



# Cyber Training Done Right: Teaching Technical and Non-Technical Skills to Prepare the Future Workforce

**Dave Chatterjee, Ph.D.**  
**Duke University**

# Disclaimer



## Fair Use Notice and Disclaimer

This presentation deck may contain copyrighted material the use of which has not been specifically authorized by the copyright owner. The fair use doctrine allows the presenter limited use of copyrighted material without requiring permission from the rights holders, such as commentary, criticism, news reporting, research, teaching or scholarship. It provides for the legal, non-licensed citation or incorporation of copyrighted material in another author's work under a limited balancing test. The material shall be used to enhance public understanding of cybersecurity preparedness, as such, the presenter believes this constitutes a fair use of any such copyrighted material as provided for in section 107 of the US Copyright Law. In accordance with Title 17 U.S.C. Section 107, this presentation is distributed without profit to those who have expressed a prior interest in receiving the included information for research and educational purposes. If you wish to use potentially copyrighted material from this presentation for purposes of your own that go beyond fair use, you must obtain permission from the copyright owner.



## Errors and Omissions Disclaimer

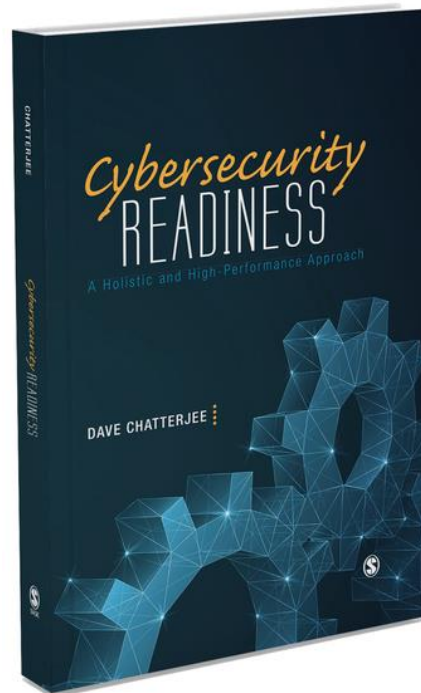
The information contained in this presentation is for general guidance only. The author/presenter assumes no responsibility or liability for any errors or omissions in the content of this presentation. The information contained in this presentation is provided on an "as is" basis with no guarantees of completeness, accuracy, usefulness, or timeliness.

# Agenda

- ▶ Introduction
- ▶ Creating the Right Motivation
- ▶ Effective Training Attributes and Methods
- ▶ Bibliography and Resources
- ▶ Q&A

# Introduction





# Introduction

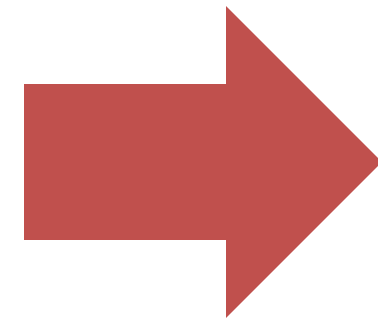
- ▶ Adjunct Associate Professor, Pratt School of Engineering, Duke University
  - Master of Engineering in Cybersecurity
  - Executive Cybersecurity Certificate Program
- ▶ Author, *Cybersecurity Readiness: A Holistic and High-Performance Approach*, SAGE Publishing
- ▶ Published in top academic and practitioner journals
- ▶ Served on a cybersecurity SWAT team
- ▶ Host and Producer, *Cybersecurity Readiness Podcast Series*
- ▶ Speaker and Moderator – CISO Roundtables and Panels
- ▶ Featured in Forbes, Chicago Tribune, USA Today, Yahoo!Finance, Business Insider, Morning Star, GlobeNewswire, and others.

