

Prepared by Dr. Karim Ahmed

MKT631

Digital Analytics



The background features five vertical panels of varying heights and widths. The first panel on the left is dark blue. The second panel shows hands typing on a laptop. The third panel shows a laptop screen with a play button icon. The fourth panel shows a target icon and a magnifying glass icon. The fifth panel is a solid light blue. Overlaid on these panels are several white line-art icons: a graduation cap, a laptop, a play button, a target, a magnifying glass, an open book, and a group of people.

MKT631 **Digital Analytics**

Orientation Lecture

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Dr. Karim Ahmed

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I hold a Ph.D. and an M.Sc. in Digital Marketing and currently lecture in Marketing and Digital Marketing at undergraduate programs in Egypt and Saudi Arabia. In parallel, I have provided management and marketing consultancy to leading firms across both countries. My research centers on digital platforms and marketing innovation, with a particular focus on how emerging technologies reshape customer engagement and business models.

Course Description

Digital Analytics (MKT631) explores how data informs decision making in modern marketing environments. Through this course, students will learn to gather, measure, and interpret a variety of online metrics using established analytics platforms and complementary AI techniques. We will cover web, social, and mobile data sources; examine key tools; and discuss best practices for reporting insights so that organizational leaders appreciate both the strategic and technological dimensions of analytics.

Course Description

AI will be presented as an advanced option to enhance predictive modeling and automation alongside traditional methods. By the end of the semester, participants will be prepared to apply data driven approaches—including AI assisted analyses—toward measurable marketing objectives.

Learning Outcomes

Upon successful completion of MKT631, students will be able to:

1. Describe the historical development of digital analytics and its relationship with the evolution of the Internet.
2. Explain key AI algorithms and machine learning techniques used to enhance predictive accuracy and automate data analysis.
3. Evaluate search engine mechanics and apply SEO/SEM analytics to optimize website visibility and traffic.

Learning Outcomes

4. Compare major industry platforms and vendors, understanding their strengths, limitations, and appropriate use cases in digital analytics.
5. Assess consumer–brand relationship metrics, including awareness, sentiment, and engagement, to inform marketing strategy.
6. Implement robust measurement strategies, configuring tracking tags, events, and variables to ensure high quality data collection.

Learning Outcomes

7. Utilize analytics and data visualization tools, creating interactive dashboards and reports that convey insights clearly.
8. Apply analytical frameworks to define KPIs, segment audiences, and detect meaningful patterns in raw digital data.
9. Conduct advanced analyses, such as attribution modeling and funnel optimization, to measure multi channel marketing impact.
10. Synthesize and communicate actionable insights, crafting data driven narratives and executive level recommendations that drive continuous improvement.

Course Topics

1. The Evolution of Digital Analytics and the Internet

An historical overview of how web technologies and data collection methods have developed, from server logs to modern real time tracking.

2. Advanced AI and Algorithms

Examination of machine learning algorithms, predictive models, and AI techniques that enhance pattern detection, forecasting, and automation in analytics.

Course Topics

3. Search Engines and the Internet

Insights into how search engines index and rank content, and how marketers measure SEO and SEM performance to optimize visibility and traffic.

4. Digital Analytics Industry Players

Survey of leading platforms, vendors, and service providers—such as Google Analytics, Adobe Analytics, and emerging niche tools—and their roles in the analytics ecosystem.

Course Topics

5. Consumer/Brand Relationships

Exploration of metrics that capture brand awareness, sentiment, and engagement, and how analytics informs the cultivation and measurement of consumer loyalty.

6. Digital Measurement

Techniques for implementing tracking tags, configuring event based data collection, and validating data quality to ensure accuracy and integrity.

Course Topics

7. Analytics and Data Visualization Tools

Hands on review of dashboarding solutions (e.g., Tableau, Power BI), reporting frameworks, and best practices for presenting complex data in clear, actionable formats.

