

security enthusiasts 1990 → onwards innovate threats

script-kiddie 2000 - 2010 automate 'trivial' attacks

economic attacker 2010 → onwards delivery at scale, malware economy

product composition: not a single entity covers all aspects

1. identify victims
2. build infrastructure
3. develop attack
4. distribute payload
5. collect infections
6. monetize

commodification when products are largely undifferentiated

### fraud models

spam

extortion

clickfraud → generate clicks on ad

social engineering

mining

carding / accounts

finance & banking → pump and dump 1. buy stocks 2. make other buy stocks, inflating price 3. sell original stocks  
 → cards → hard to cash out

wareware (e.g. fake antivirus)

PPI (pay per install) → sell access to droppers on pre-infected machines

### easy-access product availability

0.001239 BTC (\$4.86)

risk-based authentication → fingerprinting of users  
 ↳ nowadays sold on markets