



**MGMT/OIDD 293X: People Analytics  
Spring 2021**

**INSTRUCTOR**

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Sections: 001 (TR at 1:30-3:00 PM)  
002 (TR at 3:00-4:30 PM)  
Location: Zoom meetings (Zoom tab on Canvas)

Office hours: Weds/Fri 11-12 PM or by appointment  
<https://upenn.zoom.us/j/99012164747>

Please let me know if I can help with anything. I arrive at class meetings early, and I will stay until you have no more questions. I hold office hours weekly. I email frequently and will respond to questions as quickly as possible. I am happy to help with anything related to this class; just let me know what you need!

**TEACHING ASSISTANT**

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Teaching Assistant: Shun Yiu  
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Office Hours: Mon/Weds 1:30-2:30 PM  
<https://upenn.zoom.us/j/93456572257>

Our TA will hold office hours twice a week to answer any questions you may have about the class, especially questions about the homework and the projects.

**COURSE OVERVIEW**

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This course examines the use of data to understand and improve how people are managed in organizations. People really are organizations' most important asset, providing the critical link in converting strategy and capital into value. Yet throughout most of our history, most organizations have relied on long-standing traditions, hear-say, political expedience, prejudice and gut instinct to make decisions about how those people should be managed. Recent years

have seen a growing movement to bring more science to how we manage people. In some cases, that means ensuring that whatever practices and approaches we adopt are backed up by solid evidence as to their effectiveness. Often, organizations will seek to go further, analyzing their own data to identify problems and learn what is working and what is not in their own context. This course applies the insights of the people analytics movement to help students become better managers and more critical analysts within their organizations.

The course aims to develop students in three specific ways.

- First, it will provide students with an up-to-the-minute grounding in current evidence about managing people, providing a knowledge base that can ensure that their future management is guided by best practices.
- Second, we will develop the skills and understanding necessary to be thoughtful, critical consumers of evidence on people management, allowing them to make the most of the analysis available to them as they make people decisions.
- Third, we will provide guidance and practice in conducting people analytics, preparing students to gather data of their own, and making them more skilled analysts.

We will pursue these goals through a mixture of lecture, case discussion, and hands on exploration of a variety of data sets.

## **COURSE CONTENT**

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The course will cover a wide variety of topics related to effectively people, including:

- Selecting the right people for the job
- Evaluating and managing performance
- Increasing engagement and reducing attrition
- Understanding and managing informal communication networks and culture
- Using analytics to improve diversity and access to opportunity within the workforce

In tackling each of these topics, we will discuss existing evidence on best practices. We will also examine how analytical techniques can be applied to understanding these questions within organizations.

## **COURSE FORMAT**

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This course uses readings, lectures, exercises, cases, individual and team assignments, and class discussion. Reading assignments provide an important foundation for class discussion and must be completed prior to each class session. The due dates for all readings and other assignments are listed in the class schedule in the syllabus. Lectures will be used to highlight key points from the readings and provide additional information to supplement the readings. Exercises and cases will provide you with the opportunity to apply what you have learned to real world issues and scenarios. Because each of you brings unique perspectives and experiences to the class, participation in class discussions and activities is essential to your own learning as well as that of other class members.

## **PREREQUISITES**

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We will also use the statistical package R to work through example analyses in class. We chose R because it is an open-source package (i.e., free to download and use) and the most commonly used package for statistical analysis in business. Students are *not* required to be proficient in R in order to take this class, nor will they be required to learn R. Nonetheless, I strongly encourage students to invest in learning a little about this package, both to get the most out of this class, and to set them up to perform analysis in their later career.

For all assignments, **we will provide the R codes needed**. Both the professor and TA will also hold regular office hours to answer questions about the homework and projects.

## **MATERIALS**

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I realize that you have to read extensively for all of your classes, so I want to make sure that the readings for this class are as worthwhile as possible. I sought to identify readings that will help you learn the course concepts while also being engaging. Nearly all reading materials I selected are written in an accessible way (in the style of popular books) by organizational scholars and social scientists who have training in social science methods.

There are two types of reading materials:

Articles from academic journals and the popular press will be available on Canvas through the “Course Materials @Penn Libraries” tab.

All HBS cases need to be purchased and accessed through the “Study.Net Materials” tab on Canvas.

## **ASSIGNMENTS AND GRADING**

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### Grading

This course is only for registered students (no audits) and must be taken for a grade. You will not be graded on a curve. Instead, your grade will correspond to the sum of the points you have accumulated as a proportion of the total points available. This course uses the following grade distribution:

A+: 98-100%	B+: 87-89%	C+: 75-79%	D+: 63-66%
A: 93-97%	B: 83-86%	C: 71-74%	D: 59-62%
A-: 90-92%	B-: 80-82%	C-: 67-70%	F: 58% and below

### Grading Components:

- Attendance (10%)
- Participation (20%)
- Three individual assignments (15%, 5% each)

- A book review (10 %)
- A team project (25 %)
- In-class exercise (20%, 1% for each)
- Bonus point (2%, 1% each)

Course attendance (10%)

You are expected to attend all class sessions. In case of a legitimate need to miss class, please inform us of your absence via the Course Absence Reporting (CAR) system.

