

ICT: Informations and Communications Technology

- **News Media (Mass Media):** *Necessarily one-way communication*
 - Newspapers, radio, and television
- **Social Media:** *Necessarily two-way communication*
 - Process of information exchange enabled by ICTs using platforms built upon the internet.
 - Not only alters how we communicate, but also "what" we communicate.
 - Ex: Cell Phone, Facebook, E-Mail, etc.

Mediums of Social Media:

- The fastest growing medium of social media over the last twenty years has been cell phones (4.1 billion subscriptions in 2008).
- The second fastest being the internet in terms of growth.
 - Over the maturity of the internet, 80% of internet content was in the english language, whereas now, only 30% is in english.
- **Knowledge Economy:** Information is seen to be a valuable commodity that is bought and sold. The value of information is having a tremendous impact on what we do and how we do it, as it relates to emerging technologies.

Neil Postman's Five Things We Need to Know About Technological Change:

- 1) There is always a trade-off with new technologies.
- 2) **Digital Divide:** The emergence of new technologies increases the divide between those who have access to it and those who do not have the infrastructure to afford it.
 - Access to new technologies is high in urban centres, whereas it is harder to access in remote areas.
- 3) Imbedded in all technologies are culturally contingent assumptions on how we all (people) behave.
- 4) Technological change is not "additive" but "ecological" or "accumulative."
- 5) Technology is not "god-given," it was created by humans. Technology adapts to our needs and not the other way around.

Old Media & New Media - Learning Objectives:

- 1) To highlight "communication" as among the most significant attributes of being "human."
- 2) To highlight that the technologies we see today are rooted in the technologies that preceded them.
- 3) To create a linkage between the role of the internet today and our past experiences with traditional media.

"At the core, media is communication and how we communicate is something that is uniquely human."

- Nicholas Carr says, in the context of communication, that reading is not a instinctive skill in the same way that speech is.
- Naom Chomsky argues that we are hard wired for communication.
- Our brains have evolved to a capacity to understand any language.
 - This points to the fact that communication is central to the human existence.
- We can also go on to argue that all languages share something in common. **Language is the essence to our humanity.**

Media Mediates Communication:

- As a mediator of communication, media influences not only how we communicate, but what we communicate.
 - Example: Tweets on Twitter have a max. character limit of 140. That dictates what you communicate and how.
- **Neil Postman:** We are always grappling with the same problems that we have always been grappling with, and it is important to recognize that there is something important in our past as to how we dealt with them.
 - We have new technologies that appear to be changing everything, but at the same time, we have the same issues that we are dealing with as humans.
- Our reliance on these technologies and how we use them has increased dramatically.

"The new technology will bring every individual into immediate and effortless communication with each other, practically obliterating political geography, which makes free trade universal. There are no longer any foreigners and we can look forward to the gradual adoption of a common language." - **Cosmopolitan (1890s) about the Telegraph.**

- This statement over-emphasizes the relevance of our reliance on new ICTs.
- Technologies will never remove the political geography of the nations around the world.
- This statement also assumes that everyone has access to the necessary technology.

SOC 3116 - Societies, World, and Technologies

Lecture #3

"The new technology will bring every individual into immediate and effortless communication with each other, practically obliterating political geography, which makes free trade universal. There are no longer any foreigners and we can look forward to the gradual adoption of a common language." - **Cosmopolitan (1890s) about the Telegraph.**

Was the introduction of the telegraph more disruptive than the internet?

- The printing press predates the introduction of the telegraph (1440). The printing press was the first time we could reproduce text at more than a 1:1 ratio (revolutionary technology).
 - The first form of Mass Media
- In terms of electronic media, the telegraph (introduced in the 1850s) became the first ICT. The printing press was not an ICT (it was operated manually).
- The telegraph introduced instantaneous communication (morse code). Morse code was the first ever recognized digital language.
 - Ex: SOS = . . . - - - . . .
- The telegraph was revolutionary not only in terms of **speed**, but also in terms of **distance**. Instantaneous communication over any distance.
- The telegraph enabled two-way communication.

Summation of the Telegraph:

- 1) Instantaneous communication
- 2) Over any distance
- 3) Enabled two-way communication
- 4) Enabled the creation and connection of networks.
 - The value of the network = the square of the number of nodes in the network.

