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2 in 5 people:

Received notice that their data had been compromised,
Had an account hacked, or
Had a password stolen

#### **500M Hacked**

Happened in 2014
Not disclosed until 2016



#### 1 <u>Billion</u> Hacked

Happened in 2013 Not disclosed until 2016



- Email addresses
- Names
- Phone numbers
- Date of birth
- Hashed passwords\*
- Unencrypted security questions/answers



#### Other Notable Hacks...





OTARGET.

94M customers CC details (2007)

83M customers personal info (2014)

70M customers CC details (2014)



117M users login details (2012)



ebay

56M customers CC details (2014)

150M users login details (2014)





#### Agenda

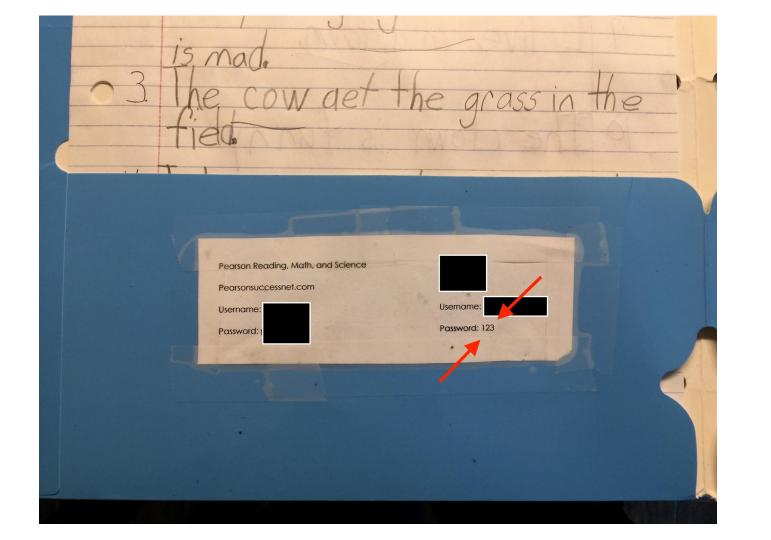
- Passwords
- Human Behavior
- Family Safety

**Protect Your Data** 

Prevent Identity Theft

**Prepare Our Kids** 





SAYING "HACKING"

```
0xF4F0 ?1@-'@'"#'([ 0xF5BC NG<,CONSIS
0xF514 G(, ]|:=:+#- 0xF5E0
0xF538 .==@>GAINING
      ()-.:") !-@|H 0xF610 ING@_: ">(TAC
                  0xF61C TICS"(,:$='/
      :):=,"<#)_- 0xF634 H://'PACKING >Entry denied
                  0xF64C ELLING_)(->; >MANKIND
0xF58C MANKIND"#}'} 0xF658 },?.+@'{$'), >Entry denied
                   0xF664 (FENCING.)KE >2/7 correct.
AND INSTEAD SAID "FIGURED OUT THEIR
```

PASSWORD", PEOPLE WOULD PROBABLY TAKE

PASSWORD SECURITY A LOT MORE SERIOUSLY.

People who use a password more than 10 years old.

**47%** use a password more than 5 years old.

Number of online accounts guarded by a duplicate password.

#### Look at the dates of these hacks...







2007



Linked in

2014



2014 2012

2014

2014

#### Risk Assessment

<u>Event</u>	<u>Likelihood* (a)</u>	Impact* (b)	Risk Factor (a x b)
Random website is hacked	60	1	60
Social Medial is hacked	30	30	900
Email is hacked	30	50	1500
Bank account is hacked	20	90	1800

\*Arbitrary Scale: 0 - 100

#### Risk Assessment: Reusing Passwords

<u>Event</u>	<u>Likelihood* (a)</u>	Impact* (b)	Risk Factor (a x b)
Random website is hacked	100	100	10,000
Social Medial is hacked	100	100	10,000
Email is hacked	100	100	10,000
Bank account is hacked	100	100	10,000

The only thing preventing you from catastrophe is blind luck.

### 4.7%

## 4.7%

Number of people using "password" as their password.

