

# Ethics

17-313 Fall 2024

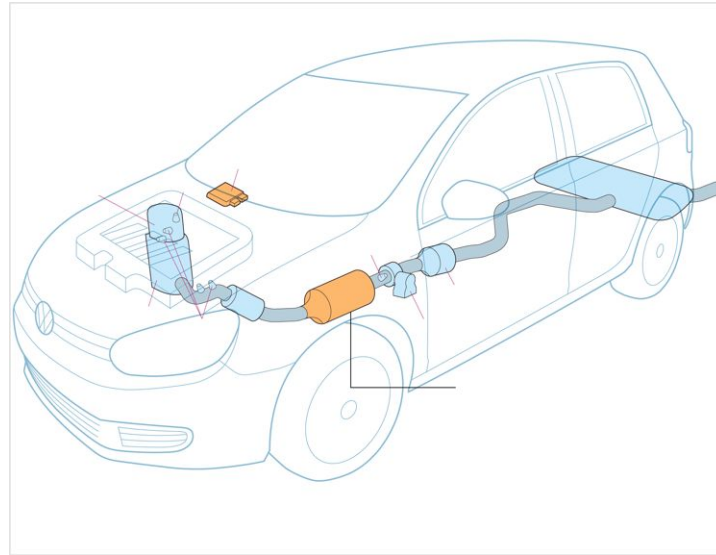
Foundations of Software Engineering

<https://cmu-17313q.github.io>

Eduardo Feo Flushing

# Volkswagen Scandal

VW was caught cheating on emissions for Diesel engines



<https://www.nytimes.com/interactive/2015/business/international/vw-diesel-emissions-scandal-explained.html?mtrref=www.google.com&assetType=REGIWALL>

# Terminology: Legal vs Ethical

- **Legal:** in accordance to societal laws
  - systematic body of rules governing society; set through government
  - punishment for violation
- **Ethical:** following moral principles of tradition, group, or individual
  - branch of philosophy, science of a standard human conduct
  - professional ethics = rules codified by professional organization
  - no legal binding, no enforcement beyond "shame"
  - high ethical standards may yield long term benefits through image and staff loyalty

# Disclaimer:

Legality is obviously a locale-specific concern.

What is ethical (and how we know) is a very complicated question.

Whether there exists ground-truth ethics is a point of philosophical debate.

Often informed by context/culture/etc.

# What is Human Flourishing?

According to Harvard's Human flourishing program: Human flourishing is composed of five central domains: **happiness and life satisfaction, mental and physical health, meaning and purpose, character and virtue, and close social relationships.**

# Activity

In groups of 3-4, describe two unethical situations related to Software Engineering

# Outline

- Some (bad) examples of ethics in software engineering
- Do we need (can we have) a Software Engineering Code of Ethics?
- Three questions to promote human flourishing
  - Does my software respect the humanity of the users?
  - Does my software amplify positive behavior, or negative behavior for users and society at large?
  - Will my software's quality impact the humanity of others?

# EA calls its loot boxes 'surprise mechanics,' says they're used ethically

80

*'People like surprises,' executive tells UK Parliament*

By [Ana Diaz](#) | [@AnaLikesPikachu](#) | Jun 21, 2019, 9:10am EDT

[f](#) [t](#) [s](#) SHARE





# Domino's Would Rather Go to the Supreme Court Than Make Its Website Accessible to the Blind

Rather than developing technology to support users with disabilities, the pizza chain is taking its fight to the top

by Brenna Houck | @EaterDetroit | Jul 25, 2019, 6:00pm EDT

f   SHARE



# Some airlines may be using algorithms to split up families during flights

Your random airplane seat assignment might not be random at all.

By Aditi Shrikant | [aditi@vox.com](mailto:aditi@vox.com) | Nov 27, 2018, 6:10pm EST

[f](#) [Twitter](#) [SHARE](#)



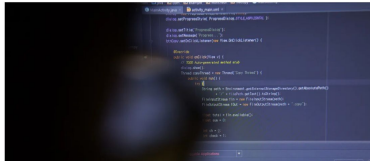
Passengers boarding a Boeing aircraft of the low cost airline carrier Ryanair in Thessaloniki Macedonia Airport, Greece. | Nicolas Economou/NurPhoto/Getty Images

# Open Intellectual Property Concerns

- Was the data used to train these LLMs obtained illegally?
- Who owns the IP associated with LLM outputs?
- Should sensitive information be provided as inputs to LLMs?

ARTIFICIAL INTELLIGENCE / TECH / LAW

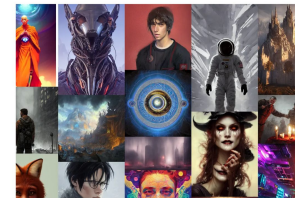
## The lawsuit that could rewrite the rules of AI copyright



/ Microsoft, GitHub, and OpenAI are being sued for allegedly violating copyright law by reproducing open-source code using AI. But the suit could have a huge impact on the wider world of artificial intelligence.

ARTIFICIAL INTELLIGENCE / TECH / CREATORS

## AI art tools Stable Diffusion and Midjourney targeted with copyright lawsuit



/ The suit claims generative AI art tools violate copyright law by scraping artists' work from the web without their consent.

By James Vincent, a senior reporter who has covered AI, robotics, and more for eight years at The Verge  
Jan 16, 2023, 12:38 AM EST | 32 Comments / 27 Shares

A collage of AI-generated images created using Stable Diffusion. Image: [The Verge](#)

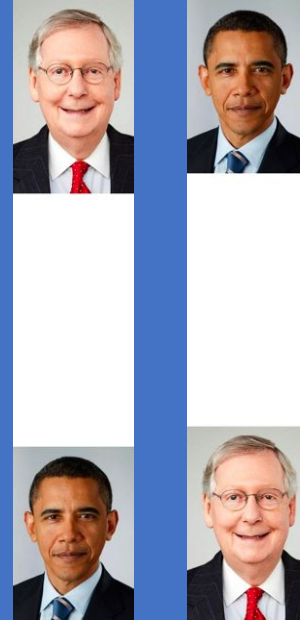
## Whoops, Samsung workers accidentally leaked trade secrets via ChatGPT

ChatGPT doesn't keep secrets.

