Artificial Intelligence (AI) in Marketing, MGP/B-490BV-001, Mondays on Zoom
Winter Quarter 2024

Professor: Dr. Vasu Unnava, Ph. D.

Recommended Pre-requisite: Marketing Management

Office Hours: Thursdays 7:30 pm to 8:30 pm and on demand by setting an appointment via email (vunnava@ucdavis.edu)

Class Dates and Hours:
Jan. 8 and 22, Feb. 5, 26, and Mar. 11, from 5:30 pm to 9:30 pm.

Course Objectives:

Artificial Intelligence (AI) can contribute the greatest value to marketing among all business functions. The course is designed to provide a comprehensive understanding of AI in the domain of marketing. AI empowers marketers by providing tools to enhance customer insights, segmentation, personalization, targeting, automating tasks such as email marketing, social media posting, ad content creation, programmatic buying, customer service and sales forecasting, thus creating competitive advantages. The course uses a variety of pedagogical approaches including interactive theoretical discussions, case studies, practical assignments, hands-on projects, and guest lectures. The learning objectives of "AI in Marketing" are that students will be able to:

1) Gain an understanding in AI techniques and their value-creation in marketing.
2) Evaluate business cases using AI in their marketing activities across variety of industries.
3) Design marketing strategies incorporating AI tools to yield the greatest returns to businesses.

The focus of this course is to explore concepts and theories of AI algorithms in marketing, enabling students to understand their principles and applications. While AI involves a variety of tools and data analysis, the course curriculum does NOT relay on computer language skills or programming expertise. The classroom activities related to AI algorithms in marketing will be designed to be accessible to students with various educational backgrounds, to provide valuable insights into the world of AI algorithms in marketing.

Textbook: NO textbook is required.

Text pack (Required):

The text pack comprises 11 articles relevant to the course content, sourced from Harvard Business Services or popular press. These articles are accessible through UC Davis library or online and does not involve any monetary expenses.

A note about accessing readings: Linked items are available through the UC Davis library or online. The links will need to be accessed from on campus or by using the library VPN.

Course format:

We will use a variety of materials and approaches in this course to comprehend how AI became a game-changer in the marketing field, equipping businesses with powerful marketing tools. The presentation of material will encompass lectures, classroom activities, discussions, business cases, articles, and guest presentations. The application of pertinent theories to real-world AI tools will constitute an integral part of the course.

Course Requirements and Grading:

Your course performance will be determined by four components:

1. Individual Class Participation	20%
2. Assignment 1 and 2, 30% each	60%
3. Assignment 3	20%
	____
Total	100%

All assignments must be submitted on or before the due date. Failure to do so without prior authorization from the professor will result in a score of zero for that component of the course.

Grading Scheme:

The following is the grading scheme for assigning letter grades:

Range	Letter Grade	Range	Letter Grade
100- 97%	A+	<80-77%	C+
<97- 94%	A	<77-73%	C
<94-90%	A-	<73-70%	C-
<90-87%	B+	<70-67%	D+
<87-83%	B	<67-63%	D
<83-80%	B-	<63-60%	D-
		<60%	F

Individual Participation (20% of total grade):

Class participation is an important component of your grade. Regular and punctual attendance are required. You will come prepared to discuss concepts, topics, and issues related to readings in each class and actively participate in class activities.

In-class contribution will be assessed based on the quality and consistency of your input. You are neither expected to have all the right answers in every class, nor to dominate every in-class discussion. However, you are required to be prepared and contribute regularly. The quality of our class discussions depends on your level of preparation with the class and your willingness to share the results of your preparation with the class. This implies that the quality of your contributions is more significance than the quantity. It is entirely possible for you that you to make more remarks than others in class and still receive a lower grade for in-class contributions. When evaluating your contribution to the class discussions, the following factors will be considered:

- Does the participant attend class regularly and arrive on time? Is the participant prepared?
- Do comments contribute meaningful insights to our comprehension of the concepts, problems, or situations or do they leave others with a sense of indifference?
- Do comments stimulate discussions by introducing new perspectives?
- Is the participant an attentive listener? Are the comments timely and do they build upon the preceding remarks made by others? Are they connected to the comments of fellow classmates? Is there a willingness to engage with other class members and collaborate as a team during in-class activities?
- Class attendance is important for grasping the subject material; therefore, please ensure that you do not miss no more than two hours of class.

