

The Cyber Silk Road Risks and Rewards

2016-03-24

12th Annual Global California
Conference
MBITA

Dr. Fred Cohen

The silk road was always both a venue for trade and a territory with major security challenges, and so is the emerging Cyber-silk road.

Transborder information flows and related regulations, intellectual property issues, exploitation of communications for criminal and governmental exploitation, issues of cryptography and government access, extraterritoriality, inviolability, and transnational organizations, financial flows, multi-jurisdictional law enforcement issues, differing social norms, and a wide range of related issues

Risks and rewards for enterprises engaging in global trade at ever increasing tempo.

Your speaker

- Areas of interest / engagement
 - CyberSecurity (1960s - present)
 - Startups (1970s-present)
 - Universities/professor (1980s-present)
 - Angel investment (1990s-present)
- Trans-pacific activities over time
 - Keynote speaker at conferences in China, Taiwan, Hong Kong, Australia, Japan
 - Joint business and research efforts with organizations in most of these
 - Webster university program development with Chinese campus locations
 - And here we are today...

- Current positions
 - CEO: Management Analytics
 - Partner: Fearless Security
 - Partner: Fearless Ridge
 - Lab director & Associate institute director: Webster University
 - President: Keiretsu Forum Pebble Beach
- Summary: I am not bored

Dr. Fred Cohen Trusted Adviser Since 1977		
CyberSpace <u>Research and Development</u> <u>Information Protection</u> <u>Business spinoffs</u> <u>Litigation Support</u>		Angel Investment <u>Keiretsu Forum Chapter President</u> <u>Oasis Clean-tech Fund Advisory Board</u> <u>More than 30 Angel Investments</u>
Current Companies <u>Management Analytics</u> <u>Fearless Security(with Chris Blask)</u> <u>Fearless Ridge (with Tom Ridge)</u> <u>TechVision Research (With Gary Rowe)</u>		Investment Education <u>Innovation and Entrepreneurship</u> <u>Angel to Exit</u> <u>Keiretsu Forum Academy</u>
Litigation Support <u>Expert Witness</u> <u>Digital Forensics</u> <u>Digital Diplomats</u>	CyberSpace Research Institute <u>Cyber Laboratories Director</u> <u>InterPares Trust Researcher</u> <u>Associate Institute Director</u>	University <u>Webster Global Entrepreneurship</u> <u>Walker School of Business</u> <u>Angel Internship Program</u>

Outline

- The silk road – then and now
 - It was never safe – warriors from the step
 - The silk road was not the safest place to do business
 - The ability to scale and innovate made the rewards worth the risks
 - For those who survived it – Plenty of people didn't!
 - It paved the future of trade and prosperity for much of humankind
 - It's still not safe – warriors from cyberspace
 - The cyber-silk road is also not safe
 - Why did anyone ever think it would be?
 - We take risks to gain rewards
 - To do this well, we need to properly understand the risks
 - It is paving the road to more global prosperity and innovation
- What are the risks and reward?
- The issue of tempo
- The past, present, and future



Outline

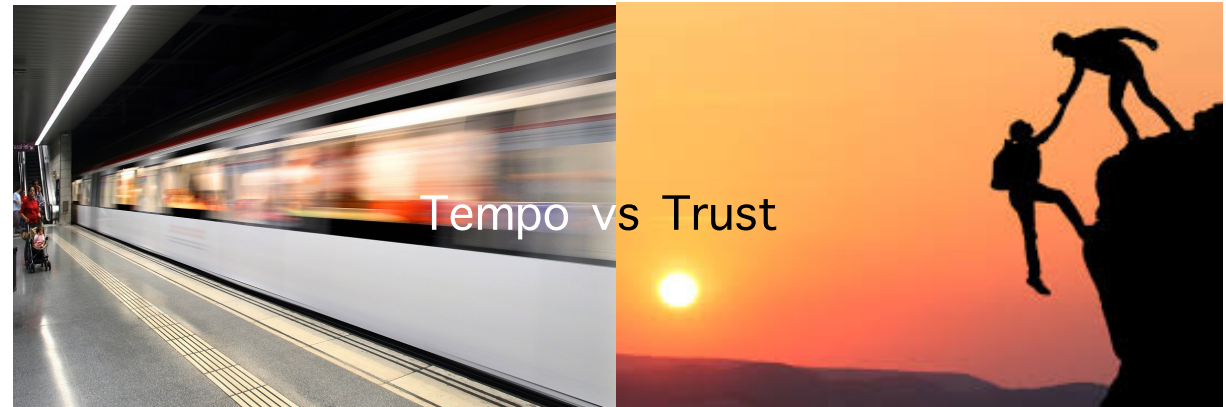
- This silk road – then and now
- What are the risks and reward?
 - Rewards we hope to achieve
 - Economic prosperity for the whole Pacific rim and out from there
 - Blue and green sustainable, healthy, ecologically sound, human advancement
 - New advances in all areas of science and technology
 - Cyberspace support it all happening better, faster, and cheaper
 - Risks (or at least issues and consequences)
 - Regulatory issues associated with transborder information flow
 - Intellectual property theft, data “leakage”, cryptography, government access
 - Criminal and malicious exploitation (i.e., corruption, denial, misuse, repudiation)
 - Global crime, human exploitation, theft, trafficking, and policing
 - Differing social norms, political escalation, cyber/infrastructure warfare
- The issue of tempo
- The past, present, and future

