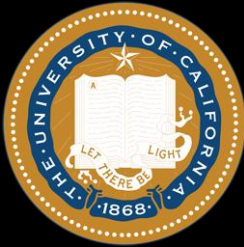


# The Beauty and Joy of Computing



## Lecture #15 Social Implications III



Jonathan  
McKinsey

### Hacking for Good?

- Black Hat – bad guys
- White Hat – good guys
- Grey Hat – something in between
- White Hat Examples:
  - Barnaby Jack – jackpotting
  - Jay Radcliffe – insulin pumps
  - Tiffany Rad – prisons
  - Dan Kaminsky – DNS cache poisoning

# An Intro to this Lecture





# Peer Instruction

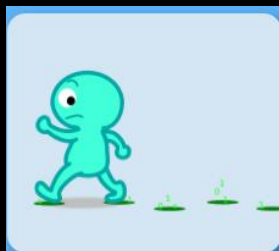


**What do you think of Colbert's story?**

- a) It's comedy. Totally exaggerated
- b) Some truth
- c) True!
- d) The reality is worse!



# 10 Principles for Online Privacy



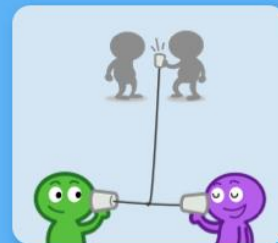
You're leaving footprints



There's no anonymity



Information is valuable



Someone could listen



Sharing releases control



Search is improving



Online is real



Identity isn't guaranteed



You can't escape



Privacy requires work

<http://teachingprivacy.icsi.berkeley.edu>

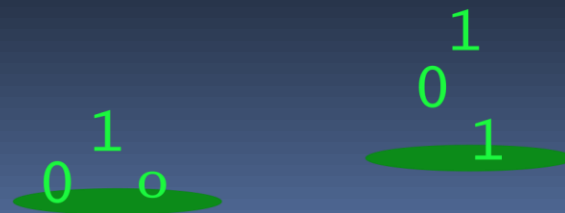
McKinsey



# Principle 1

---

Your information  
footprint is  
larger than you think!