Missing a day of class will mean having 2% deducted from your participation grade—unless you are absent for a medical or religious reason, or for official university business. Please note: a job interview is not an acceptable reason to miss class. If you need to miss class for a predictable reason, please notify me at least 48 hours in advance so that we can make arrangements for any in-class exercises and so that you can obtain the materials distributed during the class. Of course, I realize that in some cases unforeseeable emergencies arise.

Participation (20%)

The class will be highly participative. The goal is that we should all learn from one another. As a consequence, I expect active participation from everyone. In this class, “participation” is defined as enriching your own learning and the learning of your classmates by contributing thoughtfully to class discussion and exercises. Here are my expectations for your participation:

- Be prepared.

Attend the class on time and come prepared. It is important that you have completed the assigned readings thoroughly before class on the day shown in the schedule.

- Enrich the conversation.

There are at least five ways to participate effectively: (1) ask a thought-provoking question, (2) share an example of a course concept from your experience, (3) stimulate debate by respectfully challenging a point made, (4) build on a prior comment to deepen understanding, and (5) integrate course readings insightfully.

- Be engaged.

This class is “unplugged.” Once class starts, all electronics (e.g., computers, cell phones, tablets, etc.) should be turned off and put away. If you need to use a device because of a language or disability issue, you need to secure permission at the beginning of the class. The misuse of an electronic device (e.g., surfing the web or texting) will adversely affect your class participation grade.

- Be courteous.

Successful participation includes treating your classmates in a considerate and professional manner. Listen carefully to the comments and questions that your classmates voice. You may learn something new from their perspectives, and you will be able to avoid simply repeating something

that another classmate has said earlier in discussion. Also, it is perfectly acceptable for you to voice disagreement with an opinion provided by another student or me. Open debate often leads to the most thoughtful and informative class discussions, as long as you do it respectfully.

Please see the detailed rubric for participation in the Appendix at the end of the syllabus.

Individual Assignments (15%, 5% each)

There will be three individual assignments, each worth 5%. In each case, you will be provided with some data and a short question to answer by studying the data. A 1-2 page write-up of your answer will be due before class, allowing us to discuss your answers during class. Late submission will not, therefore, be permitted.

The assignments are designed so that they can be conducted with a variety of analytical tools and methods, including both Excel and R. We will provide example R code to help you get started, but students who are uncomfortable with R can complete the assignments using Excel.

The assignments are also designed so that there is no single correct answer. Instead, we want to see what insights you can gain from the data. Each assignment will be graded on a check minus, check, check plus, check double plus basis, with the grade reflecting the rigor and depth of your answer.

A Book Review (10 %)

You are going to read several chapters (Chapter 3, 4, 5) from the book “Work Rules” for the class. Based on those chapters, you will write a book review (3-4 page) to answer the following questions:

- a. In its early years, Google tried to hire people slowly but hire the best people. What do you think of this strategy?
- b. Google tried to hire people through employee referrals. What problems did it run into? How did they improve hiring through employee referrals?
- c. According to chapter 5, what are the best and second best predictors of performance? Did they surprise you?
- d. What are the six unique parts of our screening process at Google? Select one part that you think is particularly effectively and explains why.

Team Projects (25 %)

There will be one team project in the class. The team project is designed as class consulting exercises for real organizations facing real people problems. Teams should consist of several team members. For the project, you will be provide a dataset. All teams will be studying the same datasets and issues. Your task is to analyze the data and provide a set of recommendations to the companies based on your analysis. There will be three deliverables for each project:

1. A 10 page report. The report should detail:

- a. How you analyzed the data. For example, did you look at all of the data or did you choose to ignore certain observations? What measures did you calculate to help you answer the organizations' question? What analyses did you perform?
- b. Your findings. What were the results of your analyses? How much confidence (statistical and otherwise) do you have in them? What limitations should we bear in mind?
- c. Your recommendations. What actions do you think that the client organization should take, based on your analyses.

2. A 7 slide presentation to be made to the client. We will review the slides and pick several teams to present their solutions. We will choose based both on the quality of the presentations, and to provide a range of different approaches in class. Those teams that are selected will present in front of the class and a representative from the client organization.

3. An accounting of who did what. You should submit a table that describes which of your team members worked on which parts of the project. Specifically, for each of the major components of the project (data management, analysis, recommendations, report writing, presentation writing), please provide a rough percentage of the work done by each team member.