Significance of Telegraph:

- Before the telegraph, railway companies had to use (twin tracking), which would allow them to have some transmission of communication between the cities.
 - With the introduction of the telegraph, railway companies were able to increase their efficiency/effectiveness, through instantaneous communication.
- **Unanticipated Consequence:** The impact that is over and above the obvious impact. The telegraph had an unanticipated consequence on the transportation industry.
- The telegraph changed the daily news by introducing "breaking news."
 - We naturally assume that there is a higher value in getting more information sooner than later. This reacts as a disservice when different publications try to break the news first. Accuracy (fact checking) and Analysis (taking the time to broaden the information) become issues.

Digital vs. Analog Communication:

- **Analog Communication:** A signal that is analogous to a single source. To say analogues means that it stays the same, which means that analog communication is sent from the same medium. Ex: Vinyl
- **Digital Communication:** A signal that is abstracted from its source (bears no resemblance to the original source). Ex: CD

Electronic Exchange Switch: Revolutionized the telecommunication industry, by replacing the operator-based networks.

- Attempted to connect telephone calls without any human intermediary.
- Had a social impact by connecting different social groups.

Radio: Revolutionary because it didn't have a wired connection. Only wire needed was for power.

- Established a new benchmark that informs our use of media today. That benchmark relates to a contract that we come to accept: **"in our consumption of media, we accept advertising in exchange for free information."**
- The money made in the business transferred from selling the unit to the transmission of the signal and the advertising that came along with it.
- Radio was a step back from the telegraph because it was only a one-way signal.

Television: Introduced at the time where radios were in every household.

- **CRTC:** Canadian Radio-Television and Telecommunications Commissions

Traditional Media and Contemporary Society:

Learning Objectives:

- 1) To link the role of media and society to the found precepts of a democratic society.
- 2) To affirm the role that complete, accurate, and timely information has in supporting the effective role of citizens in a democratic society.
- 3) To underscore that media operate in a context that reflects a variety of interests, some of which are not in the public interest.

Categories of Traditional Media: Commercial media and State-run, public, or alternative media.

- **Commercial Media:** Media that exists for profit.
- **S/P/A Media:** British Broadcasting Channel (example).

Genre of Media: Advertising is not a genre of media

- **News & Information:** Commercial media.
- **Entertainment**

"Media is like a mirror. It reflects back onto us what we see in the world." / "Media(s) are like a window to the world."

- These arguments/metaphors suggests that media is neutral.
- Media forms construction and representation of the world around us.

Jurgen Habermas: "The Structural Transformation of the Public Sphere."

- Sought to link media and modern society through the concept of the "public sphere."
- **Public Sphere: "A neutral zone where access to information affecting the public good is widely available, discussion is free of domination, and all those participating do so on an equal basis."**
 - That's the place where citizens get what they need in order to act on the democratic aspect of their society (to vote for example).
- He traces the emergence of the public sphere back to the 1700s. People would go to coffee houses, sit around, and converse about issues. The participants were wealthy men, who were considered equals among one another.
- He questioned whether modern media adequately fulfill the role of a vibrant public sphere? His answer: no.
 - He argues, along with others, media actually has three functions to play in a democratic society.
 - (1) Source of public information; (2) role of a public watchdog; (3) role of a public representation.
- **Problem:** When institutions who are responsible for the distribution of media act as a business. To exist in a commercial marketplace, you must be competitive; and to be competitive, you need to make a profit.
 - Media is supposed to operate in "public interest," but institutions know that profit (personal interest) must exceed public interest.
 - With profit is a driving motive for the media, we are no longer "citizens," but instead "consumers;" and when we become consumers, we share a lot less with one another.
 - When we are defined as consumers, we only have as much power as we do dollars.
- In terms of citizenship, we are not distinguished from one another. We are considered equal.

Lecture #4

Because mass media is a mediator between our perception and first-hand experience, our view of the world is a curated view that benefits the media.

- This is why it is important for us, as people in the world, to take a step back and question the information that is given to us by the media.

“The News”

- The news dictates what events are important enough to be broadcasted in the media.
- One of the factors that dictates what is good news or headlining news depends on which events have a variety of multimedia to accompany it (photos, videos, etc.)
- **There is nothing that supports the “public interest.” The purpose of this news format is strictly for the selling of newspapers and viewer ratings.**
- **Noam Chomsky:** The beauty of the news format is the fact that you can't really say anything new on the television.
 - o You can't say something new because it's reasonable for viewers to expect evidence.
 - o The problem here is “concision,” which means you need to get to your point quickly.
- The idea of “impartial news” is antithetic to asking questions.
 - o Objectivity leads to description but not analysis.
- **Conclusion:** We have effectively traded off speed for analysis.

