CS 182: Ethics, Public Policy, and Technological Change

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Ursula Le Guin’s Omelas
sometimes speaks. "I will be good," it says. "Please let me out. I will be good!" They never answer. The child used to scream for help at night, and cry a good deal, but now it only makes a kind of whining, "eh-haa, eh-haa," and it speaks less and less often. It is so thin there are no calves to its legs; its belly protrudes; it lives on a half-bowl of corn meal and grease a day. It is naked. Its buttocks and thighs are a mass of festered sores, as it sits in its own excrement continually.

They all know it is there, all the people of Omelas. Some of them have come to see it, others are content merely to know it is there. They all know that it has to be there. Some of them understand why, and some do not, but they all understand that their happiness, the beauty of their city, the tenderness of their friendships, the health of their children, the wisdom of their scholars, the skill of their makers, even the abundance of their harvest and the kindly weathers of their skies, depend wholly on this child's abominable misery.
cleaned and fed and comforted, that would be a good thing indeed; but if it were done, in that day and hour all the prosperity and beauty and delight of Omelas would wither and be destroyed. Those are the terms. To exchange all the goodness and grace of every life in Omelas for that single, small improvement: to throw away the happiness of thousands for the chance of the happiness of one: that would be to let guilt within the walls indeed.

The terms are strict and absolute; there may not even be a kind word spoken to the child.
At times one of the adolescent girls or boys who go to see the child does not go home to weep or rage, does not, in fact, go home at all. Sometimes also a man or woman much older falls silent for a day or two, and then leaves home. These people go out into the street, and walk down the street alone. They keep walking, and walk straight out of the city of Omelas, through the beautiful gates. They keep walking across the farmlands of Omelas. Each one goes alone, youth or girl, man or woman. Night falls; the traveler must pass down village streets, between the houses with yellow-lit windows, and on out into the darkness of the fields. Each alone, they go west or north, towards the mountains. They go on. They leave Omelas, they walk ahead into the darkness, and they do not come back. The place they go towards is a place even less imaginable to most of us than the city of happiness. I cannot describe it at all. It is possible that it does not exist. But they seem to know where they are going, the ones who walk away from Omelas.
Questions for you

Are the people who walk away from Omelas heroes? (Why – because their conscience won’t allow them to remain in the city)

Or cowards? (Why – because by leaving the city they leave the child in misery.)
Questions for Discussion

If you lived in Omelas, what would you do?
Complicity

CHECK THE LABEL ON THE SHIRT/JACKET YOU’RE WEARING. WHERE WAS IT MADE?

WHEN IS THE LAST TIME YOU PURCHASED GASOLINE?

DO YOU HAVE MONEY DEPOSITED IN A BANK?

WHERE DOES STANFORD INVEST THE MONEY IN ITS ENDOWMENT?
“The Ones Who Stay and Fight”

HOW LONG ’TIL BLACK FUTURE MONTH?

STORIES BY NEW YORK TIMES BESTSELLING AUTHOR

N. K. JEMISIN
“The Ones Who Stay and Fight”

“And now we come to you, my friend. My little soldier. See what I’ve done? So insidious, these little thoughts, going both ways along the quantum path...

... Good. Good.

Now. Let’s get to work.”
With Great Tech Comes Great Responsibility

A student guide for navigating ethical issues in the tech industry

Addressing Ethical Issues as a Tech Worker

After reflecting on the timeline of tech worker organizing and the insights provided by current tech workers, you're probably best able to identify key takeaways for the steps you can take as a tech worker to positively shape the future of the tech industry. Below are just a few suggestions to help you on your path.

Be Proactive

Workers can proactively address ethical issues before they ever come to fruition. First, develop a strong ethical framework. Incorporate multiple perspectives and develop accountability systems so that folks are given continuous opportunities to reflect on and discuss their work and flag potential issues. Additionally, consider all the steps in which a tech role could be abused. How these safety measures will be put into place? By thinking through the worst possible scenarios, tech workers can make the decisions necessary to protect the public from the negative impacts of misused or abused technological tools.

Build Relationships

Building strong relationships is an essential organizing ingredient, especially when tackling ethical challenges. If you feel something is not right, other people in your company probably feel similarly. But, without strong relationships, folks may not trust that it is safe to speak out. Additionally, when planning actions, seeking around petitions, or working with management, workers must trust that they have each other's backs in these often intimidating situations.

Talk Across Teams

The tech industry often perpetuates the mythology of the lone individual who has a breakthrough idea that changes the world. Yet, the reality is that within tech, folks work in teams where each member is deeply reliant on each other. While this can be a fun, collaborative opportunity, it can be complicated to step forward with an ethical issue.