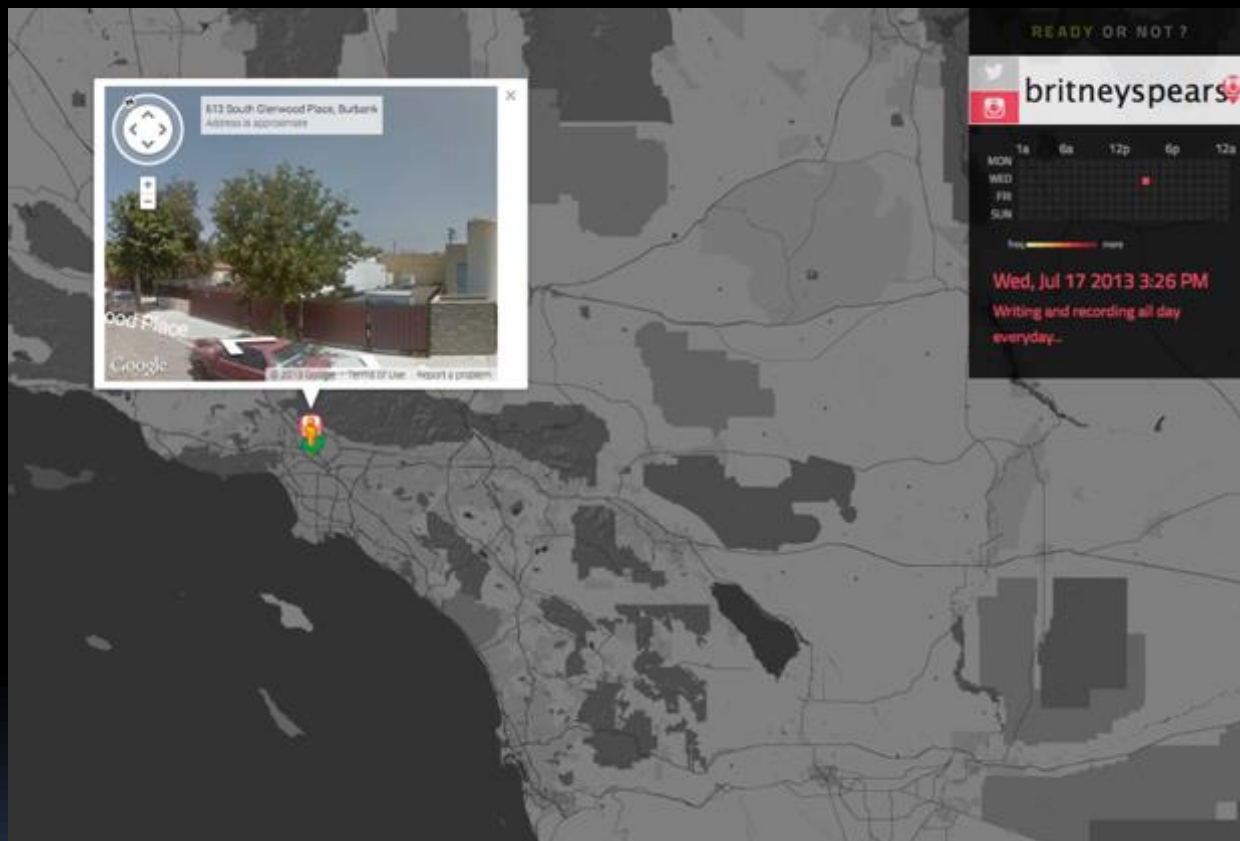


McKinsey





# Principle 1: Example



Ready or Not!? Privacy App by ICSI

McKinsey



# Principle 1: TODO

---

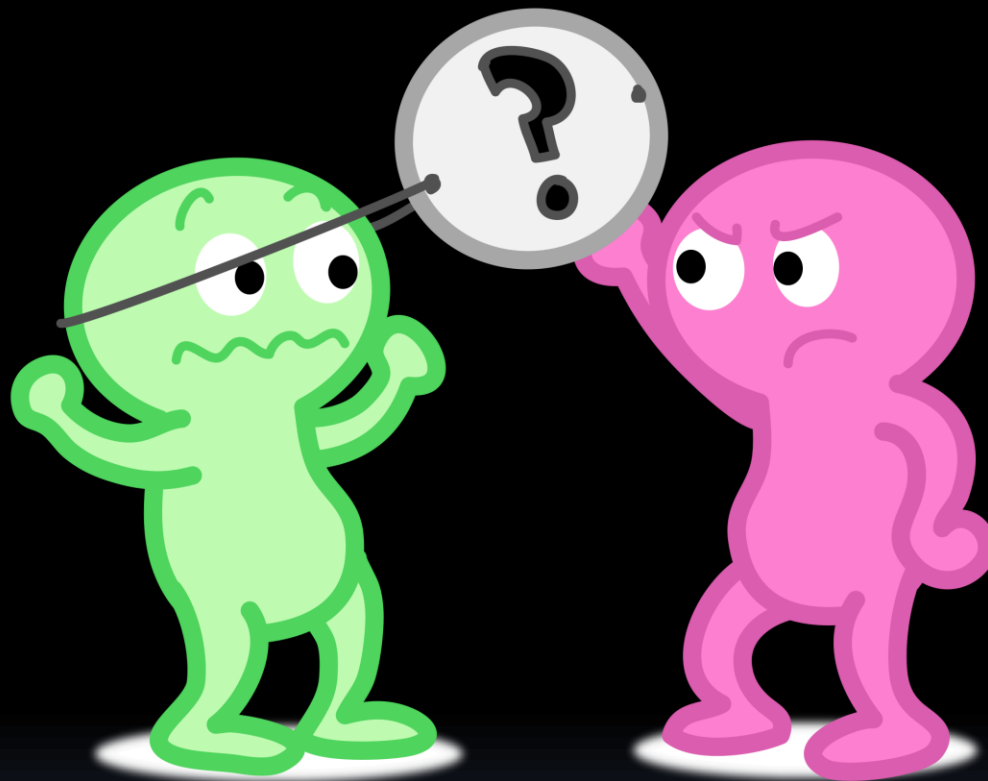
- **Inform yourself!**
- **Know that connection data is ALWAYS stored**
- **Check your privacy settings regularly!**

**Your information  
footprint is  
larger than you think!**



# Principle 2

---



There is no anonymity on the  
Internet!





