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**International MSc in Engineering Technology for Strategy and Security  
of Genoa University**

**"Leveraging Artificial Intelligence to Transform Marketing Strategies:  
A Comprehensive Analysis of Efficiency, Personalization, and Consumer  
Interaction Dynamics"**

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## 2. Abstract

If you're a marketer and not using Artificial Intelligence [1]\*1, you're missing out on the benefits of transformational technology.

Due to its potential to completely transform a wide range of industries, artificial intelligence has recently attracted a lot of attention. Digital marketing is one of those niches where artificial intelligence might make a big difference. The scientific community has been researching artificial intelligence (AI) for a long time to determine potential applications. Few researchers, meanwhile, have looked at the reasons behind businesses' current adoption of AI, how it is used for entrepreneurial marketing, and how this technology is spreading throughout society. This master's thesis examined the current adoption process of AI tools through a survey of literature and interviews with 10 top marketing decision-makers.

Users in the current world are presented with a variety of tools. Finding the best tools is all about getting the most out of them, optimizing for maximum efficiency, and profiting in the end. This study highlighted several benefits that users expected from using new AI tools, including higher productivity, simplicity of use, cost and time savings. The findings also showed that a user's past experience with technology influences their willingness to adopt new ones. People who have used new technologies before are more likely to adopt future innovations. Prior exposure makes adoption easier and more likely.

The practical implications from a user-centric standpoint revealed that language models such as ChatGPT might be used to optimize content generation for social media and SEO (Search Engine Optimization) [2]\*2. Other AI solutions, such as Nifty and Zapier AI, can help with email marketing campaigns by automating chores and improving personalization. AI text-generators like Copy.ai and Grammarly can help with brand communication, while image-generating systems like DALL-e can be utilized to create content. The findings show that while building AI technologies, producers should prioritize intuitive user-friendliness and affordability.



Communicating these benefits and understanding unique use cases may be critical for tool development and marketing. Overall, this study emphasized the elements impacting adoption.

Name of AI-tool	Function	Benefits
ChatGPT	An AI chatbot that uses natural language processing to create humanlike conversational dialogue.	Improves efficiency, saves money and resources within the company
Adobe Podcast AI	To analyse podcast audio and generate transcripts, captions, keywords, summaries, and more.	Helps with content creation
DALL·E	To generate digital images from natural language descriptions.	Helps with image creation to avoid plagiarism
Jasper.ai	To generate high-quality copy for emails, ads, websites, listings, blogs & more.	Helps with email, ads, content generation, etc.
Surferseo	To analyze the company page against the top-ranking pages and provides the company with SEO recommendations.	Helps with SEO optimization.
Zapier AI	To connect AI by Zapier with thousands of the most popular apps.	Helps to automate work and save time
make.com	To allow companies to visually create, build, and automate workflows.	Helps to execute tasks and automate workflows.
Nifty	To organize, plan and prioritize work.	Helps with planning work within the company.
Motion.ai	To keep track of schedules, recurring tasks, and meetings.	Helps with time management.
Grammarly	To provide grammar and spell checking, plagiarism detection services, and suggestions about writing clarity, concision, vocabulary, style, and tone	Helps with writing.
AutoGPT	To assess its work, improve upon past experiences, and leverage its history to generate more precise results.	Helps with text generation and coding.
copy.ai	To create texts, copywriting, or articles in a natural writing style	Helps with content generation, etc.

Table 1: Names, function and benefits of AI tools



## **Thesis structure:**

Chapter1: Introduction

Chapter2: State of the art

Chapter3: Methodology

Chapter4: Internship- Case study

Chapter5: Data analysis

Chapter6: Discussion

Conclusions

References

**Keywords:** Entrepreneurial marketing, Artificial intelligence, Marketing, Technology adoption, Customer journey, AI tools, Advertising.

\*1.AI (Artificial Intelligence) is the simulation of human intelligence in machines, enabling them to learn, reason, and make decisions.

\*2.SEO (Search Engine Optimization) is the process of optimizing a website to improve its visibility on search engines, increasing organic traffic through relevant keywords, quality content, and technical enhancements.



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### 3. Chapter1: Introduction

Advances in digital technology have created new prospects for entrepreneurial activity[3]. Nowadays Artificial Intelligence (AI) is driving a technological revolution, fundamentally transforming the utilization of intellectual capital, and maintaining awareness of its rapid advancements is becoming increasingly essential [4]. Entrepreneurs and business owners can use digital technologies to acquire a competitive edge in the marketplace. Furthermore, the ability to engage potential clients, enhance value, and automate repetitive tasks is fundamental to the process of digitalization. [5].

With the emergence of new AI tools and chatbots such as "ChatGPT", researchers and business owners have shown an increasing interest in AI (Artificial Intelligent) and its application in entrepreneurial marketing [6]. AI-based solutions have the ability to transform the world of external marketing, emphasizing the importance of entrepreneurs and business owners being current with these new technologies in order to remain competitive in the industry [7]. Companies can save time and increase efficiency by automating previously completed operations using AI (Artificial Intelligent) solutions. AI (Artificial Intelligent) offers the possibility to boost productivity while lowering costs [8]. However, despite the benefits of artificial intelligence, it is critical to recognize that there are growing concerns about the possibility of AI (Artificial Intelligent) replacing low-skilled service-based and professional jobs, which could lead to an increase in unemployment and inequality in the coming years. As a result, it is critical to obtain insight into how organizations that do not adopt new technology risk losing market competitiveness [9].

Marketing developed in the early twenty-first century, and digital networks became increasingly integrated into marketing strategies. Over time, internet marketing campaigns became the primary focus [10]. These efforts featured a variety of external marketing tactics, such as content marketing, advertisements, email, SEO (Search Engine Optimization), and social media. As technology advances, artificial intelligence is being more widely used in marketing and other businesses [11]. AI has



demonstrated that it can play an important role in marketing, boosting corporate efficiency, and creating new prospects for enterprises [12]. New AI (Artificial Intelligent) technologies for producing marketing solutions may swiftly adapt to changing business requirements and provide appropriate communications and solutions that benefit all parties involved [13]. Several prior research examined the impact of artificial intelligence on individual digital marketing functions [14]. However, there have been few studies on how artificial intelligence influences businesses and content marketing, as well as the types of AI-based external marketing tools that businesses use to gain a competitive advantage [15].

In summary, the purpose of this thesis is to contribute to existing research on AI (Artificial Intelligent) and marketing by expanding the scientific understanding of AI tools and their integration into businesses, as well as identifying AI tools with the potential to improve digital marketing.

The objective of this thesis is to enhance the understanding of the current integration of AI-based technologies in digital marketing and to further investigate their applications. This approach aims to contribute to ongoing research in two distinct areas.

First, by conducting interviews with businesses, it seeks to examine the current adoption and utilization of AI (Artificial Intelligent) in entrepreneurial marketing, providing insights into how companies leverage AI tools to enhance their online marketing strategies.

Second, it aims to advance scientific knowledge beyond the general application of AI (Artificial Intelligent) in marketing by analysing the specific strategies businesses employ, offering a more nuanced perspective on AI-driven marketing practices.



### 3.1 Key concept

Digital technologies and services have increased the accessibility of information and created considerable opportunities for technology users to receive personalized services and for marketers to send targeted advertisements [16].

Pain point	Specific problems customers especially potential customers want to solve [17].
Customer journey	The path a customer takes from learning about a product to answering their questions to making a purchase or engagements, between a supplier and a customer [18].
Touchpoint	Each interaction with a brand during a purchase journey [19].
Target audience	The group of people most likely to purchase a company's products [20].
Marketing funnel Sales funnel	<p>A marketing funnel is just a framework; it helps showing how customers move from knowing about a business to purchasing something that structure maybe a little different depending on the business [21], [22].</p> <p>-Awareness: when a potential customer encounters a brand for the first time maybe through an advertisement or recommendation, the customer doesn't know a lot about the company, they know it exist [21].</p> <p>-Consideration: When potential customers from the last stage try to do business with a company by browsing its website or comparing different brands, making a good impression is key [21], [23].</p> <p>-Conversion: When someone decides to purchase and become a customer, we should demonstrate their value and provide a user-friendly experience [24].</p> <p>-Loyalty: When customers make a purchase, you want to give them reasons to return [25].</p>
Business-to-business (B2B)	The interactions and transactions between two businesses. This can include sales, services, marketing, or information from one company to another [26], [27].
Business-to-customer (B2C)	The interaction and transactions that happen between a business and an individual end-customer [27].



Artificial Intelligence	A computer system where algorithms can learn from existing data based on information, leading to predictions and decisions [28].
Machine Learning	The computer science technology that uses mathematical models, statistical algorithms, and available resources to make informed and intelligent decisions [29].
Deep Learning	The subfield of machine learning uses AI networks where neural networks aim to mimic the human brain [30].
Digital Marketing	Digital marketing or online marketing involves Using the internet and other digital communication tools to promote brands to prospective customers. Text and multimedia messages are used as marketing platforms in addition to web-based advertising, social media, and email. [31].
Content Marketing	A method for attracting, engaging, and retaining an audience that involves developing and sharing relevant articles, videos, podcasts, and other media [32].

Table 2: Key concepts of marketing



## 4. Chapter2: State of the art

This chapter investigates AI technology and how it works before getting into the marketing fundamentals to which AI can be applied. This study intends to provide insights into the background and present status of research on AI, machine learning, deep learning, content marketing, entrepreneurial marketing, the customer journey, and how AI tools are used today.

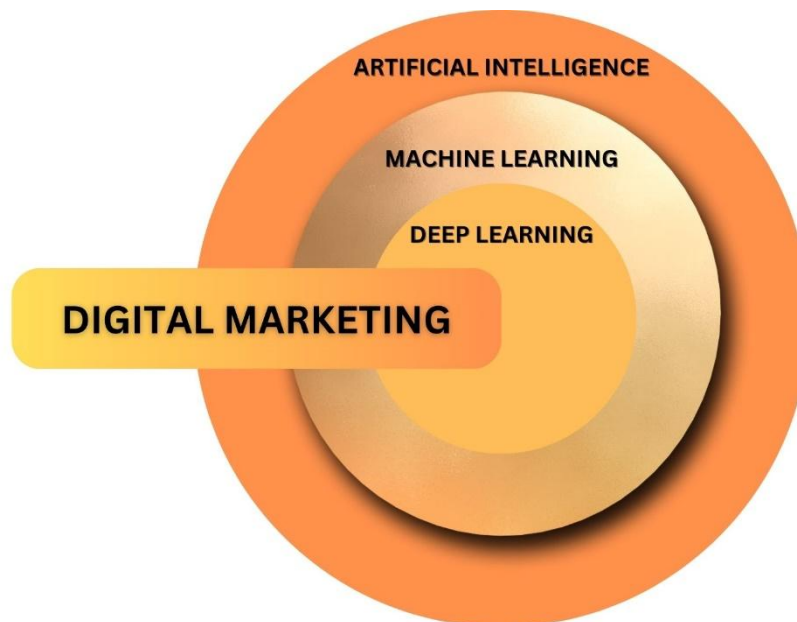


Figure 1: Digital marketing and AI, machine learning, deep learning.

### 4.1 Part 1:

#### 4.1.1 Artificial Intelligence

The concept of using computers to simulate intelligent behavior and critical thinking was first described by Alan Turing in 1950, In the book *Computers and Intelligence*, Turing described a simple test, which later became known as the “Turing test,” to determine whether computers were capable of human intelligence. Six years later, John McCarthy described artificial intelligence (AI) as “the science and engineering of making intelligent machines.” AI began as a simple series of “if, then rules” and has



advanced over several decades to include more complex algorithms that perform similarly to the human brain. There are many subfields in AI, such as machine learning (ML), deep learning (DL), and computer vision [33]. They provided definitions of AI in four categories: thinking humanly, acting humanly, thinking rationally, and acting humanly [34].

Artificial intelligence is a new type of computer technology that is fast evolving and has a wide range of possible use cases for analysing various industries, including health care, food safety, and mineral processing [35], [36]. AI and machine learning can be described as computer systems in which algorithms can be trained to construct an existing data set and, using that information, make statistically driven predictions and judgments [37]. The ability of AI to use a substrate of data and adapt it to new data or inputs—which may be used for decision-making in various fields—makes it frequently described to as intelligent. AI's rapid adoption might open up many opportunities, but it could also raise some issues [38]. Recent developments in artificial intelligence have sparked an increasing conversation on the ethics of AI and whether it should be regulated. This can potentially change what AI technology currently permits [39]. In this thesis, artificial intelligence (AI) will be described as the area of computer science that focuses on creating intelligent computers that can carry out jobs that normally call for human intellect. Simultaneously, machine learning, a branch of artificial intelligence, may be used to realize the full potential of AI as it can learn from vast volumes of data [40].

#### **4.1.2 Machine Learning**

Machine Learning (ML) is a subset of AI that spans various methods and technologies, allowing AI to make intelligent judgments based on available data.

ML is cutting-edge computer science technology that has the potential to alter how businesses operate and achieve their goals in the future [33]. Furthermore, machine learning may be classified into three categories: supervised, unsupervised, and reinforcement ML [41]. The data employed in machine learning is precise, vast, and



distinctive, allowing computers to generate predictions. Improvements in machine learning technology have already begun to affect employee behavior in businesses, as machines are more efficient than people; robots do not require natural resources, emotional support, or sleep [42]. As technology advanced, several businesses began adopting machine learning to fulfill corporate objectives and enhance decision-making, efficiency, and production [43]. Because of technology advancements, machine learning has become a significant tool in business; small and large businesses may collect large amounts of data that computers can evaluate quicker than people[44]. As a result, organizations that do not adopt new technology will likely lose their competitive advantage in the marketplace [44]. Furthermore, there are several limitations to using machine learning in a corporate setting, and a company needs to have modern technology, big databases, expert programmers, resources, and ethical issues to use ML [45]. Furthermore, machine learning must be supervised and trained by experts; otherwise, the technology will not function properly[46]. Despite increasing interest in machine learning, the field is still in its early stages and needs more attention and study to progress [46]. Future estimates indicate that AI can make intelligent decisions based on accessible data in digital marketing, data analysis, decision-making, and customer experience [46]. ML can potentially change the present business environment, so firms must work hard to incorporate new technology [45].

AI's continued progress, aided by its subsets of machine learning and deep learning, has enabled it to be used for marketing objectives. Marketing has also evolved into the digital era, where digital marketing has been more widely accepted, allowing it to blend with AI.

