Lecture 1

* Reflective essay: encs statement of originality

Is comp sc a science?

* Distinctions, if it’s not a science what else might it be?

Art, engineering, maths -> not science

* Science about: repeatability, experimentation, empirical data

Newton, philosopher: alchemy

Start to understand universe as a clock, everything’s related…Nature..

Repeating experiments, to understand behaviour of nature, discover the world previously unknown.

Important?

* Engineering title

Ethical issues:

* Till 80’s, deep connection science, society, technology, certain kind of political arrangement, form of society
* **Technological determinism**: Automation of work…., society was forced to be formed in social classes, structured along class line. It’s technology that society uses, shapes social order of that society …Internet: government transparent…

**Hard**: technology shapes society, identity, how you interact, is result of technology

Technology to come is influenced by former technologies, not by human will.

**Soft**: society can also come back and shape technology

Tech momentum: like a rock rolling down a hill, harder and harder to stop,

At some pt, it loses control.

dependent, structured our society to be dependent on these technologies.

* **Social constructivism**: technology shaped by society

**All the way down**: S -->T, social values are embedded in artifacts

**Co-constructivism**: S <--> T

If improved technology mean progress:

Instrumental: there’s a reason to value, science and technology

3 sources of oppression: monarchy, church, socio-economic class/inequality

allows individuals to discover the world on their own

Benjamin Franklin, means to an end: make life better. Liberate ppl, sources of oppression are gone

Not valued as a means but valued

Luddite: anti-technology, ppl’s jobs replaced by machines, women primarily, smashing machines, burned down buildings.

Enlightenment:

Counter enlightenment movement: not all science and technology are good

Lack of trust, faith

Inherent: family, love, beauty,