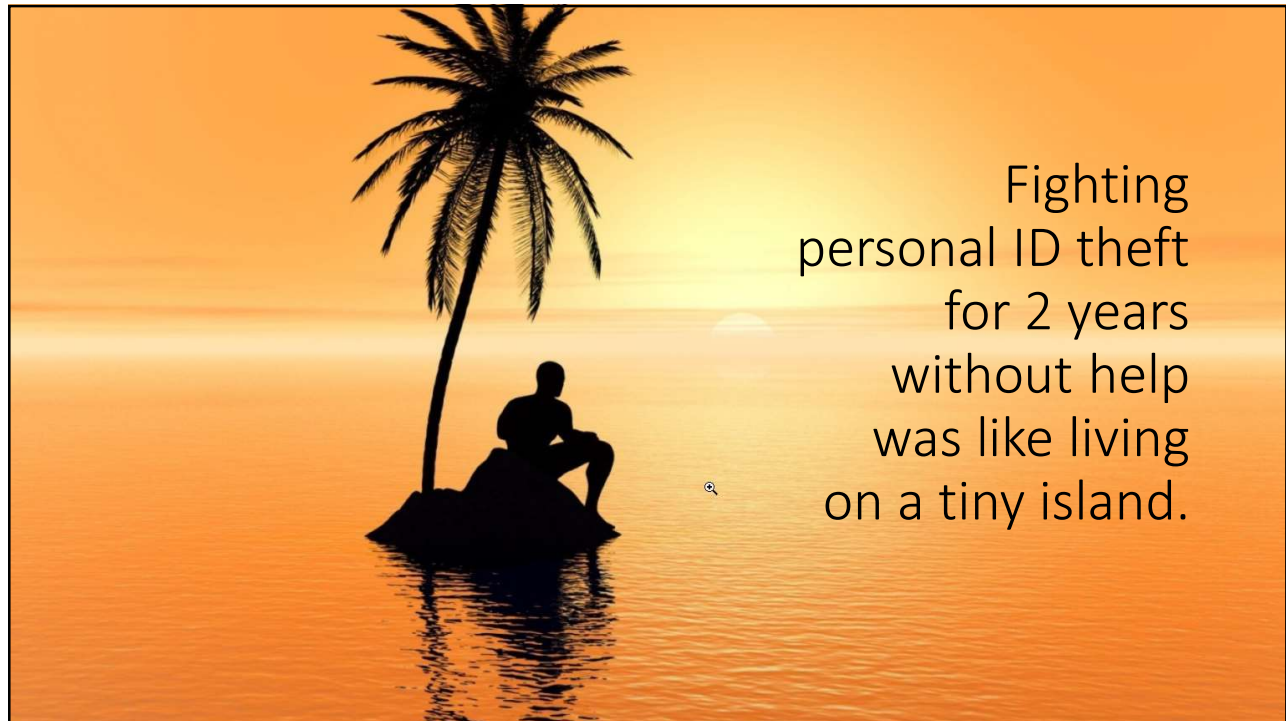




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2



3

# Thank You Fraud Fighters!

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Thank you for the work you do daily  
to prevent, investigate and resolve all kinds of fraud.  
You are providing a personal and valuable service to people in need.  
You're encouraging people and making the world a little better each day!

---

4



5



6



## 2 PATHS of Brain Processing

### Peripheral Processing

- Faster
- Emotional
- Habitual and role based
- Subconscious

### Core Processing

- Slower
- Logical
- Specialized
- Conscious

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## 2 PATHS of Brain Processing

Peripheral Process vs Core Process

**MORE**

**Time  
Ability  
Motivation**



**Brain uses core  
processing**

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## 2 PATHS of Brain Processing

Peripheral Process vs Core Process



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What + / - Influences Humans?