# Principle 2: TODO

---

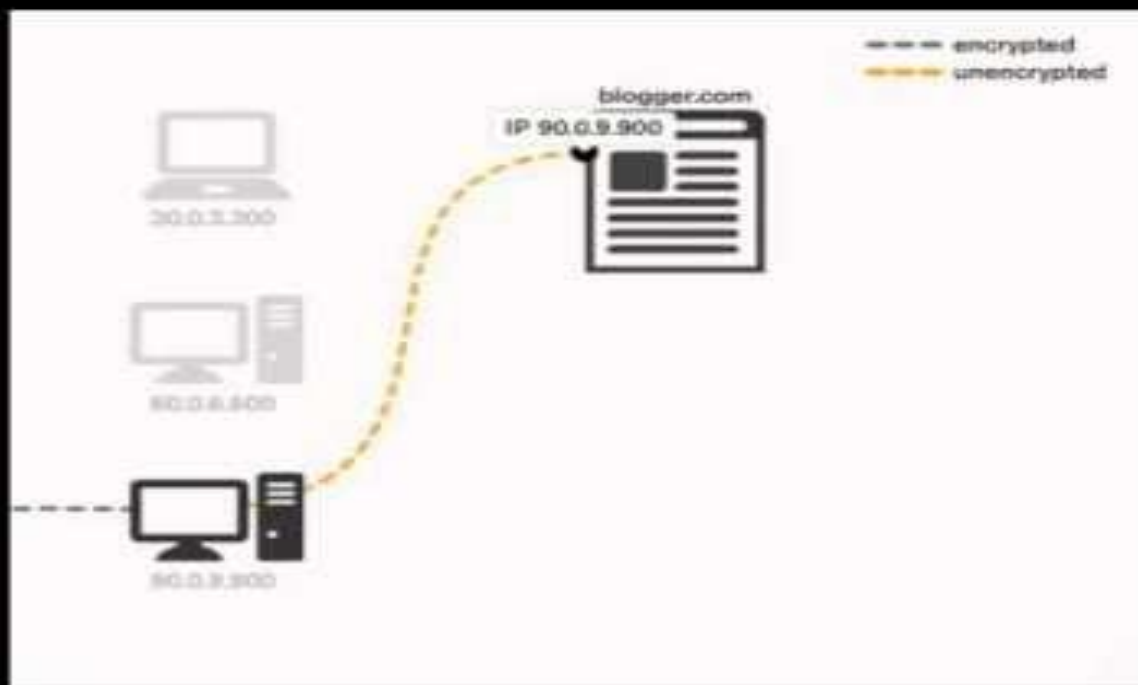
- Constantly be aware nothing is anonymous, even when claimed by website.
- Don't do anything you wouldn't do in public!
- **Ex: Harvard student and his anonymous bomb threat**
- **Ex: Uber and Rides of Glory**

There is no anonymity on the Internet!





