Medical Error, Computing, and Ethical Responsibility

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Welcome!

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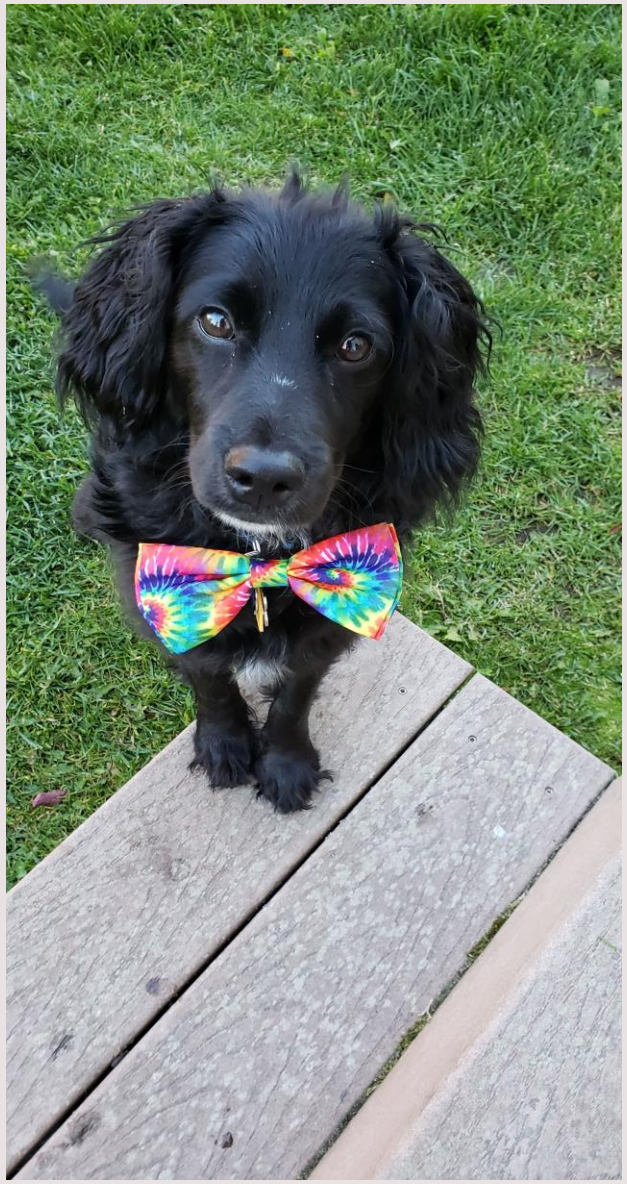


Agenda

1. Introduction and case
2. Individual & group responsibility
   - roles
3. Computing and challenges for responsibility
4. RaDonda Vaught
   - Just culture
   - Next steps in responsibility
5. Questions

Ethics

Normative/ethical – what should we do?

Culturally appropriate – what is usually done in this society?

Legal – what can be done legally?

Authorized – what is required by this authority?

