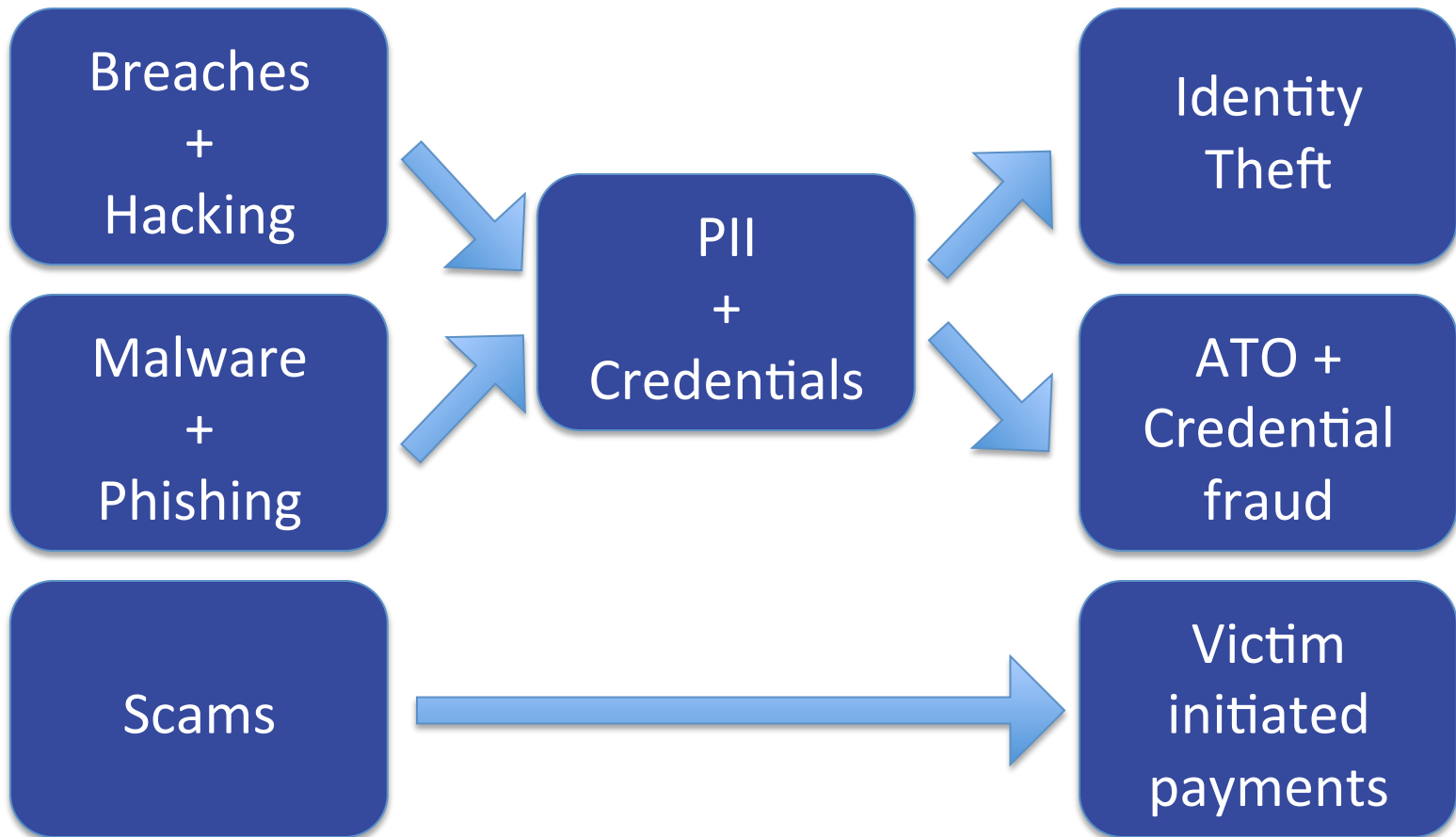


