

Leading with Advanced Analytics & AI Information Session

Eric T. Anderson
Eric Leininger
Florian Zettelmeyer

Kellogg School of Management

Northwestern | Kellogg

Introductions: Academic Directors

Eric Leininger

Clinical Professor of Executive Education
Executive Director LAAI



Florian Zettelmeyer

Nancy J. Ertle Professor of Marketing
Faculty Director, Program on Data Analytics
Chair of Marketing Department



Eric Anderson

Hartmarx Professor of Marketing
Chair of Marketing Department
(2014 - 2015)



a

A small version of the Amazon logo, consisting of a dark blue lowercase letter 'a' and an orange curved arrow pointing from the bottom of the 'a' to the right.

amazon

A large version of the Amazon logo, consisting of the word 'amazon' in a dark blue, lowercase, sans-serif font, with an orange curved arrow pointing from the bottom of the 'a' to the right.



*What is the **art of the possible** with AI and Analytics:*

Think Big!

Big Data has garnered enormous attention

- *"Big Data burst upon the scene about 5 years ago and many observers became abuzz about the possibilities of this new business resource."*
- *"We need to grab this **big data** opportunity that has landed on our front step. Armed with more detailed*

60% of big data initiatives fail

--Gartner, November 2016

- *"In the next 5 to 10 years there will be an **order-of-magnitude increase in the amount of marketing data used** and a similar tenfold increase in computer power available for marketing analysis."*
- *"The functioning of the organization requires that numerous urgent management measures be adopted which take into account a **large quantity of data** and complex calculations"*

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*"We were too conservative.
The failure rate is closer to **85%**.
And the problem isn't technology"*

-- Nick Heudecker, Gartner, November 9, 2017

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87% of data science projects never make it into production

-- Venture Beat AI, July 2019

- *“The functioning of the organization requires that numerous urgent management measures be adopted which take into account a **large quantity of data** and complex calculations”*

The science of AI and analytics has outpaced businesses
ability to adapt

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ability to adapt



This course is designed to help business leaders succeed with
AI and analytics

LEADING WITH ADVANCED ANALYTICS AND AI – VIRTUAL DELIVERY

WEEK 1: SEPTEMBER 14-18, 2020
 WEEK 2: SEPTEMBER 21-24, 2020
 BREAK: SEPTEMBER 28-OCTOBER 2, 2020
 WEEK 3: OCTOBER 5-6, 2020

Academic Directors: Eric Anderson and Florian Zettelmeyer
 Executive Director: Eric Leininger

Program Managers: Nancy Cacioppo and Kate Wegener

WEEK 1	Monday September 14	Tuesday September 15	Wednesday September 16	Thursday September 17	Friday September 18
8:30-9:30	Program Welcome and Introductions Eric Leininger Eric Anderson Florian Zettelmeyer	<i>Debrief Homework</i> <u>Causal Analytics</u> Distinguishing Good from Bad Analytics (Part 1) Anderson and Zettelmeyer	<i>Debrief Homework</i> MobiSouth Case Introduction Anderson and Zettelmeyer	<i>Debrief Homework</i> Linking Experiments with Business Outcomes (Part 1) Anderson and Zettelmeyer	<u>Predictive Analytics</u> Creative Gaming Case Introduction Exploring Data Anderson and Zettelmeyer
9:30-9:45	Break	Break	Break	Break	Break
9:45-10:45	Why Analytics is a Leadership Issue Anderson and Zettelmeyer	Distinguishing Good from Bad Analytics (Part 2) Anderson and Zettelmeyer	Linking Analytics with Ideation The Customer and Firm Journey (Part 1) Anderson and Zettelmeyer	Linking Experiments with Business Outcomes (Part 2) Choosing the Right Experimental Design (Part 1) Anderson and Zettelmeyer	Running Predictions Anderson and Zettelmeyer
10:45-11:00	Break	Break	Break	Break	Break
11:00-noon	The AI and Analytics Framework Anderson and Zettelmeyer	Using Experiments to Create Business Value Ozella Case Anderson and Zettelmeyer Noon – 12:30 pm Team Office Hour (Optional)	The Customer and Firm Journey (Part 2) Anderson and Zettelmeyer	Choosing the Right Experimental Design (Part 2) Wrap up of Experiments Anderson and Zettelmeyer	Testing Predictions Anderson and Zettelmeyer 12:15 – 12:45 pm Virtual Lunch (Optional)

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Kellogg and McCormick Faculty

Kris Hammond

Professor of Computer Science
Director of Northwestern CSX



Steve Franconeri

Professor of Psychology



Tom O'Toole

Clinical Professor of Marketing
Associate Dean for Executive Education



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8:30-9:30	Debrief Homework Evaluating Model Performance Anderson and Zettelmeyer	Debrief Homework <u>Bridging Causal and Predictive Analytics</u> Anderson and Zettelmeyer	CPE Case Debrief Anderson and Zettelmeyer	<u>Organizing and Investing in AI and Analytics</u> Best Practices (Part 1) Anderson and Zettelmeyer
9:30-9:45	Break	Break	Break	Break
9:45-10:45	Using Designed Data for Predictions Anderson and Zettelmeyer	Quasi-Experiments CPE Case Introduction CPE Case Workshop (Part 1) Anderson and Zettelmeyer	<u>Planning for Analytics and AI</u> Discussion: The Importance of Planning 8 Steps to Successful Planning Anderson and Zettelmeyer	Best Practices (Part 2) Anderson Zettelmeyer, and Hammond
10:45-11:00	Break	Break	Break	Break
11:00-noon	Using Machine Learning for Predictions Anderson and Zettelmeyer	CPE Case Workshop (Part 2) Anderson and Zettelmeyer <i>Noon – 12:30 pm Team Office Hour (Optional)</i>	8 Steps to Successful Planning (continued) From Analytics to AI Anderson and Zettelmeyer	Best Practices (Part 3) Anderson, Zettelmeyer, and O'Toole
7:30-9:00 pm	<u>Visualizing and Communicating Analytics</u> Optional Evening Session: Powerful and Persuasive Data Visualizations Franconeri		<u>Visualizing and Communicating Analytics (cont'd)</u> Optional Evening Session: Data Visualization for Exploratory Analytics Franconeri	

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Action Learning Projects

- Pre-work on Action Learning Projects
- Revisions and Coaching Sessions
 - Sept 25-Oct 4
- Peer Feedback
 - Small Group Discussion + Kellogg Faculty
 - October 5

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WEEK 3	Monday October 5	Tuesday October 6
8:30-10:00	Small Group Discussion of Action Learning Projects Part 1 All Faculty	Panel Discussion: Implementing Analytics and AI Tom O'Toole with Industry Experts
10:00-10:15	No Scheduled Break	Break
	Part 2 All Faculty	10:15-11:00 am Course Wrap-Up Anderson, Leininger, and Zettelmeyer
	No Scheduled Break	Program Ends 11:00 am
End: 11:30	Part 3 All Faculty 11:45 – 12:15 pm <i>Virtual Lunch (Optional)</i>	

The Kellogg Team

Nancy Cacioppo
Program Manager



Gretchen Baker
Program Advisor



Kate Wegener
Program Manager



Key Dates

- Registration Deadline: Monday August 24
- Orientation: Sept 8
- Week 1: Sept 14-18
- Week 2: Sept 21-24
- Faculty Office Hours: Sept 25-Oct 4
- Wrap Up: Oct 5-6

KLIVE Experience

- Engagement Opportunities with Faculty
- Learning Partners
- Complete Virtual Classroom Support

Questions?

Gretchen Baker
gretchen-baker@kellogg.northwestern.edu