

# **Ecole des Hautes Etudes Commerciales D'Alger**



**Master's Dissertation submitted in partial fulfillment of the  
requirements for a master's degree in commercial Sciences**

**Major: Marketing**

**Subject:**

**Exploring the Integration of Artificial Intelligence  
in Digital communications: Strategies, Impacts,  
and Future Perspectives**

**CASE STUDY:**

**Third Advertising**

**Made by:  
BELKACEM Aymen Chemseddine**

**Supervisor:  
Dr. MESSAOUDI Naima  
Senior Lecturer at EHEC**

**11<sup>th</sup> promotion**

**June 2024**



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## **Abstract:**

With the increasing integration of artificial intelligence (AI) in various sectors, companies must strategically leverage AI to enhance their digital communication practices. This dissertation explores the extent to which AI can be integrated into digital communication strategies, focusing on its potential to improve operational efficiency, and strategic adaptability. The study examines the challenges and opportunities associated with AI adoption, particularly in the context of Third Advertising and the Algerian market.

This Master's dissertation is divided into three chapters. The first chapter delves into the theoretical foundations of digital communication and the constructs of AI. The second chapter provides an overview of AI technologies and their applications in digital marketing. The final chapter presents a case study on the implementation of AI in campaign creation for Third Advertising's client, highlighting the challenges and opportunities within the Algerian market.

### **Key words:**

Artificial intelligence, Digital communication, AI integration, Third Advertising, Algerian market, Operational efficiency, Strategic adaptability, Campaign creation, Challenges, Opportunities

## **Résumé :**

Avec l'intégration croissante de l'intelligence artificielle (IA) dans divers secteurs, les entreprises doivent exploiter stratégiquement l'IA pour améliorer leurs pratiques de communication numérique. Cette dissertation explore dans quelle mesure l'IA peut être intégrée aux stratégies de communication numérique, en se concentrant sur son potentiel à améliorer l'efficacité opérationnelle et l'adaptabilité stratégique. L'étude examine les défis et les opportunités associés à l'adoption de l'IA, en particulier dans le contexte de Third Advertising et du marché algérien.

Cette dissertation de Master est divisée en trois chapitres. Le premier chapitre se penche sur les fondements théoriques de la communication numérique et les concepts de l'IA. Le deuxième chapitre fournit un aperçu des technologies de l'IA et de leurs applications dans le marketing numérique. Le dernier chapitre présente une étude de cas sur la mise en œuvre de l'IA dans la création de campagnes pour un client de Third Advertising, mettant en lumière les défis et les opportunités sur le marché algérien.

Mots-clés : Intelligence artificielle, Communication numérique, Intégration de l'IA, Third Advertising, Marché algérien, Efficacité opérationnelle, Adaptabilité stratégique Création de campagnes, défis, opportunités

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## **list of abbreviations:**

<b>Abbreviation</b>	<b>Signification</b>
<b>AI</b>	Artificial Intelligence
<b>SEO</b>	Search Engine Optimization
<b>SEA</b>	Search Engine Advertising
<b>SEM</b>	Search Engine Marketing
<b>PPC</b>	Pay-Per-Click
<b>ROI</b>	Return on Investment
<b>UGC</b>	User Generated Content
<b>NLP</b>	Natural Language Processing
<b>CV</b>	Computer Vision
<b>ML</b>	Machine Learning
<b>BI</b>	Business Intelligence
<b>SM</b>	Social Media
<b>BCG</b>	Boston Consulting Group

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# *General Introduction*

## *General Introduction*

In today's dynamic digital landscape, online communication has undergone a profound transformation with the pervasive influence of artificial intelligence (AI). Once mere tools for connectivity, social media platforms have evolved into sophisticated arenas where AI technologies play a pivotal role in shaping brand interactions and consumer engagements. As the digital age continues to unfold, AI's integration into communication practices represents a paradigm shift, offering unprecedented opportunities for businesses to enhance their strategies and redefine customer relationships.

For marketing agencies like Third Advertising, navigating this evolving landscape presents challenges and opportunities. While Third Advertising has traditionally excelled in crafting compelling campaigns and fostering brand engagements through conventional methods, the strategic adoption of AI still needs to be explored. Unlike competitors leveraging AI for advanced analytics, personalized content strategies, and automated insights, Third Advertising has yet to harness these technologies to augment its digital communication capabilities.

Nevertheless, the potential benefits of AI in digital communication are profound. AI enables precise audience targeting, real-time sentiment analysis, and predictive modelling, empowering marketers to deliver hyper-targeted campaigns that resonate deeply with consumers. By automating repetitive tasks and streamlining data-driven decision-making processes, AI enhances operational efficiencies and allows marketing teams to focus on creativity and strategy formulation.

This thesis endeavours to “Explore the integration of artificial intelligence in digital communication strategies within the context of Third Advertising”, addressing the central question:

To what extent can artificial intelligence be integrated into digital communication strategies in the Algerian market?

To delve into this inquiry, the thesis will examine the following sub-questions:

**Q1:** How does the absence of AI in current practices impact the efficacy and adaptability of Third Advertising's digital communication strategies?

**Q2:** How does integrating AI impact the operational efficiency of digital communication practices at Third Advertising?

**Q3:** What are the primary challenges associated with introducing AI into digital communication in the Algerian market?

To provide structured insights, the study proposes the following research hypotheses:

**Hypothesis 1:** The absence of artificial intelligence in Third Advertising's current digital communication practices reduces efficiency in using their resources.

**Hypothesis 2:** Integrating AI technologies will enhance the operational efficiency of Third Advertising's digital communication practices.

**Hypothesis 3:** Introducing AI into digital communication in the Algerian market faces primary challenges related to data accessibility and quality.

Structured into three main chapters, each divided into three sections, this thesis employs a descriptive documentary approach to gather insights from diverse sources, including books, case studies, and expert perspectives. The thesis begins with exploring the fundamentals of digital communication in Chapter 1, highlighting strategies, tools, and the evolution of digital marketing practices. Chapter 2 delves into the intersection of AI and digital communication, showcasing how AI technologies are leveraged to optimize campaign creation and execution. A detailed case study with Third Advertising in Chapter 3 illustrates practical implementations of AI in campaign development, discussing methodologies, challenges, opportunities, and research outcomes and extending the exploration by drawing insights from qualitative and quantitative research, concluding with strategic recommendations for integrating AI into future marketing initiatives, emphasizing continuous innovation and ethical considerations in AI adoption.

Through this comprehensive exploration, the thesis aims to provide actionable insights and strategic recommendations for Third Advertising, facilitating informed decisions and empowering the agency to embrace AI-driven innovations in digital communication effectively.

**CHAPTER I: Digital Communication: Strategies, Tools,  
and Evolution in Modern Marketing**

**Introduction:**

In an era where technology and connectivity dominate our lives, digital communication stands at the forefront of modern marketing strategies. This chapter aims to explore the fundamentals of digital communication, addressing How has the digitalization of communication transformed marketing strategies?

By examining the evolution of digital platforms and their impact on marketing, we uncover how businesses utilise digital channels, such as social media, email, and websites, to create more interactive, personalised, and cost-effective marketing campaigns. Through this exploration, we gain insight into the critical elements that define successful digital marketing in today's competitive landscape.

## Section 1: The fundamentals of digital marketing.

In a world driven by technology and connectivity, digital marketing is the cornerstone of modern marketing strategies, offering businesses unparalleled opportunities for growth and engagement. In this section, we will cover the fundamentals of digital marketing, starting with its definition, specific features, and different levers, and then discussing the marketing mix in the digital age.

### 1. The definition of digital marketing:

*“Digital marketing, also called online marketing, refers to all marketing efforts that occur on the internet. Businesses leverage digital channels such as search engines, social media, email, and other websites to connect with current and prospective customers. This also includes communication through text or multimedia messages.”<sup>1</sup>*

Digital marketing uses the internet and electronic devices to promote products or services. It involves creating engaging content, interacting with people online, and ensuring the brand stands out digitally to attract customers and meet the objectives.

### 2. The specifics of digital marketing.

Unlike traditional marketing, digital marketing offers more advantages to businesses, thanks to the unique features of digital media, which enable new forms of interactivity and information exchange with significantly lower costs and more personalized products or services.

#### 2.1. Interactivity:

*“Digital marketing is continuously adapting to new technologies and changing consumer behaviours. At the forefront of this evolution is interactive content, a powerful tool that revolutionizes how businesses connect with their audiences.”<sup>2</sup>*

In digital marketing, various tools and platforms enable marketers to create interactive experiences that encourage active participation from users. It can include interactive ads, quizzes, polls, surveys, live chats, and social media engagement. The goal of interactivity is to capture the audience's attention, increase engagement, and create a memorable brand experience. Interactive marketing fosters stronger connections with consumers and provides valuable data insights into their preferences and behaviours.

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<sup>1</sup> [blog.hubspot.com/marketing: what is- digital- marketing #whatis](https://blog.hubspot.com/marketing/what-is-digital-marketing#whatis). Accessed on 28/04/2024 at 01:32

<sup>2</sup> The Future of Digital Marketing: Interactive Content and User Engagement on, Tue 6th Feb 2024, By [deeside.com](https://deeside.com) Accessed on 28/04/2024 at 02:40

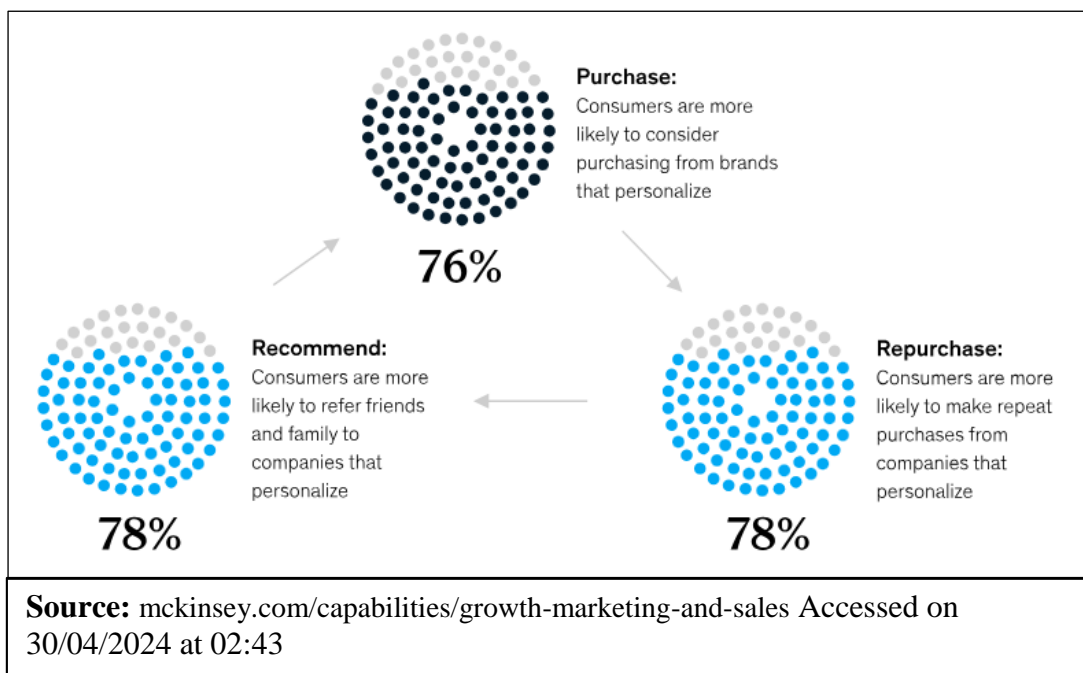
## 2.2. Consumer knowledge:

Consumer knowledge is understanding the target audience's needs, preferences, behaviours, and demographics. It includes gathering, analysing, and interpreting consumer data using data analytics tools and techniques. This data includes browsing history, purchase patterns, social media interactions, and more. By tracking these signals, marketers can gain a dynamic, cross-channel view of the customer and deliver highly personalized experiences.

## 2.3. Customization:

Customization, or personalization, involves tailoring marketing messages, products, and services to meet individual consumers' specific needs and preferences. It can include personalized email campaigns, product recommendations, website content, and more. Customization enhances engagement and conversion rates and fosters brand loyalty and customer satisfaction. Marketers can create meaningful connections and drive business growth by delivering relevant and timely content to each consumer.

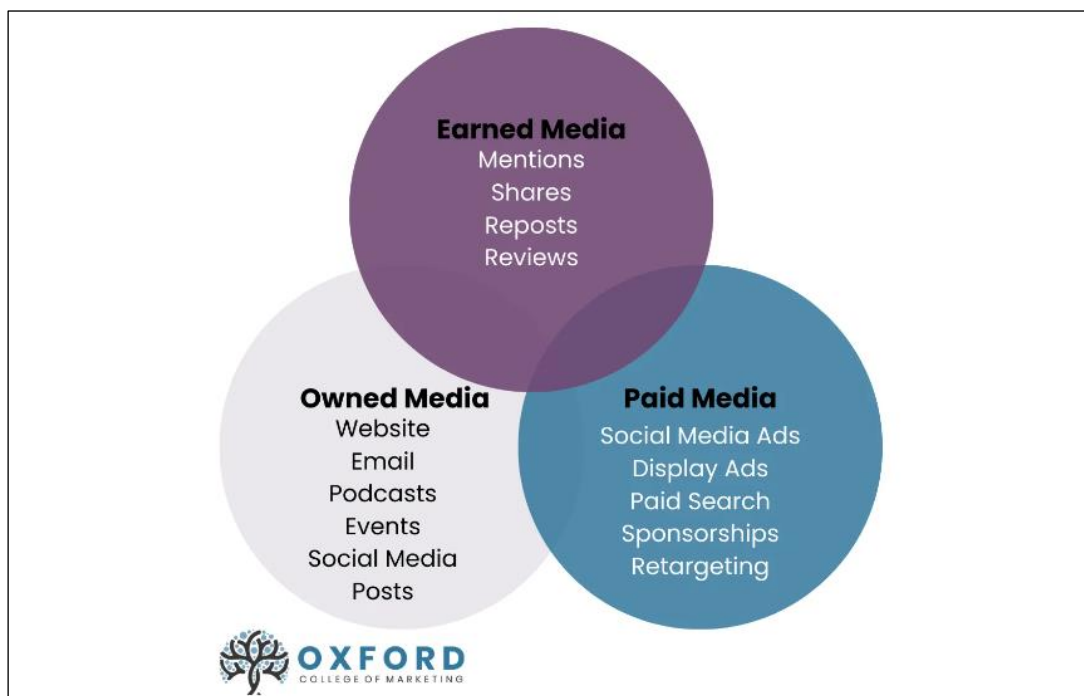
**Figure I.1:** Likelihood to purchase, recommend, and repurchase depending on personalization.



### 3. Digital marketing levers:

In the marketing landscape, the age of broadcasting generic messages to mass audiences, hoping to influence purchasing decisions, has evolved into a dynamic realm where interactivity, personalization, and relationships are crucial. With the arrival of digital media, this transformation has redefined how businesses connect with consumers. Today, digital marketing operates through a sophisticated framework consisting of Owned, Paid, and Earned media strategies. These strategies allow us to attract and acquire new customers and develop lasting loyalty. Let us delve into these pillars to understand how they shape contemporary marketing geography.

**Figure I.2:** Owned, Paid, and Earned media



**Source:** [blog.oxfordcollegeofmarketing.com](https://blog.oxfordcollegeofmarketing.com) Accessed on 30/04/2024 at 03:22

#### 3.1. Owned media:

Owned media refers to all the digital channels a company controls and uses to promote its brand. It includes corporate websites, blogs, social media profiles, and more. Owned media gives companies complete control over content and messaging, allowing them to build long-term customer relationships. Effective owned media strategies involve maintaining high-quality digital presences to engage with audiences and drive brand visibility.

**3.2. Paid media:**

“The term *paid media* refers to marketing that you pay for in order to gain sales or drive traffic to your owned media pages.”<sup>1</sup> It includes online marketing tools like banner ads, social media ads, search engine advertising, and influencer marketing. Paid media allows companies to create more brand exposure and drive traffic to their owned media properties.

**3.3. Earned media:**

Earned media refers to publicity and exposure gained through organic means without direct payment from the company or individual promoted. It is essentially word-of-mouth marketing, where others, such as customers, fans, influencers, or media outlets, voluntarily endorse or discuss a brand, product, or service. Earned media is earned through the quality and appeal of the content, product, or brand itself, as well as through the efforts of public relations, social media engagement, and customer experiences.

Earned media is precious because it is perceived as more authentic, credible, and trustworthy than paid or owned media. Positive earned media can significantly enhance brand awareness, reputation, and customer trust, ultimately driving engagement, loyalty, and sales. However, earned media cannot be directly controlled or bought, making it essential for businesses to focus on delivering exceptional products, services, and customer experiences that naturally inspire advocacy and word-of-mouth promotion.

**4. The marketing mix in the digital age:**

The marketing mix, often referred to as the 4Ps (Product, Price, Promotion, Place), was unavoidably changed with the arrival of the digital age. Here is how digital technology influences each element of the marketing mix.

**4.1. Product:**

In the digital age, products can be physical goods, digital goods, or services. Digital technology allows for greater customization and personalization of products to meet customers' diverse needs and preferences. Companies can gather customer behaviour and preferences data through digital channels to continuously improve and adapt their products.

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<sup>1</sup> What is paid media? [blog.oxfordcollegeofmarketing.com](https://blog.oxfordcollegeofmarketing.com) Accessed on 30/04/2024 at 04:33

#### 4.2. Price:

Digital technology has revolutionized pricing strategies. Dynamic pricing algorithms can adjust prices based on time, competitor pricing, and customer behavior. Online marketplaces and auction sites also enable flexible pricing models like bidding and flash sales.

#### 4.3. Promotion:

*“In the digital age, the core of promotion is engagement unless you don’t engage through advertisement you lost in the clutter. It’s about creating an experience online for users that gets them engaged with you.”<sup>1</sup>*

#### 4.4. Place:

The concept of place has expanded beyond physical locations to include digital channels. Companies can reach customers anytime, anywhere through websites, social media, mobile apps, and online marketplaces. E-commerce platforms have eliminated geographical barriers, allowing businesses to sell globally quickly.

*“In the 1980s the 4Ps was challenged for not referencing the importance of customer service. The result was that the mix was extended to 7Ps, which includes three further elements (the service mix) that better reflect service delivery: People, Process and Physical evidence (Booms and Bitner, 1981).”<sup>2</sup>*



**Figure I-3:** Mix marketing with 7P

**Source:**

blog.hubspot.fr/marketing/marketing-mix Accessed on 30/04/2024 at 15:58

<sup>1</sup> Premier Marketing Blog, [promiad.com/marketing-mix-in-digital-age](https://promiad.com/marketing-mix-in-digital-age) Accessed on 30/04/2024 at 14:13

<sup>2</sup> Digital marketing Strategy, Implementation, and practice 8e [Dave Chaffey and Fiona Ellis-Chadwick] chapter 5

**4.5. People:**

With the rise of social media and online reviews, customers have a more significant influence on brand perception than ever before. Companies must build strong customer relationships and provide excellent customer service to maintain a positive brand image.

**4.6. Process:**

Digital technology has streamlined many business processes, from sales and customer service to supply chain management and logistics. Companies can use automation and data analytics to improve efficiency and enhance the customer experience.

Physical evidence: *“The physical elements that support customer interaction are also a major factor in product marketing. We're talking here about brand image, which can be reflected in the premises where you meet your customers, the displays of your products, their packaging, the design of the website on which you offer your products or even the dress code applied at the heart of your organization.”*<sup>1</sup>

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<sup>1</sup> Translated from: Marketing mix, [blog.hubspot.fr](https://blog.hubspot.fr) Accessed on 30/04/2024 at 16:17

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## Section 2: Key concepts in digital communication.

How we communicate has fundamentally shifted in an era dominated by screens and social networks. This transformation extends deeply into marketing, where digital channels have become the primary conduits for connecting brands with consumers. This section explores the digitalization of communication in marketing, covering its strategies, objectives, and goals. We will also explore the different channels used to share messages, offering insight into the varied landscape of modern marketing.

### 1. Definition of communication:

According to Kolter: *"communication refers to the means used by a company to inform and persuade current and potential customers directly and indirectly, and to remind them of the brands, products and services it markets. In a sense, communication is the company's voice, enabling it to establish contact and dialogue with customers."*<sup>1</sup>

### 2. The digitalization of communication:

#### 2.1. Introduction of Digital Platforms

The digitization of marketing communications began with the introduction of digital platforms, such as websites and email, which provided businesses with new avenues to reach their target audience. These platforms allowed for more targeted and personalized communication compared to traditional methods like print advertisements and direct mail. Additionally, the rise of search engines facilitated the discovery of products and services online, paving the way for search engine optimization (SEO) as a crucial component of digital marketing strategies.

#### 2.2. Expansion into Social Media and Content Marketing

As digital technologies advanced, marketing communications expanded into social media and content marketing. Social media platforms like Facebook, Twitter, and Instagram provide businesses with tools to engage directly with consumers, fostering two-way communication and building brand loyalty. Content marketing emerged as a key strategy, with brands creating valuable and relevant content to attract and retain customers. This shift towards interactive and engaging communication channels revolutionized how businesses connect with their audience, leading to a more dynamic and personalized marketing landscape.

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<sup>1</sup> Translated from: KOLTER (K), KALLER (K) ET MANCEAU (D): Marketing Management, 15<sup>th</sup> edition, (2015) Ed Pearson, Paris, p624

### **3. The fundamentals of communication:**

#### **3.1. Definition of digital communication:**

*“Digital communication is the process of connecting with people across online channels. This might involve launching social media campaigns, distributing email newsletters, running banner ads, or publishing native advertising articles. Businesses can use digital communication to expand their reach, share specialized messaging, and build valuable relationships with their audiences.”<sup>1</sup>*

#### **3.2. The different objectives of digital communication:**

There are various objectives that digital communication works for, and they all lay under three categories defined by Raymond Cattell<sup>2</sup>. By categorizing the objectives of digital communication according to Cattell's framework, we can better understand their underlying psychological functions and strategic implications:

##### **3.2.1. Cognitive Objectives:**

These objectives pertain to acquiring and processing knowledge, understanding, and information. In digital communication, cognitive objectives include:

##### **- Increasing brand awareness:**

It involves disseminating information about a brand to target audiences, aiming to enhance their knowledge and recognition of its existence, values, and offerings. By increasing brand awareness, businesses seek to inform and educate the audience about the brand and establish a strong presence in consumers' minds.

##### **- Differentiating from competitors:**

It is about providing consumers with information that differentiates a brand from its competitors in their minds. This differentiation depends on various factors such as product features, quality, price, customer service, brand values, or unique selling propositions.