#### In-class exercises (20%, 1% for each)

Throughout the semester, there will be exercises students do in the class either on their own or with groups. These exercises are designed to engage students and assess their learning. There are two formats for these exercises: either a report of discussion results or a short-essay.

#### Bonus points (2%, 1% each)

The class also designed two presentations to give students bonus point.

There will be a presentation based on the book review. We will choose 5 students for the presentation. If there are more than 5 volunteers, we will run lotteries to select 5 students.

There will also be a presentation based on the group project. We will choose 3 groups for the presentation. If there are more than 3 group volunteers, we will run lotteries to select 3 groups. Each presentation will lead to a 1-point bonus point for the final grade.

## **COURSE POLICIES**

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### Turn on video

For the spring semester, all classes will be held synchronously (that is, I will be holding the class "live" on Zoom during the regularly scheduled session time). I expect you to be on Zoom with your video enabled through the duration of class. I might not be able to see your video because

of Zoom's capacity limitations, but it is important that we are all as present as we can conceivably be.

### Electronics – “unplugged”

I expect you to be off of your phone and not to toggle between the class video and other windows, including email and social media. This is very important for the full participation of the class. Although we will take the virtual class on zoom, I want each of you to get full value out of the class, to really absorb the material and to use it productively in your career. So I am asking you to not be on your phone or browsing internet during the class.

### Attendance

Since the root of “attendance” is “attend”, you must be present mentally, such that you're paying attention. The class is taught in such a way that it is not possible to “catch up” later via the readings. Given the size of the class, there won't be an opportunity for everyone to talk on a regular basis. However, I expect you to be online on time and be prepared for each class. Thank you for taking this part of the course seriously. You are allowed one unexcused absence, and each further unexcused absence will lead to a reduction of 1 point. Excused absences are for medical reasons and religious holidays only. Please note that if you miss class as a result of an interview, then it is an unexcused absence. As noted above, one of the main reasons for this is that many of the exercises will involve collaborations with others. If you are absent, then your peers are at a disadvantage.

### Stay on schedule

It is important to stay on track with your assignments; not only will this help you feel less stressed, but it is also an important skill you will need in your career. Being able to meet deadlines and juggle many tasks are important career and life skills. Thus you will need to complete all assignments according to the schedule. However, I recognize that personal circumstances may at times make it difficult or impossible to complete a learning task on schedule. If you have a personal situation that prevents you from completing a task on time, you will need to discuss this with me prior to the due date, if possible, so we can explore options. If it is not possible to discuss this prior to the due date, please reach out as soon as it is possible to do so.

### Academic Integrity

Students are required to abide by the University's policy of academic integrity at all times. This applies to exam-related issues as well as plagiarism on graded assignments. Additional information on plagiarism is available online.

## **COURSE OUTLINE**

### **Session 1 (Jan 21<sup>st</sup>): Introduction to People Analytics I**

What is People Analytics? How can careful analysis improve the way that we manage people? What are organizations doing to make the best use of such analysis? And what will you need to know about that analytics in your job? In this session, we will introduce some of the core themes of the class, describing the uses of people analytics as well as some of the concerns.

#### **Readings:**

- “Susan Cassidy” – HBS case
- Byrant, Adam (2011) “Google’s Quest to Build a Better Boss”, The New York Times  
<https://www.nytimes.com/2011/03/13/business/13hire.html>

#### **Optional:**

- Re:Work. “How Google thinks about team effectiveness”  
<https://rework.withgoogle.com/blog/how-google-thinks-team-effectiveness/>

#### **Questions**

- What surprises you about the findings of Google’s Project Oxygen? Do you think that they could have reached the same conclusions in other ways?
- Which candidate should Susan Cassidy choose and why? Is there more information that you would like to know if you were her?

### **Session 2 (Jan 26<sup>th</sup>): Introduction to People Analytics II**

Some of you might want to work for consulting firms after you graduate. This session will introduce you to the range of activities occurring in the emerging field of people analytics. We will look at different types of data and analytic techniques that are common in the field. We will also help you discover the challenges, opportunities, and limitations of using such data and techniques.

