Ethics, Analytics and the Duty of Care

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Teresina, Brazil, November 29, 2019

Introduction

Through the last few decades we have been subject to increasingly complex definitions of ethical behaviour with respect to learning, data, and analytics. But there ought to be more than rules. There ought to be humanity, life.

This talk is about a way to redefine ethics, drawing from the moral intuitions of philosophers, feminists, practitioners and teachers. It embraces the idea that morality and ethics are not requirements, not ways in which we judge each other, but opportunities, ways of letting us know how we can do good in this world, and a little bit about why.

This Presentation

Slides, audion and video are available at:

https://www.downes.ca/presentation/517

Your homework assignment ☺

- This presentation has been extensively documented with readings and resources. As much as possible, review these resources

- Find some resources that seem relevant to you

- Document the resource, and draw your own conclusions about it in a blog post, mailing list post, Twitter thread, whatever…

Front page Illustration by Petra Eriksson at Handsome Frank. https://aeon.co/essays/hume-is-the-amiable-modest-generous-philosopher-we-need-today

A. Ethics and Analytics

What are Learning Analytics?

- "the science of examining data to draw conclusions and, when used in decision making, to present paths or courses of action." (Picciano, 2012)

- "developing actionable insights through problem definition and the application of statistical models and analysis against existing and/or simulated future data." (Cooper, 2012)

Anthony G. Picciano. (2012). The Evolution of Big Data and Learning Analytics in American Higher Education. *Journal of Asynchronous Learning Networks*. 16: 9–20.
https://www.researchgate.net/publication/258206917_The_Evolution_of_Big_Data_and_Learning_Analytics_in_American_Higher_Education
Adam Cooper. (2012). What is Analytics? Definition and Essential Characteristics. *CETIS Analytics Series* Volume 1, No 5. University of Bolton.
https://pdfs.semanticscholar.org/98ab/3fbde3c583d30adf8e660a30e840ebaf2bf0.pdf

Academic Analytics

- Van Barneveld et al. (2012) distinguish between academic analytics and learning analytics.
    - In academic analytics, analytic technologies are used by higher education institutions to support operational and financial decisions.
    - In learning analytics are focused toward instruction, curriculum, and learning support with the objective of achieving specific learning goals.

Angela van Barneveld, Kim Arnold, John Campbell. (2012). Analytics in Higher Education: Establishing a Common Language EDUCAUSE Review. January 24, 2012. https://library.educause.edu/resources/2012/1/analytics-in-higher-education-establishing-a-common-language

Learning Analytics

- Boyer and Bonnin (2017) identify four major application areas for learning analytics:
  - Descriptive
  - Diagnostic
  - Predictive
  - Prescriptive
- To which I add a fifth:
  - Deontic

Descriptive Analytics

- Analytics focused on detection and reporting would fall under this category. The output of descriptive analytics includes visualizations such as pie charts, tables, bar charts or line graphs.

Diagnostic Analytics

- look more deeply into data in order to detect patterns and trends

- E.g. plagiarism detection. For example, Amigud, et.al. (2017) describe a "machine-learning based framework (that) learns students' patterns of language use from data."

- E.g. a neural network was able to determine how much of Shakespeare's play *Henry VIII* was written by a man named John Fletcher. (Plecháč, 2019)

Petr Plecháč. (2019). Relative contributions of Shakespeare and Fletcher in Henry VIII: An Analysis Based on Most Frequent Words and Most Frequent Rhythmic Patterns. arXiv:1911.05652, October, 2019. https://ui.adsabs.harvard.edu/abs/2019arXiv191105652P/abstract

Predictive Analytics

- For example, "predicting student learning success and providing proactive feedback have been two of the most frequently adopted tasks associated with learning analytics."

Dragan Gašević, Shane Dawson and George Siemens. (2015). Let's not forget: Learning analytics are about learning. *TechTrends* Volume 59, Number 1, January/February 2015
https://link.springer.com/content/pdf/10.1007%2Fs11528-014-0822-x.pdf

Prescriptive Analytics

- E.g. AI-based coaching.
  - Loutfi: because of the cost, workplace coaching is often limited to higher-level executives.
  - Companies such as LeaderAmp, which offers an AI-based coaching service, may change that.

Elizabeth Loutfi. (2019). What does the future hold for AI-enabled coaching? Chief Learning Officer. November 25, 2019.
https://www.chieflearningofficer.com/2019/11/25/ai-enabled-coaching/

Deontic Analytics

- an additional question that needs to be answered, and has been increasingly entrusted to analytics: "what ought to happen?"

- Recently the question has been asked with respect to self-driving vehicles in the context of Philippa Foot's 'trolley problem'. (Foot, 1967).

- More questions of this sort will come to the fore as analytics improves.

Philippa Foot. (1967). The Problem of Abortion and the Doctrine of the Double Effect in Virtues and Vices (Oxford: Basil Blackwell, 1978) (originally appeared in the Oxford Review, Number 5, 1967.) http://www2.econ.iastate.edu/classes/econ362/hallam/Readings/FootDoubleEffect.pdf

Ethics in Learning Analytics

- The ethics of analytics is particularly complex because issues arise when it works, and when it doesn't.

- Consequently, Narayan (2019) have classified these issues under three headings:
  - issues that arise when analytics works,
  - issues that arise because analytics are not yet reliable,
  - and issues that arise in cases where the use of analytics seems fundamentally wrong.

Arvind Narayan. (2019) How to Recognize AI Snake Oil. Summarized in Promises and Perils of AI Mar Hicks, Arvind Narayan, Sherry Turkle, Eden Medina. Collaborative panel summary on Google Docs. Accessed November 27, 2019.
https://docs.google.com/document/d/1s_AgoeL2y_4iuedGuQNH6Fl1744twhe8Kj2qSfTqyHg/edit?fbclid=IwAR0QSuS-QXJB8rxgni_zGm5KU0oQPa9AJPFv-NpKcBlOkKIJZ0J4uefhg0o#heading=h.ypt4v4y21eo5

When Analytics Works

- A lot of the time, analytics works really well, and this is a problem
  - Content identification (reverse image search, Shazam)
  - Face recognition, medical diagnosis from scans
  - Creative functions and deepfakes
  - Speech to text

Narayan (2019)

Privacy

- in one of the most high profile examples of the impact of privacy concerns on learning analytics, inBloom was dramatically closed down on April 21, 2014 (Kharif 2014).

Dai Griffiths, Hendrik Drachsler, Michael Kickmeier-Rust, Christina Steiner, Tore Hoel, Wolfgang Greller. (2016). Is Privacy A Show-Stopper For Learning Analytics? A Review Of Current Issues And Solutions.   Learning Analytics Community Exchange. Learning Analytics Review 6. 15 February 2016. http://www.laceproject.eu/learning-analytics-review/files/2016/04/LACE-review-6_privacy-show-stopper.pdf

Assssment

- Analytics data is being used to adjust health insurance rates (Davenport & Harris, 2007); it is no stretch to imagine learning analytics data being used for this purpose.

Thomas H. Davenport and Jeanne Harris. (2007). The Dark Side of Customer Analytics. *Harvard Business Review*. May, 2007. https://hbr.org/2007/05/the-dark-side-of-customer-analytics

Manipulation

- Analytics is used to create misleading images and videos (.k.a. Deepfakes)

- A company experiments on the use of Facebook news feeds and other data to alter the emotional states of users (Kramer, Guillory & Hancock, 2014); we can foresee similar experiments aimed at keeping classes in order.