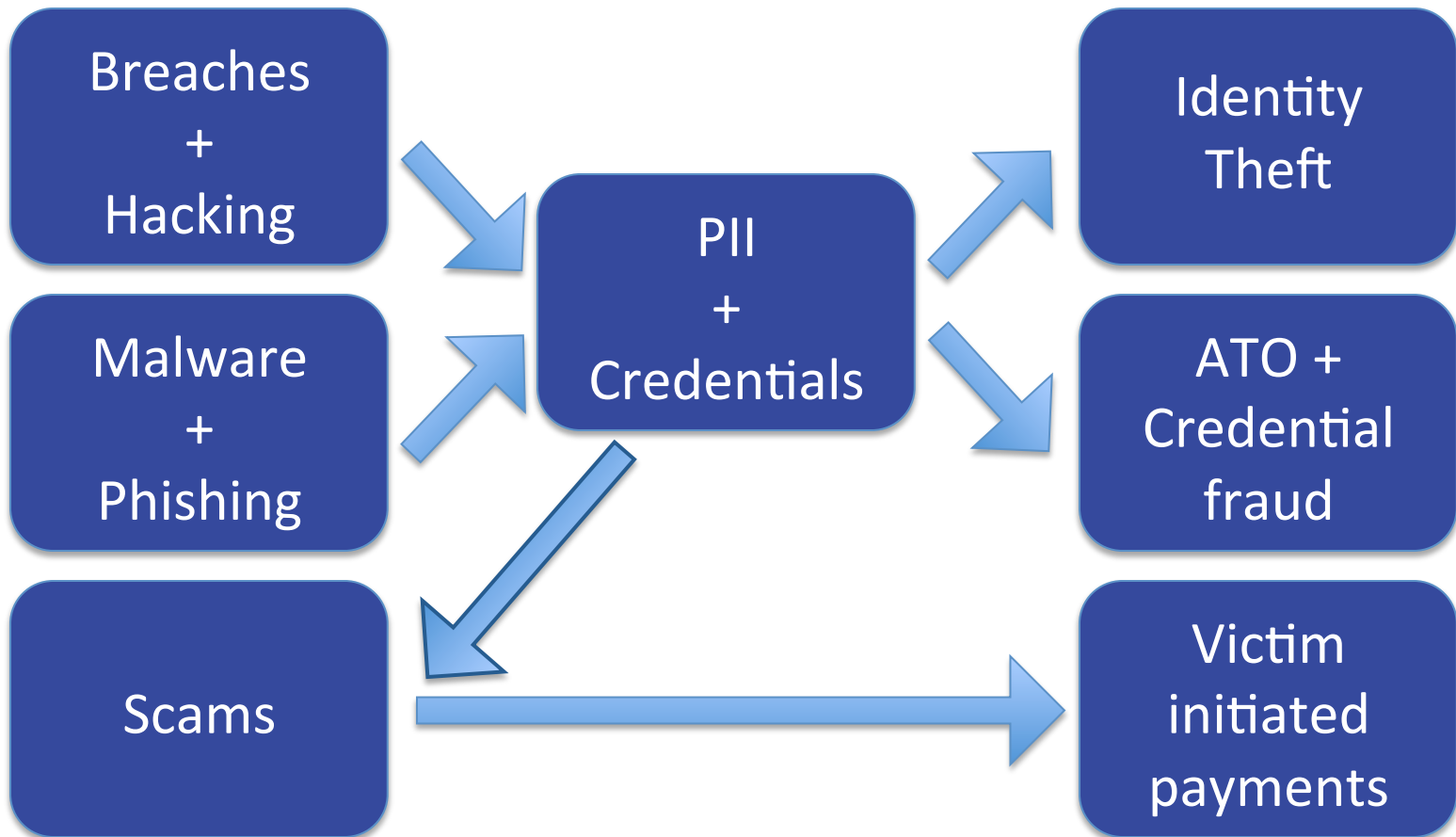


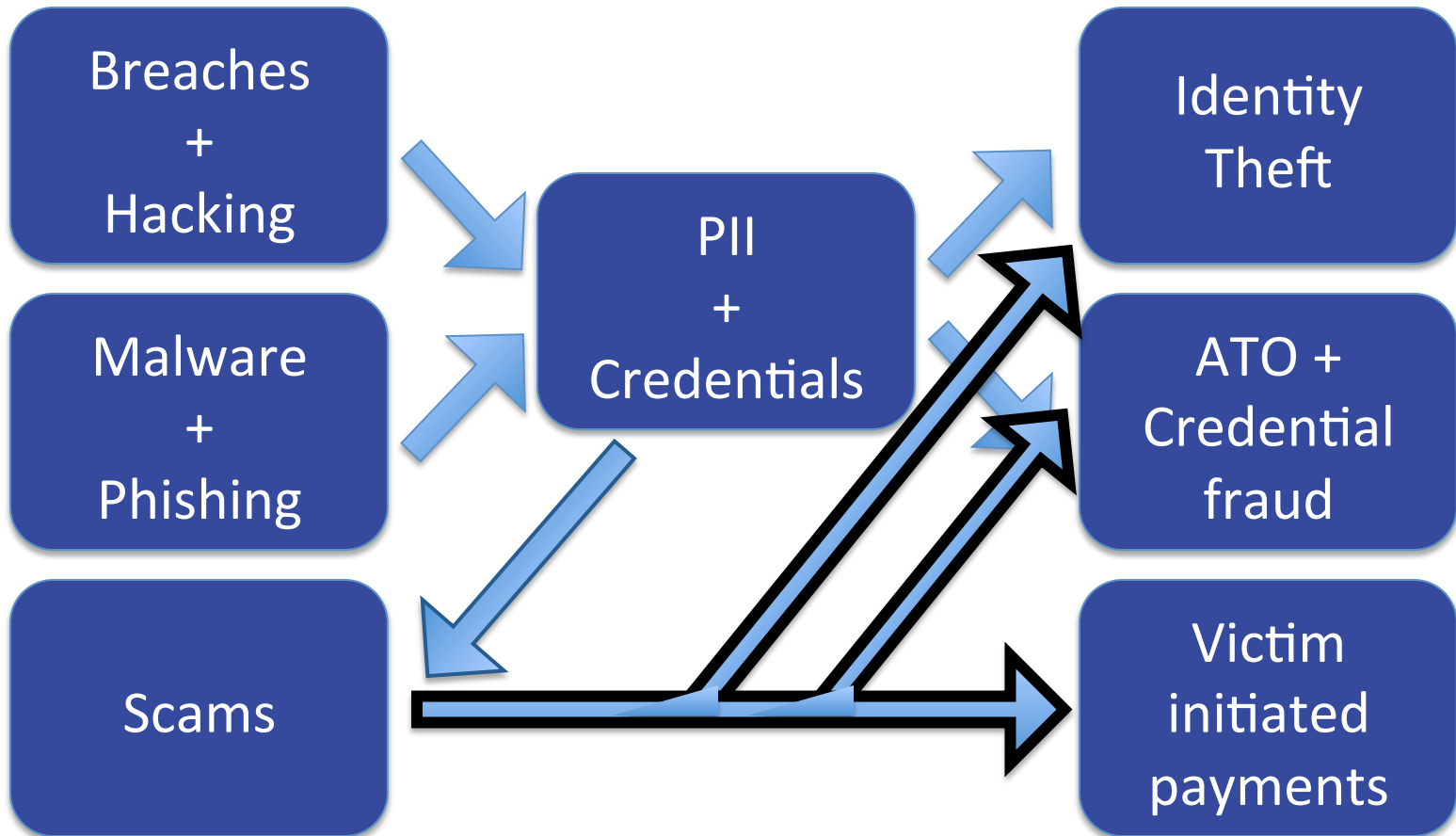
How Vulnerable Are We to Scams?

