


```
I8,      8      ,8I 88      ad88888ba
"8b      d8b      d8" 88      d8"    "8b
"8,      ,8"8,      ,8" 88      ""
Y8      8P Y8      8P 88,dPPvba, 8b      d8      ,a8P"
"8b      d8" 8b      d8" 88P"  "8a 8b      d8"      d8
      8a a8"      8a a8" 88      88      8b,d8"      aa
      8a8"      8a8" 88      88      Y88"      88
      "8"      "8" 88      88      d8"
                        d8"
```

The public perception of hackers has become skewed by creative media.

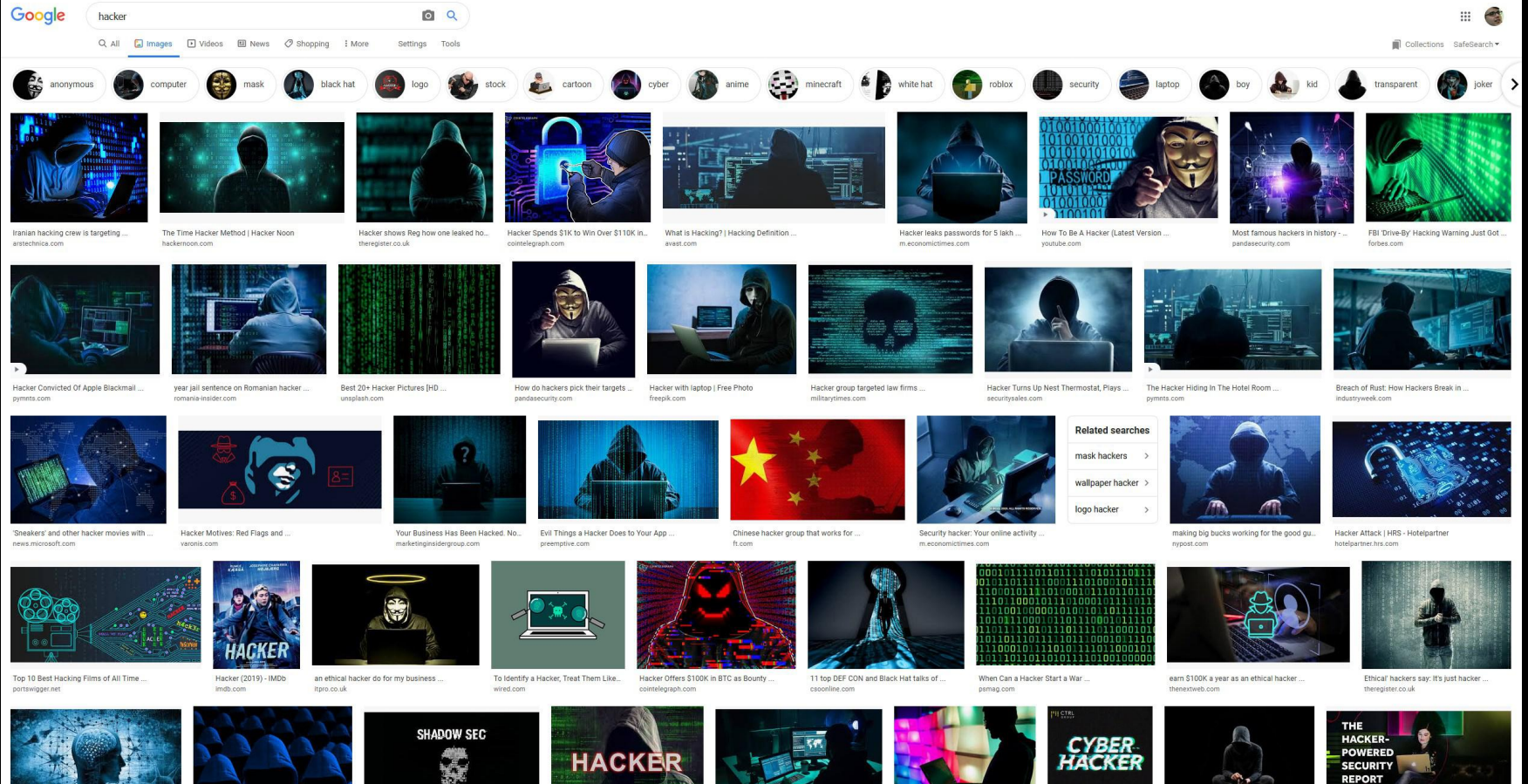
General public is convinced that a hacker is always malicious.

Hackers are normally portrayed as having some form of mental illness.

They are also often portrayed as being loners, and possibly being socially distant.

Such perception is detrimental to those in security as well.

Is this truly the case?



Does taking a Computer centric course make you more likely to be a hacker?

A study by Seigfried-Spellar and Steinmetz in 2015 analysed “computer deviant behaviour” across University majors.