Three Individual Assignments (80% of total grade): You are **encouraged** to incorporate AI tools such as ChatGPT in your assignment tasks and ensure that they echo with your inputs, and voice.

1) **Assignment 1 (30% of total grade): "AI in Programmatic Advertising"**

   The main objective of a brand's advertising is to reach the right audience at the right time, ultimately leading to an improvement in key metrics such as sales. Traditionally, brand advertising dealt with publishers and media outlets such as newspapers, television, and trade magazines. With the advent of digital marketing, advertising has transformed into two distinct components: demand-side (DSS) and supply-side platforms (SSP) providing large amounts of consumer data and real-time campaign optimization. By leveraging AI technologies, DSP and SSP processes have transformed the programmatic echo system. The brand's programmatic ad process involves identifying brand's campaign objectives, audience targeting, ad content, real-time bidding, ad placement and contextual targeting, channel selection, and finally decision making based on data provided by demand-side platforms.

The first assignment is a study of programmatic ad practices by a "popular and publicly traded" brand of your choice. You would describe brand's programmatic practices, explain the role of AI, and identify values created by AI. Additionally, you would suggest an ad campaign, outline programmatic ad process, and estimate its impact on the marketing and financial objective of the brand using a pre-formatted Excel Sheet.

The submission repost will be a 5-page document, including references and one Excel sheet. The format of the reports will be double spaced with 12-font Times New Roman. The Excel sheet will detail expected impact of your ad campaign on the brand's key performance metrics.

Assignment 1 Due Date: Feb. 4th, by 11 pm: "AI in Programmatic Advertising,"

2) Assignment 2 (30% of total grade): "AI in Customer Segmentation"

Customer segmentation is critical to success in highly competitive markets. Integrating AI in segmenting customers provides benefits over traditional methods because it can process vast amounts of data by analyzing behaviors, purchase history, and interactions with firms across channels in real-time. The key to successful customer segmentation using AI lies in accurately analyzing data and generating actionable insights to drive business growth.

The second assignment entails the application of one of AI tools that have been discussed and practiced in the classroom. The objective is to extract significant customer segments by identifying the optimal number of segments, outlining their commonalities and differences, and emphasizing their distinct characteristics. Additionally, you will evaluate the performance of AI tool using a test dataset. Finally, you will develop a campaign designed to target one of the most desirable segments.

The submission repost will be a 5-page document, including references, and graphical images. The format of the report will be double spaced with 12-font Times New Roman.

Assignment 2 Due Date: March 10th, by 11 pm: "AI in Customer Segmentation,"

3) Assignment 3 (20% of total grade): "Generative AI and Branding"

Generative AI creates models and systems capable of generating novel data that resembles existing data by examining underlying patterns in the data. AI tools for natural language processing such as GPT 3, ChatGPT, BERT enable businesses to build sophisticated applications for content generation, chatbots, creative writing etc.

The third assignment is about using generative AI to create a new branding campaign for a well-known brand of your choice. The assignment's objective is to study the brand's present

identity encompassing its purpose, positioning, characteristics of its audience, personality, and points of differentiation from its competitors. Next, you will use the generative AI tools to design a new branding campaign including logos, slogans, images etc. Finally, you will conduct a comparative analysis between newly developed brand identity with its current identity and evaluate effectiveness of generative AI tools employed.

The submission repost will be of a 5-page document, including references, and graphical images. The format of the reports will be double spaced with 12-font Times New Roman.

Assignment 3 Due Date: Mar 21st, by 11 pm: "Generative AI and Branding"

Additional Readings (recommended based on your interests):

There are several popular press book titles by academics and practitioners that cover topics related to our class discussions. I suggest the following books which touch on topics we will explore during the term (please note that you are not required to purchase these books, but you may find them useful for further independent readings).

1. "Competing in the age of AI- Strategy and Leadership When Algorithms and Networks Run the World," Macro Iansiti, and Karim R. Lakhani.
2. "A Human's Guide to Machine Intelligence," by Karthik Hosanagar.
3. "The AI Marketing Canvas," Raj Venkatesan and Jim Lecinski.