#### **Readings:**

- “People Analytics at McKinsey” – HBS case
- Selingo, Jeffrey J. (2016) “People Analytics are Helping Employees Make Smarter Hires,” The Washington Post, May 20  
[https://www.washingtonpost.com/business/2016/05/20/3db89f3c-1b94-11e6-8c7b-6931e66333e7\\_story.html?utm\\_term=.2c7e683da5e8](https://www.washingtonpost.com/business/2016/05/20/3db89f3c-1b94-11e6-8c7b-6931e66333e7_story.html?utm_term=.2c7e683da5e8)

#### *Optional:*

- Massey, Cade (2019) “How you can have more impact as a people analyst” MIT Sloan Management Review



[https://sloanreview.mit.edu/article/how-you-can-have-more-impact-as-a-people-analyst/?use\\_credit=c3155a86a1f5a08d1c7816d02ba3e59d](https://sloanreview.mit.edu/article/how-you-can-have-more-impact-as-a-people-analyst/?use_credit=c3155a86a1f5a08d1c7816d02ba3e59d)

### Questions

- As the consultant, are you hoping the data will support the client's hypotheses? Or disconfirm them? Where can you add the most value?
- What is your evaluation of the results the team found? Which did you find most interesting, or most useful? To what extent did they confirm or disconfirm the client's hypotheses? How important are the hypotheses in this type of engagement?
- What is your evaluation of the data the team used for this project? What are the biggest challenges in converting raw data into actionable insight? How much detail do you want to show about the data collection and analyses, as compared to the results?

### **Session 3 (Jan 28th): Hiring and Analytics, Part 1**

Perhaps the single most common use of analytics in managing people is to optimize hiring, making sure that you are hiring the right employees for the right roles. In this first session on the topic, we will discuss the reasons why analytics is important in hiring and describe in detail the best practices for managing an evidence-based hiring process.

#### Readings:

- Bock, Lazlo (2015) "Work Rules" Chapter 3-4.
- Bersin, (2012) "Big Data in Human Resources: Talent Analytics (People Analytics) Comes of Age" *Forbes*: <http://www.forbes.com/sites/joshbersin/2013/02/17/bigdata-in-human-resources-talent-analytics-comes-of-age/>

#### *Optional:*

- Autor, David H. 2015. "Why Are There Still So Many Jobs? The History and Future of Workplace Automation." *The Journal of economic perspectives* 29(3):3-30. doi: 10.1257/jep.29.3.3.
- Aaron Chalfin, Oren Danieli, Andrew Hillis, Zubin Jelveh, Michael Luca, Jens Ludwig and Sendhil Mullainathan (2016) "Productivity and Selection of Human Capital with Machine Learning." *American Economic Review: Papers and Proceedings* 106(5): 124-127

### Questions:

- How does the Google hiring process differ from the way that you were last hired?
- What do you see as the strengths and weaknesses of how they hire people?

### **Session 4 (Feb 2<sup>nd</sup>): Hiring and Analytics, Part 2**

In this session, we get into the mechanics of using data to predict who to hire. We will discuss how to analyze the data to understand who performs best in the job. We will also discuss various possible problems that might be encountered in predicting who will perform best, and strategies for dealing with them. By the end of this session, you should feel more confident performing multi-variate analyses. You should also know what questions you need to ask of any data-based selection process in order to ensure that it is valid, legal and ethical.

**Readings:**

- Bock, Lazlo (2015) “*Work Rules*” Chapter 5.

**Assignment 1 Due before Class!**

You will be provided with two datasets. The first dataset describes the characteristic and performance of a set of former and current employees. The second dataset provides characteristics of a set of applicants. Your assignment is to analyze the data and answer the following questions (your submission should be 1-2 pages, single spaced):

1. Which three applicants would you recommend that the company hire?
2. What formula, algorithm or heuristic did you use to pick these three applicants, and how did you arrive at this approach?
3. What concerns or caveats do you have about your recommendations?

**Session 5 (Feb 4<sup>th</sup>): Hiring and Analytics, Part 3**

Recruitment of employees needs to consider the factors that affect employees’ performance. In this session, we will discuss a continuum of types of human capital from the most to the least portable, and how such portability may affect employees’ performance in the new organization they join.

**Readings:**

- “Recruitment of A Star” – HBS case

***Optional:***

- Groysberg, B., Lee, L., & Nanda, A. (2008). Can they take it with them? The portability of star knowledge workers’ performance. *Management Science*, 54(7), 1213–1230

**Questions:**

- Whom should Stephen Conner hire? Why?
- Imagine yourself in the place of each of the candidates. What strengths would you bring to light during the interview with Stephen? How would you distinguish yourself from the other candidates?

**Session 6 (Feb 9<sup>th</sup>): Hiring and Analytics, Part 4**

In addition to job performance that can be directly measured and quantified, many other factors may also affect managers' hiring decisions. For example, stereotypes and in-group favoritism can influence managers' perceptions and evaluations of employees. In this session, based on a study of law firms, we will discuss how stereotypes affect the selection criteria used to evaluate job applicants and how implicit biases of an evaluator may affect the hiring outcomes.

**Readings:**

- Goldin, Claudia and Cecilia Rouse. 2000. "Orchestrating Impartiality: The Impact of "Blind" Auditions on Female Musicians." *American Economic Review* 90(4):715-41. doi: 10.1257/aer.90.4.715.
- Pager, Devah and Diana Karafin. 2009. "Bayesian Bigot? Statistical Discrimination, Stereotypes, and Employer Decision Making." *The Annals of the American Academy of Political and Social Science* 621(1):70-93. doi: 10.1177/0002716208324628.

