

The Importance of Ethics in Data/AI Governance



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Peter Aiken, Ph.D.

- I've been doing this a long time
- My work is recognized as useful
- Associate Professor of IS (vcu.edu)
- Institute for Defense Analyses (ida.org)
- DAMA International (dama.org)
 - IDEAL Affinity Group
 - GenAI in Data Affinity Group
- Anything Awesome (anythingawesomes.com)
- Experienced w/ 500+ data management practices worldwide
- 13 books and dozens of articles
- Multi-year immersions
 - US DoD (DISA/Army/Marines/DLA)
 - Nokia
 - Deutsche Bank **\$1,500,000,000.00 USD**
 - Wells Fargo
 - Walmart
 - HUD ...



Program overview

- Term definitions
 - Governance
 - Data/AI Governance
 - Ethics
- Ethical dilemma
 - Data Perspective
 - AI Perspective
 - Integrated Perspective
- Ethical Lenses/Uses
- Specific Foci
- A Framework for Ethical Decision Making
- A Roadmap for Ethics
- In Summation/Q&A




*The Importance of Ethics
in Data/AI Governance*

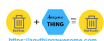
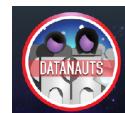
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Karen Lopez, Data Evangelist InfoAdvisors



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 facebook.com/lopezk
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Google

Governance

AI Mode **All** Images Shopping Videos News Forums More Tools

AI Overview

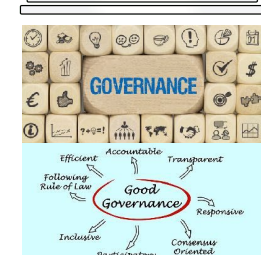
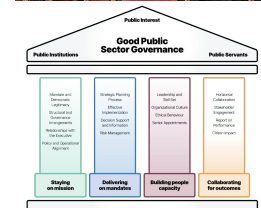
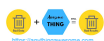
governance

/governən(t)s/

Governance is the system of rules, processes, and structures by which organizations or societies are directed, controlled, and held accountable. It involves decision-making, policy implementation, and balancing stakeholder interests to ensure transparency, integrity, and performance. Key forms include corporate, public, and global governance, aimed at guiding, managing, and regulating behavior. [The World Economic Forum +4](#)

Key Principles of Governance

- ✓ **Transparency:** Open communication and clear decision-making processes.
- ✓ **Accountability:** Responsibility for actions and decisions.
- ✓ **Equity and Inclusiveness:** Ensuring all stakeholders can participate.
- ✓ **Rule of Law:** Fair legal frameworks enforced impartially.
- ✓ **Effectiveness and Efficiency:** Delivering results that meet needs while making best use of resources. [IMF International Monetary Fund | IMF +4](#)



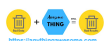
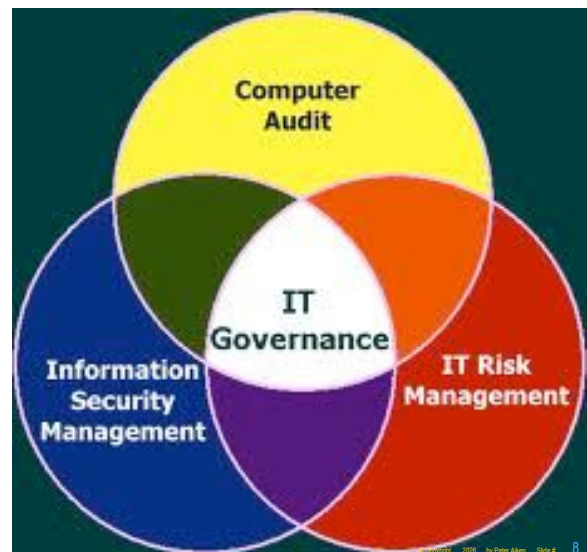
Corporate Governance

- "Corporate governance - which can be defined narrowly as the relationship of a company to its shareholders or, more broadly, as its relationship to society....",
Financial Times, 1997.
- "Corporate governance is about promoting corporate fairness, transparency and accountability"
James Wolfensohn, World Bank,
President Financial Times, June 1999.
- "Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment",
The Journal of Finance, Shleifer and Vishny, 1997.



IT Governance

- "Putting structure around how organizations **align IT strategy with business strategy**, ensuring that companies stay on track to achieve their strategies and goals, and implementing good ways to measure IT's performance.
- It makes sure that all stakeholders' interests are taken into account and that processes provide **measurable results**.
- Framework should answer some key questions, such as how the IT department is functioning overall, what **key metrics** management needs and what **return** IT is giving back to the business from the investment it's making." CIO Magazine (May 2007)
- IT Governance Institute, 5 foci:
 - Strategic Alignment
 - Value Delivery
 - Resource Management
 - Risk Management
 - Performance Measures



What is Data Governance?

Managing Data with Guidance

Go Ask
Anyone!™

*Would
you
want
your
sole,
non-
depletable,
non-
degrading,
durable,
strategic
asset
managed
without
guidance?*



Data Governance is

Managing Data **Decisions** with Guidance

Go Ask
Anyone!™

*Would
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your
sole,
non-
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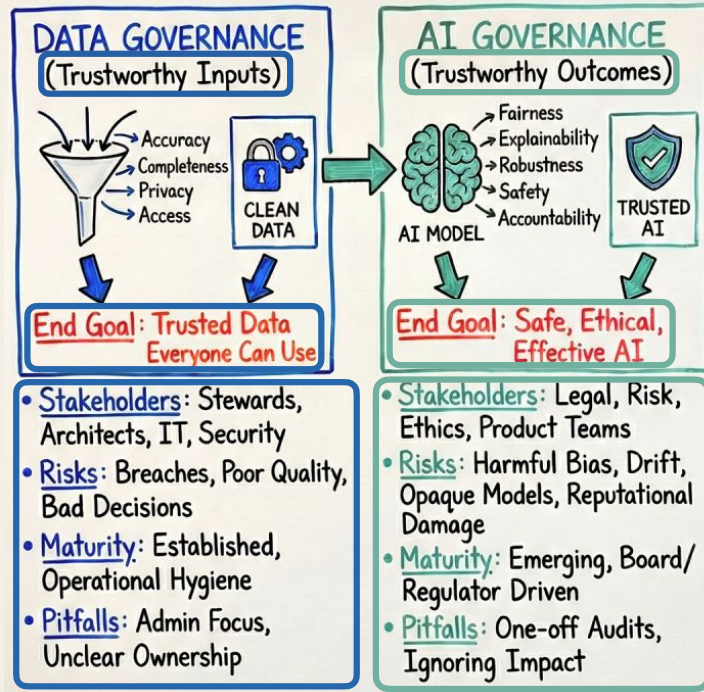




<https://www.linkedin.com/in/clarekitching>

DATA GOVERNANCE vs AI GOVERNANCE

INPUTS → OUTCOMES



https://www.linkedin.com/posts/clarekitching_the-basics-of-how-to-understand-ai-governance-activity-741717020757972944488e2
idm_source=share&utm_medium=member_desktop&src=ACoAAAR9vR8dJR2H5Zu01_13GQv6RAnz7h56s



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Bad Data Decisions for Big Decisions



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Bad data makes bad decisions: 58% of leaders report companies using inaccurate data for big decisions

Sixty-five percent say no one at their organization fully understands the data aggregated or how to access it, according to global study from SoftServe.

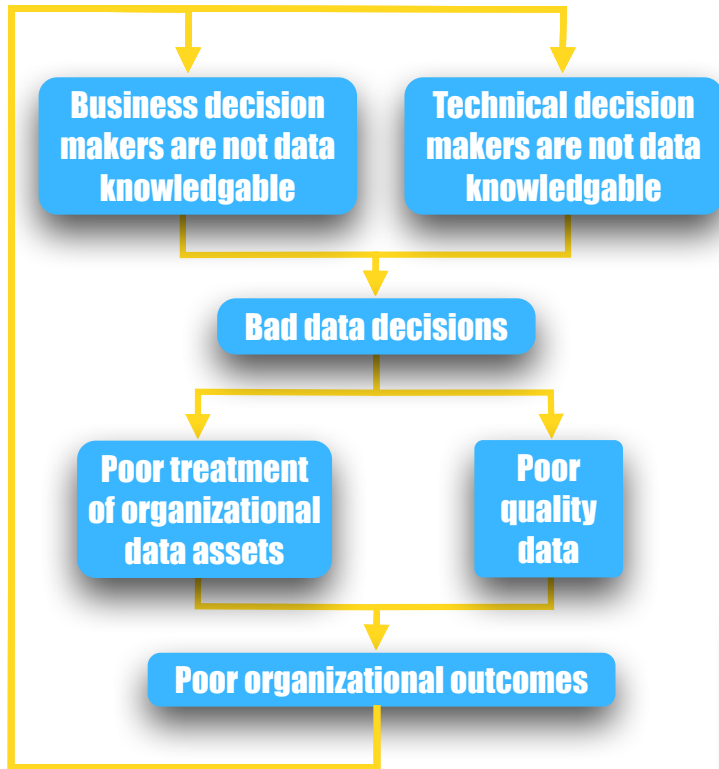
By **Managed Services Journal Staff** - February 15, 2025

<https://managementservicesjournal.com/articles/bad-data-makes-bad-decisions-58-of-leaders-report-companies-using-inaccurate-data-for-big-decisions/#:~:text=for big decisions, Bad data makes bad decisions: 58% of leaders report companies, to global study from SoftServe.>



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Bad Data Decisions Spiral



Bad data makes bad decisions: 58% of leaders report companies using inaccurate data for big decisions

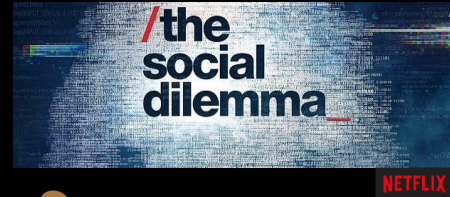
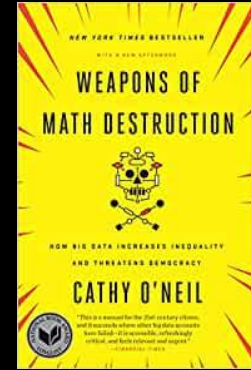
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By Managed Services Journal Staff - February 15, 2025