8. The Art of Analytics, Part 1

Introduction to analytical thinking and introduction to analytical planning.

Course Topics

9. The Art of Analytics, Part 2

Exploring the marketing objectives and building an analysis plan around the objectives.

10. The Art of Analytics, Part 3

Data collection, analyzing for insights, countering bias in analysis, and storytelling with data.

Student Assessment

➤ **Weekly Exam**

➤ **Final Exam**

The Emergence of Digital Analytics

- Global Market Size

The **global digital marketing analytics** market was valued at approximately USD 6.8 billion in 2023, and it is projected to grow to about USD 31.3 billion by 2032 as companies increasingly rely on data to understand consumer behavior and optimize their marketing strategies.

<https://www.zionmarketresearch.com/report/digital-marketing-analytics-market-size>

The Emergence of Digital Analytics

- Careers

The U.S. Bureau of Labor Statistics projects an 8% increase in employment for Market Research Analysts between 2023 and 2033, with roughly 88,500 openings each year to replace retiring workers or those moving into other occupations.

Data Analyst roles are among the most in-demand positions in the digital sector, as organizations seek professionals capable of deriving insights from large datasets to support decision-making.

www.bls.gov/ooh/business-and-financial/market-research-analysts.htm

The Emergence of Digital Analytics

- Future Outlook and In-Demand Skills

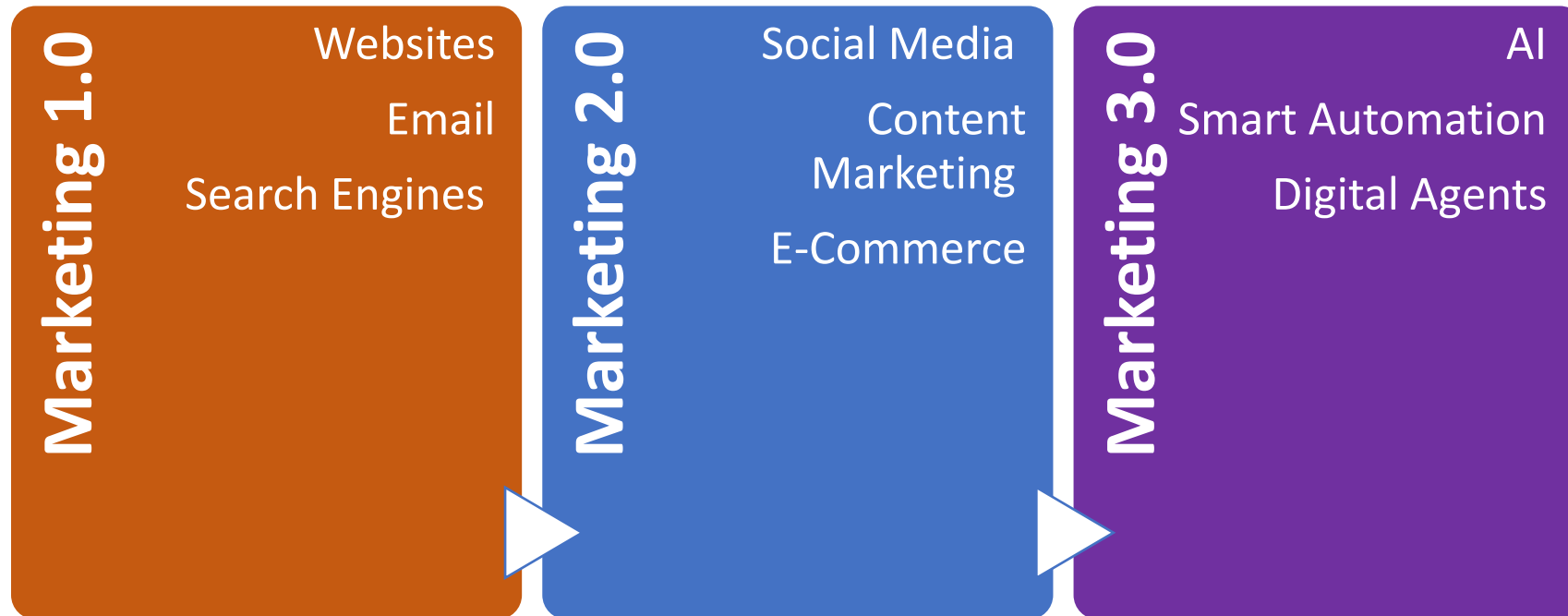
Demand for Data Analysts is expected to grow by 35% from 2022 to 2032—much faster than the average for all occupations.