**Optional:**

- Devah Pager "Obituary"  
<https://www.nytimes.com/2018/11/08/obituaries/devah-pager-dead.html>
- Leung, Ming D. 2017. "Learning to Hire? Hiring as a Dynamic Experiential Learning Process in an Online Market for Contract Labor." *Management Science*:1-18.

**Questions:**

- How do gender stereotypes influence employers' staffing decisions?
- What are role-incumbent schemas? How do they affect the ways individuals perceive, order, and evaluate others?

**Session 7 (Feb 11<sup>th</sup>): Guest Speaker Panel I**

In this session we will invite one or two speakers to share their experiences of hiring employees in their organizations.

Guest speaker:

Sheri L. Feinzig, Ph.D. Partner, IBM Talent & Transformation

**Book Review Due before Class!**

**Session 8 (Feb 16<sup>th</sup>): Presentation I**

In this section, we will select 5 students to present their book reviews. Each individual presentation will be 10 minutes. Students who give the presentations will receive a bonus point (1 point) for their final grade. We will first ask students to volunteer. If there are more than 5 students volunteering, we will run lottery to select 5 students.

### **Session 9 (Feb 18<sup>th</sup>): Attrition, Part 1**

In this session we will discuss how companies use analytics to better understand the drivers of turnover, and some of the ways that such analysis can help to improve how people are managed. We will also explore the use of “survival” models for better analyzing such time-dependent processes.

#### **Readings:**

- David Allen, Philip Bryant and James Vardaman (2010) “Retaining Talent: Replacing Misconceptions with Evidence-Based Strategies” *Academy of Management Perspectives*
- Schwantes, Marcel et al. “According to this employment study, the top reason for people switching jobs in 2018 will make you laugh”. *Inc.*  
<https://www.inc.com/marcel-schwantes/study-top-reason-for-whats-really-driving-employees-to-switch-jobs-in-2018-is-surprising.html>

#### **Questions:**

You are tasked by your CEO with figuring out how to reduce turnover in the organization.

- What kind of analysis might you conduct to figure out what to do?
- What data would you collect?
- How would you analyze it? What particular challenges might turnover data create?

### **Session 10 (Feb 23<sup>rd</sup>): Attrition, Part 2**

Attrition is the reverse of hiring; just as organizations need to make sure that they are hiring the right people, so they also need to ensure that the right people stay with the organization.

Managing attrition is therefore another major focus area of people analytics.

In this session we will explore the implications of attrition for organizations, as well as discussing evidence on what drives people to leave companies

#### **Readings:**

- Store24 -HBS Case study

#### **Questions:**

- How does attrition impact organizations?
- Why do people leave?

### **Assignment 2: Due in Class Today!**

Prepare a 2 page memo for Bob Gordon, answering his questions. In particular:

1. Is there a relationship between manager and crew tenure and store profitability?
2. Can you estimate how much more profitable stores are when they have one month longer crew tenure and one month longer manager tenure, on average?

3. How important is site tenure relative to site location in explaining store profitability?
4. Can you find any evidence that the value of increasing tenure is more important in stores that start off with very low levels of tenure? In other words, is there any evidence of a non-linear effect of tenure on financial performance?
5. The CEO wants to decide whether to prioritize raising manager tenure or crew tenure. What would you recommend?

Be clear about what you have concluded about the impact of turnover on performance and how you have derived your conclusion.

The data necessary to answer this question can be found on Canvas. Sample R programs are also posted there.

### **Session 11 (Feb 25<sup>th</sup>): Attrition, Part 3**

In this session, we will understand how to conduct survival analysis to analyze the rate of employee attrition and the causes of attrition. Survival analysis typically answer questions such as: what is the proportion of a population which will survive past a certain time? Of those that survive, at what rate will they die or fail? There are similar questions we can analyze to understand attrition. For example, what percentage of employees in an organization stayed for more than five years? Of those who still stay in the organization, at what rate will they leave? We will explain (1) the ideal research design to collect data on attrition, (2) the basic concepts of survival analyses and (3) how they apply to data on employee attritions.

#### **Readings:**

- Paul Allison (2014) *Event History and Survival Analysis*. Sage. Available online from the library at <http://proxy.library.upenn.edu:2155/10.4135/9781452270029>

#### **Optional:**

- Tiantian Yang and Howard Aldrich, (2012) “Out of sight but not out of mind: Why failure to account for left truncation biases research on failure rates” *Journal of Business Venturing*

#### **Questions:**

- What is left truncation? Can you give an example for left-truncation in research on employee attrition?