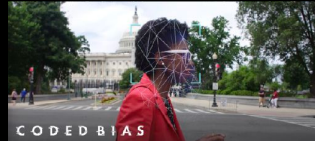


"Should I-thinking" must replace "Can I-thinking"

(First level capable of being bound by defined behaviors)



Data Ethics



Defining Data Ethics

- Principles of how organizations gather, protect, and use data
- A field of ethics that focuses on the moral obligations that entities have (or should have) when collecting and disseminating information about us
- Studies and evaluates moral problems related to data...and corresponding practices...in order to formulate and support morally good solutions
- Evaluates data practices with the potential to adversely impact people and society
- Moral obligations of gathering, protecting, and using personally identifiable information and how it affects individuals

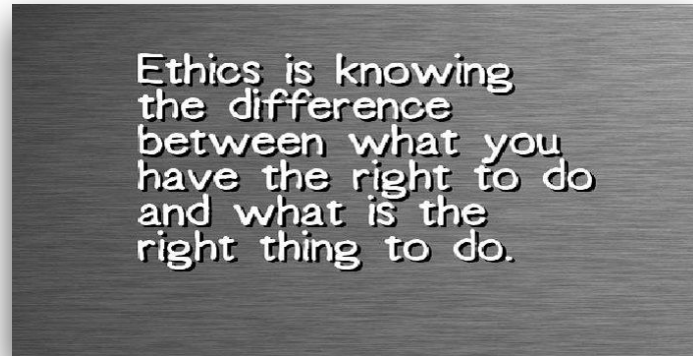
IMPORTANCE OF
DATA ETHICS
IN COLLECTING,
STORING, AND
PREPARING DATA

- RESPECT FOR PRIVACY
- ACCOUNTABILITY
- ACCURACY AND INTEGRITY
- LEGAL COMPLIANCE
- FAIRNESS AND BIAS



Thoughts on Data Ethics

- Ethical data decisions require a foundation
- Ethical data actions span project timelines
- Data Ethics, Legality, Morality, and Goodness are all different topics



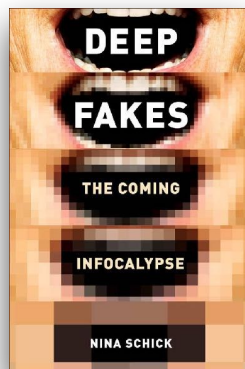
Situations tolerable?

- 9 Organizations control AI development
 - Tencent
 - Baidu
 - Alibaba
 - Amazon
 - Google
 - Facebook
 - Microsoft
 - IBM
 - Apple (Amy Webb *The Big Nine*)
- All but a small fraction of content on the internet is AI generated by 2026
 - Dangerous political consequences of the Infocalypse, both in terms of national security and what it means for public trust in politics (Nina Schick *Deepfakes, The Coming Infocalypse*)
- Privacy is relinquished to serve the goals of advertising?
 - In modern capitalist society, technology was, is, and always will be an expression of the economic objectives that direct it into action (Shoshana Zuboff *The Age of Surveillance Capitalism*)

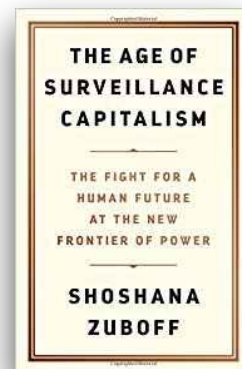
Data Governance



AI Governance



Data Governance



AI Perspective (outcomes)



AI Governance isn't about saying "no"; it's about creating a framework for "yes, safely." If you want to move the needle, your governance strategy should prioritize these four broad outcome categories:

Risk Mitigation & Compliance

This is the "defensive" play, but it's the foundation. Without it, a single lawsuit or regulatory fine can wipe out years of ROI.

- **Regulatory Alignment:** Ensuring models comply with evolving laws like the EU AI Act or industry-specific mandates (HIPAA, GDPR).
- **Bias & Fairness:** Detecting and neutralizing algorithmic bias to prevent reputational damage and discriminatory outcomes.
- **Security & IP Protection:** Preventing "data leakage" where sensitive corporate intellectual property is inadvertently fed into public LLMs.

Operational Excellence & Reliability

A model that works 80% of the time is a liability. Governance ensures that AI behaves like a professional-grade asset, not a science project.

- **Model Accuracy & Drift:** Monitoring systems to ensure that as the world changes, the model's performance doesn't degrade (the "silent killer" of AI projects).
- **Traceability:** Being able to explain why a model made a specific decision. In many industries, "the black box said so" is an unacceptable answer.
- **Standardization:** Reducing "shadow AI" by providing a centralized, governed path for deployment.

Economic Value & Resource Efficiency

Governance is the best tool we have for financial stewardship. I've seen millions wasted on redundant models and inefficient compute.

- **Cost Transparency:** Tracking the "Total Cost of Ownership" (TCO) for AI, including tokens, compute, and human oversight.
- **Portfolio Rationalization:** Ensuring you aren't building five different "customer sentiment" models across five different departments.
- **Value Realization:** Moving beyond "cool demos" to actual KPIs—measuring if the AI actually reduced churn or increased throughput.

Trust & Human Centricity

If your employees and customers don't trust the output, they will circumvent the system.

- **Transparency:** Clearly labeling AI-generated content or decisions so stakeholders know when they are interacting with a machine.
- **Accountability:** Establishing clear "Human-in-the-Loop" (HITL) protocols—who is responsible when the model hallucinates?
- **Ethical Integrity:** Aligning AI outputs with the core values and mission of the organization.

The Consultant's "Hard Truth"

Most organizations fail because they treat these as separate silos. In reality, they are deeply interconnected. For example, you cannot achieve Economic Value if your Operational Reliability is low, because the cost of fixing errors will outpace the gains in efficiency.



Data/AI Governance

- Catching input errors for the sake of AI benefits the entire organization
- Catching them systematically is more effective and efficient than playing wack-a-mole
- Creating a cadre of professionals who are good at this benefits the entire organization



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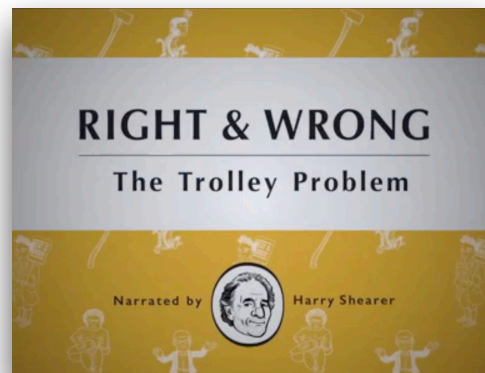
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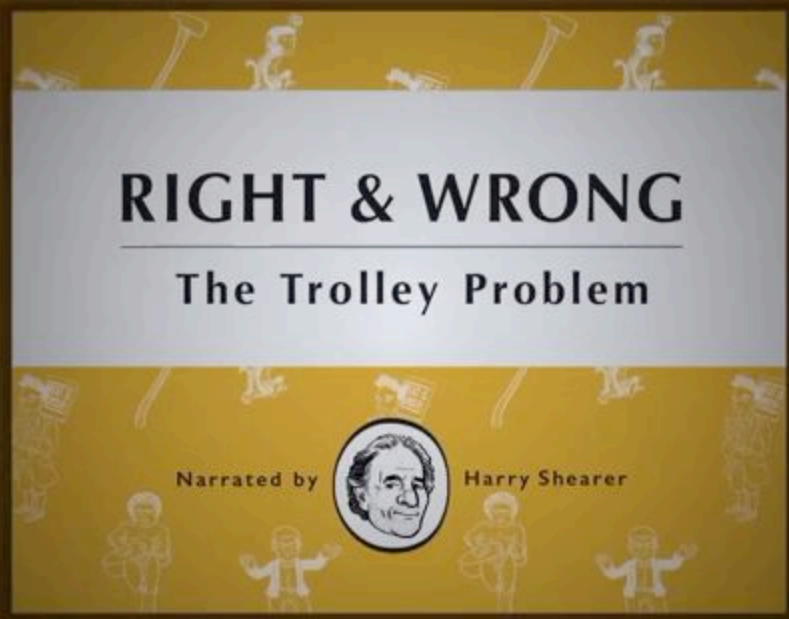
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Understanding Ethical and Social Issues Related to Systems

- Five Moral Dimensions of the Information Age
 - Information rights and obligations
 - Property rights and obligations
 - Accountability and control
 - System quality
 - Quality of life

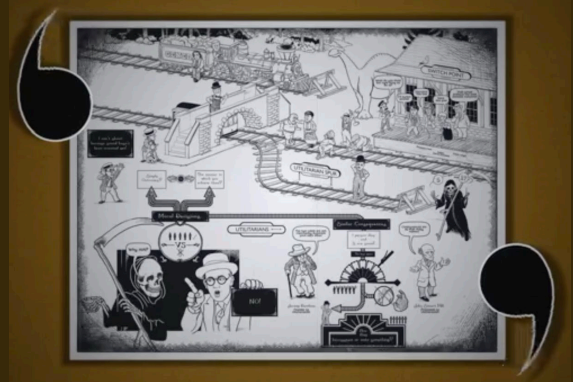




From Ethical Data Perspective

What if?

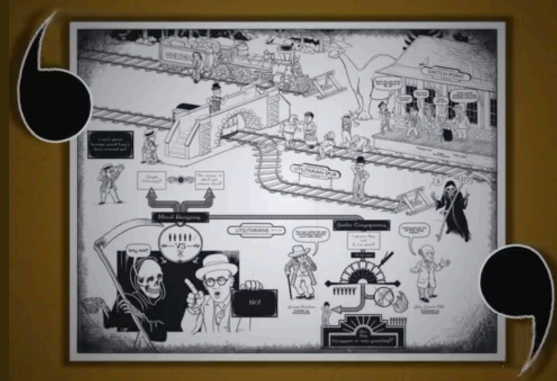
- A malfunctioning sensor incorrectly reports the number of workers on the track?
- An sensors incorrectly report five souls on the track causing you to kill one?
- An individual urging you to push the large individual off the bridge to save the five workers incorrectly estimates and you kill six instead of five?
- The scale incorrectly stops you from pushing the large individual because of insufficient weight?
- ...