### 99.8%

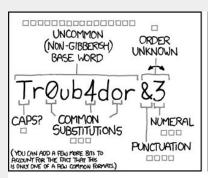
### 99.8%

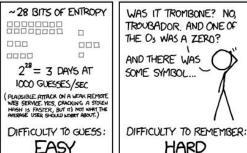
Number of people using passwords from the 10,000 most common

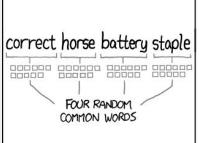
### Strong Passwords!

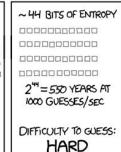
...except I can't remember them.

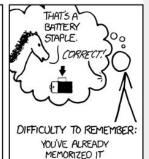
- Long (>8 characters)
- Mix of UPPER, lower and \$p3c1al
- Nothing personal
  - No kids or pets
  - No birthdays











THROUGH 20 YEARS OF EFFORT, WE'VE SUCCESSFULLY TRAINED EVERYONE TO USE PASSWORDS THAT ARE HARD FOR HUMANS TO REMEMBER, BUT EASY FOR COMPUTERS TO GUESS.

#### Use a Password Manager







Security Challenge





Click each below to see a full report of all the logins and passwords stored in your LastPass vault. On supported websites you can change the password in one click, and you can check more than one to change multiple passwords at once. For other website, use the 'launch' option to go to the website, login, and use the LastPass Password Generator to replace the account's password. All (138) ▲ Duplicate (29) ▲ Compromised (3) ▲ Weak (7) ▲ Old (20) Blank (0)

### Take-Aways

#### Passwords:

The most important thing in this presentation!

- Use strong passwords
- (and a password manager)
- Never reuse passwords



### Human Behavior

### Don't Trust Anyone

Don't give your personal info unless absolutely necessary



#### Malware Attacks

- Phishing
- Viruses
- Trojans
- Adware
- Spyware
- Rootkits
- Bluesnarfing
- Bluejacking
- Logic bombs
- Backdoors
- Ransomware
- SPAM
- Spoofing
- Man-in-the-Middle
- . . . .



### Don't Trust Anyone

Don't open emails / files

Don't use USB sticks

Use an Ad Blocker





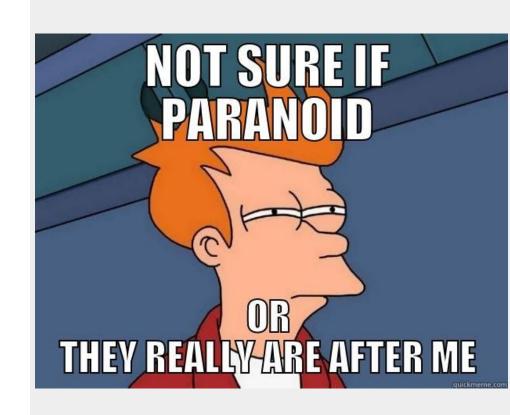
Would you click on this?



Would you call this number?

# Don't Trust Anyone

"This won't happen to me"



```
E 6
             - gg
K okookore se es la
            Dug
             VZZ-4
    v Y'c' j FII s
```

# Encrypt Everything

Phones
Hard Drives

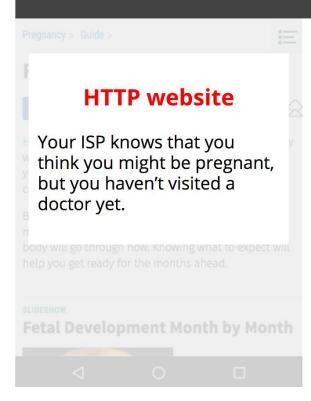
Internet Connections



# A Secure https://



#### What can your ISP see in your browsing history?



#### **HTTPS** website

Your ISP knows that you visit Wikipedia a lot, but *not* about your embarrassing obsession with White House pets.



It's not just about privacy.

That data will eventually be hacked and used against you.

### Take-Aways

Human Behavior:

Don't. Trust. Anyone.