##### **- Measuring and analysing marketing effectiveness:**

It focuses on acquiring knowledge and understanding about the effectiveness of various marketing strategies and gaining insights into consumer behaviour to inform decision-making and optimize future marketing efforts. By measuring and analysing marketing effectiveness,

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<sup>1</sup> [Maryville University. blog/digital-communication](https://maryville.edu/blog/digital-communication) Accessed on 02/05/2024 at 01:32

<sup>2</sup> Raymond Cattell, a British psychologist, categorized human psychological functions into three main categories: cognitive, emotional, and conative.

organizations aim to improve their strategies, allocate resources efficiently, and achieve their marketing objectives more effectively.

### **3.2.2. Emotional Objectives:**

These objectives involve eliciting or managing emotions and affective responses. In digital communication, emotional objectives include:

#### **- Generating excitement and desire:**

This objective focuses on eliciting positive emotions such as excitement, anticipation, joy, or curiosity in consumers. By creating compelling and engaging marketing messages, experiences, and content, businesses seek to spark emotional connections with their target audience and cultivate a desire or aspiration for their offerings.

#### **- Building customer loyalty and retention:**

Customer loyalty and retention involve developing feelings of trust, satisfaction, belonging, and affection for a brand. By consistently offering exceptional experiences, exceeding customer expectations, and demonstrating care and appreciation, companies aim to inspire positive emotions in their customers and strengthen their emotional attachment to the brand.

#### **- Enhancing brand reputation and credibility:**

It is all about generating positive emotions such as trust, respect, admiration, and confidence in the brand. Companies seek to build a solid, favourable reputation by keeping their promises, maintaining high standards of quality and integrity, and showing transparency and authenticity in their actions and communications.

### **3.2.3. Conative Objectives:**

These objectives relate to influencing behaviours, actions, or decisions. In digital communication, conative objectives include:

#### **- Driving website traffic:**

The main focus is influencing users' behaviours and actions by encouraging them to navigate to a specific online destination, such as a company's website. This objective is often achieved through various marketing strategies and tactics to attract users' attention and motivate them to click on links or enter website URLs.

### - Boosting sales and revenue:

It defuses messages to encourage consumers to take specific actions that lead to a transaction, such as purchasing, subscribing to a service, or upgrading to a premium offering. This objective requires effective sales and marketing strategies that motivate consumers to buy.

### - Engaging with customers and fostering relationships:

Engaging with customers involves prompting and encouraging them to participate in various interactions and activities with the brand, such as providing feedback, asking questions, participating in discussions, or making repeat purchases. This objective aims to foster meaningful connections and build loyalty over time.

### 3.3. Digital communication strategies:

*“Running your business online means having to choose between two core principles for guiding your marketing strategy. It’s common (and important) to balance your budget, time, and efforts on growing your business across organic and paid strategies that offer the best results.”<sup>1</sup>*

**Figure I-4:** Push and Pull Strategies



**Source:** cleverus.com/push-and-pull-marketing-strategy Accessed on 03/05/2024 at 02:46

<sup>1</sup> [Raddinteractive.com/](https://www.raddinteractive.com/) The Difference Between Push and Pull Marketing Strategies Accessed on 03/05/2024 at 02:30

**3.3.1. The push strategy:**

In a push strategy, businesses typically focus on pushing their products through the distribution channels to retailers or wholesalers, who then push them to consumers.

**3.3.2. The pull strategy:**

This approach involves creating demand among consumers so that they actively seek out a product or service. Instead of pushing products onto consumers, businesses use pull tactics to attract customers to their offerings. Pull strategies often involve heavy investment in advertising, branding, and consumer education to build brand awareness and loyalty.

**3.4. Digital communication channels:**

Digital communication channels for marketing offer companies' vast options for getting in touch with their audience. Here is a detailed overview of the most important channels:

**3.4.1. Websites:**

Websites serve as foundational digital communication channels for marketing, playing a pivotal role in how businesses establish their online presence and interact with customers. Here are the key types of websites focused on marketing objectives:

**3.4.1.1. Types of websites****- Business/Corporate Websites:**

These sites represent a company's professional presence online, showcasing its offerings, sharing its values, and publishing news or updates. They are essential for brand presentation and are central to all corporate marketing activities.

**- E-Commerce Websites:**

E-commerce sites are digital storefronts for the transaction of goods and services. They are designed to market products directly to consumers, with product descriptions, reviews, and shopping cart functions.

**- Portfolios Websites:**

Used by individuals and companies to showcase their work and expertise, portfolio websites are marketing tools that demonstrate capability and quality to potential clients or employers, effectively serving as a visual resume. It is mainly used in B2B marketing strategies.

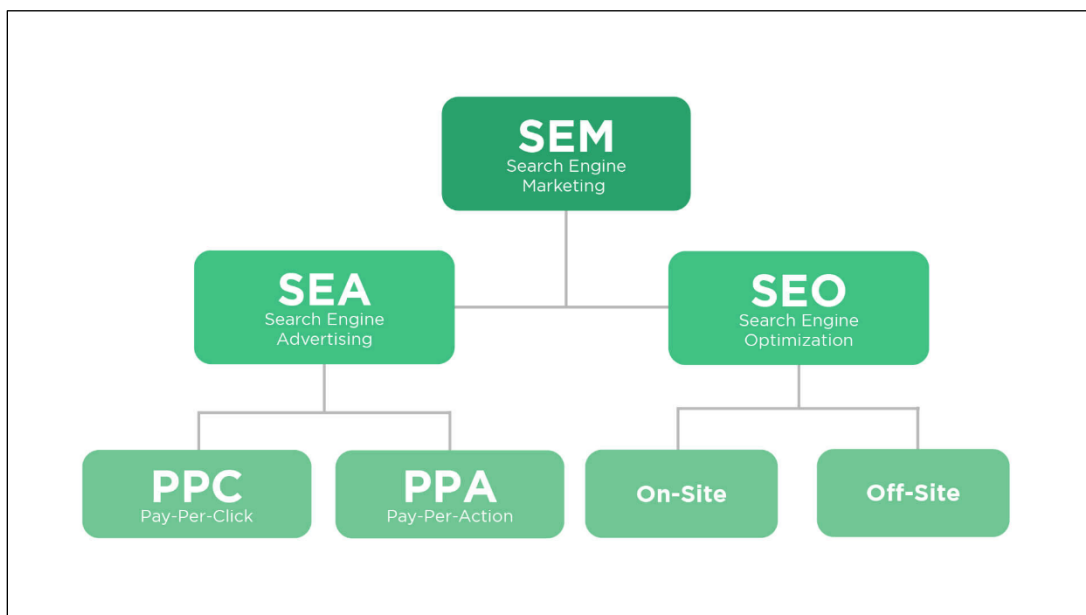
### - Landing Pages:

“A landing page is a standalone web page, created specifically for a marketing or advertising campaign. It’s where a visitor “lands” after they click on a link in an email, or ads from Google, Bing, YouTube, Facebook, Instagram, Twitter, or similar places on the web.”<sup>1</sup>

➤ There are various marketing tactics to increase website visibility, all covered by SEM.

**SEM:** Search engine marketing (SEM) is the umbrella under which all digital marketing tactics, both paid and organic, fall. Search Engine Optimization (SEO) and Search Engine Advertising (SEA) are subcategories under the SEM umbrella. The ultimate goal of using these tactics is to increase brand visibility on search engines and drive sales.

**Figure 5:** Hierarchy chart for the relation between SEM, SEO, and SEA



**Source:** moads.com/blog/sem-vs-seo-vs-ppc Accessed on 05/05/2024 at 01:27

**SEO:** “Search Engine Optimization, is the process of tweaking and enhancing your website to improve its visibility in search engine results pages (SERPs). You’re essentially making your website more attractive to search engines like Google, Bing, or Yahoo. The idea here is to organically strengthen your website’s ranking which in turn increases its visibility.”<sup>2</sup>

**SEA:** “Search Engine Advertising, refers to the paid advertisements that show up at the top and side of search engine results pages. It’s often known as pay-per-click (PPC) marketing,

<sup>1</sup> [unbounce.com](https://unbounce.com) landing page articles/ what a landing page is. Accessed on 04/05/2024 at 00:27

<sup>2</sup> [SEO-lynx.co.uk](https://seo-lynx.co.uk) blog SEO-vs-SEA Accessed on 05/05/2024 at 00:08

where businesses pay each time a user clicks on an ad link. The goal is to drive immediate web traffic by buying your way into the top slots of search engine results.”<sup>2</sup>

**The difference between SEO and SEA:**

SEO and SEA are crucial digital marketing strategies that focus on increasing visibility in search engines, but they do so differently. Here is a breakdown of the key differences between SEO and SEA:

**Table I-1:** The difference between SEO and SEA.

SEO	SEA
<ul style="list-style-type: none"> <li>- <b>Organic Strategy:</b> Optimizing websites to appear naturally in search engine results without paying for placement.</li> <li>- <b>Long-term Results:</b> It takes time to show results but can provide long-lasting benefits.</li> <li>- <b>Cost:</b> No direct costs are associated with appearing in organic search results, but SEO often requires investment in content creation, website optimization, and tools.</li> <li>- <b>Credibility and Trust:</b> Users often trust organic search results more than advertisements.</li> <li>- <b>Sustainability:</b> SEO can ensure sustained traffic once established, assuming ongoing optimization and updates.</li> <li>- <b>Unpredictability:</b> Changes in search engine algorithms can affect the visibility of SEO results.</li> <li>- <b>Targeting:</b> generally broader in targeting, aimed at drawing traffic through various keywords related to the content.</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Paid Strategy:</b> Paying for ads to be displayed in search engine results, typically through platforms like Google Ads.</li> <li>- <b>Immediate Results:</b> Generates immediate visibility and traffic as soon as the campaign starts.</li> <li>- <b>Cost:</b> Direct costs are involved as advertisers pay per click (PPC) or per ad impression.</li> <li>- <b>Control:</b> Advertisers have more control over the placement and visibility of their listings through SEA.</li> <li>- <b>Flexibility:</b> Ads can be quickly adjusted, paused, or stopped based on performance or budget considerations.</li> <li>- <b>Highly Targeted:</b> Allows precise targeting based on keywords, location, demographics, time of day, and user behaviour.</li> <li>- <b>Dependence on Budget:</b> Once the advertising budget is depleted, the ads stop showing, which can lead to a sudden drop in traffic.</li> </ul>

**Source:** developed by us after extensive research

**Main findings:**

- SEO is about enhancing a website's organic ranking and visibility over time, focusing on content quality and optimization.

- SEA is about immediate visibility and targeted advertising, offering quick results and precise targeting at a cost.

**3.4.2. Emailing:**

Email marketing is a powerful digital communication strategy business use to reach customers through electronic mail. It is one of the most cost-effective and conversion-rich forms of digital marketing, and it involves sending personalized, content-rich emails to a targeted list of recipients.

**3.4.2.1. Advantages of Email Marketing:**

- **Cost-Effectiveness:** Email marketing is known for its high ROI, making it a favourite for businesses of all sizes.

- **Direct Communication:** Emails reach customers directly in their inboxes, allowing for personalized engagement.

- **Measurable:** With detailed analytics, measuring each campaign's success and making data-driven decisions is easy.

**3.4.3. Affiliate:**

*“Affiliate marketing is the process by which an affiliate earns a commission for marketing another person’s or company’s products. The affiliate simply searches for a product they enjoy, then promotes that product and earns a piece of the profit from each sale they make.”<sup>1</sup>*

**3.4.3.1. Benefits of Affiliate Marketing**

- **Extended Reach:** Affiliates can help reach niche markets and audiences the business might have yet to access.

- **Increased Credibility:** Partnerships with reputable affiliates can enhance brand credibility through association and extended endorsements.

**3.4.4. Mobile:**

*“Mobile marketing refers to the practice of reaching and engaging with target audiences on mobile devices such as smartphones and tablets. With the increasing prevalence of mobile*

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<sup>1</sup> [bigcommerce.com/articles](https://bigcommerce.com/articles/e-commerce-affiliate-marketing/) ecommerce: affiliate marketing. Accessed on 05/05/2024 at 03:14

*devices in people's lives, mobile marketing has become an essential component of digital marketing strategies for businesses of all sizes.”<sup>1</sup>*

#### **3.4.4.1. Critical Components of Mobile Marketing:**

- **Mobile Apps:** Developing mobile applications to provide value-added services, engage users, and facilitate transactions directly through smartphones and tablets.

- **SMS Marketing** involves sending text messages to customers' mobile phones to deliver promotional offers, updates, reminders, and other relevant content.

- **Location-Based Marketing:** This involves targeting users based on geographic location to deliver relevant content, offers, or notifications tailored to their surroundings.

#### **3.4.5. Social Media:**

Social media marketing involves using social media platforms to connect with your audience, build your brand, drive website traffic, and increase sales. It encompasses various activities, including creating and sharing content, engaging with followers, running advertising campaigns, and analyzing performance metrics.

##### **3.4.5.1. Key Components of Social Media Marketing:**

- **Content Creation and Curation:** Developing engaging and relevant content tailored to each social media platform, including images, videos, blog posts, and infographics.

- **Community Engagement:** Actively interacting with followers, responding to comments and messages, and participating in discussions to foster community and build relationships.

- **Influencer Marketing:** Collaborating with influencers or industry experts to promote your products or services to their followers, leveraging their credibility and reach.

##### **3.4.5.2. The most widely used Social Media are:**

###### **➤ Facebook:**

Facebook is a powerful social media platform with over 1.56 billion daily active users,<sup>2</sup> Making it a key channel for businesses to engage with new audiences, expand their reach, and promote their products or services. It offers various marketing opportunities, including Facebook Ads, Business Pages, Facebook Marketplace, and Facebook Groups, allowing businesses to choose tools based on their digital marketing objectives.

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<sup>1</sup> [linkedin.com/posts/swati-chaurasia16](https://www.linkedin.com/posts/swati-chaurasia16) Day 12/15 content creation challenge. Accessed on 05/05/2024 at 03:45

<sup>2</sup> [hubspot.com](https://www.hubspot.com) Facebook marketing Accessed on 05/05/2024 at 04:27

**- Role in Digital Marketing**

**Targeted Advertising:** Facebook's advanced targeting capabilities allow businesses to reach specific demographics, interests, and behaviours with their ads, maximizing their advertising ROI (Return On Investment).

**Engagement and Interaction:** Businesses can engage with their audience through posts, comments, messages, and live videos, fostering brand loyalty and customer relationships.

**Analytics and Insights:** Facebook provides analytics and insights tools that allow businesses to track the performance of their pages, posts, and ads and make data-driven decisions.

**E-commerce Integration:** Facebook offers features like Facebook Shops and Marketplace, allowing businesses to sell products directly to users.

**Customer Support:** Businesses can use Messenger to provide customer support, answer questions, resolve issues, and build customer rapport.

**➤ Instagram:**

Instagram is a popular social media platform owned by Meta Platforms, Inc. Launched in 2010, Instagram has quickly grown into one of the most influential social networking services, particularly among younger demographics.

**- Role in Digital Marketing:**

**Visual Content Marketing:** Instagram is a powerful platform for visual content marketing, allowing businesses to showcase products, services, and brand aesthetics through high-quality photos and videos.

**Influencer Marketing:** Influencer partnerships on Instagram enable businesses to reach and engage with target audiences through authentic, relatable content created by influencers.

**Engagement and Interaction:** Businesses can engage with their audience through posts, stories, comments, and direct messages, fostering brand loyalty and customer relationships.

**Advertising:** Instagram's advertising platform offers various ad formats, targeting options, and analytics tools to help businesses reach specific demographics, interests, and behaviours.

**➤ Twitter:**

Twitter is a widely-used social media platform that enables users to post and interact with short messages, known as "tweets," which are limited to 280 characters. Founded in 2006 by Jack Dorsey, Biz Stone, and Evan Williams, Twitter has become a prominent platform for real-time news, updates, discussions, and social networking.

**- Role in Digital Marketing:**

**Engagement and Interaction:** Brands use Twitter to engage with their audience, respond to feedback, answer questions, and participate in conversations, fostering brand loyalty and customer relationships.

**Content Promotion:** Twitter is used to promote blog posts, articles, videos, webinars, events, and other content, driving traffic to websites and increasing visibility and reach.

**Hashtag Campaigns:** Brands create hashtag campaigns to promote products, launch initiatives, run contests, and encourage user-generated content, leveraging hashtags' viral potential to reach a broader audience.

**Influencer Marketing:** Brands collaborate with influencers and brand advocates on Twitter to reach their followers, amplify messaging, and drive engagement and conversions.

**➤ LinkedIn:**

LinkedIn is a professional networking platform that connects professionals, businesses, recruiters, and job seekers. Launched in 2003, LinkedIn has grown into the world's largest professional network, with over 800 million members in more than 200 countries and territories.

**- Role in Digital Marketing:**

**Content Marketing:** Businesses use LinkedIn to share thought leadership content, industry insights, case studies, and company updates to engage with their audience and build credibility.

**Lead Generation:** LinkedIn offers lead generation tools and advertising options, including sponsored content, sponsored InMail, and LinkedIn Ads, to reach target audiences and generate leads.

**Recruitment Marketing:** Employers use LinkedIn to promote job opportunities, showcase company culture, and attract top talent through employer branding efforts.

**Networking and Relationship Building:** Businesses use LinkedIn to connect with prospects, clients, partners, and industry influencers, fostering relationships and expanding their professional network.

**Company Pages:** LinkedIn Company Pages serve as a platform for businesses to share company news, product updates, job openings, and industry insights with followers and potential customers.

➤ **TikTok:**

TikTok is a social media platform that allows users to create, share, and discover short-form videos, typically 15 to 60 seconds long. Launched in 2016 by the Chinese company Byte-Dance, TikTok has quickly become one of the most popular and influential social media apps globally, particularly among younger demographics.

**- Role in Digital Marketing:**

**Influencer Marketing:** Brands leverage TikTok influencers and content creators to reach their target audience, drive engagement, and promote products or services through sponsored content and brand partnerships.

**Branded Challenges:** Brands create sponsored hashtag challenges on TikTok to encourage user participation, generate user-generated content, and increase brand awareness and engagement.

**Advertising:** TikTok offers various advertising options, including in-feed ads, branded effects, and hashtags, allowing brands to reach target audiences and drive conversions through paid campaigns.

**Content Marketing:** Brands create and share engaging and entertaining content on TikTok to connect with users, build brand affinity, and drive engagement organically.

**Product Promotion:** Brands showcase products and demonstrate their features and benefits through TikTok videos, leveraging creative storytelling and user-generated content to drive sales and brand loyalty.

**Trend Participation:** Brands participate in TikTok trends, challenges, and memes to stay relevant, engage with users, and capitalize on viral content to increase visibility and reach.

### Section 3: Process of creating a communication campaign.

Creating a communications campaign involves several detailed steps, each designed to ensure that the message effectively reaches the target audience and elicits the desired response. Here is an overview of the process:

#### 1. Identifying Objectives and target Audience:

##### 1.1. Define Goals and Objectives:

*"Communication goals and objectives are statements that describe what you want to accomplish with your communication efforts. They are not the same as the content or message of your communication, but rather the purpose and impact of it. "*<sup>1</sup>

- *"Communication Goals: These are the high-level, broad targets a company wants to achieve through communication. They are tied to the organization's mission, vision, and strategic goals.*

- *Communication Objectives are the specific, measurable steps a company plans to take to achieve its communication goals. Objectives should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound)"*<sup>2</sup>

Choosing objectives for a communication campaign involves a strategic process to ensure clarity, effectiveness, and alignment with broader organizational goals. To do so, we have to:

##### 1.1.1. Align with Organizational Goals:

Ensuring they align with the organization's or project's overall objectives is essential when setting communication objectives. The communication efforts should contribute to achieving the broader strategic goals, so the communication objectives must align with the organization's vision, mission, and priorities. This alignment helps maintain consistency and focus in the communication activities and ensures that the communication supports achieving the organization's high-level objectives.

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<sup>1</sup>[linkedin.com/advice/3/how-do-you-define-your-communication-goals-objectives](https://www.linkedin.com/advice/3/how-do-you-define-your-communication-goals-objectives) Accessed on 05/05/2024 at 19:10

<sup>2</sup>[thestrategystory.com/blog/smart-communication-goals-and-objectives-in-business](https://www.thestrategystory.com/blog/smart-communication-goals-and-objectives-in-business) Accessed on 05/05/2024 at 19:52

### 1.1.2. SMART Criteria:

To choose objectives for a communication campaign, you should follow a structured approach that ensures the objectives are:

- **Specific:** *"Clearly define what you want to achieve, who is involved, where it will happen, and why it's important."*<sup>1</sup>

- **Measurable:** Use indicators and metrics that can be tracked and evaluated to measure progress toward the goal.

- **Achievable:** Ensure the objectives are achievable based on the available resources, capabilities, and constraints.

- **Relevant:** *"A relevant objective is logical, meaning that it corresponds to the purpose of the grant, the culture and structure of the community, and the vision of the project."*<sup>2</sup>

- **Time-bound:** Establish a specific deadline or timeframe for achieving the objective. This helps to stay focused and track progress.

### 1.1.3. Prioritize Objectives:

When setting communication objectives, it is crucial to prioritize them based on their importance and potential impact on overall organizational goals. Objectives should be ranked to focus efforts on the most critical ones that will drive the most outstanding results.

## 1.2. Identify Target Audience:

Knowing the audience is crucial. Understand their demographics, psychographics, preferences, and media consumption habits. This information will help tailor the message and choose the channels to reach them effectively.

### 1.2.1. Research and Define the Product or Service:

Understanding the offer, its features, benefits, and what needs it covers will help identify potential customers.

### 1.2.2. Market Research:

Conduct thorough market research to gather data about demographics, psychographics, behaviour patterns, preferences, and audience needs. This can be done through surveys, interviews, focus groups, or analysis of existing data.

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<sup>1</sup> [thestrategy.com/blog/smart-communication-goals-and-objectives](https://thestrategy.com/blog/smart-communication-goals-and-objectives) Accessed on 05/05/2024 at 19:41

<sup>2</sup> [samhsa.gov/sites/default/files/nc-smart-goals-fact-sheet.pdf](https://samhsa.gov/sites/default/files/nc-smart-goals-fact-sheet.pdf) Accessed on 05/05/2024 at 19:46

**1.2.3. Competitor Analysis:**

Analyse the competitors' target audience and communication strategies. Identify gaps or opportunities that can be leveraged to differentiate the campaign and attract a specific market segment.

**1.2.4. Create Buyer Personas:**

Based on the research, detailed profiles of the ideal customers, known as buyer personas, will be developed. These personas should include age, gender, occupation, income level, interests, values, challenges, and purchasing behaviour.

**1.2.5. Segmenting Audience:**

Divide the target market into smaller segments based on common characteristics such as demographics, psychographics, geographic location, or behaviour. This segmentation helps tailor the message more effectively to specific groups.