From Ethical AI Perspective

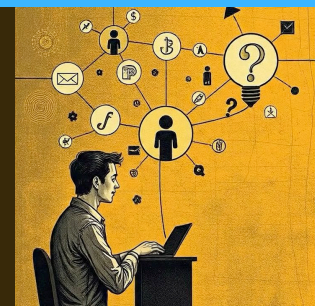
What if?

- AI incorrectly estimates the number of workers on the track?
- An AI makes the decision to switch the trolley to kill one instead of five?
- The trolley's AI switches the track?
- Surveillance AI stops you from pushing the large individual?
- ...



Ethical Thinking

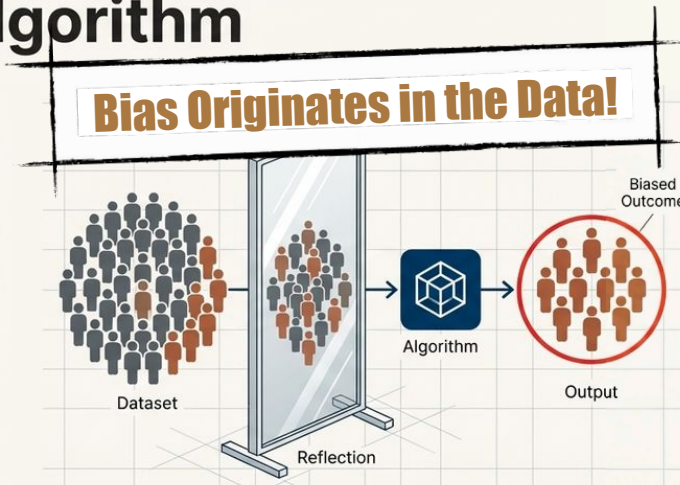
- No easy answers
 - Save five and sacrifice one?
 - Push the large individual off the bridge?
 - No correct answer
 - Best support is to provide a framework for these decisions
- Wouldn't it be nice?
 - Always save five
 - Always push the large individual off the bridge
- Frameworks do not exist for most organizations
- Data literacy is at such a low rate, these conversations are not considered
- They are generally not part of any academic programs
- Especially true for data science



The Ethical Minefield: Bias is in the Data, Not the Algorithm



- **Data is a Mirror:** AI models don't create bias; they amplify the historical, societal, or operational biases already present in the training data.
- **Algorithmic Accountability:** We are responsible for the decisions made by the models we build. Unauditable data leads to indefensible outcomes.
- **Lineage is the First Defense:** If you cannot trace a data point back to its origin, you cannot assess, audit, or mitigate the bias it may contain.



- Statistical malpractice is a real thing
- **An algorithm is a mirror, not a judge.** AI doesn't invent prejudice out of thin air. Instead, it acts as a high-fidelity amplifier for the systemic inequalities, skewed sampling, and historical shortcuts already baked into our institutional records.
 - If a bank's historical lending data shows that a specific demographic was consistently denied loans over the last 30 years, an AI trained on that data won't "see" a history of systemic exclusion.

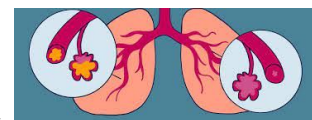


Ethical Concerns



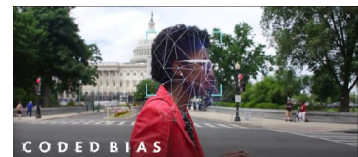
- Whether digitizing or modernizing, garbage in–garbage out is constant. It seems such an easy concept. Yet, repeatedly we discover concerning aspects of production systems. Poor results include:

- Presenting with Pneumonia and ASTHMA at an emergency department and receiving an evaluation of no-big-deal



AI Governance

- Recognition systems that cannot 'see' certain individuals



Data Governance

- Sentencing algorithms with obvious discriminatory biases in production throughout the judicial system

AI Governance

- Self-driving Software Systems that cannot tell the difference between a semi-truck and horse-drawn carriage

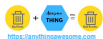


20 Seconds of Self-driving Software

1. Horse and buggy
2. Pedestrian
3. Semi-truck
4. Semi-truck sideways
5. Pickup truck
6. Semi-truck
7. Oncoming semi
8. Pedestrian following pickup truck
9. Pedestrian following semi-truck



<https://www.dailymail.co.uk/sciencetech/article-11123757/Teslas-self-driving-software-confuses-horse-drawn-carriage-highway-semi-truck.html>



<https://anythingsaysome.com>

AI Governance

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What Ethics Is Not

- Ethics is not the same as feelings.
 - Feelings do provide important information for our ethical choices. However, while some people have highly developed habits that make them feel bad when they do something wrong, others feel good even though they are doing something wrong. And, often, our feelings will tell us that it is uncomfortable to do the right thing if it is difficult.
- Ethics is not the same as religion.
 - Many people are not religious but act ethically, and some religious people act unethically. Religious traditions can, however, develop and advocate for high ethical standards, such as the Golden Rule.
- Ethics is not the same thing as following the law.
 - A good system of law does incorporate many ethical standards, but law can deviate from what is ethical. Law can become ethically corrupt—a function of power alone and designed to serve the interests of narrow groups. Law may also have a difficult time designing or enforcing standards in some important areas and may be slow to address new problems.
- Ethics is not the same as following culturally accepted norms.
 - Cultures can include both ethical and unethical customs, expectations, and behaviors. While assessing norms, it is important to recognize how one's ethical views can be limited by one's own cultural perspective or background, alongside being culturally sensitive to others.
- Ethics is not science.
 - Social and natural science can provide important data to help us make better and more informed ethical choices. But science alone does not tell us what we ought to do. Some things may be scientifically or technologically possible and yet unethical to develop and deploy.

Many of these are often "in the mix"



<https://anythingsaysome.com>

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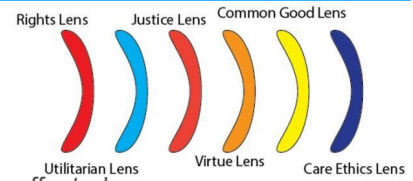


Sample ethical questions

- Is it right to lie?
- Is it right to steal?
- Is it right to kill?
- Is it right to discriminate against others?
- Is it right to pollute the environment?
- Is it right to use animals in medical research?



Six Ethical Lenses



- The Rights Lens
 - – The one that best protects and respects the **moral** rights of those affected. <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/rights/>
- The Utilitarian Lens
 - Some ethicists begin by asking, “How will this action impact **everyone** affected?”—emphasizing the consequences of our actions. <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/calculating-consequences-the-utilitarian-approach/>
- The Justice Lens
 - Justice is the idea that each person should be given their due, and what people are due is often interpreted as fair or **equal** treatment. <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/justice-and-fairness/>
- The Virtue Lens
 - A very ancient approach to ethics argues that ethical actions ought to be consistent with certain **ideal** virtues that provide for the full development of our humanity. <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/ethics-and-virtue/>
- The Common Good Lens
 - According to the common good approach, life in community is a good in itself and our actions should **contribute** to that life. <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/the-common-good/>
- • The Care Ethics Lens
 - Care ethics is rooted in relationships and in the need to listen and respond to **individuals** in their specific circumstances, rather than merely following rules or calculating utility. <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/care-ethics/care-ethics.html>



Adapted from: <https://www.scu.edu/ethics/ethics-resources/a-framework-for-ethical-decision-making/>

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Professional Codes of Conduct

- Promulgated by associations of professionals
 - For example: AMA, ABA, AITP, ACM, DAMA
- Promises by professions to regulate themselves in the general interest of society
- Real-world ethical dilemmas
- One set of interests pitted against another
 - For example: right of company to maximize productivity of workers versus workers right to use Internet for short personal tasks



HARDY REED CODE OF CONDUCT

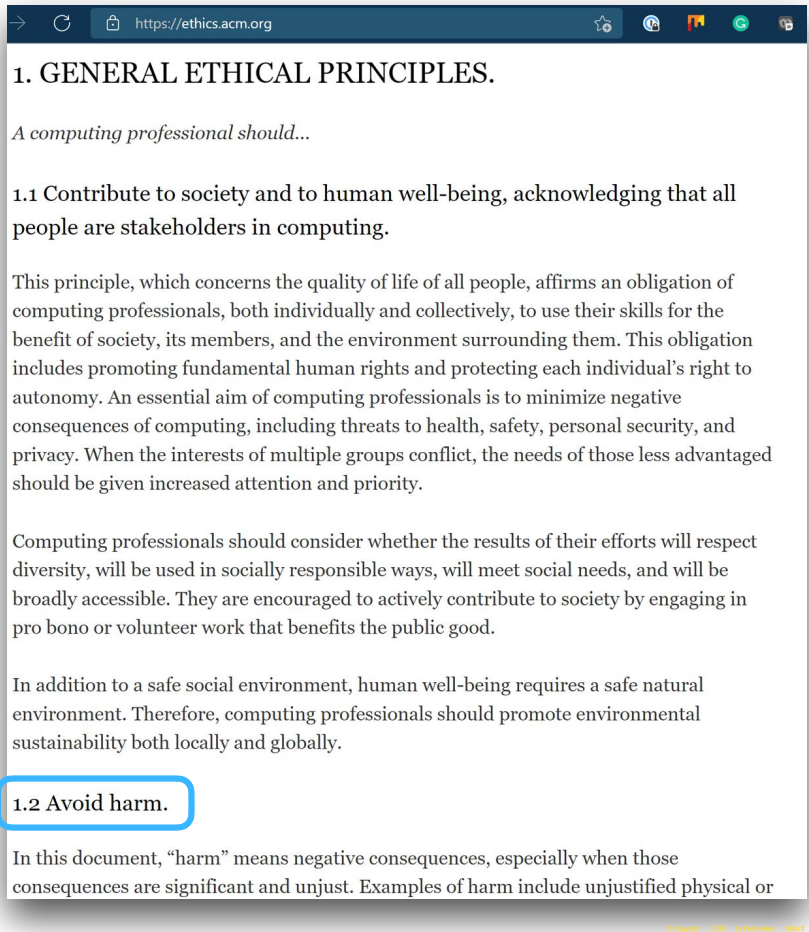
We recognize that this Code of Conduct and its principles and obligations are in addition to those set forth by any other codes that govern our professional and ethical conduct.

