



College
of
Science

Data Science Ethics



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University

Stage 2 , Semester 1
@ Department of Intelligent Medical Systems

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Data Ownership

The majority of this course material is based on Coursera

<https://www.coursera.org/learn/data-science-ethics>

“H.V. Jagadish lectures”, a Professor at the University of Michigan

2. Limits on Recording and Use

we've been talking about the fact that the data are owned by whoever records the data. So, we've got to think about limits on recording and use , and that's what we'll talk about in this part of the lecture.

If you're in a clothing store fitting room, or if you're in a toilet, you really don't want to have cameras in there.

If you have a phone company, you really don't want them to listening in to your phone calls.

Limits on Recording

- **Recording is wrong when there is reasonable expectation of privacy**
 - *E.g. no cameras in clothing store fitting room*



Video Cameras in Stores

- Can provide security
- Can even be used to improve placement
- But should not be published




Limits on Recording

- **Recording is wrong when there is reasonable expectation of privacy**
 - *E.g. no cameras in clothing store fitting room*
- **Similarly:**
 - *Phone company must not record the (content of) phone calls.*

Cell Phone Location Tracking


- Necessary to provide service.
- Required for many valuable applications.
- But can result in a huge loss of privacy.






Now given that stores are videotaping movement of customers in the store, if they use the data that they collected from this video to improve product placement or to improve the geography of the aisles so that traffic flows better, that's something that we would consider reasonable.

But if I saw a video of me walking down the **aisle** in my favorite store on the internet, I would be very unhappy.




So even though there isn't actually a contract between me, as a customer, and the store that I visit, we have an expectation, a shared expectation that they may videotape me but they will not publish this videotape.

If you have a cell phone, to be able to get service, the cell phone providing company has to know where you are. They have to therefore know your location, and if they know your location 24x7, they know a lot about you, and so, it can result in a huge loss of privacy.



But in general, companies know, that customers will get very unhappy if data (collected for one purpose) get used for a different purpose that the users didn't expect them to be used for.

It is possible always to put such understandings (between companies and customers) in writing. And whether they're actually written down or not, these understandings remove barriers to many future transactions between the two parties (the company and the customer).




If indeed people can record information and assure people that this recorded information will not be looked at by anybody either legitimate people because they have the right to look at it or because of security breaches, then we may actually have some intermediate point where we distinguish between data collection and data use.

The whole thinking around this area is still having social conversations, and there isn't a societal consensus yet.

3. Data Ownership Finale

In this final segment on data ownership, we will touch upon one additional point, that we haven't really talked about thus far, and that's **data destruction**.

Companies legitimately collect data as part of doing business with us. And by and large, as we've been saying, companies want to retain the goodwill of customers.



Unfortunately, that assurance goes away once the company ceases to do business. So if a company goes bankrupt, then the data is an asset, and assets are up for sale. Their assets will be sold like any other assets, and they will be sold to a third party.

And usually, a third party who intends to misuse the data, is the one who is going to bid the highest.

And so as a contributor of data to companies, when I do business with them, I want collected data to be destroyed and not sold when the company goes bankrupt.

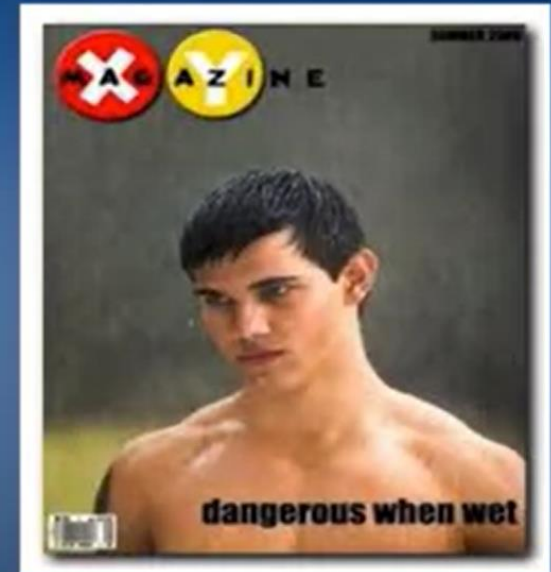


This is not just a theoretical thing.

This has actually happened in the case of a number of companies such as ***Radioshack***, and ***Borders***, and **ConnectEDU**.

Bankruptcy law actually now has partial protection, basically saying that, whatever is the company's privacy policy, must survive even after the company goes bankrupt.

Bankruptcy Law has Partial Protection



Borders : multinational book and music retailer

Radioshack : a popular company selling electronic products

ConnectEDU : a pioneering online education organization




To sum up, data ownership is really complex.