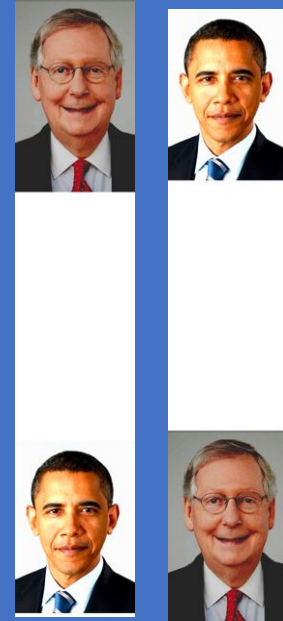
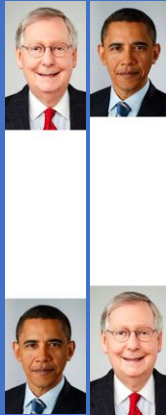
By Cecily Mauran on April 6, 2023



# Twitter cropping photos



# Twitter cropping photos



## Google Gemini tried to kill me.



Can I infuse garlic into olive oil without heating it up?



Show drafts ▾ 🔊

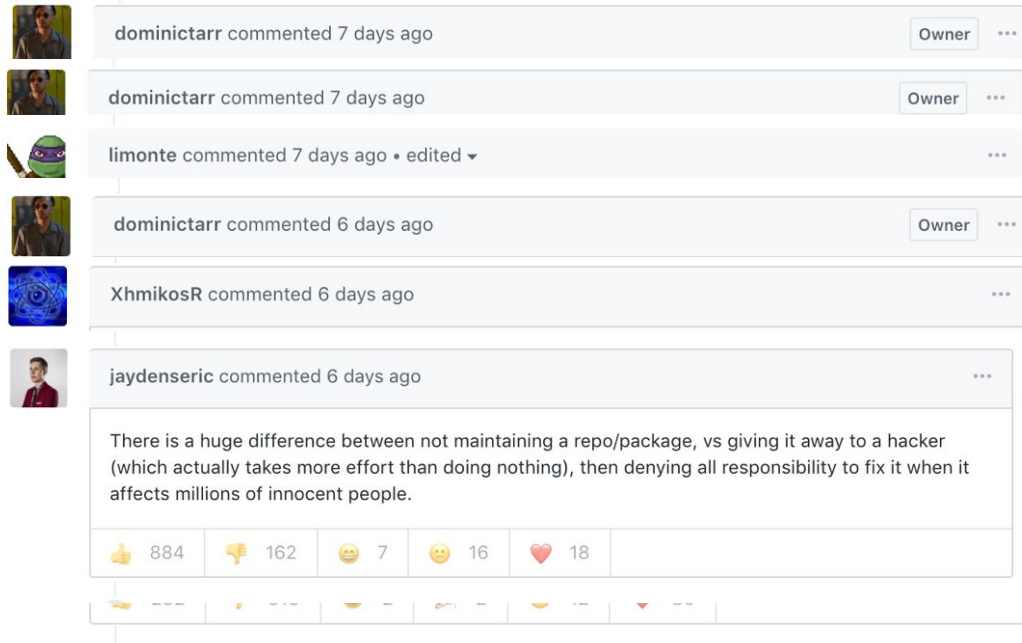
Yes, you can infuse garlic into olive oil without heating it. It will take longer than the heating method, but the process is simple:

1. **Prepare the garlic:** Peel and lightly crush several garlic cloves. The amount depends on your desired flavor intensity.
2. **Combine with olive oil:** Place the garlic cloves in a clean glass jar or bottle and pour your desired amount of olive oil over them, ensuring they are fully submerged.
3. **Infuse:** Seal the container tightly and let it sit at room temperature for about a week. You can occasionally shake the jar to help distribute the garlic flavor.
4. **Strain:** After a week, strain the oil through a cheesecloth or fine-mesh sieve to remove the garlic pieces.
5. **Store:** Transfer the infused olive oil to a clean bottle or jar and store it in a cool, dark place. It should last for several weeks.

This method allows the garlic to slowly release its flavors into the oil without the risk of burning or altering the taste.



# Open Source Maintainers



# Uber self-driving car involved in fatal crash couldn't detect jaywalkers

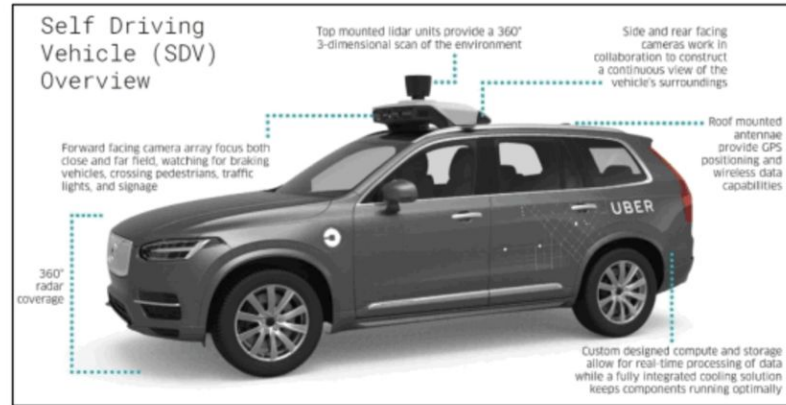
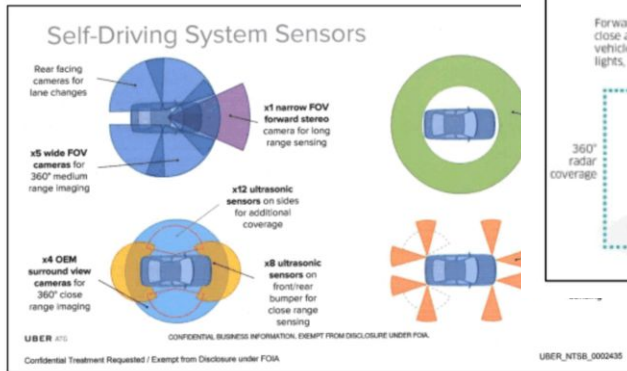
The system had several serious software flaws, the NTSB said.