1. FEAR
2. PLEASURE
3. BODY LANGUAGE

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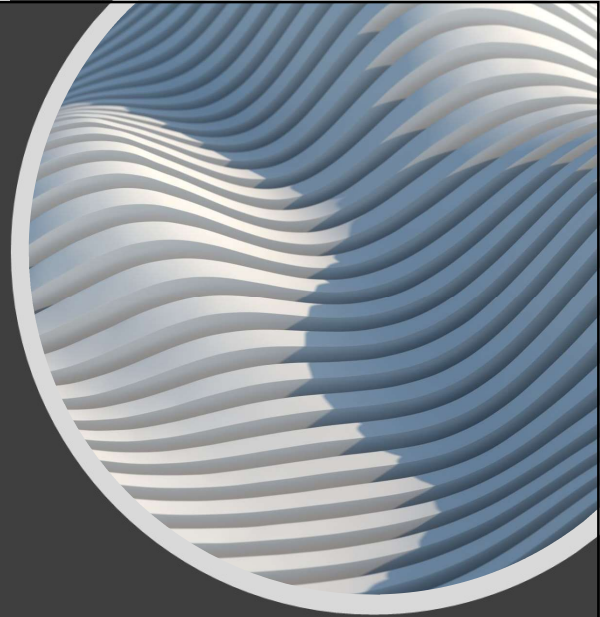
# 1. Fear and pain influence you

Role of the Amygdala in your brain

Amygdala prioritizes fear and pain above all other thought processing. Logic function is reduced so your brain causes a fast emotional response.

Hackers use phishing, smishing, vishing, and facial body language to get a reaction of fear and/or pain while they try to influence.

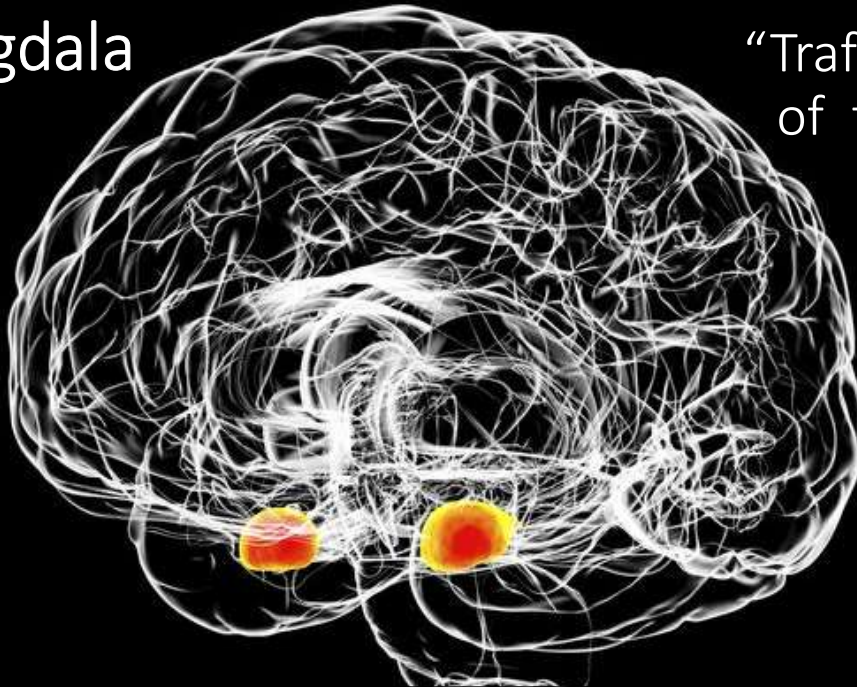
Ideal victims are quick to act and slow to think.