# Creating the Right Motivation

# Strategic Cybersecurity Capability Model

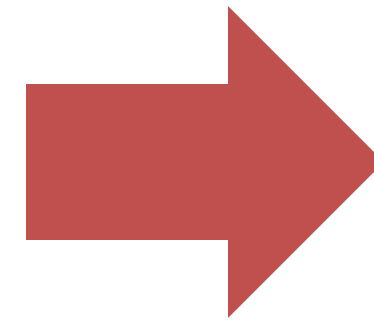
## Cybersecurity Strategy Characteristics

Substantive  
Integrative  
Responsive  
Resilient  
Transparent



## Value Creation Potential

Increase Customer Confidence and Trust  
Enhance Operational Resiliency  
Regulatory Compliance  
Protect and Stimulate Innovation



## Strategic Outcomes

Cost Reduction  
Revenue Generation  
Growth in Market Share

# Destroy Your Business (DYB) Method

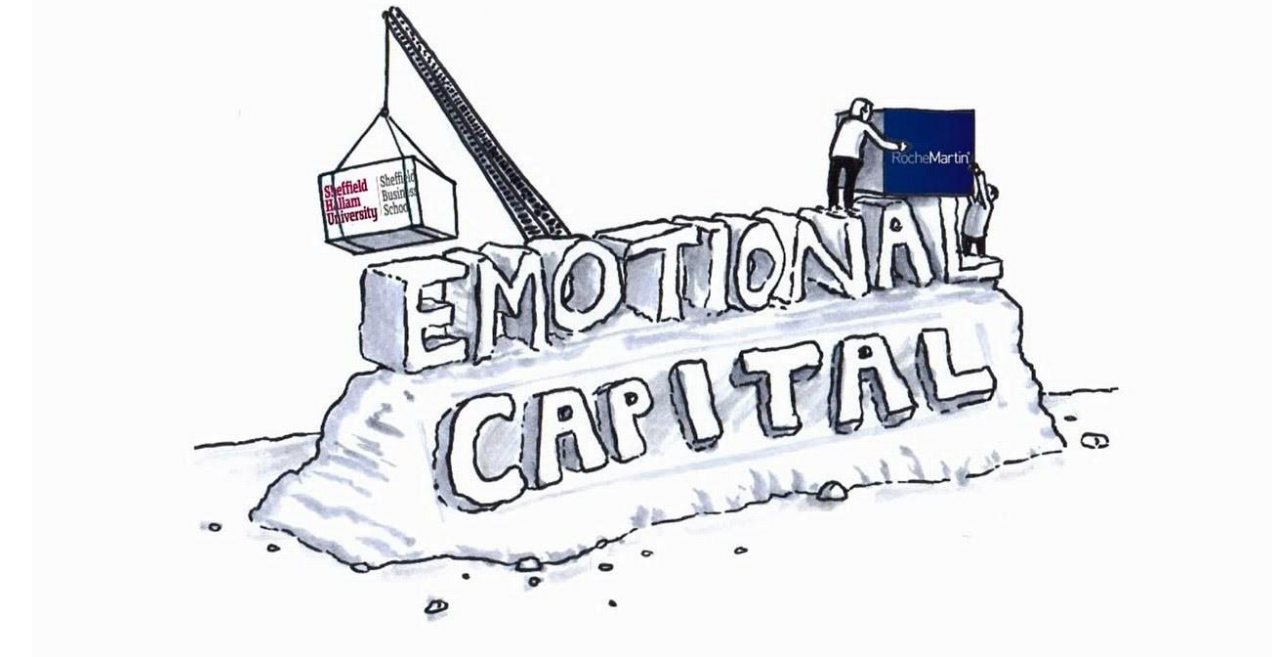


- ▶ Come up with various security breach-related scenarios
- ▶ For each scenario, discuss
  - ▶ How the attack or breach is likely to happen?
  - ▶ What are the implications and consequences of the breach?
  - ▶ How can the potential attack/breach be prevented?