Key skills sought by employers include proficiency in SQL, Python, and Excel; experience with cloud platforms such as AWS or Google Cloud; and expertise in visualization tools like Tableau and Power BI.

<https://jessup.edu/blog/engineering-technology/data-analyst-career-outlook/>

Digital Marketing and Data Analytics in the Age of Artificial Intelligence

How has marketing changed over the past 20 years?



Digital Marketing and Data Analytics in the Age of Artificial Intelligence

How has marketing changed over the past 20 years?

Noon started as an e-commerce platform that relied on digital advertising, then evolved to use advanced recommendation and personalization systems to display the most relevant products to each user.



Digital Marketing and Data Analytics in the Age of Artificial Intelligence

Why Is Artificial Intelligence Transforming Marketing?

Because customers now want:

- Faster responses.
- A personalized experience.
- Accurate recommendations.
- Content that matches their needs.

Previously	Now
"I am looking for the best phone."	"I want a phone for photography, priced under EGP 20,000, with a powerful battery."
Keywords were the most important factor.	Conversations have become more important than keywords.

Digital Marketing and Data Analytics in the Age of Artificial Intelligence

From Search Engines to Intelligent Assistants

Search Engine Era	AI Search Era
Google Search	Copilot
Bing Search	ChatGPT
	Gemini
Users only search for information.	Users ask questions, compare options, seek recommendations, and make purchasing decisions within the AI interface.

Digital Marketing and Data Analytics in the Age of Artificial Intelligence

The Shift from SEO to GEO

What is SEO?

A set of activities aimed at making a website appear in traditional search results.

When a user searches: “Best pizza restaurant in Cairo”

The company aims to have its website appear among the top results on Google or Bing.

Success is measured by:

- Search ranking
- Website traffic
- Click-through rate (CTR)

What is GEO?

Optimizing content so that it becomes a trusted source used by AI systems when generating answers for users.

When a user asks: “What are the best places to eat pizza in Cairo?”

Instead of seeing a list of links, the user receives a direct answer that includes specific restaurant recommendations.

In this case, the goal is for your brand to be mentioned directly within the AI-generated answer itself.

Digital Marketing and Data Analytics in the Age of Artificial Intelligence

What Does It Take to Succeed in GEO?

1. Clear Content

AI systems prefer content that answers questions directly.

Bad Example

We are a leading company that offers the best innovative solutions in the market.

- What does “best” mean?
- What does “innovative” mean?

There is no real, specific information.

Good Example

We provide a delivery service within Riyadh city in less than two hours, with real-time order tracking.

This is a clear and specific description that AI systems can easily understand and use when generating responses.

Digital Marketing and Data Analytics in the Age of Artificial Intelligence

What Does It Take to Succeed in GEO?

2. Credible Information

AI systems prefer content that is supported by evidence and facts.

Example

Instead of writing:

“We are the best bank in Saudi Arabia.”

Write:

“The bank serves more than 5 million customers and provides digital banking services through its mobile app 24/7.”

The more factual and verifiable information your content contains, the more likely it is to be cited and used by AI systems when generating responses.

Digital Marketing and Data Analytics in the Age of Artificial Intelligence

What Does It Take to Succeed in GEO?

3. Structured Data

Information should be organized in a clear and easy-to-understand format.

Example:

Unstructured: A long paragraph containing 500 words.