#### **4.1.3 Deep Learning**

Deep learning has received increased attention from the media, scientists, and business experts because of its capacity to analyse massive volumes of data generated by artificial neural networks [33]. Furthermore, deep learning is also known as representation learning. Unlike typical machine learning approaches, deep learning





can automatically learn many features for various tasks. Deep learning is applied in a variety of areas, including cybersecurity, data analysis, virtual reality, healthcare, and text analytics. DL is a cutting-edge technique that relies on three or more artificial neural networks [47]. Neural networks attempt to emulate the human brain's ability to learn from enormous volumes of data and generate accurate predictions [48]. Furthermore, the growth of this revolutionising technology has enabled scientists to create models that can replace human operators in various commercial domains [49]. DL has impacted many diverse industries and businesses. Businesses are actively adopting deep learning (DL) technology to create a significant impact globally, seeking a competitive edge by acquiring more advanced DL capabilities. This pursuit fosters innovation within the industry, driving progress and increasing profitability, while also contributing to the ongoing refinement and development of the technology itself. [50]. Since deep learning technology has already surpassed human performance in many areas, it can be applied across a wide range of business functions. These applications include optimizing advertisements, predicting prices, tracking customer behavior, analyzing large datasets, personalizing experiences, utilizing biometrics for security, improving web page rankings, conducting sentiment analysis, and more. Its advanced capabilities enable businesses to enhance efficiency, decision-making, and customer experiences. [51], [52]. Even though deep learning is very powerful, it has some drawbacks. One major issue is that it's hard to understand how these models make predictions because they don't clearly explain their decision-making process. This lack of transparency can make it difficult to trust or improve the models. [53]. Furthermore, deep learning algorithms are susceptible to adversarial instances, in which minor changes to the input data lead the model to make inaccurate predictions. Another disadvantage of deep learning is that it requires huge volumes of particular data, which can be difficult and time-consuming to gather [53], [54].

Finally, deep learning, AI, and ML are expensive to implement in business. The latest technology will continue to improve and, over time, will assist firms in optimizing operations, reducing the number of unproductive staff, and dealing with data



protection and ethics issues. While DL focuses on employing artificial networks to analyse huge quantities of data.

## **4.2 Part 2:**

### **4.2.1 Digital Marketing**

A marketing plan is essential for corporate success. Currently, marketing may be separated into two categories: conventional marketing (newspapers, magazines, and television ads) [55], [56] and digital marketing (social media and email) [57]. Digital marketing is described as using new technology to assist businesses in attracting new consumers by providing individualized content and services. To reach a larger audience computers, telephones, tablets, and other devices are commonly utilized in digital marketing initiatives [57]. businesses may profit from digital marketing by accessing client information such as behavior and preferences. For these reasons, they also recognize the value of digital marketing in today's market [58]. As a result, they must employ digital and conventional marketing strategies to gain a competitive advantage in the industry [59]. Digital marketing has opened up new chances for small and large organizations to reach more prospective customers and increase brand awareness. Businesses that employ digital marketing should anticipate greater results than conventional marketing since modern technology allows them to collect more data, optimize marketing campaigns, save money, and target particular customers [60]. A variety of technologies may be used in digital marketing to contact potential clients. Examples of tools include online service tools, blogs, SEO (Search Engine Optimization), landing sites, email marketing, graphic design, lead enrichment, and conversion optimization tools. Businesses that do not use marketing tools risk losing a competitive advantage [61]. As a result, the organization must adopt cutting-edge technology, realizing that to remain competitive, it will need to master new technologies at a rapid pace. AI is evolving as new cutting-edge technologies are developed, potentially increasing the quality, efficiency, and efficacy of digital marketing [62]. AI-based digital marketing allows businesses to get a competitive



advantage in the industry. They may utilize AI-powered digital marketing to reach more prospective customers, get better consumer insights, and deliver tailored promotions [63].

3 main categories of digital marketing:

- Paid media: any form of digital promotion in which a brand pays to place online ads (Banner, Video, Social media, Shopping, Pop-up), it produces results quickly [64].
- Owned media: all the digital content a brand fully controls. (Website, Content, Blogs, eBooks, Social media content, Case study), by explaining why brands make certain decisions and conveying the result through real-world examples [65].
- Earned media: positive digital exposure generated through personal or public recommendations generated by customers in response to things like product quality and customer service (Social media, Mentions, Blog posts, Written or video reviews, positive press coverage) [65].

Developing valuable content that attracts and keeps customers is critical in digital marketing. "Content marketing" is a subgenre of digital marketing that focuses on developing content for digital marketing strategies to improve campaigns and create tailored experiences.

#### **4.2.2 Content Marketing**

Nowadays, organizations frequently utilize content marketing [66]. Furthermore, content marketing is part of a larger marketing plan that involves a variety of channels such as blogs, SEO (Search Engine Optimization), case studies, and infographics. Content marketing increases awareness and attracts new consumers [67]. In addition, content marketing can help in customer conversion, lead conversion and nurturing, customer support, customer upsell, loyal subscribers, and brand awareness/reinforcement [68]. Furthermore, tailored content for a certain audience may improve



the businesses' reputation and profits [69]. According to [70] explain why business owners and CEOs should use modern technology in marketing to provide more targeted content for potential clients. It is evident that as new technologies evolve, large and small firms will increasingly employ content marketing. "Artificial intelligence" is a technology with the potential to transform content marketing. AI can help marketers do their tasks more quickly [71]. Artificial intelligence may be utilized in content marketing in various ways, including as a support tool for content modification, preparation, and implementation. Furthermore, AI can assist businesses in issue-solving scenarios. AI may also help with content marketing blunders, optimization, feedback, forecasting, and staff assistance [72].

Finally, it is evident that content marketing is critical for business success, and it may also be used as part of a strategic marketing plan to attract new customers. A crucial component of content marketing is outlining a consumer's path while interacting with the brand. Businesses may obtain insights into their marketing strategy by knowing their consumers' preferences and expectations for the information they are exposed to.

#### **4.2.3 Customer Journey**

To effectively promote a product or service to a consumer, it is necessary to understand their behavior and track specific touchpoints before, during, and after purchase; this process is known as the "customer journey" (CJ) [73]. The CJ is a phenomenon that has only recently gained attention in the scientific community because of a lack of empirical data, and their goal was to evaluate the existing literature on the issue [74]. The authors discovered that CJ monitoring can assist managers in better understanding their customers' decision-making processes, which can be useful for allocating resources. According to [75] They classify the many touchpoints in the CJ as cognitive, behavioral, emotional, sensory, spiritual, and social. The authors also divided the CJ into three distinct periods. They were pre-purchase, purchase, and post-purchase. They also define the pre-purchase phase as the customer's entire experience before being sold a product, and due to the new world of digital marketing, the customer may have a much more comprehensive selection of options available than when they only saw



offline advertising [75]. This can complicate the CJ because it is no longer linear, has become iterative, and can be time-consuming [76]. When the CJ becomes a complex process, the marketer may need to consider several elements such as psychology, motivations, frequency of purchase, sociodemographic background, and the number of touchpoints throughout the journey [76]. The second stage to examine in the CJ is the purchase phase, which is expected to incorporate all consumer contacts with the brand and its surroundings, according to [75]. The touchpoints in the second stage may differ, but they may be defined as selection, ordering, and payment [75]. The post-purchase phase is the final step, and it is intended to include all encounters with the brand and its surroundings following the purchase [75]. The increasing quantity of data collected in marketing around the CJ in each step can be an issue since it is frequently both particular and increasingly dependent on its clients, making it less adaptable to changing industry trends [77]. A CJ can be divided into several phases, with pre-purchase touchpoints such as search/click activity, social media, email, or chatbots. E-commerce touchpoints may exist during the purchasing step [77]. The post-purchase phase may include touchpoints comparable to the pre-purchase stage, such as social media, surveys, and email/chatbots [77]. According to [78], the various techniques must consider that B2B customers are often driven by cost savings, risk management, and efficiency, unlike B2C consumers, who may be motivated by emotional appeal, prestige, or convenience [78]. Depending on the location, there may be some legal differences between B2B and B2C marketing regarding how certain messages are presented [78].

Mapping the client journey can assist a firm in understanding and enhancing its marketing activities. This is especially critical when limited marketing resources are available, as is typically with smaller enterprises. This has resulted in an emergent entrepreneurial marketing approach.

#### **4.2.4 Entrepreneurial Marketing**

Entrepreneurial marketing is crucial for small and medium-sized businesses (SMEs) with limited resources, such as money, people, and intellectual capital [78], [79]. These



limits frequently entail smart budget allocation and the necessity for speedy marketing outcomes [80]. Marketing strategy is critical for SMEs because it allows them to gain quick market access, which is vital when financial resources is scarce [80]. Marketing strategy is recognized as the most critical aspect for success in organizations with few resources, such as startups, owing to the conditions and challenges that SMEs confront [80]. The rise of digital transformation has greatly impacted on entrepreneurial marketing, and the extent of digitalization can affect a business's marketing approach [81]. SMEs may rely totally on digital marketing or use a blend of digital and conventional marketing, depending on their level of digitization and product offering [81]. Even SMEs providing conventional items are likely to adopt digital marketing features, such as a website, due to the benefits, which include cheap cost and precise client relationship management [81].

In contrast to traditional marketing, entrepreneurial marketing stresses using innovative techniques and methodologies to fulfill marketing objectives while avoiding excessive resource consumption or large recruiting [82], [83]. It is a favoured strategy for new businesses looking to reach their target clients and prosper in unpredictable settings [82]. While entrepreneurial marketing is often associated with small enterprises, larger corporations may also use an entrepreneurial spirit to drive their marketing activities [84]. However, maintaining an entrepreneurial marketing strategy in larger businesses sometimes requires a visionary CEO. By adopting entrepreneurial marketing, SMEs and bigger corporations may use creative tactics and technologies to optimize their marketing efforts, react to changing market dynamics, and accomplish growth while utilizing fewer resources [84].

Overall, entrepreneurial marketing provides a cost-effective marketing technique. AI can potentially improve these marketing efforts, and as technology advances, applied AI products are beginning to enter the market.



### 4.3 Part 3:

#### 4.3.1 AI Tools

AI is a technology with many applications, but when used for a specific activity, it requires training and specialized customisation to accomplish the work effectively [85]. With the fast growth of AI, there has been a significant increase in the number of AI tools available for commercial usage on the market [85]. To better evaluate the performance of AI tools, studies are shifting from utilizing a single AI tool to employing a hybrid of tools to discover which tool performs better in an apples-to-apples comparison [85]. AI solutions that could be used in marketing include CRM systems, chatbots, customization tools, predictive analytics, picture recognition, and sentiment analysis [86]. These technologies can help organizations improve their client experience [87]. Furthermore, AI increases business performance [88] compared to when it is not applied [87]. Furthermore, firms increasingly utilize AI solutions to handle legal data while saving time and costs. Some businesses utilize AI technologies to evaluate rivals, identify trends, and develop strategic plans to obtain a competitive advantage [86]. Furthermore, some organizations utilize AI technologies to monitor staff effectiveness, while others use AI to discover reliable suppliers in the marketplace by pulling data from digital platforms and other systems [89]. Furthermore, AI can monitor client behavior and digital footprints to understand better customer wants and increase conversion rates [90]. For example, Google leverages AI and machine learning to increase efficiency and user experience. In recent years, Google and its partners have invested significantly in AI technologies to improve search speed, image recognition, and search assistance[91]. Businesses should implement new AI tools to enhance their overall capabilities. However, a few enterprises implement AI tools to improve their business operations [92].

To summarize, AI tools bring both potential and challenges in commercial settings. They are used by a variety of organizations to automate processes, save resources, and time. Finally, AI tools have the potential to significantly impact the fundamentals of startups, medium-sized businesses, and large corporations. To use AI tools best,



businesses must be aware of new technologies and how they can be applied within the industry. Even though AI and its tools can potentially improve businesses, some drawbacks to AI should be highlighted.

#### **4.3.2 Negative Aspects Of AI**

In 2022, AI significantly impacted digital channels and campaigns, creating a new technology trend [93]. Researchers have explored its use in marketing, business areas, and enhancing efficiency, effectiveness, and cost reduction [94]. AI is currently utilized in content, website, video, images, and post-generation, making it a crucial tool for businesses to stay competitive and efficient. AI can save business employees time and resources, increasing efficiency [95]. However, research shows negative aspects like data safety and job losses, ethical concerns, legal and regulatory issues, and ethical predicaments [95]. These issues highlight the need for careful consideration and regulation in AI use [96]. Furthermore, AI databases could gather a large amount of data on potential customers and develop a thorough understanding of their requirements and behaviors, which may raise privacy concerns [96]. Furthermore, AI has the potential to dramatically alter society, particularly in terms of racial and economic injustice [97]. AI may eventually become unmanageable if it learns to govern itself. If so, there is a risk of it becoming manipulative by spreading skewed information, perhaps affecting political or public polarization [97].

To summarize, there is a complicated set of possible advantages and downsides of employing AI in business and daily life. However, business owners must take proactive efforts when implementing new technology, such as AI, to avoid potential negative outcomes, even if AI may boost corporate efficiency, save resources, and streamline work processes.

#### **4.3.3 Innovation Adoption in Companies**

The term "new technologies" refers to any type of method or equipment that offers a significant improvement, either in terms of enhanced productivity or cost savings, over the present technology for a certain activity [98]. SMEs are now looking for methods





to distinguish themselves in the marketplace and compete with larger enterprises, thus they are prepared to incorporate new technology [99]. Furthermore, decision-makers within the firm may be interested in adopting new technologies within the business for various reasons [99]. Decision-makers in organizations are willing to integrate new technologies within their businesses owing to their personality qualities and desire to generate more money [99]. Businesses can adopt new technologies based on many variables, including social influence, the utility of the technology, market shifts, prices, client acquisition, a favorable attitude toward change, age, intellect, education, and environmental volatility [99]. Additional elements include the manufacturing chain, government laws, risk management, firm reputation, network externalities, complexity, compatibility, experimentation, and internal and external social networks [100]. New technologies are more likely to be adopted by young entrepreneurs, bright founders, founders with a university degree, and those with a university education [100].

In conclusion, scientific studies demonstrate that various elements, namely the attributes of decision-makers, the environment, the size of the organization, competitive advantage, and cost, can influence the adoption of new technologies in enterprises. Ultimately, the literature study thoroughly demonstrates the development of AI technology, marketing, and acceptance. The research question of this work is derived from the identification of the research gap.