Work with Impacted Communities

Involving diverse communities in conversations can help companies proactively understand how their tools will impact the community. When attempting to draw attention to ethical concerns, it is important to identify and center the communities most impacted by unethical practices. Tech spends a lot of time swearing in with what works. But enough time is spent discovering what tech doesn’t work for. Fostering communities who experience the negative impacts of unethical tech practices are already organizing against those technologies. By supporting these movements and providing technical insights, tech workers can support and build power for the movement itself and already being led by those most impacted.

Learn Organizing Strategies

There are so many organizing tools available to tech workers. From petitions, protests, media, press, coalitions building, there are a multitude of tools that organizers can use to draw attention to unethical practices and ensure their company to be accountable to the impact of their policies. By learning what tools are available and how they can be employed for change, future tech workers can be better prepared to demand positive change and ensure safer tech for all.
Letters to a Young Technologist

1. What is Technology?
2. Value Beyond Instrumentalization
3. It's Time to Govern
4. Study the Past, Create the Future
5. To be a Technologist is to be Human

About the Essays

*Letters to a Young Technologist* is a collection of essays addressed to young technologists, written by a group of young technologists.

This project began as a hope for reflection, and a desire for collaboration. We wanted to reflect on our roles and lives as young technologists, and to kindle broader conversations about these topics.

We were driven by the realization that technologists hold an increasingly important position in society, with the capability to change billions of peoples’ life experiences through the tools they build. But the set of ideologies or life-philosophies currently on offer to most people pursuing a career in technology are surprisingly shallow, as is many technologists’ understanding of their field’s history.

Source: letterstoayoungtechnologist.com
What is Technology?

As young technologists, our work involves acts of immense power, and society both admires and fears these acts. This is a recent phenomenon. In ancient times, those who made technology were devalued as laborers: they were lowly potters and bronze-smiths, not space billionaires. Plato believed in the inferiority of practical craftsmen compared to philosophers, since they deal with the corrupt material world rather than the pure plane of Being and Ideas.¹ But for the last century technology has been eating the world. The newfound status and significance of modern technology requires us all to set aside space for probing the weighty questions that our work elicits, questions about its meaning and influence.

Notice that we’re not defining technology as a solution to a problem, but rather a path to an end. Though many technologists see their work as “problem-solving”, problems are in the eye of the beholder; one first has to make decisions about what constitutes a problem before making decisions to solve it in a particular way. That decision-making process is prior to and more fundamental than the problem-solving process.
Doomed to Choose

Ethics should inspire us to action. We actually have no other choice but to act. (Passivity, deciding not to care, and not to choose, is an ethical choice.)

Maya Lin (architect, pictured left):

“I seek to create spaces for people in which to think, but not what to think.”
Six Concluding Ideas

Seek out discomfort. Get off track.

We do not live in a fundamentally just society or world.

Will you use your opportunity at Stanford to attain or cement privilege, power, and status?
Six Concluding Ideas

As Stanford undergrads: will you get into good trouble, or get along by going along?

“Most students are gentle cowards who think that their gentleness offsets their cowardice.”

– William Sloane Coffin, Yale Dean of Religious life
Six Concluding Ideas

The unexamined life is not worth living. Socrates

But also, the unlived life is not worth examining.

Do not make academics the only thing you do here. There’s more to life than being an excellent sheep.
Six Concluding Ideas

Have **moral ambition**

Strive for moral decency, not moral sainthood.

Moral perfection and moral purity are overrated.
Six Concluding Ideas

Embrace ambiguity

The most interesting questions in life don’t have singular answers; they have better and worse answers.

We put certain questions to ourselves not so we can answer them but so that we can spend a lifetime wrestling with them.

Paraphrase of poet Ranier Marie Rilke
Six Concluding Ideas

A motto for living?

*Skepticism of the intellect, optimism of the will.*

Paraphrase of Antonio Gramsci.
Why This Class?

• In the last few decades, computing has arguably changed humanity on a global level more than anything else

• It has changed governments
  • Online platforms to organize protests
    • Arab Spring (and others)
  • Networked information’s impact on elections
    • Targeted misinformation and disinformation
    • Filter bubbles and echo chambers
Why This Class?

- In the last few decades, computing has arguably changed humanity on a global level more than anything else.

- It impacts who has freedom:
  - Access to platforms for free speech (and free reach)
  - Ability to communicate privately
  - Control of personal information
  - Incarceration: bail decisions
Why This Class?

- In the last few decades, computing has arguably changed humanity on a global level more than anything else.
  - It impacts our social relationships
    - Communication (e.g., Zoom)
    - Community formation (in social networks)
    - Information sharing and discovery
    - Harassment and cyberbullying
Why This Class?

• In the last few decades, computing has arguably changed humanity on a global level more than anything else

• It impacts our personal well-being
  • Mental health
  • Physical health
  • Internet addiction
Why This Class?

• In the last few decades, computing has arguably changed humanity on a global level more than anything else

• It impacts our view of our own abilities
  • Bias in systems that judge who we are
  • Relationship to AI and autonomous systems
    • The future of meaningful labor and employment
Why This Class?