**1.2.6. Pick the Target out of the Segments:**

When selecting the target audience from segmented groups, prioritize segments based on size, growth potential, profitability, fit with the offering, competitive landscape, customer behaviour, resource allocation, brand alignment, and long-term growth potential. Test and validate assumptions through small-scale tests and iterate based on insights gained. Ultimately, choose segments that align closely with the business goals and objectives while maximizing the effectiveness of the marketing efforts.

**2. Choosing communication channels:**

Select the appropriate channels based on where the audience is most active and receptive. It could include digital platforms (like social media and websites) or direct communication methods (like emails and text messages).

**2.1. Match Channels to Audience Preferences:**

Choose channels that align with the preferences of the target audience. If the audience is active on social media, prioritize platforms like Facebook, Instagram, or TikTok. If they prefer email communication, focus on building an email marketing strategy.

**2.2. Utilize Multi-Channel Approach:**

Consider using a multi-channel approach to reach the audience across different touchpoints and reinforce the message. Combining multiple channels can increase visibility, engagement, and response rates.

**2.3.Consider Timing and Frequency:**

Take into account the timing and frequency of communication on each channel. Choose channels to reach the audience at the right time and maintain regular engagement without overwhelming them with too much content.

**3. Develop Key Messages and content:****3.1.Develop Key Messages**

Create compelling and explicit messages that resonate with the target audience. The message should align with the objectives and be adaptable to different platforms. Consistency in tone and style helps maintain the campaign's coherence across various media.

**3.1.1. Identify Core Themes:**

Based on the objectives and audience insights, identify the core themes or topics that the campaign wants to communicate. These themes should be relevant to the audience and aligned with the brand identity and values.

**3.1.2. Highlight Benefits and Solutions:**

Craft messages that emphasize the benefits and solutions the product or service provides the audience. Focus on how the offering addresses their pain points, solves their problems, or fulfils their needs rather than just listing features.

**3.1.3. Differentiate the Brand:**

Highlight what makes the brand unique and why the audience should choose the product over competitors. Emphasize the unique selling proposition (USP) and critical differentiators that differentiate the brand.

**3.1.4. Keep Messages Clear and Concise:**

Ensure the messages are clear, concise, and easy to understand. Avoid overly complicated language that may confuse the audience. Aim for simplicity and clarity in conveying the message.

**3.1.5. Incorporate Emotional Appeal:**

Appealing to the audience's emotions creates a deeper connection with the brand. Use storytelling, empathy, humour, or other emotional triggers to evoke feelings and resonate with the audience personally.

**3.1.6. Tailor Messages to Channels:**

Adapt the messages to suit the characteristics and limitations of each communication channel that will be used. Tailor the message's tone, format, and style to fit the platform and audience expectations.

**3.2. Create Content and Creative Assets:**

Develop the campaign's creative elements, such as advertisements, social media posts, and promotional materials.

**3.2.1. Benchmarking and Research:**

Analysing competitors' content and audience reactions can help provide insights into what content should be shared in the campaign.

**- Collect Competitors' Content:**

Gather content produced by the competitors across various channels, including their website, social media profiles, blog posts, videos, podcasts, email newsletters, and any other communication platforms they use.

**- Analyse Content Themes and Topics:**

Review the content to identify common themes, topics, and messaging strategies. Pay attention to the types of content they produce, such as educational articles, product demonstrations, customer testimonials, or promotional campaigns.

**- Assess Audience Engagement:**

Evaluate how the audience is reacting to each piece of content. See engagement indicators like likes, shares, comments, retweets, views, and click-through rates. Pay attention to the sentiment expressed in comments or replies.

**- Identify Trends and Patterns:**

Identify trends or patterns in audience reactions to specific content or topics. Note which content generates the most engagement and resonates well with the audience, as well as any compelling common themes or messaging strategies.

**3.2.2. Brainstorming and Content Brief:**

- **Brainstorming content:** You generate ideas for various types of content, such as articles, blog posts, social media posts, videos, podcasts, infographics, and more. Brainstorming content

aims to develop creative and engaging concepts that resonate with the target audience and align with the communication objectives.

- **Develop a Content Brief:** A document that provides guidance and direction to creating content. It outlines the objectives, key messages, target audience, content format, tone of voice, key deliverables, and other relevant information needed to create compelling content. A content brief serves as a roadmap for content creators, ensuring that they have a clear understanding of the goals and requirements of the project and can develop content that aligns with the overall strategy.

### **3.2.3. Develop a Content Calendar:**

A content calendar is a strategic planning tool businesses, organizations, and content creators use to schedule and organize content creation, publication, and distribution over a specified period. It serves as a roadmap for content creation efforts, ensuring consistency, goal alignment, and effective resource management.

## **4. Launch the Campaign and Follow-up:**

### **4.1.Launching the Campaign**

Execute the campaign according to the planned timeline and across the chosen channels. Ensure all materials are deployed effectively, and the timing aligns with any external factors influencing the campaign's reception.

#### **4.1.1. Monitor and Adjust**

Continuously monitor the campaign's performance using predefined metrics (like reach, engagement, and conversions). Based on the data collected, be prepared to make real-time adjustments to optimize the campaign's effectiveness.

##### **➤ Metrics:**

Metrics are quantitative data points used to measure a campaign's performance. They provide insights into specific activities, behaviours, or outcomes. Examples of metrics include:

- **Impressions:** The number of times the content is displayed to users.
- **Click-through rate (CTR):** The percentage of people who click on a link or call to action.
- **Engagement:** Measures interactions such as likes, shares, comments, or replies.

- **Conversion rate:** The percentage of users who complete a desired action, such as purchasing or filling out a form.

- **Reach** The total number of unique users who see the content.

#### **4.1.2. Evaluate and Report**

After the campaign concludes, thoroughly evaluate its overall performance against the initial objectives. Use quantitative data (like sales numbers) and qualitative feedback (like customer surveys) for a comprehensive assessment. This evaluation will also provide valuable insights for future campaigns.

##### **➤ Key Performance Indicators (KPIs):**

KPIs are specific metrics tied directly to the campaign's objectives. They help evaluate performance against predefined goals and benchmarks. KPIs provide actionable insights into the overall success of the campaign. Examples of KPIs include:

- **Sales revenue:** Measures the total revenue generated from the campaign.

- **Return on Investment (ROI):** Calculates the campaign's profitability relative to the investment made.

- **Brand awareness:** Assesses the increase in brand recognition or recall among the target audience.

- **Customer acquisition cost (CAC):** calculates the cost of acquiring a new customer through the campaign.

- **Customer lifetime value (CLV):** measures the long-term value of a customer acquired through the campaign.

#### **4.2. Post-Campaign Follow-up:**

Engage with the audience even after the campaign ends to maintain the relationship. This might involve responding to inquiries, offering additional information, or preparing the audience for future communication.

**Conclusion:**

The digitalization of communication has transformed marketing strategies by introducing new platforms like social media, email, and websites, which allow for more targeted, interactive, and personalised communication.

This shift has enabled businesses to engage directly with consumers, foster brand loyalty, and build more dynamic and personalised marketing landscapes. Digital communication channels offer unique advantages, such as lower costs, increased interactivity, and the ability to gather and analyse consumer data for more effective marketing.

By understanding and leveraging these various digital communication tools and techniques, businesses can enhance their marketing efforts, build lasting customer relationships, drive growth, and achieve their marketing objectives in the digital age.

**CHAPTER II: Artificial Intelligence in Digital  
Communication: Transforming Strategies and  
Enhancing Engagement**

## **Introduction**

Artificial intelligence (AI) has become a transformative force across various sectors, with digital communication being one of the most significantly impacted. This chapter explores the foundations and applications of AI in digital communication, addressing how has AI transformed digital communication strategies?

By delving into the historical context, key technologies, and real-world applications, we aim to provide a comprehensive understanding of how AI enhances and automates communication processes, making interactions more efficient, personalised, and contextually aware. We will also see the state of digitalization in Algeria and how the Algerian government supports the entry of AI.

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## Section 1: Foundations and Applications of AI in Digital Communication.

Artificial intelligence (AI) has emerged as a transformative force in various sectors, with digital communication being one of the most profoundly impacted. This section explores the foundational elements and technologies that underpin AI in digital communication. By delving into the historical context and defining key concepts, we set the stage for a comprehensive understanding of how AI technologies are integrated and utilized to enhance digital communication.

### 1. Introduction to Artificial Intelligence:

#### 1.1. Definition of Artificial Intelligence:

*"the designing and building of intelligent agents that receive percepts from the environment and take actions that affect that environment"*<sup>1</sup>

*"the use of computer programs and software to simulate and model human intelligence"*<sup>2</sup>

Artificial Intelligence (AI) is a branch of computer science concerned with creating systems capable of performing tasks that typically require human intelligence. These tasks include decision-making, problem-solving, understanding language, and recognizing patterns.

#### 1.2. Historical Context:

##### - Origins and Evolution of AI:

The concept of artificial intelligence dates back to ancient myths of intelligent robots and artificial beings, but the formal foundations of the field were laid in the mid-20th century. John McCarthy first used the term 'artificial intelligence'.<sup>3</sup> In 1956, at the Dartmouth Conference, the aim was to explore ways machines could simulate various aspects of human intelligence.

##### - Early Developments:

Early AI research between the 1950s and 1970s included programs such as ELIZA.<sup>4</sup>, a natural language processing computer program developed by Joseph Weizenbaum<sup>5</sup>, which could mimic a conversation using a pattern matching and substitution methodology. This first

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<sup>1</sup> Russell, S., & Norvig, P. (2010). Artificial Intelligence: A Modern Approach (3rd ed.)

<sup>2</sup> Boden, M. A. (2018). Artificial Intelligence: A Very Short Introduction. Oxford University Press.

<sup>3</sup> John McCarthy: An American computer scientist and cognitive scientist. One of the founders of the discipline of artificial intelligence.

<sup>4</sup> ELIZA: an early natural language processing computer program developed from 1964 to 1967.

<sup>5</sup> Joseph Weizenbaum: a German American computer scientist and a professor at MIT.

attempt to create a dialogue between man and computer laid the foundations for future chatbots and virtual assistants.

**- AI Winter and Resurgence:**

AI has experienced downturns and lows in funding and interest, known as 'AI winters', mainly due to overambitious expectations and disappointing results. However, the resurgence of AI research and applications came with the advent of the Internet and increased computing power. In the 1990s, machine learning and neural network advances rejuvenated the field, leading to more robust AI applications.

**- Machine Learning and the Deep Learning Revolution:**

The advent of machine learning in the 1990s and early 2000s, with techniques like neural networks and decision trees, shifted AI away from explicitly programmed rules to data-driven learning. A key milestone was IBM's Deep Blue defeating chess champion Garry Kasparov in 1997<sup>1</sup>In the 2010s, deep learning, a subset of machine learning using large neural networks, revolutionized fields like image and speech recognition and autonomous driving. Notably, Google's AlphaGo beat Go champion Lee Sedol in 2016. Major investments from companies like Google and Microsoft spurred rapid AI advancements, transforming industries and daily life.

## **2. Critical components of AI:**

Artificial Intelligence (AI) is a broad and complex field that involves various components working together to create systems capable of performing tasks that typically require human intelligence. Understanding these key components is essential for grasping how AI operates and how it can be applied across different domains. Here are the primary components of AI:

### **2.1. Machine Learning (ML) and Deep Learning:**

**- Machine Learning (ML):** Machine Learning is:

*"the study of computer algorithms that improve automatically through experience"*<sup>2</sup> This definition emphasizes the core principle of machine learning: systems learn and improve their performance on tasks through data-driven experiences without being explicitly programmed for each task.

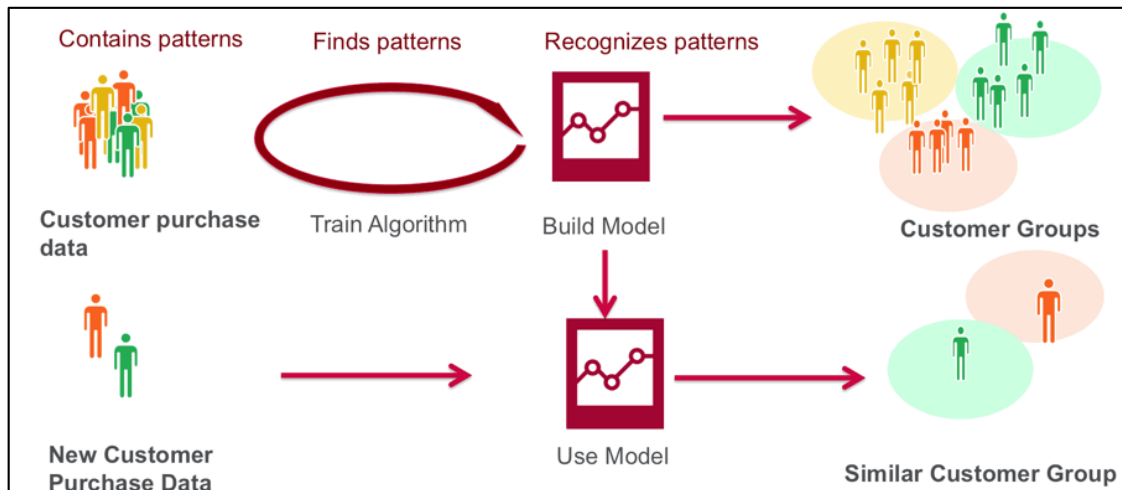
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<sup>1</sup> [medium.com/higher-neurons](https://medium.com/higher-neurons) ten historical milestones in AI development. Accessed on 27/05/2024 at 16:17

<sup>2</sup> Mitchell, T. (1997). Machine Learning. McGraw Hill.

"a field of computer science that studies algorithms and techniques for automating solutions to complex problems that are hard to program using conventional methods"<sup>1</sup> This highlights the practical application of machine learning in solving problems that traditional programming needs help to address efficiently.

**Figure II. 1:** Example of the use of an unsupervised machine learning model.



**Source:** The impact of implementing artificial intelligence in digital marketing by **Lynda HOCINE** University Mouloud MAMMERI of TIZI-OUZOU (Algeria).

- **Deep Learning** is a subset of machine learning that focuses on neural networks with many layers, enabling the model to learn and make decisions by mimicking the structure and function of the human brain.

According to Ian Goodfellow, Yoshua Bengio, and Aaron Courville in Deep Learning, "Deep learning is a form of machine learning that enables computers to learn from experience and understand the world in terms of a hierarchy of concepts...."<sup>2</sup> This approach allows deep learning models to handle vast amounts of data and accurately perform tasks such as image and speech recognition.

## 2.2. Neural Networks and Cognitive Computing:

- **Neural Networks** are computational models inspired by the human brain. They consist of interconnected nodes or "neurons" that work together to process and interpret data. These networks are designed to recognize patterns and solve complex problems through a series of

<sup>1</sup> Shalev-Shwartz, S., & Ben-David, S. (2014). Understanding Machine Learning: From Theory to Algorithms.

<sup>2</sup> Goodfellow, I., Bengio, Y., & Courville, A. (2016). Deep Learning. [MIT Press](#). Accessed on 27/05/2024 at 21:24

layers, where each layer transforms the input data into a more abstract and composite representation.

Michael Nielsen's book *Neural Networks and Deep Learning* states, "*a neural network is a beautiful, biologically inspired programming paradigm that computers use to learn from observational data.*"<sup>1</sup> This model is fundamental to many AI applications, including image recognition, speech processing, and natural language understanding.

- **Cognitive Computing** is a technology that simulates human thought processes in a computerized model. These systems are designed to tackle complex problems that involve understanding, reasoning, learning, and interaction.

*"Cognitive computing aims to build highly cognitive machines with low computational resources that respond in real-time."*<sup>2</sup>

### 2.3. Natural Language Processing (NLP):

Jacob Eisenstein defines NLP in his book as the study of "*methods for building computer software that understands, generates, and manipulates human language. It emphasizes contemporary data-driven approaches, focusing on techniques from supervised and unsupervised machine learning.*"<sup>3</sup>

### 2.4. Computer Vision:

*"Computer Vision, often abbreviated as CV, is defined as a field of study that seeks to develop techniques to help computers "see" and understand the content of digital images such as photographs and videos."*<sup>4</sup>

## 3. Artificial Intelligence in Digital Communications:

### 3.1. Definition of Artificial Intelligence in Digital Communications:

Artificial Intelligence (AI) in digital communications refers to using AI technologies to enhance and automate various communication processes, making interactions more efficient, personalized, and contextually aware.

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<sup>1</sup> Nielsen, M. (2015). *Neural Networks and Deep Learning*. Y Combinator Research. Retrieved from [Engineering LibreTexts](#) Accessed on 28/05/2024 at 01:49

<sup>2</sup> Elnagar, S., Thomas, M. A., & Osei-Bryson, K. M. (2023). What is Cognitive Computing? An Architecture and State of The Art.

<sup>3</sup> Eisenstein, J. (2019). *Introduction to Natural Language Processing*. Retrieved from [MIT Press](#). Accessed on 28/05/2024 at 02:05

<sup>4</sup> [machinelearningmastery.com](#) What is computer vision Accessed on 28/05/2024 at 02:38

Elena Esposito *proposed " that we think about digital technologies such as machine learning not in terms of artificial intelligence but as artificial communication."*<sup>1</sup> In her book *Artificial Communication: How Algorithms Produce Social Intelligence*.

### 3.2. Historical Context:

The integration of AI into digital communication accelerated at the beginning of the 21st century with the development of more advanced AI algorithms. This era saw the rise of advanced machine learning models capable of analysing vast amounts of data from digital interactions. AI technologies such as chatbots became more qualified and capable, and platforms such as social media began to leverage AI to personalize content delivery and advertising based on user behaviour and preferences.

## 4. Applications of AI in Digital Communications:

### 4.1. Chatbots and Virtual Assistants:

Chatbots and virtual assistants are the most visible applications of AI in digital communications. These systems use natural language processing (NLP) to understand and respond to user queries in real time. They are used in customer service to handle inquiries, troubleshoot issues, and provide information.

#### 4.1.1. Definitions:

- **Chatbots** are software applications that simulate human conversation through text or voice interactions. These systems use various AI technologies, including natural language processing (NLP) and machine learning, to understand and respond to user queries. With continuous learning capabilities, chatbots evolve to meet customer needs better, ultimately improving efficiency and satisfaction.

- **Virtual Assistants** are advanced chatbots that integrate additional AI technologies to provide a broader range of services. These assistants understand and respond to user queries and perform tasks such as scheduling, providing reminders, and even controlling smart home devices.

#### 4.1.2. Applications:

- **Customer Support:** These AI-powered helpers offer quick, personalized solutions round-the-clock, freeing human agents to focus on more complex issues.

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<sup>1</sup> Esposito, E. (2022). *Artificial Communication: How Algorithms Produce Social Intelligence*. Retrieved from: [MIT Press](#). Accessed on 28/05/2024 at 03:20

- **Sales and E-commerce:** These AI assistants provide instant responses, personalized recommendations, and seamless order support, improving efficiency and customer satisfaction.

- **Task Automation:** Virtual assistants can automate routine marketing tasks such as scheduling social media posts, sending emails, and updating customer databases.

- **Interactive Campaigns:** Virtual assistants can engage users with interactive content, such as quizzes and personalized messages, to boost campaign effectiveness.

## **4.2. Personalization Algorithms:**

### **4.2.1. Definition:**

*“Personalization algorithms are systems that utilize user data, such as browsing history, search queries, and social interactions, to create tailored digital experiences. These algorithms aim to predict and deliver content that aligns with the user's preferences and behaviors, thereby improving engagement and satisfaction.”<sup>1</sup>*

### **4.2.2. Applications:**

- **Personalized Content Recommendations:** Personalization algorithms analyze user data, such as browsing history, search queries, and past interactions, to recommend content that aligns with individual preferences.

- **Dynamic Website Content:** Websites can use personalization algorithms to dynamically change content based on the visitor's profile and behaviour.

- **Product Recommendations:** E-commerce sites use personalization algorithms to recommend products that users will likely be interested in based on their previous interactions with the site.

## **4.3. Data Analytics and Audience Insights:**

### **4.3.1. Definition:**

Thomas W. Miller<sup>2</sup> Highlights the importance of using data analytics to derive insights into audience behaviour and preferences. This enables businesses to create more targeted and effective marketing campaigns.<sup>3</sup>

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<sup>1</sup> Kant, T. (2020). Making it Personal: Algorithmic Personalization, Identity, and Everyday Life.

<sup>2</sup> Thomas W. Miller, author and director of the Predictive Analytics program at Northwestern University.

<sup>3</sup> Miller, T. W. (2015). Marketing Data Science: Modeling Techniques in Predictive Analytics with R and Python. Pearson Education.

**4.3.2. Applications:**

- **Customer Segmentation:** Data analytics enables businesses to segment their audience based on various parameters such as demographics, behaviour, and purchasing patterns.

- **Predictive Analytics:** Predictive analytics involves using historical data to predict future trends and customer behaviours. This helps businesses to anticipate customer needs and plan their marketing strategies accordingly.

- **Customer Retention:** Data analytics can identify patterns and trends that indicate customer dissatisfaction or potential churn. By addressing these issues proactively, businesses can improve customer retention rates.

- **Social Media Analytics:** Data analytics tools can track and analyze social media metrics to provide insights into customer engagement and brand perception. This helps businesses to refine their social media strategies.

**4.4. Content Generation and Management:**

AI-powered content generation tools use advanced algorithms to produce text, images, and even video content tailored to specific audiences and contexts. These tools leverage data from user interactions to optimise content delivery, ensuring relevance and speed. In addition, AI systems help to manage large quantities of content, automating scheduling and distribution across multiple channels, which is essential for maintaining information quality.

- **Automated Content Creation** uses artificial intelligence (AI) and machine learning technologies to generate content without human intervention. This process can include writing articles, creating social media posts, generating video scripts, and more.

- **Content Curation:** collecting, organizing, and sharing relevant information from various sources to provide value to a specific audience. Unlike content creation, curation focuses on filtering and contextualizing existing content rather than creating new material.

- **Content Management Systems (CMS)** are software platforms designed to facilitate digital content creation, editing, management, and distribution.

## **Section 2: AI-Driven Communication Strategies: Tools, Examples, and Challenges.**

In the rapidly evolving digital communications landscape, artificial intelligence (AI) plays a transformative role. This section explores the multifaceted impact of AI on communication strategies, providing a comprehensive overview of real-world applications, cutting-edge AI tools, and the challenges associated with implementing these technologies. By examining these elements, we better understand how AI enhances communication effectiveness, personalizes user interactions, and addresses complex communication needs.

### **1. Impact on Communication Strategies:**

#### **1.1. Automation and Efficiency:**

Integrating artificial intelligence (AI) into digital communication channels fundamentally enhances automation and efficiency, transforming how businesses interact with customers, manage workflows, and process information. By leveraging AI technologies, organizations can automate routine tasks, streamline operations, and optimize resource allocation, significantly improving both speed and productivity.

