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# Agenda

- What's wrong with security today?
- What's the cure?
- Have I lost my mind?
- Call to action.













# 1.34 billion records leaked in April 2019 cyberattacks

From <u>https://www.itgovernance.co.uk/blog/list-of-data-breaches-and-cyber-attacks-in-april-2019-1-34-billion-records-leaked</u>

- Criminal accesses personal data of faculty staff and students at Georgia Tech(1.3 million)
- Bangladesh Oil, Gas and Mineral Corporation's website hacked hours after recovering from previous attack (unknown)
- Australian Signals Directorate confirms data was stolen in parliament IT breach (unknown)
- Massachusetts hospital caught in phishing scam (12,000)
- Hacker breached Minnesota state agency email (11,000)
- South Carolina's Palmetto Health discloses phishing attack dating back to 2018(23,811)
- Phishing scam exposes personal data at Florida's Clearway Pain Solutions Institute (35,000)
- Customer data stolen as website of Japanese luxury railway hit by cyber attack(8,000)
- Dakota County, MN, discloses breach after an employee's email is hacked(1,000)
- <u>Blue Cross of Idaho notifies members of privacy breach after thwarting financial fraud</u> (5,600)
- <u>Texas's Questcare Medical Services investigating business email compromise attack</u> (unknown)
- Ontario's Stratford City Hall recovers from cyber attack (unknown)
- IT outsourcing and consulting giant Wipro hacked (unknown)
- <u>Texas-based Metrocare</u> <u>Services discloses second breach in five months</u> (5,290)



### More cyberattacks

- California-based Centrelake Medical Group notifies patients of security incident(unknown)
- North Carolina's Klaussner Furniture Industries notifies employees of security incident (9,352)
- Customers at US fast food retailer Chipotle say their accounts have been hacked (unknown)
- Minnesota's Riverplace Counseling Center notifies patients after malware infection (11,639)
- Hacktivists attack UK police sites to protest arrest of Julian Assange (unknown)
- Texas-based EmCare says patient and employee data has been hacked (60,000)
- <u>Idaho-based bodybuilding.com discloses employee-related data breach</u>(unknown)
- Illinois dental insurer notifies members after phishing attack (unknown)
- Attackers breached Docker Hub, grabbed keys and tokens (190,000)
- Atlanta's Woodruff Arts Center shuts down network amid security breach (unknown)
- University of Alaska discloses data breach that occurred more than a year ago (unknown)
- Magecart hackers steal data from Atlanta Hawks' online shop (unknown)



### Ransomware

- Genesee County, MI, government suffers 'aggressive' ransomware attack(unknown)
- Ransomware attack affects Women's Health Care Group of PA (300,000)
- Greenville, NC, government's systems knocked out by ransomware (unknown)
- Ransomware attack hits Garfield County, UT (unknown)
- <u>Augusta, ME, hit by ransomware, forcing City Center to close</u> (unknown)
- New Jersey-based paediatric orthopaedic surgeon hit by ransomware (unknown)
- Ransomware at Florida's Stuart City Hall "more than likely" caused by phishing(unknown)
- <u>Massachusetts-based medical billing services notifies patients of ransomware attack</u>(unknown)
- Idaho's Sugar-Salem School District 322 hit by ransomware during ISAT testing(unknown)
- <u>Ransomware disables Cleveland airport's email systems, information screens</u>(unknown)



## Data breaches

- Indian government leaves healthcare database exposed on web (12.5 million)
- West Yorkshire council data leak leaves couple who adopted abused children living in fear (2)
- <u>History repeats itself as Facebook third-party apps expose users' personal data</u>(540 million)
- Canadian pension firm loses microfiche containing personal data (unknown)
- <u>Crook swipes Winnipeg Regional Health Authority employee's bag; patients' records taken</u> (75)
- VoterVoice exposes database containing 'treasure trove' of personal data(300,000)
- Ohio government accidentally leaks information of those seeking job, family services and health aid (993)
- Chinese companies responsible for massive data breach of CVs (590 million)
- Texas's Weslaco Regional Rehabilitation Hospital discloses data breach (unknown)
- Russian hospital dumps medical waste, sensitive data in landfill site (unknown)
- <u>UK's Home Office sorry for EU citizen data breach</u> (240)
- Pennsylvania's Community College of Allegheny County discloses data breach(unknown)
- Patients at Toledo, OH, rehab hospital subject to data breach (unknown)