# How Tor Works

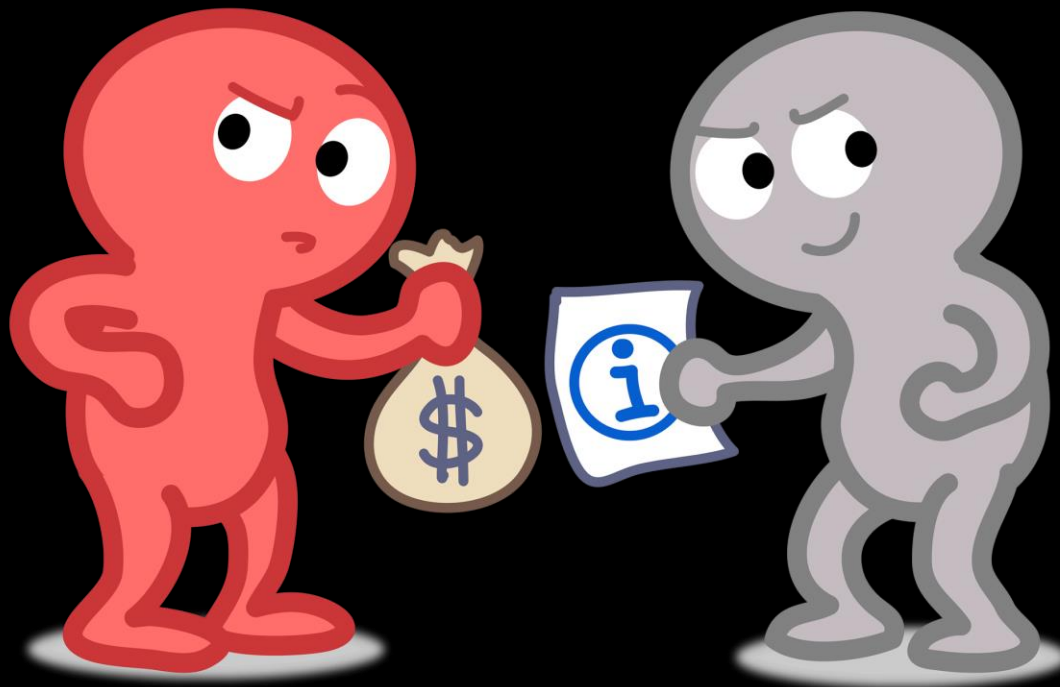


<https://www.youtube.com/watch?v=bqWuioPHhz0>



# Principle 3

---



Information about you on the  
Internet will be used by somebody in  
their interest – including against  
you

# Principle 3: Examples



<https://www.youtube.com/watch?v=bqWuioPHhz0>



# Principle 3: TODO

---

- Only share what you have to.
- If you are not sure how the information is used:  
Don't share it!
- Check privacy policies: Opt out if you can!

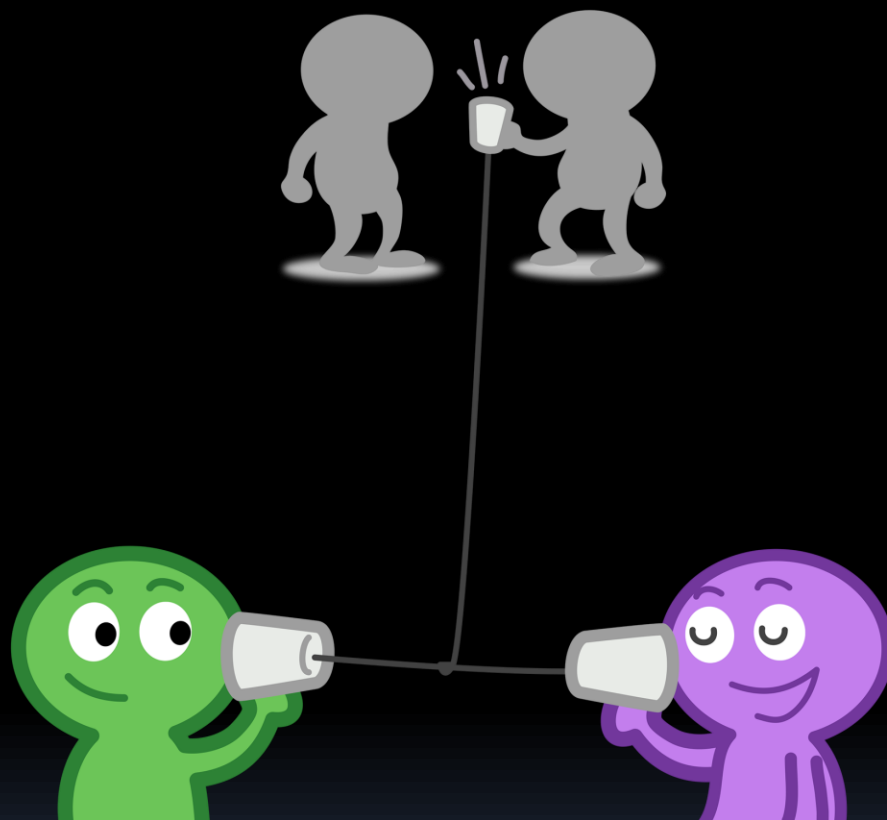
Information about you on the  
Internet will be used by somebody in  
their interest – including against  
you