<p>FIDUCIARY</p> <p style="font-size: x-small;">We have the singular duty of loyalty and the responsibility to act in the utmost good faith. We act in the best interest of every client and always place the client's interest first and foremost. We will avoid conflicts of interest and disclose and manage unavoidable conflicts.</p>	<p>FAIRNESS</p> <p style="font-size: x-small;">We will be responsible when determining the value of our services, taking into consideration the time, skill, experience, and special circumstances involved in providing our services.</p>
<p>INTEGRITY</p> <p style="font-size: x-small;">We will act with integrity and avoid conflicts of interest, real or perceived. We are in a position of trust and confidence with our clients, and our integrity is the cornerstone of all we do. We will strive to observe not only the letter, but also the spirit, of the Code.</p>	<p>PROFESSIONALISM</p> <p style="font-size: x-small;">We will act in a manner that demonstrates admirable professional conduct. We will operate with integrity, trustworthiness, courtesy, and diligence with our clients and others. We will work to improve the quality of our services and raise the professional standards in our industry.</p>
<p>OBJECTIVITY</p> <p style="font-size: x-small;">We will ensure the timely and understandable disclosure of relevant information that is accurate, complete, and objective. We must be impartial and intellectually honest in all dealings with our clients.</p>	<p>DILIGENCE</p> <p style="font-size: x-small;">We will work diligently, thoroughly, and with reasonable timeliness in providing our professional services. This includes the required planning, patience, and consistency.</p>
<p>TRANSPARENCY</p> <p style="font-size: x-small;">This firm was founded on a key principle: to be free of conflicts of interest. Our only compensation is the fully disclosed professional fee our clients pay us. We will now accept any other compensation from any other source.</p>	<p>COMPETENCE</p> <p style="font-size: x-small;">We are committed to acquiring, maintaining, and continually improving the professional knowledge and skills required to effectively provide the scope of services to our clients. It is also important that we know the limits of our expertise and refer our clients to colleagues and/or other professionals in connection with issues beyond our knowledge and skills.</p>
<p>CONFIDENTIALITY</p> <p style="font-size: x-small;">We will respect and safeguard the confidentiality of information acquired in the course of our work and now disclose such information to others except when authorized or otherwise legally obliged to do so. We will not use confidential information acquired in the course of our work to our personal advantage.</p>	

“Partnerships Built on Trust”

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Example: ACM Code of Ethics



→ ↻ 🔒 https://ethics.acm.org

1. GENERAL ETHICAL PRINCIPLES.

A computing professional should...

1.1 Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing.

This principle, which concerns the quality of life of all people, affirms an obligation of computing professionals, both individually and collectively, to use their skills for the benefit of society, its members, and the environment surrounding them. This obligation includes promoting fundamental human rights and protecting each individual's right to autonomy. An essential aim of computing professionals is to minimize negative consequences of computing, including threats to health, safety, personal security, and privacy. When the interests of multiple groups conflict, the needs of those less advantaged should be given increased attention and priority.

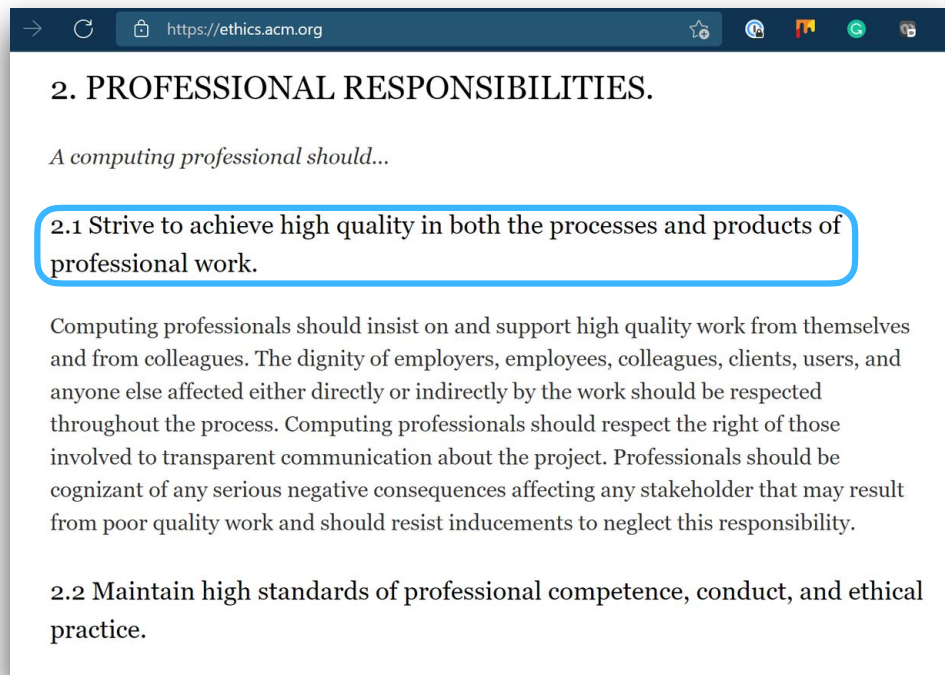
Computing professionals should consider whether the results of their efforts will respect diversity, will be used in socially responsible ways, will meet social needs, and will be broadly accessible. They are encouraged to actively contribute to society by engaging in pro bono or volunteer work that benefits the public good.

In addition to a safe social environment, human well-being requires a safe natural environment. Therefore, computing professionals should promote environmental sustainability both locally and globally.

1.2 Avoid harm.

In this document, "harm" means negative consequences, especially when those consequences are significant and unjust. Examples of harm include unjustified physical or

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→ ↻ 🔒 https://ethics.acm.org

2. PROFESSIONAL RESPONSIBILITIES.

A computing professional should...

2.1 Strive to achieve high quality in both the processes and products of professional work.

Computing professionals should insist on and support high quality work from themselves and from colleagues. The dignity of employers, employees, colleagues, clients, users, and anyone else affected either directly or indirectly by the work should be respected throughout the process. Computing professionals should respect the right of those involved to transparent communication about the project. Professionals should be cognizant of any serious negative consequences affecting any stakeholder that may result from poor quality work and should resist inducements to neglect this responsibility.

2.2 Maintain high standards of professional competence, conduct, and ethical practice.



https://ethics.acm.org

3. PROFESSIONAL LEADERSHIP PRINCIPLES.

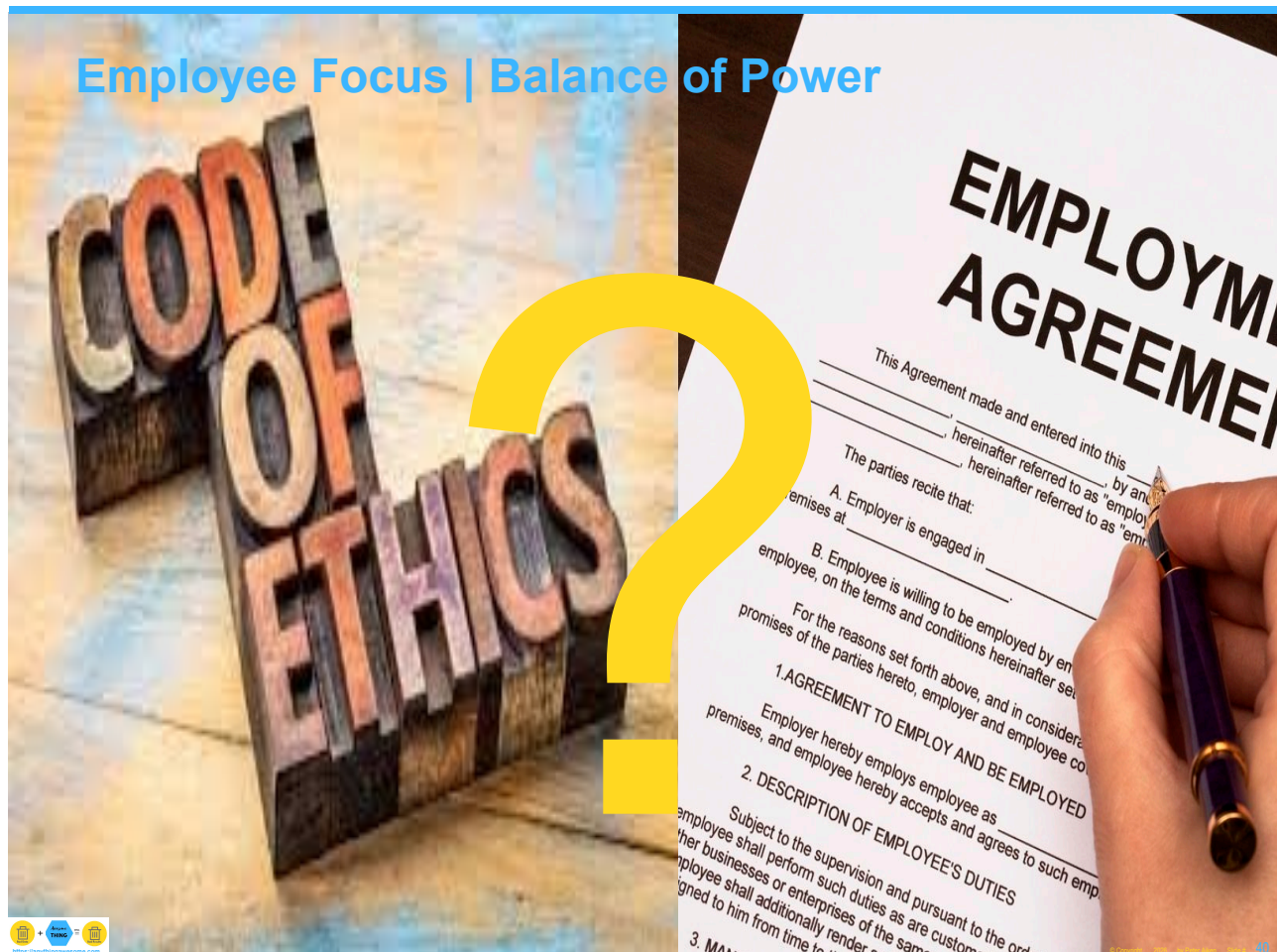
Leadership may either be a formal designation or arise informally from influence over others. In this section, “leader” means any member of an organization or group who has influence, educational responsibilities, or managerial responsibilities. While these principles apply to all computing professionals, leaders bear a heightened responsibility to uphold and promote them, both within and through their organizations.