They found no noticable difference in degree majors of deviants and non-deviants.

They also found no significant difference in personality traits, only noting that deviants tended to be less agreeable but not enough to draw a direct correlation.

The only clear correlation was between virus writers and low moral values.

```

,ad8888ba,      88      88
d8""  `8b      ""      ""
d8'      `8b
88      88 8b,dPFYba, 88 ,adPFYb,d8 88 8b,dPFYba,
88      88 88P' "Y8 88 a8" `Y88 88 88P' `8a
Y8,      88 88      88 8b      88 88 88
Y8a.      .a8P 88      88 "8a, ,d88 88 88      88 888
`"Y8888Y""  88      88 `Y8bdP"Y8 88 88      88 888
                        a8, ,88
                        "Y8b8dP"

```

Hacker didn't always mean someone who breaks into a system.

In 2015 Steinmetz conducted a participant observation on a hacker group given the pseudonym “Union Hack”.

The observation was Overt.

Steinmetz also performed content analysis on a Hacker magazine called 2600: The Hacker Quarterly.

Steinmetz derived numerous personal characteristics that make a hacker:

Mentality, Skill, Guilds, Ownership, Transgression.

```

88b      d88      88 88
888b     d888     88 "" ,d
88'8b    d8'88    88      88
88 `8b   d8' 88 ,adFFYba, 8b,dFFYba, MM88MMM ,adFFYba, 88 88 MM88MMM 8b   d8
88 `8b  d8' 88 a8F_____88 88P'  `8a 88 "" 'Y8 88 88 88 `8b   d8'
88 `8b d8' 88 88F"""""""" 88      88 88 ,adFFFFF88 88 88 88 `8b   d8'
88 `888' 88 "8b, ,aa 88      88 88, 88, ,88 88 88 88, `8b,d8' 888
88 `8' 88 "Yb8d8" 88      88 "Y888 "88bd8"Y8 88 88 "Y888 Y88' 888
                                     d8'
                                     d8'

```

What you might expect.

An orientation towards problem solving.

Typically involving an unconventional way of thinking.

Looking to solve problems where other people might not see any.

Not necessarily innate, not “natural”.

Hackers tend to learn their abilities from other hackers.

Steinmetz likened this process to tradeskill guilds.

```

,aad8888ba,      88 88      88
d8""      8b      "" 88      88
d8"        88      88
88      88      88 88 88 ,adPFYb,88 ,adPFYbba,
88      88888888      88 88 88 a8" `Y88 18[  ""
Y8,      88 88      88 88 88 8b      88 `Y8ba,
Y8a,      a88      8a,      a88 88 88 `8a,      d88 aa ]8I 888
      "Y888888P"      "Yb8dPFY8 88 88      "8b8dPFY8" "Yb8dPF" 888

```

Steinmetz observes a tradescraft like hierarchy among the hackers.

Lower Apprentices are “Script Kiddies”
which are being taught by Masters “Hackers”

Whilst conducting interviews it was found that most members of Union Hack had learned their skill through another hacker.

Guilds are also important for recognition.

“No one is a professional thief unless he is recognised by other professional thieves.”


```

,ad8888ba,      88      88
d8""      "8b      88      ""
d8'      "8b      88
88      88 8b      db      d8 8b,dPPYba,      ,adPPYba, 8b,dPPYba, ,adPPYba, 88,dPPYba, 88 8b,dPPYba,
88      88 "8b      d88b      d8' 88P'      "8a a8P      88 88P'      "Y8 I8[      "" 88P'      "8a 88 88P'      "8a
Y8,      ,8P      "8b d8'8b d8' 88      88 88P"""""""" 88      "Y8ba, 88      88 88 88      d8
Y8a.      .a8P      "8bd8' "8bd8' 88      88 "8b,      ,aa 88      aa      ]8I 88      88 88 88b,      ,a8" 888
      "Y8888Y""      YP      YP      88      88      "Y8bd8" 88      "Y8bdP" 88      88 88 88"Y8bdP" 888
      88
      88

```

After developing skill, the newbies can become Hackers.

They do this by developing hacks of their own.

```

000000000000
00
00
00 0b,dFFYba, ,adFFYba, 0b,dFFYba, ,adFFYba, ,adFFYb,d0 0b,dFFYba, ,adFFYba, ,adFFYba, ,adFFYba, 00 ,adFFYba, 0b,dFFYba,
00 00p' 'ys "" 'ys 00p' 'sa IS[ "" as" 'ys 00p' 'ys as 00 IS[ "" IS[ "" 00 as" "sa 00p' "sa
00 00 ,adFFFF00 00 00 'Yba, 0b 00 00 00p' 'Yba, 'Yba, 00 0b d0 00 00
00 00 00, ,00 00 00 aa ISI "a, ,d00 00 "0b, ,aa aa ISI aa ISI 00 "a, ,as" 00 00 000
00 00 "0bbdP"ys 00 00 "YbbdP" "YbbdP"ys 00 "YbbdP" "YbbdP" "YbbdP" 00 "YbbdP" 00 00 000
aa, ,00
"YbbdP"

```

Steinmetz also identifies that eventually these hackers have to perform “Acts of Transgression”.