Structured:

- **Price:** SAR 200
- **Delivery Time:** 2 days
- **Warranty:** 1 year
- **Country of Origin:** Saudi Arabia

Structured data makes it easier for AI systems to extract, understand, and reuse information when generating answers.

Digital Marketing and Data Analytics in the Age of Artificial Intelligence

What Does It Take to Succeed in GEO?

Example: An Egyptian Tourism Company

Traditional Content *"We offer the best tour packages in Egypt at the best prices."*

This content is very generic.

GEO-Optimized Content *"A 3-day diving trip in Sharm El-Sheikh, including accommodation, transportation, and equipment. Suitable for beginners, with prices starting from EGP 6,500."*

If a user asks:

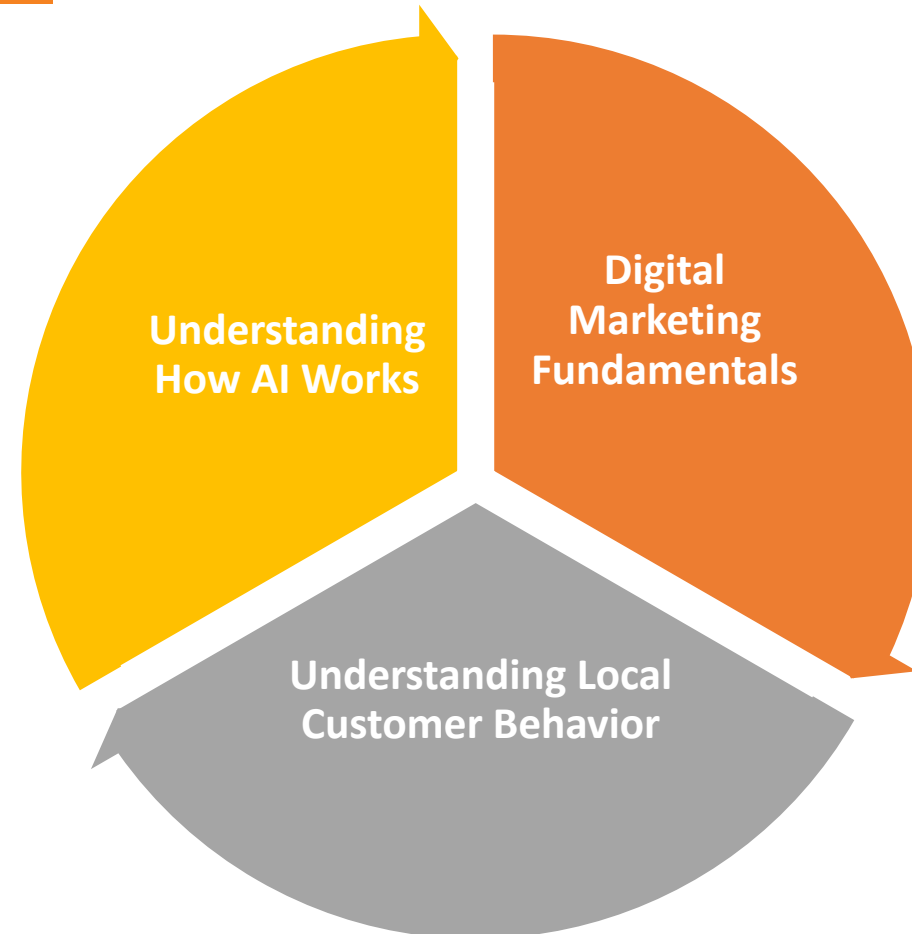
"What are the best diving activities for beginners in Sharm El-Sheikh?"

AI systems are more likely to use this content because it:

- ✓ Is clear and specific.
- ✓ Contains accurate information.
- ✓ Provides details that can be compared with alternatives.
- ✓ Directly answers the user's question.

Digital Marketing and Data Analytics in the Age of Artificial Intelligence

What Does It Take to Succeed in GEO?





Thank You