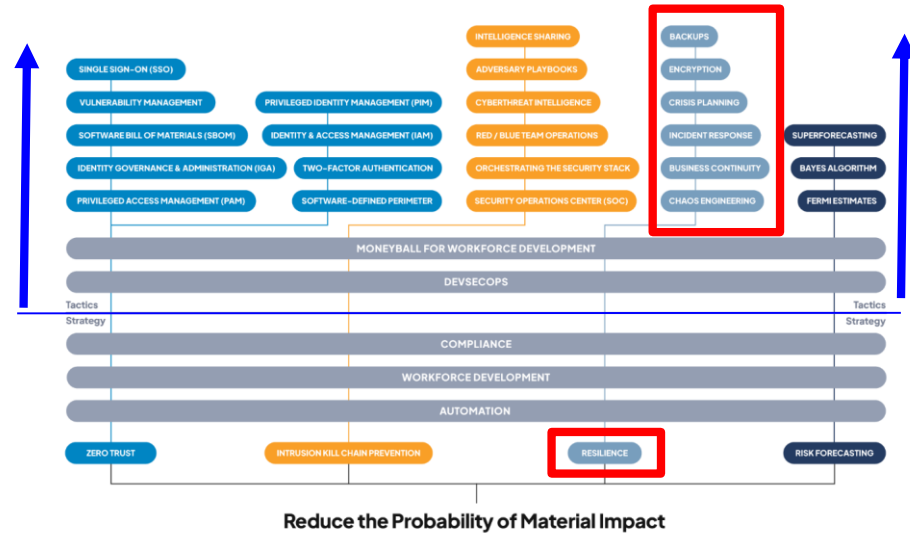


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How

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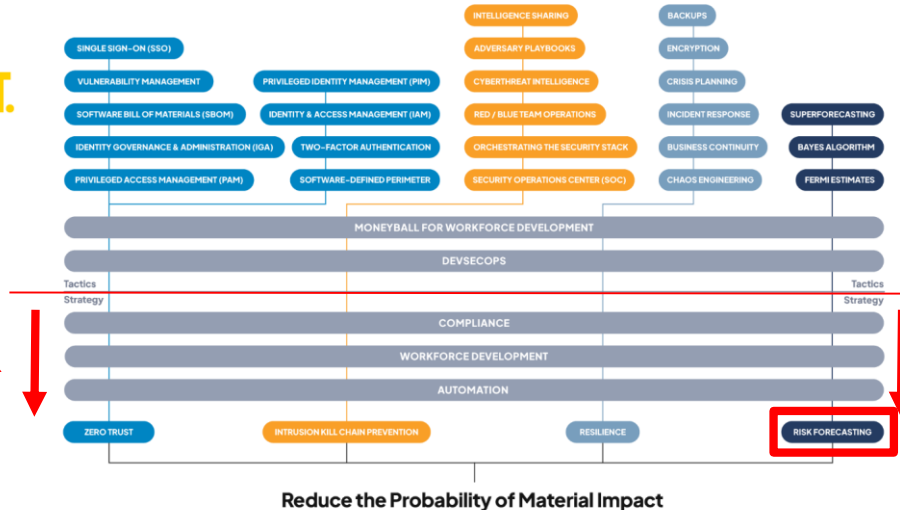
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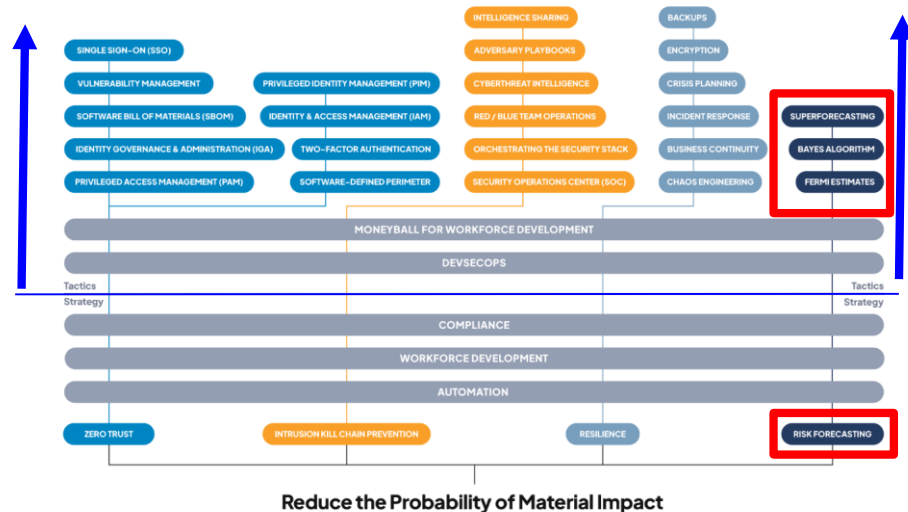