McKinsey



# Principle 4

---



Communication over a network, unless  
strongly encrypted is never just  
between two parties



# Peer Instruction



**Which of the following technology help with that principle?**

- a) Firewalls
- b) https
- c) Anonymity Proxy (like Tor)
- d) Cookie blocker







# Principle 4: TODO

---

- Use strong passwords, keep them private.
- Use encryption whenever you can!
- Assume it's public if it's not encrypted.

Communication over a network, unless  
strongly encrypted is never just  
between two parties

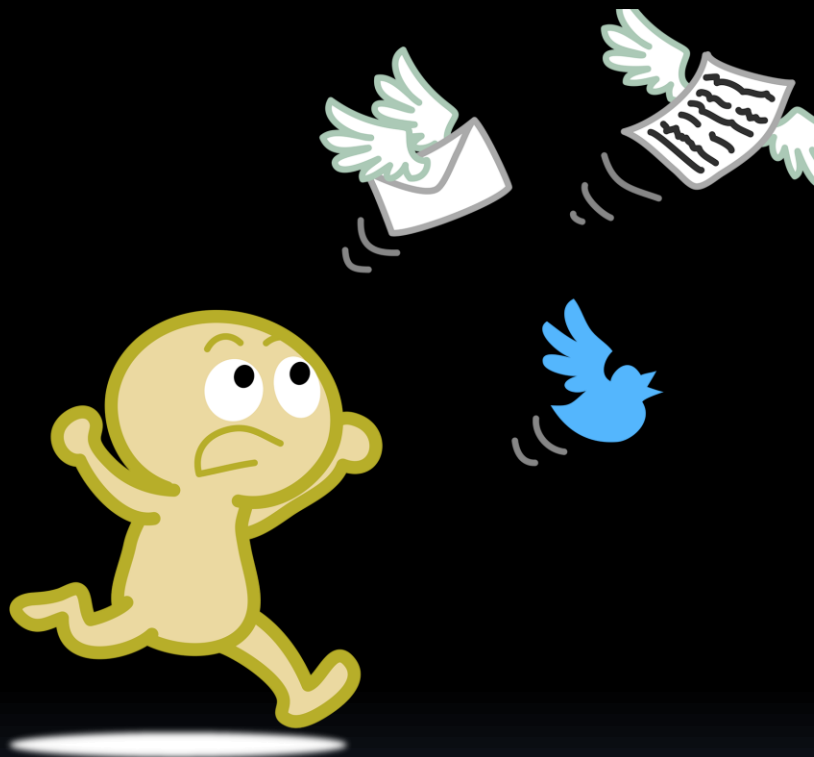
McKinsey





# Principle 5

---



Sharing information over a network  
means you give up control over that  
information – forever