Adam D. I. Kramer, Jamie E. Guillory, and Jeffrey T. Hancock. Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National Academy of Sciences* 2014;111:8788–8790. https://www.pnas.org/content/111/24/8788

When It Doesn't

- In cases involving automated judgement, AI needs improvement
  - Spam detection, detection of copyrighted materials
  - Automated essay grading
  - Hate speech detection
  - Content recommendation

Narayan (2019)

Bias

- ## What Causes AI Bias?
  - An incomplete or skewed training dataset
  - Labels used for training
  - Features, measuring and modeling technique

Josh Feast. (2019). 4 Ways to Address Gender Bias in AI. Harvard Business Review Online. November 20, 2019. https://hbr.org/2019/11/4-ways-to-address-gender-bias-in-ai

When It's Fundamentally Dubious

- Predicting criminal recidivism, policing, terrorist risk, at-risk kids

- Predicting job performance

- Predicting learning outcomes??

- AI is especially ill-suited for the prediction of social outcomes

Narayan (2019)

- Facial recognition analytics?

Mark Andrejevic & Neil Selwyn. (2019) Facial recognition technology in schools: critical questions and concerns, Learning, Media and Technology. Published online: 05 Nov 2019. https://www.tandfonline.com/doi/full/10.1080/17439884.2020.1686014

Identity Graphs

- Is it legal and ethical for 3rd parties to build consumer profiles from your social and online presence, merge it with their own internal data, credit scores and any other data sources they can find, and potentially sell back the enriched data to avid marketers?

Stéphane Hamel. (2016). The Elasticity of Analytics Ethics. Radical Analytics (weblog). Jun 28, 2016. https://radical-analytics.com/the-elasticity-of-analytics-ethics-7d8ac253a3b9

Racial Profiling

- Analytics used to identify specific races for special treatment
- "Imagine a billboard that alternated between advertising Cabernet Sauvignon or Malt Liquor depending on the skin tone of the person looking at it."

Hikvision Markets Uyghur Ethnicity Analytics, Now Covers Up
IPVM: https://ipvm.com/reports/hikvision-Uyghur

https://boingboing.net/2019/11/11/ethnicity-detection-camera.html

Social and Cultural Issues

- A fourth class addresses the social and cultural infrastructure that builds up around analytics

- These are not issues with analytic itself, but with the way analytics changes learning and society

Consent

- A patient is required to see a healthcare robot instead of a human (Bresnick, 2018); we can imagine students being required to use robot tutors (Eicher, Polepeddi, & Goel, 2018) without being told.

- Google reveals 'Project Nightingale' after being accused of secretly gathering personal health records (Griggs, 2019); Google also offers a 'Classroom' application.

Jennifer Bresnick. (2018). Arguing the Pros and Cons of Artificial Intelligence in Healthcare. *Health IT Analytics*. September 17, 2018. https://healthitanalytics.com/news/arguing-the-pros-and-cons-of-artificial-intelligence-in-healthcare
Bobbie Eicher, Lalith Polepeddi, and Ashok Goel. 2018. Jill Watson Doesn't Care if You're Pregnant: Grounding AI Ethics in Empirical Studies. In *Proceedings of the 2018 AAAI/ACM Conference on AI, Ethics, and Society* (AIES '18). ACM, New York, NY, USA, 88-94. DOI: https://doi.org/10.1145/3278721.3278760
Mary Beth Griggs. (2019). Google reveals 'Project Nightingale' after being accused of secretly gathering personal health records. *The Verge*, Nov 14, 2019. https://www.theverge.com/2019/11/11/20959771/google-health-records-project-nightingale-privacy-ascension

Surveillance Culture

- "A man tries to avoid the cameras, covering his face by pulling up his fleece. He is stopped by the police and forced to have his photo taken. He is then fined £90 for 'disorderly behaviour'."

- An unprecedented surveillance culture is emerging. Its key feature is that people actively participate in an attempt to regulate their own surveillance and the surveillance of others. (Lyon, 2017)

Kenan Malik. (2019). As surveillance culture grows, can we even hope to escape its reach? *The Guardian*. May 19, 2019. https://www.theguardian.com/commentisfree/2019/may/19/as-surveillance-culture-grows-can-we-even-hope-to-escape-its-reach

David Lyon. (2017). Surveillance Culture: Engagement, Exposure, and Ethics in Digital Modernity. International Journal of Communication 11(2017), 824-842. https://ijoc.org/index.php/ijoc/article/view/5527

An oppressive economy

- These products — plagiarism detection, automated essay grading, and writing assistance software — are built using algorithms that are in turn built on students' work. It is taken without our consent.

- Scholarship — both the content and the structure — is reduced to data, to a raw material used to produce a product sold back to the very institutions where scholars teach and learn.

Audrey Watters (2019). HEWN 317.
https://hewn.substack.com/p/hewn-no-317

Loss of Sense of Right and Wrong

- Does right and wrong become what the machine allows it to be?
- I think this is the intuition being captured by people who are concerned that AI results in a loss of humanity.

B. Approaches to Ethics

Ethical Theory

- In '[The Ethics of Belief](#)' (1877), Clifford gives three arguments as to why we have a moral obligation to believe *responsibly*, that is, to believe only what we have sufficient evidence for, and what we have diligently investigated.
  - Beliefs lead to actions, and false beliefs about physical or social facts lead us into poor habits of action that in the most extreme cases could threaten our survival.
  - poor practices of belief-formation turn us into careless, credulous believers.
  - in our capacity as communicators of belief, we have the moral responsibility not to pollute the well of collective knowledge.

Francisco Mejia Uribe. (2018). Believing without evidence is always morally wrong. Aeon (Weblog). November 5, 2018. https://aeon.co/ideas/believing-without-evidence-is-always-morally-wrong

Moral Virtues

- Ethical actions ought to be consistent with certain ideal virtues that provide for the full development of our humanity – Plato, Aristotle

- These virtues are dispositions and habits that enable us to act according to the highest potential of our character and on behalf of values like truth and beauty.

- Honesty, courage, compassion, generosity, tolerance, love, fidelity, integrity, fairness, self-control, and prudence are all examples of virtues.

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

- For the opposing view, see Friedrich Nietzsche – Beyond Good and Evil, Man and Superman

Consequentialism

- the ethical action is the one that provides the most good or does the least harm, or, to put it another way, produces the greatest balance of good over harm.

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

- Most common form: utilitarianism
  - The pursuit of pleasure – hedonism
  - The 'higher' pleasures – John Stuart Mill
  - The 'right of each person to pursue his own good in his own way, provided this does not infringe on the right of the other doing the same'

Rights

- the ethical action is the one that best protects and respects the moral rights of those affected.

- starts from the belief that humans have a dignity based on their human nature per se or on their ability to choose freely what they do with their lives.

- on the basis of such dignity, they have a right to be treated as ends and not merely as means to other ends

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

- This is, in essence, Immanuel Kant

- Also has a basis in Constitution Theory, Libertarianism

Fairness

- all equals should be treated equally.

- today we use this idea to say that ethical actions treat all human beings equally-or if unequally, then fairly based on some standard that is defensible.

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

- Has roots in the law codes of Solon and the idea of universal law

- Also based in social contract theory – Locke, Hobbes

- Current: John Rawls, A Theory of Justice ('justice as fairness')

The Common Good

- life in community is a good in itself and our actions should contribute to that life.

