Module 4.3

Hello and welcome back to the third video lecture this week.

In the last couple of videos I talked about algorithmic accountability reporting, but in this video I kind of want to flip things around and talk about how you can be more accountable with your own use of algorithms.

In particular I want to talk to you about how to be transparent with the algorithms that you may be developing and using in your practice. So, I've talked a lot about algorithms in society and how to investigate them over the past couple of weeks, but what about the news industry's own use of algorithms?

What about algorithms in A/B testing and personalization, or recommendation widgets, or in investigations? How should journalists hold themselves accountable when they're using these types of algorithms?

Well, one approach for journalists to hold themselves accountable is to be more transparent. Mark Deuze is a professor at the University of Amsterdam, and he defines transparency this way. He says it's the ways in which people both inside and external to journalism are given a chance to monitor, check, criticize, and even intervene in the journalistic process.

So, transparency can really help the audience kind of understand how the journalistic sausage gets made. It can help the public see how things were done and maybe even reduce concerns over bias.

Now it's worth noting that transparency is just one mechanism for media accountability. Of course, there are other techniques here as well like having a healthy media criticism, having institutional pressure and norms setting from professional organizations, and so on. Transparency Is not a silver bullet here, and it's also not an on or off kind of thing. There are many different shades of transparency that can be practiced.

Now, the tricky thing with algorithms is how do you actually be transparent with an algorithm that you've created and are using. We actually ran a study to try to answer this question a few years back where we ran a bunch of focus groups with both people from industry and from academia to try to figure out all of the different bits of information that you could possibly make transparent about algorithms that are used in newsrooms.

So, there were four main areas that we found. The data, the model, inferences, and the interface, as well as a fifth area related to the human involvement and all of these other four areas.

And I'll refer you to this reference at the bottom of the slide, there for all of the gory details on the bits of information that can be disclosed in each of these four areas. So, just to briefly outline them though, the data level basically pertains to what data is used in the system and is it comprehensive? is it quality? where's it coming from? and things like that.

The model layer of transparency has to do with the statistical model that's being used, the algorithm that's being used. What variables is it using? How are those variables weeded? How was the machine learning trained? if there was machine learning used, and so on.

At the inference level of transparency we can talk about the predictions or classifications that have been made by an algorithm, and we could talk about disclosing the accuracy or the error rates of those types of inferences.

And then finally all of this transparency information ultimately has to exist in some interface to convey that information to users in some kind of meaningful way. And of course wrapped around to all of these layers is a sense of human involvement and of thinking about how to disclose that human involvement across all of these layers.

So let's look at an example of how algorithmic transparency might play out in one particular project here. This piece is called the tennis racket. In this piece which is published by BuzzFeed News they tried to identify tennis players that may have been intentionally losing a match in order for people betting against them to get a big payoff.

So the piece included some original analysis and data, some programming, an algorithm to identify potentially cheating players. And what I think is really interesting in this context is that they really tried to be transparent about their whole process and how they worked with the data and developed an algorithm to try to identify these cheaters.

So let me show you how they they managed to be transparent about this. So they actually had three different layers of transparency and in the first layer, the the article piece linked to this sort of very high level and very excessively written description of the methodology for how the investigation was done.

Now in true Buzzfeed style, this article even had animated GIF, so it was kind of an entertaining and lighthearted presentation of the methodology. From there, that piece linked into a GitHub page for the project. Now GitHub is a site that can host code and data for these types of projects.

On that page there was a a methodology I presented with a little bit more technical terminology, so you could figure out and see exactly where the data came from, how is the data sampled, as well as some of the calculations that were made, and how those calculations were defined.

From there, you could actually step into the actual Python code that the journalists had written in order to come to the conclusions that they had come to in their story, and you can look at this online on GitHub. You can actually also check the code out from GitHub and rerun the code if you want which is pretty awesome.

It's sort of like complete transparency not only of how you did it, but the actual code that can be used to redo it. So I wanted to show you this example to demonstrate that if you want, you really can figure out ways to be very transparent about that data and the algorithms in your journalism.

Now of course that doesn't mean that there aren't some concerns and challenges that arise with algorithmic transparency as well. For one it costs time and money to develop the data, the documentation, perhaps run benchmarks so that you can actually be transparent about all of those things. And of course you might need to be strategic about how much transparency information you can produce, and how much time you can afford to spend producing that information.

There are also concerns that can arise over ethical issues for instance privacy. Can you really disclose all of the data that you used in a particular project? Maybe not, if it undermines some individual sense of privacy.

There are also some typical concerns that arise around issues of trade secrets and competitive advantage. These concerns don't tend to arise for the use of algorithms in investigations, but they do sometimes come up in the use of algorithms for things like personalization and recommendation because news organizations might see those as competitive differentiators or an advantage in the markets, so they may not want to be completely transparent about those things.

There are also some concerns around manipulation and gaming. Again, this is more relevant for things like algorithmic personalization and recommendation, where if you're totally transparent about how these things work you might allow some people out there to start gaming your system in order to have their content more recognized by your algorithm.

One other concern that often comes up is this issue of what I would call cognitive complexity. The criticism is that people won't look at transparency information because it's too complex, and they won't have time, and they won't know how to understand it. So why should we bother with being transparent if no one's going to look at that information? But I want to push back on this concern a little bit here.

The point is not that everyone needs to be able to understand all transparency information at all times, but rather that the transparency information is available to some subset of people that might be interested and might be able to make use of that transparency information.

So, BuzzFeed was able to solve this issue by presenting information in three kind of increasing levels of complexity, and I think YouTube can also come up with ways to present transparency information in accessible ways so that your audience can understand better how you went about your work.
So that's where I'm going to end today. I've really enjoyed sharing some of my knowledge these past few weeks with you on News Algorithms. Again, I hope that you've picked up some ideas on how to be more strategic and responsible about your use of algorithms automation and A.I. in your practice.

And to keep your learning going, I'm sharing some more resources on the page for this course. So good luck with that and I hope to see you online.