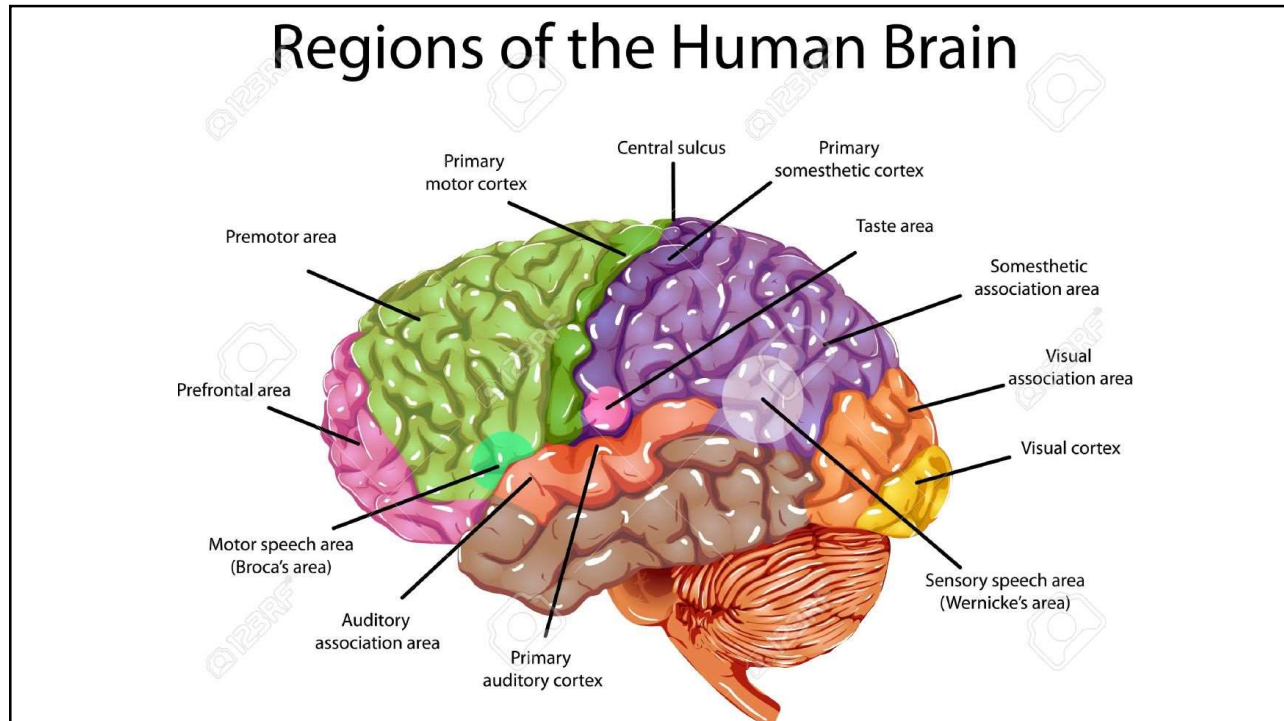
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## Amygdala

“Traffic Cops”  
of the Brain



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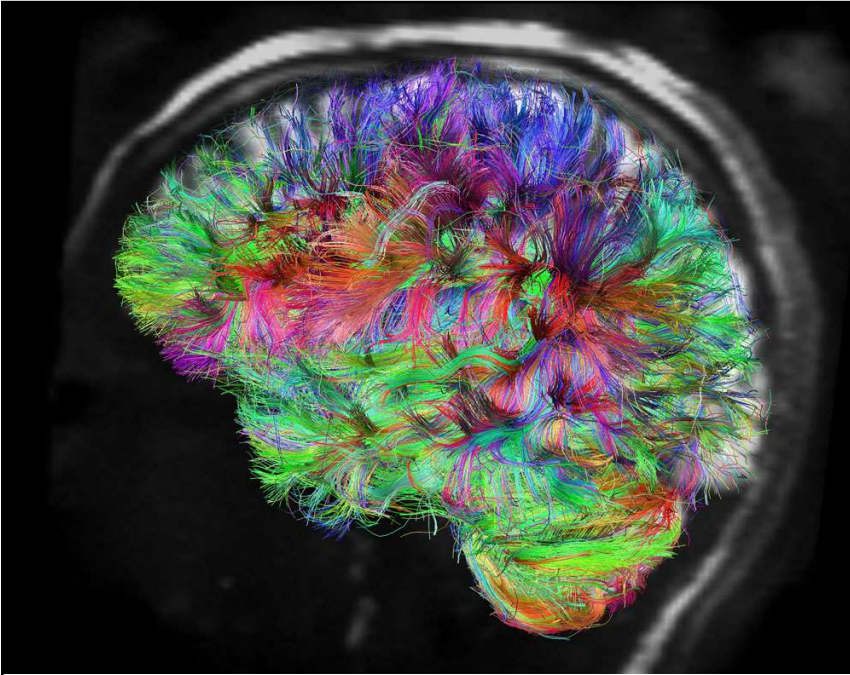
15

Different areas of the brain perform specific functions like processing sight, sound, and smells.

Neural connections are pathways between parts of the brain that correlate information.

Neural connections connect functional parts of the brain so  
(for example) the smell of a cookie may remind you of a good taste, a person and a home.