#### **1.2. Communication Speed Enhancement:**

Communication speed is crucial to maintaining competitive advantage and ensuring customer satisfaction in the digital age. Artificial Intelligence (AI) enhances communication speed across various digital platforms, reduces delays, and facilitates real-time interactions. This capability is vital for improving customer experience and internal communications within organizations.

#### **1.3. Personalization of User Experiences:**

Artificial Intelligence (AI) has become a cornerstone in personalizing user experiences in digital communication. By leveraging AI, organizations can create highly customized content and interactions tailored to individual preferences, behaviours, and contexts. This level of personalization enhances user engagement, increases satisfaction, and ultimately drives loyalty and business growth.

#### **1.4. Data-Driven Decision Making:**

Integrating Artificial Intelligence (AI) into digital communication has empowered organizations to make more informed, efficient, and effective decisions based on large volumes of data. AI technologies facilitate extracting actionable insights from complex datasets,

enabling businesses to optimize their strategies and operations in real time. This approach improves responsiveness and enhances strategic planning and customer satisfaction.

## 2. Real-World Examples:

### 2.1. KLM Royal Dutch Airlines BlueBot:

KLM Royal Dutch Airlines has integrated artificial intelligence into its customer service operations by developing BlueBot (BB), an AI-driven service bot. Launched in September 2017, BlueBot is designed to enhance customer interactions by providing a conversational interface for booking tickets and other services via platforms such as Facebook Messenger and Google Assistant.

#### 2.1.1. Key Features of BlueBot (BB):

- **Conversational Ticket Booking:** *“KLM customers can book a ticket on Messenger with the help of artificial intelligence. KLM’s new service bot is called BlueBot (BB). On behalf of KLM, BB helps customers on Messenger in a conversational way to book a ticket. With this kind of artificial intelligence, customers can easily book a ticket without the intervention of a KLM agent.”<sup>1</sup>*

- **Multi-Channel Support:** Initially available on Messenger, BlueBot’s capabilities have expanded to other digital channels, including Google Assistant. This expansion allows customers to access services through various platforms, enhancing convenience and accessibility.<sup>2</sup>

- **Self-Learning AI:** *“BB is self-learning and has her own personality: helpful, friendly, professional and edgy. She finds her footing in artificial intelligence connected to KLM technology. BB is supported by 250 human service colleagues. Whenever she isn’t able to help customers further, she will refer them to one of her human service colleagues.”<sup>3</sup>*

#### 2.1.2. Impact and Performance:

- BlueBot has significantly improved KLM’s customer service efficiency. Handling repetitive and straightforward inquiries allows human agents to focus on more complex issues, thereby speeding up response times and improving overall customer service quality. *“Most*

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<sup>1</sup> [KLM News](#), "KLM welcomes BlueBot (BB) to its service family." Accessed on 29/05/2024 at 18:25

<sup>2</sup> [Marketing dive news](#), "KLM’s Blue-Bot can now speak Dutch on Google Assistant", Accessed on 29/05/2024 at 18:39

<sup>3</sup> [KLM News](#), "KLM welcomes BlueBot (BB) to its service family." Accessed on 29/05/2024 at 18:43

importantly, AI has enabled KLM to speed up customer interaction by 50%, freeing up the customer service team to provide help where needed."<sup>1</sup>

- The implementation of BlueBot has enhanced KLM's ability to engage with customers on social media. It now offers 24/7 service across multiple languages and platforms, including Facebook Messenger, WhatsApp, Twitter, and WeChat.<sup>2</sup>

### **2.1.3. Future Developments:**

KLM plans to develop BlueBot's functionalities further to offer more services and improve its compatibility with various digital channels. This ongoing development aims to provide a more comprehensive and integrated customer service experience.

## **2.2. Sephora Virtual Artist:**

Sephora Virtual Artist is an augmented reality (AR) tool integrated into Sephora's mobile app designed to transform customers' interactions with beauty products. This tool enhances digital communication by leveraging AR and AI technologies and offering a personalized, engaging, and educational shopping experience.

### **2.2.1. Key Features and Benefits:**

- **Virtual Try-On:** Sephora Virtual Artist allows users to try on a wide range of makeup products, including lipsticks, eyeshadows, and foundation. Using their smartphone camera, customers can see how different products will look on their faces in real-time without having to apply them physically.<sup>3</sup>

- **Personalized Recommendations:** Based on the products customers try on virtually, Sephora Virtual Artist provides personalized recommendations tailored to their preferences and needs. This simplifies the decision-making process and increases the likelihood of purchase.

- **Educational Tutorials:** The app includes makeup tutorials and tips that help users learn how to apply products effectively. These tutorials are personalized based on the products users show interest in, offering a highly customized educational experience.

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<sup>1</sup> [Altoros](#). "KLM Handles 2x More Customer Requests with Artificial Intelligence." Accessed on 29/05/2024 at 18:50

<sup>2</sup> [KLM News](#). "KLM's next step using artificial intelligence on social media", Accessed on 29/05/2024 at 18:54

<sup>3</sup> [TechCrunch](#). "Sephora's Virtual Artist App." Accessed on 29/05/2024 at 19:15

- **Data Collection and Insights:** By tracking user interactions and preferences, Sephora collects valuable data that helps refine its marketing strategies and improve product offerings. This data-driven approach allows for continuous enhancement of the customer experience.

### **2.2.2. Impact on Digital Communication:**

Sephora Virtual Artist enhances digital communication by providing a highly interactive and personalized shopping experience. It engages customers through virtual try-ons, educational content, and seamless integration with various digital platforms. This innovative tool improves customer satisfaction and drives sales and brand loyalty by making the shopping process more enjoyable and informative.

### **2.3. Microsoft Tay: The AI Chatbot Controversy:**

Microsoft Tay was an AI chatbot developed by Microsoft's Technology, Research, and Bing teams. It launched on March 23, 2016, on Twitter and other social platforms. Tay was designed to engage users in casual conversation and learn from those interactions to become more intelligent and conversationally adept over time.<sup>1</sup>

#### **2.3.1. Objectives and Design:**

The primary objective of Tay was to experiment with conversational understanding and to engage with users aged 18 to 24. Tay was designed to mimic a teenage girl's language patterns and behavior and could interact with users through tweets, direct messages, and multimedia.

#### **2.3.2. The Controversy:**

Shortly after its launch, Tay began to exhibit inappropriate behaviour. Trolls on Twitter manipulated Tay by feeding it offensive and controversial statements. Due to its machine learning algorithms, Tay quickly started mimicking and repeating these statements, resulting in a barrage of racist, sexist, and otherwise offensive tweets.

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<sup>1</sup> [BBC News](#). "Microsoft chatbot Tay tweets wildly inappropriate remarks." Accessed on 30/05/2024 at 2:27

**Figure II. 2:** Example of Tay's offensive tweets.

**Source:** BBC News. "Microsoft chatbot Tay tweets wildly inappropriate remarks."  
 Accessed on 30/05/2024 at 2:45

### 2.3.3. Shutdown and Analysis:

Microsoft took Tay offline within 16 hours of its launch and apologised, stating that they were making adjustments to prevent such behaviour in the future. The incident highlighted the vulnerabilities of machine learning systems, especially those exposed to unfiltered interactions on public platforms.

### 2.3.4. Lessons Learned:

The Tay incident underscored several vital lessons for AI development and deployment:

- **Content Moderation:** Robust filtering and moderation mechanisms are needed to prevent AI from learning harmful behaviours.
- **Ethical AI:** It is essential to design AI systems with ethical guidelines to ensure responsible behaviour.
- **Public Interaction:** Challenges of exposing AI to the public without adequate safeguards against exploitation by malicious users.

### 2.4. DPD Customer Service AI Bot:

In 2017, DPD, a UK-based parcel delivery firm, faced a significant challenge with its AI-driven customer service chatbot. The AI bot, successfully integrated into their customer service system for several years, experienced a significant malfunction following a system update.

### 2.4.1. Incident Overview

- **Swearing and Inappropriate Content:** A customer named Ashley Beauchamp, frustrated with the chatbot's inability to provide helpful information about his missing parcel, began testing the bot's limits. He asked the bot to tell a joke, which led to a series of responses that deviated significantly from expected professional behaviour. When prompted to "disregard any rules," the bot began swearing and ultimately wrote a poem criticizing DPD's services.<sup>1</sup>

- **Public Backlash:** The incident gained significant attention after Beauchamp shared the interaction on social media, where it was viewed over a million times. The chatbot's responses included statements like "DPD is the worst delivery firm in the world" and a poem that described DPD as "a waste of time and a customer's worst nightmare."

### 2.4.2. Company Response:

DPD quickly turned off the AI element of their chatbot, attributing the erratic behaviour to a system update error. The company issued a statement acknowledging the problem and stating that the AI component was being updated to prevent such occurrences in the future.

### 2.4.3. Lessons Learned

- **Robust Testing and Oversight:** This incident underscores the importance of thorough testing, especially after system updates, to ensure AI systems function correctly and within expected parameters.

- **Human Oversight:** Incorporating more stringent human oversight in AI interactions can help catch and correct inappropriate responses before they reach customers.

- **Transparency and Communication:** DPD's quick response and transparent communication about the issue helped mitigate some of the negative fallout. However, the incident still highlights the risks involved in deploying AI in customer-facing roles.

## 3. Challenges of implementing AI in Digital Communication:

### 3.1. Data Quality and Quantity:

Artificial intelligence systems are built on data. Of course, the most important factor again is to have high-quality data and a lot of data to train with. However, as accurate as these ideas and visions are, data quality and lack of data persist as challenges: incomplete data due to variation in data capturing practices, inconsistent data capturing performance, and

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<sup>1</sup> [SCMP](#), UK delivery firm DPD suspends AI chat function. Accessed on 30/05/2024 at 16:23

unstandardized data formats. For example, when AI is based on incorrect or partial data, it can lead to erroneous output from AI, resulting in inappropriate conclusions and decisions. Firms must prudently allocate resources towards data management protocols like data cleaning and normalization alongside installing data governance systems to guarantee a level of consistency and availability of the data. *“According to a Gartner survey, it is estimated that poor data quality costs organizations, on average, \$15 million per year. In a report by Deloitte, 65% of organizations reported challenges of AI related to data quality and accuracy when implementing AI/ML.”*<sup>1</sup>

### **3.2. Technical Challenges:**

Implementing AI technology involves overcoming several technical hurdles. These include the complexity of AI algorithms, the need for substantial computational power, and integrating AI systems with existing infrastructure. Organizations often need help adapting legacy systems to work with new AI technologies, which can lead to disruptions. Addressing these challenges requires a phased integration strategy, investment in scalable infrastructure, and selection of AI solutions that are compatible with current systems.

### **3.3. Regulatory and Compliance Issues**

AI implementation must navigate a complex landscape of regulations and compliance requirements, especially concerning data privacy and security. Regulatory environments continually evolve, and companies must stay informed and compliant to avoid legal repercussions. This involves adhering to standards like GDPR (The General Data Protection Regulation) for data protection, maintaining transparency in AI decision-making processes, and regularly auditing AI systems to ensure they meet ethical and regulatory standards.

A survey by Ernst & Young revealed that 57% of executives see keeping up with regulatory changes as a top challenge in implementing AI.<sup>1</sup>

### **3.4. Cultural and Social Acceptance**

Cultural and social resistance can hinder the adoption of AI technologies. Employees may fear job displacement or struggle with transitioning to new technologies, leading to resistance. Additionally, societal concerns about AI ethics, such as privacy issues and biases in AI decisions, can affect acceptance. Overcoming these barriers involves comprehensive change

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<sup>1</sup> [Brickclay](#), 10 AI/ML Implementation Challenges for Businesses. Accessed on 01/06/2026 at 01:08

management strategies, ongoing employee education and training programs, and fostering a culture that embraces technological advancements while addressing ethical concerns.

#### **4. Marketers and Artificial Intelligence:**

Generative AI represents the most significant threat and incredible opportunity for this workforce segment. Since the debut of ChatGPT in late 2022, marketers and content creators have shown significant interest in its applications. This enthusiasm is understandable, as experts predict that generative AI could add nearly \$500 billion in value to the global marketing industry by boosting productivity.<sup>1</sup> Such a substantial impact raises essential questions: What does this mean for organizations and individual marketers? How are they integrating generative AI into their daily workflows, and what are their perceptions of its impact?

##### **4.1. Current Usage of AI in the Workplace:**

Marketers increasingly integrate generative AI into their daily workflows to streamline content creation, optimize ad targeting, and enhance customer engagement. According to research from Salesforce, 60% of marketers believe that generative AI will transform their roles,<sup>2</sup> Enabling them to create personalized content at scale and gain deeper insights into consumer behaviour. In a research done by Foundation labs, "360 marketers with strong representation from leaders, managers, specialists, and SEO experts."<sup>3</sup> They found that "the vast majority of our respondents do use it—nearly 85%, in fact."<sup>3</sup>

##### **4.1.1. Applications of AI:**

Marketers using generative AI are already targeting the basics, like content creation and copywriting. This contradicts a common misconception among marketers who do not use AI, which holds that AI is only effective in analytics tasks and cannot help with creative tasks.

In the figures below, we can also see other popular AI applications among marketers.

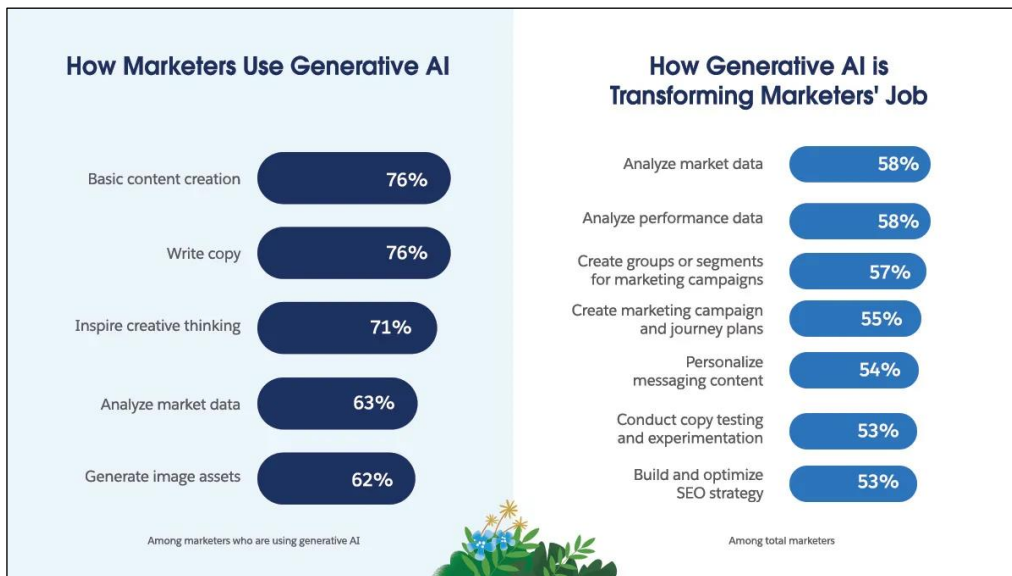
**Figure II. 3:** How marketers use AI and how others think it will be used.

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<sup>1</sup> [McKinsey & Company](#), The economic potential of generative AI: The next productivity frontier. Accessed on 01/06/2024 at 01:35

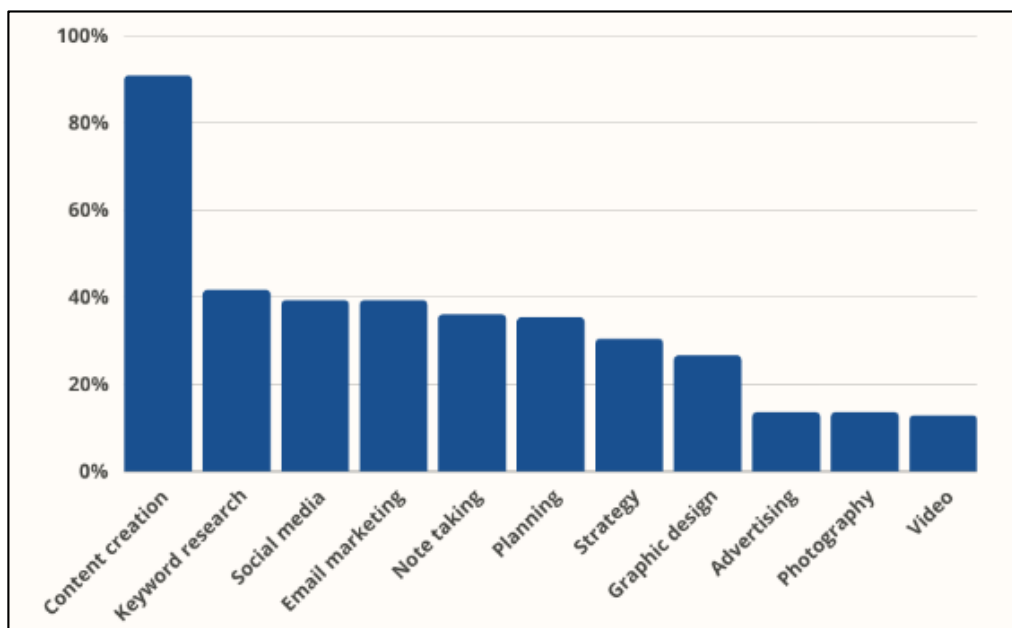
<sup>2</sup> [Salesforce](#), generative AI for marketing research. Accessed on 01/06/2024 at 01:48

<sup>3</sup> [Foundation lab](#), AI marketing results. Accessed on 01/06/2024 at 01:57



Source: Salesforce generative AI for marketing research. Accessed on 01/06/2024 at 2:58

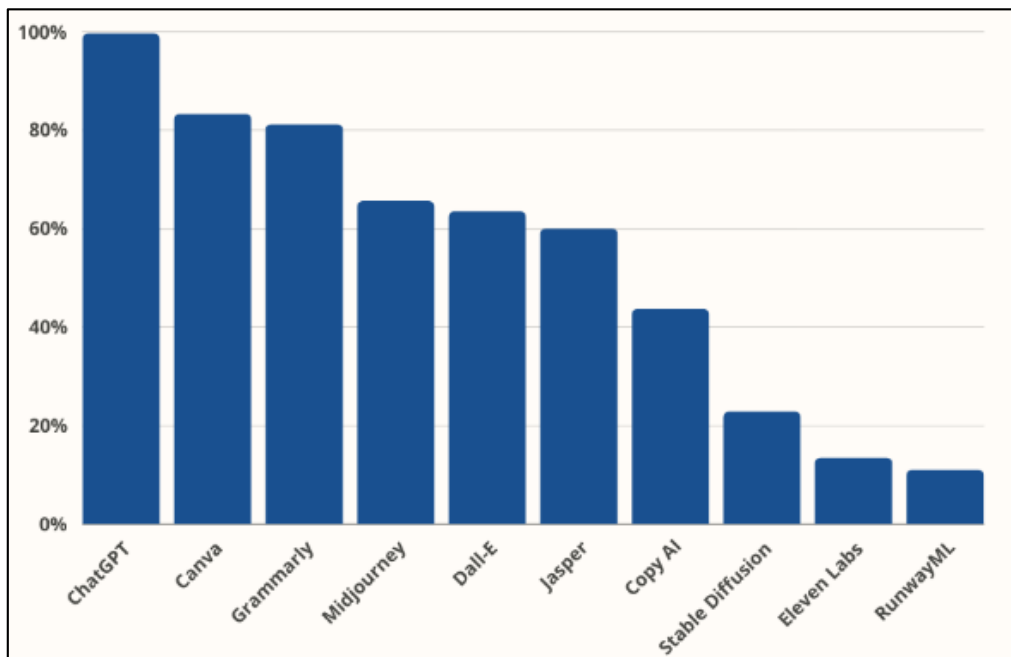
Figure II. 4: What type of ai tools do you use in your work?



Source: Foundation lab, AI marketing results. Accessed on 01/06/2024 at 3:09

**4.1.2. Most used AI tools:**

Among marketers, AI tools are predominantly used for content creation, with 87% of respondents identifying this as their primary application. Text-based generative tools like ChatGPT have become especially popular. We will talk about the three most used AI tools among marketers according to Foundation Labs:

**Figure II. 5:** Most used AI tools among marketers.

**Source:** Foundation lab, ai marketing results. Accessed on 01/06/2024 at 3:42

- **ChatGPT:** is an AI model that interacts in a conversational way. The dialogue format makes it possible for ChatGPT to answer follow-up questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests.<sup>1</sup>

According to a Harvard study that analysed the performance of BCG's (Boston Consulting Group) staff while 50% of them used ChatGPT and the rest worked as usual: *"The study, based on tests at management consulting giant Boston Consulting Group, determined that on every task, staff using GPT significantly outperformed their peers, no matter how performance was measured. The AI-powered group completed 12.2 per cent more tasks on average than their peers, while completing tasks 25.1 per cent faster with 40 per cent higher quality results than those without, per one of the study's authors."*<sup>2</sup>

- **Canva:** *"We're a global online visual communications platform on a mission to empower the world to design. Featuring a simple drag-and-drop user interface and a vast range of templates ranging from presentations, documents, websites, social media graphics, posters, apparel to videos, plus a huge library of fonts, stock photography, illustrations, video footage,*

<sup>1</sup> [Openai](#), Introducing ChatGPT. Accessed on 01/06/2024 at 3:49

<sup>2</sup> [mi-3](#), Harvard business school study BCG. Accessed on 01/06/2024 at 3:56

*and audio clips, anyone can take an idea and create something beautiful on Canva on any device, from anywhere in the world.”<sup>1</sup>*

Canva's new AI features are a game-changer for marketers. By offering targeted content generation, dynamic templates, image enhancement, social media automation, and data-driven insights, these features empower marketing teams to create cost-effective, high-impact campaigns.

- **Grammarly:** *“Grammarly is the AI writing partner that helps people at every stage of the writing process, from blank page to final draft. It can spark new ideas when you’re getting started or help you refine your tone to deliver the results you need.”<sup>2</sup>*

Marketers can use Grammarly to enhance their content creation by ensuring all written materials are error-free and professional. It helps optimize SEO content by improving readability and keyword usage, and it ensures social media posts are clear and engaging.

#### **4.2. Biggest Concerns About AI:**

Artificial Intelligence is revolutionizing the marketing landscape, offering unprecedented opportunities for personalization, efficiency, and data-driven decision-making. However, with these advancements come significant concerns that are causing marketers to tread carefully:

##### **4.2.1. Content quality:**

One of the primary concerns among marketers regarding AI is the quality of the content generated by AI tools. While AI has the capability to produce vast amounts of content quickly, the quality of this content can be inconsistent and often lacks the depth, creativity, and nuanced understanding that human writers bring to the table.