# Creating a Culture of Empathy and Enablement

## ▶ Building Emotional Capital

- Feeling valued
- Developing a sense of belonging
- Taking pride in their work
- Having fun
- Perceiving leadership to be genuine and authentic



# Performance Evaluation



10

**How do you incentivize cyber training?**

**Is cyber training and application performance assessed and rewarded?**

# Effective Training Attributes and Methods

# Role Reversal



Business Personnel



Security Personnel



IT Personnel

# Role-Based Learning



# Incremental & Continuous

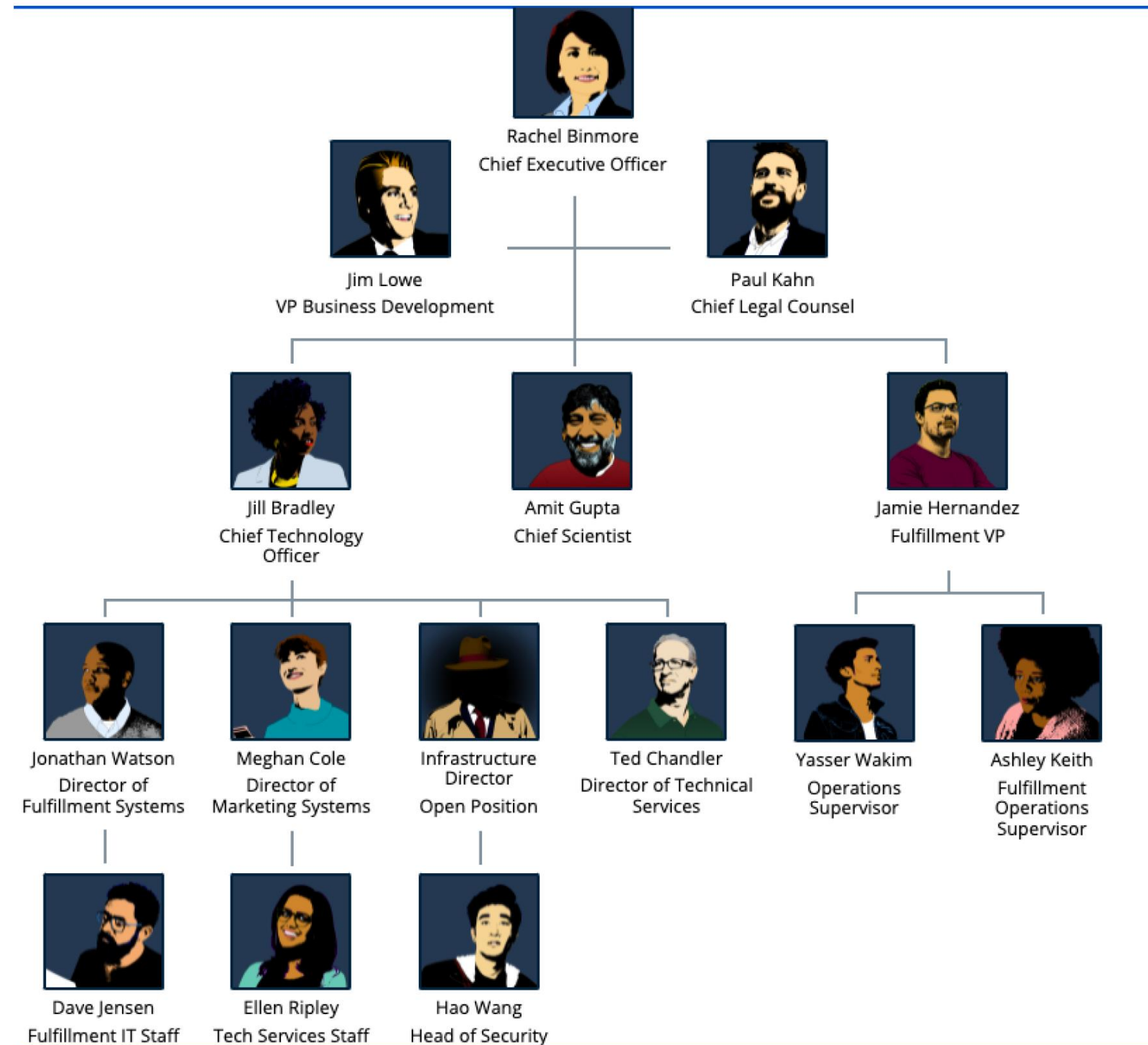


14

Like Wordle and Nerdle, the daily word and mathematics games and challenges, organizations can adopt an incremental and continuous approach to spreading security awareness and knowledge.