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## NEURAL CONNECTIONS IN THE BRAIN

- FORMED ONLY 2 WAYS
  - BY GENETICS
  - BY EXPERIENCES
- LAST A LIFETIME

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## 2. Pleasure influences you.

Oxytocin and dopamine are part of a chemical cocktail made by the brain and neural connections when pleasure is perceived.

It has a short shelf life but is very powerful and addictive.

The chemical cocktail is what excites, arouses and draws you to certain foods, experiences, images, people, sounds, etc.

This cocktail also produces affinity and an emotional response while diminishing the functions of logic and reasoning in the brain

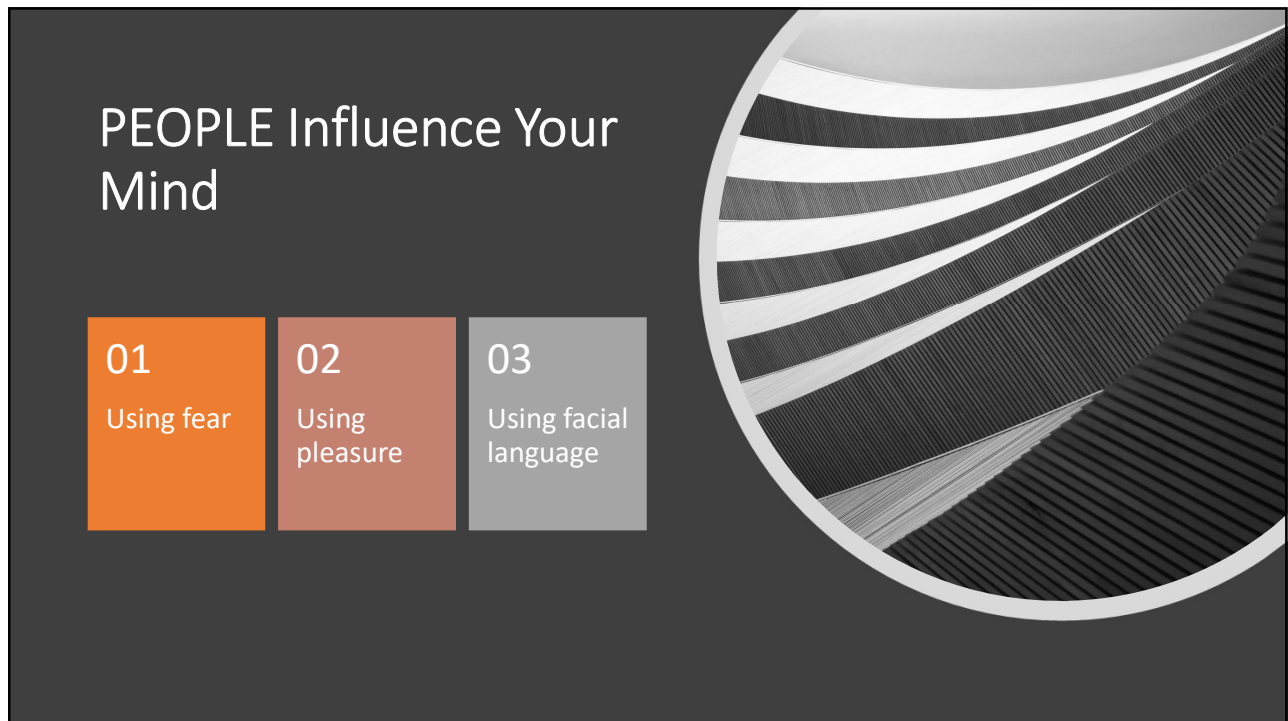
More of our neurons are devoted to processing vision than the other four senses combined.