80/20 Rule: Refers to the fact that most people being exposed to a story in the news read the article in the same way and generally draw the same conclusion.

- 80% take to the preferred reading of the story
- 20% take to an alternative reading of the story

What does Media Sell?

- Information, graphic images, entertainment, political agenda, etc.
- **What is the primary product of media?** Something they create for advertisers: **Audience**
 - o Media → Advertising → Consumer of Media
 - o We are the product that Mass Media creates

Noam Chomsky – Discussion Questions:

1. What is Chomsky's central thesis about the role of media in North American society? Why is this controversial? How does he allege that this role is carried out?
2. How does media set the framework for news?
3. How does Noam Chomsky characterize the role of journalists working for mass media?
4. What are some examples of “news values”?
5. How does Noam Chomsky reply to the allegation that his is a “conspiracy theory”?

Lecture #4

Internet & Mobile Media:**Learning Objectives:**

1. To underscore the unique conjunction that the Internet embodies with the emergence of ICTs.
2. To consider the ways in which our reliance on technology may have unanticipated consequences.

Textbook Highlights:

1. Page 53 “the empowering nature of being digital... globalizing, harmonizing, and empowering.”
 - Technology is not a force of nature. We should shape technology; it should not shape us.
2. Page 53 “Co-Founder John Perry... since the capture of fire.”
 - There are no ends to the platitude that tell us how significant the Internet is.
3. Page 54 “takes it orders from technology.”
 - We are slaves to technology.
4. Page 57 “For example... household washing machine.”
 - Culturally contingent assumptions.
5. Page 61 “every act of communication... as its necessary condition.”
 - We make meaning through one another through a common language.
6. Page 63 “McEwan would argue that technology shapes people. Williams argues that it is a feedback loop.”
7. Page 67 “But the technology will not in itself fulfill this potential... live up to its potential.”

Internet and ICTs:

- **Information:** Printing press, newspapers, radio, and TV (one-way)
- **Communication:** Printing press, telegraph, electric exchange switch, and telephone (two-way)
- **Internet:** The Internet is the middle ground between information and communication.

Unanticipated Consequences of Mobile Technology: We always have it with us, so we inadvertently tend to use it more because its there.

Lecture #5 “Social Networks”

Learning Objectives:

1. To highlight that (social) networking is both a response to and result of the technology that we have at our disposal.
2. To recognize that today’s networks have tremendous economic value that flows to others, rather than to a network.
3. To underscore that contemporary social networks provide industry with an abundance of info about us – info that we often perceive as private or personal.

Social Networks:

How to Distinguish a Network from a Group? In the context of a system of nodes being connected, the difference between a network and a group is as follows:

- **Network:** You don’t know everyone in the network.
- **Group:** You know everyone in the group.

Social Capital: The expected collective or economic benefits derived from the preferential treatment and cooperation between individuals and groups

- The more hubs/nodes/people in your network, the greater the value of your social capital.

Technical Challenge – How to Control Spam:

- **Spam:** The use of electronic messaging systems to send unsolicited bulk messages, especially advertising, indiscriminately.
- Our challenge now is weeding through the multitude of messages we get everyday.
 - o 10% of all Facebook accounts are fraudulent.

Why do People want Access to Your Account? They know the value of your identity.

- Facebook is paid to sell us to advertisers. Just like the news, the primary product of Facebook is an audience.
- We assess online social interaction based on the mistaken belief that it’s there to serve our needs – when it’s not!
 - o The information you put on Facebook is not your information; it belongs to Facebook.

Information Economy: Context where we see ourselves operating in unlimited volumes of info.

- We want to be situated socially, professionally, politically, and academically in so many contexts.
- Our opting into a network is a way of signaling that this is something we are interested in.

Social Networking & Web 2.0: The introduction of Web 2.0 and user-generated content made it possible for users of the Internet to contribute to their own websites like Facebook, YouTube, Twitter, and LinkedIn.

- This innovation, maybe even revolution, is what has made individuals like Marc Zuckerberg (founder of Facebook), to become extremely wealthy (**Second Learning Objective**).

Lecture #5 "Social Networks"

Google: Google also sells audiences to advertisers.