Markus Jakobsson
ZapFraud

Ting-Fang Yen
DataVisor







\$4B/year

Estimated fraud loss in US

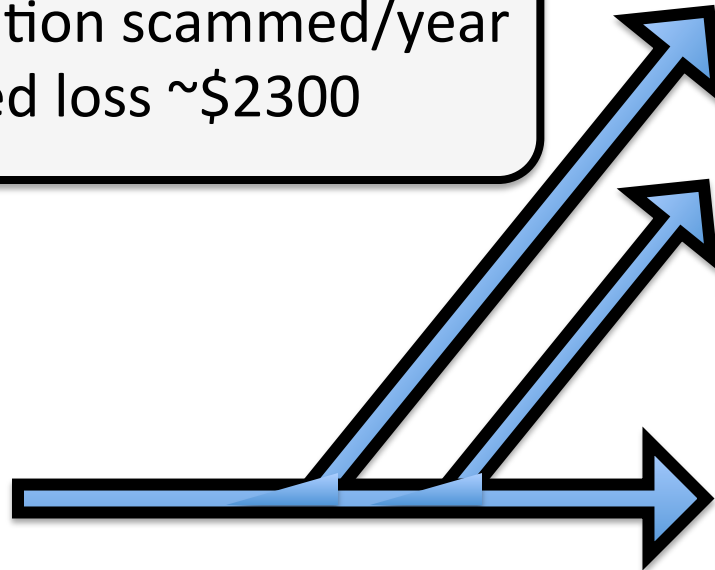
3.5% U.S adult population scammed/year
Average reported loss ~\$2300