# Principle 5: TODO

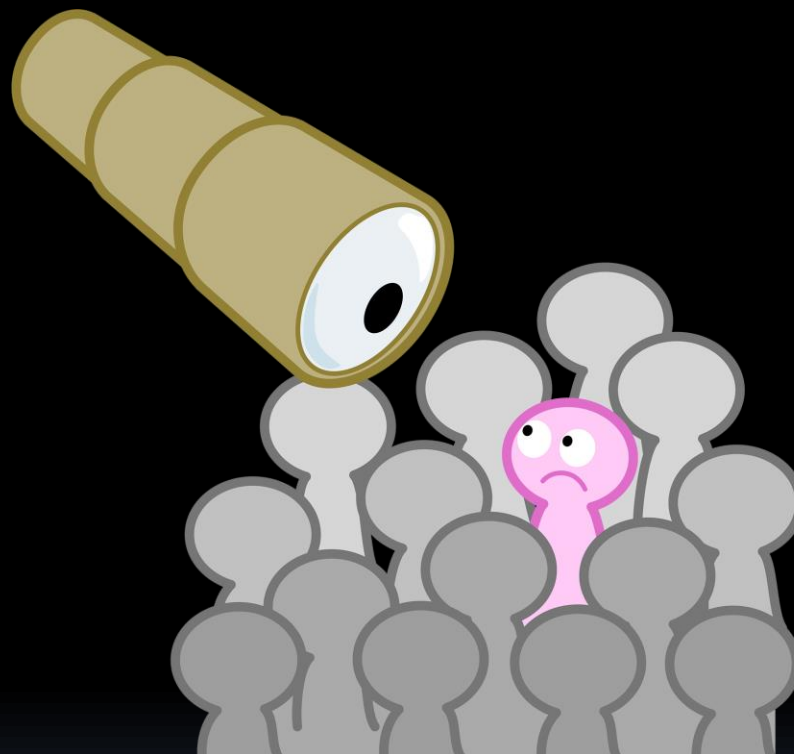


<http://www.onguardonline.gov/media/video-0004-share-care>



# Principle 6

---



Just because something can't be  
found today, doesn't mean it can't  
be found tomorrow



# Principle 6

---

- **Actively monitor your information footprint!**
- **Tools for that will most likely become available in the future**
- **Ex: People aggregator: Intelius, mylife, Spokeo**

Just because something can't be found today, doesn't mean it can't be found tomorrow





# Principle 7

---



The online world is inseparable from  
the "real" world

McKinsey



# Principle 7: Example



<http://www.dailymail.co.uk/news/article-2093796/Emily-Bunting-Leigh-Van-Bryan-UK-tourists-arrested-destroy-America-Twitter-jokes.html>

McKinsey







# Principle 7: TODO

---

- Online actions have real-world consequences.
- Real-world actions have online consequences.
- Be constantly aware: There is no difference!