- the relationships of society are the basis of ethical reasoning

- respect and compassion for all others -- especially the vulnerable

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

- Examples include Ubuntu philosophy, cooperativism, and collectivism. Social cohesion and social order are primry values. E.g. Xi Jinping - "seven years of rural life [that] gave me something mysterious and sacred."

http://www.ce.cn/xwzx/gnsz/szyw/201801/30/t20180130_27970996.shtml

Ethical Codes

Research Ethics

- Nuremberg Code:
  - Voluntary participation in research;
  - Informed consent of the participants, and, with respect to minors, the informed consent of their parents or guardians;
  - Experimental results are for the larger good of society;
  - Not putting participants in situations where they might be at risk of harm (either physical or psychological) as a result of participation in the research;
  - Protected privacy and confidentiality of the information;
  - Option to opt-out

Kay, D., Korn, N. & Oppenheim, C., 2012. Legal, Risk and Ethical Aspects of Analytics in Higher Education, Available at: http://publications.cetis.org.uk/2012/500
Also: HHS. 2009. Code of Federal Regulations. Available online at www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/index.html#46.101 The 'Common Rule'

Health Care Ethics

- Principles of Biomedical Ethics
  - autonomy,
  - beneficence,
  - non-maleficence,
  - and justice.

https://online.sju.edu/graduate/masters-health-administration/resources/articles/four-principles-of-health-care-ethics-improve-patient-care

Data Analytics Ethics

- Ethics for Marketing Research and Data Analytics:
  - Prioritize data subject privacy above business objectives.
  - Be honest, transparent, and straightforward in all interactions.
  - Respect the rights and well-being of data subjects and make all reasonable efforts to ensure that data subjects are not harmed, disadvantaged or harassed as a result of their participation in research.
  - Always distinguish between research and non-research activities so as to maintain public confidence in the integrity of research.
  - Do not permit any direct action toward an individual based on his or her participation in research without their consent. (Consent can include non-research activities, such as marketing and sales)

Insights Association. (2019). IA Code of Standards and Ethics for Marketing Research and Data Analytics. https://www.insightsassociation.org/issues-policies/insights-association-code-standards-and-ethics-market-research-and-data-analytics-0

- Data science ethics in government:
  - start with clear user need and public benefit;
  - use data and tools that have the minimum intrusion necessary ("data minimization");
  - create robust data science models (e.g., to avoid improper discrimination);
  - be alert to public perceptions;
  - be as open and accountable as possible; and
  - keep data secure.

Drew C. Data science ethics in government. Phil Trans R Soc A. 2016;374. Available online at http://rsta.royalsocietypublishing.org/content/roypta/374/2083/20160119.full.pdf

- Several core principles:
  - respect for persons (autonomy, privacy, informed consent)
  - balancing of risk to individuals with benefit to society
  - careful selection of participants
  - independent review of research proposals
  - self-regulating communities of professionals
  - funding dependent on adherence to ethical standards

Metcalf J. 2014. Ethics codes: History, context, and challenges. *Council for Big Data, Ethics, and Society*. Available online at https://bdes.datasociety.net/wp-content/uploads/2016/10/EthicsCodes.pdf

Data Research Ethics

- Open University – Ethical Use of Student data
  - Aligning the use of student data to core University values
  - Purposes and boundaries
  - Engaging students in the use of their data
  - Ensuring that data is used wisely

Open University. (2014) https://help.open.ac.uk/documents/policies/ethical-use-of-student-data/files/22/ethical-use-of-student-data-policy.pdf

- Ten Sample Rules for Data Research
    - 1. Acknowledge that data are people and can do harm
    - 2. Recognize that privacy is more than a binary value
    - 3. Guard against the reidentification of your data
    - 4. Practice ethical data sharing
    - 5. Consider the strengths and limitations of your data; big does not automatically mean better
    - 6. Debate the tough, ethical choices
    - 7. Develop a code of conduct for your organization, research community, or industry
    - 8. Design your data and systems for auditability
    - 9. Engage with the broader consequences of data and analysis practices
    - 10. Know when to break these rules

Zook M, Barocas S, boyd d, Crawford K, Keller E, Gangadharan SP, et al. (2017) Ten simple rules for responsible big data research. PLoS Comput Biol 13(3): e1005399. https://doi.org/10.1371/journal.pcbi.1005399

Ethics in Learning Analytics

- Core Issues *(per Global guidelines:Ethics in Learning Analytics. ICDE:*
  - Transparency
  - Data ownership and control
  - Accessibility of data
  - Validity and reliability of data
  - Institutional responsibility and obligation to act
  - Communications
  - Cultural values
  - Inclusion
  - Consent
  - Student agency and responsibility

Sharon Slade and Alan Tait. (2019). Global guidelines:Ethics in Learning Analytics. ICDE.
https://static1.squarespace.com/static/5b99664675f9eea7a3ecee82/t/5ca37c2a24a694a94e0e515c/1554218087775/Global+guidelines+for+Ethics+in+Learning+Analytics+Web+ready+March+2019.pdf

- Code of practice for learning analytics. Jisc.:
  - Responsibility
  - Transparency and consent
  - Privacy
  - Validity
  - Access
  - Enabling positive interventions
  - Minimising adverse impacts
  - Stewardship of data

Niall Sclater and Paul Bailey. (2015). Code of practice for learning analytics. Jisc. https://www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics

- Draft Barcelona Principles:
  - Do no harm.
  - Specify purposes of data gathering in advance, and seek approval for any new uses
  - Predictive learning analytics: algorithms should be open, standardized, auditable
  - Balance the common good with individual personal good for all participants (opt-out)
  - We respect individual diversity over group generalisations.
  - Make training data, models, uses, derived data, and conclusions accessible, transparent and customisable
  - Acknowledge and address the difficulties of de-identification and privacy
  - Support wide sharing of data, models, and research through standards
  - We prioritise human judgment over AI judgment at all times. To the extent possible, support and require human review of AI processes.
  - Learning analytics should be based upon and contribute to educational research
  - Support continuous evaluation of models with ongoing feedback from all participants
  - Prioritise open, portable data models and participant profiles over centralised, proprietary models
  - Use research-based tools to identify and address the bias

The End of Ethics?

- The thing I read in HBS that bothered me: "The CEOs in the case study need to take the "front page" test: If the headline on the front page of the newspaper were reporting abuse of customer data (yours included), how would you react? If you wouldn't want your personal data used in a certain way, chances are your customers wouldn't, either."

- But what if the CEO in question is Mark Zuckerberg, and genuinely does not care?

Thomas H. Davenport and Jeanne Harris. (2007). The Dark Side of Customer Analytics. Harvard Business Review. May, 2007. https://hbr.org/2007/05/the-dark-side-of-customer-analytics

C. We Are the Machine

How Analytics Works

- In analytics, there is a large body of input (the **data**) and (typically) a desired output

- The data is fed through a neural network, which in turn produces the output
  - The neural network must be 'trained' to produce the right sort of output
    - For example, it might be trained by a 'back propagation' feedback method
  - A trained neural network (or set of algorithms) is the **model**

- The model is then used with new data, in order to produce a prediction, categorization, transformation, or some other output
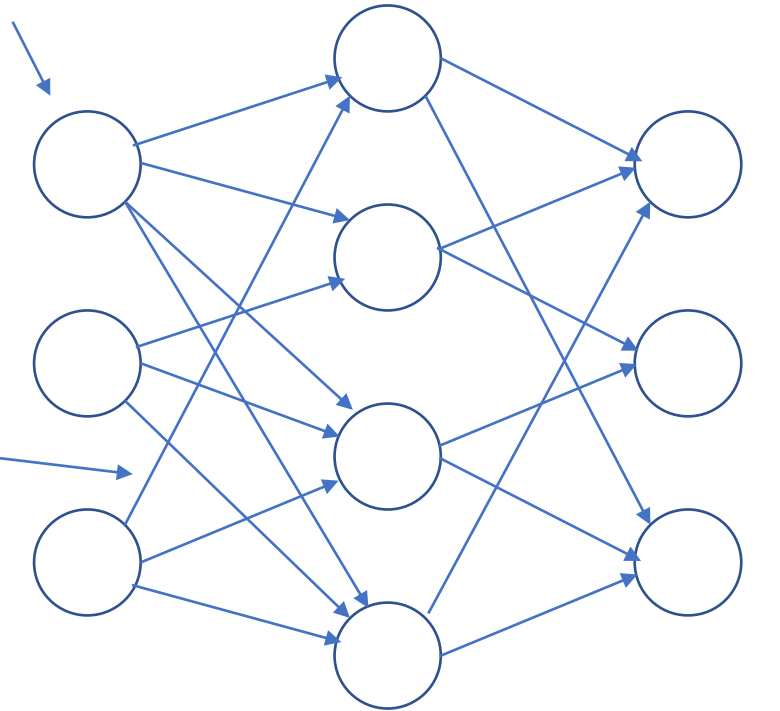
How Analytics Works