#### **4.4 Question and Problem**

Recent studies have looked at many applications and AI's impact on businesses. AI is a fast developing [101], [102], [103]. Additionally, AI is a very flexible technology, and studies have examined a wide range of AI use cases to determine how it might be used for business purposes across sectors [104]. The use of AI in marketing initiatives is one of these use cases that has been receiving increasing interest [76]. Important topics have been covered in today's research on AI and marketing, such as how AI can handle large amounts of customer data to better understand the process and make wise judgments [76]. Research by (T. Davenport, A. Guha, D. Grewal, and T. Bressgott,



“How artificial intelligence will change the future of marketing,”) [105] also used literature to make similar conclusions about AI’s wide application and potential goal in marketing. These studies can distill a large body of material into a comprehensible context and provide a decent overview of AI and its applications. However, they haven't gathered any firsthand information on the current state of AI applications. AI tools frequently need to be specialized to do the task as accurately as possible [75]. [106] looked at the potential applications of AI in a particular use case, such as CRM.

This research demonstrates how to comprehend the more specialized and applicable use cases of AI technology. It doesn't, however, look at how AI can be used and benefit from entrepreneurial marketing, which might save money compared to other businesses that use traditional marketing. A growing number of businesses are beginning to transition to a digital business model, which creates many marketing opportunities and pushes the evolution of marketing's digitalization. The customer journey and the ways AI can enhance digital content marketing have been the subject of literature[66].

However, limited is known about how businesses are now using AI for entrepreneurial marketing and how consumers embrace AI technologies to enhance their customer journeys when used in online content marketing. Many businesses struggle with marketing, which may be a major obstacle to their existence and force them to employ creative marketing strategies.

#### **4.5 Aim of the study**

This study aims to investigate the potential advantages of AI-based content marketing solutions for businesses. New AI technologies, for instance, have been demonstrated to have a major influence on digital marketing initiatives. AI solutions can save money and increase the efficiency of startup marketing initiatives. To better understand the company's strategy, the AI tools they employ to enhance marketing campaigns, and whether they leverage the newest technologies to increase productivity [66]. This thesis will examine how AI tools are incorporated into businesses’ content marketing



initiatives. This thesis also seeks to give theoretical and practical insights into the factors influencing the adoption process of new technologies, such as artificial intelligence.



## 5. Chapter3: Methodology

### 5.1 Research design

This thesis research design is based on a model by (Sami Rustholkarhu, Sebastian Toukola, Leena Aarikka-Stenroos, Tommi Mahlamäki [107] ), which combines several data collection approaches to identify managing B2B customer journeys in digital era: Four management activities with artificial intelligence-empowered tools. The research used a sequential data collection method, involving state of the art for theoretical data and qualitative interviews for empirical data. State of the art identified key AI (Artificial Intelligent) use themes in online content marketing, providing a foundation for exploring AI (Artificial Intelligent) adoption within companies through interview questions. This thesis also uses the Innovation Diffusion Theory, developed by Everett Rogers in 1962 [108], to study the diffusion of innovation, new ideas, or products in society. This widely used framework explains how these ideas, products, and technology are adopted over time, providing a comprehensive understanding of technology adoption. The adoption rate of AI tools in online content marketing is influenced by innovation characteristics, communication channels used to promote it, and adopter characteristics. The theory focuses on innovation characteristics, adopter characteristics, and communication channels to understand the advantages and disadvantages of AI tools, as well as the decision-making process of early adopters [108].

### 5.2 Data collection

The data collection process involves former: secondary literature review [109] and exploratory qualitative interviews. Phase one provides a comprehensive overview of AI, content marketing, and customer journey. Latter involves qualitative interviews to understand how AI tools are integrated into marketing efforts and customer journeys in B2B and B2C contexts.

Secondary data, collected by external sources, offers high availability of information from previous studies, providing valuable perspectives for new research. However,



according to [109] Secondary data may not provide all the necessary information for a research question and may require supplementation with primary data.

State of the art is used to identify empirical evidence for a specific topic, minimizing bias and ensuring reliable findings. This thesis uses a parallel main concept, collecting secondary data by clearly defining the research question and relevant keywords [110]. The study synthesized data to determine the impact of AI tools on content marketing, and also utilizes explorative qualitative interviews for accurate data collection, using in-person or group interviews via online platforms like Teams, and Google Meet.

Personal interviews provide valuable data for evaluating AI's influence on content marketing and customer journey. Interviews were conducted with 10 companies' decision-makers, all familiar with entrepreneurial marketing. The selection of participants from various sectors, roles, and company sizes ensured a diverse perspective on AI adoption and motivations for incorporating AI in marketing strategies. This approach provides a comprehensive understanding of unique requirements for AI integration.

	Sector	Role	Number of employees	Target market B2B/B2C
1	IT consultant	CEO	3	Companies
2	Medical	Marketing management	30	Skincare doctors Hospitals
3	Medical	Sales management	25	Medical distributors
4	Medical holding	Marketing management	>300	Hospitals Distributors Individuals Medical companies
5	Production	CEO	20	Children's clothing shops
6	Medical	CEO	8	individuals
7	Construction	Consultant	11	Business leaders
8	Shoes	Social media admin	3	> 20 years old individuals
9	Production	Sales management	40	>20 years old women's clothing distributors
10	Industrial software and services	R&D	5	Municipalities

Table 3: 10 interview participants



## 6. Chapter4: Case study

### Marketing strategy for AI applications

#### 6.1 Company history

Vega Research Laboratories s.r.l. (VRLabs) is a startup founded by three professors of the Computational Intelligence Research Group of the University of Genoa in 2017 to build fully autonomous AI by extending breakthrough technology for analysing big data and complex real-world problem-solving to move your companies forward. The focus is the development of algorithms and systems for leading-edge applications, leveraging top skills to target various industrial sectors and markets.

#### SWOT Analysis

Swot is an important analysis by focusing on the internal and external environment of the company, **SWOT** stands for Strengths, Weaknesses (Internal); Opportunities and Threats (External). What we have to do, focus on Strengths and Opportunities and work on Weaknesses and Threats to improve our situation for achieving our goals easier and faster.

<b>Internal</b>	<b>Strengths:</b> <ul style="list-style-type: none"><li>-Strong AI knowledge</li><li>-Proficient shareholders in the field of AI</li><li>-Highly profitable</li><li>-Providing extensive and customized services</li></ul>	<b>Weaknesses:</b> <ul style="list-style-type: none"><li>-Small start up</li><li>-No official budget for marketing</li><li>-Not enough brand recognition</li><li>-Slow customer growth</li></ul>
<b>External</b>	<b>Opportunities:</b> <ul style="list-style-type: none"><li>-Access to lots of sources</li><li>-Access to new graduates that lead to new and updated skills</li><li>-Global expansion</li></ul>	<b>Threats:</b> <ul style="list-style-type: none"><li>-Growing competition</li><li>-High cost of marketing</li><li>-Expensive new marketing campaigns</li></ul>
	<b>Positive</b>	<b>Negative</b>

Table 4: SWOT of Vega Research Laboratories s.r.l.



By implementing of leading-edge and disruptive technologies, Vega Research Laboratories s.r.l. (VRLabs) helps clients create value for their businesses based on artificial intelligence, Machine Learning, Blockchain, Extended Reality, and other Emerging ICT technologies.

Vega Research Laboratories s.r.l. (VRLabs) aims to develop through collaborative partnership products and new technologies that are vertical and/or transversal to industrial corporations, thus supporting the expansion of their businesses and consolidating their technological position in respect to innovation and new technologies.

## 6.2 Problems

I had the opportunity to join Vega Research Laboratories s.r.l. (VRLabs) as a marketing intern. Given the organization's focus on cutting-edge technologies and its engagement with recent graduates, Vega Research Laboratories s.r.l. (VRLabs) holds significant potential for cross-industry collaboration.

Vega Research Laboratories s.r.l. (VRLabs) offers consulting services to companies seeking to enhance the value of their data through the application of artificial intelligence and related technologies. The company provides a comprehensive suite of tools, software resources, methodologies, and expertise to collaboratively develop intelligent and customized solutions, with a particular focus on the healthcare, life sciences, industrial production, logistics, and public sectors. Given the rapid advancement and significance of this field, the presence of powerful companies and intense competition is a critical factor that must be carefully considered.

Vega Research Laboratories s.r.l. faced a significant challenge in establishing its identity as an artificial intelligence firm like weak online presence, insufficient marketing strategies, strong competition and for solving all of them AI marketing tools were needed to speed up the process. A crucial first step in its marketing efforts was to develop a comprehensive presentation, a well-designed website, and an active LinkedIn presence. Without these foundational elements, the company becomes less



accessible to potential customers, who often rely on online resources as their first point of contact. To effectively communicate its capabilities and attract new business opportunities, Vega Research Laboratories s.r.l. needed to cultivate a professional and engaging online presence, integrating both traditional and digital marketing strategies.

Vega Research Laboratories s.r.l. identified a critical need for support in leveraging effective AI tools for marketing. To enhance their outreach and engagement, they sought assistance in utilizing advanced AI-driven strategies that could optimize their digital presence, streamline campaigns, and improve client interactions. Implementing these tools was essential for maximizing efficiency and ensuring their marketing efforts aligned with their position as an artificial intelligence firm.

### 6.3 Solution

Vega Research Laboratories s.r.l. (VRLabs)' main needs were to prepare presentations, redesign the website, what I had to do, it wasn't just designing a good looking website I had to implement a strong content marketing plan, improve Search Engine Optimization (SEO), and maximize LinkedIn marketing efforts to increase website traffic.

Addressing these needs is essential for establishing a strong market presence. Creating compelling presentations can help the organization communicate its value propositions effectively to potential clients and stakeholders. A redesigned website is required to provide a user-friendly experience and reflect the organization's innovative spirit.

Furthermore, an extensive content marketing plan will increase brand visibility, awareness and engagement with target consumers, while good SEO (Search Engine Optimization) methods will boost online findability. Finally, maximizing LinkedIn marketing activities will help the company's professional network and reputation.

The adoption of artificial intelligence (AI) has surged significantly in recent years, profoundly transforming the field of marketing. AI is increasingly being utilized across various domains, including content marketing, marketing automation, data analysis, and market research. As AI continues to expand its role within marketing departments, marketers are faced with a vast array of AI-powered tools. In this evolving landscape,





a marketer's ability to strategically select and effectively implement AI solutions in alignment with the company's specific needs is crucial to achieving organizational objectives.

As a marketer, I was looking to implement AI tools at every stage of my work, tailoring their use to the specific needs of the company. I will explain them in detail below.

Collectively, these solutions will allow Vega Research Laboratories s.r.l. (VRLabs) to effectively exploit its experience and capabilities in the highly competitive artificial intelligence market.

## 6.4 Methodology

This study employs a mixed-media approach [111] to strategically select and evaluate various communication channels, content types, and campaigns. By integrating multiple media types, the study aims to identify the channels and methods most effective for reaching target audiences while optimizing resource allocation.

**Content and Campaign Strategy:** When selecting channels, the study focused on defining content and campaign strategies appropriate to each platform's characteristics. Content types (e.g., images, articles, posts) were selected based on historical engagement rates and alignment with target audience preferences. Campaigns were chosen to increase brand awareness, interact with users, and find target audiences.

**Implementation and monitoring:** These campaigns were launched on selected media channels and continuously monitored to assess reach, engagement and conversion. Data were collected using metrics specific to each platform (e.g., click-through rate, engagement rate) and compared to predefined metrics.

AI tools played a crucial role in refining content and campaign strategies by analysing real-time data and predicting audience behaviour. By leveraging AI-driven insights, content was optimized for maximum engagement, and campaign parameters were adjusted dynamically to improve performance. These tools facilitated data-driven decision-making, ensuring that each platform was utilized effectively to enhance brand visibility and audience interaction.



## 6.5 Marketing plan

By considering the requirements and the focus on a Business-to-Business (B2B) model [22], targeted efforts must be put in place to enhance client visibility and engagement.

- WordPress: CMS (Content Management System) for website design,
- Migration the website from an older version of WordPress to a newer one, including a database upgrade, and added the HTTPS certificate,
- Using AI tools for creating strong content refers to content marketing,
- Using AI tools for SEO (Search Engine Optimization) to rank in SERPs (Search Engine Results Pages) and improve web traffic,
- Social marketing (LinkedIn),
- Google search console and Google analytic for data analysis,

### 6.5.1 Web design

#### 6.5.1.1 WordPress

##### CMS (Content Management System)

According to [112], [113], [114], [115], [116], WordPress allows users to easily create, manage, and publish websites and blogs. WordPress is built on PHP and utilizes a MySQL database, providing a robust framework for handling content efficiently. It is a user-friendly interface that allows anyone, regardless of technical knowledge, to customize their sites using themes and plugins. Users may easily add and update posts, create pages, and manage media, and the platform's open-source nature enables considerable community support and ongoing development. WordPress's flexibility suits for a wide range of applications, from personal blogs to big company websites.

#### 6.5.1.2 Web Design Standards

Hero section: (top fold): as soon as opening the website we can see without any scrolling.

Navbar: The logo should be on the page's middle or left side.

CTA: It should be on the top right side and left side behind the value proposition clarifier.

Hero section background: an aspirational image of what the customer wants.



Value proposition: should add value, use a philosophical statement to appeal to the inner pain they have or appeal to their aspirational identity (who they'd like to become), paint a picture of success keep your words focused on them, and their journey.

Value proposition clarifier: make sure this pushes them to action and says what your product or service is/does.

Success Nest includes these items:

- Value stack: restate three or four ways your customer will get value from your product or service and write a short description.
- Feature stack: list up to 8 of your most useful features starting with your most unique features. You may choose to write a short blurb describing.

Guru Section: It's important to communicate that you understand their biggest pain and assure them your solution will solve it. Why should they choose us? This signals you as a guide who has gone before them in their struggle.

Authority Anchors: Show that you can solve their pain. This is usually best shown with brief testimonials of satisfied customers. You might also include key relevant certifications or awards.

Or explain to them key members of the team for example Dr....

Education Section: Explanatory Paragraph(s), This allows them to read about your product or services so that they can do "due diligence". You should defeat their objections. Start with a concise "one-liner" which says the value you offer them. Include a 'continue reading' button which expands to show the rest or frequent Q&A.

What to write:

- Recap: problem, process, transformation
- Why you are qualified to help.
- What is unique?
- The stakes: risk and opportunity cost of not acting.
- Technical information.



Guarantee: They should be assured that if they are not satisfied with your product or service, you have a plan to make it right!