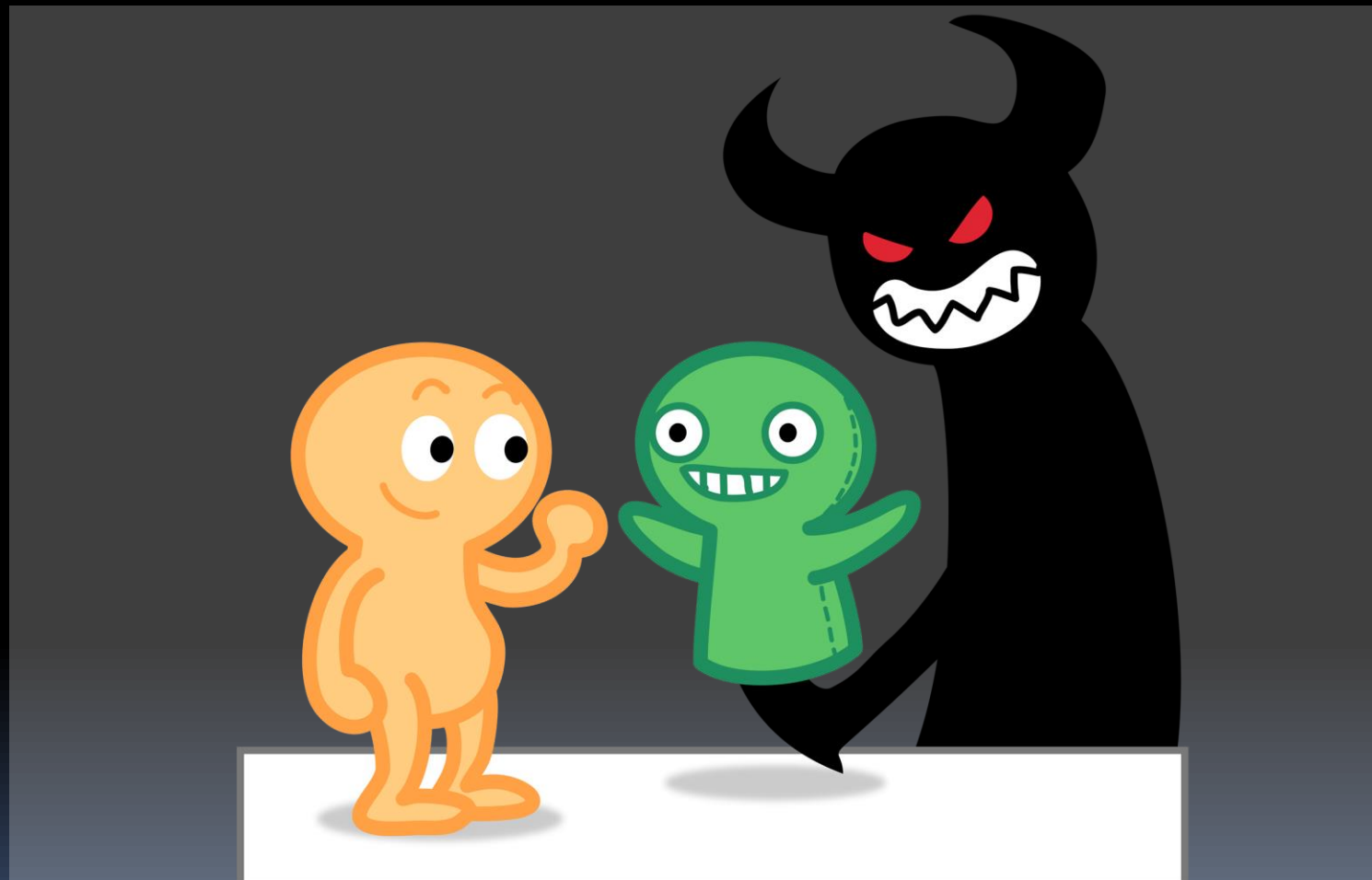
The online world is inseparable from  
the “real” world





# Principle 8

---



Identity is not guaranteed in the  
Internet

McKinsey





# Principle 8: TODO

---

- Consider the consequences if the person you are giving the information to is not who he/she claims.
- Use secondary sources of verification.
- If in doubt: Don't share!

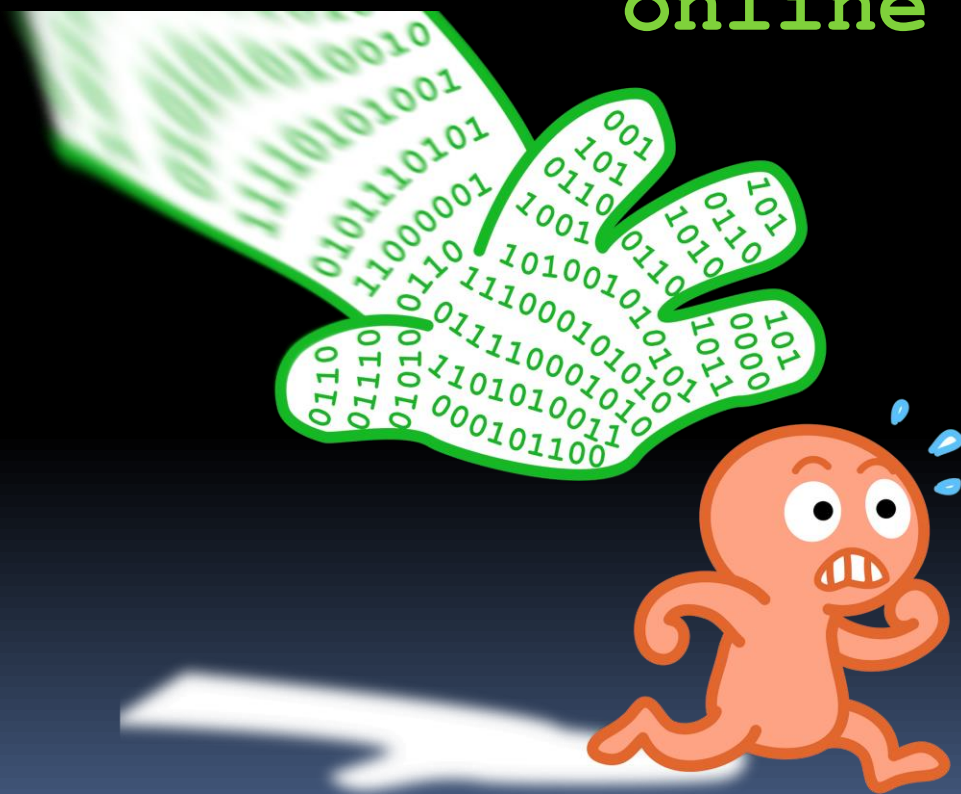
Identity is not guaranteed in the  
Internet