Artificial Neuron
- Very simple
- Value 0 to 1.0

Artificial Connection
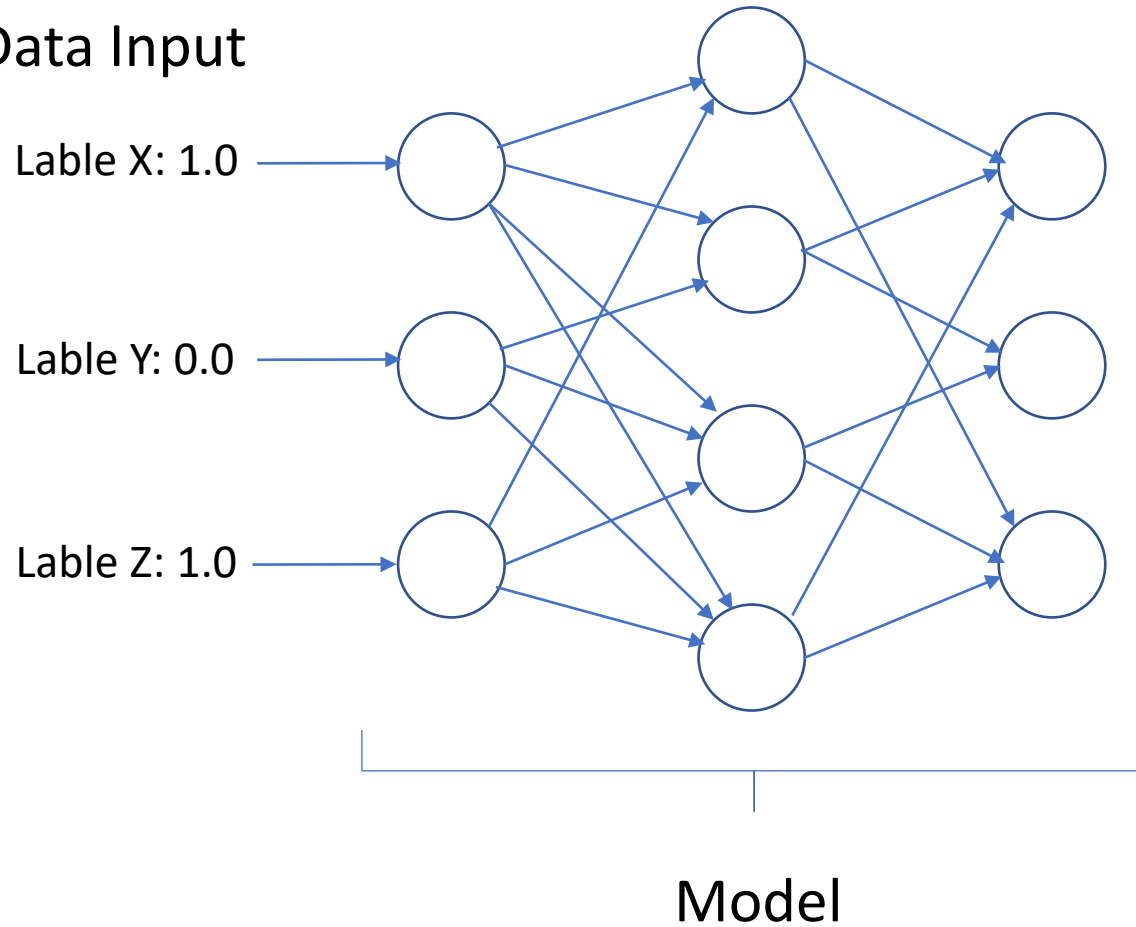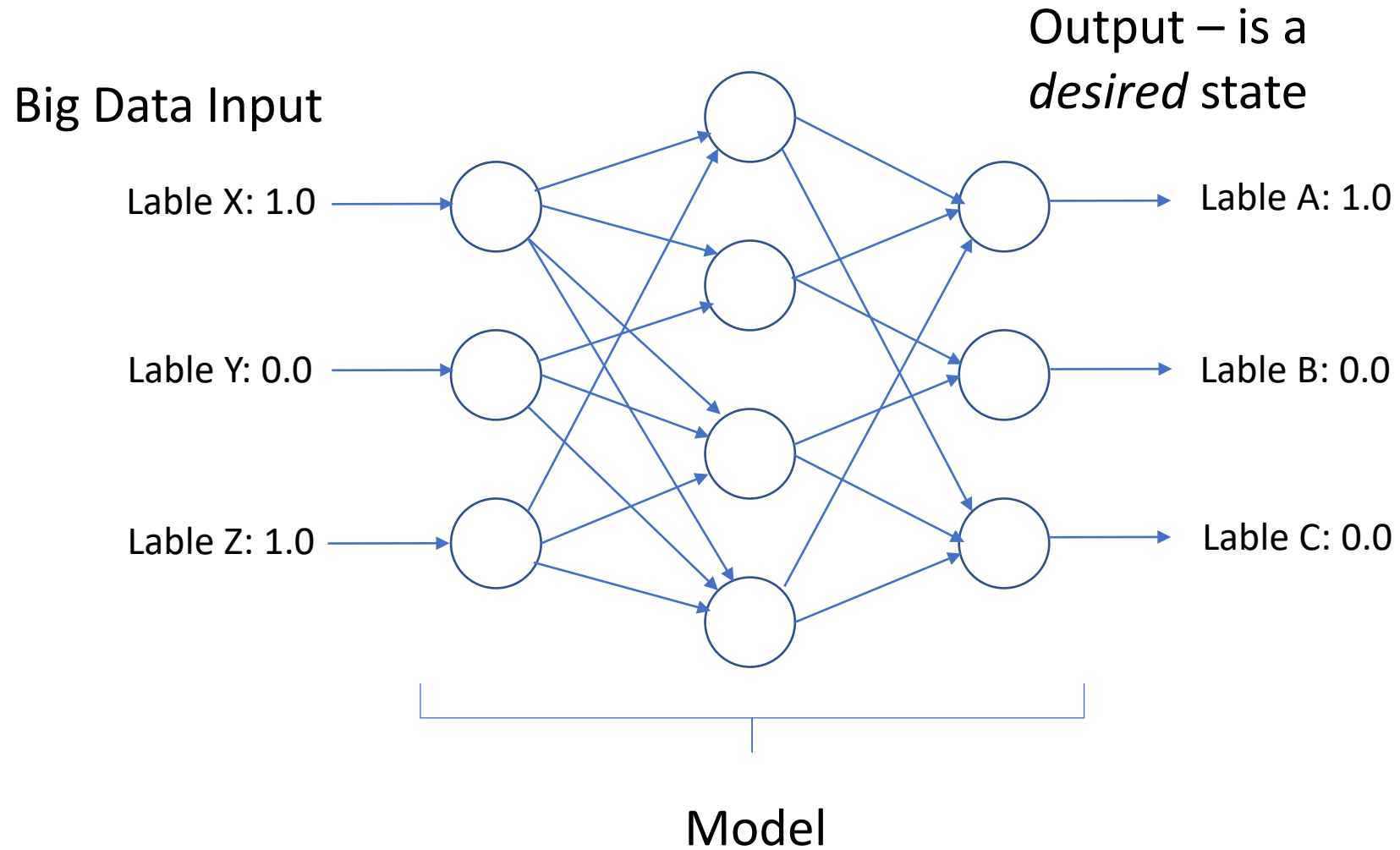- Very simple
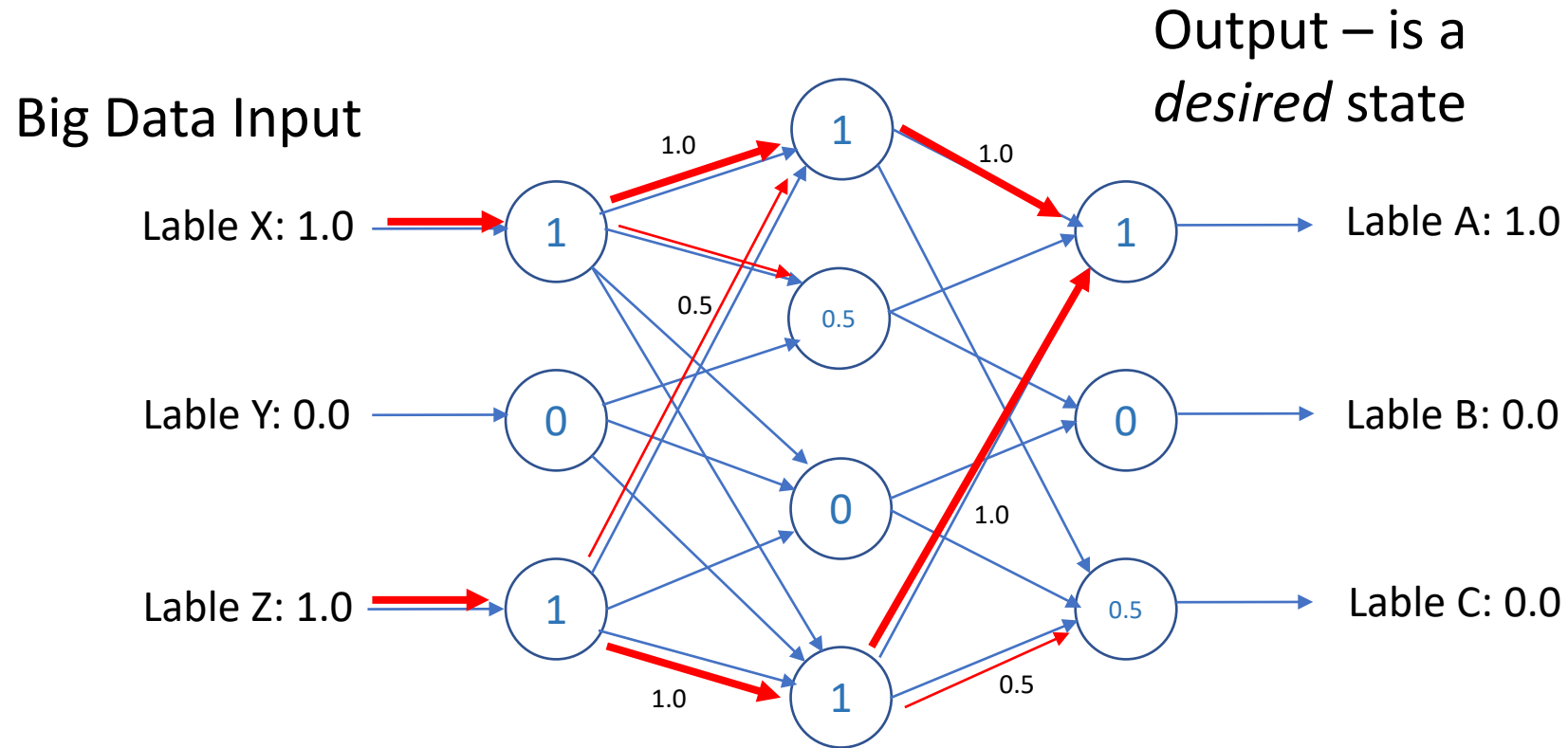- Weight 0 to 1.0