Lead Magnet: A transitional call-to-action (aka lead magnet): They need to see you as a Guru. Don't let people leave your site without giving them some immediate value! You get their email in return. This lets you market to them, and keep you top of mind. They'll see you as the guide who will help them solve their problem. GETTING THEIR EMAIL.

Persuasive Title: It should relate to your niche and entice you with value. Highlight that it's FREE! Appeal to fear is the best. Examples: "15 very unhealthy foods and drinks you should avoid" or three reasons why businesses fail

Open a "story loop" in their mind: Introduce the problem they need to be solved. Make sure you're giving value!

I went through all these steps because a strong framework is essential for ranking well in the SERPs.

<https://www.vegaresearchlabs.com/>

### 6.5.2 Website migration plan

WordPress Website Migration Plan with Aruba Hosting: According to [115]

#### 1. Initial State and Backup Validation

- Environment Configuration:
  - WordPress version: 5.1
  - MySQL version: 5.6
  - PHP version: 5.5
- Backup Confirmation: Current backups are valid and stored in Aruba's system.

#### 2. PHP and MySQL Upgrades

- Step 1: Upgrade PHP from 5.5 to 7.3.
- Step 2: Upgrade MySQL from 5.6 to 5.7.

#### 3. Resolving Database Connection Issues

- Step 3: Verify that WordPress is temporarily non-functional (expected behaviour). Aruba's database server IP changes during the upgrade.



- Step 4: Download wp-config.php from Aruba's file manager.
- Step 5: Update the database IP address within wp-config.php locally.
- Step 6: Upload the updated wp-config.php back to Aruba, overwriting the existing file.

Result: The WordPress site is now operational again.

#### 4. Preparing for Major Upgrades

- Step 7: Note the limitation—Aruba only supports MySQL upgrades to version 8, which might conflict with WordPress 5.5.

Solution: Plan to upgrade WordPress to 6.5.

#### 5. WordPress Upgrade

- Step 8: Upgrade WordPress to version 6.5.
- Step 9: Confirm that the upgrade was successful and the site is functional.

#### 6. Backup post-upgrade

- Step 10: Manually back up the updated WordPress files via the Aruba file manager.
- Step 11: Manually back up the MySQL database using phpMyAdmin.

#### 7. Transition to MySQL 8

- Step 12: Upgrade MySQL to version 8.
- Step 13: Update wp-config.php again to reflect the new MySQL 8 server IP.

#### 8. Data and File Management

- Step 14: Back up WordPress files pointing to MySQL 8, storing them in an OLD folder on the Aruba file manager.
- Step 15: Upload the new website's SQL dump to the MySQL 8 database. Adjust the site URL field and all URLs within the database. Place this in Database 2 in phpMyAdmin to preserve the old database.

#### 9. Deploy Updated WordPress Files

- Step 16: Upload the updated WordPress files to Aruba.



- Adjust the database settings (name, user, IP) in wp-config.php to connect with the new MySQL 8 database.
- This method was chosen for efficiency over using migration plugins.

#### 10. Final Configuration and Testing

- Step 17: Verify that WordPress 6.5 is running with PHP 7.4 and MySQL 8.
- Step 18: Upgrade PHP to 8.2 using the Aruba admin panel.

#### 11. Implement SSL Certificate

- Step 19: Request and install an Aruba-managed DV (Domain Validation) SSL certificate (included in the plan).
- Step 20: Confirm that the site is accessible via both HTTP and HTTPS. Ensure the site URL automatically updates to HTTPS.

#### 12. Enforce HTTPS and Verify Links

- Step 21: Enable automatic HTTPS redirection for all incoming HTTP links.
- Step 22: Verify that all site pages use HTTPS and redirect correctly from HTTP.

#### 13. User Restoration

- Step 23: Recreate all users (excluding the default WordPress admin user) with generated passwords.
  - Users will reset their passwords upon login to regain access.

The migration successfully upgraded the WordPress website to version 6.5, with PHP 8.2 and MySQL 8. All links are now secured with HTTPS, and the site is fully functional with the updated infrastructure.

### 6.5.3 Content marketing

In the era of digitalization,[117] given that digital marketing requires the existence of a content marketing, the success or the failure of the company's online communication depends to a significant extent on the quality of its content marketing. Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience — and, ultimately, to drive profitable customer action [118].



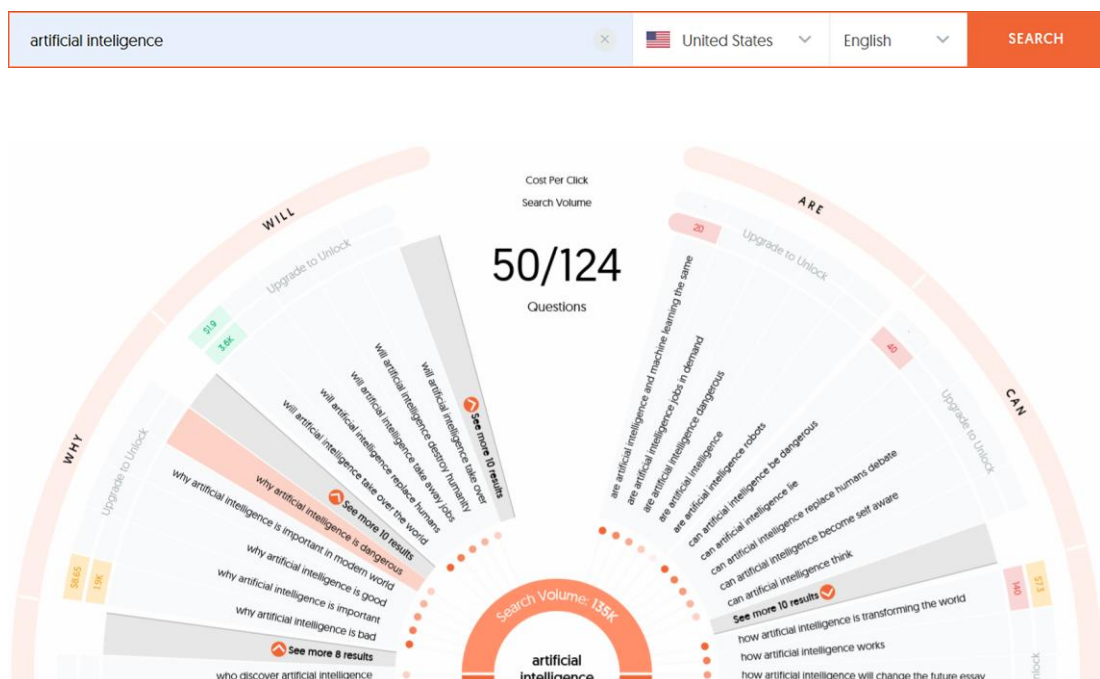
### 6.5.3.1 Tools for content marketing

Effective content marketing requires leveraging tools and strategies that ensure the creation of high-quality, relevant, and engaging material. Below is an overview of tools and methodologies that can enhance content marketing efforts.

**By following Google Search Guidelines:** [Google's search guidelines](#) provide a framework to ensure that content is well-written, clear, and user-friendly. Following these guidelines enhances the likelihood of ranking higher in search results and delivering value to the audience. The guidelines emphasize quality, readability, and adherence to search engine optimization (SEO) principles.

**Promoting Representation and Belonging:** [All-In by Google](#) offers resources and insights aimed at improving representation and belonging in content creation. This platform guides marketers in crafting material that resonates with diverse audiences, fostering inclusivity and broadening reach.

**Leveraging AnswerThePublic for Audience Insights:** [AnswerThePublic](#) is a powerful tool for identifying the most popular questions and propositions within a given niche. By analyzing these questions, content marketers can address audience concerns and interests directly, creating articles, blogs, or videos that are highly relevant and engaging.



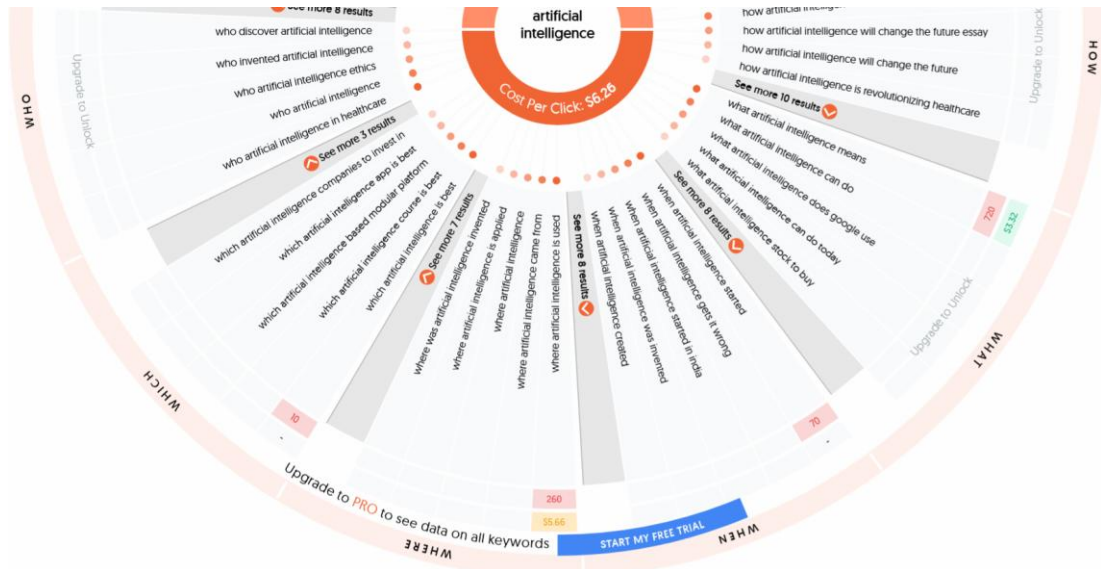


Figure 2: AnswerThePublic Result

**Utilizing eJOY:** [eJOY English](#) is a versatile tool that enhances lingual capabilities during content creation. Features include:

- Translation: Offers accurate translation support when searching or writing in Google Chrome.
- Content Summarization: Enables the evaluation of texts for relevance to specific marketing goals, helping streamline content curation.
- Grammar Checking: Ensures polished and error-free content, improving professionalism and readability.



Figure 3: eJoY logo.





**Content Refinement and Optimization:** Regularly rewriting and summarizing content ensures it remains concise, engaging, and aligned with campaign objectives. The aim is to create approximately 600 words of high-quality material that integrates all necessary features effectively.

**Grammar and Quality Assurance:** Comprehensive grammar checks help maintain professional tone and readability, making the content more appealing to a wider audience.

Incorporating these strategies into content marketing processes can significantly enhance the quality and effectiveness of campaigns. By prioritizing inclusivity, addressing audience needs, and ensuring linguistic excellence, marketers can achieve greater audience engagement and drive meaningful results.

**H2O GenAI:** h2oGPT is a text generation tool that runs your prompt through multiple language models such as Llama 2, GPT-NeoX, and Falcon 40 B, to find the one that best suits their needs, so that You can compare the results, pick and choose. This feature is free and highly useful.

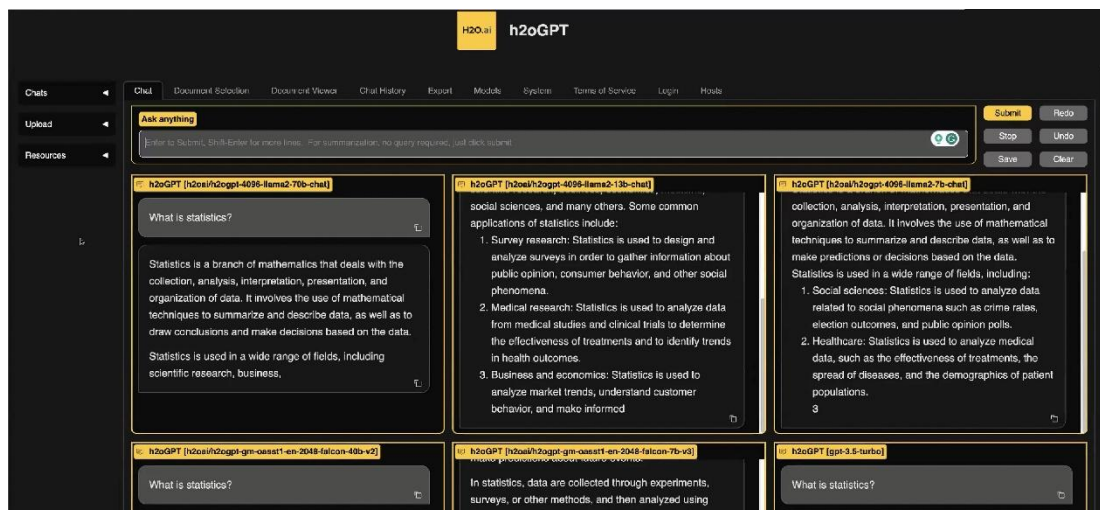


Figure 4: H2O GenAI Result

#### 6.5.4 SEO (Search Engine Optimization)

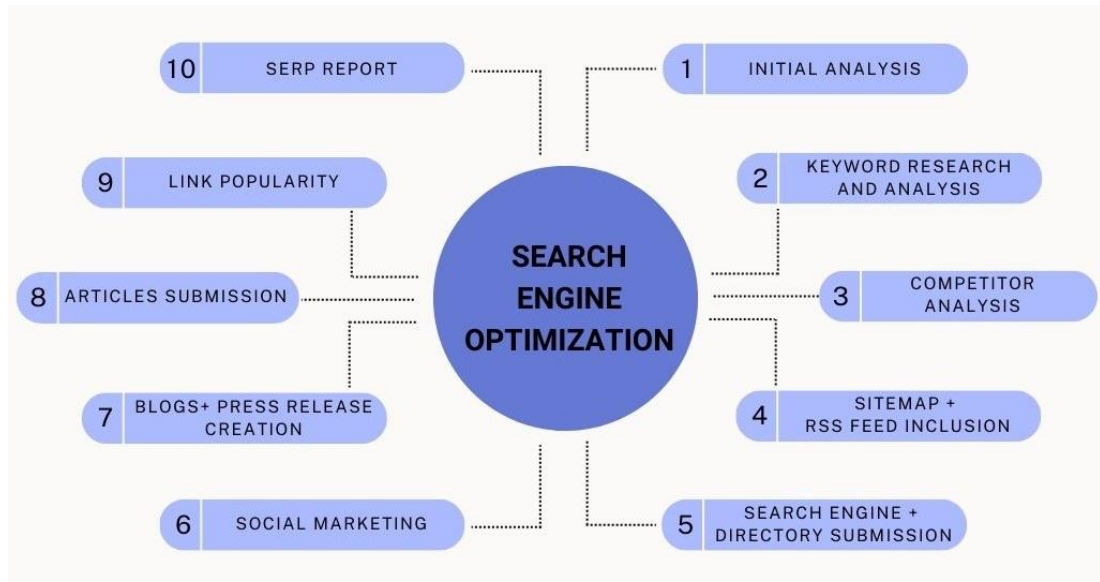


Figure 5: Search Engine Optimization overview

SEO (Search Engine Optimization) is the process of optimizing a website to rank higher in search engine results, increasing organic traffic. It involves improving content, keywords, site structure, speed, and backlinks to increase visibility on Google and other search engines.