- Be very aware of Phishing
- Only open attachments you expected to receive
- Block all advertisements
- Use HTTPS



### 80M Hacked

Happened in 2015



- Names
- Addresses
- Date of birth
- Social Security Numbers
- Health Care ID Numbers
- Employment Information



# 15 Million

# 15 Million

People in the United States
Affected by identity fraud last in 2016



#### Healthcare IT News

**Privacy & Security** 

# Ransomware attack on Texas pediatric provider exposes data of 55,000 patients

ABCD Children's Pediatrics also discovered other evidence of hackers on the network, which included suspicious user accounts.

By Jessica Davis April 05, 2017 04:36 PM f in

A ransomware attack at San Antonio-based ABCD Children's Pediatrics may have breached the data of 55,447 patients.

Affected files may have included patient names, Social Security numbers, insurance billing information, dates of birth, medical records, laboratory results, procedure technology codes, demographic data, address and telephone numbers.

Pediatric patient records are a high commodity on the dark web, according to ICIT Senior Fellow James Scott. There two markets for child records, one including tax fraud. These are long form, full medical records available for sale.



### Your Router

It has a default password.
It's the same as everyone's.
Change this ASAP.













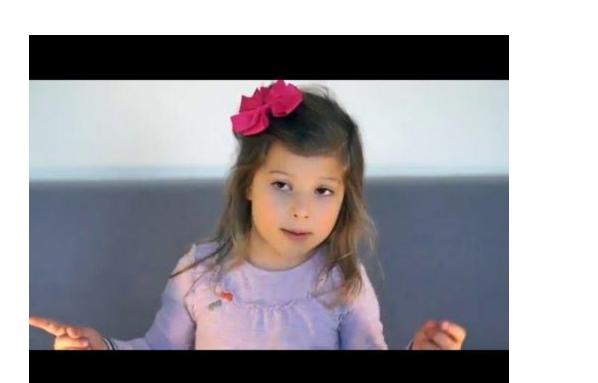
### Take-Aways

Family Safety:
You have to remain vigilant.

- Monitor your credit report
- Know your privacy settings
- Change IoT default passwords









#### What Keeps me Awake At Night?

- 1. Breaking my expensive stuff
- 2. Privacy
- 3. Critical Thinking
- 4. Stranger Danger
- 5. Acceptable Behavior & Cyber Bullying









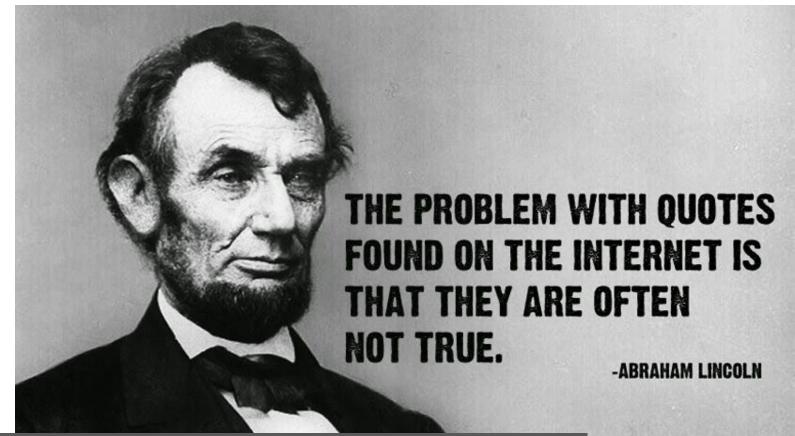




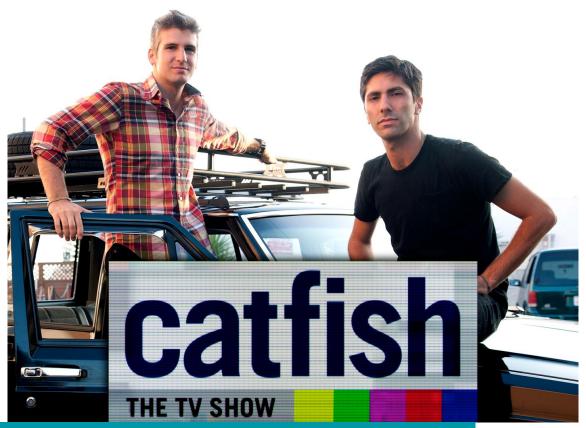
## Conversation #1: Is dad going to be mad?