### **Session 12 (Mar 2<sup>nd</sup>): Performance Assessment**

Performance assessment is at the heart of any people management process. Not only does the assessment inform how we rewards people and assign people to jobs; it is also a vital input into any analysis that we might want to do to understand why people perform well and others perform poorly. At the same time, accurate performance assessment is surprisingly difficult in many roles. In this session, we will discuss various approaches to measuring performance to identify the best way to assess performance in a given role.

**Readings:**

- “Dovernet” HBS Case study

**Optional:**

- Cappelli and Conyon (2018) “What Do Performance Appraisals Do?” *Industrial and Labor Relations Review*

**Questions:**

- What do you think of the performance management system at Dovernet? What are its strengths and weaknesses? What recommendations would you have for improving it?
- What should Kristina Chung do about Trent Raynor and Gwen Davidson?

**Session 13 (Mar 4<sup>th</sup>): Guest Speaker II**

In this session we will bring in a speaker who uses people analytics in their day to day work. We will talk to the speaker about the kinds of work that are most valuable in delivering insights to change what people do, what they have learned from their experiences, and the biggest challenges that they have faced.

Guest speaker:

Down Klinghoffer, Head of People Analytics, Microsoft

**Session 14 (Mar 9<sup>th</sup>): Engaging Workplaces and Employee Happiness**

People are generally more productive at work when they are happier about their work. In this session we will focus on developing new "people analytics" technologies to help companies increase employee happiness.

**Readings:**

- “Sensing and Monetizing Happiness at Hitachi”—HBS case study
- Achor, Shawn (2012) “Positive Intelligence” *Harvard Business Review*

**Questions:**

- What are the advantages of using people analytics to understand employee happiness?
- What challenges organizations might run into when collecting such data?

**Session 15 (Mar 16<sup>th</sup>): Engagement and Culture, part I**

How we manage people shapes how they feel about us, their job, our organization, their lives. Managing them effectively is therefore both important for organizational performance and for

their own well-being. Moreover, common patterns of feeling and behavior ultimately shape an organization's culture, which is very important for performance.

In this session, we will identify the different ways that behavioral trace data can be used, assess the effect of organizational culture on organizational functions and manage practices, and understand and work to overcome issues that arise from converting HR strategy to practice.

**Readings:**

- Schein (2004) "Organizational culture", Chapter 1-5
- Baron, J. N., & Hannan, M. T. (2000). Organizational Blueprints for Success in High-Tech Start-Ups: Lessons from the Stanford Project on Emerging Companies. *California Management Review*, 44(3), 8-36.

**Questions:**

- Based on Schein, why is culture hard to measure?
- Based on Baron and Hannan, how does organizational culture affect how organizations build their workforces?
- Based on the concept of organizational routines or blueprints, what would you pay attention to if you want to understand organizational culture?

**Session 16 (Mar 18<sup>h</sup>): Engagement and Culture, part II**

Culture is a complex construct. What gets measured gets managed. Although most discussions of culture are highly impressionistic, advances in theory and machine learning are producing many different ways to measure culture, and thereby influence it. In this session, we will go into depth on how engagement and culture can be measured, and what we can do once we measure them. A particular focus will be on understanding the latest approaches to analyzing language, and how they can be used within organizations.

In this session, we will discuss the state of existing knowledge on what drives happiness and engagement in the workplace. We will then cover different techniques for tracking employee engagement. We will focus in particular on developing effective surveys to understand how employees are feeling.

**Readings:**

- Boris Groysberg, Jeremiah Lee, Jesse Price and J. Yo-Jud Cheng (2018) "The Leader's Guide to Corporate Culture" *Harvard Business Review*
- Amabile, T. M. (1997) "Motivating Creativity in Organizations: On Doing What You Love and Loving What You Do." *California Management Review* 40, no. 1: 39-58.

**Questions:**

- Why should employers worry about how their employees feel?
- What can employers do to shape their employees' affect?

- How can an employer know what their employees are feeling?

### **Session 17 (Mar 23<sup>rd</sup>): What Works? Program Evaluation**

Getting the most out of your people can involve substantial investments of time and money. But which of those investments are paying off? Without being able to assess the effectiveness of management practices, there is a risk that you spend too much on things that provide little return – or too little on things that really work.

In this session, we will explore the challenges of accurately assessing the benefits of any given practice. We will begin by reviewing what we know about the kinds of management practices that tend to create value. We will then go on to discuss different approaches to measuring the effects of practices, with the goal of understanding how best to understand what benefits workers and the organization.

#### **Readings:**

- Martin Edwards and Kirsten Edwards (2016) *Predictive HR Analytics: Mastering the HR Metric*. Chapter 9: Case study 6. Monitoring the Impact of Interventions, pages 319-325

#### **Questions:**

- What do you see as the main challenges in finding out what works within organizations?
- If you were to design an experiment to test whether an intervention works, what should you bear in mind?