Pre-Class Readings:

A set of two or three articles pertinent to each class topic is assigned as pre-class readings and these can be accessed through CANVAS or from our library. It is critical that you read and think about each class topic prior to the class session. Each class begins with the assumption that you have at least a rudimentary understanding of assigned reading material. At times, we will talk in depth about the assigned readings, and at other times we will not talk about them at all – they will be a supplement to the class discussions. The readings are meant to give you a foundational understanding of the topic and/or illustrate interesting examples of how this topic has been examined within academia or the media. Assuming you come prepared and energized, we should all have an interesting learning experience in each session.

Writing.

All written work for the course should be carefully proof-read and free of grammatical and typographical errors. I reserve the right to penalize for any instances of subpar writing, even if writing quality is not explicitly listed as a grading criterion. You are encouraged to use AI tools for proofreading, ensuring that your written work reflects your thoughts and voice accurately.

Academic Integrity:

All students who take this course are governed by the Univ. of California's standards of ethical conduct for students. These sections set forth the responsibilities of students and faculty to maintain a spirit of academic honesty and integrity. You were given this code of conduct with explicit explanations of violations (e.g. plagiarism, cheating, unauthorized collaboration, etc.) and your responsibilities in regard to them during orientation. It is essential that you are aware of this code of conduct and the disciplinary actions that may be taken in the event of a violation. A copy of the Code of Academic Conduct can be found at **http://sja.ucdavis.edu/files/cac.pdf**. If you are uncertain about what constitutes an academic conduct violation, please refer to the code linked above, contact your instructor, or refer to the Office of Student Judicial Affairs.

Principles of Community:

All participants in the course, instructor and students, are expected to follow the UC Davis Principles of Community, which includes affirmation of the right of freedom of expression, and rejection of discrimination. The right to express points-of-view without fear of retaliation or censorship is a cornerstone of academic freedom. A diversity of opinions with respectful disagreement and informed debate enriches learning. However, in this course, any expression or disagreement should adhere to the obligations we have toward each other to build and maintain a climate of mutual respect and caring.

Statement on Accommodation:

UC Davis is committed to educational equity in the academic setting, and in serving a diverse student body. All students who are interested in learning about how disabilities are accommodated can visit the Student Disability Center (SDC). If you are a student who requires academic accommodations, please contact the SDC directly at sdc@ucdavis.edu or 530-752-3184. If you receive an SDC Letter of Accommodation, submit it to your instructor for each course as soon as possible, at least within the first two weeks of a course.

MGB-490B-001 COURSE CALENDAR* Autumn Quarter, 2024

*Calendar is subject to change. All changes will be discussed in advance of the day affected.

Date	Topic	Pre-Class Readings/Assignment Due Dates (Dropbox closing time is 11 pm)
Class 1 Jan 8, at 5:30 pm	Course Introduction, AI Terminology and ML Tools	1. "From data to action: How Marketers can leverage AI," BH1037-PDF-ENG 2. "Analytics for Marketers," Fabrizio Fantini and Das Narayandas, R2303E-PDF-ENG
Class 2 Jan 22, at 5:30 pm	AI in Programmatic Advertisement	1. "What is Programmatic Advertising? Everything You Need to Know." 2. "Is Programmatic Advertising the Future of Marketing?" H025YG-PDF-ENG Assignment 1 Due Date: Feb. 4th, by 11 pm: "AI in Programmatic Advertising,"
Class 3 Feb 5, at 5:30 pm	Customer Segmentation	1. "How AI Helped One Retailer Reach New Customers," H04CSI-PDF-ENG 2. "Using AI to Adjust Your Marketing and Sales in a Volatile World", Das Narayandas and Arijit Sengupta, H07LCO-PDF-ENG
Class 4 Feb 26, at 5:30 pm	Personalization	1. "Understanding the Role of Artificial Intelligence in Personalized Engagement Marketing," CMR709-PDF-ENG 2. "What Smart Companies Know About Integrating AI," R2304J-PDF-ENG Assignment 2 Due Date: March 10th, by 11 pm: "AI in Customer Segmentation,"
Class 5 Mar 11, at 5:30 pm	Generative AI and Marketing Strategy	1. "How to Design an AI Marketing Strategy," S21041-PDF-ENG 2. "Why you aren't getting more from your marketing AI" S21042-PDF-ENG 3. "Don't buy the wrong marketing tech" S21043-PDF-ENG Assignment 3 Due Date: Mar 21st, by 11 pm: "Generative AI and Branding"

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