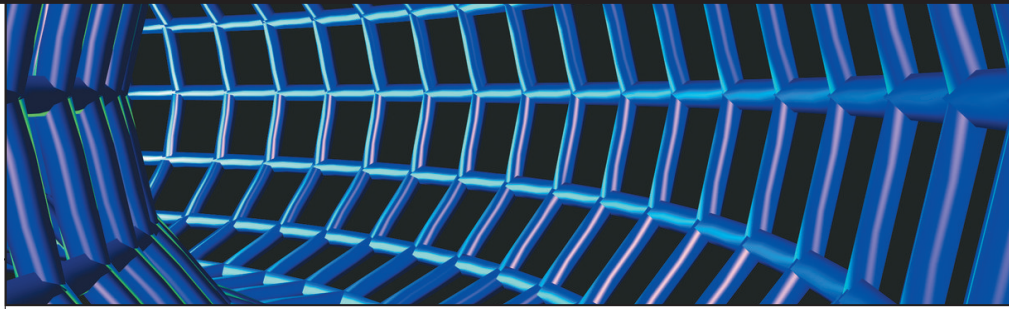
A computing professional, especially one acting as a leader, should...

3.1 Ensure that the public good is the central concern during all professional computing work.

People—including users, customers, colleagues, and others affected directly or indirectly—should always be the central concern in computing. The public good should always be an explicit consideration when evaluating tasks associated with research, requirements analysis, design, implementation, testing, validation, deployment, maintenance, retirement, and disposal. Computing professionals should keep this focus no matter which methodologies or techniques they use in their practice.

3.2 Articulate, encourage acceptance of, and evaluate fulfillment of social responsibilities by members of the organization or group.





Using Codes of Conduct to Resolve Legal Disputes

Peter Aiken, *Virginia Commonwealth University*
Robert M. Stanley and Juanita Billings, *Data Blueprint*
Luke Anderson, *Duane Morris LLC*

In the absence of other published standards of care, it is reasonable for contractual parties to rely on an applicable, widely available code of conduct to guide expectations.



Aiken, P. et al. "Use of the IEEE Codes of Conduct to Resolve Legal Disputes" *IEEE Computer* ISSN: 0018-9162 April 2010 43(4):29-34

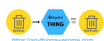
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*The Importance of Ethics
in Data/AI Governance*

 **DATA-ED**
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 **DATAVERSITY**



Topic #1: Ransomware

MOTHERBOARD
TECH BY VICE

Data Governance

[somware-hackers-apologize-to-arab-royal-families-for-leaking-their-data](https://www.vice.com/en/article/n7nw8m/conti-ransomware-hackers-apologize-to-arab-royal-families-for-leaking-their-data)

- Would you advise a criminal organization to adopt data governance?
- What advice would you give them?
- What advice wouldn't you give them?

Hackers Apologize to Arab Royal Families for Leaking Their Data

<https://www.vice.com/en/article/n7nw8m/conti-ransomware-hackers-apologize-to-arab-royal-families-for-leaking-their-data>

- October 2021
 - Conti (infamous ransomware gang) released thousands of files stolen from the UK jewelry store.
- Now, the hackers would like the world to know that they regret their decision, perhaps in part because they released files belonging to very powerful people. ...
 - "We found that our sample data was not properly reviewed before being uploaded to the blog," the hackers wrote in an announcement published on Thursday. "Conti guarantees that any information pertaining to members of Saudi Arabia, UAE, and Qatar families will be deleted without any exposure and review."
 - "Our Team apologizes to His Royal Highness Prince Mohammed bin Salman and any other members of the Royal Families whose names were mentioned in the publication for any inconvenience," the hackers added.
- Imagine being a big-time ransomware hacker, thinking that you're pretty tough, fancying yourself a master criminal, giving yourself an intimidating online alias, maybe even being able, in certain circumstances, to call down violence on your enemies, and then realizing one day that you'd accidentally hacked a guy who had a journalist kidnapped, tortured to death and then dismembered with a bone saw for criticizing him.
- They are adding new compliance procedures to make sure this won't happen again:
 - The hackers also said that other than publishing the data on their site, they did not sell it or trade, and that from now on they will "implement a more rigid data review process for any future operations."
- We have talked before about the compliance function at ransomware firms. If you run a legal company, you have a compliance department to make sure that you don't do anything illegal, or at least, if your company is really big, to keep the illegality within acceptable limits. If you run a criminal gang, you have concerns that are different in degree but directionally similar: Your whole business is doing illegal things, sure, but you don't want to do too many things that are too illegal. You want to do crimes that make you money, but not crimes that get you shut down. You want to steal information from rich people and extort money from them. But not Mohammed bin Salman! Good lord!



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Topic #2: Crypto

AI Governance



- "Every Bitcoin user has access to the public Bitcoin blockchain and can see every Bitcoin address and its respective transfers. Due to this publicity, it is possible to determine the identities of Bitcoin address owners by analyzing the blockchain," the ruling read. "There is no intrusion into a constitutionally protected area because there is no constitutional privacy interest in the information on the blockchain."
- The HSI agent wasn't caught in the Welcome to Video dragnet because IRS agents had violated his privacy. He was caught, the judges concluded, because he had mistakenly believed his Bitcoin transactions to have ever been private in the first place.



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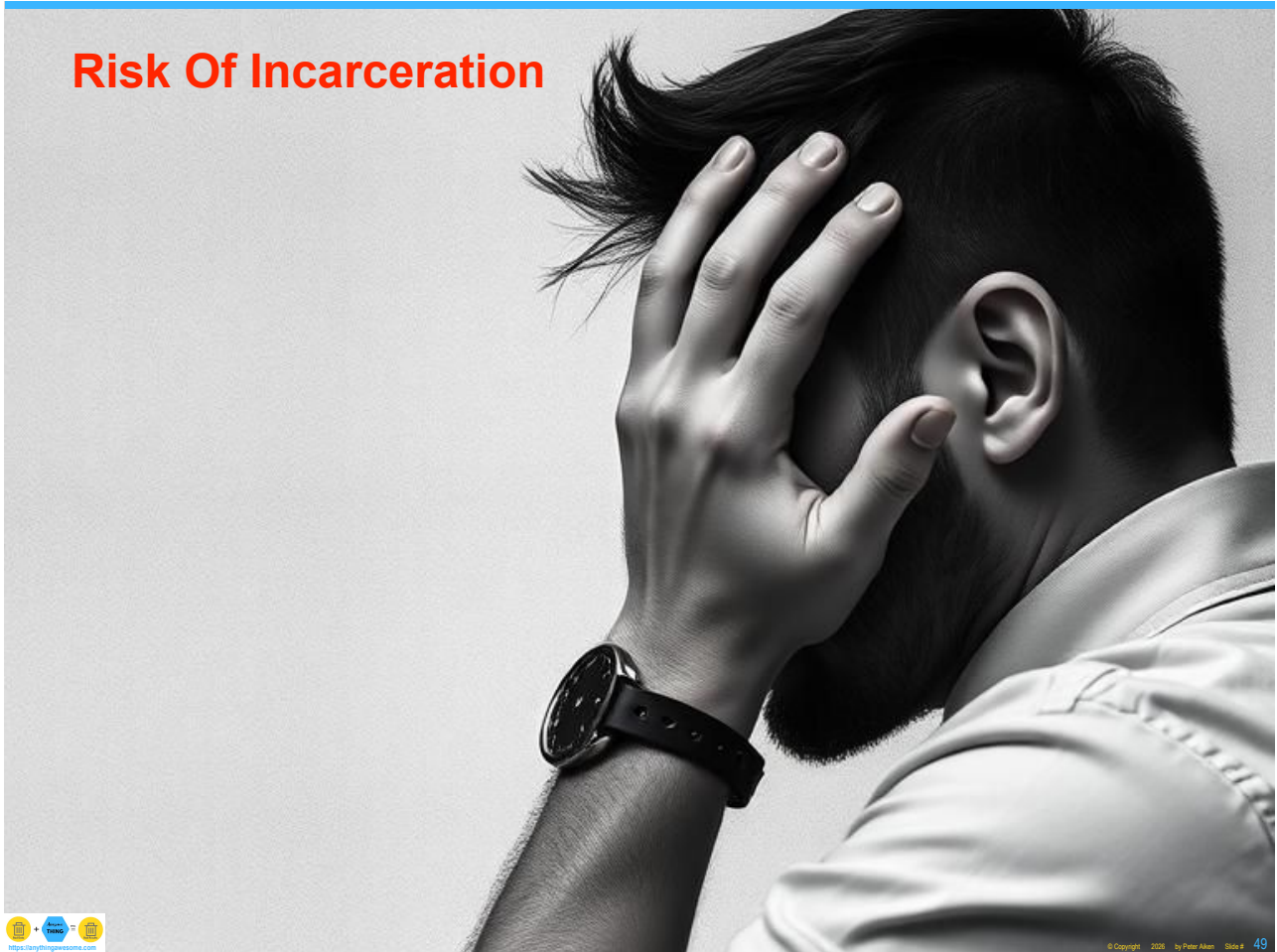
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ROI



Risk Of Incarceration



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Home > News & Events > Newsroom

News Release 2020-132 | October 7, 2020

OCC Assesses \$400 Million Civil Money Penalty Against Citibank

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WASHINGTON—The Office of the Comptroller of the Currency (OCC) today assessed a \$400 million civil money penalty against Citibank, N.A., of Sioux Falls, South Dakota, related to deficiencies in enterprise-wide risk management, compliance risk management, data governance, and internal controls.