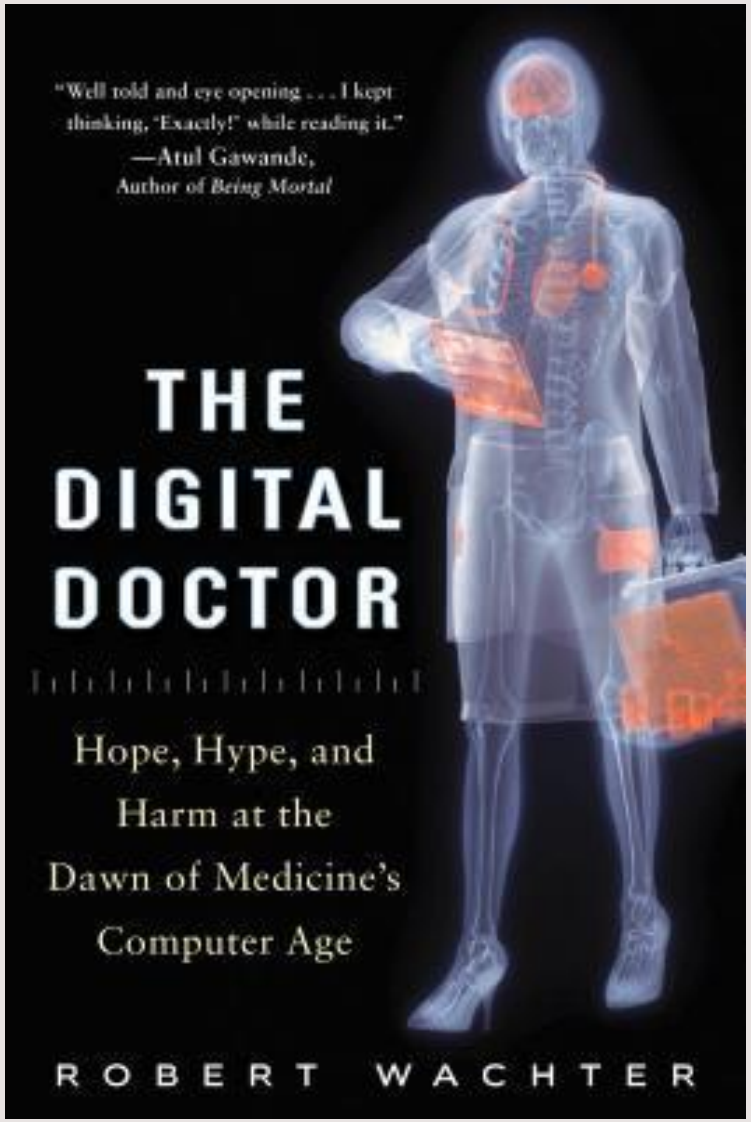
Medical Error

"…[T]he failure of a planned action to be completed as intended (i.e., error of execution) or the use of a wrong plan to achieve an aim (i.e., error of planning)."

-- Kohn L.T., Corrigan J.M., Donaldson M.S. (eds.): *To Err is Human: Building a Safer Health System.* Washington, DC: National Academy Press, 2000.

"A medical error is a preventable adverse effect of medical care, whether or not it is evident or harmful to the patient."

-- Carver N, Gupta V, Hipskind JE. Medical Error. [Updated 2022 Jul 4]. In: StatPearls, StatPearls Publishing; Jan. 2022. https://www.ncbi.nlm.nih.gov/books/NBK430763/armful to the patient. "



- 16 yr old Pablo Garcia, hospitalized, took his usual medications. Became numb, later grand mal seizure. Nearly dies.
- Problem: he's given 38 ½ x his usual dosage of Septra.

Many players:

Nurse Levitt

Dr. Lucca

Pharmacist….and more.

- Instead of a 160mg tablet of Septra, 6160mg are ordered, resulting in the patient taking 38 ½

Questions

1. Who is responsible for the harm to the patient in this case?
    - Persons
    - Organization
    - Computer program

2. What are the right ways to hold that person (those people) responsible?

Moral Responsibility (traditional)

A status that makes a person/entity worthy of praise or blame. {Obligation or Culpability}

Causality –

a) Did the person do it? Degree of causal contribution? Failure to act?

b) Could the person have prevented the results?

Intent –

a) Knowingly?

b) *Should* they have known? Prepared? (Negligence)

Features of Responsibility

Responsibility is not finite.

- Multiple people can be equally responsible.

Often, responsibility is ascribed "proportionally".

- Ascribed according to one's causal contribution to X.
- According to one's role.

Responsibility may be defined by:

- Obligation –
  - E.g. - this is a person's role, their "scope of work", etc.
- Culpability –
  - Who should be blamed? Who is liable?

Roles and Responsibility

How do professional roles shape responsibility?

- How does a **role** increase the professional's responsibility for tasks defined by the role?
  [Causality & Intent?]

- In what ways does a **"code of ethics**" influence a professional's responsibility?