China's cross-border e-commerce has developed rapidly in recent years. In 2014, the country's cross-border e-commerce trade volume was 4.2 trillion yuan (\$670 billion), up 33 percent year-on-year, and it has been estimated that by 2016, China's cross-border e-commerce trade volume will reach 6.5 trillion yuan. - “E-commerce creates cyber Silk Road” Mar 18, 2016, China Daily.com

Outline

- This silk road – then and now
- What are the risks and reward?
- The issue of tempo

- Speed vs certainty



- It takes more time to be more certain about
 - Business partners, relationships, trustworthiness, quality of goods and services, supply chain reliability, value for price, soundness of advice, etc.
- But the cyber-silk road runs very quickly
 - Lost opportunities, political changes, technological changes, technical vulnerabilities, exploitation of attack surface, response effectiveness, rates of loss

- Can you outrun the tiger?

- The story of the two men in the woods who encounter a tiger

- Do you have to?

- Developing a proper methodology often provides good speed and certainty
- But doing this is a non-trivial effort

\$670B (2014) * 33%/y → >\$1T (2016)

Too slow, lose the market

Too fast, lose your shirt

Require (fast, sure) enough decision process

- The past, present, and future

Outline

- This silk road – then and now
- What are the risks and reward?
- The issue of tempo
- The past, present, and future
 - It's all about scale and business
 - Where do you want to go?

How do we establish
Scaleable (fast enough)
Diligent (sure enough)
business decisions?

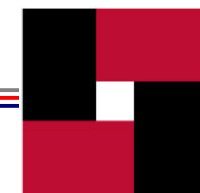
I am an optimist

- I believe that things will continue to improve
- I believe that cooperation defeats opposition
- I believe that by working together we can raise all boats

I am also a realist

- We get there by making good decisions and using better diligence

Examples of scaleable diligence



- Keiretsu Forum: largest private angel investment group in the World

- 2500+ members in 46 chapters on 3 continents
- \$80M+ invested in 125+ companies in 2015
- ~\$750M in total investments since inception
- Average return for diversified portfolio ~26% APR



- ~5% of that return is correlated to deeper due diligence and involvement

- Fearless Security: scaleable cybersecurity assessments worldwide

- Current capacity more than 10x that of Gartner, Price Waterhouse, SAIC, etc.
- 10% of the cost, 10% of the time, 90% of the results
- Partnered with Cisco, Unisys, Ridge Global, and others

Fearless Security
Taking Fear out of Security Decisions



"... the only thing we have to fear is fear itself— nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance."

Franklin D. Roosevelt

- The advantage is a scaleable, due diligence, standard of practice approach

- Success against cyber threats comes from making good business decisions

- Balancing rewards with risks and making rational business decisions
- Do this at reasonable cost, diligently, using a scaleable methodology

You've got to admit it's getting better

- By all measurable things, the human condition is improving
 - Life expectancy increasing globally
 - The poorest in the US today live better than the kings of 100 years ago
 - Less disease, pain, suffering, starvation, etc.
 - It's not that it's perfect everywhere ... it's just getting better overall
- Cyberspace is bringing fabulous gains
 - Medicine is curing more diseases from cyber diagnosis and treatment
 - Fewer people die in accidents when cyber safety is in place
 - Cyber in homes, cars, planes, trains, bicycles, etc. saves lives
 - Cyber brings better almost everything to daily lives!
 - Cyber can bring blue and green economies to higher peaks
- Is cybersecurity the dark side? Or is this just FUD?:
 - It's neither! It's a business issue with rational business decisions involved
 - You need to navigate the cyber silk road to get there safely

Thank You



fc at manalytic.com
Fred at KeiretsuForum.com