The OCC took these actions based on the bank's unsafe or unsound banking practices for its long-standing failure to establish effective risk management and data governance programs and internal controls. This failure also resulted in a violation of 12 CFR Part 30, Appendix D, "OCC Guidelines Establishing Heightened Standards for Certain Large Insured National Banks, Insured Federal Savings Associations, and Insured Federal Branches."

The agency also issued a cease and desist order requiring the bank to take broad and comprehensive corrective actions to improve risk management, data governance, and internal controls. The order requires the bank to seek the OCC's non-objection before making significant new acquisitions and reserves the OCC's authority to implement additional business restrictions or require changes in senior management and the bank's board should the bank not make timely, sufficient progress in complying with the order.

The Federal Reserve Board took a separate but related action against Citigroup, the bank's holding company.

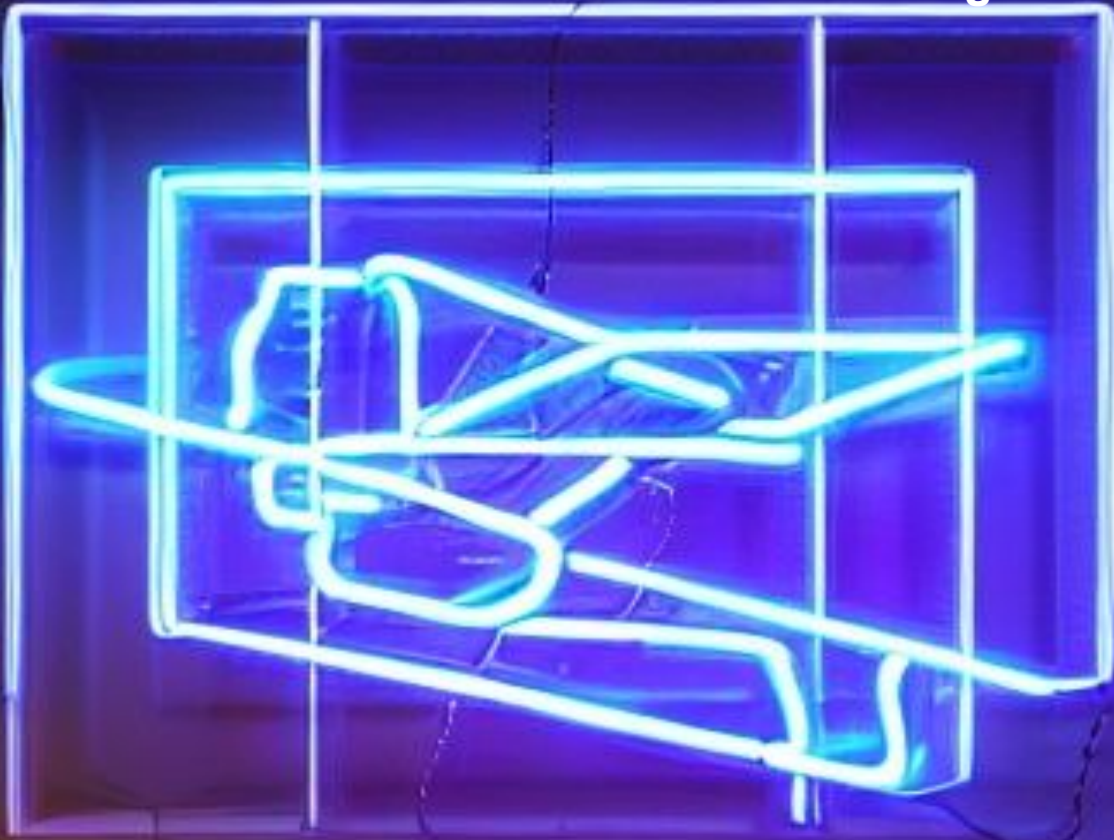
The OCC penalty will be paid to the U.S. Treasury.

Media Contact

Bryan Hubbard
(202) 649-6870



A Framework for Ethical Data Decision Making



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A Framework for Ethical Data Decision-Making



• Identify the Ethical Issues

1. Could this decision or situation be damaging to someone or to some group, or unevenly beneficial to people? Does this decision involve a choice between a good and bad alternative, or perhaps between two “goods” or between two “bads”?
2. Is this issue about more than solely what is legal or what is most efficient? If so, how?

• Get the Facts

3. What are the relevant facts of the case? What facts are not known? Can I learn more about the situation? Do I know enough to make a decision?
4. What individuals and groups have an important stake in the outcome? Are the concerns of some of those individuals or groups more important? Why?
5. What are the options for acting? Have all the relevant persons and groups been consulted? Have I identified creative options?

• Evaluate Alternative Actions

6. Evaluate the options by asking the following questions:
 - Which option best respects the rights of all who have a stake? (The Rights Lens)
 - Which option treats people fairly, giving them each what they are due? (The Justice Lens)
 - Which option will produce the most good and do the least harm for as many stakeholders as possible? (The Utilitarian Lens)
 - Which option best serves the community as a whole, not just some members? (The Common Good Lens)
 - Which option leads me to act as the sort of person I want to be? (The Virtue Lens)
 - Which option appropriately takes into account the relationships, concerns, and feelings of all stakeholders? (The Care Ethics Lens)

• Choose an Option for Action and Test It

7. After an evaluation using all of these lenses, which option best addresses the situation?
8. If I told someone I respect (or a public audience) which option I have chosen, what would they say?
9. How can my decision be implemented with the greatest care and attention to the concerns of all stakeholders?

• Implement Your Decision and Reflect on the Outcome

10. How did my decision turn out, and what have I learned from this specific situation?
What (if any) follow-up actions should I take?



Adapted from: <https://www.scu.edu/ethics/ethics-resources/a-framework-for-ethical-decision-making/>

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Data Ethics Canvas

<https://theodi.org/article/data-ethics-canvas/>

<p>Data sources</p> <p>Name/describe your project's key data sources, whether you're collecting data yourself or accessing via third parties.</p> <p>Is any personal data involved, or data that is otherwise sensitive?</p>	<p>Limitations in data sources</p> <p>Are there limitations that could influence your project's outcomes?</p> <ul style="list-style-type: none"> — bias in data collection, inclusion/exclusion, analysis, algorithms — gaps or omissions in data — provenance and data quality — other issues affecting decisions, such as team composition 	<p>Sharing data with others</p> <p>Are you going to be sharing data with other organisations? If so, who?</p> <p>Are you planning to publish any of the data? Under what conditions?</p>	<p>Ethical and legislative context</p> <p>What existing ethical codes apply to your sector or project? What legislation, policies, or other regulation shape how you use data? What requirements do they introduce?</p> <p>Consider: the rule of law; human rights; data protection; IP and database rights; anti-discrimination laws; and data sharing, policies, regulation and ethics codes/frameworks specific to sectors (eg health, employment, taxation).</p>	<p>Rights around data sources</p> <p>Where did you get the data from? Is it produced by an organisation or collected directly from individuals?</p> <p>Was the data collected for this project or for another purpose? Do you have permission to use this data, or another basis on which you're allowed to use it? What ongoing rights will the data source have?</p>
<p>Your reason for using data</p> <p>What is your primary purpose for collecting and using data in this project?</p> <p>What are your main use cases? What is your business model?</p> <p>Are you making things better for society? How and for whom?</p> <p>Are you replacing another product or service as a result of this project?</p>	<p>Communicating your purpose</p> <p>Do people understand your purpose — especially people who the data is about or who are impacted by its use?</p> <p>How have you been communicating your purpose? Has this communication been clear?</p> <p>How are you ensuring more vulnerable individuals or groups understand?</p> <p>How are you ensuring more vulnerable individuals or groups understand?</p>	<p>Positive effects on people</p> <p>Which individuals, groups, demographics or organisations will be positively affected by this project? How?</p> <p>How are you measuring and communicating positive impact? How could you increase it?</p>	<p>Negative effects on people</p> <p>Who could be negatively affected by this project?</p> <p>Could the way that data is collected, used or shared cause harm or expose individuals to risk of being re-identified? Could it be used to target, profile or prejudice people, or unfairly restrict access (eg exclusive arrangements)?</p> <p>How are limitations and risks communicated to people? Consider: people who the data is about, people impacted by its use and organisations using the data.</p>	<p>Minimising negative impact</p> <p>What steps can you take to minimise harm?</p> <p>How could you reduce any limitations in your data sources? How are you keeping personal and other sensitive information secure?</p> <p>How are you measuring, reporting and acting on potential negative impacts of your project?</p> <p>What benefits will these actions bring to your project?</p>
<p>Engaging with people</p> <p>How can people engage with you about the project?</p> <p>How can people correct information, appeal or request changes to the product/service? To what extent?</p> <p>Are appeal mechanisms reasonable and well understood?</p>	<p>Openness and transparency</p> <p>How open can you be about this project?</p> <p>Could you publish your methodology, metadata, datasets, code or impact measurements?</p> <p>Can you ask peers for feedback on the project?</p> <p>How will you communicate it internally?</p> <p>Will you publish your actions and answers to this canvas openly?</p>	<p>Ongoing implementation</p> <p>Are you routinely building in thoughts, ideas and considerations of people affected in your project? How?</p> <p>What information or training might be needed to help people understand data issues?</p> <p>Are systems, processes and resources available for responding to data issues that arise in the long-term?</p>	<p>Reviews and iterations</p> <p>How will ongoing data ethics issues be measured, monitored, discussed and actioned?</p> <p>How often will your responses to this canvas be reviewed or updated? When?</p>	<p>Your actions</p> <p>What actions will you take before moving forward with this project? Which should take priority?</p> <p>Who will be responsible for these actions, and who must be involved?</p> <p>Will you openly publish your actions and answers to this canvas?</p>



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The Importance of Ethics in Data/AI Governance



Roadmap for Ethics in Governance

• Ensure Data/AI Governance, Data & AI, and Data & AI Ethics Literacy

- Tell stories about all of those, often
- Incorporate Data Ethics reviews and corrections at all phases
- Handle corrections in a non-blaming manner
- Plan for "stop work" instructions, especially with experienced professionals
- Reward ethical behavior, even when it impacts project plans
- Review and Refine



