

# **Ethics in a Professional Work Environment: An Introduction**

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# What are Ethics?

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- The principles that guide our actions and behaviors based on:
  - Laws
  - Emotions
  - Personal experience
  - Upbringing
  - Religion
  - Rules placed by your field of work

# Professional Ethics

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- Why are ethics important?
- What are the possible consequences of not using ethics?
  - Loss of life
  - Loss of property
  - Going out of business
  - Loss of reputation
  - ....

# Being ethical – is it really this simple?

- Standards for ethical decision making
  - ABET – Accreditation Board for Engineering and Technology
  - NSPE – National Society of Professional Engineers
  - ASME – American Society of Mechanical Engineers
    - 2003 Ethics in Engineering Design, Published 2003, Print-Book, 160 pages
- These are only *guidelines*
- Ethics are achieved by following a mixture of moral, legal, and personal values.



# Ethical Decision-Making

- A professional must be able to identify when an ethical issue arises
- ***Rule-of-thumb: Personalize the consequences***
- Where in a design process do these issues arise?
- What else are important characteristics about these issues?

# Types of Ethical Issues

- Can be generalized into broad categories:
- Negligence
  - Intended
  - Unintended
- Immoral
  - Drug companies, cigarette companies
  - Research and Development
- Unprofessional

# Ethics and Law

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- Legal enforcement has many characteristics:
  - Laws have to be passed and then enforced
  - Breaking of a law has to be proven
  - Decisions are often made by non-technical citizens
- Example: Privacy, 14 CFR Part 107 and unmanned aerial systems (drones)

# Ethics and the Technical Workforce

- Technical workers are increasingly becoming required to foresee problems and design their solutions

**Is this fair?**

- Question: How do you do it?

# Ethics and the Technical Workforce

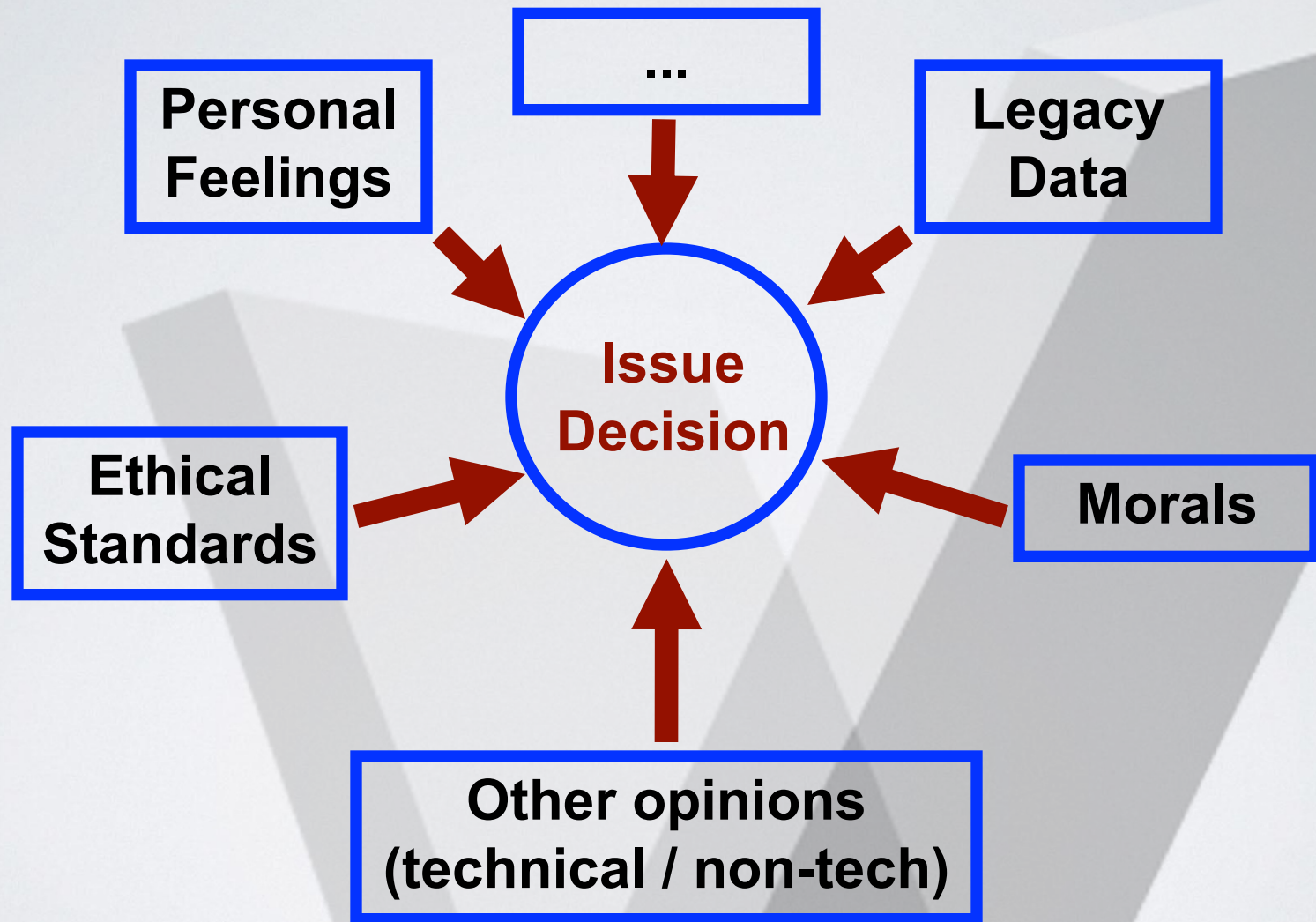
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## Is this fair?

- Question: How do you do it?
- Answer: You approach this problem like any other in technical disciplines

**Gather data, analyze and make an intelligent choice**

# Ethical Decision Framework



# Homework

- Look up information on Theranos and Elizabeth Holmes
- ‘The Inventor: Out for Blood in Silicon Valley’ *HBO Max*
- ‘The Dropout’ *Hulu*
- ‘60 Minutes: Elizabeth Holmes and the Theranos Deception’ *Youtube*
- ‘Elizabeth Holmes: Valley of Hype’ *Youtube*
- Look up negative consequences of social media