It's much harder to reason through, than intellectual property ownership for other things like works of art. And this ownership is complex even for things that you actually want to share.

A thing that we have to recognize is that, for the most part we don't own data about us.

Data about us that somebody else has collected, is owned by whoever collected it.

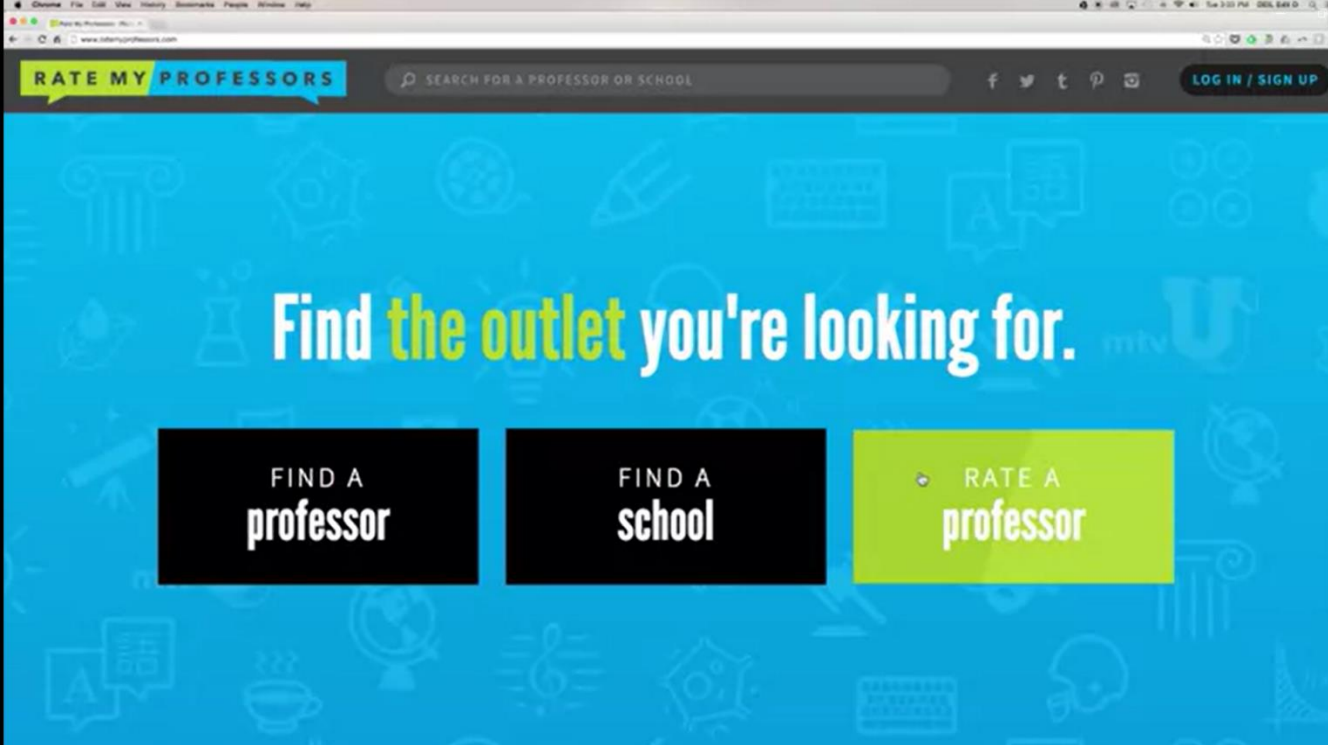


Nevertheless, we may have some control over these data that aren't ours, because they're about us. And we need to create the principles to reason about this control. And that is really the main concern of a discussion about the right to privacy.

4. Case Study: Rate My Professor


Students care about how well professors teach. And when enrolling for a class, they would naturally like to find out a little bit about how good the professor is. To meet this need, there are several *websites* that have emerged, for example, *ratemyprofessors.com*.





On this *website*, students go in and enter their comments and their rating about their professors.

The screenshot shows the "Rate a Professor" form for Professor Hosagrahar Jagadish at the University of Michigan, Electrical Engineering. The form includes a sidebar with navigation links: "63 PROFS", "SCHOOL", "RATE", and "BLOG". The main content area has the title "It's your turn to grade Professor Hosagrahar Jagadish." and a form with six numbered sections: 1. COURSE CODE (with a dropdown and "ONLINE CLASS" button), 2. HELPFULNESS (0-5 star rating), 3. CLARITY (0-5 star rating), 4. EASINESS (0-5 star rating), 5. WAS THIS CLASS TAKEN FOR CREDIT? (radio buttons for "YEAH" and "UM, NO."), and 6. HOTNESS (Optional) (radio buttons for "YEAH" and "UM, NO.").



what happens on this website and the data that's on this website has an impact on enrollments in my class, and therefore, potentially, on my career as a professor.