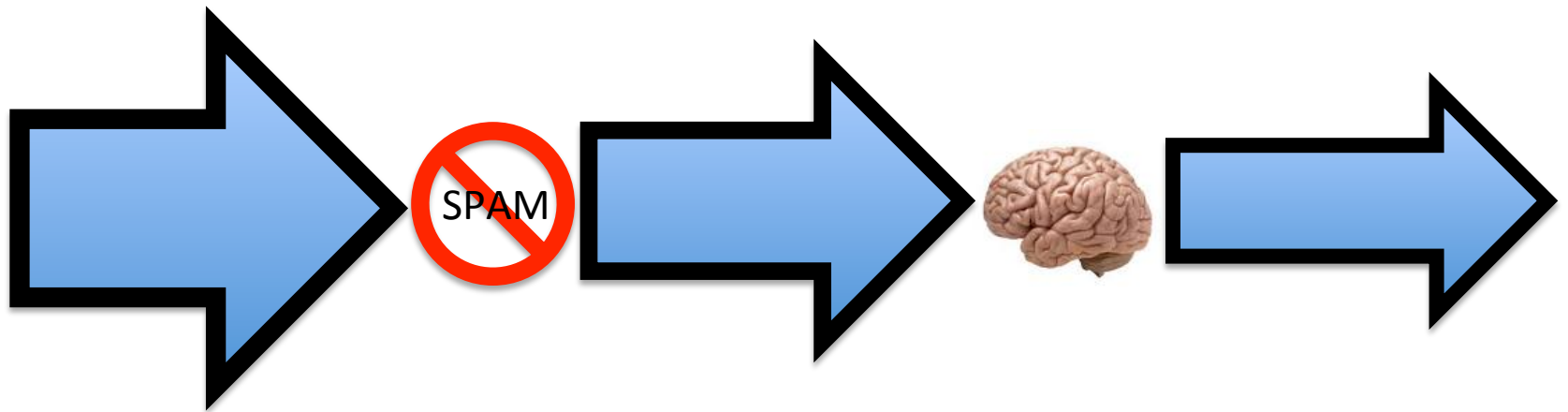
Scams

Identity
Theft

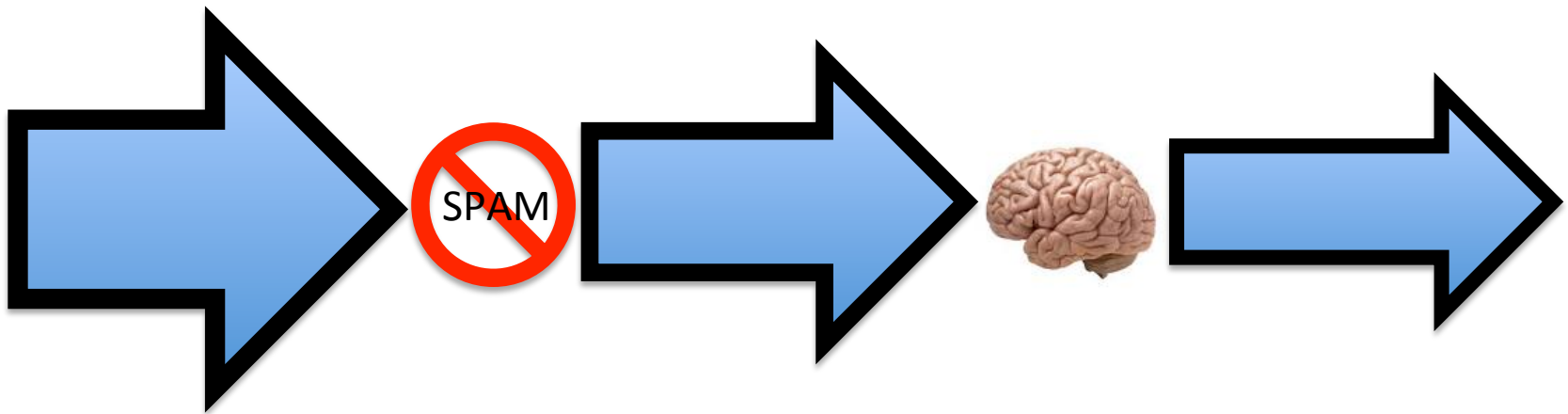
ATO +
Credential
fraud

Victim
initiated
payments





Block rates

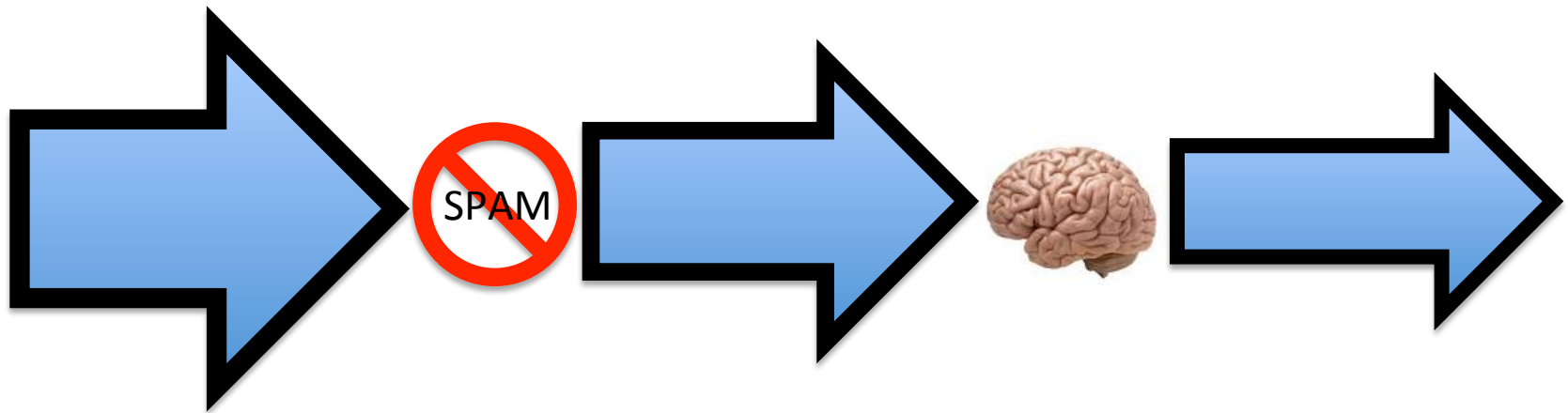


Hotmail 66%

Yahoo 70%

Gmail 10-98%

Block rates



Hotmail 66%
Yahoo 70%
Gmail 10-98%

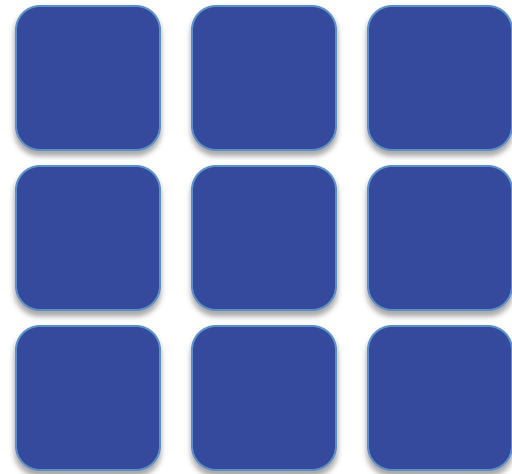