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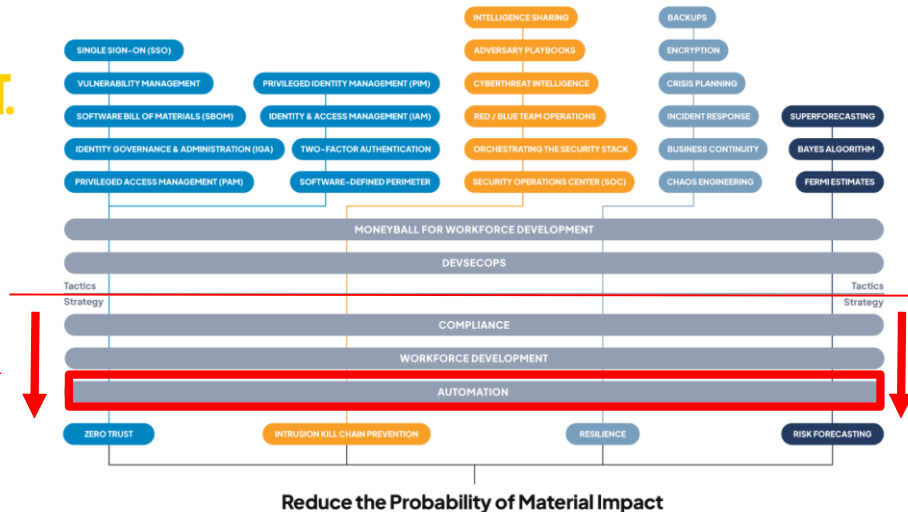
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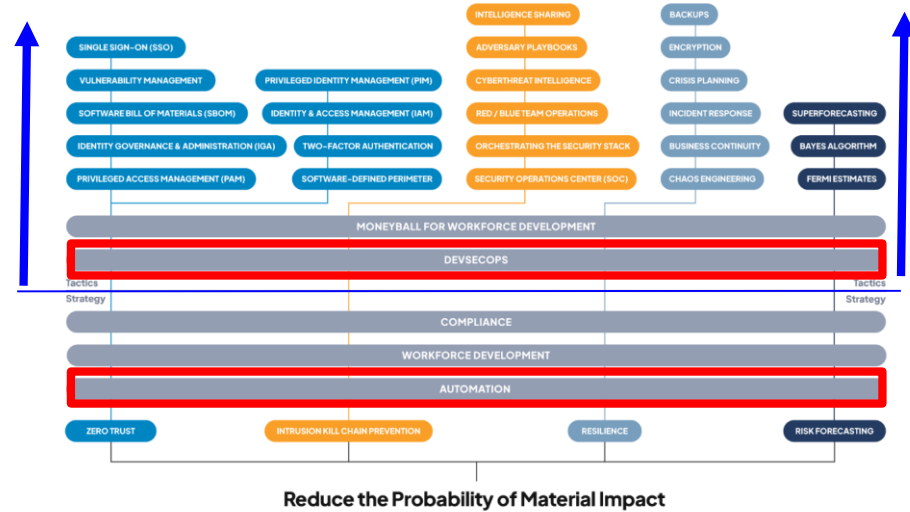
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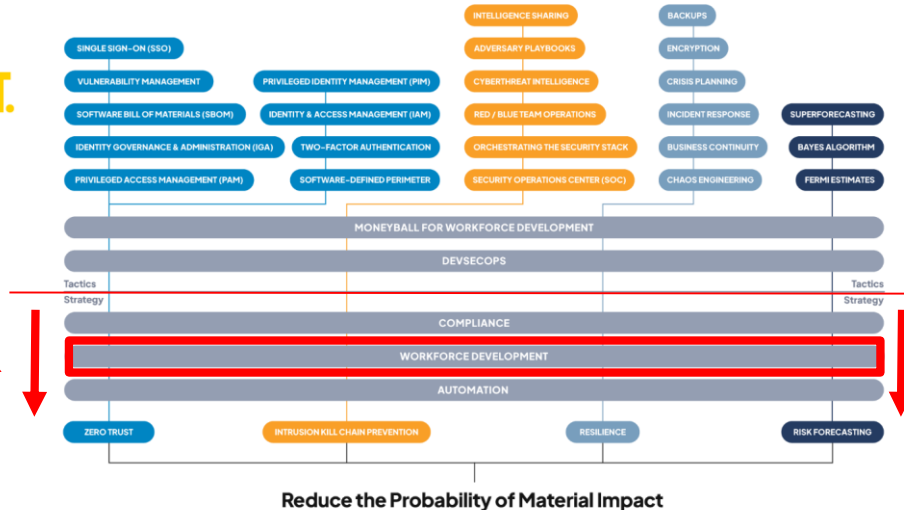
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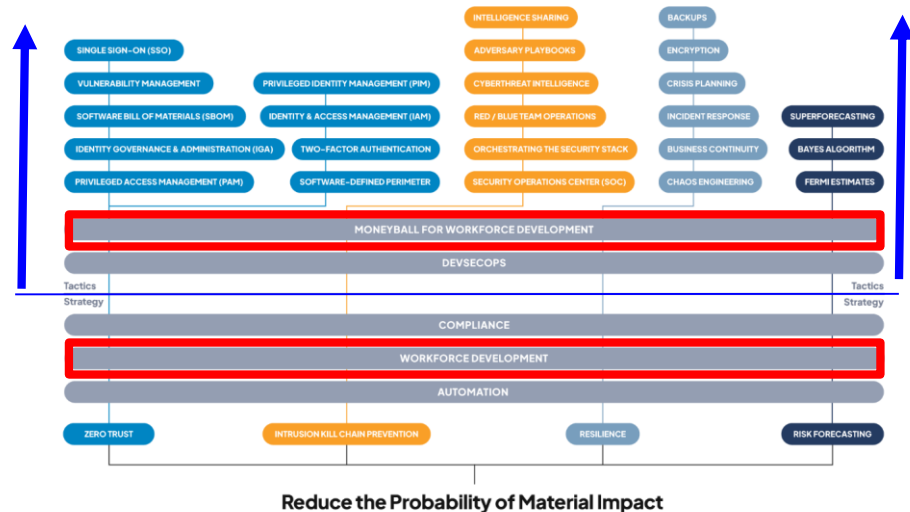
