Course Description :

Information, Signification, Meaning: Technologies and Selves

Human beings make sense of the world using ordinary languages: English, French, German, Chinese and so forth. Yet they also live in the world and increasingly navigate through it using information technologies that seem to run on what we sometimes call languages, but which are not those that we speak. Thus, we can call them codes. Codes carry information—well-formed, truthful, data—but this information must be translated to make sense in ordinary language. To offer an example, a satellite beams out GPS data at a certain frequency. We as humans have no ordinary words for this frequency because the very waves that it refers to do not appear to us with our anthropically limited senses and the languages which have derived from them. Yet engineers must make sense of this information, gather it, use it, and so forth. Thus, thinking about the signification of information is critical for the engineer in their practice, and even more critical for their interactions with non-engineers.

The aim of this class is to explore the levels of interaction between data and natural languages (for example, English). The questions that we will deal with involve issues of algorithms and interfaces—questions associated with how to turn this machine language into something into something that makes sense to humans, and how humans in society make meaningful that sense. The focus of the class will not be merely limited to codes and language but also to big picture questions such as the nature of reality and—especially—issues of engineering ethics.

Week by Week Overview of the Class

Week 1:

Introduction

Information, sensors, computers, algorithms, outputs

Week 2:

Signification, eyes, minds, words

Week 3:

It from Bit, or Information, Signification: Science from sensors to words

Week 4:

The Self: Making Sense of Our Experiences: Self-formation and Information

Week 5:

The Surveillance Society: Information, Self, and Liberty

Week 6:

Thoreau in Cyberspace: Data and Our Real Needs

Student assignments will include a thematic reading, a brief presentation on a course topic, and a short response paper.