“Very Nigerian” 94%
“Sneaky” 37%



Hotmail Yahoo Gmail

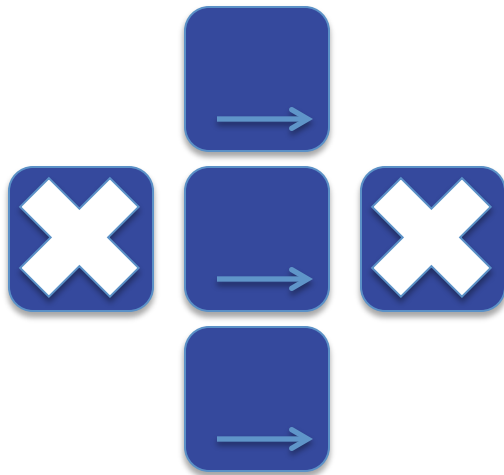


Hotmail Yahoo Gmail



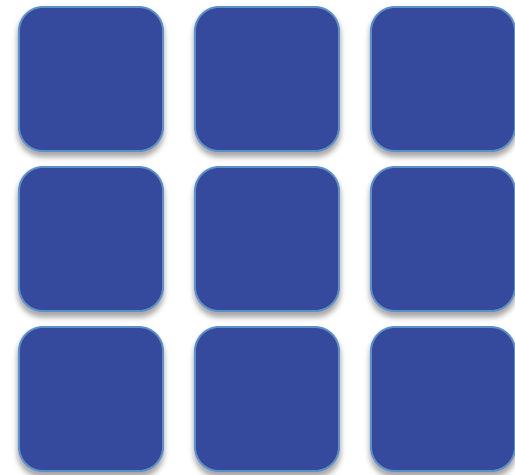


Hotmail Yahoo Gmail



427

Hotmail Yahoo Gmail

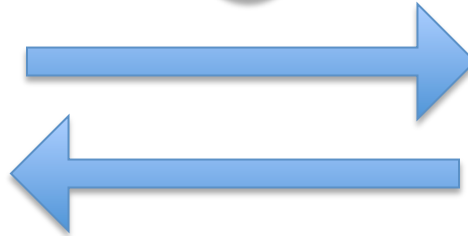




Yahoo



427

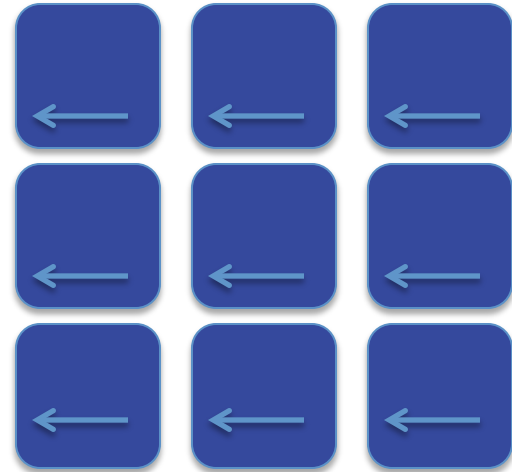


Thanks!