Main process of a search engines [120]:

- 1- Crawling: The process where search engines scan the web using bots to discover new and updated content.
- 2- Indexing: Storing and organizing crawled data in Google's database
- 3- Retrieving: Display relevant indexed content in response to a user's search request

##### 6.5.4.1 Google Search Engine algorithms/ Ranking signals

Google has around 200 ranking algorithms, researchers and many marketers in professional level worked on these algorithms and they found if you consider the following rules, it will help a lot

According to [119] there are Black and White hat for doing SEO; Black hat SEO uses illegal tech to reach a good rank with bad quality content, google gives them a red flag and white hat is in contrast, precise use of tech to reach a good rank.

Marketers usually use grey hat, that is combination of black and white hat without making a serious problem.

#### 6.5.4.2 The most important algorithms for Google ranking

According to [Google's official guide and](#) [121]

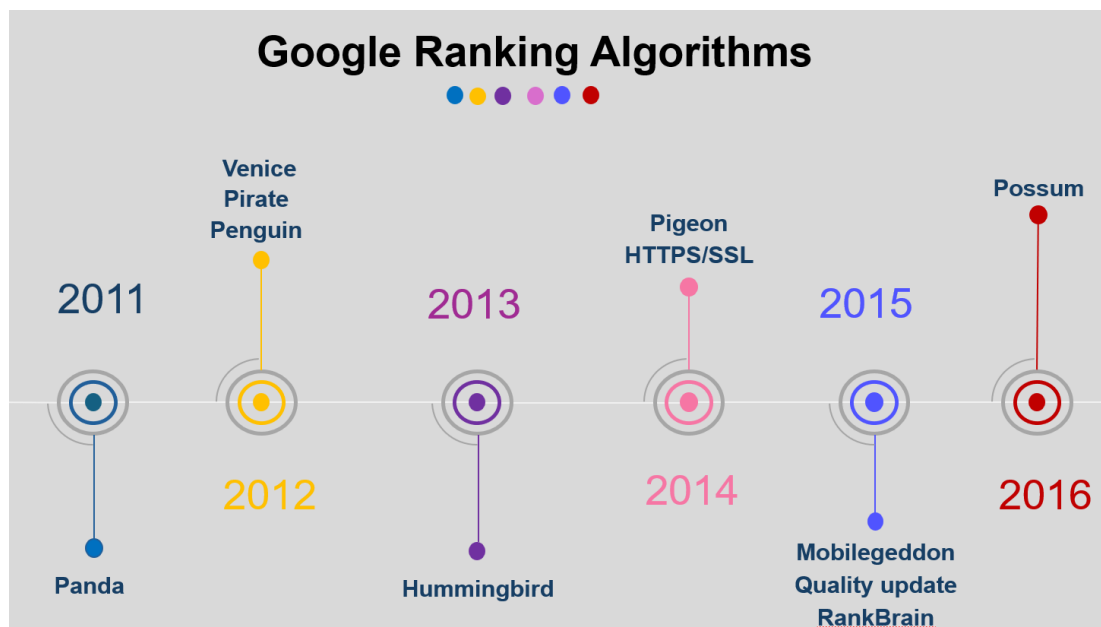


Figure 6: Important Google Ranking Algorithms

**Panda 2011:** evaluates websites based on various quality indicators, such as content uniqueness, relevance, and user engagement metrics.

Hates duplicate content, short content, keyword stuffing, excessive advertising, and user-generated spam, low-quality or thin content (stolen from other sites like affiliate sites)

Use this website for smart SEO tools to check plagiarism, if your content is not unique you can paraphrase it on the Quill Bot website.

For each 1000-word you can use the keyword five times it is the standard way.

To avoid duplication: content strategy: topic clusters



Pillar pages: the mother page with for example two thousand words

Cluster content: the child pages with one thousand words and use internal links.

We should not have some articles with similar titles as it can confuse Google.

**Venice 2012:** its main purpose is to improve the relevancy of the local search results, to provide more localized search results by considering the user's location when displaying search results.

With the Venice update, even when users do not include location-specific terms in their search queries, google can still provide results tailored to their geographical location utilizing the user's IP address.

When you search for a business Google can understand that you are looking for that business in your city, so you must use the name of the city in your content. I mean all cities that you want to work in, for example, Genova and Milan.

Optimize for the Venice update:

- Include location-specific keywords.
- Optimizing Google My Business.
- Obtaining local citations.
- Have location information.

Using backlinks from websites in your city can help you.

Use the map, use location on contact us.

**Penguin 2012:** penalize websites that use manipulative or spammy link-building practices.

It considers factors such as link relevance, anchor text diversity, link authority, and link patterns when assessing the quality of backlinks.

If you get backlink from the weak websites or unrelated ones google will increase your spam score

Sometimes your competitors buy one hundred bad backlinks for you:

In the search console, we can disobey.

**Pirate 2012:** Demotes sites in the results that have many valid copyright removal notices & violate the Digital Millennium Copyright Act (DMCA)



Google gives you a red flag but if the owner submits that you are using their product Google will remove you.

The algorithm does not remove a web page from the SERP unless the rights owner submits a reliable copyright notice. (Ex. Movies, video games, pictures, songs).

**Hummingbird 2013:** Designed better to understand the meaning and context behind search queries, focusing on user intent rather than just individual keywords.

Hummingbird emphasizes on conversational search and long-tail queries, allowing users to ask more natural and complex questions. For example:

How do I make a homemade pizza dough?

Homemade pizza dough?

Are you looking to grow your business in Genova, we can add the name of the city.

Google tries to show you the best results, so it tries to understand what you want to know.

It means you have to use questions like people search on Google. In SERPs Google shows you the most popular questions, we can even use those questions.

**Pigeon 2014:** Introduced by Google to improve local search results (google map) and the integration of local business information.

Pigeon significantly impacted local search rankings, particularly for small and medium-sized businesses.

Improve the visibility of local businesses and directory sites in search results, such as Yelp, TripAdvisor, and Yellow Pages.

Search the business directory in Genova or Milan and submit your business there.

**HTTPS/SSL 2014:** In 2014 Google announced that HTTPS would be used as a ranking signal in their search algorithm, meaning, that websites with HTTPS would potentially receive a slight boost in search rankings.

Use %& in the first or between in your password.

**Mobilegeddon 2015:** Prioritizes mobile-friendly websites and responsive web design in mobile search results, providing a better user experience for mobile device users.

Websites that were not optimized for mobile devices or had poor usability were at risk of experiencing a drop in mobile search ranking.



**Quality update 2015:** google uses E.A.T to assess the credibility and quality of web content,

Expertise: Knowledge in a particular field (show your certificates, ...)

Authoritativeness: Reputation and authority of the content creators (ORG, GOV)

Trustworthiness: Credibility and reliability of the information provided (positive sentiment on the web)

It's more about diet advice and banking services. Give you some advice and it is risky for your health or money,

You can use the Google Alert website, if someone mentions you, you can understand. Or brand24. This webpage is free for 14 days. You can check all webpages that mention your name which are + or – from Google and removing the – ones improve your rank.

**RankBrain 2015:** It uses AI and machine learning techniques to interpret, analyse, and manage complex or multi-meaning search queries that it has not encountered before, considering the context and user intent.

It uses various signals and factors, such as click-through rates, dwell time, and bounce rates, to determine the relevance and quality of search results. Example:

- Dentist in Genova
- Genova dentist
- Dentist Genova
- Dentist at Genova

**Possum 2016:** Possum improved the filtering capabilities of Google's local search algorithm, ensuring that businesses in the same building or with similar addresses did not dominate the search results.

Aimed to provide more diverse and relevant local search results by filtering out duplicate or comparable listings in proximity.

Google has about two thousand algorithms,

but they are the most important ones to change our rank.

### 6.5.5 Increase website traffic

Crafting clear and relevant content for critical page elements is essential to increasing website traffic through search engine optimization (SEO), [119].

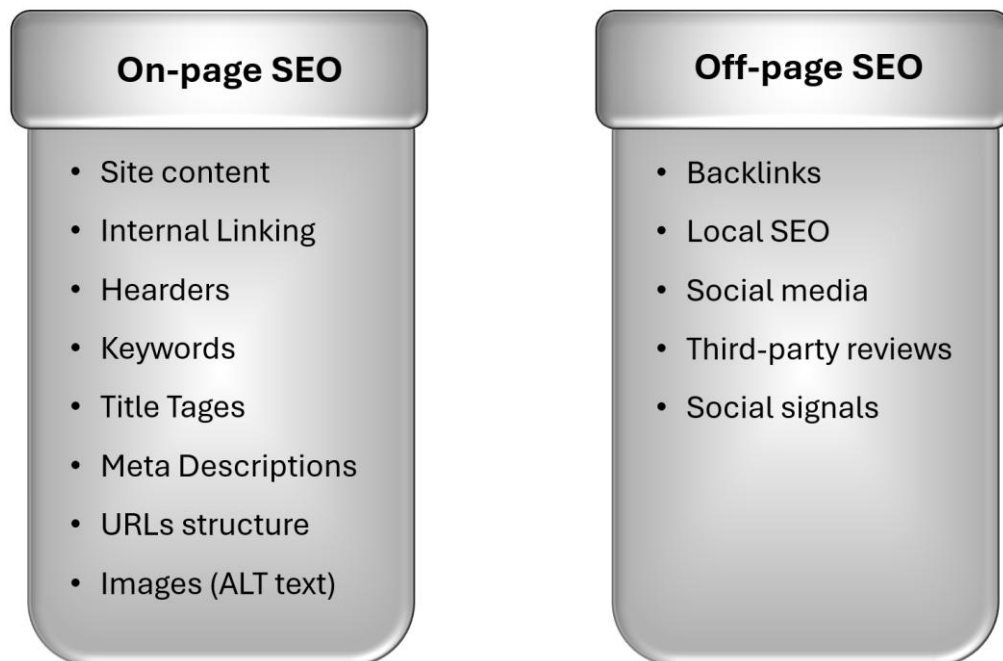


Figure 7: Some examples of on-page and off-page SEO.

**On-Page SEO** refers to what we do inside of our website and optimizing individual web pages to improve their visibility and ranking in search engine results. This includes refining elements like title tags, meta descriptions, headers, and URL structures to align with targeted keywords. Additionally, it focuses on enhancing content quality, ensuring keyword relevance, improving user experience through site speed and mobile responsiveness, and using internal links to guide navigation. On-page SEO ensures that a webpage is both search engine-friendly and valuable to users, ultimately boosting organic traffic and engagement.

- The page title should concisely describe the content, incorporating primary keywords (e.g., "Top Strategies for SEO Success in 2024").
- The header (H1) should reflect the page title while engaging readers (e.g., "Master SEO Strategies for the New Year").



- The meta description must summarize the content in under 160 characters, emphasizing the value offered (e.g., "Learn the latest SEO tactics to boost your website traffic and rank higher in search engines.").
- Image alt-text should provide a descriptive caption that aligns with the page's focus (e.g., "Graph showcasing the top SEO trends for 2024").
- Lastly, the URL structure should be short and keyword-rich (e.g., "www.example.com/seo-strategies-2024").

Additionally, incorporating structured data, internal linking, and mobile-friendly design can improve visibility.

**Off-Page SEO Strategies** refers to what we do outside of our website; Backlinks, also known as inbound links, incoming links, or one-way links, are hyperlinks from one website to a page on another website, typically anchored in text. They are essentially "votes" from other websites, signaling to search engines that the linked content is valuable and credible. These votes are in search engine optimization (SEO), influencing a website's authority and ranking in search results.

Types of Valuable Backlinks:

- **Domain Authority (DA):** Domain Authority is a ranking score that predicts a website's ability to rank in search engine results. Backlinks from websites with high domain authority are more valuable because they indicate trustworthiness and credibility.
- **Page Authority (PA):** Page Authority reflects the ranking potential of an individual page. Backlinks from pages with high PA can significantly enhance the visibility of your content in organic search results.
- **Dofollow Links:** Dofollow links are critical because they allow search engines like Google to count them as endorsements. In contrast, links with the "nofollow" tag are ignored by search engines and carry limited value.

Best Practices for Backlink Acquisition:

- **Check Domain Authority and Spam Score:** Use tools like Moz's Domain Analysis to evaluate a site's DA and spam score. Aim for backlinks from





domains with a spam score between 1–3%. Avoid links from websites with high spam scores, as they can harm your site's credibility and rankings.

- **Unique Linking Domains:** Focus on acquiring backlinks from unique domains rather than accumulating multiple links from the same site. Research by Backlinko highlights that the number of linking domains correlates strongly with higher Google rankings.
- **Anchor Text Relevance:** Ensure that the anchor text used for backlinks is relevant to your content and keywords. This enhances the link's contextual value and improves its likelihood of higher rankings.
- **Quality over Quantity:** Prioritize obtaining links from websites closely related to your niche or subject matter. Backlinks from unrelated websites may have limited impact or even harm your SEO efforts.
- By implementing these practices, you can create a robust backlink profile that enhances your website's authority and visibility in search engine results.

**Body tags/headers:** Headers, also known as body tags, refer to the HTML element `<h1>`, `<h2>`, `<h3>`, ...

These tags help organize your content for your readers and help search engines distinguish what part of your content is most important and relevant, depending on search intent.

Incorporate important keywords in your headers but choose different ones than your page title. Put your most important keywords in your `<h1>` and `<h2>` headers.

**Meta Title and Description:** The meta Title and description are the short explanation of the webpages that appears in search results, Google needs and like this order so I had to do it for web optimization. Although it is not an official ranking factor for search engines, it is important when doing on-page SEO.

**Image ALT Text:** Image alt-text is like SEO for your images. It tells Google and other search engines what your images are about, that is important because Google now delivers as many image-based results as they do text-based results.

Here is what to keep in mind when adding image alt-text:

- Make it descriptive and specific.