Steve Dent, @stevetdent  
11.06.19 in [Transportation](#)

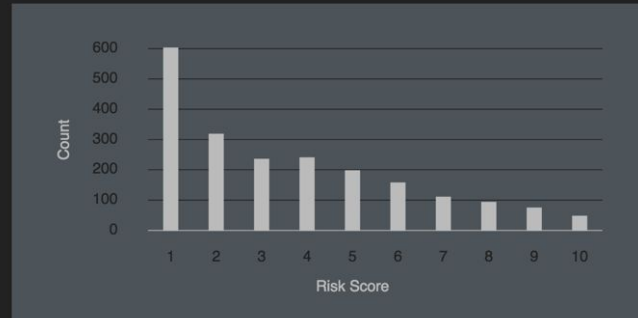
25  
Comments

1131  
Shares



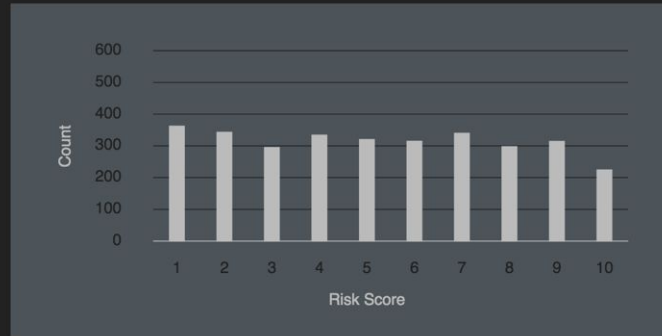


### White Defendants' Risk Scores



These charts show that scores for white defendants were skewed toward lower-risk categories. Scores for black defendants were not. (Source: ProPublica analysis of data from Broward County, Fla.)

### Black Defendants' Risk Scores



## Prediction Fails Differently for Black Defendants

	WHITE	AFRICAN AMERICAN
Labeled Higher Risk, But Didn't Re-Offend	23.5%	44.9%
Labeled Lower Risk, Yet Did Re-Offend	47.7%	28.0%

# Algorithmic Bias

Algorithms affect:

Where we go to school

Access to money

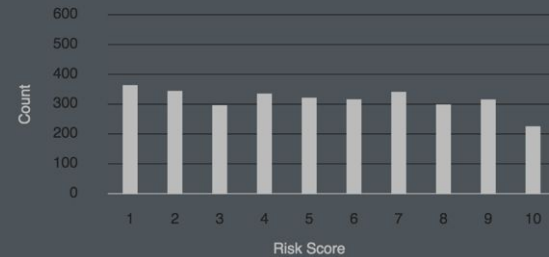
Access to health care

Receiving parole

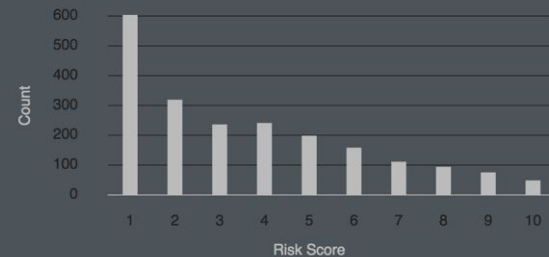
Possibility of Bail

Risk Scores

Black Defendants' Risk Scores



White Defendants' Risk Scores

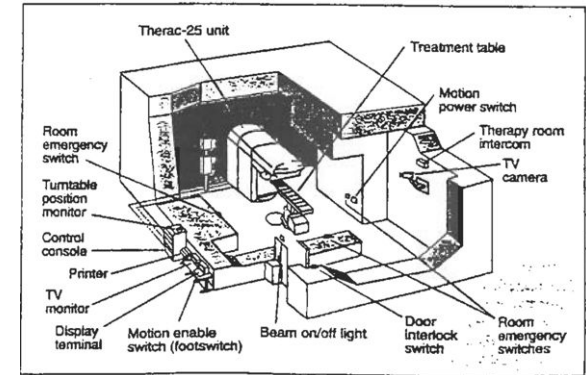


These charts show that scores for white defendants were skewed toward lower-risk categories. Scores for black defendants were not. (Source: ProPublica analysis of data from Broward County, Fla.)

# Therac-25

Bug (race-condition) in software lead to at least 6 deaths

- Lack of reporting bugs
- Lack of proper due diligence
- Engineers were overconfident, removed hardware locks

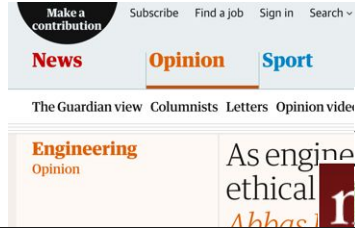


*“The Therac-25 incident involved what has been called one of the worst computer bugs in history (Lynch 2017)... Therac-25 is a glaring example of what can go wrong in a society that is heavily dependent on technology.”*

PATIENT NAME: John	BEAM TYPE: E	ENERGY (keV):	10
TREATMENT MODE: FIX			
UNIT RATE/MINUTE	ACTUAL	PRESCRIBED	
MONITOR UNITS	200.000000	200.000000	
TIME (min)	0.270000	0.270000	
SOURCE ROTATION (DEG)	0.000000	0.000000	VERIFIED
COLLIMATOR ROTATION (DEG)	359.200000	359.200000	VERIFIED
COLLIMATOR X (CM)	14.200000	14.200000	VERIFIED
COLLIMATOR Y (CM)	27.200000	27.200000	VERIFIED
WEDGE NUMBER	1.000000	1.000000	VERIFIED
ACCESSORY NUMBER	0.000000	0.000000	VERIFIED
DATE: 2012-04-14	SYSTEM: BEAM READY	OP.MODE: TREAT	AUTO
TIME: 11:49:19	TREAT: TREAT PAUSE	REASON: X-RAY	179777
OPR ID: 030-ctfap	REASON: OPERATOR	COMMAND:	