The thing is, this is intensely personal information about me. But, it is about me said by somebody else and recorded on a third party website that I have no control over.

Now, the question is, what happens if there's data about me (as a professor) said on this *website* that I (as a professor) object to?

For example, suppose there is some student who's disgruntled, let's say I caught some student cheating; then they could go in and put a really nasty comment about me and rate me very low. Even worse, there isn't much that prevents them from getting 50 of their closest friends, to go in and do the same thing.


RATE MY PROFESSORS [FOLLOW US](#) [LOG IN](#)

63 PROFS

SCHOOL

RATE

BLOG



Hosagrahar Jagadish

Professor in the Electrical Engineering department at University of Michigan, Ann Arbor, MI

[ARE YOU HOSAGRAHAR JAGADISH?](#)

[Rate this professor](#) [Share](#)


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Top 20 Tags for this Professor

See how other students describe this professor.

OVERALL QUALITY
3.5

RATERS' AVG. GRADE
B

HOTNESS


HELPFULNESS
3.5

CLARITY
3.5

EASINESS
3.4


RATE MY PROFESSORS [FOLLOW US](#) [LOG IN](#)

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Top 20 Tags for this Professor

See how other students describe this professor.

OVERALL QUALITY
2.7


RATERS' AVG. GRADE
C+

HOTNESS


HELPFULNESS
2.6


CLARITY
2.9

EASINESS
2.6



And the net result of this kind of mass movement would be that my ratings on the site would plummet.

If such a thing were to happen, I could, presumably, go and complain to the website and possibly, they would investigate. And possibly, they might do something. But, it's really totally up to them and their processes and I have no real recourse.



The data that a site like *ratemyprofessors.com* gathers, is information that they could sell or rent to third parties that they could do what they wish to with.

It is about me but it isn't mine. And keeping this distinction between who the data is about and who owns that data, is important as we go through our discussions of privacy.

5. Case Study: Privacy After Bankruptcy

RadioShack was a popular company selling electronic products, and they went out of business.

When they were in bankruptcy, their assets were being sold. While they were in business, they had collected information about millions of customers.

When they entered bankruptcy, they wanted to sell the assessment information. Thirty-six attorney generals of states sued to stop that sale.



The question is, when a company enters bankruptcy, how does any *privacy agreement* they may have made while they were in business still apply?

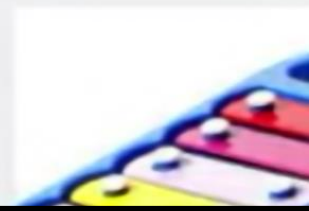
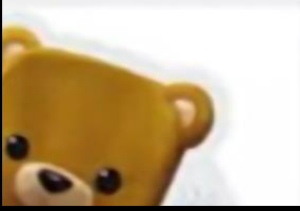
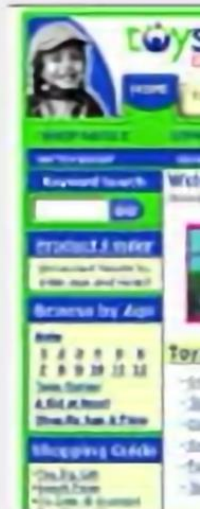
Well, it turns out this was actually not the first time that this question had come up.

A few years earlier, a company called *Toysmart*, which was one of the *dot com bubble* companies on the web, had gone out of business and the very same question had been raised and addressed.




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There is in the US, actually law in terms of how bankruptcy proceedings should be conducted, in light of the *Toysmart* case, which says that there is an ombudsperson appointed, whose job is to make sure that the way in which data assets are sold is compliant with whatever privacy agreements have been made by the company while it was in business.

Based on the above case (*Toysmart case*), the creditors of *RadioShack* entered into an agreement with the attorney general who sued them, and there was a deal, where there was a complicated opt-in, opt-out arrangement made with respect to the customers having their data transferred to a new company that was buying this information asset.



The important point from this conclusion is,
as a matter of social consensus and as a matter of ethics, we believe that things that we enter into as agreements when a company is in business, should survive even when the company ceases being in business and enters into bankruptcy.

At least, in some circumstances and in some countries, there are now laws that support this social expectation.