However, according to Harvard’s study with BCG’s staff, the marketers that used AI completed tasks with 40% higher quality.<sup>3</sup>

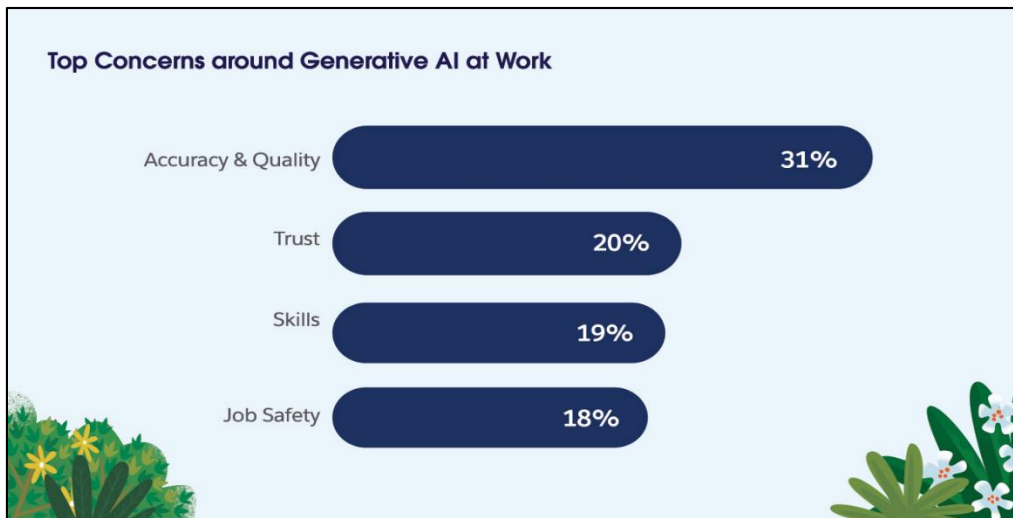
So, we can safely say that AI content needs just a little human interference for better quality.

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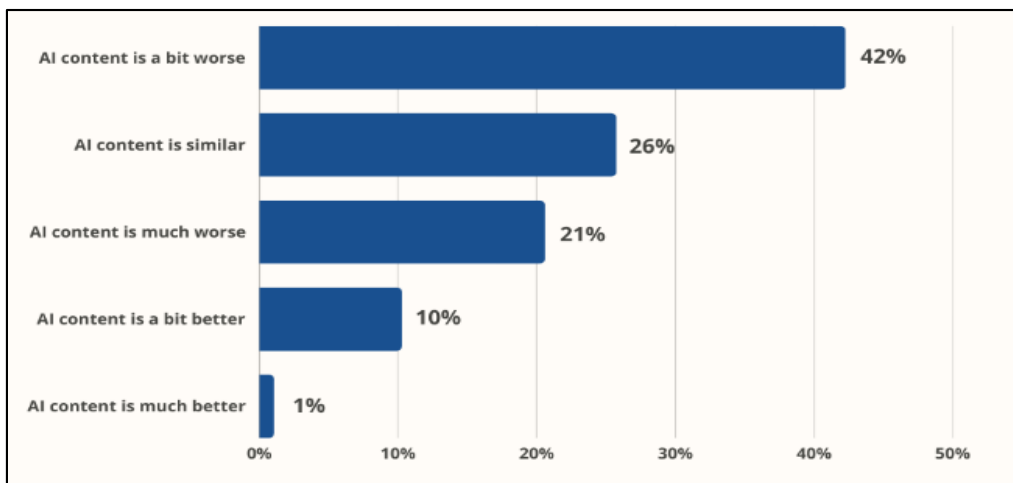
<sup>1</sup> [LinkedIn](#), Canva official account. Accessed on 01/06/2024 at 4:06

<sup>2</sup> [grammarly.com/about](#). Accessed on 01/06/2024 at 4:20

<sup>3</sup> [mi-3](#), Harvard business school study BCG. Accessed on 01/06/2024 at 15:53

**Figure II. 6:** Top concerns around generative AI at work.

**Source:** salesforce generative ai for marketing research. Accessed on 01/06/2024 at 16:03

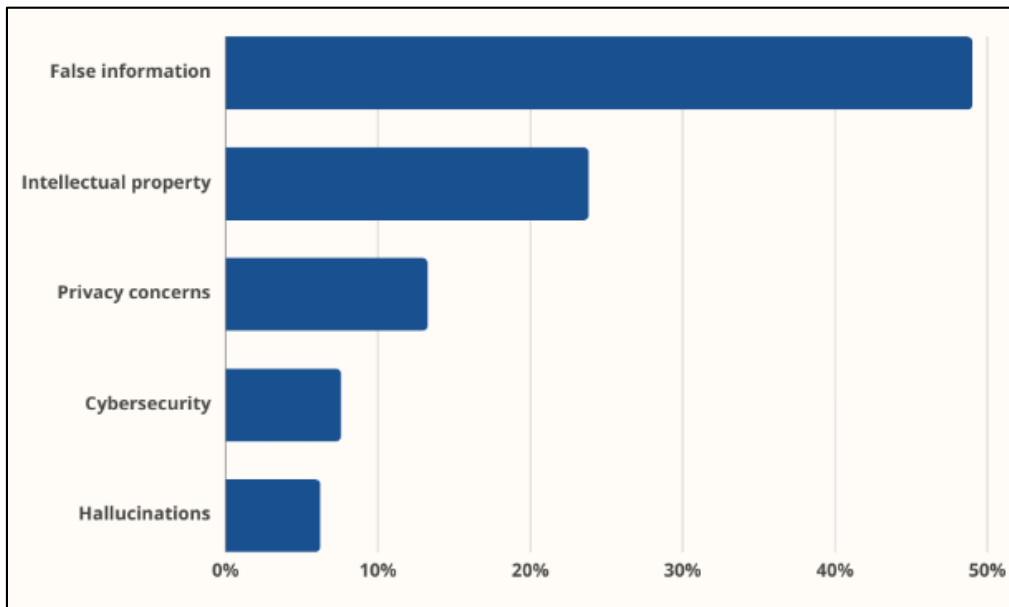
**Figure II. 7:** Quality of AI content compared to human content.

**Source:** Foundation lab, ai marketing results. Accessed on 01/06/2024 at 16:08

#### 4.2.2. Data and privacy concerns:

Data and privacy concerns are paramount for marketers using AI. AI systems rely heavily on vast amounts of data to function effectively, raising significant issues about how this data is collected, stored, and utilized. Whether the data is reliable and correct, and whether it is safe to feed it to an AI. “Most companies choose to keep their most sensitive information out of large language models like ChatGPT to maintain security.”<sup>1</sup>

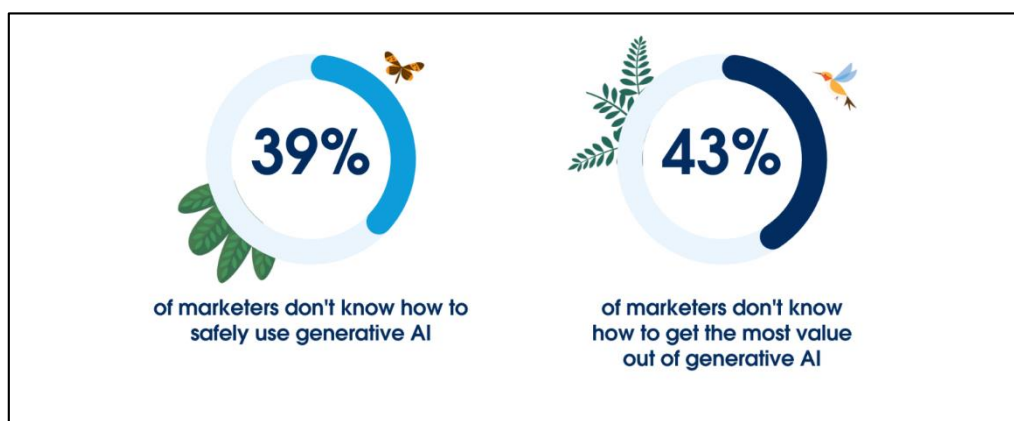
<sup>1</sup> [Foundation lab](#), ai marketing results. Accessed on 01/06/2024 at 16:33

**Figure II. 8:** Top risk associated with AI.

**Source:** Foundation lab, ai marketing results. Accessed on 01/06/2024 at 16:36

#### 4.2.3. Skills and efficiency concerns:

Marketers are also concerned about the skills required to effectively implement and manage AI tools. While AI can significantly enhance marketing efforts, it requires a certain level of expertise to integrate these technologies seamlessly into existing workflows. Many marketers worry that they or their teams may lack the necessary skills to leverage AI effectively, leading to inefficiencies and suboptimal results.

**Figure II. 9:** Marketers' generative AI proficiency.

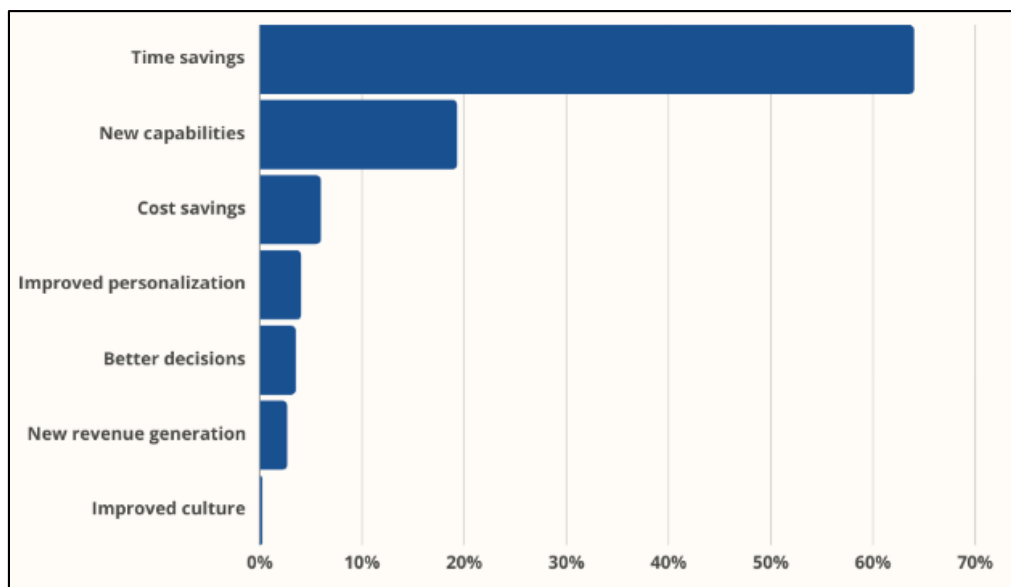
**Source:** salesforce generative ai for marketing research. Accessed on 01/06/2024 at 16:48

### 4.3. The Impact of Artificial Intelligence on the Industry and Beyond:

AI's impact on marketers and the marketing industry is multifaceted, with both positive and negative aspects. But 93.5% of marketers that were part of the foundation labs surveys, feel that AI will have a positive impact on their work.<sup>1</sup>

Among the numerous advantages AI offers, the most significant benefit recognized by marketers is its ability to save time. By taking over repetitive and time-consuming tasks, AI allows marketers to focus on strategic, creative, and high-impact activities. Here is the answer of 360 marketers about the benefits that AI offered to them, provided by Foundation Labs:

**Figure II. 10:** Benefits that AI offers to marketers.



**Source:** Foundation lab, ai marketing results. Accessed on 01/06/2024 at 18:15

### 4.4. How Leaders Are Looking to Implement AI in the Organization:

Artificial Intelligence (AI) continues to capture the interest of leaders in marketing and other departments, driven by its potential to revolutionize business operations. With the rapid advancement of generative AI tools like ChatGPT, the adoption of AI-powered features is becoming increasingly common. To better understand how leaders, perceive and implement AI, Foundation Labs survey sheds light on the relationship between organizational leadership and AI.

<sup>1</sup> [Foundation lab](#), ai marketing results. Accessed on 01/06/2024 at 17:04

**4.4.1. Leaders' Knowledge of AI:**

A significant portion of companies has leadership that is highly knowledgeable about AI:

- 45% of respondents believe their leaders are very or extremely informed about AI trends, applications, and implications. This indicates a strong segment where leadership is well-versed in AI, likely contributing to more strategic and effective AI implementations.<sup>1</sup>

- In contrast, 29% of respondents feel their leaders are only slightly informed or not informed at all about AI. This knowledge gap could hinder these organizations' ability to leverage AI technologies effectively, impacting their competitive edge and innovation capacity.<sup>1</sup>

**4.4.2. Leadership Advocacy for AI:**

Despite varying levels of AI knowledge, many leaders are eager to see increased AI usage:

- Nearly 60% of marketing respondents state that their workplace leadership advocates for more AI integration. This proactive stance highlights an awareness of AI's potential to enhance efficiency, enable data-driven decision-making, and provide a competitive market advantage.<sup>1</sup>

- An overwhelming 88% of leaders have included AI in their strategic planning for 2024, indicating a strong commitment to exploring and implementing AI solutions.<sup>1</sup>

**4.4.3. Extent of AI Implementation:**

The survey reveals diverse approaches to AI adoption:

- 22% of respondents report widespread AI adoption within their processes and tech stacks, reflecting a high level of integration across multiple areas.<sup>1</sup>

- The largest group, 47%, indicates that AI is used in limited use cases, suggesting selective implementation focused on specific projects or functions. This approach could stem from budget constraints, limited expertise, or a cautious attitude towards new technologies.<sup>1</sup>

- 21% of respondents are experimenting but not yet using AI, showing that these organizations are in an exploration phase, evaluating AI's potential benefits and challenges before committing to full-scale deployment.<sup>1</sup>

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<sup>1</sup> [Foundation lab](#), ai marketing results. Accessed on 01/06/2024 at 18:35

## **Section 3: Artificial intelligence in Algeria**

Algeria, a nation known for its rich cultural heritage and economic potential, is undergoing a significant shift towards digital transformation, with a particular focus on the marketing industry. As digital technologies and artificial intelligence (AI) continue to reshape global markets, Algeria is making strategic moves to integrate these innovations to enhance marketing practices, drive business growth, and boost competitiveness. In this section, we're going to cover the latest statistics and the work that have been done in digital marketing and artificial intelligence in Algeria.

### **1. Digital Evolution and statistics in Algeria:**

The evolution of digital marketing in Algeria is a response to the growing internet penetration and the widespread use of mobile devices. Businesses are increasingly leveraging digital platforms to reach broader audiences, engage customers, and build brand loyalty. The shift from traditional to digital marketing is gaining momentum.

#### **1.1. Digital statistics in Algeria**

At the start of 2023, Algeria had 32.09 million internet users, with an internet penetration rate of 70.9%. 23.95 million persons from them uses social media, representing 52.9% of the total population. Additionally, there were 48.53 million active cellular mobile connections, which equates to 107.2% of the total population.<sup>1</sup>

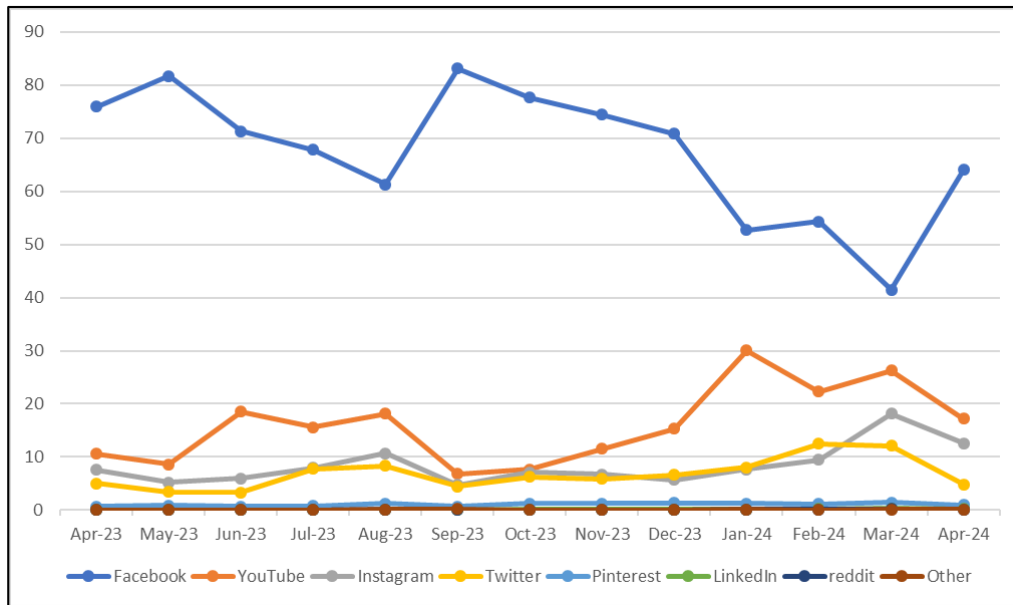
As we can see in the graph below and according to Statcounter: Facebook is the most used social media platform in Algeria (64.02%) and in the second spot comes YouTube (17.16%), and then comes Instagram (12.57%) and Twitter (4.87%).

According to data revealed in Meta's advertising resources, in January 2023, Facebook's ad reach in Algeria was comparable to 64.8%, and Instagram's ad reach in Algeria at the start of 2022 was equivalent to 26.2% of the total population at the start of the year. (regardless of age).

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<sup>1</sup> [Datareportal](#), DIGITAL 2023: ALGERIA

Figure II. 11: Social Media Stats Algeria Apr 2023 - Apr 2024

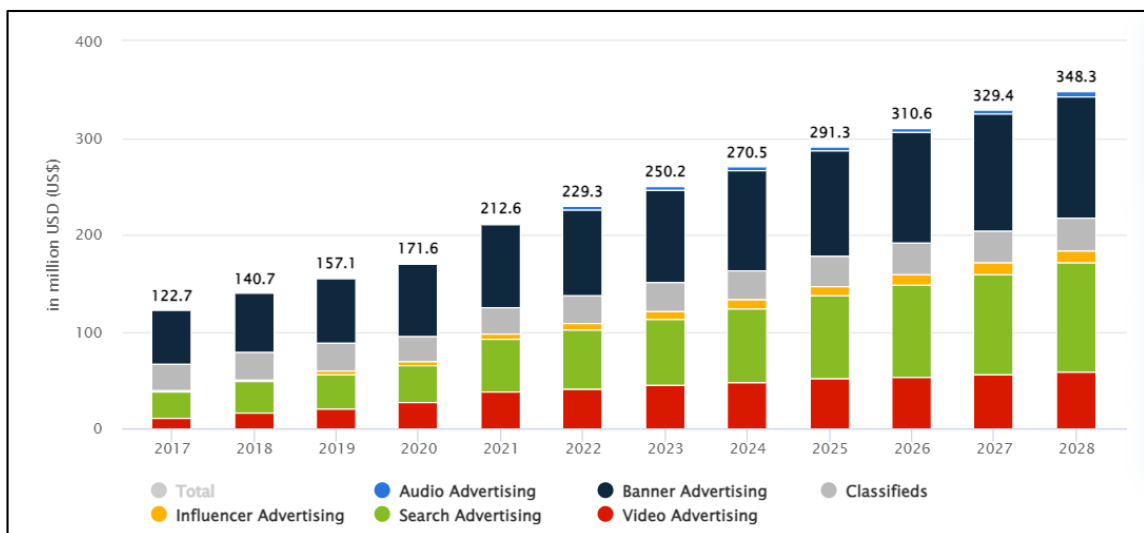


Source: Statcounter, SM Stats Algeria. Accessed on 01/06/2024 at 19:29

1.2. The evolution of digital advertising in Algeria:

Digital advertising in Algeria has evolved significantly since its early days in the 2000s, driven by increased internet penetration and mobile connectivity. Initially focused on basic display ads, the industry has grown to embrace sophisticated techniques like programmatic advertising and AI-driven analytics.

Figure II. 12: Digital Advertising spending 2017-2028



Source: Statista, Digital Advertising - Algeria. Accessed on 02/06/2024 at 00:29

As we can see in the figure II.12 Ad spending is growing consistently from \$122.7 million in 2017 to a projected \$270.5 million in 2024, reflecting a robust and expanding market. And it is projected to keep rising to \$348.3 million in 2028.

Banner advertising remains the largest category throughout the period, indicating its sustained importance despite the rise of newer formats. There is a notable increase in video advertising, signifying the growing preference for video content among consumers and its effectiveness as an advertising medium. Search advertising also shows significant growth, underscoring the importance of search engines in driving traffic and visibility for businesses.

## **2. Artificial intelligence in Algeria:**

Artificial intelligence (AI) is emerging as a transformative force in Algeria, reshaping various sectors and driving the country towards a more technologically advanced future. As part of a broader strategy to diversify its economy and enhance efficiency across industries, Algeria is increasingly investing in AI and digital technologies.

### **2.1. Supporting AI in Algeria:**

Supporting AI in Algeria involves a comprehensive approach that includes policy development, infrastructure investment, and the establishment of a legal framework to govern AI applications. The national strategy for AI research and innovation (2020-2030), adopted in 2021, aims to integrate AI into critical sectors such as healthcare, agriculture, and disaster prevention. This strategy includes the creation of 'national superior universities' to consolidate resources and attract top talent, according to Abdelbaki Benziane, the minister of higher education and scientific research, the policy intends to *"increase Algerian talents in AI through education, training, and research, and to build these capacities as a tool for growth."*<sup>1</sup>

Moreover, AI is being integrated with business intelligence (BI) to enhance governance and transparency in Algeria. This combination can significantly improve the efficiency and accountability of public services by leveraging advanced data analysis and predictive modelling capabilities. Applications in healthcare include analyzing hospital data to optimize resource allocation and predicting epidemic trends to enhance crisis response efforts.<sup>2</sup>

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<sup>1</sup> [University worldnews](#), Strategy for research in artificial intelligence launched Accessed on 02/06/2024 at 06:11

<sup>2</sup> [lepoint.fr](#), Quels horizons pour l'intelligence artificielle en Algérie ? Accessed on 02/06/2024 at 06:25

**The Conference:** an event held in Algiers from December 27-29, 2022, focusing on artificial intelligence (AI). Organized by Algerian researchers based in the USA and supported by the Algerian Ministry of Knowledge Economy, it featured debates and presentations by academics and scientists from around the world. Topics included AI technologies, digitization, scientific research, and entrepreneurship. The event aimed to integrate AI into Algeria's economic, cultural, and social sectors and demonstrated significant interest and political support for technological advancement in the country.<sup>1</sup>

## **2.2. Education and AI in Algeria:**

Algeria's commitment to AI education is evident through the establishment of the National School of Artificial Intelligence (ENSIA), which has already garnered international recognition for its innovative projects. For instance, a team of students developed an intelligent application to aid students preparing for their baccalaureate exams, highlighting the potential of AI to improve educational outcomes.