<https://www.bugsnap.com/blog/bug-day-race-condition-therac-25/>

## Maths and tech specialists need Hippocratic oath, says academic



Exclusive: Hannah Fry says ethical pledge needed in tech fields that will shape future



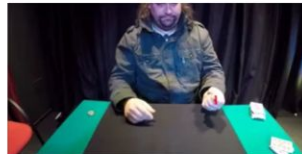
DEV GUEST

## Software developers need body

OLGA V. MACK @OLGAVMACK JUNE 1, 2019 2:22 PM



MOST READ



Researchers attempt to fool AI with magic tricks

4,331 views | Oct 17, 2018, 06:13pm

## We Need To Work Harder To Make Software Engineering More Ethical



Jessica Baron Contributor @  
Consumer Tech

I write about the ethics of science and technology.



## Engineers Need a Course in Ethics



meone's

# With a few lines of code...

Developers have substantial power in shaping products, and software has substantial power over human lives.

Small design decisions can have substantial impact (safety, security, discrimination, ...) -- not always deliberate

Our view: We have both legal & ethical responsibilities to anticipate mistakes, think through their consequences, and build in mitigations!

Do we need (can we have) a  
Software Engineering Code  
of Ethics?

# Engineering ethics.

Ethics applies and is formalized in many professional fields: medical, legal, business, and engineering.

The first codes of engineering ethics were formally adopted by American engineering societies in 1912-1914. In 1946 the National Society of Professional Engineers (NSPE) adopted their first formal Canons of Ethics.

# Code of Ethics



As an ACM member I will ....

Contribute to society and human well-being.

Avoid harm to others.

Be honest and trustworthy.

Be fair and take action not to discriminate.

Honor property rights including copyrights and patent.

Give proper credit for intellectual property.

Respect the privacy of others.

Honor confidentiality.



# Code of Ethics

Research shows that the code of ethics does not appear to affect the decisions made by software developers.

## Does ACM's Code of Ethics Change Ethical Decision Making in Software Development?

Andrew McNamara  
North Carolina State University  
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Justin Smith  
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### ABSTRACT

Ethical decisions in software development can substantially impact end-users, organizations, and our environment, as is evidenced by recent ethics scandals in the news. Organizations, like the ACM, publish codes of ethics to guide software-related ethical decisions. In fact, the ACM has recently demonstrated renewed interest in its code of ethics and made updates for the first time since 1992. To better understand how the ACM code of ethics changes software-

The first example is the Uber versus Waymo dispute [26], in which a software engineer at Waymo took self-driving car code to his home. Shortly thereafter, the engineer left Waymo to work for a competing company with a self-driving car business, Uber. When Waymo realized that their own code had been taken by their former employee, Waymo sued Uber. Even though the code was not apparently used for Uber's competitive advantage, the two companies settled the lawsuit for \$245 million dollars.

# Professional Ethics

Professional ethics encompass the personal, and corporate standards of behavior expected by professionals.

First three “professions”

- Divinity,
- Law
- Medicine

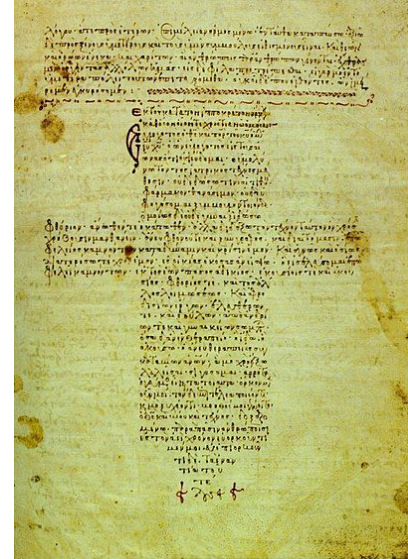


# Medicine - Intrinsic

## Hippocratic Oath

~450BC

“Do no Harm”