Hotmail

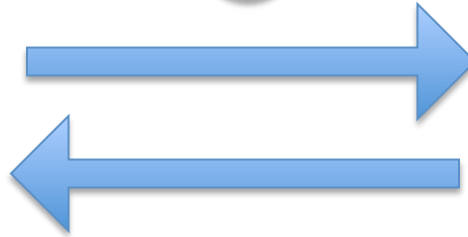
Yahoo

Gmail





Yahoo

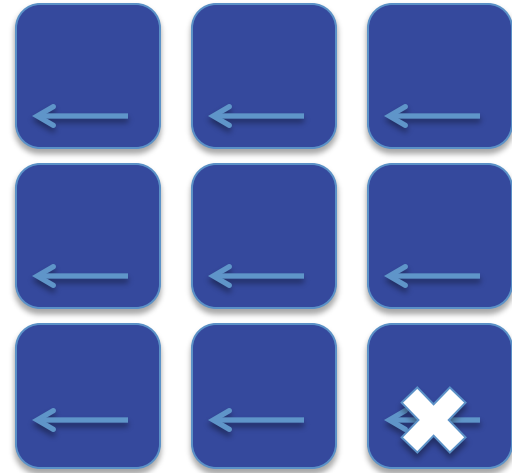


Thanks!

Hotmail

Yahoo

Gmail

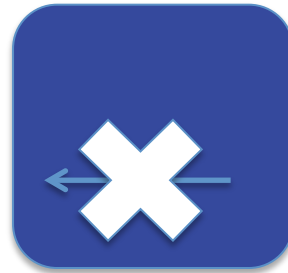
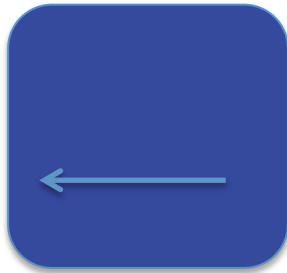
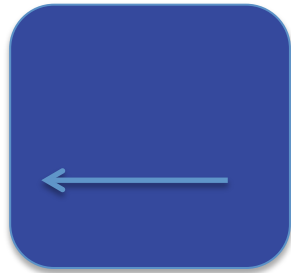
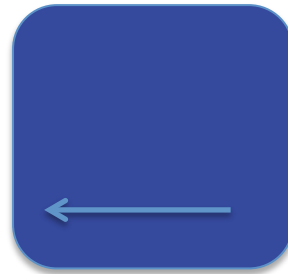
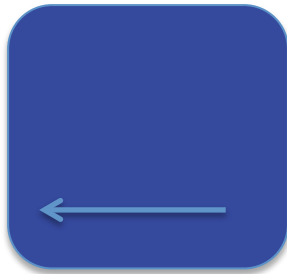
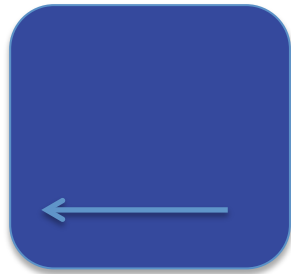
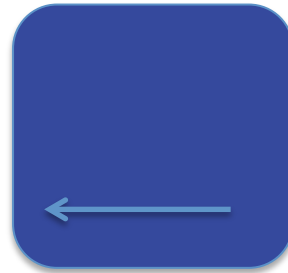
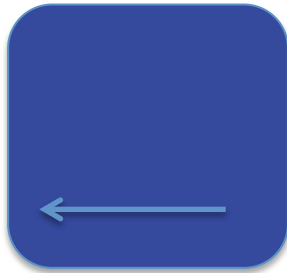
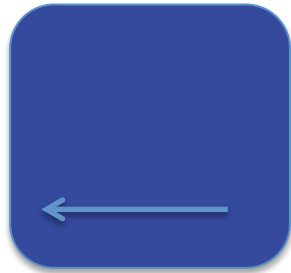




Hotmail

Yahoo

Gmail



} 98%

← 10%

Block rate: 66%

70%



“Does this look risky to you?”