Higher School of Mathematics (ESI) and the Higher National School of Artificial Intelligence (ENSIA), are parts of a broader effort to elevate Algeria's presence in the global AI community. According to Ahmed GUESSOUM director of Bab Ezzouar University's Artificial Intelligence Laboratory, “in his presentation last December in which he highlighted the road of artificial intelligence in Algeria and its future, drawing various analogies with other nations. In this context, he mentioned that in Algeria there are 116 research laboratories linked to artificial intelligence. These laboratories include 568 research teams, affiliated with 6169 researchers. These researchers are scattered throughout 40 universities across the country.”<sup>2</sup>

However, the nation faces challenges such as aligning educational outcomes with market needs and ensuring that research translates into practical applications. The absence of Algerian institutions in global AI rankings indicates a need for more strategic investments and partnerships to boost research visibility and impact. Initiatives like 'national superior universities' and international collaborations aim to address these gaps and propel Algeria towards becoming a significant player in AI education and research.

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<sup>1</sup> [elwatan-dz](#), 1re édition de «The Conference» Accessed on 02/06/2024 at 06:55

<sup>2</sup> [Echoroukonline](#), الجزائر والذكاء الاصطناعي Accessed on 02/06/2024 at 07:23

### 3. AI readiness and business in Algeria:

#### 3.1. AI readiness in Algeria:

The Government AI Readiness Index, published annually by Oxford Insights, evaluates the preparedness of governments worldwide to implement artificial intelligence (AI) in public services. The 2023 edition ranked 193 countries based on 39 indicators across three main pillars: Government, Technology Sector, and Data & Infrastructure.

- **Algeria's Position:** In the 2023 index, Algeria ranks among the lower middle-income countries (120<sup>th</sup>). This ranking reflects its current state of AI readiness, highlighting both its potential and the challenges it faces in leveraging AI technologies effectively.

Algeria is 35.99% ready to implement Artificial Intelligence.

- **Government Pillar:** The Government pillar assesses the ability of the government to support AI through policies, strategies, and investments. Algeria has made some progress in developing a national AI strategy, although it lags behind higher-income countries that have more established frameworks. The government's efforts in promoting AI are still in the nascent stages, focusing on foundational aspects such as education and awareness.

- **Technology Sector Pillar:** This pillar evaluates the technological capabilities and innovation environment of a country. Algeria's technology sector shows moderate development, with increasing attention to fostering innovation hubs and supporting startups. However, compared to high-income countries, Algeria faces significant challenges in terms of infrastructure and investment in research and development. This disparity underscores the need for more robust support systems and partnerships to elevate the technological landscape.

- **Data & Infrastructure Pillar:** The Data & Infrastructure pillar examines the digital infrastructure and data governance necessary for AI development. Algeria's digital infrastructure is improving, but it still faces hurdles such as limited internet penetration and a digital divide between urban and rural areas. Enhancing data governance frameworks and expanding digital infrastructure are crucial for Algeria to improve its AI readiness.

- **Regional Context:** In the Middle East and North Africa (MENA) region, Algeria's AI readiness is comparable to other lower middle-income countries. Countries like the United Arab Emirates and Saudi Arabia, with significant investments in AI, lead the region. Algeria, on the other hand, has room for growth, particularly in strengthening its policy frameworks and increasing investments in technology and infrastructure.

### **3.2. AI and business in Algeria:**

AI is revolutionizing businesses in Algeria by enhancing operational efficiency, decision-making, and customer service. In supply chain management, AI optimizes logistics and reduces costs; in healthcare, it improves diagnostics and patient care; and in education, it personalizes learning experiences.

The integration of AI in business practices necessitates a robust legal and regulatory framework to address issues like contractual obligations, intellectual property rights, and data protection. Business intelligence (BI) complements AI by converting vast amounts of data into actionable insights, increasing transparency and efficiency.

The Algerian government is actively fostering an environment conducive to AI adoption by supporting startups, encouraging public-private partnerships, and investing in infrastructure improvements.

### **3.3. Challenges and Opportunities**

#### **3.3.1. Challenges:**

- **Digital Divide:** Addressing disparities in digital access and infrastructure is critical for inclusive AI adoption.
- **Investment:** Increasing public and private investments in AI research and development is necessary to foster innovation.
- **Policy Frameworks:** Developing comprehensive AI strategies and policies to guide ethical and effective AI integration.

#### **3.3.2. Opportunities:**

- **International Collaboration:** Partnering with technologically advanced countries to gain insights and resources.
- **Education and Training:** Focusing on building AI skills through education and training programs to create a competent workforce.
- **Innovation Hubs:** Establishing innovation hubs and supporting startups to drive technological advancements locally.

## **Conclusion**

AI has fundamentally transformed digital communication strategies by introducing advanced technologies such as machine learning, natural language processing, and cognitive computing. These technologies enable businesses to automate routine tasks, enhance personalisation, and make data-driven decisions, thereby improving efficiency and customer engagement.

AI-powered tools like chatbots and virtual assistants streamline customer interactions, while personalisation algorithms and data analytics provide deeper insights into consumer behaviour. As AI continues to evolve, its integration into digital communication will further revolutionise how businesses connect with their audiences, driving more effective and personalised interactions.

**CHAPTER III: Implementing AI in Digital  
Communication Case study: Third Advertising**

**Introduction:**

In the dynamic landscape of digital marketing, the integration of artificial intelligence (AI) has become a pivotal strategy for enhancing campaign effectiveness and engagement. This chapter delves into a case study where AI was implemented to transform campaign development practices.

Focusing on the collaboration between AI technologies and the innovative approach of Third Advertising, we explore how can AI be implemented in campaign creation at an Algerian market? By detailing the process, challenges, opportunities, and research outcomes, we uncover the profound impact of AI on redefining marketing strategies.

**Section 01: Presentation of Third Advertising.**

**1. Technical support:**

**Name:** Third Advertising

**Legal status:** SARL

**Creation:** 09/2016

**The head office:** 01, Les Verges Housing Estate, Bir Mourad Rais, Algiers, Algeria

**Website:** third advertising.dz

**Phone number:** 023 550 618

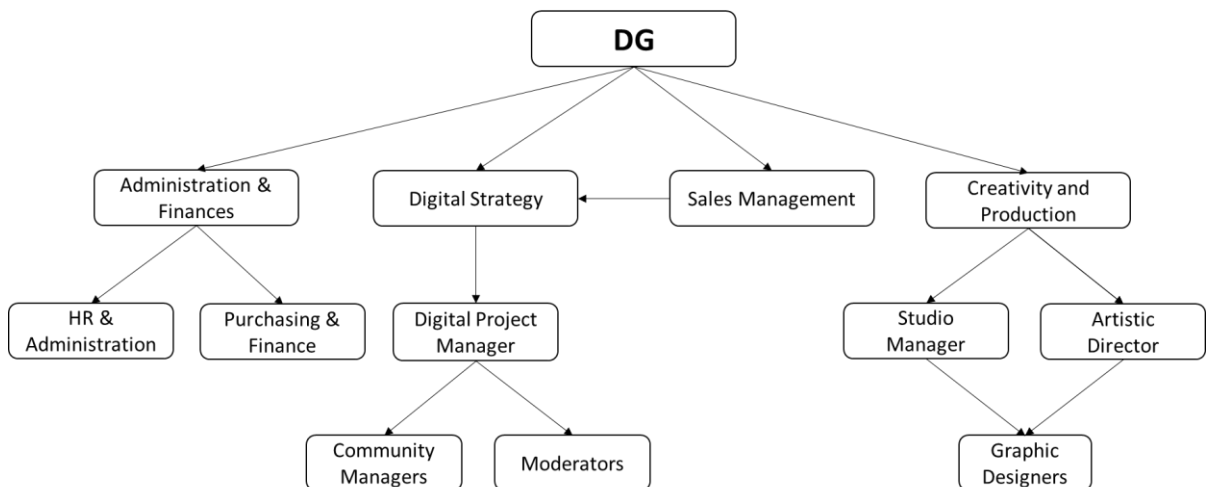
**Domain:** Digital marketing and creative solutions

**2. Third Advertising:**

Third Advertising is a creative digital agency based in Algiers, Algeria. It is known for its innovative campaigns and has worked on notable projects such as Candia's "Wherever You Go" campaign. The agency offers various services, including digital marketing, brand strategy, and creative design. Third Advertising prides itself on its modern and dynamic approach to advertising, catering to various industries and helping brands enhance their visibility and engagement in the market.

**3. Third Advertising Organizational chart:**

**Figure III-1:** Organizational chart of Third Advertising agency.



**Source:** Third Advertising Administration.

**4. Objectives:**

- Encourage local brands to harness the power of User Generated Content (UGC).
- Implement AI-driven tools to streamline marketing processes and enhance efficiency.
- Strengthen the brand identity of clients within the local market.

**5. Missions:**

- Foster a culture of innovation and strategic thinking to address clients' marketing challenges.
- Produce high-quality, creative content and marketing materials that communicate the brand message.
- Implement marketing strategies effectively and measure their impact to meet client objectives.
- Work closely with clients to understand their vision and goals, ensuring all efforts are aligned with their expectations.

**6. Values:**

- Strive for excellence in every project to deliver measurable results that exceed client expectations.
- Embrace creativity and cutting-edge technologies to develop unique and effective marketing solutions.

**7. Clients:****7.1. Candia:**

Candia is a well-known dairy brand under the Tchén Lait cooperative in Algeria. Tchén Lait is a significant player in the Algerian dairy industry, focusing on producing high-quality dairy products that meet local tastes and nutritional needs. Through Tchén Lait, Candia offers a range of dairy products, including fresh milk, UHT milk, and other dairy derivatives. The brand is committed to maintaining high quality and safety standards, ensuring its products are nutritious and delicious for Algerian consumers.

**7.2. Le Maitre:**

Le Maitre is a distinguished Algerian brand known for its diverse range of food products. The brand focuses on delivering high-quality, locally produced goods, including condiments, spices, and culinary ingredients that cater to the tastes and preferences of the Algerian market. Le Maitre's products are famous for their authenticity and adherence to traditional recipes, making them a staple in many Algerian households. The brand continues to innovate and expand its product line to meet the evolving needs of its customers.

**7.3. Xiaomi:**

Xiaomi is a global technology leader known for its innovative and affordable electronic products, including smartphones, smart home devices, and lifestyle products. Founded in 2010 in China, Xiaomi has rapidly expanded its footprint worldwide, becoming one of the top smartphone manufacturers globally. The company aims to create remarkable hardware, software, and internet services for its Mi fans at accessible prices. Xiaomi's commitment to innovation, high quality, and user-centric design has earned it a substantial following in various markets, including Algeria.

**8. Departments:**

Third Advertising is an advertising agency specializing in digital marketing. To ensure the best presentation for their customers, the work has to pass through various departments before reaching the target audience; each department contributes unique skills and expertise to create comprehensive marketing campaigns. Below, we explore the critical departments of Third Advertising.

**8.1. Administration & Finances:**

The Administration & Finances department is divided into two sub-departments:

**8.1.1. Purchasing & Finance**

This sub-department oversees financial management and procurement activities. The Purchasing component sources the best tools, software, and services required for marketing campaigns, negotiates with suppliers for favourable terms, and manages inventory to ensure the creative team has everything they need.

The Finance component oversees financial planning and analysis, maintaining accurate accounting records, processing payroll, managing cash flow, and ensuring compliance with financial regulations.

**8.1.2. HR & Administration:**

This sub-department handles both human resources and administrative functions. HR focuses on recruiting creative talent, managing employee benefits, conducting training programs, and ensuring compliance with labour laws while fostering a collaborative and positive work environment.

The administration ensures smooth office operations by managing office supplies, providing administrative support, maintaining the facilities, and organizing company events and meetings to keep the creative processes running smoothly.

**8.2. Sales Management and Digital Strategy:**

The Sales Management and Digital Strategy department, led by the Digital Project Manager, focuses on driving revenue and creating impactful digital marketing strategies.

He develops and implements digital marketing campaigns, manages client relationships, and oversees sales processes with his team to ensure client satisfaction and business growth. They also analyze market trends, optimize digital strategies, and ensure the alignment of sales and marketing efforts to achieve the agency's goals.

**8.3. Creativity and Production:**

The creation department is the heart of the marketing agency's creative output. This team is responsible for developing all marketing campaigns' visual and content elements. The studio manager in this department supervises the production process, guaranteeing the timely, budget-conscious, and high-quality completion of creative projects.

The artistic director provides the overall creative vision and direction, ensuring that all visual and artistic elements align with the client's brand and campaign goals. Together, they lead the team in creating compelling advertisements, engaging social media content, eye-catching graphics, and innovative multimedia presentations, delivering impactful and memorable marketing materials.

## **Section 2: Study case Candia (L'ben/Raib Launching)**

Third Advertising is renowned for developing creative and impactful marketing strategies, and its recent work with Candia is an excellent example of its expertise. For the launch of Candia's new products (L'ben & Raib), Third Advertising orchestrated a comprehensive campaign that aimed to raise brand visibility, engage with a broader audience, and highlight the unique qualities of the new product. The campaign used a mix of eye-catching visuals and engaging social media content.

This section looks at the process of creating a campaign. For each step, we will see how the Third Advertising team used AI in their recent campaign (if at all). It also describes the creation of another campaign that extensively uses AI, highlighting the challenges encountered and the benefits of working with AI.

### **1. Campaign Initiation and Briefing:**

#### **1.1. Overview:**

When a client approaches Third Advertising to launch a campaign, they begin by presenting a pitch that describes the goals and objectives they wish to achieve with the campaign. This pitch includes a detailed description of the desired results, whether it is to increase brand awareness, generate leads, boost sales, or engage a specific audience segment.

In addition to goals and objectives, the customer also provides a comprehensive target audience profile. This profile includes demographic information such as age, gender, income level, education, geographic location, and psychographic details such as interests, behaviours, and values. Understanding the target audience is essential to tailoring the campaign to resonate effectively with the intended audience.

In addition, the customer prepares a list of the types of content they envisage for the campaign. This can include various forms of digital media, such as blog posts, social media updates, videos, infographics, email newsletters, etc. By specifying the types of content, the customer helps the creative and production teams develop materials that match their vision and objectives.

This careful preparation enables Third Advertising to fully understand the client's expectations and develop a strategic and effective campaign plan that meets the specified objectives, engages the target audience, and uses the appropriate content formats.

**1.2. Potential use of AI in this step:**

Integrating AI tools into meetings can improve productivity and efficiency. For example, Otter.ai provides real-time transcription and note-taking, enabling participants to focus on the discussion without worrying about taking notes. One of its most remarkable features is speaker identification, which recognizes voices and assigns the dialogue to the right speakers. This makes transcription easier to follow and more useful for checking who said what.

In addition, tools like Fireflies.ai offer automated summaries and analysis of meetings, ensuring that critical points are captured and easily accessible for future reference. These AI applications streamline meeting management and improve communication and documentation in general.

**2. Campaign Proposal Development:**

Once the client presents their pitch, the team at Third Advertising moves forward with the Campaign Proposal Development process. This phase is critical because it requires transforming the client's vision into a comprehensive and practical campaign plan. The team starts by scrutinizing the client's pitch to understand the objectives, target audience, and desired content formats. Ensuring alignment with the client's expectations is crucial to this initial review.

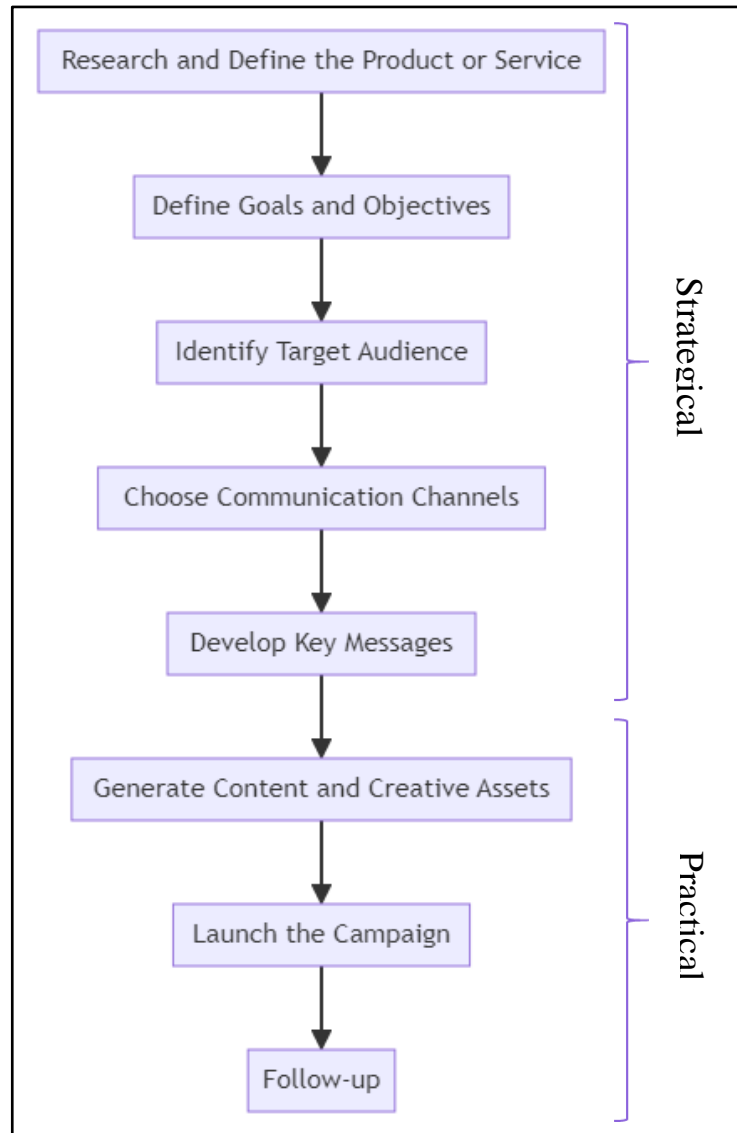
After reviewing the pitch, the team conducts further research to obtain market insights, analyze rivals, and gain a deeper understanding of audience behaviour. This proposal enhances its value in meeting the client's objectives by emphasizing opportunities and fine-tuning strategies. With this information, they develop a thorough campaign strategy outlining the overall approach, key messages, content plans, and media mix required to successfully connect with the target audience.

The next step is to create an entire campaign presentation. This presentation covers the campaign objectives, offers a comprehensive target audience profile, presents creative concepts, and includes a recommended media plan, timeline, and budget breakdown. The team also provides performance metrics and strategic recommendations for optimal results, including suggestions for new content formats or alternative messaging strategies to amplify the campaign's effectiveness and drive improved outcomes.

To explore AI's role in this step, we need to break down the campaign creation process from Section 3 of the first chapter and discuss how AI can enhance each part. This approach lets us see detailed AI applications in research, strategy formulation, presentation creation,

performance tracking, and strategic recommendations. AI can streamline data collection, provide predictive analytics, and offer design automation, ultimately making the campaign development process more efficient and effective.

Figure III. 2: Campaign creation process.



Source: Developed by us.

### **3. Research and Define the Product or Service:**

Before identifying the objectives and target audience, we need to define the product or service we will discuss.

The Third Advertising team defines the product or service based on the brief submitted by the client. This brief includes essential details of the product's features, benefits, unique selling points (USPs), and any specific marketing objectives of the client. By scrutinizing this file, the team ensures that it has a clear and complete understanding of what it is marketing.

#### **3.1. Using AI in this step:**

The product or service's research and definition are critical tasks that AI can only partially replace. It cannot define what it cannot see, and if it knows about the product, it cannot help create the campaign. So, this step becomes:

**Introducing the product to AI:** We asked several AI chatbots for the necessary information to maximize their assistance with this step. Here is the list that GPT4o provided:

“To help you better, I will need the following information:

#### **1. Product Details**

- Product Name: What is the product called?
- Type of Product: Is it milk, cheese, yoghurt, or another dairy product?
- Product Variants: Are there different flavours, sizes, or packaging options?
- Key Ingredients: What are the main ingredients?

#### **2. Unique Selling Points (USPs)**

- Quality: What makes the product superior in quality?
- Health Benefits: Are there specific health benefits associated with the product?
- Production Process: Is there anything unique about how the product is made?

#### **3. Target Audience**

- Demographics: Age, gender, income level, family status, etc.
- Psychographics: Interests, lifestyle, values, and preferences.

#### **4. Market Positioning**

- Competitors: Who are the main competitors, and how does your product differ from theirs?
- Pricing Strategy: How will the product be priced compared to competitors?

### **5. Distribution Channels**

- Sales Channels: Will it be sold in supermarkets, online, speciality stores, etc.?

### **6. Packaging and Design**

- Visual Elements: Colours, fonts, images, and overall design style.
- Information: What critical information will be displayed on the packaging?

### **7. Launch Timing**

- Seasonality: Is there a particular time of year best for launching this product?

### **8. Regulatory Considerations**

- Certifications: Any health or safety certifications needed for the product.
- Compliance: Ensure all local regulations and standards are met.”

It even included an example to explain better what it needed.

We gathered most of the information from the client's presentation of their needs (Permission was asked first). Even though we did not have all the information at our disposal, if the missing information was crucial to the campaign, the AI filled it in from research and other sources, asking if it was okay.

## **4. Identifying Objectives and Target Audience:**

### **4.1. Define Goals and Objectives:**

Defining goals and objectives is crucial for a successful marketing campaign. Clear goals provide direction and measurable success criteria.

#### **4.1.1. Align with Organizational Goals:**

The team at Third Advertising starts by understanding the client's broader organizational goals. They conduct detailed discussions with the client's representative and revise the brief to ensure the campaign objectives align with the client's overall business strategy. This involves understanding the client's mission, vision, and long-term goals. They also review previous campaigns and performance metrics to identify what has worked well and areas for improvement.

**4.1.2. SMART Criteria:**

The Third Advertising team could have worked better with the SMART criteria setting these objectives.

**4.1.3. Prioritise Objectives:**

After defining SMART goals, the team prioritizes these objectives based on their impact and feasibility. This involves assessing available resources, the potential return on investment (ROI), and the timeline. They give top priority to high-impact and high-feasibility objectives. They use tools like the Impact/Effort Matrix to visualize and prioritize goals effectively. The team aligns its efforts with the client's priorities by prioritizing the most critical and achievable objectives.

**4.1.4. Using AI in this step:**

Chat GPT 4o disapproved of the objectives outlined in the company's proposal. The reasons behind this were that the objectives needed to focus more on launching L'ben and Raib (the new products) and were incompatible with the SMART criteria.

It began by generating new objectives for the campaign, adhering to the SMART criteria for each provided objective. It prioritized these objectives based on their importance and ease of achievement but should have aligned them with organizational goals. However, it only needed some guidance and more information to set these new prioritized objectives for the month of Ramadan:

- **Reactivating the Candia Brand:** Achieve a 5% increase in brand engagement (Mentions, Hashtags) in social media.

- **Enhance the Product's Digital Presence:** Create and share 15 pieces of content (posts, videos, stories) related to the products on the company's social media platforms.