### <u>More data breaches</u>

- <u>Washington state-based RS Medical discloses incident that may have compromised patient information</u> (unknown)
- Athens, OH, rehabilitation centre notifies patients after unauthorised access to network (20,485)
- Sensitive data found on hard disks may be India's largest ever data breach (78 million)
- <u>California-based LD Evans says it has only just learned about 2018's Citrix vulnerability</u> (631)
- India's JustDial service is breaching users' personal data in real time (100 million)
- Drug addicts' personal data found in rehab centres' unexposed databases (4.91 million)
- <u>Researcher uncovers exposed personal data from Iranian ride-hailing app(6,772,269)</u>
- Pennsylvania-based Partners for Quality discloses data breach (3,673)
- US health provider Inmediata discovers patients' information was exposed on the web (unknown)
- 'Horrendous' privacy breach at Australia's Centrelink sees clients' names published on Facebook (unknown)
- Personal data of employees at Lauderdale County, MS, emailed to colleagues(100)
- US consumer commission warns of data breach affecting safety information(unknown)



# **Financial information**

- <u>Almost \$500,000 swiped in Tallahassee, FL, payroll hack</u> (unknown)
- <u>AeroGrow says hackers stole months of credit card data</u> (unknown)
- Florida-based United Way of the Big Bend says tax payers' info was sto len (64)
- <u>KPMG faces fine of up to \$1.6 million after leaking payroll data</u> (41)



# Malicious insiders and miscellaneous incidents

- Former IT aide to New Hampshire senator caught keylogging (unknown)
- Employee at Cleveland's University Hospital accidentally shared patients' health in fo (840)
- <u>University of Toledo counsellor fired after allegedly disclosing a student's PTSD(1)</u>
- Maine's Acadia Hospital mistakenly release confidential information of Suboxone patients (300)
- <u>Employee at California's St. Boniface Hospital "inappropriately" viewed patient re</u> <u>cords</u> (38)



# In other news...

- <u>USB stick containing sensitive data (and the movie Gone Girl)</u> <u>discovered during manslaughter trial</u> (6,385)
- Barking resident jailed for blackmailing porn watchers (unknown)
- <u>Source code of Iranian cyber-espionage tools leaked on Telegram</u> (unknown)
- Supply chain hackers snuck malware into video games (unknown)



### I counted 74 data leakage stories in April, 2019

- 74 data leakage incidents
- 30 days in April
- Average of 2.47 per day

On average, every day in April saw about 2 ½ data leakage incidents.

That's what was documented.



# One more data point

The US Dept. of Homeland Security says we endure 4000 ransomware attacks *every day*.

Link the ProPublica article below

https://features.propublica.org/ransomware/rans<mark>omware-attack-data-recovery-firms-paying-hackers/</mark>



### What do all these attacks have in common?

- For nearly all, we don't know what went wrong and what they did to fix it.
- Except for Equifax, but that took a Congressional investigation.
- Here is a SANS article with a link to the Equifax report:



### What's the cure?



### A counter-intuitive proposal





# Open it all up

- Internal topology
- Permission model
- Incident response plan
- Post-mortems
- Write articles about our security practices.
- Present them at conferences.
  - Accept peer review criticism.
  - Critique others.
  - Game out scenarios with other organizations.

Demand openness from your suppliers. Provide openness to your stakeholders.



### Have I lost my mind?







#### Rudimentary Treatise on the Construction of Locks

#### Edited by Charles Tomlinson and Alfred Charles Hobbs

John Weale, High Holborn, 1853

https://books.google.com/books?id=PsUzAQAAMAAJ&printsec=frontcover&source=gbs\_ge\_summary\_r&cad=0#v=onepage&q&f=false





#### Bottom of page 2, top of page 3



# Paragraph breaks and color added for readability

A commercial, and in some respects a social, doubt has been started within the last year or two, whether or not it is right to discuss so openly the security or insecurity of locks. Many well-meaning persons suppose that the discussion respecting the means for baffling the supposed safety of locks offers a premium for dishonesty, by shewing others how to be dishonest.