- Make it contextually relevant to the broader page content.
- Keep it shorter than 125 characters.

**Latent semantic indexing (LSI):** A mathematical method used by search engines to understand the relationships between words and concepts within a piece of content. It analyzes patterns in the text to identify related terms and synonyms, helping search engines determine the context and relevance of a webpage to a search query. LSI improves the accuracy of search results by considering the broader meaning of content rather than relying solely on exact keyword matches.

**Social signals:** Refer to a webpage's collective shares, likes, and overall social media visibility as perceived by search engines.

- Daily post
- Twitter and retweet
- Facebook shares
- Mentions on forums like Reddit and Quora.

**SEO (Organic Search Results) and SEM (Paid Search Results):** SEO vs SEM are two strategies for gaining visibility on search engines. SEO optimizes a website to rank naturally in unpaid search results by improving content quality, relevance, and technical performance. It is a long-term strategy that builds credibility and drives sustainable traffic without direct costs per click. Conversely SEM, involves paying for ads to appear at the top of search engine results for specific keywords. While SEM delivers immediate visibility and traffic, it requires ongoing investment and ceases once the budget is exhausted. Both approaches are complementary, with SEO offering long-term growth and SEM providing quick, targeted exposure

#### 6.5.6 Keywords

Keywords are important words or phrases that are being identified in users searches and web content. They are one of the main elements that connect users to content and that ranks the result position [119]. Keywords help search engines understand the content of a webpage and rank it for relevant searches and make it easier for user's to find the relevant content depending on search query. They are a foundational element



of Search Engine Optimization (SEO) and digital marketing, helping content creators and businesses understand user intent and create content that meets search demands.

### Why Are Keywords Important?

- **SEO Optimization:** Keywords help search engines understand the content of a webpage, enabling it to rank for relevant searches.
- **Traffic Generation:** Targeting the right keywords can attract the right audience to your website.
- **Content Relevance:** Incorporating relevant keywords ensures your content aligns with user search intent.
- **Marketing Strategy:** Helps identify market demand and competition, guiding campaign strategies.

### SEO and customer journey

Awareness- interest (I like it)- desire (I want it)- action (I buy it) – post-action.

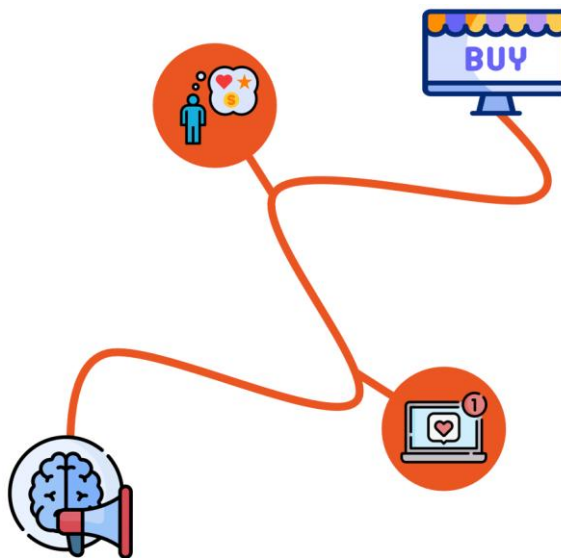


Figure 8: Customer journey path.

### Types of Keywords[122]:

- **Short-Tail Keywords:** Consist of one or two words (e.g., "shoes", "laptops"). Broad and highly competitive.
- **Long-Tail Keywords:** Longer phrases with three or more words (e.g., "best running shoes for beginners"). More specific and less competitive.
- **Branded Keywords:** Include the name of a brand or product (e.g., "Dr Maleki").



- Non-Branded Keywords: Generic terms not tied to a specific brand (e.g., "comfortable running shoes").
- Transactional Keywords: Indicate an intent to purchase (e.g., "buy diet plan").
- Informational Keywords: Reflect a search for knowledge or answers (e.g., "types of diets").
- Navigational Keywords: To find a specific website, page the location (e.g., "nutritionist near me").
- Commercial: searching for the best and top one - best diet plan, best nutritionist in Genova

#### 6.5.6.1 Guide on Keyword Research and Optimization

Keywords are the bridge between what people search for and your content, playing a critical role in connecting audiences to valuable information.

**Start with Long-Tail Keywords:** Focus on long-tail keywords with low difficulty for better ranking opportunities and to effectively target specific search intents.

**Tools for Keyword Research:** Bold words in SERPs

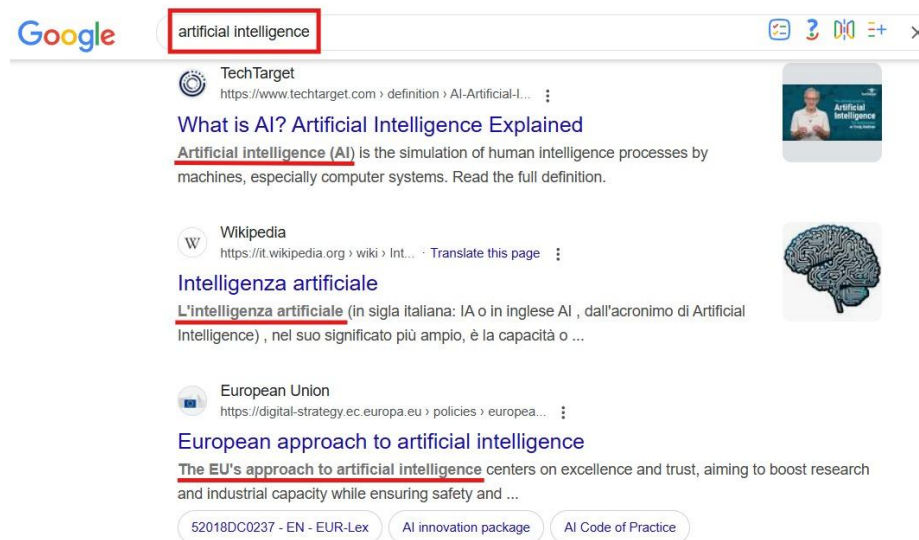


Figure 9: Use Google Auto complete.

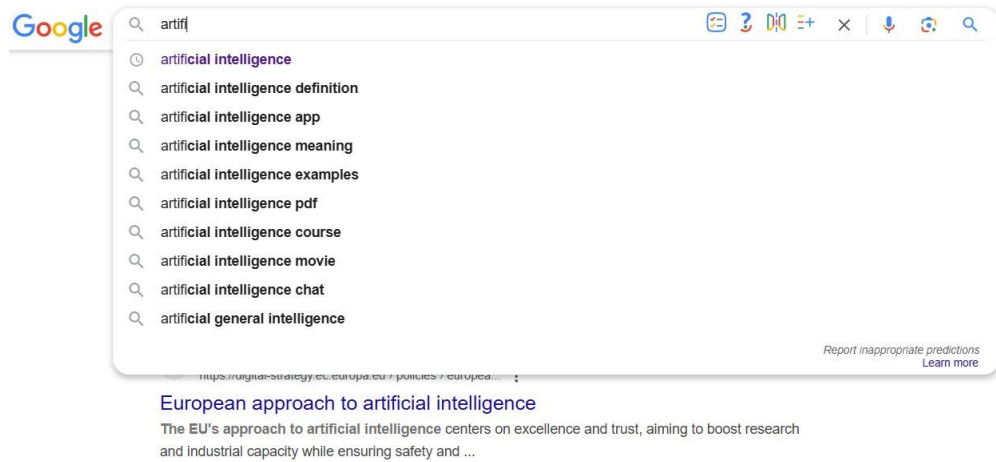


Figure 10: Look for related searches in Google search.

People also search for :

Virtual reality <b>examples</b>	Q	Virtual reality <b>vs augmented</b> reality	Q
20/mo • SD 15 • CPC €0	U	110/mo • SD 53 • CPC €0,25	U
Virtual reality <b>headset</b>	Q	Virtual reality <b>videos</b>	Q
110/mo • SD 83 • CPC €0,20	U	20/mo • SD 21 • CPC €0	U
Virtual reality <b>games</b>	Q	Virtual reality <b>in education</b>	Q
40/mo • SD 30 • CPC €0,18	U	50/mo • SD 12 • CPC €1,64	U
Virtual reality <b>technology</b>	Q	Virtual Reality <b>PPT</b>	Q
170/mo • SD 47 • CPC €0	U	10/mo • SD 13 • CPC €0	U



Figure 11: Related searches.



People also ask :

What are the 4 types of AI?



How do I use AI?



What is artificial intelligence with an example?



What is the goal of AI?



Feedback

Figure 12: People also ask section.

**Google Keyword Planner:** Install the Google Keyword Planner Chrome extension. This free tool is highly effective for discovering related keywords while searching. Click the provided button to generate relevant keyword suggestions.

artificial intelligence	artificial intelligence course	artificial intelligence definition	artificial intelligence movie	artificial intelligence app
artificial intelligence course	artificial intelligence course in italy	artificial intelligence definition in simple words	artificial intelligence movie cast	artificial intelligence applications
artificial intelligence definition	artificial intelligence course fees	artificial intelligence definition in hindi	artificial intelligence movies list 2024	artificial intelligence app free
artificial intelligence movie	artificial intelligence course free	artificial intelligence definition pdf	artificial intelligence movie netflix	artificial intelligence apple
artificial intelligence app	artificial intelligence course syllabus	artificial intelligence definition by authors	artificial intelligence movies list	artificial intelligence apprenticeship
artificial intelligence meaning	artificial intelligence courses in india	artificial intelligence definition with reference	artificial intelligence movie 2024	artificial intelligence app for android
artificial intelligence examples	artificial intelligence course for beginners	artificial intelligence definition merriam webster	artificial intelligence movie download in hindi filmyzilla	artificial intelligence applications and innovations
artificial intelligence chat	artificial intelligence course in kerala	artificial intelligence definition and examples	artificial intelligence movie ending	artificial intelligence apps for iphone
artificial intelligence pdf	artificial intelligence course in bangalore	artificial intelligence definition of terms	artificial intelligence movie trailer	artificial intelligence applications in daily life
artificial intelligence unibo	artificial intelligence course university	artificial intelligence definition in english	artificial intelligence movie streaming	artificial intelligence approaches
artificial intelligence meaning	artificial intelligence chat	artificial intelligence unibo	artificial intelligence examples	artificial intelligence pdf
artificial intelligence meaning in tamil	artificial intelligence chatgpt	artificial intelligence unibo timetable	artificial intelligence examples for students	artificial intelligence pdf notes
artificial intelligence meaning in hindi	artificial intelligence chat gpt 4	artificial intelligence unibo reddit	artificial intelligence examples in real life	artificial intelligence pdf download
artificial intelligence meaning in marathi	artificial intelligence chatbot project pdf	artificial intelligence unibo bocconi	artificial intelligence examples in hindi	artificial intelligence pdf presentation
artificial intelligence meaning in urdu	artificial intelligence chatbot project	artificial intelligence unibo admission	artificial intelligence examples in education	artificial intelligence pdf class 9
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artificial intelligence meaning in bengali	artificial intelligence chatbot free	artificial intelligence unibo thesis	artificial intelligence examples in daily life	artificial intelligence pdf for students
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artificial intelligence meaning in nepali		ethics in artificial intelligence unibo	artificial intelligence examples images	artificial intelligence pdf notes in hindi



Figure 13: KP Result for Artificial intelligence.

1: related queries, 2: most search queries, 3: and or and VS queries, etc.





**Ubersuggest – SEO and Keyword Discovery:** This extension offers similar functionality, helping you identify popular search terms and phrases.

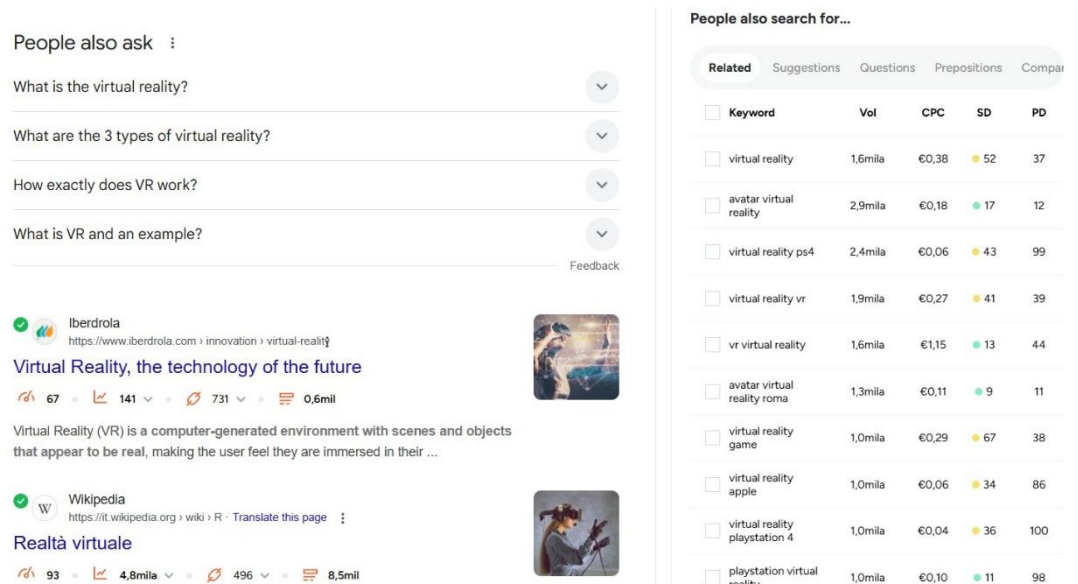


Figure 14: Ubersuggest analysis for virtual reality.

It shows you full analysis of the search query on SERP (Search Engine Result Page) and if you click on orange Icons it will show us all detail about search query, whether it is possible to use it or not.