# Principle 9

---

You can't avoid having an  
information footprint by not going  
online





# Principle 9: TODO

---

- Laws regulate what employers can share – inform yourself.
- Share what you have learned today with your colleagues, friends and family – they are your biggest information leaks!

You can't avoid having an  
information footprint by not going  
online

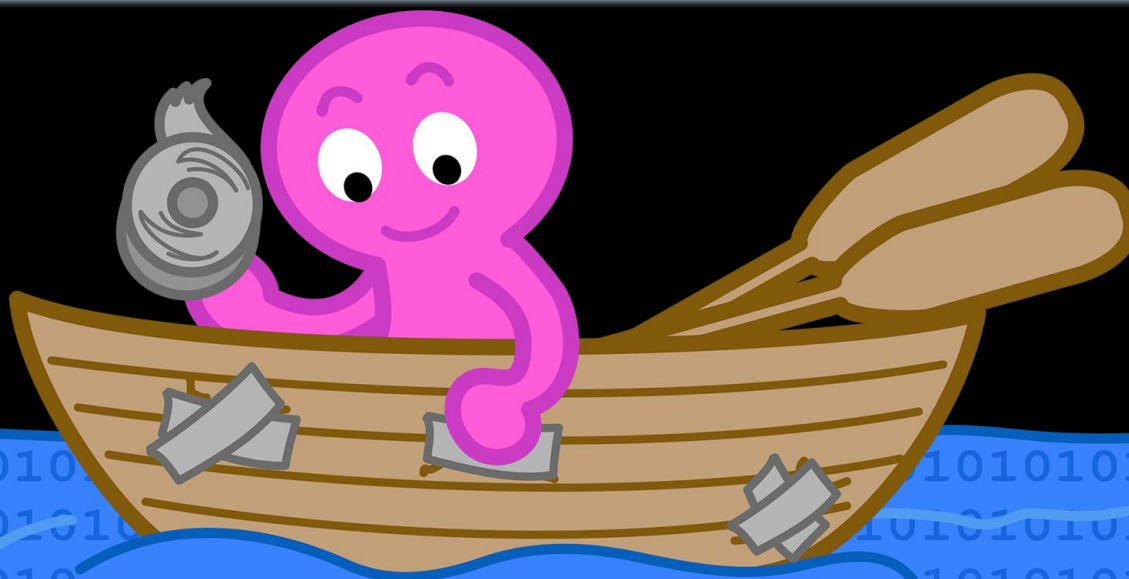
McKinsey





# Principle 10

---



Only YOU have an interest in  
maintaining your privacy





# Principle 10: TODO

---

- Privacy requires work!
- Visit: <http://www.teachingprivacy.org> for more information!

Only YOU have an interest in  
maintaining your privacy