18



19



20

What do Humans Like/Want

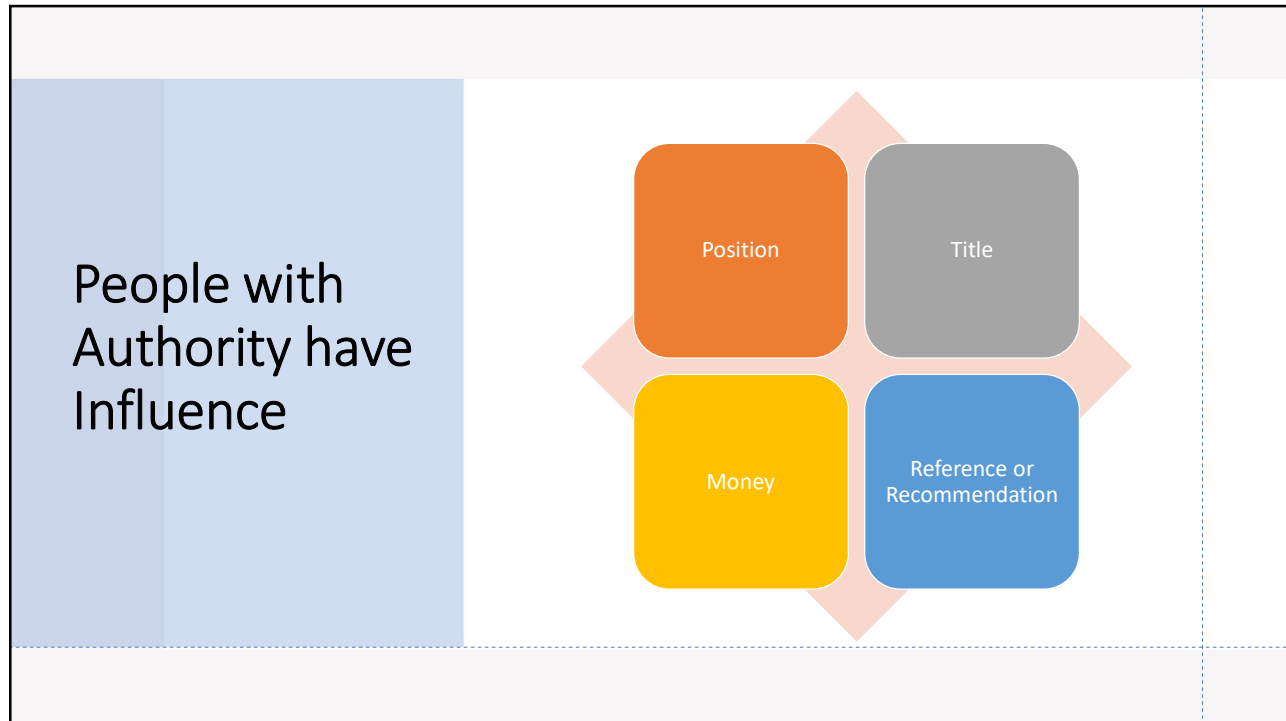
- Pleasure
- Free
- Fast
- Answers
- Give or Receive Help
- Stop the Pain

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Likeable People Have Influence

- Friendly
- Relevant
- Empathetic
- Real Integrity and Authenticity
- Acknowledgement is powerful

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Internet based and personal scams revolve around *(fearful or likeable)* people offering fast, free access to things people naturally want.

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If a hacker knows what you  
fear and love,  
they have powerful tools to influence you

If you know what people fear and love,  
you have powerful tools to influence them.

25

Can they trust  
YOU?

- Uncertainty creates anxiety
- Reduction Theory = People communicate to reduce uncertainty.
- Convincing someone you trust them (whether you do or not), helps them trust you.

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### 3. Facial Expressions Influence You

Facial expressions observed create similar emotions and facial expressions in others.

People make certain faces when they are scared.

Making certain faces can also produce the scared emotions.

Works with fear, pain, happiness and excitement.



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### Facial Expressions as Tool of Influence

This is why leading characters faces in movies, concerts, theater and sporting events can cause masses of people to have the same emotional reactions and facial expressions simultaneously.

Example: a smile and raised eyebrow when you see someone will signal happiness and openness. They are likely to reciprocate

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## Facial Expressions can Signal Pleasure or Pain

What is your face saying to the people you encounter daily?

How are you influenced just because someone is smiling at you?

When someone is seeking help, how does their facial expression influence your response? Use your face when you need help.