Model

How Analytics Works: Training

Big Data Input

Lable X: 1.0

Lable Y: 0.0

Lable Z: 1.0

Model

How Analytics Works: Training

Big Data Input

Output – is a *desired* state

Lable X: 1.0

Lable Y: 0.0

Lable Z: 1.0

Lable A: 1.0

Lable B: 0.0

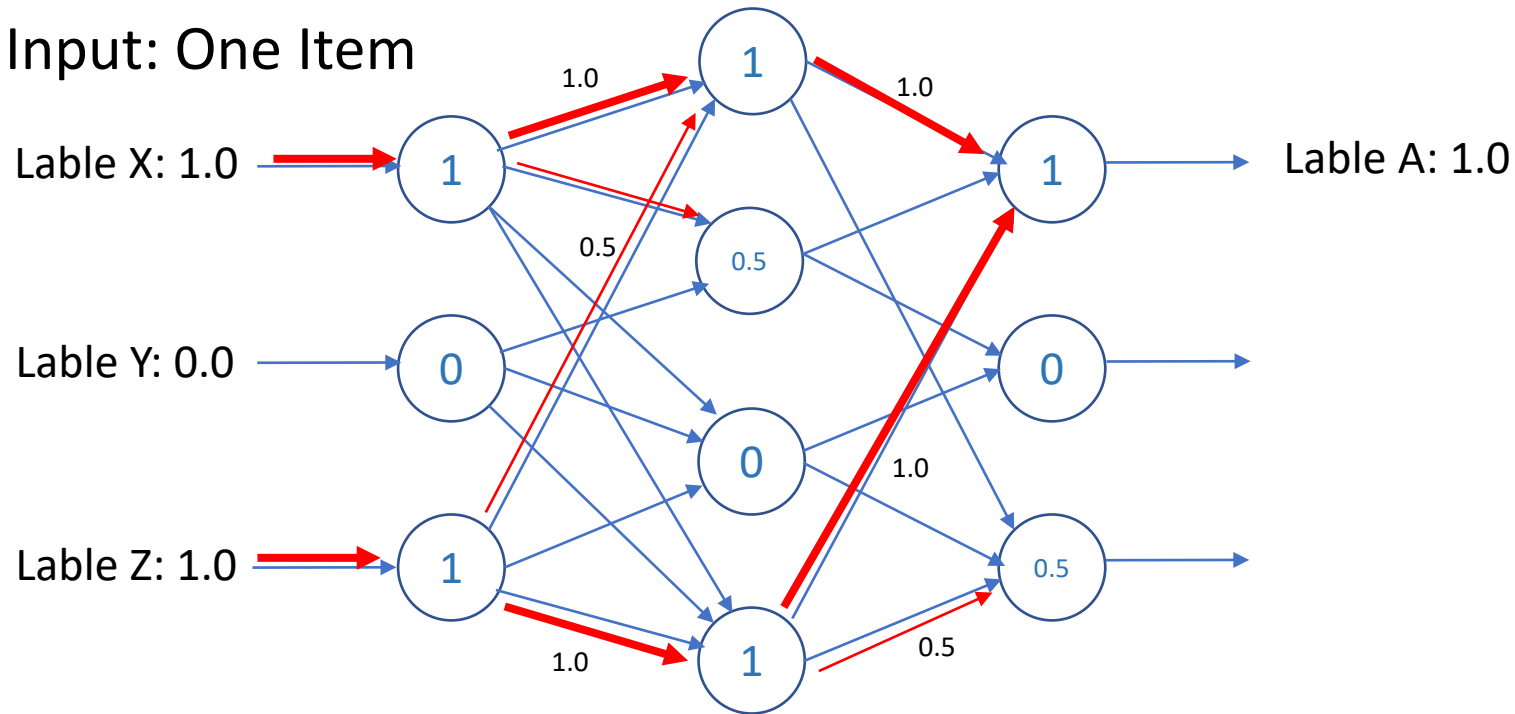Lable C: 0.0

Model

How Analytics Works: Training

The network activity is *iterated* many times, correcting each time, until the desired output is reached

How Analytics Works: Application

Output: classification, etc.