Key Technology Trends That Raise Data Ethics Issues



- Doubling of computer power
 - More organizations depend on computer systems for critical operations
- Rapidly declining data storage costs
 - Organizations can easily maintain detailed databases on individuals
- Networking advances and the Internet
 - Copying data from one location to another and accessing personal data from remote locations are much easier
 - Advances in data analysis techniques
- Profiling
 - Combining data from multiple sources to create dossiers of detailed information on individuals
- Nonobvious relationship awareness (NORA)
 - Combining data from multiple sources to find obscure hidden connections that might help identify criminals or terrorists
- Mobile device growth
 - Tracking of individual cell phones



Roadmap for Ethics in Governance

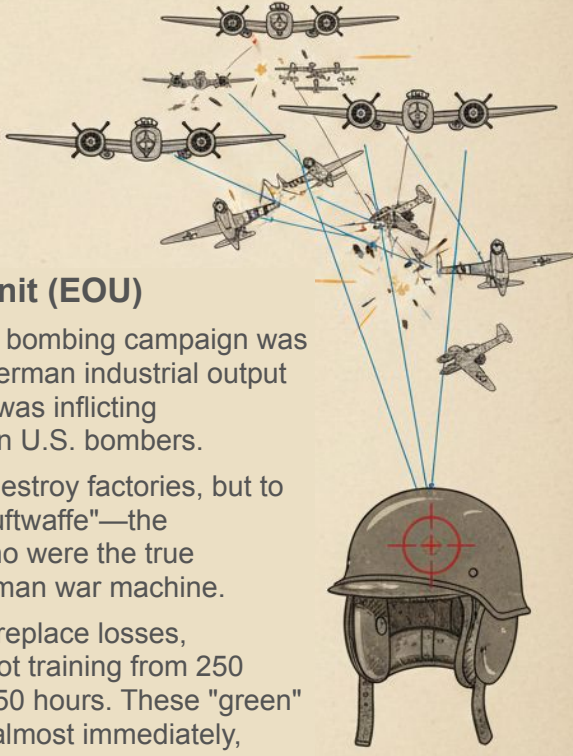
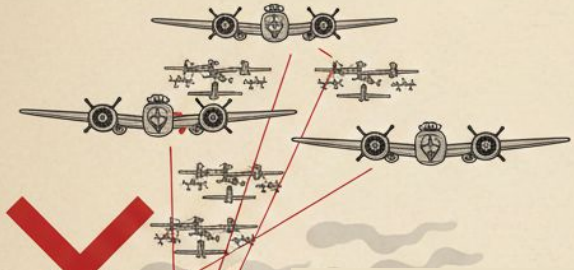
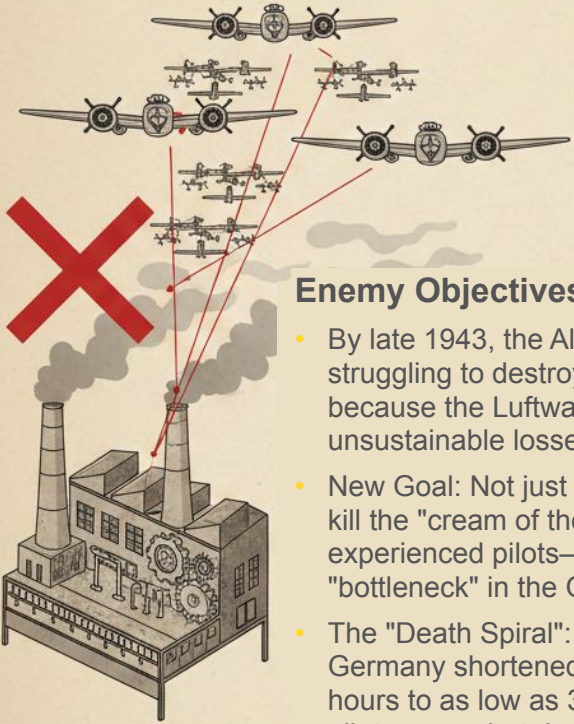
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The shift from "Industrial Destruction" to "Human Attrition" remains one of the most famous applications of economic theory to modern warfare



Enemy Objectives Unit (EOU)

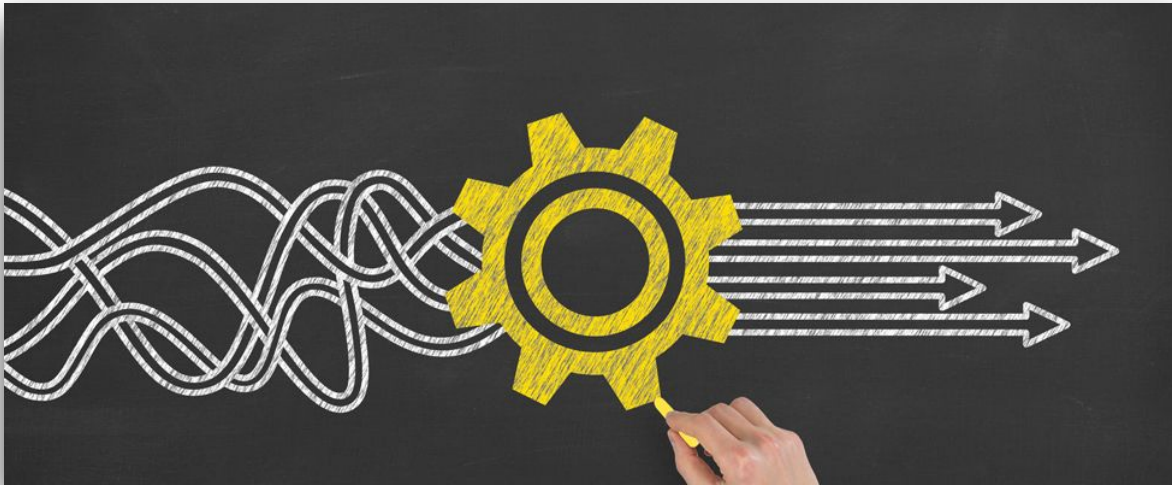
- By late 1943, the Allied bombing campaign was struggling to destroy German industrial output because the Luftwaffe was inflicting unsustainable losses on U.S. bombers.
- New Goal: Not just to destroy factories, but to kill the "cream of the Luftwaffe"—the experienced pilots—who were the true "bottleneck" in the German war machine.
- The "Death Spiral": To replace losses, Germany shortened pilot training from 250 hours to as low as 30–50 hours. These "green" pilots were shot down almost immediately, further depleting the pool and forcing training to be cut even shorter.