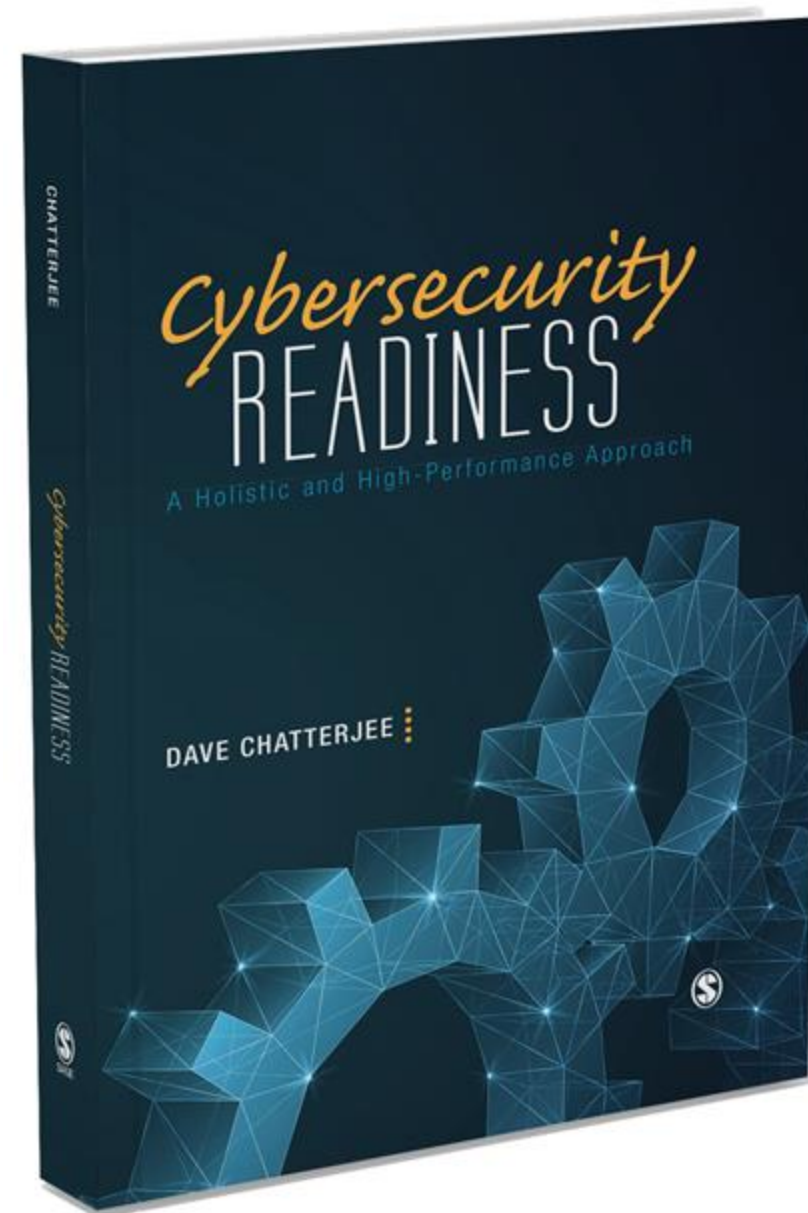
# Case in Point -- Ransomware Attack Simulation

Engaging and  
Interactive



# Bibliography and Resources

# Publications



[Chatterjee, D. \(2021\). \*Cybersecurity Readiness: A Holistic and High-Performance Approach\*, SAGE Publishing, March 2021.](#)