### **Session 18 (Mar 25<sup>th</sup>): Analyzing Social Networks Part 1**

Understanding the roles of social networks will be useful for anyone who wants to harness the incredible power of social, economic, and political networks for themselves or for the organizations they work with. It will also be useful for those who simply want to understand how networks work and how they affect a large number of behaviors and processes that we all care about. In this session, we will focus on the basic concepts and theories of social networks.

#### **Readings:**

- Prasad Balkundi and Martin Kilduff. 2005. "The Ties that Lead: A Social Network Approach to Leadership." *The Leadership Quarterly*. 16:941-61.
- Rivera, Lauren A. 2012. "Hiring as Cultural Matching: The Case of Elite Professional Service Firms." *American Sociological Review* 77:999-1022.

*Optional:*



- Bruce Hoppe and Claire Reinelt. 2010. “Social network analysis and the evaluation of leadership networks.” *The Leadership Quarterly*. 21:600–19.

**Questions:**

- What are the characteristics of leadership networks that are effective?
- How would networks affect an individual’s cultural capital?

**Session 19 (Mar 30<sup>th</sup>): Analyzing Social Networks, Part 2**

Work is fundamentally a collaborative exercise, as we combine efforts with our colleagues to build the business. Getting those collaborations right is therefore critical to organizational effectiveness. Social Network Analysis allows organizations to measure that collaboration as a prelude to identifying and addressing opportunities for improvement.

In this session we will study how network analysis is being used within organizations, covering the kinds of data that can be used to track collaboration within the organization and the kinds of problems that network analyses can be used to solve.

**Readings:**

- Michael Arena, Rob Cross, Jonathan Sims and Mary Uhl-Bien (2017) “How to Catalyze Innovation in Your Organization. *Sloan Management Review*
- Rob Cross, Stephen Borgatti, Andrew Parker (2002). “Making Invisible Work Visible.” *California Management Review*

**Questions:**

- What actions should James Reid take to improve the functioning of Troubled Spain?
- What can we learn from the network study? How would it inform your opinions about what James should do?

**Session 20 (Apr 1<sup>st</sup>): Analyzing Social Networks, Part 3**

In this session we will explore the details of network analytics to give a deeper insight into how to use and interpret network data.

**Assignment 3. Due in Class Today!**

We will provide you with data on communication patterns within Netcorp, a small, three department company. We will also provide you with an R program that can be used to analyze the data (you may also complete the exercise using Excel if you prefer).

Based on the data, please answer the following questions that have been posed to you by the CEO:

1. I worry that my three departments are not talking to one another. Is that true? How would you evaluate the quality of interaction across the departments?
2. Our sales department seems to be very slow at making decisions and that has led us to lose a certain amount of business. Why do you think that is?

3. We have been considering using retention bonuses to make sure that we hold on to key people within the organization. Can you use your analysis to recommend anybody for them?

As ever, please explain your answers. Assignments should be between 1 and 3 pages long.

### **Session 21 (Apr 6<sup>th</sup>): Guest Speaker III**

We will have a guest speaker to share with us how organizational networks affect their performance and the challenges with building effective networks.

Guest Speaker:

Julie Zide, Head of People Science, Human Capital Management, Goldman Sachs

### **Session 22 (Apr 8<sup>th</sup>): Diversity Analytics, Part I**

Whether individuals are members of a minority group in an organization profoundly shape their daily experience in the organization. In this session, we will discuss how forms and numbers affect patterns of social interaction and individuals' employment opportunities.

#### **Readings:**

- McKinsey report, (2020) "Women in the workplace"  
<https://www.mckinsey.com/featured-insights/diversity-and-inclusion/women-in-the-workplace>
- Cohen, Philip N. and Matt L. Huffman. 2007. "Working for the Woman? Female Managers and the Gender Wage Gap." *American Sociological Review* 72(5):681-704. doi: 10.1177/000312240707200502.

#### **Optional:**

- Kanter, Rosabeth Moss. (1997) "Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women." *American Journal of Sociology* 82(5): 965-990.

#### **Questions:**

- Can you give one or two examples to explain how numerical shifts may transform social interaction in organizational settings?
- The proportional rarity of tokens is often associated with three perceptual tendencies: visibility, contrast, and assimilation. Explain how each of the three processes might affect women's integration to male-dominated organizations.

### **Session 23 (Apr 13<sup>th</sup>): Diversity Analytics, Part II**

Managing diversity has become one of the most important human capital topics in recent years, and is an important area of boardroom focus. Achieving diversity is important for driving business goals through increased innovation and understanding of a broad array of customers; it

is important to managing the organization's reputation; and it deals with basic ethical issues for managers and organizations.

