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**L**earning

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

# Big Data and Social Analytics certificate course

**MODULE 7 UNIT 1**  
**Video 2 Transcript**

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## MIT BDA Module 7 Unit 1 Video 2 Transcript

### Speaker key

AS: Arek Stopczynski

HY: Hapyak

Let's now talk about using data and collecting data in the context of human resources. Employees in companies, they form very complex social systems, they work together, they also have social interactions and studying that offers an amazing opportunity to understand how to make teams more effective, how to make people more productive, how to make employees to be actually more happy or more healthy. So human analytics going beyond just traditional HR data that exists in the system but actually generating or getting access to more behavioral data is a great opportunity to both learn about fundamental principles that guide how we work as humans, how we get things done, but also to have a very tangible impact on the organizations.

Now, one thing that needs to be noted here, I always look at studying employees as a very, very privacy-sensitive context. And the reason for that is that the distance between observation and potential impact is very short. You might not care whether some random company somewhere else sees where you are right now. Probably you should, but you might not. But if the same question is about, do you care about your boss seeing the same thing? Suddenly the answer changes. And this is true, the data we are generating, or the data that we are looking at in the context of human resources, can be very sensitive. Not just because it describes human beings, but also because the ability to act upon it in an adverse way is very real. People might get fired or it might influence their promotion or performance. So whatever we do in this context of observing employees and doing HR research, we should always be very, very, very careful about their privacy.

HY: What is your view on employers who collect data on employees in the workplace?

- a. I would never work at that kind of place.
- b. I would need confidentiality agreements.
- c. I have no issue with it.
- d. I'm on the fence.

Thank You

00:02:20

AS: While our work is getting more and more distributed and we are using phones and video conferencing more and more, the face-to-face interactions are actually extremely important. And now with personal sensors recently we got the ability to study them at scale, and what we are seeing is that how people interact physically is actually extremely important for the way they are working.

HY: Ben Waber et al. article



AS: Ben Waber et al. showed an amazing result of decreasing attrition in a call center by shifting the coffee breaks. So the idea is call centers are extremely stressful environments, if you've ever worked in one, I have, it's crazy how much stress you can endure or you do endure in there. If the company gets the coffee breaks that are not correlated among the employees who know each other, every time you would have the break and go to grab coffee, you would just be alone or with strangers that you don't really know.

By simply shifting the coffee breaks so people with the same group, people that would know each other, took the coffee break together, now suddenly your break becomes an opportunity for you to complain and for others to provide psychological support in this stressful environment. And the impact on attrition rates was insane.

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And the thing is, this was all possible because we are able to study, or Ben Waber was able to study, the physical interactions, how people are actually facing each other and were able to see that, yes, the coffee breaks are this natural point where people suddenly talk to each other, not during the work when they are actually on call.

We intuitively understand that face-to-face interactions are important for building trust.

HY: Elena Rocco paper

AS: Elena Rocco showed that they are actually extremely crucial in building trust in teams or among employees. But interestingly when people played the game that had to do with trust and actually depended on people trusting each other, if they were doing that only on video conferencing, the trust was reduced. If they were doing that face to face the trust was increased.

But what's really interesting is that it seems that even short initial interaction face to face can actually build this foundation for trust that later it can capitalize on. So you get people together, maybe for few hours, maybe few days, and you allow them to see each other, to interact with each other face-to-face and this really provides this foundation. And later on they can go and only interact virtually but the trust, there will be an increased trust in the way they are actually interacting and trust is extremely important. It actually translates very directly to the performance of the teams whenever they are faced with a creative problem.

HY: Why do you think trust positively affects a team's performance when faced with a creative problem?

Thank you for your reflection. Continue watching the video to find out more about the study.

AS: More and more of our work is being performed in teams. We collaborate with other people and we get things done, and those things tend to be more and more complex. So, the art of building great teams is really that, it is an art.

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Recently Google has been doing research around what constitutes a great team and this was based on a very, very extensive survey of the teams. And looking at certain key dynamics that occur in that team and what researchers and people analytics at Google found was that how dominated the who part. So the way the norms within the team developed and what they were was the most important factor overshadowing exactly who was on the team. Based on that Google came up with five key dynamics that make a team great, and those are structure and clarity, psychological safety, dependability, meaning, and impact. Basically people need to know and be sure that what they're doing is meaningful and will have impact. They need to know what they are doing so they know what is the structure and the clarity of the call. And they need to be sure that they are in this relatively safe environment where they can voice their opinions and they can argue, and it's all in a good spirit of coming up with better ideas and doing better work.

HY: Anita Woolley et al. paper

AS: In a great research, Anita Woolley et al. looked at, do teams have intelligence? So, if you think about individuals, intelligence is a factor that predicts our individual performance at a huge variety of tasks. So, you can measure someone on one task and the outcome will actually predict how well this person will do in a variety of other tasks. This is what we actually call intelligence. What Amy found was that the same thing is true for teams, so we can actually take a team of people and measure their performance at one of the tasks and this performance thus predicts how well this team will do in a variety of other tasks. And this is extremely surprising because this means the team is really this emergent thing that can be measured as a unit.

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What is interesting is that this intelligence, it does correlate with behavioral traits of the team. So one of the very strong correlations in behavior is turn taking, or the equality of turn taking. So you put people together and they are working on a problem and we measure how much people are actually contributing. And by contribution we only mean speaking time, we are not looking at content, we are just looking at how much people are speaking. And if this is relatively equally distributed in a team, this correlates with teams that are intelligent. If you have one person that would dominate the team, those teams do not be as intelligent as a team as those that actually get everyone to speak almost equally.

So I hope these examples give you the idea of how data, big data, can be actually used in people analytics to make employees more productive, happier, more healthy, or how to build great teams. And there are, of course, more reading resources for you to go deeply into.