- The important thing to consider about all of these Internet giants (such as Facebook, Google, etc.) is that they are all businesses (many of which are public corporations).
- As public corporations, their primary motive is to increase the wealth of the shareholders.

Prior to the Internet: Collectively speaking, we are about as well off in the planet.

- In the environment that we live in now – particularly in democratic countries – we are under a greater obligation as citizens to pay attention.
 - o **Complicity:** Knowing, but not caring.
- **Are we Better Informed?** Research says we are not because we are not taking advantage of the full potential of the Internet.
 - o We are using the Internet and its applications for convenience and entertainment because it's easier and fun.

Example from Clint Smith: In terms of Bin-Laden escaping for so long with the prevalence of online social networks, he was still able to exert in many parts of the world messages of terror.

- Al-Qaeda highlight three facets of networks:
 1. Use of networks to disseminate messages to widely build support.
 2. Ability to capture attention to existing networks.
 3. Ability to operate in structured manner based on horizontal and decentralized bases premised on distinct cells or networks that operate autonomously.

Lecture #6 “AI and the Knowledge Economy”

Learning Objectives:

1. To problematize our notion of “intelligence”
2. To reassess the extent to which “knowledge” is at the core of our economy
3. To highlight that the Internet is transforming our society into one that has lots of info but lacks the skills to apply it

What is Intelligence?

- **Intelligence:** The ability to acquire and apply knowledge and skills.
- How objective are we when we make claims of intelligence?
 - o A Nobel Prize winning scientist would likely get a higher score on an IQ test, but does that make him more intelligent?
- **Objective Tests for Intelligence:** IQ test, grades, literacy, and formal education

Elements of Intelligence:

1. **Communication:** Capacity to communicate in a matter that is rich and meaningful.
2. **Self-Esteem:** To be able to think about oneself based on a stock of knowledge and experience that one has accumulated.
3. **Abstraction:** Refers to the idea that we can think about things by thinking about other things and making the linkages (ex: the use of metaphors).
4. **Making Linkages:** The ability to link different ideas and information and to draw meaningful conclusions based on those associations.

These elements are unique to humans only. No other animals can do this.

Are We Digital Dummies?

1. How effectively do you feel you deal with competing pressures for your attention?
 - There are 3 billion telephone users, 1 billion computer users, 13 million Canadian Facebook users, and computing has only been around since the 1980s.
 - **Jack Gruskcow** made advances with e-mail and flattened communication.
 - **If you want to be included, you have to be connected.**
2. Are you a good multi-tasker? On what basis can you critique this concept?
 - Test results concerning people’s abilities to multi-task while driving led to the conclusion that we are “**task switching**” not multi-tasking.
 - Compelling evidence shows that we are only good at doing one thing at a time.
 - An always-online work ethic can be bad for businesses, as it tends to lead to burnout.
 - o 40-hour workweeks turn into 70-hour workweeks with a phone, which leads to decreases in life satisfaction, marital conflict, etc.
3. To what does inattentive blindness refer?
 - **Inattentive Blindness:** The failure to notice an unexpected stimulus that is in one's field of vision when other attention-demanding tasks are being performed.
 - This typically happens because humans are overloaded with stimuli, and it is impossible to pay attention to all stimuli in one's environment.
 - In the video experiment with the clown, only 70% of the students saw the clown on the unicycle. The other 30% who didn't were too engaged with other stimuli.

Lecture #7 "AI and the Knowledge Economy"

Three Factors of Intelligence: (1) Prevalence of ICTs; (2) Globalization; and (3) Increase in the value of information.

- These factors are both independent and interdependent → they are unique.

Knowledge Economy: A system of consumption and production that is based on intellectual capital. The knowledge economy commonly makes up a large share of all economic activity in developed countries.

Are We More Knowledgeable?

- In today's society, we have more refined ways of talking about the same thing. The knowledge economy refers to an increase in the area of "smart" technology.
- Are we more knowledgeable than people from the 1960s?
 - o We are essentially the same, but we have access to more information.
- Not only do we have access to more information, but also we are able to communicate the information better.
- **We are now in a better position to both require and deploy information within the context of the global knowledge economy.**

Three Problems (Flew & Smith):

1. **Misinformation:** Information that is wrong.
2. **Disinformation:** Information that is deliberately inaccurate (misleading).
3. **Excess of Information:** We don't know what information is important.