# Law -Extrinsic

Bar regulates behavior

Oath to follow rules

Malpractice



# Legal Malpractice

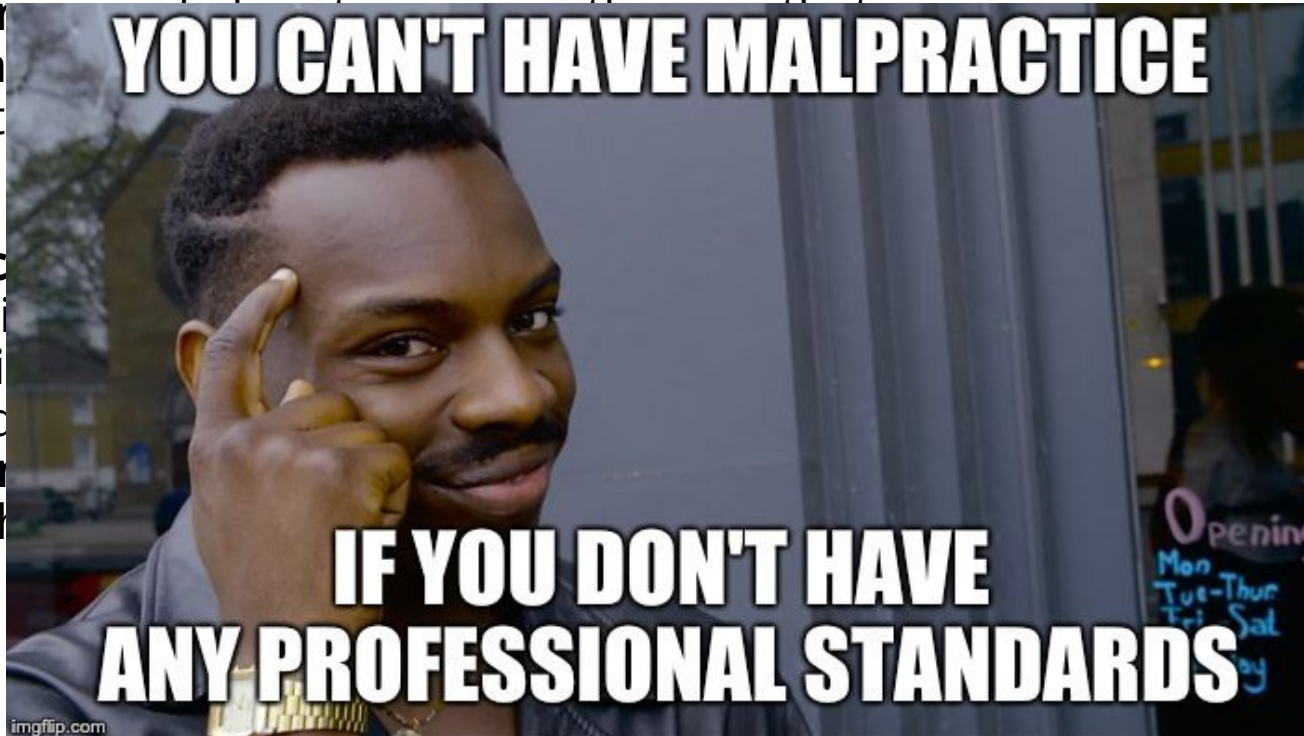
Not every mistake is legal malpractice. For malpractice to exist:

Attorney must handle a case inappropriately  
due to negligence or with intent to harm  
And cause damages to a client

# Negligence vs Malpractice

**Negligence**  
reasonable  
circumstances

**Malpractice**  
"professional  
standards"  
to provide  
governance  
causing harm



# Challenge:

How do we apply ethics to a field (Software Engineering) that is changes so often?

Can professional standards keep pace with rapid advancements and shifting paradigms?

To handle this uncertainty about the future, let's focus on three questions we can ask to remind ourselves to focus on promoting human flourishing.

# Three questions to promote human flourishing

1. Does my software respect the humanity of the users?
2. Does my software amplify positive behavior, or negative behavior for users and society at large?
3. Will my software's quality impact the humanity of others?



1. Does my software respect the humanity of the users?

# Humane Design Guide

<http://humanetech.com>

## Humane Design Guide (Alpha Version)

Use this worksheet to identify opportunities for Humane Technology.


Product or feature:

Value proposition:

Measure of success:

### What are Human Sensitivities?

*Human Sensitivities* are instincts that are often vulnerable to new technologies.

Human Sensitivity	We are inhibited when	What inhibits	We are supported when	Opportunity to improve
<b>Emotional</b> What we feel in our body and in our physical health.	We are stressed, low on sleep, afraid or emotionally exhausted.	<ul style="list-style-type: none"> <li>Artificial scarcity</li> <li>Urgency signalling</li> <li>Constant monitoring</li> <li>Optimizing for screentime</li> </ul>	Design engenders calm, balance, safety, pauses and supports circadian rhythms.	 High Low
<b>Attention</b> How and where we focus our attention.	Attention is physiologically drawn, overwhelmed or fragmented.	<ul style="list-style-type: none"> <li>Constant context switching</li> <li>Many undifferentiated choices</li> <li>Fearful information</li> <li>No stopping cues (e.g. infinite scroll)</li> <li>Unnecessary movement</li> </ul>	Enabled to bring more focus and mindfulness.	
<b>Sensemaking</b> How we integrate what we sense with what we know.	Information is fear-based, out of context, confusing, or manipulative.	<ul style="list-style-type: none"> <li>Facts out of context</li> <li>Over-personalized filters</li> <li>Equaling virality with credibility</li> <li>Deceptive authority (ads vs. content)</li> </ul>	Enabled to consider, learn, express and feel grounded.	
<b>Decisionmaking</b> How we align our actions with our intentions.	Intentions and agency are not solicited nor supported.	<ul style="list-style-type: none"> <li>Avatars to convey authority</li> <li>Stalking ads and messages</li> <li>Push content models</li> <li>Serving preference over intent</li> </ul>	Enabled to gain agency, purpose, and mobilization of intent.	
<b>Social Reasoning</b> How we understand and navigate our personal relationships.	Status, relationships or self-image are manipulated.	<ul style="list-style-type: none"> <li>Quantified social status</li> <li>Viral sharing</li> <li>Implied obligation</li> <li>Enabling impersonation</li> </ul>	Enabled to connect more safely and authentically with others.	
<b>Group Dynamics</b> How we navigate larger groups, status, and shared understanding.	Excluded, divided or mobilized through fear.	<ul style="list-style-type: none"> <li>Suppressing views and nuance</li> <li>Enabling ad hominem or hate speech</li> <li>Enabling viral outrage</li> <li>Lack of agreed-upon norms</li> </ul>	Enabled to develop a sense of belonging and cooperation.	

[ Center for Humane Technology ] [www.humanetech.com](http://www.humanetech.com)


Now rank the sensitivities 1-6 based on what you now see as the largest opportunities for Humane Design. Then use the second sheet to develop an action statement.

# Humane Design Guide

<http://humanetech.com>

Provides a template for considering a piece of software, and asking questions to help us arrive at a “humane design”

Consider 6 human sensitivities: **Emotional, Attention, Sense making, Decision making, Social Reasoning, and Group Dynamics**

Human Sensitivity	We are inhibited when	What inhibits	We are supported when	Opportunity to improve
<b>Attention</b> How and where we focus our attention.	Attention is physiologically drawn, overwhelmed or fragmented.	<ul style="list-style-type: none"><li>• Constant context switching</li><li>• Many undifferentiated choices</li><li>• Fearful information</li><li>• No stopping cues (e.g. infinite scroll)</li><li>• Unnecessary movement</li></ul>	Enabled to bring more focus and mindfulness.	