Kinds of Groups

- Random collective – e.g. street gathering
- Mobs
- Gangs
- Families
- Professional organizations/ Clubs
- Corporations
- States
- Countries, “State Department”, United Nations

Group Responsibility? Options

Groups are not responsible.

- Only individuals can act.
- Groups are just collections of individuals, each with intents.

Groups can be responsible.

- Groups act through their organizational structure.
  - Today, Coke announced…
  - Rights of free speech, property, privacy etc. Subject to criminal and civil law.
- Intent through decision-making structures.

Examples

The Department of Biology has failed a student by not supervising a student's Master's thesis after the student's two advisor's left the department.

> Here, departmental structure failed to perform its function, regardless of which faculty are left.

X company had a record of unsafe operations over the past decade.

Does UAA provide enough parking on campus?

Questions

What groups are relevant in Pablo Garcia's case?

From what we know, how might the hospital have played a role in the series of errors in his case?

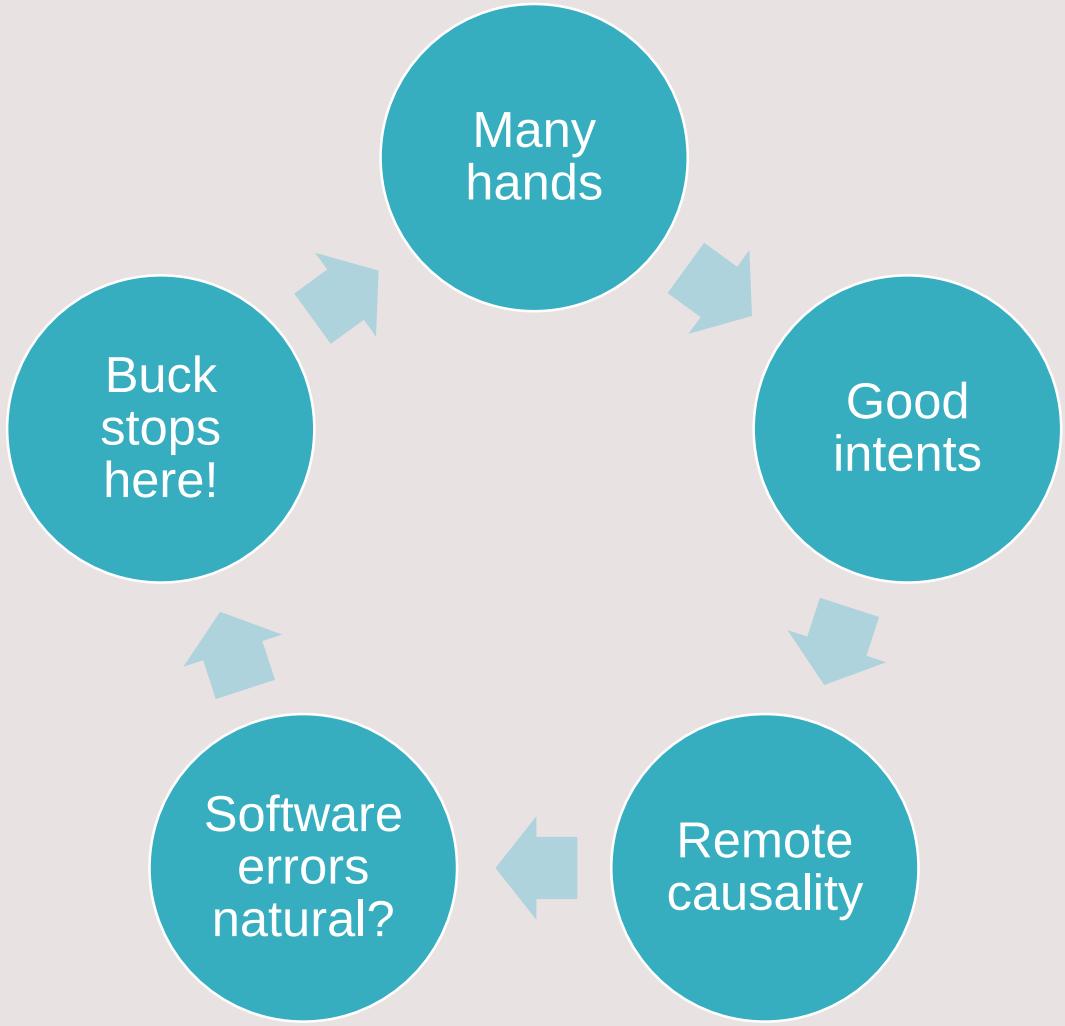

Computing...

Extends our powers

Helps us forget our own agency

Hammering Man in Basel, Jonathan Borofsky

Computing makes attribution of responsibility difficult.



Examples?

Examples of the ways the design of software and other related tools shape our options and actions? Should we be aware?