## Cybersecurity Publications

- ▶ [Chatterjee, D. and Leslie, A. \(2024\). "Ignorance is not bliss: A human-centered whole-of-enterprise approach to cybersecurity preparedness," \*Business Horizons\*, Accepted on Oct 29, 2024.](#)
- ▶ [Isik, O., Chatterjee, D., and Lourenco, D.A. \(2024\). "Getting Cybersecurity Right," \*California Management Review — Insights\*, July 8, 2024.](#)
- ▶ [Chatterjee, D. \(2022\). "Preventing security breaches must start at the top," \*by IMD\*, September 28, 2022, Institute for Management Development \(IMD\), Lausanne, Switzerland.](#)
- ▶ [Chatterjee, D. \(2021\). \*Cybersecurity Readiness: A Holistic and High-Performance Approach\*, SAGE Publishing, March 2021.](#)
- ▶ [Benz, M. and Chatterjee, D. \(2020\) "Calculated risk? A cybersecurity evaluation tool for SMEs," \*Business Horizons\*, 63\(4\), July-August 2020, 531-540.](#)
- ▶ [Chatterjee, D. \(2019\) "Should Executives Go To Jail Over Cybersecurity Breaches?" \*Journal of Organizational Computing and Electronic Commerce\*, 29\(1\), pp.1-3; Feb 17, 2019.](#)
- ▶ [Abraham, C., Chatterjee, D., and Sims, R. \(2019\) "Muddling through cybersecurity: Insights from the U.S. healthcare industry," \*Business Horizons\*, 62\(4\): 539:548, July-August, 2019.](#)

# Episodes

Search episodes...



Feb. 18, 2025

### Elevating Your Offensive Security Program

Dr. Dave Chatterjee hosts a discussion on elevating your offensive program with Mark Carney, CEO @ Evolve Security, and Yaron Levi, Chief Information Security Officer (CISO) at Dolby Labs. They emphasize the importance of a proactive, continuous approach to cybersecurity, ...

→ Listen to the Episode



Feb. 3, 2025

### Using Blockchain Technology to Make Messaging Apps More Secure and Pr...

Dr. Dave Chatterjee and Kee Jefferys, Technical Co-Founder of Session, discuss the use of blockchain technology in enhancing the security and privacy of messaging apps, specifically Session. Session, which has over a million monthly active users, uses a decentralized network ...

→ Listen to the Episode



Jan. 13, 2025



Dec. 31, 2024

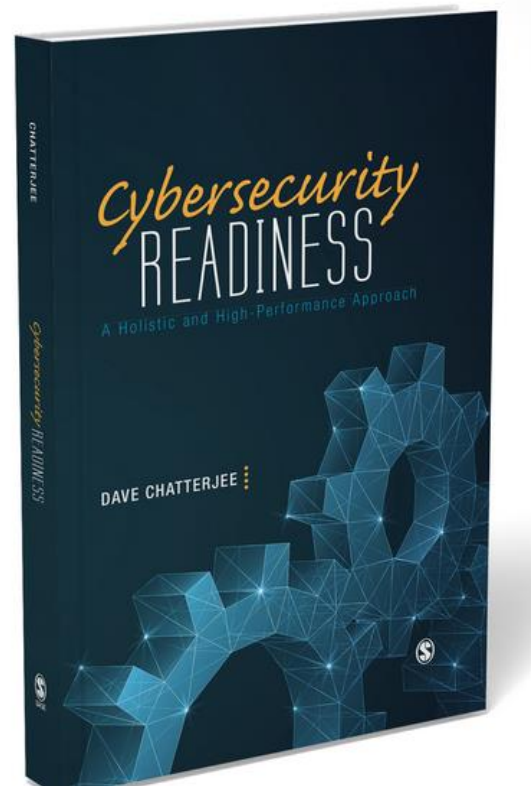
# The Cybersecurity Readiness Podcast Series

<https://www.cybersecurityreadinesspodcast.com>



# Q&A





# THANK YOU!!



## Book

Cybersecurity Readiness: A Holistic and High-Performance Approach

20



## Website

<https://www.dchatte.com/>



## Podcast

The Cybersecurity Readiness Podcast

<https://www.dchatte.com/podcast>

<https://www.cybersecurityreadinesspodcast.com>



## Email

[dchatte@gmail.com](mailto:dchatte@gmail.com)