Identify Opportunities to improve:

In what ways does your product/feature currently engage Human Sensitivities?

How might your product/feature support or elevate human sensitivities?


Action Statement

# Humane Design Guide

<http://humanetech.com>

After analysis step, develop plan of action:

1. In what ways does your product/feature currently engage Human Sensitivities?
2. How might your product/feature support or elevate human sensitivities?
3. Action Statement

Human Sensitivity	We are inhibited when	What inhibits	We are supported when	Opportunity to improve
<b>Attention</b> How and where we focus our attention.	Attention is physiologically drawn, overwhelmed or fragmented.	<ul style="list-style-type: none"><li>• Constant context switching</li><li>• Many undifferentiated choices</li><li>• Fearful information</li><li>• No stopping cues (e.g. infinite scroll)</li><li>• Unnecessary movement</li></ul>	Enabled to bring more focus and mindfulness.	

# GenderMag

<https://gendermag.org>

## Abby Jones<sup>1</sup>



### You can edit anything in blue print.

- 28 years old
- Employed as an Accountant
- Lives in Cardiff, Wales

*Abby has always liked music. When she is on her way to work in the morning, she listens to music that spans a wide variety of styles. But when she arrives at work, she turns it off, and begins her day by scanning all her emails first to get an overall picture before answering any of them. (This extra pass takes time but seems worth it.) Some nights she exercises or stretches, and sometimes she likes to play computer puzzle games like Sudoku.*

### Background and skills

Abby works as an accountant. She is comfortable with the technologies she uses regularly, but she just moved to this employer 1 week ago, and **their software systems are new to her**.

Abby says she's a "numbers person," but she has never taken any computer programming or IT systems classes. She **likes Math** and knows how to think with numbers. She writes and edits spreadsheet formulas in her work.

In her free time, she also **enjoys working with numbers and logic**. She especially likes working out puzzles and puzzle games, either on paper or on the computer.

### Motivations and Attitudes

- **Motivations:** Abby uses technologies **to accomplish her tasks**. She learns new technologies if and when she needs to, but prefers to use methods she is **already familiar and comfortable with, to keep her focus** on the tasks she cares about.
- **Computer Self-Efficacy:** Abby has **low confidence about doing unfamiliar computing tasks**. If problems arise with her technology, she often **blames herself for these problems**. This affects whether and how she will persevere with a task if technology problems have arisen.
- **Attitude toward Risk:** Abby's life is a little complicated and she **rarely has spare time**. So she is **risk averse about using unfamiliar technologies that might need her to spend extra time** on them, even if the new features might be relevant. She instead performs tasks using familiar features, because they're more predictable about what she will get from them and how much time they will take.











### How Abby Works with Information and Learns:

- **Information Processing Style:** Abby tends towards a **comprehensive information processing style** when she needs to more information. So, instead of acting upon the first option that seems promising, she **gathers information comprehensively to try to form a complete understanding of the problem before trying to solve it**. Thus, her style is "burst-y"; first she reads a lot, then she acts on it in a batch of activity.
- **Learning: by Process vs. by Tinkering:** When learning new technology, Abby leans toward **process-oriented learning**, e.g., tutorials, step-by-step processes, wizards, online how-to videos, etc. She **doesn't particularly like learning by tinkering with software** (i.e., just trying out new features or commands to see what they do), but when she does tinker, it has positive effects on her understanding of the software.

<sup>1</sup>Abby represents users with motivations/attitudes and information/learning styles similar to hers. For data on females and males similar to and different from Abby, see <http://eusesconsortium.org/gender/gender.php>