Sheldon Unger: Our response to excess information.

- **Information Rich:** We have all the information we want and therefore we are empowered by that information.
 - o We can make a decision that is well informed.
 - o Google presents itself in this way (a response that there is so much information and that it is not organized).
- Our response to so much information is to reject it.
 - o **We should become information adverse.**

Important Questions: (1) How do we distinguish between quality information and information that is wrong or inaccurate? (2) Are we all able to utilize the information we can access?

- **Example:** We all have access to recipes online, but this does not tell us anything about whether we are actually able to cook.
 - o Having recipes does not give us the skills to cook.
- **Just because we have access to information, it doesn't mean we can do something with it.**

What do We Mean when We say We Live in a Knowledge Economy?

- We can sell information.
- Information becomes the highest valued commodity.
- We are at a loss when we apply this information.

Lecture #7 "AI and the Knowledge Economy"

The Revolution Will not be Tweeted: In looking at people who support a cause online and looking at how much financial support they give it, it came down to nine cents per person.

- The commitment to support something online doesn't mean that the supporter will actually donate.
- They have access to the info, but it doesn't mean they will do anything with it.

Chaos-Wisdom Continuum: (1) X-axis → amount of processing (info); (2) Y-axis → usefulness of info.

Five Grades of Information:

1. **Chaos:** Where axis' intercept (ex. Phonebook).
2. **Data:** Random names and numbers
3. **Information:** Phonebook is in alphabetical order.
4. **Knowledge:** Phonebook doesn't contain knowledge (ex. Person uses phonebook to make a call).
5. **Wisdom:** Temporal element → time. **Wisdom is knowledge over time.**

Information as a Commodity:

- You can sell data, but it's not worth as much as information.
- **You can't really sell knowledge.**
- The knowledge economy is both an **apex** and **ceiling** of what we can do.
- **Knowledge Society:** Information is the most highly valued commodity.
 - o Information has proprietary value – it has value when someone owns it.
 - **It only has value because others don't have it.**

Information is Unique as a Commodity:

1. **Inconsumable:** Not depleted after its use.
2. **Transferable:** It can be duplicated and shared very easily.
3. **Indivisible:** Info must be transferred as a whole entity to have meaning.
4. **Accumulative:** Adding information together increases the overall value.

Intellectual Property: Copyright, patents, trademarks, and licensing.

- The Google algorithm is the most expensive piece of intellectual property on the planet.
- Much of the information that truly matters is **owned** and we can only get access to that information by paying for it.
 - o If all the information is available online, then it's not going to have any value.

Lecture #8 "AI and Internet Law, Policy, and Governance"

Question: Are we now more intelligent now than we were before?

- **Answer:** No definitive answer, but this question is a questions we should continue to consider as we continue to rely on ICTs.

Artificial Intelligence:

- **Extreme:** Machines that have the capacity for subjective thinking or self-awareness.
- **General:** "Smart" machines.
- **Late 1997 – Deep Blue (IBM Computer):** Deep Blue narrowly beat the best chess player in the world.
- **February 2007 – Watson (IBM Computer):** Computer used in three Jeopardy matches faced against the two greatest Jeopardy champions.

Watson – Jeopardy Video: The video was *promoting* super computers.

- The effort is made to humanize Watson by focusing on the people behind the computer.
- **The Toronto Error:** US Cities → America → North America (where North America is a subset of America).
- **The Problem:** Whether a machine will ever be able to be take over human mental capacity. It is the belief that they will, that is the problem. Because we believe this, we are preparing to devolve our own decision making to computers.
 - o Tonio Sadik → Do not believe this.
- Will we be forced to look to computers as an occupational requirement in the future?
 - o Ex: Doctors foregoing their own judgment in light of what the computer chooses.
 - o Ex: Same example as above, but with Judges.

Internet Law, Policy, and Governance:**Learning Objectives:**

1. To highlight the manner in which state regulation can apply to media and other ICTs.
2. To suggest that, left on its own, the economic marketplace would not operate in the public interest.
3. To highlight the potentially positive role that regulation can play in ensuring the new technologies operate in the public interest.

Carriage vs. Content:

Content: *What* media is delivered.

- **Canadian Programming:** The regulation of content has occurred largely to promote Canadian programming
 - o Why? This is a response to the much more prolific US markets. We want the Canadian population to consume Canadian media.
 - o Without this regulation, Canadian industries would not be able to compete with American rivals.
- **Standards of Decency:** Content is censored. Different countries/cultures have varying standards of decency.