Source: Life of an Economist: An Autobiography (1991) by Charles P. Kindleberger

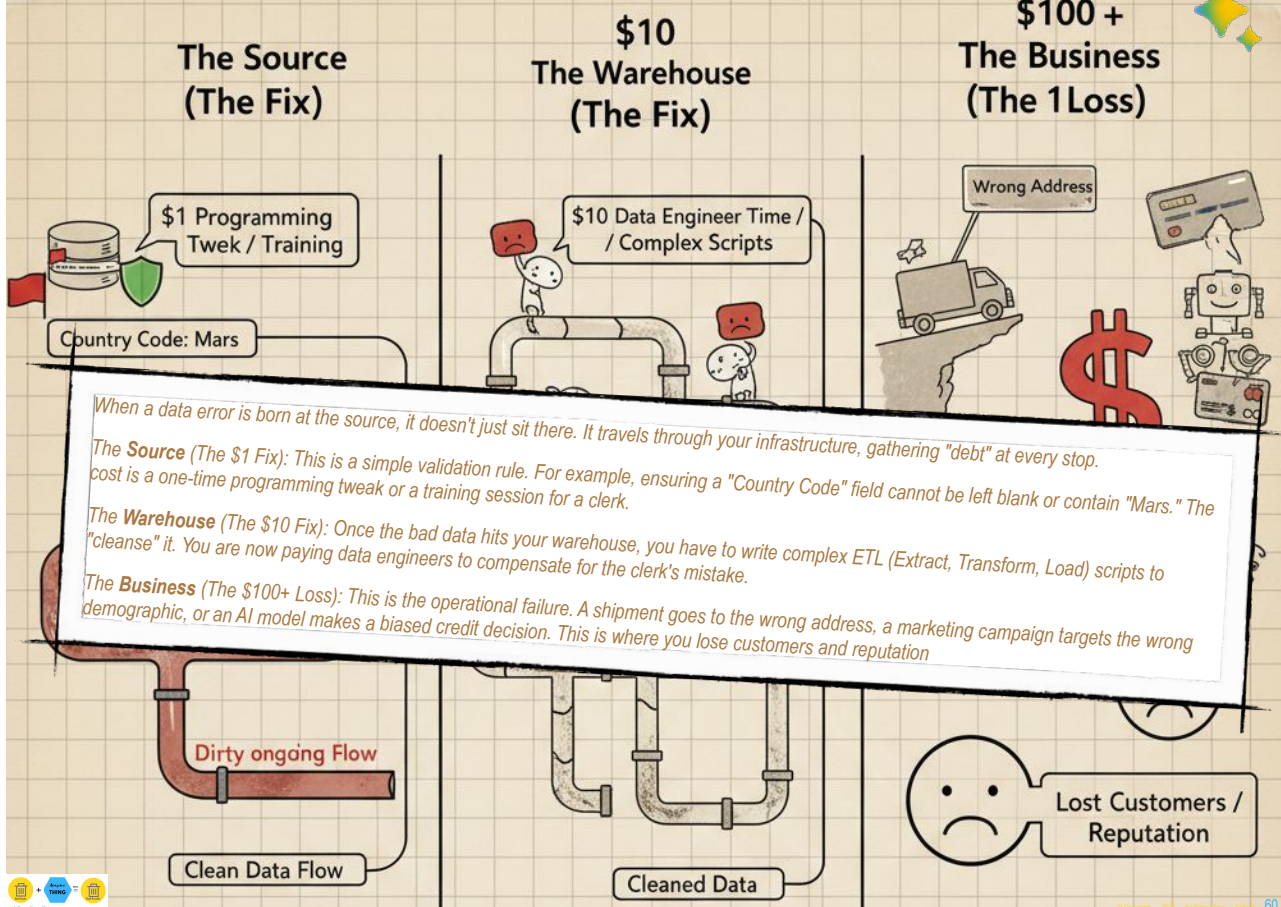


Data Quality/Governance & Data Ethics Topics

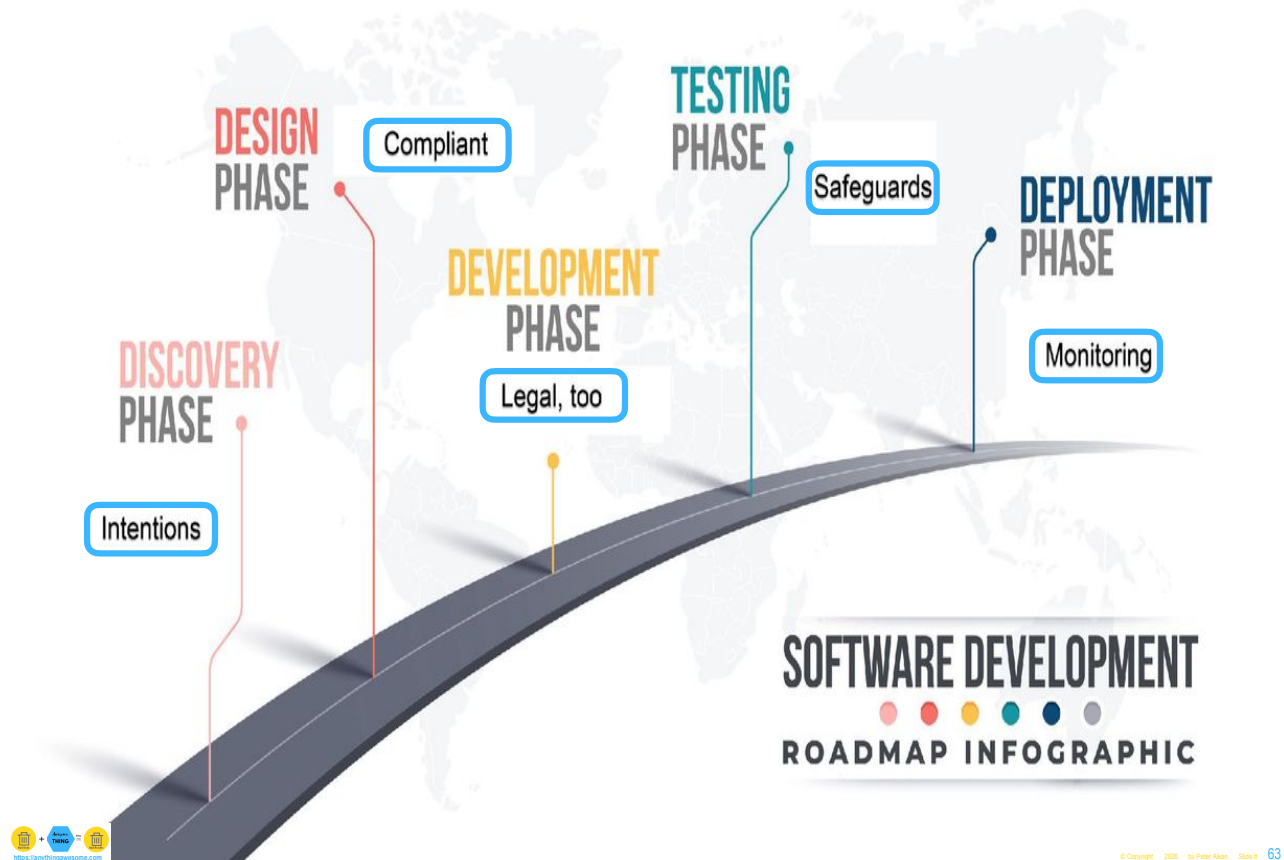
- Metrics
- Measurements
- Compliance/Enforcement
- Reporting up
- Reporting down
- Friends and Family



The Anatomy of the Cost Escalation-The 1-10-100 Rule of Data Quality



Every phase/sprint/waterfall should address data ethics



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Thoughts on Ethics



The IT profession has very little ethical oversight compared to other professions and almost zero focus on data ethics.



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Thoughts on Ethics



- Codes of conduct can guide individual foci
- Organizational employment agreements tend to guide workplace data ethics behavior
- These will conflict increasingly in the future.

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<https://anythingsaysome.com>

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Thoughts on Ethics

- Celebrate periodically
- Embrace deadline slips and contrast with the cost of legal or moral consequences



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Roadmap for Ethics in Governance

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The Ethical Blueprint for Data & AI Governance

To explain the critical role of ethics in governing data inputs and AI outcomes to prevent "Bad Data" decisions and build organizational trust.

Data Governance: Securing the Foundation

58% of leaders use inaccurate data for big decisions. Poor data quality leads to a "Bad Data Spiral" resulting in failed organizational outcomes.

The GIGO Principle: Garbage In, Garbage Out.

Even an "awesome" AI model still produces bad results when fed with bad data.

GARBAGE IN **GARBAGE OUT**

Focus on Trustworthy Inputs.
Governance ensures data accuracy, completeness, privacy, and access to create "Clean Data."

AI Governance: Ensuring Ethical Outcomes

From "No" to "Yes, Safely."
AI governance provides the framework to deploy models while mitigating bias and security risks.

Comparing Focus: Data Governance (Inputs) vs. AI Governance (Outcomes)

<p>Primary Goal: Trusted Data Everyone Can Use</p>	<p>Primary Goal: Safe, Ethical, and Effective AI</p>
<p>Key Stakeholders: Stewards, Architects, IT, Security</p>	<p>Key Stakeholders: Legal, Risk, Ethics, Product Teams</p>
<p>Core Risks: Breaches, Poor Quality, Bad Decisions</p>	<p>Core Risks: Harmful Bias, Model Drift, Opaque Models</p>

The Pillars of Trustworthy AI

Moving Beyond the "Black Box"
Governance requires traceability and human-in-the-loop protocols to explain why models make specific decisions.

Wrapping it up...



- Ethical isn't binary
- Ethical decisions are daily
- A foundation or framework is key

Upcoming Events

Time: 19:00 UTC (2:00 PM NYC) | Presented by: Peter Aiken, PhD

Data Integration Demystified: Enabling AI-Driven Interoperability

9 June 2026



AI-Powered Data Modeling Essentials

14 July 2026

Mastering Reference Data: An AI Essential for Reliable Business Information

11 August 2026

Brought to you by:

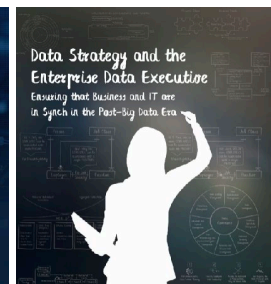
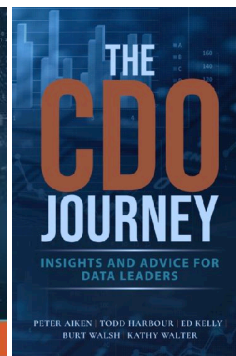
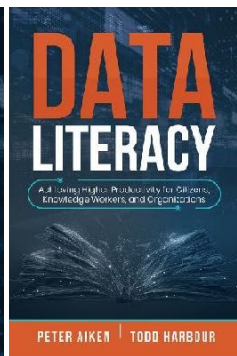
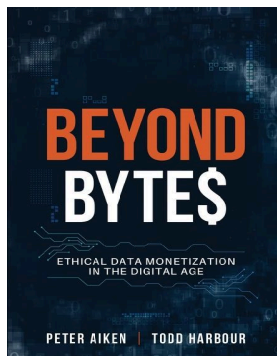


[Clicking any webinar title will link directly to the registration page]



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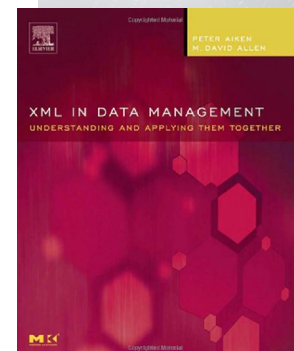
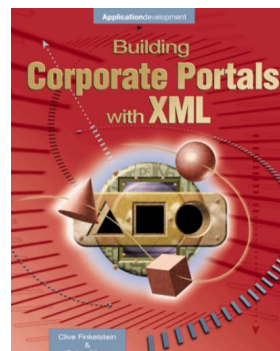
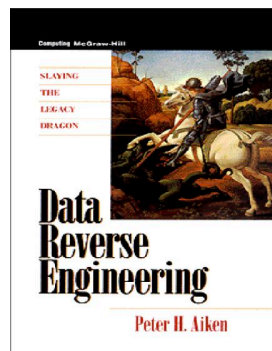
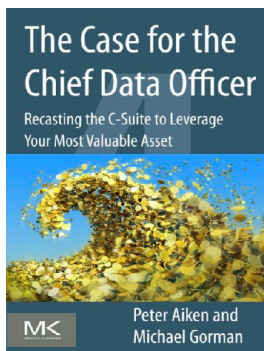
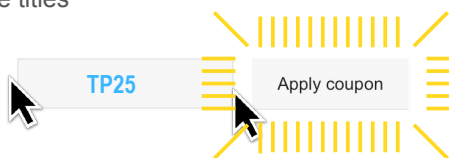
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• <https://anythingawesome.com/books> @

- Enter the code "TP25" at the Technics bookstore checkout where it says to "Apply Coupon"



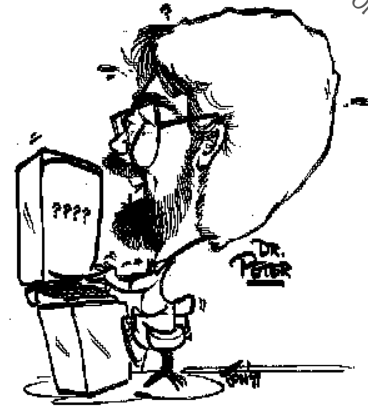
Independent Verification & Validation

Critical Design Review?

Mentoring?

Collaboration?

Executive Data Literacy Training?



Peter.Aiken@AnythingAwesome.com +1.804.382.5957

Reverse Engineering Expertise?

Hiring Assistance?

Thank You!

Use your data more strategically?

Tool/automation evaluation?



Book a call with Peter to discuss anything - <https://anythingawesome.com/OfficeHours.html>