Effectively managing diversity requires effective analytics, both to effectively measure where the organization stands on diversity and equity, and to identify and assess the most effective interventions to improve diversity.

In this session, we will discuss different approaches to measuring diversity and what we can learn from them. We will also explore how data is used to identify why organizations lack diversity, and discuss the practices that seem to improve diversity.

**Readings:**

- Price Waterhouse Coopers (2018) "On Air Review", pages 9-22  
[https://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/on-air\\_talent\\_review.pdf](https://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/on-air_talent_review.pdf)

**Questions:**

- How would you assess PwC's analysis of pay levels at the BBC. Do you think that their conclusions are valid?

**Session 24 (Apr 15<sup>th</sup>): Diversity Analytics, Part III**

Although individuals make their own decisions about which organizations to join and when to leave their employers, their decisions are heavily influenced by their daily experiences in the organizations. In this lesson, we will discuss how stereotype threat and organizational culture affect individuals' self-perception and their sense of belonging in their work domain.

**Readings:**

- "Who Gets to Graduate?" 2014. *NY Times*  
<https://www.nytimes.com/2014/05/18/magazine/who-gets-to-graduate.html>
- Wynn, Alison T and Shelley J Correll. 2018. "Puncturing the Pipeline: Do Technology Companies Alienate Women in Recruiting Sessions?". *Social Studies of Science* 48(1):149-64. doi: 10.1177/0306312718756766.

**Questions:**

- Based on the articles, why would racial minorities and women be more likely to drop out of college or leave their jobs even after they overcame initial barriers to enter?
- What are the useful interventions?

**Session 25 (Apr 20<sup>th</sup>): The Law and Ethics of People Analytics**

The use of people analytics has profound implications for applicants, employees and organizations. Many of the issues that we worry about within the context of the employment

relationship, such as discrimination, coercion and privacy, are exacerbated by the capacity to monitor employees non-stop and implement consistent decisions across a workforce. As a consequence, legal and ethical issues come up repeatedly in the practice of people analytics. As a people analytics practitioner, it is important to understand the boundaries around what you legally can and ethically should do. As an employee and a citizen, you need to be aware of how your data is being used and what you can do about it. We will discuss those issues in this session.

**Readings:**

- Cathy O’Neil (2017) “Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy”, Chapter 7

**Questions:**

- Do you think algorithms can be more damaging than human judgment in managing people?
- What features of algorithms and measures make them particularly dangerous in the workplace?
- What guidelines would you implement around how algorithms should and should not be used in managing people?

**Group Project Due Before Class**

**Session 26 (Apr 22<sup>nd</sup>): Guest Speaker IV**

In this session we will bring in a speaker to talk about the importance of diversity for organizations.

**Session 27 (Apr 27<sup>th</sup>): Group Presentation II**

We will select three groups to present results from their project.

Each group presentation will be 20 minutes. Students who give the presentations will receive a bonus point (1 point) for their final grade. We will first ask groups to volunteer. If there are more than 3 groups volunteering, we will run lottery to select 3 groups.

**Session 28 (Apr 29<sup>th</sup>): Wrap up**

## Appendix

### Participation Rubric

	20 pts	15 pts	10 pts	5 pts
<b>Engagement/ Contribution</b>	Student <b>consistently</b> provides insightful ideas about the texts under discussion and supported by the text; ask questions that demonstrate a solid understanding of the reading;	Student speaks <b>frequently</b> in class or group discussion, has some good ideas, and usually backs those ideas up with evidence from the text.	You speak <b>occasionally</b> ; Offer vague generalized ideas, remotely connected to the texts under discussion or to other students' comments. Student sometimes contributes to class in a positive way.	Student <b>rarely</b> speaks in class or participate in group discussion; and when you do show little understanding of the texts under discussion.
<b>Collaboration</b>	Student <b>always</b> listens when others talk in groups and actively engages in collaborative tasks. Student incorporates and builds off of others.	Student listens when others talk, and participates in group work. Student <b>sometimes</b> incorporates and build off of others.	Student <b>occasionally</b> listens when others talk. Occasionally incorporate others' ideas into group work.	Student does not listen when others talk, and fails to incorporate others' ideas into group work.
<b>Preparation</b>	Student is <b>always</b> prepared for class with assignments and required materials.	Student is <b>usually</b> prepared for class with assignments and required materials.	Student is <b>sometimes</b> prepared for class with assignments and required materials.	Student is <b>rarely</b> prepared for class with assignments and required materials.
<b>Behavior &amp; Attitude</b>	Student <b>always</b> follows school and class rules and procedures and always brings a positive attitude	Student <b>usually</b> follow school and class rules and procedures and brings a mostly positive attitude.	Student <b>sometimes</b> follow school and class rules and procedures and brings a modestly positive attitude.	Student displays disruptive behavior during class and usually has a negative attitude.