Lecture #8 "AI and Internet Law, Policy, and Governance"

- **Advertising:** People complained to the CRTC that the volume of advertisements were much louder than the actual programming. CRTC initiated decibel level regulations.
 - o **Cigarettes** cannot be advertised in Canada.
 - o **Beer:** You're not allowed to drink beer in beer ads.
 - o **Prescription Drugs:** You can say what the drug does, but you can't say the name of the drug (and vice-versa).
 - o The quantity of commercials is also regulated.

Carriage: *How* media is delivered.

- Regulation that ensures that media can be distributed all over Canada.
- **Spectrum Auctions:** Parts of the radio spectrum are auctioned off for specifically smaller players to get into the market.

The Regulation of media happens so that Canadians benefit from the regulation.

- Profit vs. public interest
- **Trend in Regulation of Media:** Deregulation (70s/80s)

Regulation of the Internet (1995):

- **Forbearance:** The policy position of non-regulation (content not carriage).
 - o It is important to recognize that this does not mean that general laws do not apply.
 - Ex: Selling Nazi paraphernalia, and child pornography are still illegal.
 - Criminal law still applies
 - Wikileaks crime was for taking classified information (not for posting it).

Final Exam:

- **Part A:** Two essay questions (concepts from the course – consider relationships)
 - o 3-4 double spaced pages
 - o Each question is worth 10% (Part A is 20%).
- **Part B:** 40 multiple-choice questions (Part B is 20%)

Lecture #9 "Remote Control War"

Remote Control War:**What Drives the Development of New Weapons Technology?**

- Demand for weapons for war.
- The ability to take the forefront and check out an area before a soldier and can potentially save soldiers lives.

What Ethical Issues Arise with Respect to Autonomous Weapons?

- Remote warfare increases the risk of hitting civilians due to being close to the targeted people like the Taliban.
- You may be able to win the war, but will you be able to win the peace?
- As advanced, as technology seems, it is still in infancy. Identifying enemies would be impossible for a robot.
 - o If robots make a fatal mistake, who is responsible?
- Giving robots this amount of control confuses the accountability in this kind of warfare.
 - o Is it the person who trained it? Or the person who gave it commands? Or is it a dysfunctional unit issue?

What Relationship does the Technology We Use as Consumers/Civilians Have with those that are created for the Military?

- As society progresses, we tend to imagine and create new technologies in positive terms.
- There is also a darker side – we can develop systems that are interesting and innovative, but they also have the potential to have huge consequences for our sense of society, life, stability, etc.
- Example: For every bit of weapons technology we possess, the "other side" has the capability of utilizing the same technology.

Final Class

Learning Objectives:

1. To consider whether citizens should have a “right” to accurate, complete, and timely information.
2. To recognize that many of the issues that we have focused on in this term (re: ICTs) are equally transferable to other sectors.
3. To recognize that we must inform how technology is shaped in our society – there is no “they”, there is only “us”.

Access to Information: Primarily made doable by the Internet.

- When we hear about “human rights”, access to information is not the first place we think.
- Should access to the Internet (and its information) be a human right?
 - o **Digital Divide:** Increasingly makes it difficult for many people to not have access to the Internet. Having this as a human right for them is meaningless.
 - o **Language/Literacy Issues**
 - o **Cost of Infrastructure**

Flew & Smith Observations:

1. For the first time in 2010, people spent more time on the Internet than they did watching television.
2. The extent to which the Internet becomes our primary source of news and information, there is also a risk (or likelihood) that our reliance on information provided by citizen journalism increases.
 - o Information is not verifiable in this context
 - o Citizen journalism has its greatest value as an additional source of information, but not a primary form of information.
3. Mobility has become enabling, that it removes us from the present situation or setting. This is one of the costs of mobile technology; it begins to mediate the present. Pg. 244
4. The Internet is no longer considered an extension of the technologies that are able to access it.
 - o The artifacts of our age are the screens that we use to access the software. For the archeologists of the future, these screens will not give them any meaning. Most screens are just sources of light. They are only meaningful to us.
 - o We are drawn to these screens, just as mosquitos are drawn to bug lamps.
5. The Internet is always on. Feeds the paranoia of not being plugged in.
 - o We must consider how mobility interferes with our quality of life. We are losing the ability to reflect quietly.