#### This is a fallacy.

Rogues are Very keen in their profession, and know already much more than we can teach them respecting their several kinds of roguery. Rogues knew a good deal about lock-picking long before locksmiths discussed it among themselves, as they have lately done.

If a lock—let it have been made in whatever country, or by whatever maker—is not so inviolable as it has hitherto been deemed to be, surely it is to the interest of honest persons to know this fact, because the dishonest are tolerably certain to be the first to apply the knowledge practically; and the spread of the knowledge is necessary to give fair play to those 'who might suffer by ignorance.

It cannot be too earnestly urged, that an acquaintance with real facts will, in the end, be better for all parties.



# 2019 language

- Bad guys spend all day probing good guys.
  - And all night collaborating with each other to improve the next day's probes.

• Bad guys already know relevant details about our internal networks.

• Good guys isolate ourselves.

• We need to level the playing field.





# Good guys also win by collaborating

#### 🕔 Domain Seizure 🗙 🕇

← → C (i) Not secure | www.deepdotweb.com

#### ☆ B M O N G A G



Check out this article from Wired Magazine:

https://www.wired.com/sto ry/dark-web-drug-takedown s-deepdotweb-rebound/

Score one for the good guys.



### I'm just a sysadmin; nobody listens to me!





### Well then, listen to guys like Warren Buffet.



"I don't know that much about cyber, but I do think that's the number one problem with mankind." –Warren Buffet

From

https://www.businessinsider.com/warren-buffett-cybersecurity-berksh

ire-hathaway-meeting-2017-5



### Taking my own medicine



### <u>My buddy, Ihor</u>

about



Welcome - dgregscott.com

Welcome to my dgregscott.com website. And meet my alter-ego, Jerry Barkley. Jerry dgregscott.com

http://dgregscott.com/

why you don't register it?

to Google and catalogs?



🕼 😳 GF 😳 🖉 🕤 🖒





Type a message...

### http://dgregscott.com

Greg) Man Why? ))) come on ))))))))))) I think that's only the beginning )))))))) Greg))

#### Index of /wp-content/plugins/jetpack

	<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<b>Description</b>
	Parent Directory		-	
	3rd-party/	2017-05-15 00:41	-	
Đ	CODE-OF-CONDUCT.md	2017-05-15 00:41	2.4K	
	_inc/	2017-05-15 00:41	-	
	bin/	2017-05-15 00:41	-	
ľ	changelog.txt	2017-05-15 00:41	140K	
Đ	<u>class.frame-nonce-pr&gt;</u>	2017-05-15 00:41	2.8K	
Đ	class.jetpack-admin.php	2017-05-15 00:41	8.3K	
Đ	class.jetpack-autoup>	2017-05-15 00:41	8.5K	
Đ	class.jetpack-bbpres>	2017-05-15 00:41	2.9K	
ľ	class.jetpack-cli.php	2017-05-15 00:41	27K	
Đ	<u>class.jetpack-client&gt;</u>	2017-05-15 00:41	8.1K	
Đ	<u>class.jetpack-client&gt;</u>	2017-05-15 00:41	11K	
Đ	class.jetpack-connec>	2017-05-15 00:41	32K	
Đ	<u>class.jetpack-consta&gt;</u>	2017-05-15 00:41	2.4K	
Đ	class.jetpack-data.php	2017-05-15 00:41	4.4K	
Đ	<u>class.jetpack-debugg&gt;</u>	2017-05-15 00:41	24K	
Đ	class.jetpack-error.php	2017-05-15 00:41	47	
Đ	class.jetpack-heartb>	2017-05-15 00:41	4.5K	
Đ	class.jetpack-idc.php	2017-05-15 00:41	20K	
ľ	<u>class.jetpack-ixr-cl≥</u>	2017-05-15 00:41	3.2K	

## The cure

I used a different directory on this Wordpress website than normal and the default settings could have killed me.

<Directory /var/www/html/wordpress>

## Options Indexes FollowSymLinks
# Get rid of Indexes to prohibit directory searches

Options FollowSymLinks















# What if these organizations were open?

• Equifax may have saved more than \$1 billion in remediation costs.

• Uber would not have become an unwitting partner with people who stole from it.

• Ransomware attacks might not have disrupted Atlanta, Baltimore, and more than twenty other cities recently.



# Contact info

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