95 Theses about Technology

Triggers for conversations about our networked world

The Theses

Remember that the purpose of a thesis is to start a discussion. A thesis is not a conclusion, or a conviction, but an assertion that's designed to get people talking. It may be right or wrong. In fact sometimes wrong theses are the most productive.

If a Thesis is a clickable link, then it will open an explanatory page. Eventually all theses will have such pages.

1: Digital technology is significantly different from other technologies

2: Kranzberg's First Law of technology rules OK

3: Technological progress is not linear, but exponential. That's why we find it hard to cope with it

4: The Internet is an architecture for 'permissionless innovation'

5: Facebook is not the Internet. Nor is Google. Nor is the World Wide Web.

6: June 2007 was a pivotal moment in the evolution of the networked world

7: Free software is what keeps the networked world going

8: Cloud computing is heating the planet

9: Winners take all in digital markets

10: Surveillance is the business model of the Internet

11: Think of Google and Facebook as if they were ExxonMobil and Glencore

12: If the service is free then you are the product

13: Cui Bono? (Who benefits?) is the first question you should ask before signing up for a 'free' online service

14: Surveillance capitalism is not sustainable in the long run

15: Your smartphone is a slot-machine in your pocket

16: The Internet dissolves value chains

17: In an age of digital abundance, attention is the really scarce resource

18: The free market was always an illusion. In Cyberspace it's a fraud

19: The technical is political

20: Facebook is not a public space. Nor is it Speaker's Corner

21: Surveillance capitalism is undermining democracy

22: Digital technology fuels economic inequality

23: The gig economy is creating a new class — the precariat

24: Robots that replace human workers should be taxed

25: The only three regimes that really understand the Internet are the Russian, the Chinese — and the North Korean

26: The Internet could become a new kind of failed state

27: Social media are double-edged swords – tools for political mobilisation, but also tools for identifying and tracking dissidents

28: Most Internet private fortunes have been built on technology that was funded by taxpayers

29: Algorithms are opinions formalised in code

30: There is no technical fix for human failings, especially credulity and ignorance

31: Surveillance chills

32: The rhetoric of 'creative destruction' tends to downplay the destruction

33: The Internet changes the nature of the firm

34: Technopoly is the new secular religion of the West

35: Technocracy is the prevailing ideology of Silicon Valley

36: Joseph Schumpeter is the patron saint of digital technology

37: 'Solutionism' is the besetting obsession of the tech industry

38: The tech giants love startups the same way that Orcas love baby seals

39: Companies that are indifferent to democracy have acquired an outsized role in it.

40: Online licence agreements create grotesquely tilted playing fields

41: Much of what is regarded as acceptable in cyberspace would be unthinkable in the physical world

42: Algorithms which affect human lives should be treated (and regulated) like pharmaceutical drugs

43: The only governments capable of controlling the tech giants are authoritarian regimes

44: 'Don't be evil' is a strange motto for an extractive company

45: Google has become a memory prosthesis for humanity. Shouldn't it then be treated as a public utility?

46: The 'Right To Be Forgotten' is really just a right not to be found by a search engine

47: Most dominant digital technology is created by tiny elites with highly skewed ethnic, economic, gender and social demographics

48: The Black Box society is not an acceptable future for humanity

49: Internet companies have social responsibilities that they are neither recognising nor accepting

50: Everyone has a right to a private life

51: ‘If you have nothing to hide then you have nothing to fear’ is a false and unscrupulous argument

52: Privacy is both a private and a public good

53: The joke that “On the Internet, nobody knows you’re a dog” no longer works

54: Privacy and secrecy are different concepts. Don’t confuse them

55: Keeping secrets is the way we preserve our privacy

56: End-to-end encryption of every electronic communication should be mandatory

57: Having a device like Amazon’s Alexa is like welcoming a CCTV camera into your home

58: There is no such thing as a completely secure networked device

59: Forget the threat of ‘superintelligent’ machines. The ‘weak’ AI we have now is problematic enough.

60: ‘Given enough eyeballs, all bugs are shallow’.

61: Our networked world is alarmingly fragile

62: On the Internet, attack is always easier than defence

63: All software has bugs and all computers are therefore hackable

64: The ‘Internet of Things’ is a security and privacy nightmare

65: There are two kinds of companies: those that have been hacked; and those that don’t know yet that they have been hacked

66: Connecting an unprotected computer to the Internet is like driving a car that has had its brakes removed

67: Hacking pays big dividends. Just ask the Russians

68: Only stupid criminals operate offline

69: For most Internet users, convenience trumps everything — except price

70: Ashby’s Law of Requisite Variety Rules OK

71: Social media platforms are not politically neutral entities, even when their owners claim that they are.

72: The biggest problem with digital technology is that the pace of its development greatly exceeds society’s capacity to adapt to the changes it brings

73: Technology is the art of arranging the world so that you don’t have to experience it

74: We always over-estimate the short-term impact of new technologies — and greatly under-estimate their long term effects

75: Apps like Snapchat show that the medium really is the message

76: The Internet is the first machine humans have built that humans don’t understand

77: Social media are performative spaces

78: The Internet is morphing into billion-channel TV

79: For Amazon, books are just commodities — like toothpaste

80: Copying is to digital technology as breathing is to animal life

81: The choice facing our children is: program or be programmed

82: The secret to success in online business is to pay attention not to what your users say but to what they actually do

83: We should learn from the wisdom of Wikipedia

84: The Internet holds up a mirror to human nature. And much that we see in that reflection is troubling

85: Our networked media ecosystem is orders of magnitude more complex than anything that preceded it

86: The language of digital capitalism is Orwellian

87: Silicon Valley is a Reality Distortion Field

88: Internet giants are essentially massive firms that "warp the fabric of economic, political and cultural life to their own advantage"

89: Citizens of our networked world live in a constant state of 'informed bewilderment'.

90: Digital technology is changing the structure of our brains

91: The Internet has been good for creativity and bad for copyright

92: The Internet may turn out to be just the terminal phase of the 'Gutenberg Parenthesis'

93: Facebook is many things, but a 'community' it ain't

94: Arguments about whether the Internet is a good or a bad thing are as pointless as arguments about whether or not oxygen is a good thing.

95: We should be aiming for Intelligence Augmentation (IA), not Artificial Intelligence (AI)