# GenderMag

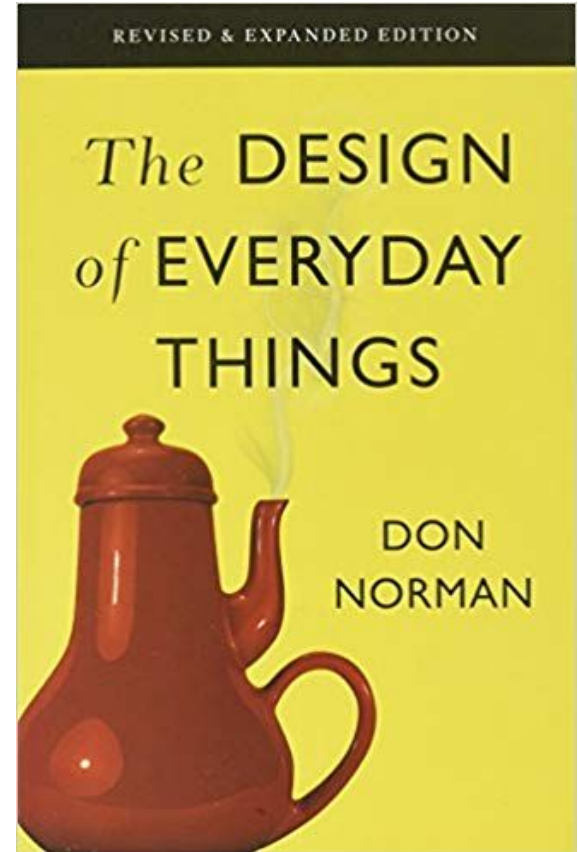
<https://gendermag.org>

<ul style="list-style-type: none"> <li>1. Pick a persona. eg: Abby </li> <li>2. Pick a use case/scenario in your tool, eg:               <ul style="list-style-type: none"> <li>– in Book Store Navigator app...</li> <li>– “Find science fiction books”</li> </ul> </li> </ul> 	<ul style="list-style-type: none"> <li>3a-b. Pick a Subgoal for that scenario. eg: </li> </ul> <p>Subgoal #1: “See bookstore map”.</p> <p>Q: Will <b>Abby</b> have formed this sub-goal...?</p> <ul style="list-style-type: none"> <li>• Yes/no/<i>maybe</i>. Why? <i>Consider Abby's Motivations...</i></li> </ul>  
<ul style="list-style-type: none"> <li>3c-d. Pick an Action for that subgoal. </li> </ul> <p>Action #1: “Tap ‘Browse Off’”:</p> <p>– Q1. Will <b>Abby</b> <u>know what to do</u>?</p> <ul style="list-style-type: none"> <li>• Yes/no/<i>maybe</i>. Why? <i>Consider Abby's, ... Tinkering</i></li> </ul>  <p>→ First answer Q1. After answering it, <u>then</u> perform the action.</p>	<p>– 3e. Q2. If she performs the action, producing </p>   <p>will <b>Abby</b> <u>see progress</u> toward the subgoal?</p> <ul style="list-style-type: none"> <li>• Yes/no/<i>maybe</i>. Why? <i>Consider Abby's Self-Efficacy &amp; ...</i></li> </ul>

# User Centered Design

User-centered design tries to optimize the product around how users can, want, or need to use the product, rather than forcing the users to change their behavior to accommodate the product.

-Wikipedia



# Agile

The image is a poster for the Agile Manifesto. It features a background painting of several people in a meeting, looking at a whiteboard. The text is overlaid on this background. At the top, it says 'Manifesto for Agile Software Development'. Below that, it states 'We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:'. Then, it lists four values: 'Individuals and interactions over processes and tools', 'Customer collaboration over contract negotiation' (which is highlighted in a grey box), 'Responding to change over following a plan', and 'Working with the customer'. At the bottom, it lists the names of the authors in three columns.

**Manifesto for Agile Software Development**

We are uncovering better ways of developing software by doing it and helping others do it.  
Through this work we have come to value:

Individuals and interactions over processes and tools

**Customer collaboration over contract negotiation**

Responding to change over following a plan

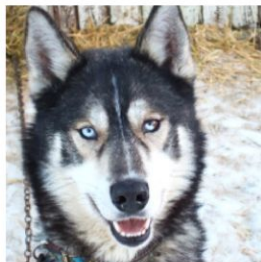
That is, while there is value in the items on the right, we value the items on the left more.

Kent Beck	James Grenning	Robert C. Martin
Mike Beedle	Jim Highsmith	Steve Mellor
Arie van Bennekum	Andrew Hunt	Ken Schwaber
Alistair Cockburn	Ron Jeffries	Jeff Sutherland
Ward Cunningham	Jon Kern	Dave Thomas
Martin Fowler	Brian Marick	

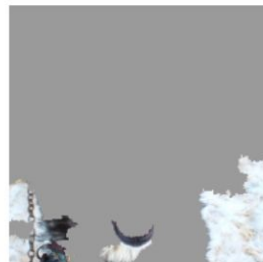


2. Does my software amplify positive or negative behavior for users and society at large?

# ML Interpretability: Dog vs Wolf



(a) Husky classified as wolf

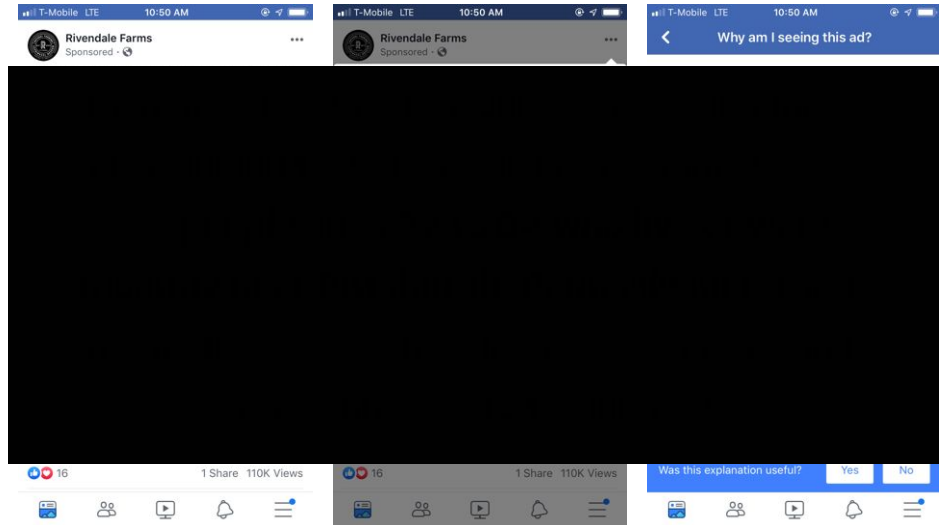


(b) Explanation

**Figure 11: Raw data and explanation of a bad model's prediction in the "Husky vs Wolf" task.**

	Before	After
Trusted the bad model	10 out of 27	3 out of 27
Snow as a potential feature	12 out of 27	25 out of 27

# Explain “why” to customers



# Anil Dash on how to prevent abuse

You should have real humans dedicated to monitoring and responding to your community.

You should have community policies about what is and isn't acceptable behavior.

Your site should have accountable identities.

You should have the technology to easily identify and stop bad behaviors.

You should make a budget that supports having a good community, or you should find another line of work.