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## Influencers use facial expression to influence

2/3 of what humans communicate is accomplished through facial expression

Fear and pain

Pleasure

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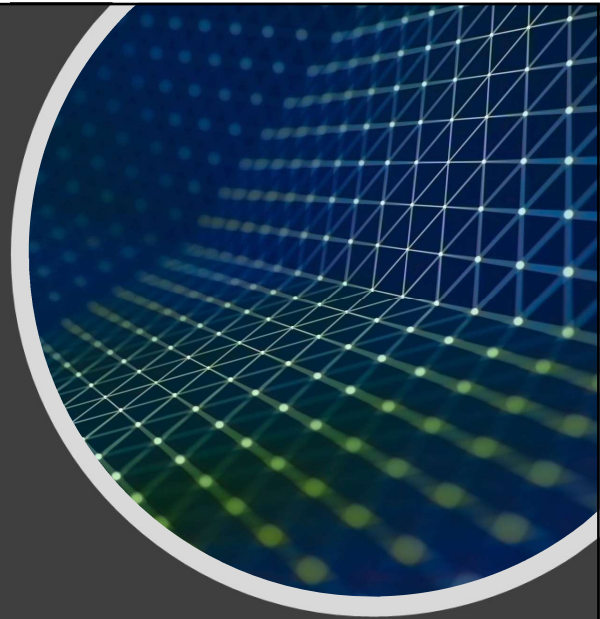
## Fear, Pain and Pleasure are used to Influence

Humans use these methods to hack  
(influence) human behavior

- Sales, coaching, motivational speakers
- Fuels the entertainment industry and politics

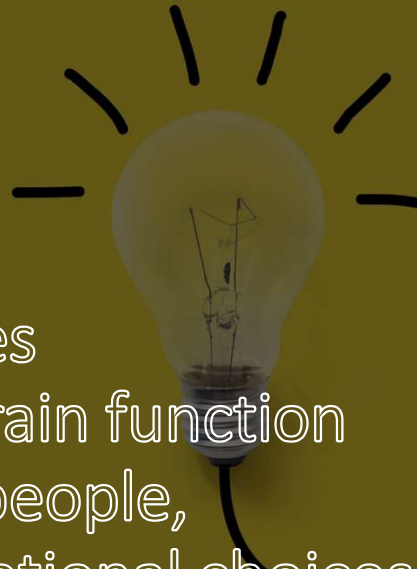
Machines use these methods to hack  
(influence) human behavior

- Machines can be programmed
- Artificial Intelligence and Machine Learning can enable machines to Influence people

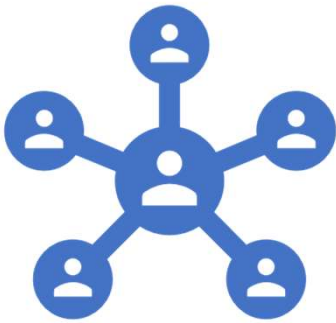


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People and Machines  
use knowledge of brain function  
to hack (influence) people,  
so people make emotional choices.



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## Knowledge Enables Influence

### People

Knowing someone enables you to influence them.

Knowing you, enables others to influence you.

### Machines

Machines are being used to gather information about you. They are tools of influence.

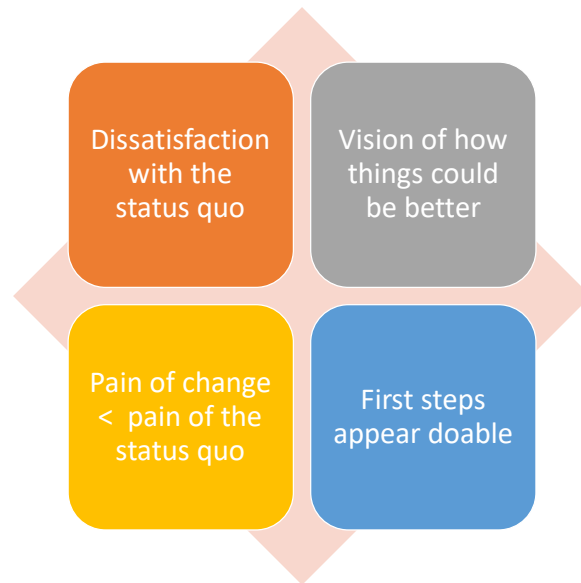
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Influence = Change

---

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## Factors of Change (any change)



35

Use the change factors to bring change in others.

