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How is the Internet different from previous communications technologies?

At its core, the Internet is primarily a way to communicate with others. Whether by communicating directly on social media or sharing information in an online journal, the Internet's primary purpose is communication. Each technological revolution has brought massive social changes alongside it, and the Internet is no different. However, the Internet differs from previous technologies — it creates mass movements starting with the people in a bottom-up fashion, rather than top-down movements of the past.[1] The Internet can do this because it differs from all previous communications technologies: it has the ingredients to make the variable barrier to communicating with the entire world zero, allowing communication to scale infinitely. Furthermore, the Internet is currently much more decentralized than other networks, making content regulation much more difficult for governments.

The Internet acts as one network;[2] simply, it is a network of networks. Since its inception, the Internet has developed and enforced standards for structuring and sending information, allowing for clear communication between all nodes on the Internet. The widespread use of HTML means that search engines can conveniently find information to display, and the TCP/IP protocol allows all data to travel in a standardized way. Other forms of communication do not parallel the Internet's intentional standards. For instance, there are countless languages; while they can share similar building blocks and there are ways to translate between languages, the transaction cost of translation makes worldwide communication more difficult than sharing information on the Internet. Thus, the Internet's standardization and interconnectedness allows

[1] Slide 40, 25 January 2023 Lecture
[2] Slide 46, 23 January 2023 Lecture

information to travel seamlessly across countries and continents, allowing everyone to communicate with everyone else.

This network is also accessible to everyone; to connect to the Internet, all someone needs is a device with Internet capabilities and an Internet connection.[3] While this low cost of admission is not the cheapest of any communications technology, the reward is massive: connecting to the Internet gives anyone access to a global communications network. The variable cost of communication is zero, which changes the Internet from every other communications technology, as previous technologies all had some variable cost to reach more people.[4] Printing has a variable cost; to communicate with more people with books or newspapers, someone must physically manufacture more, which costs time and money. Telephones also have a variable cost: someone must call people to reach them. The Internet refutes this idea — all someone needs to do to communicate with everyone with access to the network is to post once and hope people read it.

Moreover, the Internet is a decentralized system. The Internet contains every dimension of our lives,[5] and because of how expansive it is, governments cannot fully control it. Instead, content is regulated by the platform, and with infinite platforms, anyone can participate in any type of communication.[6] Other technologies are not so open. As an example, books can be censored and regulated by governments, who direct sellers to withhold them from customers. The Internet allows people to communicate without this fear, and thus further cuts the barrier to communicate with anyone and everyone.

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[3] Slides 2-4, 2 February 2023 Lecture
[4] Slide 26, 18 January 2023 Lecture
[5] Pages 303-304, *The Master Switch* (Tim Wu)
[6] Slide 4, 6 February 2023 Lecture

Thus, the Internet differs from all previous technologies because of its infinite scalability and decentralization. Since the Internet is one network, the cost of entering is all someone must pay to reach everyone else on the network. Because of this, communicating on the Internet is infinitely scalable. Moreover, governments cannot regulate content for political reasons on the Internet, for it is too vast to control. Governments can control the physical cables of the Internet, but governing the specific content of the internet is incredibly difficult. Unlike previous technologies, this affects how people call for change; mass movements originating from the people are much more feasible, as anyone has the entire world at their fingertips. Other technologies could be limited to stall mass movements — not the Internet.