“What type of risk is this
primarily associated with?”



You have exceeded your mailbox quota. Your account will be blocked 8 AM tomorrow unless you request more space. You can request more space by clicking [here](#).



- The recipient may get a computer virus.
- The recipient may lose his password.
- This may be a scam aimed at stealing your money.
- There is no risk.
- The recipient may get unwanted advertisements.
- The recipient's account may be blocked if she does not pay attention.



Correct answer

- The recipient may get a computer virus.
- The recipient may lose his password.
- This may be a scam aimed at stealing your money.
- There is no risk.
- The recipient may get unwanted advertisements.
- The recipient's account may be blocked if she does not pay attention.



Reasonable answer

- The recipient may get a computer virus.
- The recipient may lose his password.
- This may be a scam aimed at stealing your money.
- There is no risk.
- The recipient may get unwanted advertisements.
- The recipient's account may be blocked if she does not pay attention.



Naive answer

- The recipient may get a computer virus.
- The recipient may lose his password.
- This may be a scam aimed at stealing your money.
- There is no risk.
- The recipient may get unwanted advertisements.
- The recipient's account may be blocked if she does not pay attention.



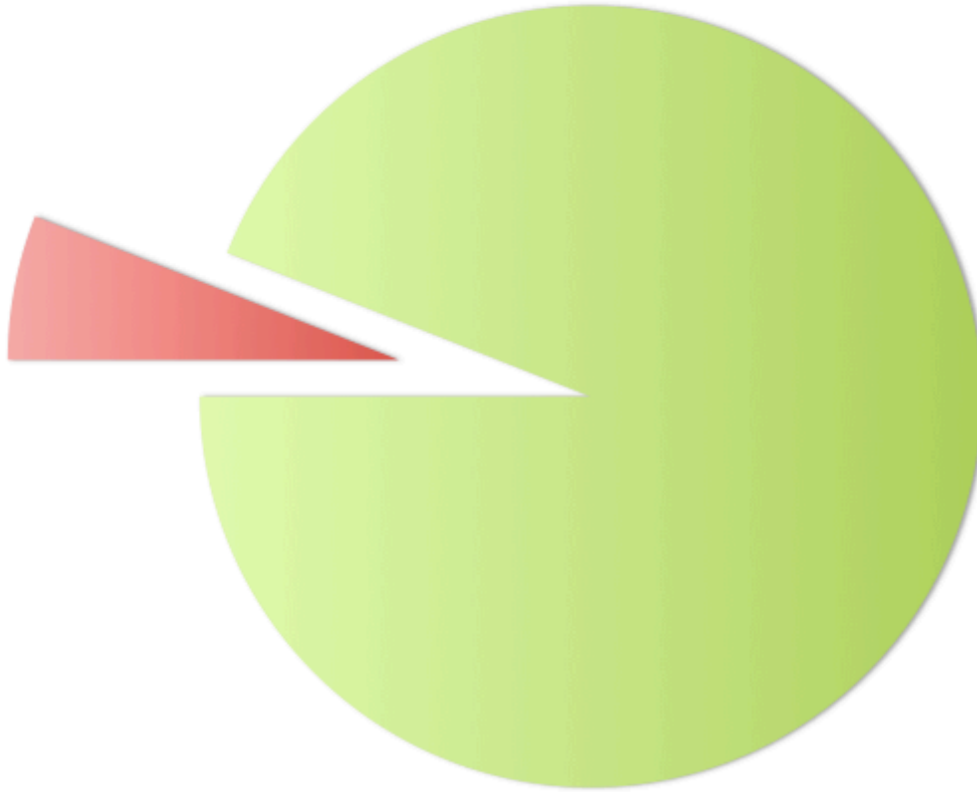
Naïve
(31%)





A “traditional” Nigerian Scam

Naïve
(6%)





Targeted scam with complex structure

Naïve
(56%)





“I know how to spot online scams”

Email security and user awareness