What are examples where improvements are needed?

Factors influencing the choice of software/tools

Why do poorly designed, difficult to use software and related tools exist in healthcare contexts?

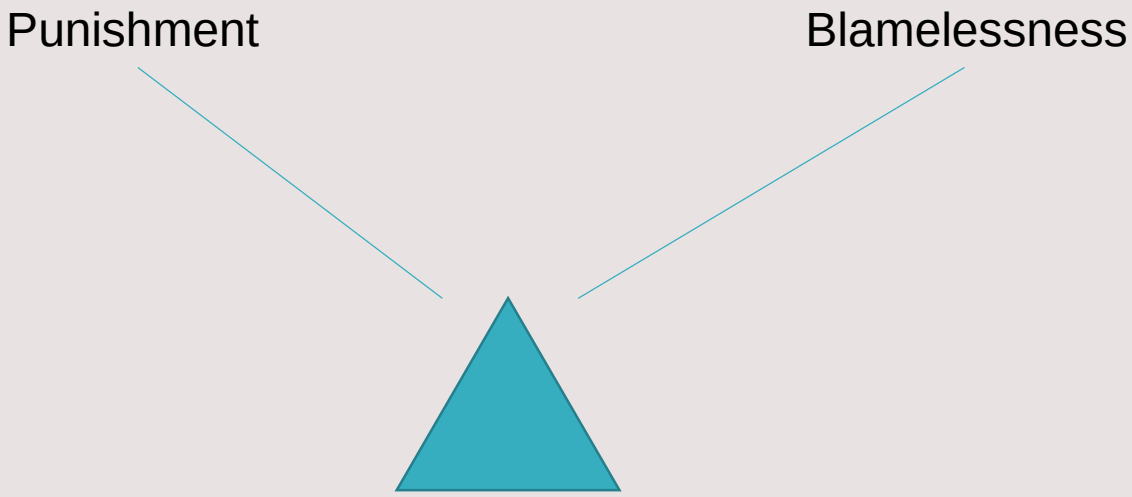
To what degree will attention to, and improvement in, system design increase patient safety and support professionals?

Just Culture

Human Error

At-Risk Behavior

Reckless Behavior



Creating systems of **shared accountability** in which employees are accountable for the quality of their choices and reporting errors and system vulnerabilities.

RaDonda Vaught

U.S. Army Maj. Jenny Allen

- Vanderbilt Medical Center
- Dec. 2017, 75 yr. old Charlene Murphy, needs a sedative before PET scan.
- Nurse RaDonda Vaught goes to “pull” Versed from the computerized medication cabinet, but instead got a powerful paralytic drug.
- She injects the drug in Murphy and leaves her to relax before the scan.
- By the time the error is discovered, Murphy is brain dead.
- 2022 - Vaught is convicted by a jury of criminally negligent homicide.

RaDonda Vaught

What factors increased the sense of individual responsibility in this case?

Relevant interface and other systems? (VERSED v. VECURONIUM, overrides)

Organizational responsibility?

What is this case teaching us about how we view medical error and responsibility at this point in our history?

Next Steps

Thank you!

Questions?

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