Conversation #3:
Don't believe everything you read.



**Conversation #4: Stranger Danger** 



#### **Conversation #5:**

Always be a good person.

And you can tell me anything.

#### We already talked about this...



 Review security settings and privacy policies for the websites your child uses.

 Protect all Internet-enabled devices, including mobile phones and tablets.

#### In Summary

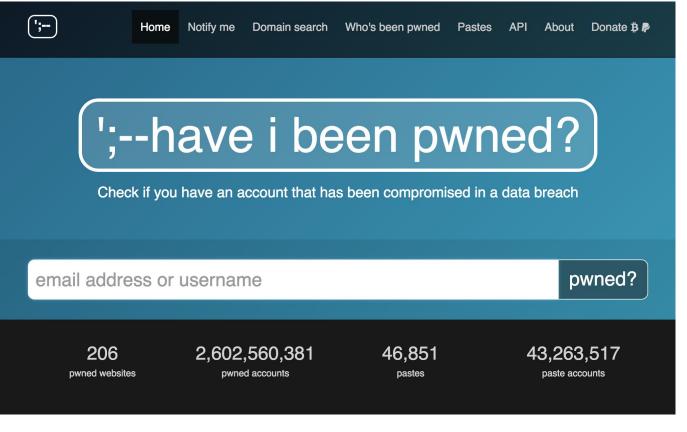
- PASSWORDS!
- PASSWORDS!
- PASSWORDS!!!!!
- Be suspicious of everything
- Remain vigilant

TALK TO YOUR KIDS



#### Resources

- Cybersecurity: 7 Ways to Keep Kids Safe Online (US Dept. of Education)
  - https://www2.ed.gov/free/features/cybersecurity.html
- Families Cybersecurity Presentation: Stop. Think. Connect.
   (US Dept. of Homeland Security)
  - https://www.dhs.gov/sites/default/files/publications/Families%20Cybersecurity%20Presentation.pdf
- A Parent's Guide to Cybersecurity (ConnectSafely)
  - http://www.connectsafely.org/wp-content/uploads/securityguide.pdf



#### www.haveibeenpwned.com

#### Browse Safer with Brave on Your Side

At Brave, our goal is to block everything on the web that can cramp your style and compromise your privacy.

Annoying ads are yesterday's news, and cookies stay in your jar where they belong.



#### Brave blocks harmful advertising

There's a new ad game in town. It's called "Malvertising". The latest display ad technology can install malware on your laptop without your knowledge. But not with Brave watching your back.



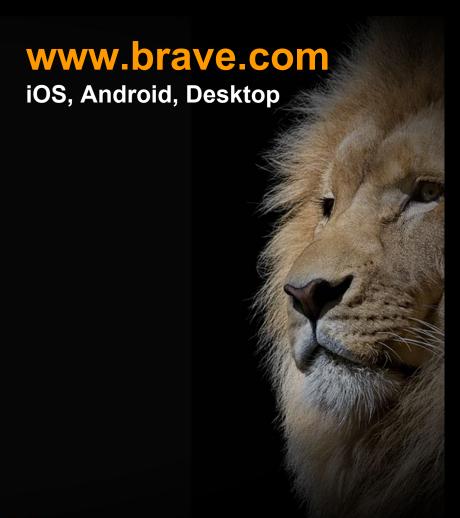
#### Brave redirects sites to HTTPS

We've integrated HTTPS Everywhere into every Brave browser to make sure you are always moving your bits across the safest possible pipe.



#### **Brave blocks Tracking Pixels and Tracking Cookies**

Do you ever get that feeling that someone is watching you when you see an ad for something you bought a few days ago? We make sure you aren't being tracked while you shop online and browse your favorite sites.



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