New Data Input: One Item

The new data is put through the model, achoeing the output defined by the training data.

Data

- What are our data sources? (Statistical sampling methods)

- Data resulting from active intervention takes special care

- Data seldom stands alone – data is linked to other data, and can reveal more than was intended (e.g. criminal caught by sister's DNA)

- Data is dynamic and changes on a regular basis (hence, the danger of stale and outdated data)

- Who owns the data? Can it be owned? (Consider Europes HDPR)

David J. Hand. (2018). Aspects of Data Ethics in a Changing World: Where Are We Now? Big Data, Vol. 6, No. 3. Published Online:17 Sep 2018 https://doi.org/10.1089/big.2018.0083 for this slide and the next three slides.

Model

- Defining a model inherently means asking a question, and the choice of question is critical:
  - What problems are high priorities?
  - How will the outcome be used?
  - How will we respond to adverse outcomes (esp. in statistical cases)
  - How will the outcomes be measured?
- Models are 'trained', yes, but the training is the result of extensive programming:
  - Are rigorous programming standards used
  - Is the program open source

Testing

- "The model (should) be tested under real-world conditions with adequate protections and precautions for the patients, in proportion to the seriousness of their condition."
  - How is consent acquired for testing?
  - Is consent even required? (Would you require consent if an engineer used a calculator?)
  - How to explain whatever predictive analytics development and evaluation they are undergoing?
  - "To help the consumers of the model—both providers and patients—the model must present them with choices."

Application

- Can/should the model be localized, i.e. "monitored, refined, and reconfigured to local contexts"?

- What is the impact of fees, costs, patents and other factors restricting access to the model (even in some cases for people who provided some of the data)?

- Can the model's outut be explained?

The Machine is Us/ing Us

- Michael Wesch:
  - "My friends in Papua New Guinea are experts in relationships and grasp the ways that we are all connected in much more profound ways than we do."
  - "In contrast, we tend to emphasize our independence and individuality, failing to realize just how interconnected we are with each other."
  - "The ultimate promise of digital technology is that it might enable us to truly see one another once again."

Michael Wesch. (2007). The Machine is Us/ing Us (Final Version). YouTube. 8 Mar 2007.
https://www.youtube.com/watch?v=NLIGopyXT_g

John Battelle. (2007). A Brief Interview with Michael Wesch (The Creator of That Wonderful Video…). SearchBlog. February 18, 2007.
https://battellemedia.com/archives/2007/02/a_brief_interview_with_michael_wesch_the_creator_of_that_wonderful_video

Who Speaks for Us?

- Josh Feast:
  - Ensure diversity in the training samples and ensure that humans labeling the samples come from diverse backgrounds.
  - Measure accuracy levels separately for different demographic categories and solve for unfairness by collecting more training data associated with sensitive groups.
- But of course it's not just about fairness, it's about respecting individual difference, recognizing different identities, acknowledgement of diversity in community, etc.

Josh Feast. (2019). 4 Ways to Address Gender Bias in AI. Harvard Business Review Online. November 20, 2019. https://hbr.org/2019/11/4-ways-to-address-gender-bias-in-ai

We Are More Than Data Input

- Most analytics treat the data subject as passive, a set of raw variables being measured by instruments

- We may have something to *say* as well

- What happens when we don't speak out?

Social Network Analytics

- We provide the input
- And we are also the people who connect to each other
  - Everything I have said about learning analytics also applies to social networks
  - What is the ethics of your own learning communty

People

Experience

Lable X: 1.0

Lable Y: 0.0

Lable Z: 1.0

Community Kowledge
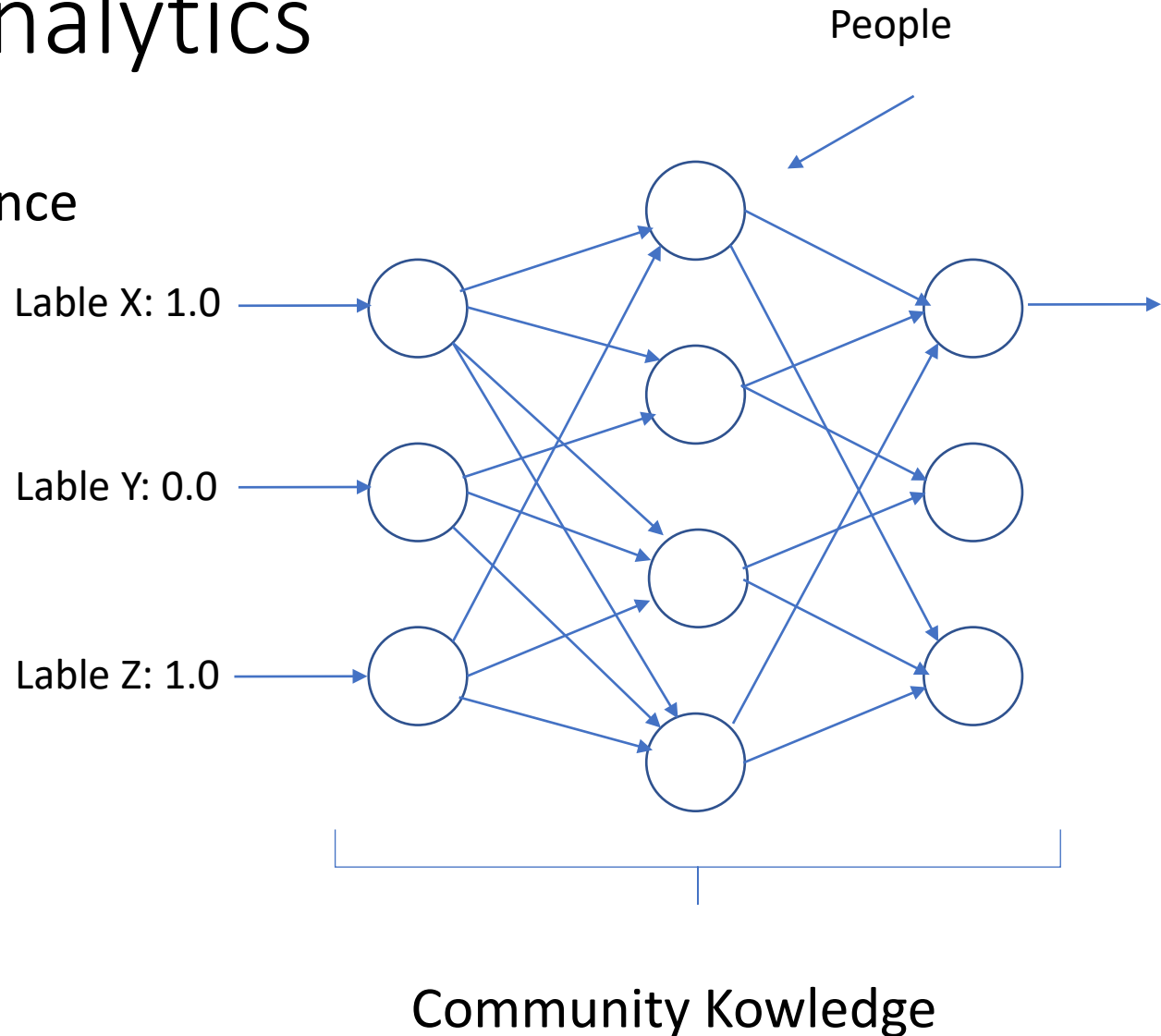
D. The Duty of Care

The Legal Concept

- "In tort law, a duty of care is a legal obligation which is imposed on an individual requiring adherence to a standard of reasonable care while performing any acts that could foreseeably harm others."