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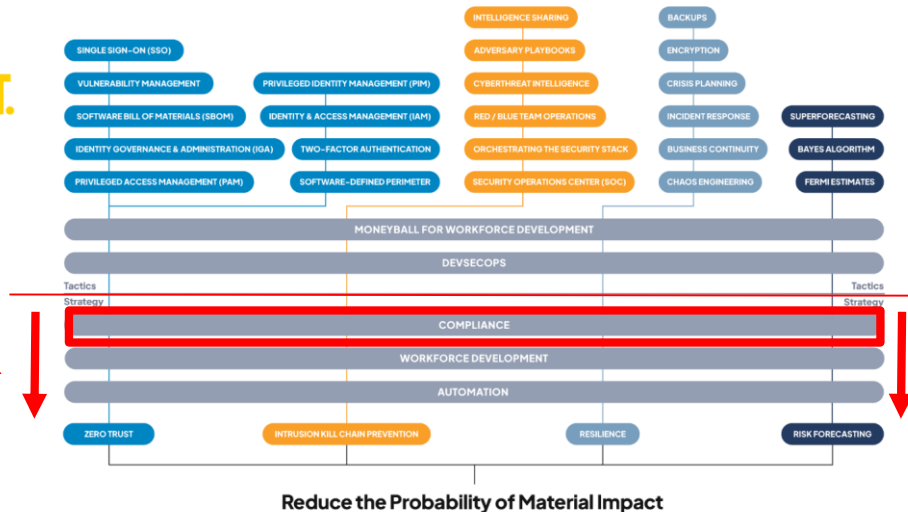
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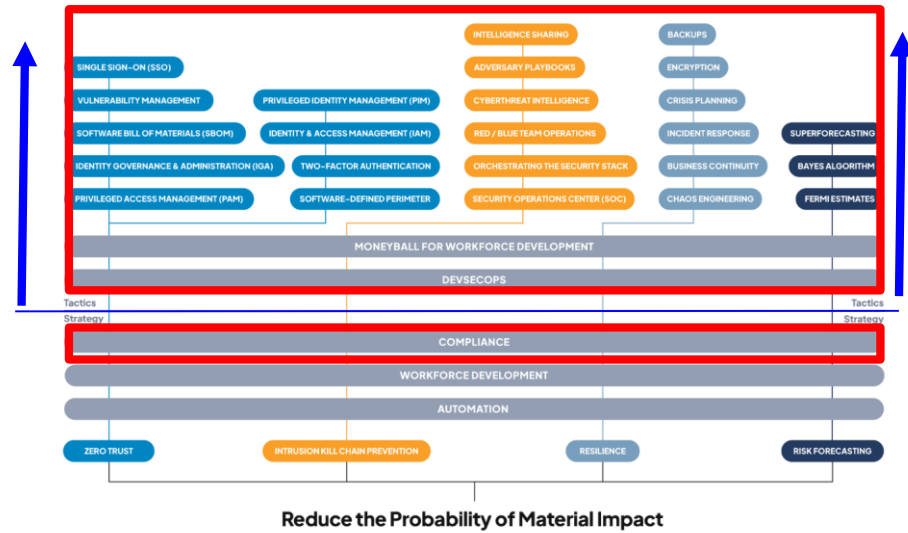
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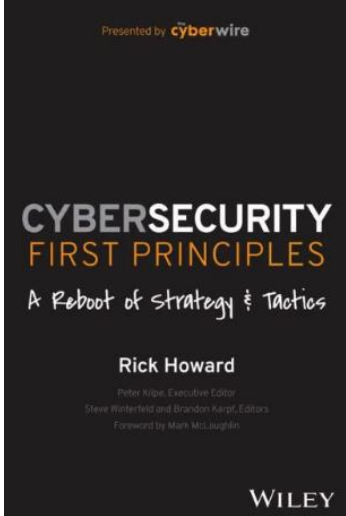