Step 1 – Help them become dissatisfied with the status quo

One of the best tools to produce dissatisfaction is Comparison

Comparison destroys contentment

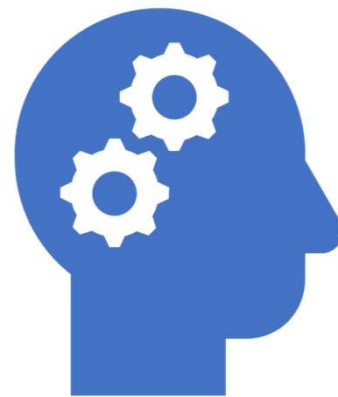
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## BEWARE

When someone or some thing  
is trying to influence you,  
they are using  
the change factors.

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MACHINE  
INFLUENCE



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# YOU are being watched by devices!


- What can “machines” “know” about you?


- Cell phone capabilities
- Body functions
- Locations
- Movements
- Interactions

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Apps gather  
information  
about  
people


 Productivity apps


 Maps

 Gaming

 Social media

 Photography and Videography

 Audio recording

 Music and video

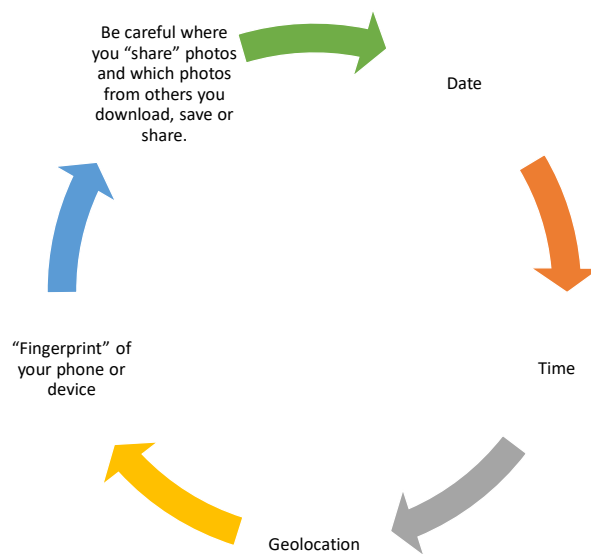
40

## Some information apps are gathering

- Geolocation
- Date and time
- “Fingerprint” of your device
- The last 25 networks the device was attached to
- Search engine searches
- Who, when, how long to you call
- Who, when, how frequently you text
- Facial biometric information
- Voice and speech patterns, vocabulary, etc
- Physiological data e.g. pulse, temp, sleep cycle, blood pressure, etc

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## A Picture Speaks 1,000 Words... and more!



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## Click Bait

Typically images (still or moving)

### APPEARS TO BE

- Interesting
- Fun
- Funny
- Free
- Sexy
- Safe
- Something you want but weren't looking for...
- **DESIGNED TO GET YOU TO MAKE AN EMOTIONAL "CLICK" TO GIVE UP INFO**

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## Deep Fakes

Generative Adversarial Networks GANS

Computers working with computers to merge audio and video digitally to create things that look real but are not.

GANS are creating a world of difficult challenges for the fraud fighting community because results appear real

Used in politics, news, entertainment etc.

Stay tuned to developments in this space

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## Google as the all seeing eye... and salesman