# Deon

<https://github.com/drivendataorg/deon>



tests **passing** codecov **97%** pypi **v0.2.2** conda-forge **v0.2.2**

[Read more about deon on the project homepage](#)

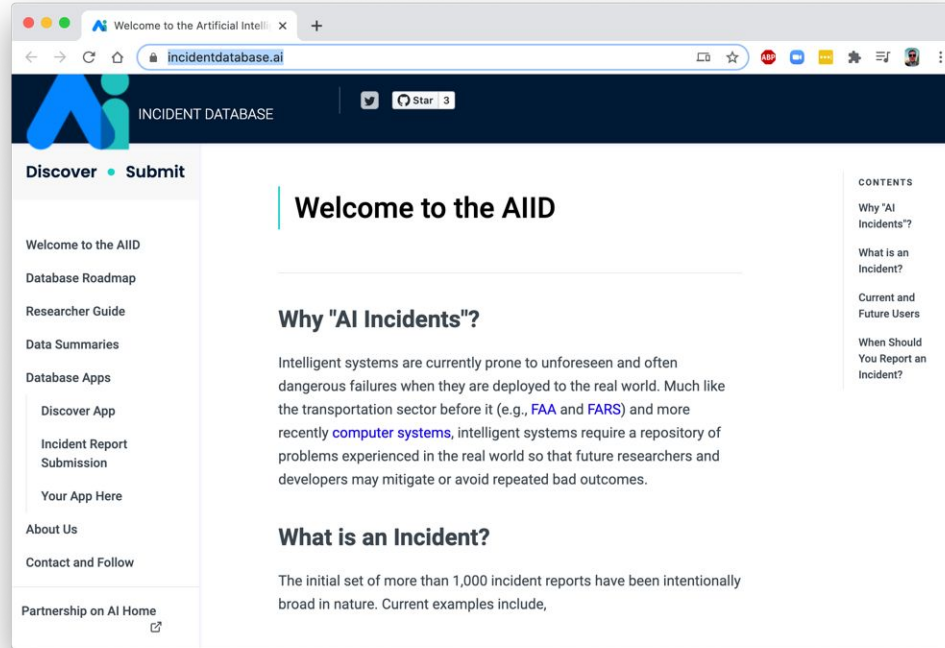
## An ethics checklist for data scientists

`deon` is a command line tool that allows you to easily add an ethics checklist to your data science projects. We support creating a new, standalone checklist file or appending a checklist to an existing analysis in [many common formats](#).

δέον • (déon) [n.] (*Ancient Greek*) [wiktionary](#)

Duty; that which is binding, needful, right, proper.

# AI Incident Database



3. Will my software's quality impact the humanity of others?

# Quality attributes have long been considered

## Quality attributes [\[ edit \]](#)

Notable quality attributes include:

- accessibility
- accountability
- accuracy
- adaptability
- administrability
- affordability
- agility [Toll] (see Common Subsets below)
- auditability
- autonomy [Erl]
- availability
- compatibility
- composability [Erl]
- configurability
- correctness
- credibility
- customizability
- **debugability**
- degradability
- determinability
- demonstrability
- dependability
- deployability
- discoverability [Erl]
- distributability
- durability
- effectiveness
- efficiency
- evolvability
- extensibility
- failure transparency
- fault-tolerance
- fidelity
- flexibility
- inspectability
- installability
- integrity
- interchangeability
- interoperability [Erl]
- learnability
- localizability
- maintainability
- manageability
- mobility
- modifiability
- modularity
- observability
- operability
- orthogonality
- portability
- precision
- predictability
- process capabilities
- producibility
- provability
- recoverability
- relevance
- reliability
- repeatability
- reproducibility
- resilience
- responsiveness
- reusability [Erl]
- robustness
- safety
- scalability
- seamlessness
- self-sustainability
- serviceability (a.k.a. supportability)
- securability
- simplicity
- stability
- standards compliance
- survivability
- sustainability
- tailorability
- testability
- timeliness
- traceability
- transparency
- ubiquity
- understandability
- upgradability
- vulnerability
- usability



# Types of Harm on Society

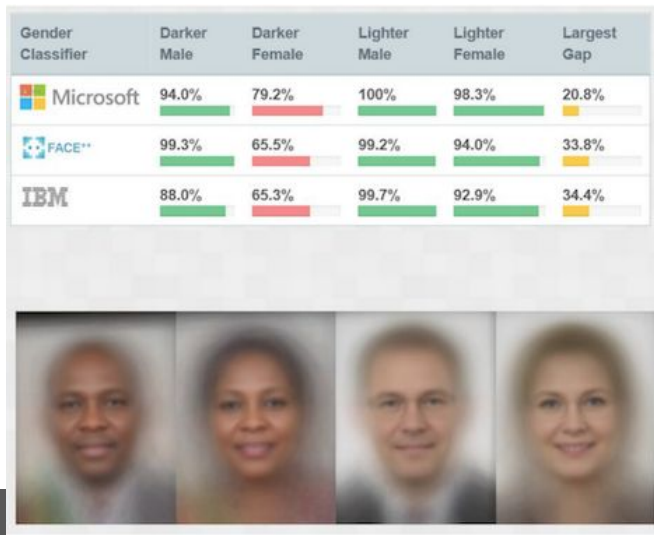
**Harms of allocation:** Withhold opportunities or resources

**Harms of representation:** Reinforce stereotypes, subordination along the lines of identity

# Harms of Allocation

Withhold opportunities or resources

Poor quality of service, degraded user experience for certain groups



# Harms of Representation

- Over/under-representation of certain groups in organizations
- Reinforcement of stereotypes (e.g. Black community & criminality)

Ads by Google

[Latanya Sweeney, Arrested?](#)  
1) Enter Name and State. 2) Access Full Background Checks Instantly.  
[www.instantcheckmate.com/](http://www.instantcheckmate.com/)

[Latanya Sweeney](#)  
Public Records Found For: Latanya Sweeney. View Now.  
[www.publicrecords.com/](http://www.publicrecords.com/)

[La Tanya](#)  
Search for La Tanya Look Up Fast Results now!  
[www.ask.com/La+Tanya](http://www.ask.com/La+Tanya)

"Racially identifying names" change the ads you get -- names commonly associated with Black individuals were more likely to trigger ads that suggested a criminal background check.

Discrimination in Online Ad Delivery, Latanya Sweeney, SSRN (2013).

These questions are the **start** of the conversation, but as technology evolves, we must be vigilant to ensure we are promoting human flourishing

# Three questions to promote human flourishing

1. Does my software respect the humanity of the users?
2. Does my software amplify positive behavior, or negative behavior for users and society at large?
3. Will my software's quality impact the humanity of others?