Steinmetz however doesn't explicitly say what this means, and leaves it at performing their own hacks.

Whether this is a malicious hack or not seems to be left in the open.

```
00000000ba, 00 00
00  "sb "" 00
00  'sb 00
00  00 00 ,adPPYba, ,adPPYba, 8b,dPPYba, ,adPPYb,00 ,adPPYba, 8b,dPPYba,
00  00 00 IS[ "" a0" "0a 00P' "Y0 a0" 'Y00 a0P_____00 00P' "Y0
00  0P 00 "Y0ba, 8b d0 00 8b 00 0PP"""""" 00
00 ,a0P 00 aa ]0I "0a, ,a0" 00 "0a, ,d00 "0b, ,aa 00 000
00000000Y"" 00 "Yb0dP"" "Yb0dP"" 00 "0b0dP"Y0 "Yb0dS"" 00 000
```

Interestingly there isnt a whole lot of study into disorders among hackers.

Siegfried and Spellar (2014) study the presence of hedonism, but this isnt necessarily a disorder.

Ledingham and Mills (2015) analysed a noticable rise in cases of Autism among arrested Cybercriminals.

They found very little to suggest this was actually true.

Siegfried and Spellar conducted another study in 2015 on Autism among hackers, and found nothing conclusive.

```
888888888ba      88      88
88      "8b      ,d      ""      88
88      ,8P      88      88
88aaaaaa8P' ,adPPYYba, MM88MMM 88 ,adPPYba, 8b,dPPYba, ,adPPYYba, 88 ,adPPYba,
88""""88' ""      `Y8 88 88 a8"      "8a 88P'      "8a ""      `Y8 88 a8P_____88
88      `8b ,adPPPP88 88 88 8b      d8 88      88 ,adPPPP88 88 8PP""""""
88      `8b 88,      ,88 88, 88 "8a,      ,a8" 88      88 88,      ,88 88 "8b,      ,aa 888
88      `8b ""8bbdP"Y8 "Y888 88 ""Y8bdP" 88      88 ""8bbdP"Y8 88 ""Y8bd8"" 888
```

why do hackers do what they do?

Woo et al (2004) performed content analysis on 770 defaced webpages, they found most of them (71%) were pranks and the others (23%) were Militant.

Silic and Lowry (2019) interviewed Black Hats.

They found that they tended to convince themselves they weren't hurting people.

They also refused to acknowledge possible danger.

They all stated that they had a "Plan B" just incase.

```

,ad8888ba,      88      88
d8"" "" "8b      88      ""
d8'      88
88      ,adFFYba, 8b,dFFYba, ,adFFYba, 88 88      88 ,adFFYba, 88 ,adFFYba, 8b,dFFYba,
88      a8" "8a 88P' "8a a8" "" 88 88      88 I8[ "" 88 a8" "8a 88P' "8a
Y8,      8b d8 88      88 8b      88 88      88 "Y8ba, 88 8b d8 88      88
Y8a.      .a8P "8a, ,a8" 88      88 "8a, ,aa 88 "8a, ,a88 aa ]8I 88 "8a, ,a8" 88      88 888
""Y8888Y"" ""Yb8dP"" 88      88 ""Yb8d8"" 88 ""Yb8dP'Y8 ""Yb8dP"" 88 ""Yb8dP"" 88      88 888

```

Hackers are a lot more complicated than what the stereotype makes out.

But this doesn't mean there aren't hackers who fit the stereotype.

What constitutes a hacker quite obviously changes from person to person.

Just as every person in the world is uniquely different, so are hackers, right down to motives, characteristics, and flaws.

Study into why hackers do what they do is underexplored, and needs more work.

```

,ad9999ba, 88
d8"" ""8b ,d ""
d8' '8b 88
88 88 88 88 ,adPFYba, ,adPFYba, MM88MM 88 ,adPFYba, 8b,dPFYba, ,adPFYba,
88 88 88 88 88 a8P_____88 I8[ "" 88 88 a8" "8a 88P' ""8a I8[ ""
Y8, "88,"8P 88 88 88P" "" ""Y8ba, 88 88 8b d8 88 88 ""Y8ba,
Y8a. "Y88P "8a, ,a88 "8b, ,aa aa ]8I 88, 88 "8a, ,a8" 88 88 aa ]8I 888
"Y88888Y"Y8a ""YbbdP"Y8 ""Ybbd8"" ""YbbdP"" "Y888 88 ""YbbdP"" 88 88 ""YbbdP"" 888

```