• In the last few decades, computing has arguably changed humanity on a global level more than anything else

• And it impacts many who had no opportunity for a role in its creation
  • Inequity in who builds technology
  • Inequity in who chooses what technology is built
  • Inequity in who technology is built for
  • Inequity in distributional impacts of technology
• In the last few decades, computing has arguably changed humanity on a global level more than anything else.

It has also tremendously empowered you.

With that comes tremendous responsibility.

Take both seriously.
But, What Can I Do?

- You can’t solve a problem if you don’t know it exists
- And a little less arrogance wouldn’t be a bad thing...
Really, What Can I Do?

- My hope: we broadened your views of the power you have and the ways you can wield it
  - At the 10,000 foot level
  - At the 10 foot level
- Education $\rightarrow$ Awareness
- Awareness $\rightarrow$ Responsibility
- Responsibility $\rightarrow$ Accountability
- Accountability $\rightarrow$ Agency
- Agency $\rightarrow$ Action
Really, What Can I Do?
BE THE CHANCE YOU WISH TO SEE IN THE WORLD
-Gandhi
Putting the Course in Perspective
The Final Word

1. The consequences of technology are not unknowable
2. Governance isn’t a bad word
3. Navigating this moment requires multiple perspectives
4. There isn’t one right answer
5. You are not only a user, you are a citizen
Many have argued that we cannot know the impacts of new technologies in advance, so the best strategy is to just innovate and see what happens.
Consequences are Conditional

We can *anticipate* potential impacts
We can *measure* those impacts empirically
We can *influence* how new technologies affect society
Twitter was founded without a plan, Mr. Dorsey said. “It wasn’t something we really invented, it was something we discovered. And we kept pulling the thread on it.”

The unraveling was “electric,” he said, as the small, localized platform he built for friends to share updates on their lives morphed into a global social network. In the process, though, Mr. Dorsey said he now believes that he made a critical mistake: not hiring experts to help him understand the potentially far-reaching importance of apparently small design choices.

“The disciplines that we were lacking in the company in the early days, that I wish we would have understood and hired for,” he said, were “a game theorist to just really understand the ramifications of tiny decisions that we make, such as what happens with retweet versus retweet with comment and what happens when you put a count next to a like button?”
Government has a bad reputation in Silicon Valley.

It’s old. It gets in the way. It doesn’t understand technology. It will hold us back.

But let’s be clear.

Regulation is just a loaded word for an important thing — the actions taken by those we elect to transform our shared values (and reconcile our differences) into rules that serve the common interest.
Stages of Governance

- **1st Generation**: Technology was a product of researchers/hackers. They defined the underlying code and architecture.

- **2nd Generation**: Technology is generated by the commercial sector. The people inside companies—engineers, product managers, designers, sales people, and executives—set the rules, with limited oversight from government.

- **3rd Generation**: Technology becomes an issue of politics, and outcomes reflect a push-and-pull between the companies that make things, the governments that oversee them, and the citizens/users who are affected by them.
How this Drama Plays Out

When competing values are at stake, they must be weighed against one another.


Who weighs these values and how? This is a critical question of governance, politics, and power.

We have talked about multiple places where this power is exercised: engineers, CEOs, consumers, governments, and citizens.

Societies will have to decide when, where, and by whom these values should be weighed.
Different Lenses

Technologist

Philosopher

Policymaker

Also social scientist!
There is Not One Answer
The U.S. is Not the Only Player

China and North America will see biggest AI gains by 2030

- 26.1% China
- 14.5% North America
- 11.5% Southern Europe
- 10.4% Developed Asia
- 9.9% Northern Europe
- 5.6% Africa, Oceania, & other Asian markets
- 5.4% Latin America

$15.7 trillion potential GDP gain

Source: PwC Global Artificial Intelligence Study, 2017
Europe as the Regulator of First Resort
The Roles We Play

We don’t know what part you will play in this evolving story.

Some of you will be engineers and others product managers. Some will sell technology while others will try to mitigate harms. Some of you will be novelists and others financiers. Some will help make our markets work, while others will pursue the public interest.

But all of you will be citizens.

While there are no right answers to the questions we have been asking, it will be up to you, in your role as citizens, to consider, debate, and make compromises to generate outcomes you are willing to accept.
Our Gratitude

Our outstanding head TA, Chloe Stowell, and course managers, Sandra Luksic and Lorenzo Manuali!

Our extraordinary TAs who worked overtime to create the most engaging and productive learning experience for you this quarter: Elena Berman, Shanduojiao Jiang, Keertan Kini, Asa Kohrman, Ece Korkmaz, Kathryn Larkin, Adrian Liu, Crystal Liu, Jeffrey Propp, Daniel Slate, Alessandro Vecchiato, Shreya Venkat, Yilin Wu, Amber Yang, and Cathy Yang.