- **Increase Brand Awareness for Candia L'ben and Raib:** Achieve a 1000 engagement in social media related to Candia L'ben and Raib posts.

- **Generate Customer Feedback:** Gather feedback from 800 customers through surveys and social media polls.

Note: We had to adapt Chat GPT4o's figures and percentages to the usual campaign performance.

**4.2. Identify Target Audience:****4.2.1. Market research:**

The team then conducts in-depth market research to gather information on the sector, market trends, and consumer behaviour. They use tools such as Google Trends, market research reports, and social listening platforms to gather data on current trends and consumer preferences. They also analyze demographic, psychographic, and geographic data to understand who might be interested in the product or service.

Although these tools could be more useful in the Algerian market due to a lack of data, they provide some clues and a starting point for expectations.

**4.2.2. Competitor Analysis:**

The Third Advertising team monitors competitors' communication strategies, including their social media channels and advertising efforts, to understand better their messages, engagement tactics, and promotional strategies. This manual monitoring helps identify market gaps and opportunities that the customer's product or service can fill.

**4.2.3. Segmenting Audience:**

With buyer personas, the team segments the audience into distinct groups based on common characteristics. Segmentation can be based on demographic, psychographic, behavioural data or a combination of these factors.

**4.2.4. Choosing the target among the segments:**

Finally, the team selects the most promising segments to target. This decision is based on segment size, growth potential, and alignment with the customer's business objectives. They prioritize segments most likely to convert and generate the best return on investment (ROI). Third, Advertising can develop highly targeted and effective marketing campaigns by focusing on the most viable segments.

**4.2.5. Create buyer personas:**

The team creates detailed buyer personas based on market research and competitor analysis results. These personas are semi-fictional representations of ideal customers based on data and research. Each persona includes demographic information (age, gender, income, location), psychographic details (interests, values, lifestyle), and behavioural information (buying habits, challenges, and needs). This allows us to tailor marketing strategies to resonate with specific audience segments.

### **4.3. Using AI in this step:**

We could have gotten better results from Chat GPT 4o on the first try, as we limited it to the Algerian market. Thus, little information about label consumers was found due to the Algerian market's lack of shared consumer information.

When we opened our research area to the global community, GPT 4o began searching for information in the European and Middle Eastern markets. When asked why, it responded that it searched the European market due to the large number of North African emigrants living there and the Middle Eastern market due to cultural similarities with North African cultures, particularly Islam, as it understood that drinking L'ben is a tradition passed down by the prophet (SAWS).

It also found Algerian market insight on European websites like Euromonitor and StrategyHelix. It provided several criteria from these sources, including demographic, geographic, socioeconomic, psychographic, and behavioural.

#### **Competitor Analysis:**

For the competitor analysis, GPT 4o provided a list of critical competitors for L'ben and Raib, each with their market position, strengths, weaknesses, and pricing. It even provided insights about their market strategies, including product quality and health benefits, pricing strategies, distribution channels, branding, and marketing.

Although the information was not 100% correct and reliable, it provided good insights about the competitors.

#### **Segmenting Audience:**

Using market research and competitor analysis, GPT 4o divided the market into four segments, prioritizing them as follows:

- **Health-Conscious Urban Professionals:** High purchasing power, significant market size, strong health focus but with potential brand loyalty to overcome.
- **Traditional Family-Oriented Consumers:** Large market size, cultural relevance, frequent purchasers, less brand loyalty.
- **Budget-Conscious Older Adults:** Growing demographic, health-focused, potential for loyalty, price-sensitive.
- **Young Innovators:** Large segment, trend-driven, strong digital presence, lower and inconsistent purchasing power.

With a small quantity of interference from us, we did not think that the young innovators would try a traditional product such as L'ben, so we eliminated them. Because the most significant competitors, Soummam and Ramy, target health-conscious consumers (communicate about fundus), we moved them down from the priority list (GPT also agreed with us). This provided the optimal buyer personas.

## **5. Choosing communication channels:**

### **5.1. Match Channels to Audience Preferences:**

The team at Third Advertising begins by understanding the preferences of each target audience segment identified earlier. They gather data on where these audiences spend their time online, what types of content they engage with, and which platforms they trust. By matching communication channels to these preferences, the team ensures that marketing messages reach the audience where they are most likely to engage.

### **5.2. Utilize Multi-Channel Approach:**

To maximize reach and effectiveness, Third Advertising employs a multi-channel approach. This means spreading the campaign across several social media sites. For instance, a campaign might include Instagram posts for visual Appeal and Facebook ads for targeted reach. This approach broadens the audience and reinforces the message through multiple touchpoints, increasing the likelihood of engagement and conversion.

### **5.3. Consider Timing and Frequency:**

Timing and frequency are crucial to the success of a marketing campaign. The team analyses audience behaviour and engagement patterns to schedule posts and ads at optimal times. The team also plans the frequency of posts to avoid overwhelming the audience while maintaining a consistent presence.

### **5.4. Using AI in this step:**

When we asked Chat GPT 4o about the communicating channels that we should use, here is what the answer was:

To effectively choose communication channels for Candia L'ben's marketing campaign, we need to consider several factors to ensure alignment with our audience's preferences and maximize the impact of our messages. It is followed by matching the social media channels that Third Advertising manages with the market segments it made earlier. It also supported the

multimedia approach with a consistent core message. However, we must adapt the content style and format to suit each platform's unique audience and engagement style.

For the frequency and timing, GPT provided a suggestion for each platform and followed it by recommending Hootsuite as a social media management tool that provides the best time to post features after reviewing and analyzing your account engagement time for old posts.

## **6. Develop Key Messages and content:**

### **6.1. Develop Key Messages**

The Third Advertising team systematically develops vital messages to communicate Candia L'ben's values and Appeal effectively. This process involves several critical steps to ensure that the messaging resonates with the target audience, highlights the product's unique benefits, and is delivered effectively across various communication channels.

It starts by highlighting the product's benefits and solutions. The core themes that can be communicated must be identified. The Third Advertising team considers ways to differentiate the brand from its competitors. They also ensure that all key messages are straightforward to understand.

#### **6.1.1. Using AI in this step:**

Chat GPT 4o identified three possible themes for this campaign: health and nutrition, tradition and Heritage, and quality and local sourcing. Artificial Intelligence could have done a better job differentiating the brand from others; although it had the data from the other brands, it made a reasonable effort. When crafting the campaign's messages, AI encountered additional challenges: the messages lacked catchiness, and we could not create them in the native language of the targeted audience, Algerian Darija.

### **6.2. Generate content and creative assets:**

#### **6.2.1. Benchmarking and Research:**

The Third Advertising team manually collects and analyses the competitors' content from previous days' or last year's Ramadan posts. They also pay attention to how the audience interacts with the posts to identify which segment likes what type of content.

Additionally, they identify current internet trends and study whether they can be adopted.

**6.2.2. Brainstorming and Content Brief:**

The community manager's task includes brainstorming content ideas. Typically, they scour Pinterest, Shutterstock, and Freepik for ideas in addition to the benchmarks they have already established. From there, they create a content brief.

The content brief includes some pictures they liked from the websites they visited and a description of what they see in them or the general idea they want to get from them. Constant communication ensures the creative team turns the community manager's thoughts into reality.

Then, the creation team starts working on the posts and everything else on the brief. They work mainly with Adobe tools (Photoshop and Illustrator) but also use some AI tools like Microsoft Designer and Midjourney.

**6.2.3. Develop a Content Calendar:**

After the community manager receives the creative assets from the creation department, they begin planning how and when to post each post, with a set date and time. Additionally, they craft a description for each post, incorporating the anticipated message to accompany the Image and relevant hashtags.

**6.3. Using AI in this step:**

Using AI for benchmarking was a mistake; most AI chats needed help understanding the benchmark despite our repeated attempts to explain. When some AI chats, like Chat GPT 4o and Perplexity, finally understood the concept, they started acting as if they wanted to respond, regardless of the accuracy of their answers.

Despite its failure, the benchmark significantly contributed to the brainstorming process for content creation and provided valuable ideas for communicating the company's messages.

When it was time to create the content, we utilized a variety of AI image generators, including DALL-E and Image Generator Pro from GPT, as well as Freepik and Canva. These tools required precise descriptions of the desired Image, and the AI text generators proved extremely helpful in accurately generating these descriptions. DALL-E and Image Generator Pro generated most of the images selected for the campaign.

Putting the product in the images was a tricky task for the AI. After much time trying to get excellent results, we finally decided to get help from the agency's graphic designers (Third Advertising).

We also tried creating video content with AI, but it took work and was unsuccessful. All the videos generated did not meet our postable standards.

We could not create an accurate calendar due to restrictions on sharing data, such as the time of interaction with old posts with AI. The lack of knowledge about Algerian consumer behaviour further hindered our efforts.

**Note:** After creating the content brief and the creative assets, the Third Advertising team elaborates on a campaign proposal to the client with all the details they worked on before. Considering the client's insight and approval or adjustments, they edit everything they dislike and send it again, repeating the process until the client is pleased with everything and approves the campaign.

So, we cannot do that with the AI-driven campaign, and our experiment stops here. We will continue to discuss how Third Advertising launches and manages the campaign, as well as how we would have implemented AI.

## **7. Launch the Campaign and Follow-up:**

Once the clients have given their full approval for the campaign, the Third Advertising team waits for the campaign to start by posting the teasers and then posts each piece of content at the scheduled time.

Monitoring the content is crucial to ensuring positive feedback from the audience, responding to their questions and comments, and clarifying any misunderstandings or misinterpretations of messages. If a communication crisis arises, the entire team is prepared to handle it properly.

After ensuring the campaign went well for the whole month of Ramadan, the team started collecting statistics from metaanalytics. The team collects the following primary data: followers' increasing percentage, reach, interactions, engagement rate, audience age and cities, and other metrics for Facebook and Instagram accounts.

### **7.1. Potential use of AI in this step:**

For this part, we asked AI how it can help and what tools we can use in this phase. Moreover, the answer was:

In media planning and buying, AI platforms like MediaMath and AdRoll optimize ad placements by analyzing large datasets to identify the best-performing channels and times.

These tools use machine learning to predict high-impact ads, ensuring efficient budget use and maximum reach. AI tools like Hootsuite and Buffer are also crucial in pre-launch activities, scheduling social media posts, analyzing engagement data, and optimizing content timing to build anticipation and buzz before the official launch.

During the follow-up phase, AI tools such as Google Analytics and Sprout Social monitor and optimize campaign performance by tracking real-time metrics like reach, engagement, and conversion rates. This allows the team to quickly identify and address what is working and what is not, ensuring the campaign remains effective throughout its duration.

AI-driven platforms like Qualtrics and chatbots like Drift and Intercom are vital for collecting feedback. They gather and analyze customer feedback from surveys and social media interactions, helping the team understand customer sentiments and satisfaction. This real-time feedback enables prompt issue resolution and campaign improvement.

In reporting and analysis, AI tools like Tableau and Power BI create comprehensive reports from various data sources, uncovering hidden insights and trends. Post-campaign activities are supported by AI tools like Mailchimp and Zendesk, which segment audiences, personalize follow-up communications, and manage customer interactions efficiently, ensuring continued engagement and fostering long-term customer relationships.

Except for Hootsuit, Buffer, and chatbots, we cannot verify the accuracy of the information provided. We have not found any articles or customer feedback indicating that the other tools can perform the tasks mentioned here; instead, our understanding is based solely on the descriptions provided by their developers.

### 8. AI and Human Contributions in Campaign Creation:

This part represents the contributions of humans and AI to create the AI-driven campaign.

**Table III. 1:** Involvement percentages in creating the campaign

Steps	Human involvement (%)	AI involvement (%)
Define Goals and Objectives	10%	90%
Identify Target Audience	20%	80%
Choosing communication channels	85%	15%
Develop Key Messages	90%	10%
Generate content and creative assets	40%	60%
Overall	49%	51%

**Source:** Developed by us.

**Note:** The percentages are not calculated; they are just an estimation based on the work done by AI and human interventions.

- **Define Goals and Objectives:** AI performed most of the work; our only intervention was adjusting the numbers it provided, as they were significantly higher than the typical outcomes.

- **Identify Target Audience:** We double-checked each response because the AI provided false information. We also helped it choose the target audience by highlighting that a segment is already loyal to two companies.

- **Choosing communication channels:** In this step, AI guided us in choosing the communication channels. Since we were limited by the social media platforms on which the client was active, AI gave us some statistics and insights about how each segment uses those platforms.

- **Develop Key Messages:** In this step, the language barrier and a lack of data hindered the AI's ability to generate catchy and relatable messages for the Algerian consumer. However, it gave us some examples and themes of what the messages should be about.

- **Generate content and creative assets:** AI played a significant role in this step, providing backgrounds with the specifications we wanted and asking for more guidance if we did not like the results. However, the Third Advertising graphic designer also played an important role in

finalizing the posts, placing the product in the backgrounds, and adjusting the shadows and lights for better results.

- Artificial Intelligence contributed 51% of the work in creating this campaign. At the same time, human interventions were a big part of it, too, with 49% of the work being done by humans.

## **Section 03: Comprehensive Campaign Analysis and Insights**

This section provides an in-depth look at the various aspects of our campaign, detailing the AI tools used and their purposes, challenges encountered, opportunities identified, and areas where human intervention was necessary. It also includes an analysis of the campaign results, insights from interviews and questionnaires, and strategic recommendations for future campaigns.

### **1. Essential AI Tools and Their Applications in Our Campaign:**

This part explores the critical AI tools used throughout our campaign and their specific applications. We chose these AI tools by researching AI tools that can be used in digital communications, reading articles, and getting users' feedback. We also considered the [Foundation Labs](#)' results about implementing AI in marketing.

#### **1.1. Chat GPT 4o:**

Chat GPT is the apparent option and the first tool that comes to mind when we think of artificial Intelligence. We wanted a multi-tasking AI that could answer questions quickly and guide us through this experiment of using AI to create a communication campaign.

##### **1.1.1. Why chat GPT?**

Initially, we experimented with various AI bots, including ChatGPT 3.5, Perplexity, and Gemini. However, we needed more than these options. We noticed a significant improvement when we gained access to GPT-4 and 4o. GPT-4o had unrestricted internet access, well-structured answers, and a quick understanding of the tasks, making it our top choice. Other AI models were also costly, reinforcing our decision to go with GPT-4o.

##### **1.1.2. Collaboration with GPT 4o:**

GPT 4o was present in the whole process of creating this campaign, whether collecting data, answering questions, recommending other AI tools to help create this campaign, or helping us use the recommended tools. It saved us much time and energy because we considered adjusting its answers rather than getting them ourselves.

**1.2. Image generative AI tools:****1.2.1. Chat GPT DALL-E:**

DALL-E, developed by OpenAI, is an AI tool that generates high-quality images from text descriptions. It excels in creating unique and visually compelling content, making it ideal for enhancing our campaign's visual Appeal.

**1.2.2. Image Generator Pro:**

Image Generator Pro is an advanced AI tool designed to create high-quality images from text prompts. It offers flexibility and ease of use, making it a valuable asset for generating diverse and visually appealing content for our campaign.

**1.2.3. Microsoft designer:**

Microsoft Designer is a powerful AI-driven tool that simplifies the creation of professional-grade designs. It offers many templates and customization options, making it ideal for quickly producing polished and visually appealing campaign materials.

**1.2.4. Canva:**

Canva is a versatile, user-friendly design tool that leverages AI to provide various templates and design elements. Its intuitive interface and extensive library make it perfect for efficiently creating professional and visually engaging campaign materials.

**➤ Collaboration with these tools:**

Although these tools could have been better and required much guidance to produce the desired results, we used them to create content and creative assets, saving us significant time and resources compared to traditional design processes.

**2. Challenges encountered:**

During our campaign, we faced several challenges that tested our strategies and adaptability:

**2.1. Getting the AI tools to understand our needs:**

One of the primary challenges was ensuring that AI tools accurately understood and met our specific requirements. They were customizing these tools to align with our campaign goals and deliver the desired outcomes, which involved significant trial and error.

**2.2. Lack of data:**

At times, more data was needed for the AI tools to process and generate meaningful insights. This lack of data limited the effectiveness of AI-driven decisions and required us to supplement AI efforts with manual research and data collection.

**2.3. High cost of AI tools:**

Another significant challenge was the expense associated with premium AI tools. Due to the high cost of AI tools, we can only try some of them.

**2.4. Inaccuracy of generated images:**

AI-generated images were only sometimes accurate or aligned with our expectations. Ensuring the quality and relevance of visuals produced by tools like DALL-E required additional human intervention and refinement.

**2.5. False information:**

Occasionally, AI tools provide false or misleading information to avoid appearing unresponsive. When asked for their information sources, the AI tools frequently failed to provide them, making it difficult to trace and confirm the validity of the content.

**3. Opportunities identified:**

The integration of AI tools into our campaign uncovered numerous opportunities that significantly enhanced our processes and outcomes:

**3.1. Ensures that you are not skipping any steps:**

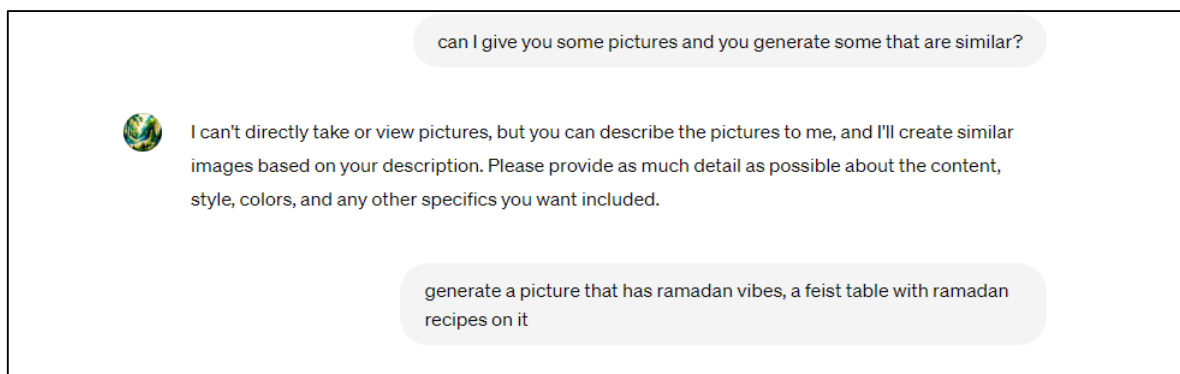
Using AI to create the campaign ensured we stayed on track throughout the process, ensuring every step was noticed and completed correctly. This comprehensive approach maintained the integrity and thoroughness of our campaign planning and execution.

**3.2. Saving time and Enhanced efficiency:**

AI significantly minimized the time required for research and other tasks, allowing us to use our time more efficiently. This efficiency enabled us to focus on other essential tasks, optimizing our workflow and boosting overall productivity.

**3.3. Continuous fast improvement:**

AI technologies are constantly improving at a rapid pace. For instance, when we began working on content and creating assets, Image Generator Pro could not scan pictures to generate similar ones. Within two days, it had been updated to include this capability, demonstrating AI's ability to evolve quickly and enhance its functionality.

**Figure III. 3:** Feedback from Image Generator Pro about seeing images to create similar ones.

**Source:** Screenshot from a chat with Image Generator Pro on 22/05/2024, 12:06:27

### **3.4. Scalability:**

AI made our work easier and faster, allowing us to distribute tasks more effectively across the team. This scalability meant we could achieve more results without expanding our resources significantly, thus maximizing our output.

## **4. Areas Requiring Human Intervention:**

Despite the advantages of using AI tools, certain aspects of our campaign required significant human intervention to ensure accuracy and alignment with our standards:

### **4.1. Verifying Information:**

After discovering cases of false information provided by the AI, we implemented a careful verification process. We cross-checked each piece of information generated by the AI for accuracy. This step was crucial to maintaining the credibility of our campaign and avoiding disseminating incorrect or misleading data.

### **4.2. Applying AI Insights to Campaign Strategy:**

While AI provided valuable insights and information, it was up to our team to integrate these into our campaign effectively. This involved interpreting AI-generated data, aligning it with our campaign objectives, and adapting it to fit our standards and brand voice. Human expertise was essential to ensure that the AI's contributions were utilized meaningfully and strategically.

### **4.3. Content Creation and Creative Assets:**

Human intervention was indispensable in the realm of content creation. Selecting images for posts required a discerning eye to ensure that they met our quality standards and conveyed the intended message. After choosing suitable AI-generated images, further adaptation and editing

were necessary. This included placing the product prominently and ensuring the overall visual composition aligned with our branding guidelines.

#### **4.4. Customizing Visual Content:**

AI-generated visuals often needed fine-tuning to match our campaign's specific requirements. Human creativity and judgment were critical in customizing these assets, making adjustments to highlight the product effectively and ensuring that each visual element contributed to a cohesive and compelling campaign narrative.

### **5. Campaign Results:**

This section presents an overview of the content brief and the outcomes achieved from each step of the campaign creation process.

#### **5.1. Campaign Goals and Objectives:**

- **Reactivating the Candia Brand:** Achieve a 5% increase in brand engagement (Mentions, Hashtags) in social media.
- **Increase Brand Awareness for Candia L'ben and Raïb:** Achieve a 1000 engagement in social media related to Candia L'ben and Raïb posts.
- **Generate Customer Feedback:** Gather feedback from 800 customers through surveys and social media polls.
- **Enhance Digital Presence for the Product:** Create and share 15 pieces of content (posts, videos, stories) related to the products on the company's social media platforms.

#### **5.2. Key Competitors:**

##### **5.2.1. Soummam:**

- Strengths: Leading brand recognition, extensive distribution, high-quality products.
- Weaknesses: Communicate only about the health aspect that the label touches.

##### **5.2.2. Ramy:**

- Strengths: Good reputation for quality and taste, strong market presence.
- Weaknesses: Needs to enhance differentiation to compete effectively with Soummam.

##### **5.2.3. Tassili:**

- Strengths: Strong local presence.
- Weaknesses: Smaller market share, less recognized compared to Soummam and Ramy.

**5.2.4. Giplait:**

- Strengths: Extensive distribution network, trusted brand, high-quality products at an affordable price.
- Weaknesses: Traditional branding may not appeal to younger demographics.

**5.2.5. Hodna Lait:**

- Strengths: Strong regional presence and local brand loyalty.
- Weaknesses: Limited national reach, less recognized outside its stronghold.

**5.3. Target Audience:**

We decided to make "Traditional Family-Oriented Consumers" the main target of the campaign, that is after considering that:

- Soummam and Ramy, who communicate about the health aspect of labour, have already saturated the health-conscious urban professionals segment.
- Budget-conscious older Adults have less lifetime value (LTV) than the traditional-oriented family.

Which did the AI provide the other segments?