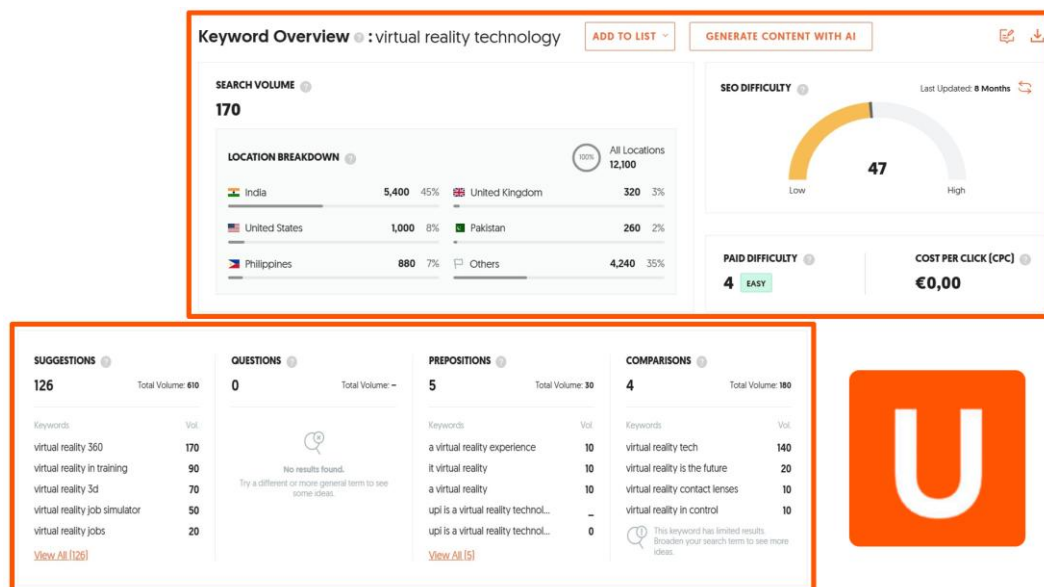


Figure 15: Ubersuggest full result for virtual reality.



**Google trends:** Google Trends is a free tool from Google that analyses the popularity of search queries over time. It provides visual insights into how often specific keywords, phrases, or topics are searched, showing trends across regions and periods. Users can compare multiple terms, explore related issues, and track real-time or historical search data. This makes it valuable for market research, content planning, SEO optimization, and understanding cultural trends.

### 6.5.7 Plugins

WordPress has a good feature; we can solve our website's problems with adding plugins.

Plugins that I used: According to WP explanation:

**Akismet Anti-spam:** Spam Protection: Used by millions, Akismet is quite possibly the best way to protect your blog from spam. It keeps your site protected even while you sleep.

**WP Headers And Footers:** Google provides content creators with tools like Search Console; in order to use it google has to check the ownership of the search console account on the website, we use this plugin to insert the code that allows us to do that.

**301 Redirects:** Easily create and manage redirect rules and view the 404-error log. I used it for transferring two or three pages from the old version of webpage to the new one.

**Aruba HiSpeed Cache:** The Aruba HiSpeed Cache service of the Aruba hosting platform interfaces directly with it and automates its management.

**Cookie Notice & Compliance for GDPR / CCPA:** Allows us to be compliant with GDPR requirements around cookies.





**Ninja Forms:** Ninja Forms is a webform builder with unparalleled ease of use and features. I used it for collecting contact information.

**Site Kit by Google:** Site Kit is a one-stop solution for WordPress users, allowing them to use everything Google offers to make them successful on the web.

**RankMath SEO:** Rank Math SEO is the most used WordPress SEO plugin. Adds a number of AI and non-AI tools for SEO operations, i.e. Sitemap, Meta-titles, Meta-descriptions, alt-text, etc.

If you don't know how to write a good article (SEO optimized), if you follow its options and have good rank there, you can be sure that Google will like your article. You also have to write the focus keyword, it means what your article is focused on and for what keyword you want a good rank on search engines.

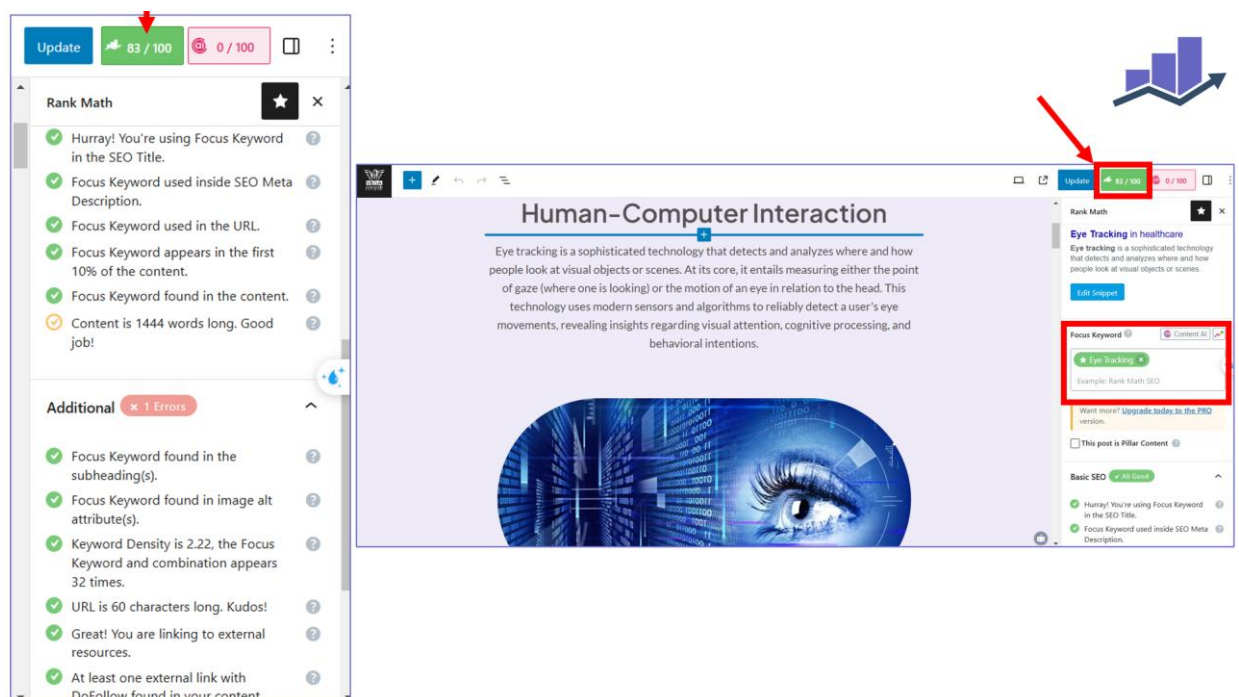


Figure 16: Using RankMath SEO for writing an article.

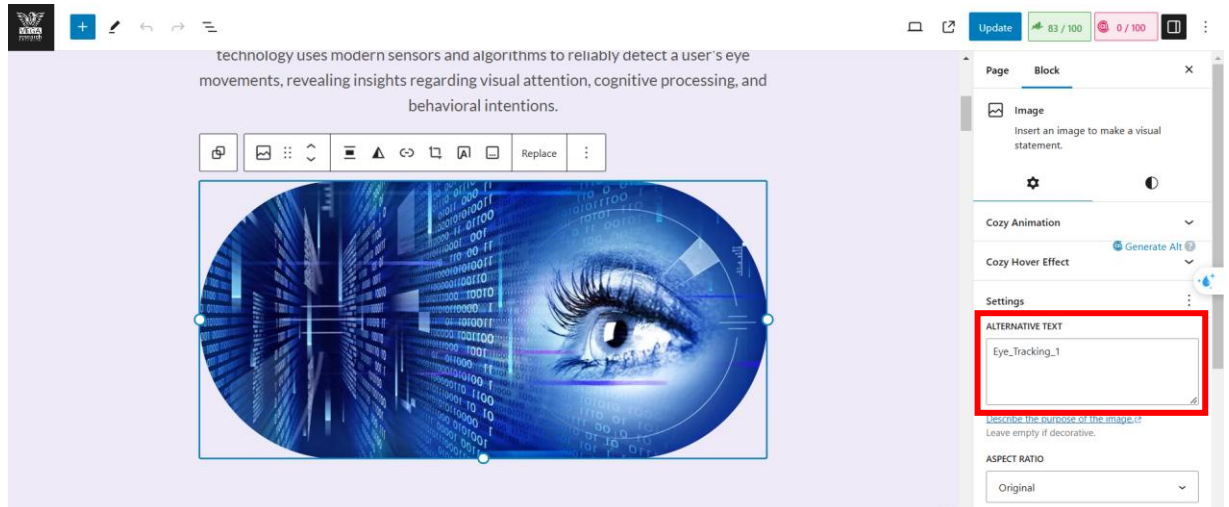


Figure 17: Write ALT Text

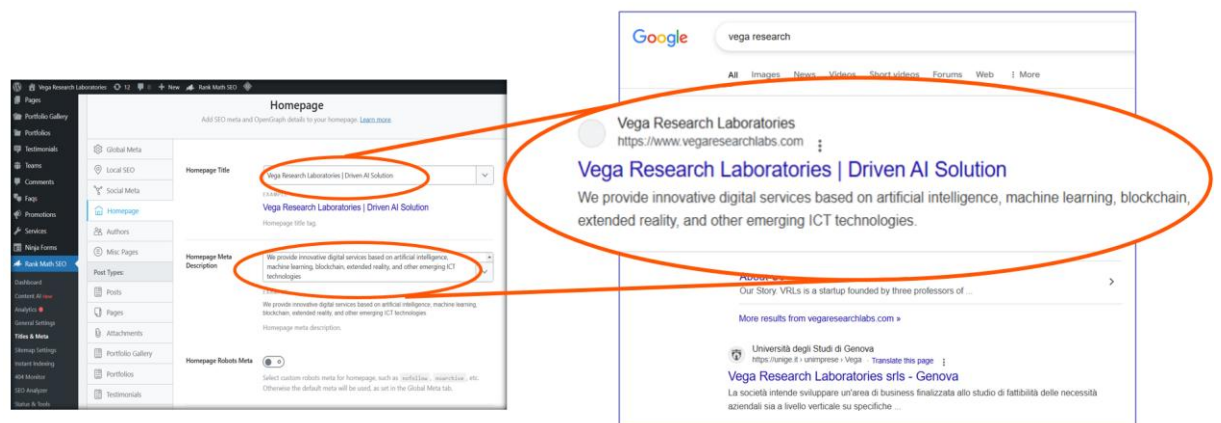


Figure 18: Meta title and description.

Furthermore, using too many plugins can slow down your website and lead to compatibility problems, and not updating your plugins might make your site insecure. For a website to function well, choosing interoperable, safe, well-maintained, and supported plugins is essential.

### 6.5.8 Analyze competitors



Figure 19: AI tools for analysing competitors.

**Kwfinder**, you can find keywords or what people search for, what keywords are competitors ranking for? Competitors backlinks, finding broken links or problems of our website,

**Mooz**, you can find keywords or what people search for, what keywords are competitors ranking for? Competitors backlinks, finding broken links or problems of our website,

**Ubersuggest**, you can find keywords or what people search for, what keywords are competitors ranking for? Competitors backlinks, finding broken links or problems of our website,

**Ahrefs**, you can find keywords or what people search for, what keywords are competitors ranking for? Competitors backlinks, finding broken links or problems of our website,

**Semrush**, you can find keywords or what people search for, what keywords are competitors ranking for? Competitors backlinks, finding broken links or problems of our website,

After 10 years of experience in marketing, **Semrush** is my choice.



Semrush is a well-known SEO toolkit focusing on Google Ad campaign optimization, competitive analysis, and keyword research. However, it goes beyond that: You may create, manage, and enhance your digital marketing initiatives with the aid of Semrush software.

It helps to analyse for which keywords you don't have a good rank but your competitors have, you can even see their webpages; we can use their idea and work on those keywords to create better contents, even focusing on bounce rate which refers to duration that users spend on our webpages. We need conditions that attract them to follow our content for understanding our products or services better.

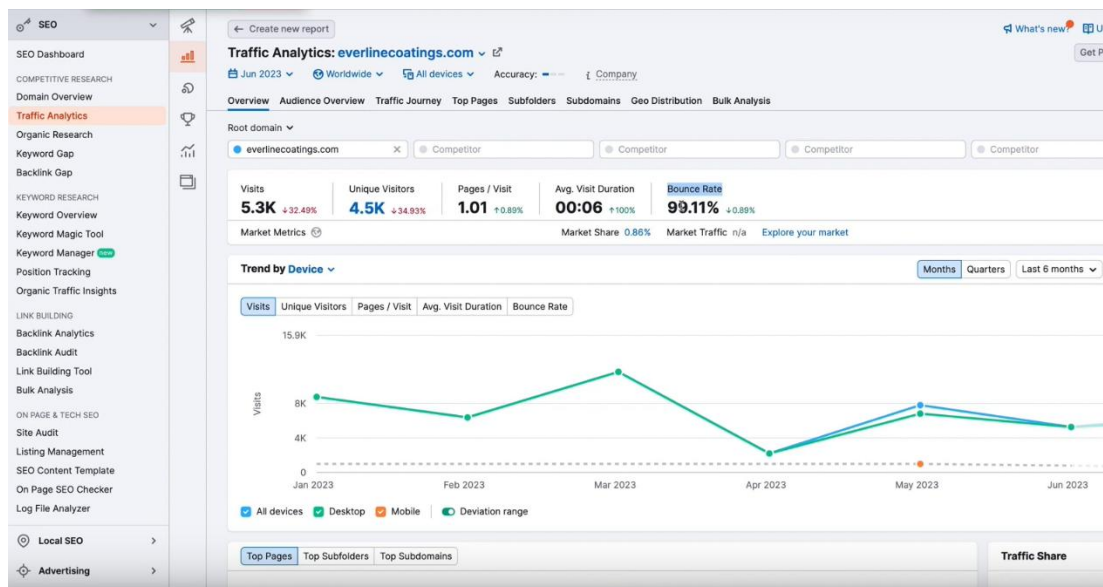


Figure 20: Semrush dashboard.

And the ability to check website performance with **Screaming Frog SEO Spider**:  
Frog Screaming SEO Spider Tool is a crawler with many helpful features. It scans websites to simplify the examination of their structure and the SEO-influencing factors later.

**Semrush vs Screaming Frog:** Semrush and Screaming Frog are powerful SEO tools with unique strengths. Semrush is an all-in-one platform offering a wide range of features for keyword research, on-page SEO, rank tracking, and link building. Screaming Frog specializes in technical SEO, providing tools for crawling websites, identifying broken links, and analyzing log files. While Semrush offers a free trial with limited features, Screaming Frog has a free version with limited functionality. Both



tools are valuable for SEO professionals, but Semrush provides a more comprehensive suite of features and integrates well with other marketing efforts.

### 6.5.9 Data collection

In the data collection step, data were collected by interviews with 10 top decision-makers in the different fields, surveys, and collected by Google.