- "Duty of care may be considered a formalisation of the social contract, the implicit responsibilities held by individuals towards others within society."

Wikipedia - https://en.wikipedia.org/wiki/Duty_of_care

The Business Concept

- "Duty of care refers to a fiduciary responsibility held by company directors which requires them to live up to a certain standard of care. This duty—which is both ethical and legal—requires them to make decisions in good faith and in a reasonably prudent manner."

Will Kenton. (2019). What Is Duty of Care? *Investopedia* (website).
https://www.investopedia.com/terms/d/duty-care.asp

The Ethics of Care

- Gilligan asserted that the "care perspective" was an alternative, but equally legitimate form of moral reasoning obscured by masculine liberal justice traditions focused on autonomy and independence. She characterized this difference as one of theme, however, rather than of gender.

Carol Gilligan

- disputes accounts of moral development that do not take into account girls' moral experiences (18–19), or that describe women as stuck at an interpersonal stage short of full moral development as in the theories of Lawrence Kohlberg.

- argues that Kohlberg wrongly prioritizes a "morality of rights" and independence from others as better than, rather than merely different from, a "morality of responsibility" and intimate relationships with others.

Carol Gilligan. (1982). *In a Different Voice: Psychological Theory and Women's Development*. https://www.iep.utm.edu/care-eth/ - IEP

Nel Noddings

- caring is the foundation of morality.

- relationships as ontologically basic to humanity

- "The one-caring acts in response to a perceived need on the part of the cared-for. The act is motivated by an apprehension of the cared-for's reality, where the one-caring feels and senses what the cared-for is experiencing and initiates a commitment to help."

https://www.britannica.com/topic/ethics-of-care

Defining Care

- As Ruddick points out, at least three distinct but overlapping meanings of care have emerged in recent decades—an ethic defined in opposition to justice, a kind of labor, and a particular relationship (1998, 4).

- However, in care ethical literature, 'care' is most often defined as a practice, value, disposition, or virtue, and is frequently portrayed as an overlapping set of concepts.

https://www.iep.utm.edu/care-eth/

Virtuous Dispositions

- Tronto identifies four sub-elements of care that can be understood simultaneously as stages, virtuous dispositions, or goals. These sub-elements are:

    1. **attentiveness**, a proclivity to become aware of need;

    2. **responsibility**, a willingness to respond and take care of need;

    3. **competence**, the skill of providing good and successful care; and

    4. **responsiveness**, consideration of the position of others as they see it and recognition of the potential for abuse in care (1994, 126-136).

Joan C. Tronto. An Ethic of Care. In *Ethics in Community-Based Elder Care b*y Martha Holstein
https://www.iep.utm.edu/care-eth/   --
https://books.google.com.br/books?hl=en&lr=&id=wYBLxZcU8zYC&oi=fnd&pg=PA60&dq=tronto+care+ethics&ots=8m
-5tOWTIe&sig=z6rRbR-63R-XXXVFHa6ISHQC6Gw#v=onepage&q=tronto%20care%20ethics&f=false

Intersectionality

- "Two key shortcomings of care ethics which stem from this ethics' prioritization of gender and gendered power relations: inadequate conceptualizations of diversity and power."

- "a unitary category serves to bind people into a political group based on a uniform set of experiences."

- But: "both activists and scholars have long noted that different citizens fare differently based on certain aspects of their presumably inalterable identities."

Olena Hankivsky. (2014). Rethinking Care Ethics: On the Promise and Potential of an Intersectional Analysis. The American Political Science Review. Vol. 108, No. 2 (May 2014), pp. 252-264.
Hancock, Ange-Marie. (2007a) 'When Multiplication Doesn't Equal Quick Addition: Examining Intersectionality as a Research Paradigm,' *Perspectives on Politics*, vol 5 no 1, pp 63-79.
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.597.4676&rep=rep1&type=pdf

A Duty to Whom?

- Our duties often conflict.

- E.g. "As a representative of the company, you have one set of responsibilities. As a concerned private citizen, you have other responsibilities. It's nice when those converge, but that's not always the case."

Mark Feffer. (2017). Ethical vs. Legal Responsibilities for HR Professionals. *SHRM*. March 30, 2017
https://www.shrm.org/resourcesandtools/hr-topics/behavioral-competencies/ethical-practice/pages/ethical-and-legal-responsibilities-for-hr-professionals.aspx

Acquired (Involuntary) Duties

- Does a student have a duty to a teacher? Does a patient have a duty to a doctor? How do we acquire duties, when we did not ask or thm?

- And yet:
    - "patients have a moral duty to adhere to the physician's treatment prescriptions, once they have accepted treatment."
    - "Patients do not have the right to refuse to adhere to treatment prescriptions if their non-adherence poses a significant threat to other people."

- Does the analogy hold for education? For other duties?

The Limits of Duty

- "The law recognises that it is not appropriate to have a general duty of care and that a duty of care should only exist in certain circumstances, therefore there is no 'Good Samaritan' law."

Cornock, Marc (2014). Duty of care. Orthopaedic & Trauma Times(24) pp. 14–16.
http://oro.open.ac.uk/49091/3/Duty%20of%20care%20-%20Cornock.pdf

Beyond Competencies, Beyond Duty

- With ~~competencies~~ duties, we take this one hard problem, and create out of it, ten equally hard problems, of defining each of the competencies required.

- Forth: "Traditional ~~competency~~ duty-based models cause stress because they are rigid and top-down. They are generally kept in spreadsheets and Powerpoint, and in the more advanced applications, they captured deep into relational databases."

Getting Past Competency Model PTSD
Steven Forth, TeamFit, 2019/11/18. http://www.downes.ca/post/70139/rd

Moral Sentiment

- Feminine moral theory deals a blow to the exclusively rational systems of thought, which have as their grounding an inherent disregard for the inherently personal—and sometimes gender-biased—nature of knowledge construction.

Craig P. Dunn Brian K. Burton. Ethics of care. Encyclopedia Britannica.
https://www.britannica.com/topic/ethics-of-care

Hume's Moral Sense

- "Our moral distinctions depend on our experiencing sentiments or feelings: we do not rely exclusively on the employment of reason to make our moral discernments."

- Note that this is not a theory of innateness or natural morality – the idea is that we *learn* ethics, but we learn them in such a way that we feel or experience a moral sense, rather than fully formed general principles

Elizabeth S. Radcliffe. (2013). Moral Sentimentalism and the Reasonableness of Being Good
Dans Revue internationale de philosophie 2013/1 (n° 263), pages 9 – 27. https://www.cairn.info/revue-internationale-de-philosophie-2013-1-page-9.htm#

How We Learn Ethics

- "Hume says that our sense of humanity allows us to form general views about the useful and agreeable (to which the relativist does not subscribe), and that we do so on the basis of conversations and debates in which we must make ourselves mutually intelligible to one another."

