Administrative Announcements:

Student Affairs has given the class a larger room, so students on the waitlist will be able to enroll in the class. New room will be at Humanities Hall 178, as of Tuesday Oct 14.

Professor’s laptop still works, despite the fruit juice incident.

Part of the syllabus has been updated due to his laptop still working. Updates include readings expected for class and assignments for teams. The syllabus will continually be updated, so students should keep checking it.

Groups that are scribing should come together to collectively integrate each individual’s notes and email it to the professor. Scribing notes are general due 3 days after the lecture.

In general, there are no regular discussion sections. A team will be told if they have to attend a discussion generally a week before the discussion.

Lecture Material:

Lecture will be about processes by which we come to a cultural understanding of what technology might be. (Based on the reading by Pinch and Biker that was assigned today)

**Lecture 2:**

**The processes by which we come to our cultural understanding of what technology may be.**

Central ideas (relate to reading)

It is not the case that technology is simply IS. Technology becomes. What technology is for us is not purely a design issue. As designers we don’t get to say what a technology should be like, meaning what a developer creates does not instantly what he/she visualized it as. As a society we have to learn or figure out what technology is going to be for us. Also, etiquette/social norms are not obvious/implied/initialized as so when technology arises, they are developed

Claude Fisher - “America Calling” telephone manual example:

Imagining talking to someone on the phone; What do you do when you hold the headset?

Alexander. G. Bell, suggested that when someone picks up the phone, he or she should greet with “Ahoy!”.

e.g. Think of the first time you use the telephone, what you say when you pick up the phone - you may need a guidebook to instruct you on what to do or say. This illustrates how it is not straightforward as the technology arises, even if it seem obvious and self evident. we actually have to learn how to do things, what not to do, and learn to figure out what the technology can do for us.

But, there could be alternatives world where the telephone could be used differently e.g. used for listening to symphony orchestra, only for business calls. There could be a dissuasion of people taking personal calls, as it was deemed frivolous and a waste of time.

A space of possibilities/alternatives:

There are a range of possibilities of what any technology might be. Not just design possibilities, but what it is for us as a thing we make use of. We need to learn or even evolve it. We as a society need to figure what we want it to be for us. Technology develops, evolve and it might change.

The trick for us is to see what these are. Finding the meaning: what technology means for us.

Structural linguistic (Sociur) is concerned with what words mean, why word mean what they mean

e,g, “dog” and the sentence “the dog sat on the grass.” Dog has no inherent meaning that refers to a particular animal, so how does it? Sociur argued that words take on their meaning within a space of possibilities. What matters about “dog” is not the letter forms or the sound, but its relation to a host of constellations about alternatives. Examples include “mutt,” “canine,” “hound,” “daschund.” It is essentially within the fact that it could be, but what isn’t. “Mutt” may be too specific, or “canine” may be too general. Thus, it is the idea of identifying a particular space within a range of possibilities. The alternatives are help us recognise what is it we do not want and thus realise what is it we want.

Referring back to the telephone example, other possibilities may be too social, economic, etc., but a particular idea stands.

Pinch and Bijker developed a model SCOT:

SCOT - social construction of technology

Social construction is a term that is often misunderstood. It is that society needs to come to a consensus what patterns, agreements, technology (in the world) are for us, made out of us doing things.

Social constructionism: what we decide needs to agree w/ what the world believes & what things are

Example: A quark is designed for what we made it should be, consistent with the world and time, so that it can be used around different parts of the world.

SCOT recognizes that technology is something in the world.

Example: We cannot decide that a marker is a telephone to call someone with it, as will not be successful. However, we may argue that a laptop may be a telephone, as it has the capability of doing so.

The world needs to understand society’s social understandings, but social understandings must also shape what the world might be for us.

Quote: “In the social construction of technology, the developmental process of a technological artifact is described as an alternation of variation selection.”

There is a wide range of possibilities, but is gradually narrowed down to a number of smaller alternatives as time goes on. In SCOT, developing process of technological artifact is a variation & selection -> similar to evolution

Example – Bicycles: When looking through the history of a bicycle, we see a process of a possibility of designs coming down to an agreement of a common design. Different designs come from a debate of problems and needs. Different demographics get to say which designs are better for them. Some bicycles may be faster, while some bicycles may be safer.

-need a clear definition of why X is better than Y.

-debate over problems/needs

-coming to decision about “why” and uses

Example – Telephones: The introduction of a telephone may have sparked other debates besides how it should work, such as gender roles, as no longer did messages or conversations have to go through the male of the household.

Quote: “The mere fact of riding a bicycle is not in itself sinful. And if it is the only means of arriving to church on Sunday, it may be excusable.”

Social construction of technology depends on these ideas (problems, technologies, social groups)

Interpretive flexibility: the idea that there may be multiple interpretations available for what a technology does and might become

Example: One person may see a bicycle as a means of speedy sports, or another person may see it as freeing women from their home, or yet another person may see it as a means of transportation in a safe manner.

The process of technological evolution is a process of narrowing the flexibility of technology. Reducing flexibility: fix designs and simplify them, control over dialogue, conversation, rhetorical closure. Advertising is a way for us to establish a particular position on a certain technology

Example – Internet: Some people argue that a lot of grassroots conversation takes place in the Internet, or that a lot of personal conversations go on in the Internet. What the professor asks about people who say this is what the Internet is. The problem with stating that the Internet does all these things is that there is no contemplation of what other possibilities the Internet may be, similar to how a dog isn’t a cat, finch, or parrot.

10 Minute Thinking of “Alternate” Possibilities of the internet

Properties of the Internet: Accessible, easy communication

what are ways in which internet could have been different? (Alternatives)

* Communication for authoritative bodies
* GUI’s are for normal people to be able to use inventions such as internet more easily
* Radio waves -> internet would have different spheres of influence
* Carrier pigeon backbone (IP over avian carriers)
* Each individual has a unique ID to access internet
* Mesh networking rather than web network -> very different temporal dynamics
* A library of books that a person has knowledge about
* Paid per use, commercialised from the start
* age or gender limitations --> decrease in interaction amongst people in the world
* country limitation --> no globalization

More indepthly discussed:

- Wireless – first -> spheres of influence

o Had wireless been the first structure for the internet, then its definition would have been different. This version would have been less reliable. However, it would be less centralized than the actual product to come out.

- Data-Driven

o The notion that the internet could have been purely data driven, and would have been defined as merely a tool for businesses.

- Research-repository (access to only scholars) (SRI-UCLA-Berkeley-Utah)

o A setup in which only scholars could use the internet because its primary use was for the sharing of articles and studies.

- Govt/Commercial

o Its definition would have been a tool of regulation and profit, not to be used by the general public.

These examples portray the way that Social Construction of Technology selects a meaning from what it does for us and how represents how the meaning can change as other uses are found.