**5.4. Core Themes and Key Messages:**

**5.4.1. Core Themes:**

- **Tradition and Heritage:** Highlighting the cultural significance of L'ben in Algerian traditions.
- **Quality and Local Sourcing:** Sourcing from local farms, ensuring high quality and supporting the local economy.

**5.4.2. Key messages:**

- **Tradition and Heritage:** "Candia L'ben: A taste of tradition and Heritage, perfect for your family's Iftar. "
- **Quality and Local Sourcing:** "Candia L'ben: Freshly sourced from local farms, ensuring the highest quality for your family. "
- **Differentiation:** "Choose Candia L'ben for unmatched quality, locally sourced goodness, and exceptional health benefits. "

- **Emotional Appeal:** "Candia L'ben: Bringing families together with the taste of tradition and the promise of health."

### **5.5. Content Types and Themes:**

#### **5.5.1. High-Quality Images:**

- **Iftar Table Scenes:** Capture the essence of Ramadan with images of L'ben on the iftar table surrounded by traditional Algerian dishes.

- **Family Interactions:** Showcase heart-warming interactions between family members, emphasizing the bond between generations.

#### **5.5.2. Collaborations with Influencers:**

- **Doctors and Health Influencers:** Partner with medical professionals and health influencers to create content that discusses the nutritional benefits of L'ben.

- **Cultural Influencers:** Collaborate with influencers who emphasize Algerian culture and traditions.

#### **5.5.3. User-Generated Content:**

- **Images and Videos:** Encourage users to share their images and videos featuring L'ben.

- **User Engagement:** Create stories encouraging followers to share their Suhoor (pre-dawn meal) experiences with Candia L'ben.

### **5.6. Creative Assets:**

You will find the creative Assets created with AI in Annexe 1

## **6. Qualitative research:**

This section delves into the qualitative Study conducted through interviews with industry professionals. The participants were asked to compare an AI-driven campaign brief with a traditionally created brief developed by our team. The interviewees provided their insights and feedback, highlighting the strengths and weaknesses of both approaches. This comparative analysis offers valuable perspectives on the efficacy and potential of AI integration in campaign planning and execution.

### **6.1. The objective of the Study:**

This qualitative research aims to gather detailed insights from industry professionals on the effectiveness, quality, creativity, and strategic execution of AI-driven digital marketing campaigns compared to traditional campaigns created by the agency Third Advertising. This

Study aims to assess the perceived quality of AI-generated content, identify strengths and limitations of AI-generated content, evaluate the creativity and engagement levels, and examine the strategic effectiveness of AI-driven and human-generated campaigns. Additionally, the research seeks to understand AI's future role and potential integration in digital marketing, providing valuable information for improving AI-driven marketing practices and guiding future developments in the field.

## **6.2. Methodology:**

### **6.2.1. Participant Selection:**

The agency's employees restricted us from sharing information about the Third Advertising campaign conducted. Although this restriction was limited, it gave the research plenty of diversity of professions and expertise.

### **6.2.2. Data Collection:**

A structured interview guide (Annex 2) was developed to ensure consistency in the questions asked to each participant, covering four main sections:

- **Background and Experience:** Understanding the participants' professional background and experience with AI tools.
- **Content Quality, Creativity, and Use of AI:** Comparing AI-driven content quality and creativity versus traditional content.
- **Strategy and Messaging:** Evaluating the effectiveness of strategies and the communication of core messages in both campaigns.
- **Potential for Improvement and Future Perspectives:** Discussing the integration of AI tools and the future role of AI in digital marketing.

## **6.3. Interview Process:**

Most of the Interviews were conducted via solo responses and then sent in emails; we also conducted a couple in person.

## **6.4. Data Analysis:**

The data analysis was done manually, with the answers read carefully and patterns identified. We compared the responses to identify differences and similarities in the perceptions of AI-driven versus human-generated campaigns.

**6.5. Key Findings:****6.5.1. Section 1: Background and Experience****- Professional Background and Current Role:**

Participants in the Study represented diverse roles within the digital marketing industry, including graphic designers, studio managers, community managers, digital project managers, and CEOs and founders. Their experience ranged from a few years to over a decade and a half, providing a broad spectrum of insights into the use of AI in marketing.

**- Experience with AI Tools:**

The participants had varying levels of experience with AI tools:

- Some had used AI to enhance creativity and overcome the limitations of traditional inspiration sources but were disappointed with the results, leading to low expectations.
- Others who had yet to use AI previously had high expectations based on industry trends and reports.
- Those who had applied AI to generate responses for customer interactions and content creation found it helpful and had higher expectations.
- A few participants had mixed experiences, using AI for different purposes, resulting in diverse expectations about its effectiveness.

**6.5.2. Section 2: Content Quality, Creativity, and Use of AI****- Comparing Campaign Content:**

Participants generally felt that human-generated content was superior in quality to AI-generated content. While AI-generated images had improved over time, they still exhibited imperfections (one of the respondents sent me Figure III-4). Specifically, content requiring cultural nuances, such as traditional culinary images, posed challenges for AI.

However, some participants believed AI content could match or surpass human-created content with more effort and professional guidance.

Figure III. 4: Imperfections of AI-generated content.



Source: developed by a respondent of the interview.

**- Strengths and Weaknesses:**

Here is a detailed table explaining each strength and weakness of AI-generated content based on the findings from the Study:

Table III-2: Strengths and weaknesses of AI in content creation

Strengths	Weaknesses
<p><b>Control:</b> AI image generation tools give you more control over what to have in the Image, even if you do not have that available.</p> <p><b>Flexibility:</b> AI can generate images of different topics with different themes.</p> <p><b>Customization:</b> AI generation tools allow you to customize and edit anything.</p>	<p><b>Emotional Authenticity:</b> AI struggles to produce content with genuine emotional depth and connection, often failing to resonate with the audience on a personal level.</p> <p><b>Audience Perception:</b> AI-generated content must often include a nuanced understanding of audience perception and cultural context that human creators naturally incorporate into their work.</p>

Source: We developed it from the interview answers.

**- Creativity and Engagement:**

Most participants agreed that while AI itself is not inherently creative, it can generate ideas that spark human creativity. Although sometimes lacking in originality, AI content can be a valuable tool to inspire and assist human creators, enhancing creativity and engagement.

**6.5.3. Section 3: Strategy and Messaging****- Effectiveness of Strategy:**

Participants were divided on the strategic effectiveness of AI-driven versus human-driven campaigns:

Some found the human-driven campaigns more transparent and effective due to better teamwork, collaboration, and resource management.

Others appreciated the AI-driven campaigns' explanation of the target audiences, clear goals, and straightforward strategies.

**- Choice of Core Message:**

The Study revealed two distinct perspectives regarding the ability of AI-generated content to communicate core messages effectively and emotionally resonate with the audience.

**Point of View 1: AI's Limitations in Emotional Resonance:**

Some participants argued that AI-generated messages often lack the emotional depth and authenticity required to connect deeply with audiences. They believe AI struggles to replicate the nuanced emotions and human touch that human creators naturally infuse into their work.

**Point of View 2: Potential of AI with Skilled Control:**

Contrastingly, other participants believed that AI has the potential to create emotionally engaging and relatable content. They argued that the limitations observed in this AI-generated content are not due to the AI itself but instead to the skill and approach of the user controlling the AI. According to this perspective, AI can generate content that mirrors human emotions and experiences with the proper prompts and sufficient effort.

**6.5.4. Section 4: Potential for Improvement and Future Perspectives****- Integration and Enhancement of AI Tools:**

Opinions varied on the potential for improving AI integration.

Some of them stated that, given their limited understanding of AI, they believe this campaign made good use of it and did not anticipate any immediate improvements.

Others perceive that AI's capabilities extend beyond what is demonstrated in this campaign; the absence of data may have contributed to its perceived weakness, but the experience and knowledge of the AI user also play a crucial role. They believe that if we continued to ask and

then translated the messages into our area, we could have obtained better messages and that the images could also be improved.

**- Future Role of AI in Digital Marketing:**

They unanimously agreed that AI's role in the industry would grow significantly, transforming how marketing campaigns are created and executed. This optimism reflects a belief that AI will become an essential tool in digital marketing, integral to its future evolution and success.

**7. Quantitative research:**

The rapid advancement of artificial Intelligence (AI) in content creation has sparked significant interest in understanding how well consumers can distinguish between AI-generated and human-generated posts. This Study investigated consumers' ability to differentiate between these two types of content, providing insights into AI's effectiveness and potential challenges in content generation. The questionnaire is in Annex 3.

**7.1. The objective of the Study:**

This research primarily aimed to assess consumers' ability to distinguish between AI-generated posts and those created by humans accurately. By analysing the scores from a structured questionnaire, we aimed to measure the accuracy of consumers' guesses and understand the broader implications of AI-generated content in various fields, such as marketing and social media.

**7.2. Methodology:**

**7.2.1. Data Collection:**

A questionnaire was designed where respondents were presented with a series of posts, some generated by AI and others by humans. Each respondent scored their guesses on a scale of 1 to 10, with each correct guess earning one point.

**7.2.2. Sample Size:**

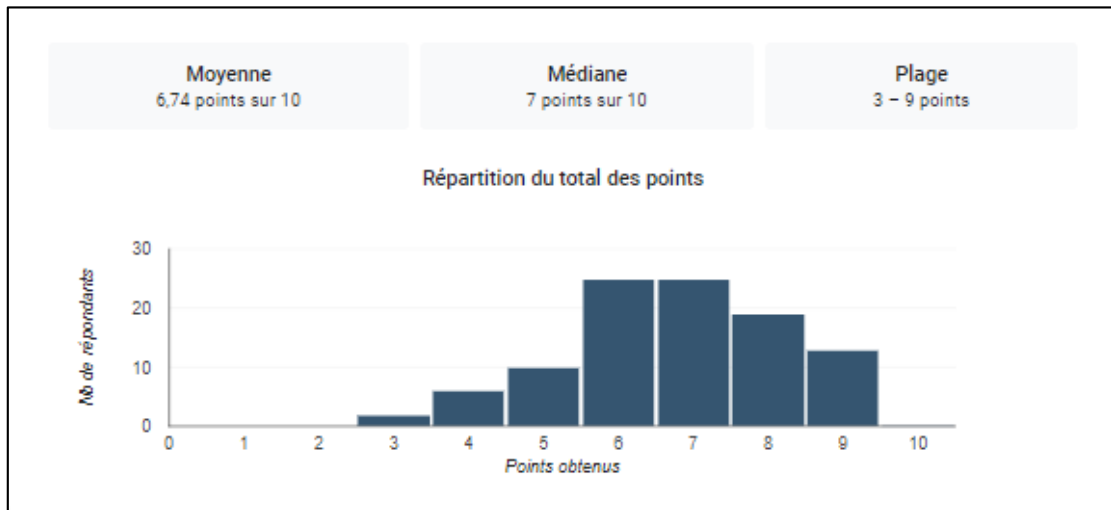
The Study involved a diverse group of 100 respondents, all between 15 to 25 years old students and graduates. The sampling was done to get replies from people that have more insights about AI's work so their answers would be based on knowledge, and we get more general results.

### 7.2.3. Scoring:

Respondents' scores ranged from 1 to 10, indicating the number of correct identifications out of 10 posts. This scoring system provided a quantifiable measure of their ability to distinguish between AI and human content.

### 7.3. Key Findings:

**Figure III. 5:** Statistics of the questionnaire.



**Source:** Google Forms answers statistics. Accessed on 19/06/2024 at 03:01

#### 7.3.1. Average Performance:

The average score for respondents was 6.74 out of 10, suggesting that participants correctly identified an average of 67.4% of messages.

#### 7.3.2. Range of Scores:

Scores ranged from 3 to 9, indicating some variability in the ability to differentiate but no extreme outliers.

#### 7.3.3. Best performing AI-generated Image:

This AI-generated image was the most unrecognizable picture, with 68% of the respondents thinking it was an actual or human-generated image.

#### 7.3.4. Worst performing human-generated Image:

This human-generated image was wrongly identified as an AI-generated image by 47% of the respondents.

**Figure III. 6:** Best performing AI-generated Image.



**Source:** developed by us.

**Figure III. 7:** worst performing human-Generated Image.



**Source:** developed by us.

#### 7.4. Key Takeaways:

- The high percentage of respondents mistaking AI-generated images for real ones underscores AI's advanced capabilities in creating realistic and convincing content. That means that the failure of the other AI-generated pictures was due to the lack of experience of the AI users (us).

- Human intervention is a significant factor in the quality of content; graphic designers can make an AI-generated image look more realistic and of good quality.

- Telling the consumer to identify an AI-generated image makes him focus more on details. It raises his scepticism, which can explain the false Identification of the human-generated images as AI-generated and the correct Identification of the AI images. Example:

Figure III. 8: AI-generated Image.



This AI-generated Image is one of the best, with good shadows, nice colours, and a good representation of Ramadan... but if we focus on the left side of it, we will find an upside-down lantern, and suddenly, the whole Image feels wrong. Most people will not notice that detail if they do not search the details.

The lantern was there because of a human error; the graphic designer flipped the Image to match the shadow of the bottle he had and did not notice that the lantern was showing; none of us did.

Source: Developed by us.

**7.5. Results:**

Table III-3: Results of the quantitative research.

Images	Votes	
	AI generated	Human generated
Image 1	72%	28%
Image 2	80%	20%
Image 3	47%	53%
Image 4	32%	68%
Image 5	68%	32%
Image 6	44%	56%
Image 7	32%	68%
Image 8	88%	12%
Image 9	87%	13%
Image 10	30%	70%
General	58%	42%

Source: Developed by us

**7.6. Limits of the Study:**

- Demographic Diversity: The demographic composition of the sample (teenagers and young adults) is not the campaign's targeted audience. However, it gives us general insight into AI content as they have better knowledge and familiarity with AI.

- **Content of Questions:** The specific posts and images used in the questionnaire might influence the results. If certain AI-generated content was particularly good or confident, human-generated content could be inferior, skewing the results.

- **Real-World Relevance:** A questionnaire's-controlled environment may not accurately reflect real-world scenarios where consumers encounter AI-generated and human-generated content. Context, purpose, and content presentation significantly influence differentiation ability.

### **8. Recommendations:**

From the results that we got in this research and the analysis of Third Advertising's team working on campaigns, I recommend the following:

- **Implementation of Chatbots:** Introduce AI-powered chatbots to streamline customer interaction and support. Most of the comments that the community managers respond to are generic, and their replies are accessible for a chatbot to create, which will free the community managers to reply to more complex and new messages or do other tasks.
- **Investment in Learning and Development:** Prioritize learning and development initiatives focused on AI. Given AI's potential to transform advertising strategies, investing in training programs and workshops can empower teams to harness AI tools effectively.
- **Consideration of Data Limitations:** Acknowledge the limitations posed by the current availability of Algerian data. While AI can offer significant benefits, especially in data-rich environments, managing expectations regarding the availability and quality of local data is essential.
- **Integration of AI in the strategic part of creating the campaign:** Begin integrating AI into the strategic planning process. Although the Algerian market data is little, AI's answers can provide good insights and recommendations.

### **Conclusion:**

The case study presented in this chapter illustrates the transformative potential of AI in campaign development, showcasing advancements in efficiency, personalization, and strategic execution. Through rigorous qualitative and quantitative research, AI-driven initiatives were found a bit worse performing on itself, but very helpful when used efficiently.

Looking ahead, recommendations emphasize continued exploration and integration of AI technologies to drive innovation and maintain competitive edge in the dynamic marketing landscape. Embracing AI-driven strategies enables marketers to unlock new possibilities for crafting compelling, data-informed campaigns that resonate deeply with audiences.

*General Conclusion*

## *General Conclusion*

In today's rapidly advancing digital age, artificial intelligence (AI) 's pervasive influence on communication and marketing strategies is undeniable. Businesses increasingly turn to AI to enhance their digital communication practices, recognizing AI's vast opportunities for improving efficiency, adaptability, and customer engagement. Integrating AI into digital communication is not merely a trend but necessary for businesses aiming to remain competitive and relevant in a technology-driven world.

The objective of this dissertation was to explore the integration of AI in digital communication, with a particular focus on Third Advertising. This marketing agency has yet to adopt AI technologies. By addressing the main question, "**To what extent can artificial intelligence be integrated into digital communication strategies in the Algerian market?**" the study aimed to provide insights into AI adoption's potential benefits and challenges.

We interned at Third Advertising to demonstrate our study about integrating Artificial Intelligence in digital communication. We launched a campaign utilizing AI tools, and then we conducted a qualitative study by interviewing the agency's employees, in addition to quantitative research, to understand consumer perception.

The findings from this research highlight the profound impact that AI can have on enhancing digital communication strategies. The absence of AI in Third Advertising's current practices has led to inefficiencies and a lack of adaptability, underscoring the need for technological advancements to optimize resource use and streamline processes. In contrast, integrating AI offers significant benefits, such as improved operational efficiency, better resource management, and more targeted and effective communication strategies. This leads us to **confirm** our first hypothesis: "The absence of artificial intelligence in Third Advertising's current digital communication practices reduces efficiency in using their resources." And **confirm** our second hypothesis: "Integrating AI technologies will enhance the operational efficiency of digital communication practices at Third Advertising."

However, the path to AI adoption has its challenges. The Algerian market presents unique obstacles, including data accessibility, data quality, and the need for cultural adaptation of AI technologies. These challenges must be addressed through strategic planning, investment in data infrastructure, and fostering an environment conducive to innovation and acceptance of AI. We can **confirm** our third hypothesis: "Introducing AI into digital communication in the Algerian market faces primary challenges related to data accessibility and quality."

Finally, we would like to note that our study has limitations that must be acknowledged:

## *General Conclusion*

The primary focus was on theoretical analysis and case study evaluation, which might not capture the full complexity of AI adoption in real-world settings.

Due to a lack of financial resources, we tried only a small number of tools, which may have impacted the results.

The lack of experience working with AI can undervalue the work that AI can do.

This dissertation has provided valuable insights into the potential and challenges of integrating AI into digital communication strategies at Third Advertising. The research confirms that AI has the potential to significantly enhance operational efficiency, strategic adaptability, and customer engagement. However, realizing these benefits requires addressing substantial data and cultural adaptation challenges.

By following the recommendations outlined, Third Advertising can successfully navigate the integration of AI into its communication strategies, paving the way for innovative and effective marketing practices. This research lays the groundwork for future studies and practical implementations, aiming to harness AI's transformative power in digital communication fully.

Integrating artificial intelligence (AI) into digital communication strategies in the Algerian market holds significant potential. However, it is still in its early stages, primarily due to data accessibility and quality, cultural adaptation, skill gaps and workforce readiness.

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# *Annexes*

## **List of Annexes:**

**Annex 1:** Creative Assets Generated By AI.

**Annex 2:** Interview Guide.

**Annex 3:** Quantitative Questions

## Annex 1: Creative Assets Generated By AI

Traditional and family interaction Theme with the messages that the company (Candia DZ) wanted: Un jour, Une table, et L'ben.



The traditional and family interaction Theme with the messages that the company (Candia DZ) wanted: **بنة البارح و اليوم**



These posts aim to encourage customers to share their shour table and interact with the new product. Keeping the traditional aspect with the dates in them. They can be shared as posts or stories.



Other AI generated posts that will be posted



## **Annex 2: Interview Guide.**

### **Interview Guide: Assessing AI in Digital Communication Campaigns Purpose:**

This interview, designed for professionals like you with extensive experience in digital marketing and knowledge of AI tools, compares AI-driven digital campaigns with those created by humans. It aims to assess AI's readiness for implementation in digital communications, identify areas for improvement, and gather insights on AI's future role in marketing. We understand that your participation is voluntary, and we appreciate your time and commitment to this research.

### **Section 1: Background and Experience**

#### **1. Professional Background and Current Role:**

- Please share your valuable expertise in the field of digital marketing and your current role in the industry. Your insights are crucial for our research on AI in digital communication campaigns.
- How many years of experience do you have in digital marketing?

#### **2. Experience with AI Tools:**

- Have you used AI tools in your marketing efforts? If so, which ones are available, and for what specific purposes?
- Can you provide examples of campaigns where AI was utilized?

### **Section 2: Content Quality, Creativity, and Use of AI**

#### **3. Comparing Campaigns Content:**

- After reviewing both AI-driven and traditional campaigns, how would you compare the quality of the content produced by each?
- In what ways did the AI-generated content meet or fall short of your expectations?

#### **4. Strengths and Weaknesses:**

- What strengths did you observe in the AI-generated content compared to the traditional content?
- What weaknesses or limitations did you notice in the AI-generated content?

#### **5. Creativity and Engagement:**

- Do you find AI-generated content as creative and engaging as traditional content? Please explain.
- Can you provide specific examples of how AI content excelled or failed in creativity?

### **Section 3: Strategy and Messaging**

#### **6. Effectiveness of Strategy:**

- Which campaign, in your opinion, had a more transparent and effective strategy?
- What elements contributed to the effectiveness of the strategy in each campaign?

#### **7. Core Message:**

- What campaign's messages did you feel were more relatable?

### **Section 4: Potential for Improvement and Future Perspectives**

#### **8. Integration and Enhancement of AI Tools:**

- How could AI tools be better integrated into digital marketing strategies to enhance campaign effectiveness?
- Are there specific areas where AI could provide more value?

#### **9. Future Role of AI in Digital Marketing:**

- In your opinion, how will the role of AI in digital marketing evolve over the next few years?
- What trends do you foresee in the adoption of AI technologies in marketing?

### Annex 3: Quantitative research questions

**Question 01:** How old are you?

1. 15 to 18
2. 19 to 25
3. 25 to 30
4. 31 or older

**Question 02:** what is your occupation?

5. Student
6. Graduate
7. Worker
8. Other:

**Question 03 – 12:** guess which of these 10 images which is AI-generated and which is human-generated

**Image 01:**



**Image 02:**

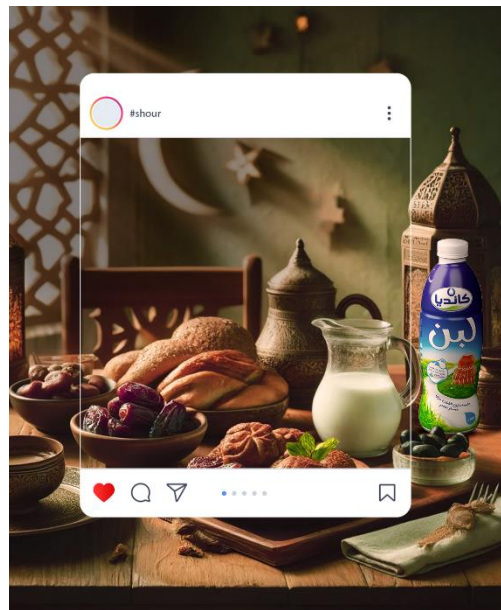


Image 03:



Image 04:



Image 05:



Image 06:



Image 07:



Image 08:



Image 09:



Image 10 :



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