- To borrow a phrase, we might say "it takes a community to learn ethics" – all we do, all we experience, is the 'data' from which a person develops an ethical sense

Jacqueline Taylor. (2013). Hume on the Importance of Humanity. Revue internationale de philosophie, 2013/1 (No 263). 81-97. https://www.cairn-int.info/focus-E_RIP_263_0081--hume-on-the-importance-of-humanity.htm

E. Ethical Practices in Learning Analytics
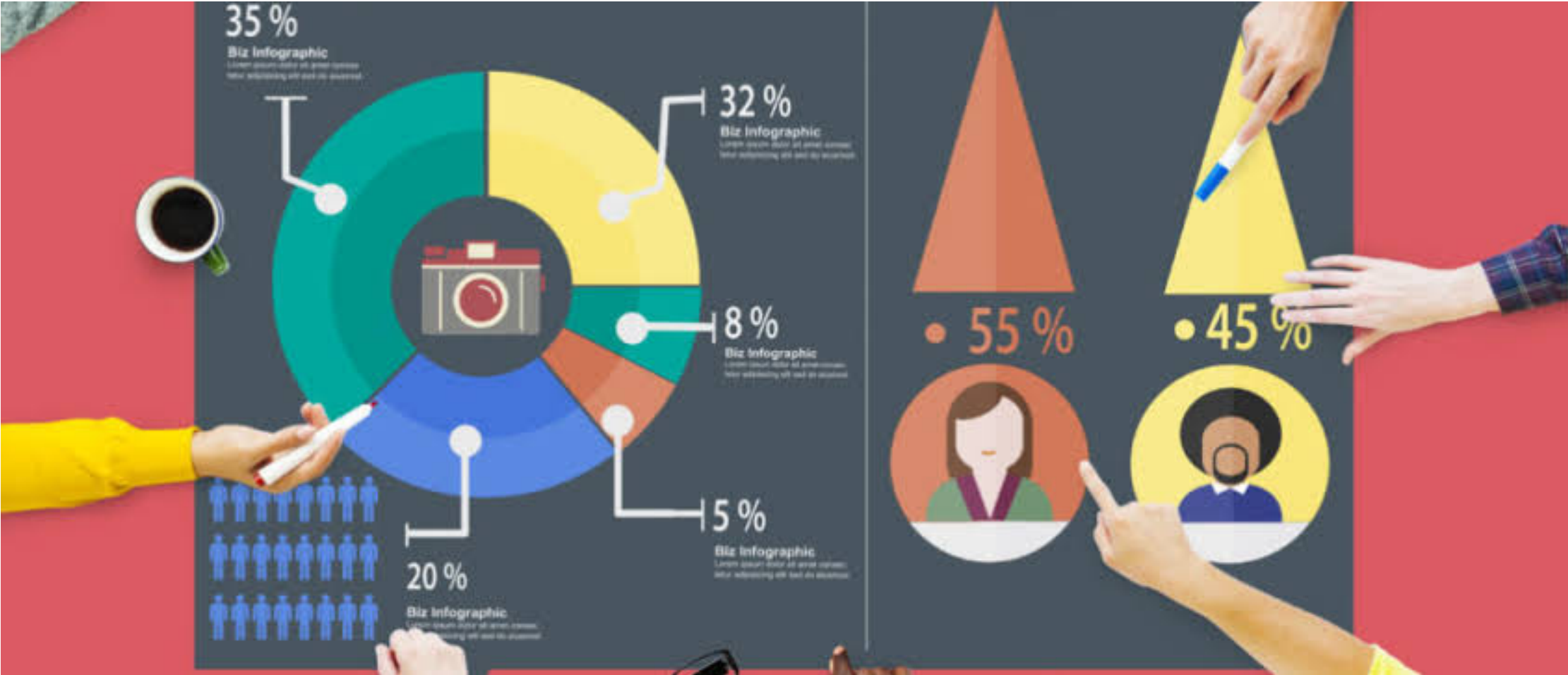
Ethical Practices

- A typical management framework:
  - Recognize an ethical issue
  - Get the facts
  - Evaluate alternative actions
  - Make a decision and test it
- Culture – prefer compliance with the process rather than having to constantly police activity regarding data usage?
  - Act and reflect on the outcome
- This process usually fails at the first point
  - We often ask, "How could they not know this was a problem?"

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

A Culture of Data Governance

- Policy - clear policies for data governance, confidentiality, and protection

- Process - effective is your data request process that is responsive, timely, and consistent

Structure Your Data Governance. From Business Officer Magazine
https://www.businessofficermagazine.org/features/ethics-at-the-core/

An Ethics of Sympathy

- Owen Flanagan: "righteous anger as morally necessary and occasionally positive, we should see it as potentially destructive and counter-productive."

John Danaher. (2019). The Case Against Righteous Anger. Philosophical Disquisitions (Weblog). November 19, 2019. https://philosophicaldisquisitions.blogspot.com/2019/11/the-case-against-righteous-anger.html

Recognizing Ambiguity

- "In practice, it is impossible to even define, let alone collect data on, an objective measure of a "good" employee."

- "Many of the potentially problematic elements here (subjective evaluations; biased historical samples; emphasis on fit) are equally present, if not more so, in traditional human hiring practices."

Manish Raghavan, Solon Barocas, Jon Kleinberg, Karen Levy. (2019). Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices. arXiv. Submitted on 21 Jun 2019 (v1), last revised 13 Sep 2019 (this version, v2).
https://arxiv.org/pdf/1906.09208.pdf

An Way of Openness

- "Individual competencies like "grit" or "openness" are themselves constructs, and attempts to measure them must rely on other psychometric assessments as "ground truth." (Raghavan, et.al.)

- Openness as a 'way of being'
  - Not a skill or a competency
  - Not character trait
  - "The Way of Openness is about embracing and welcoming and being curious about whatever is in front of us." https://zenhabits.net/openness/

Critical Pedagogy

- "Baldwin writes that "The purpose of education, finally, is to create in a person the ability to look at the world for himself, to make his own decisions…"

- "in *Teaching to Transgress,* bell hooks urges teachers to contemplate 'Education as the practice of freedom' as their point of departure for praxis. A phrase originating from the work of Paulo Freire."

- "To teach in a manner that respects and cares for the souls of our students is essential if we are to provide the necessary conditions where learning can most deeply and intimately begin."

Julie Fellmayer. (2018). Disruptive Pedagogy and the Practice of Freedom. *Hybrid Pedagogy* (weblog). Oct 11, 2018. https://hybridpedagogy.org/disruptive-pedagogy-and-the-practice-of-freedom/

Kindness

- Ethics isn't about what you can get away with. It isn't about what you must do. It's about what you can do.

- Julian Stodd: "A culture of selfish individualism, a culture of persecuted difference, these are not the shared values we want: instead, we should find a humility to change."

Julian Stodd. (2017). A State of Kindness: A Shared Humanity. Julian Stodd's Learning Blog (weblog). Posted on June 26, 2017
https://julianstodd.wordpress.com/2017/06/26/a-state-of-kindness-a-shared-humanity/

Postscript

- What Gilligan, et.al. teach us:
  - We're not going to be able to base the ethics of analytics on rules or principles
  - Ethics is a matter of a community as an entire system, rather than one individual making a decision
  - We need to keep in mind how we're all connected

Postscript

- But more….
  - Everything I have said about learning analytics also applies to how *we* learn
  - What is the ethics of your own teaching and learning?

Brain Cells (neurons)

Experience

Lable X: 1.0

Lable Y: 0.0

Lable Z: 1.0

Your Human Kowledge