How

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“Reduce the probability of material impact due to a cyber event over the next three years.”



THE **WHAT.**

STRATEGY

HOW

TACTICS



Reduce the Probability of Material Impact



“Reduce the probability of material impact due to a cyber event over the next three years.”

The End



WRAP
IT UP

This is what we talked about

This is what we talked about

What are scientific first principles?

What are scientific first principles?

What are candidates for the absolute cybersecurity first principle?

What are scientific first principles?

What are candidates for the absolute cybersecurity first principle?

The case for the absolute cybersecurity first principle

What are scientific first principles?

What are candidates for the absolute cybersecurity first principle?

The case for the absolute cybersecurity first principle

“Reduce the probability of material impact due to a cyber event over the next three years.”

Homework

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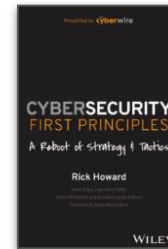
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First Principles Book
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The End

No – Really This Time

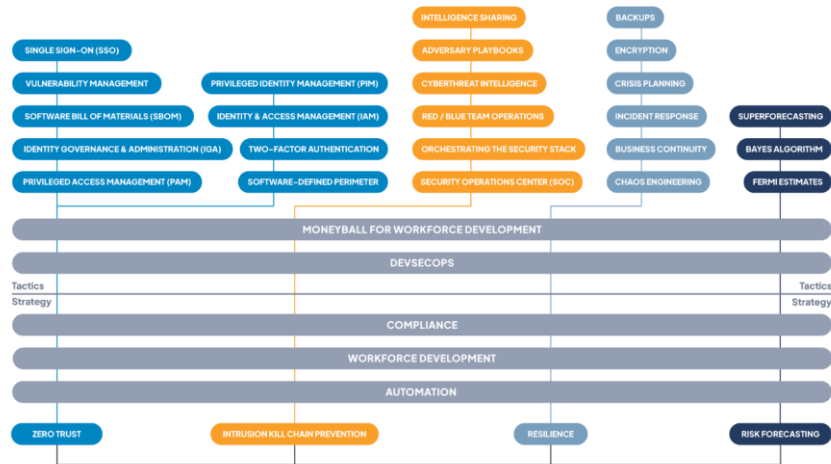
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Reduce the Probability of Material Impact

“Reduce the probability of material impact due to a cyber event over the next three years.”