1.9 Billion people use Google for > 60 min/day

Messenger

Email

Maps

Searches

Images

All saved, analyzed, correlated and your information is sold to data aggregators

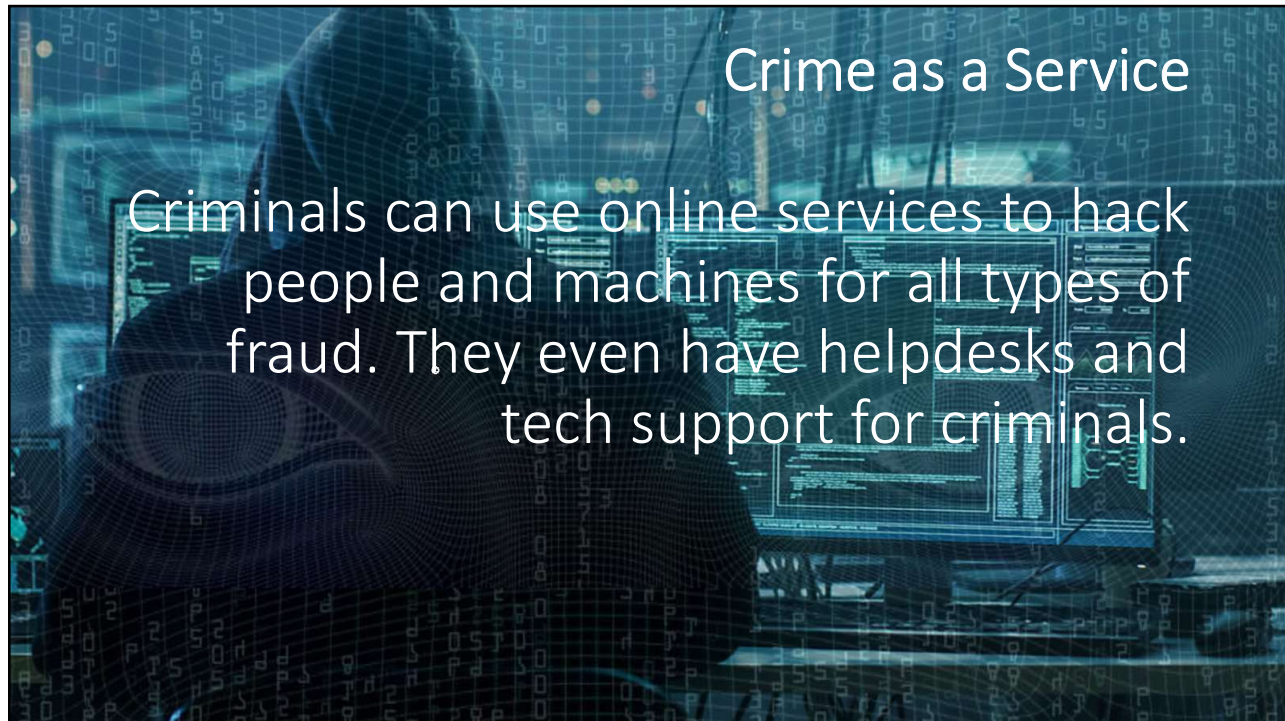
45

## Freemium Model

Google and many other services and games operate a FREEMIUM model. They may appear to offer fun and services for free. However, users are trading information for services and entertainment.

The provider then monetizes the data over and over and over.

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## What should you do?

Remember	Consider	Uninstall	Disallow	Turn off
Remember: ALMOST NOTHING IS FREE	Consider the usefulness of the apps you install compared to the value of the information the app collects about you	Uninstall unused apps	In settings, disallow your apps from gathering information about you while you are not using the app	Turn off Wi-Fi and blue tooth on your device when not needed

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## Layered Defenses

Tech helps (anti virus, anti-spam, anti-phishing software helps)

Human Awareness is a critical defense to human hacking

- Self-awareness is key
- How do you tend to make decisions? Emotional vs Logical
- Stop for 30 seconds to think
- People and devices are watching you ALL THE TIME
- Learn how to shut them off or control outbound information flow

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## How to Protect Your Mind

- Consider if you are being motivated by fear pain or other emotions.
- Pause for 30 seconds to give your brain time to switch from an emotional response to a more logical reasoned response.
- This approach works when you are:
  - Evaluating phishing emails
  - Downloading a new app
  - Watching another video on youtube, Netflix, etc.

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## What should you do (continued)

- Be Aware. Online, everything you look at, listen to, search, buy, comment on is recorded, analyzed, and used to know you.
- Use different email accounts for *personal* (financial, medical, personal) vs *general* actions (shopping, sign ups, reservations)

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## Skill Builder

- Observe people in public and think about what you see
- Who is influencing?
- Who is being influenced and how?
- Which emotions are involved?
- How frequently is reasoned logical thinking involved?
- Do you observe the Factors of Change at work?

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## Conclusion

- Know yourself
  - The two ways your brain processes information
  - You can be influenced by fear, pain, pleasure, facial body language
  - You can be influenced by appeals to your core thinking process
- Know your influencers
  - They can influence you with fear, pain, pleasure, facial body language
  - They can hijack your amygdala to influence you to act emotionally

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## Resources

- |                     |   |
|---------------------|---|
| • Robert Cialdini   | Influence, the Psychology of Persuasion |
| • Amy Cuddy         | Ted Talk on Body Language               |
| • Chase Hughes      | The Ellipsis Manual                     |
| • Rosenberg & Ekman | What the Face Reveals                   |
| • Chris Hadnagy     | The Science of Human Hacking            |

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