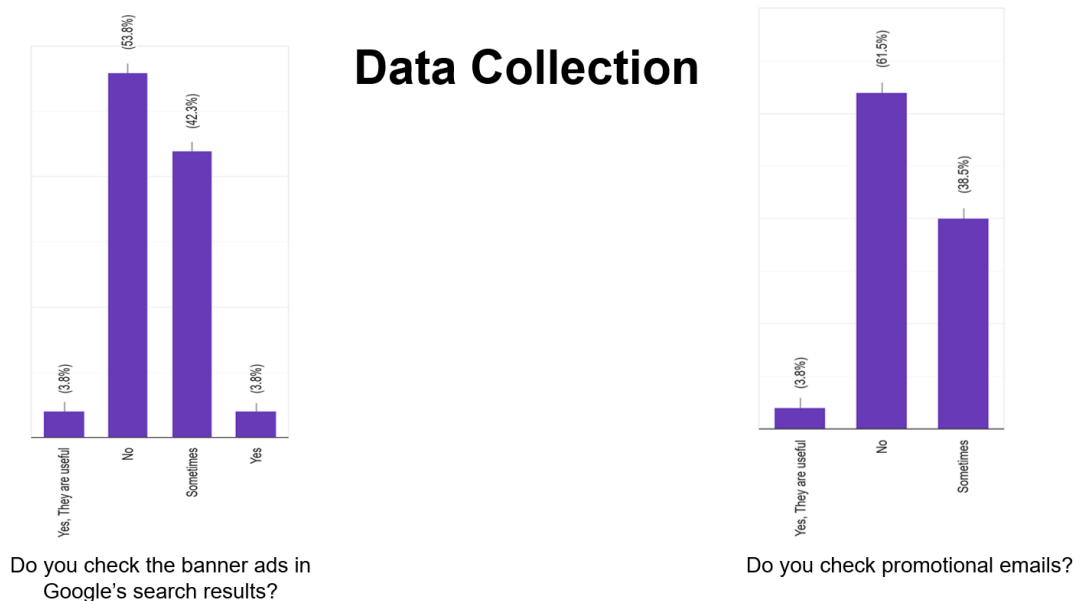


Figure 21: Surveys about banner ads and promotional emails.

### 6.5.10 Google Search Console

#### [According to Google's official guidelines](#)

Google Search Console is a free service offered by Google that helps you monitor, maintain, and troubleshoot your site's presence in Google Search results. You don't have to sign up for Search Console to be included in Google Search results, but Search Console helps you understand and improve how Google sees your site.

Search Console offers tools and reports for the following actions:

- Confirm that Google can find and crawl your site.
- Fix indexing problems and request re-indexing of new or updated content.



- View Google Search traffic data for your site: how often your site appears in Google Search, which search queries show your site, how usually searchers click through for those queries, and more.
- Receive alerts when Google encounters indexing, spam, or other issues on your site.
- Show you which sites link to your website.

[At first, we use the URL option to verify your site ownership](#)

#### 6.5.10.1 Sitemap (sitemap\_index.xml)

We search [https://www.vegaresearchlabs.com/sitemap\\_index.xml](https://www.vegaresearchlabs.com/sitemap_index.xml), Google spiders and crawlers of the google should find our pages otherwise Google doesn't know that we even exist.

At first, on the reading setting of WordPress we have to remove the visibility option,

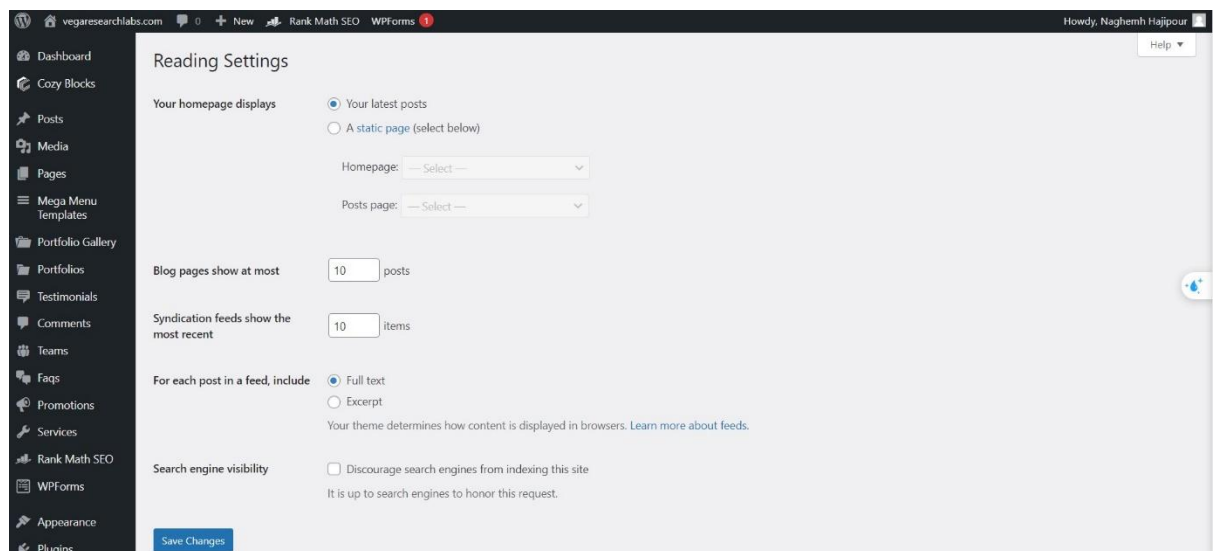


Figure 22: Adjust search engine visibility.



Then start with Search Consol

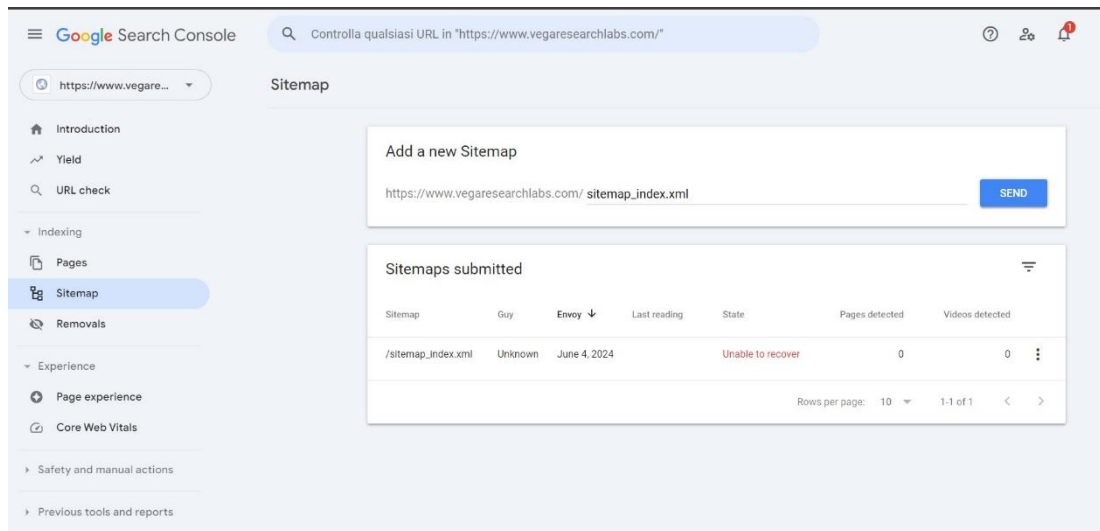


Figure 23: Add sitemap in Google Search Consol

Then we have to check the URL to be sure that Google can find us,

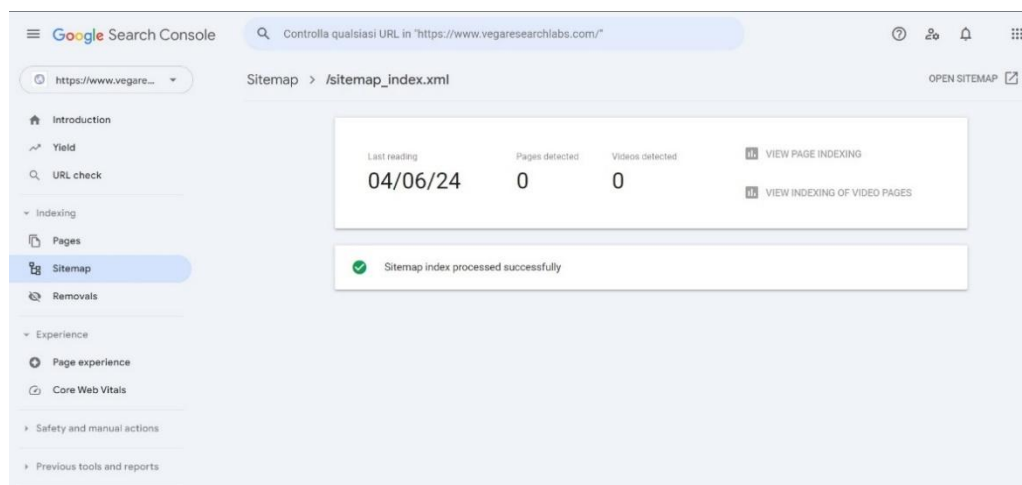


Figure 24: Check URL, if Google can find it.

## 6.5.10.2 Robots.txt

[According to Google Search Central](#), A sitemap ensures that all content and pages on our website are indexed and stored in Google's database center. However, there are instances where certain information, such as passwords or sensitive customer data, should not be indexed for security and privacy reasons.





We can use the robots.txt file in our Aruba server to prevent specific pages from being indexed. This allows us to disallow access to directories or files containing sensitive information, ensuring they are excluded from search engine indexing. Folder name for example user-password: \*

```
File Edit Format View Help
User-agent: *
Disallow: /wp-admin/
Disallow: /wp-includes/
Disallow: /wp-content/plugins/
Disallow: /wp-content/themes/

Sitemap: http://www.example.com/sitemap.xml]
```

Figure 25: Example of Robots.txt

These two are the most important options for tracking and monitoring our website by Google.

#### 6.5.11 Key Performance Indicators (KPIs)

Key performance indicators (KPIs) measure a company's success vs. targets, objectives, or industry peers. Businesses measure and track KPIs through analytics software and reporting tools[ 123].

##### Marketing KPIs

Marketing KPIs aim to provide more insight into the efficacy of marketing and promotional initiatives. These metrics are frequently used to gauge the frequency with which potential customers respond to a certain marketing medium by performing specific actions [124], [125]. KPIs for marketing examples include:

- Website traffic: This KPI monitors the number of users who access particular pages on a business's website. It helps management determine whether online traffic is being directed into prospective sales channels and whether customers are not being properly channelled.
- Social media traffic: This key performance indicator tracks views, following, likes, retweets, shares, engagement, and other quantifiable interactions between clients and the business's social media profiles.





- Call-to-action content conversion rate: This KPI focuses on targeted marketing campaigns that request specific behaviours from consumers. For instance, a particular campaign might urge customers to act before a sale deadline expires. A business can calculate the percentage of customers who responded to the call to action by dividing the total number of content deliveries by the number of successful interactions.
- Blog articles published per month: This KPI counts the number of blogs posts a company publishes in each month.
- Click-through rates: This KPI measures the number of specific clicks on email distributions. For example, certain programs may track how many customers opened an email distribution, clicked on a link, and followed through with a sale.



## 7. Chapter5: Data analysis

This thesis aims to understand how firms use AI tools to improve their marketing content operations. As a result, it was considered suitable to analyze the primary qualitative data obtained by theme analysis. Thematic analysis is an effective approach for data analysis because it is flexible but allows for a complete study sufficient to establish a deep grasp of the subject, in this example, how businesses use AI technologies for the purpose of marketing [126].

Thematic analysis has been used successfully to identify themes in interview transcripts using an inductive method to answer marketing research questions [127]. Thematic analysis was also effectively employed in research investigating how AI may enhance firms' supply chains using semi-structured interviews, following a similar approach to this thesis. For this scientific paper, thematic analysis was selected over content analysis since content analysis has limitations in interpreting data in a context-appropriate manner [128]. Thematic analysis is a versatile method that can be applied to various data types, such as focus groups, large amounts of text, and interviews. It is divided into seven phases: preparing data, transcription, building familiarity, reviewing data, and coding data. The first phase involves organizing and familiarizing the data, while the second phase involves generating initial codes and grouping them into themes. The third phase consists in reviewing and refining the identified themes for accurate content data capture. The final phase involves defining and naming each theme, and a report is written out, detailing the research question, method, and results. Transparency in the analytical method is crucial, as it allows for support from outside evaluators [129]. After being recorded, the interview's audio was converted to text and stored in a document. Following an analysis of the transcripts, seven themes about RQ were found. In contrast to inductive coding, which may restrict the exploration of new ideas and the possibility of discovering new insights, an inductive coding system was developed because it provides a flexible method of identifying new themes. After giving each topic a color, pertinent passages from the transcripts were highlighted to match each theme, so coding the text. Instead, themes were coded in the text since content analyses run the risk of relying just on the frequency of codes of the missing



text context [130]. After that, the themes were examined and evaluated to provide a thorough comprehension of the information of to the RQ.

## 7.1 Limitations

This study acknowledges limitations due to time and resource constraints. It employs iterative techniques and qualitative research methods to explore AI integration in companies' content marketing strategies. The aim is to identify potential AI tools to improve marketing efforts and provide a comprehensive understanding of AI integration in content marketing.

Qualitative data collection through interviews can provide in-depth information to answer specific research questions, but it has limitations. Interviewee bias, influenced by demographic and cultural factors, and social factors like wanting to please the researcher can limit the validity of data collection. Researchers may also struggle to identify prompt questions or probe responses, leading to missed data. The limited number of companies interviewed may limit the study's ability to draw conclusive findings and generalize the research to different populations and contexts. Additionally, personal bias may affect the selection of interviews. To mitigate this, standardized interview protocols and reflexivity can be used to ensure similar questions and avoid personal biases. Overall, conducting semi-structured interviews requires careful consideration of interviewees' biases, researchers' unique experiences, and the need for consistency across different populations and contexts [131], [132]. The research recommends selecting interviewees based on specific criteria, such as decision-making positions within marketing within the company. The interview biases, such as location, age, gender, social background, and sample size, cannot be fully controlled. To ensure a diverse sample, diversify the sample group and consider factors like location, age, gender, and social background. The time limit of interviews also limited the ability to obtain in-depth answers [133]. Primary data collected by external researchers in other studies can be used as secondary data when applied to another research question. This method offers high availability in online sources but can also lead to bias in selecting studies and literature. Researchers may unconsciously choose literature that supports their hypothesis without considering context factors like



region and study age. Additionally, there may be a lack of data quality when selecting secondary data. To address these limitations, primary data was collected, and the search for information expanded when needed. Examples of expanding sources include using conference papers or industry datasets. To mitigate personal bias, clear selection criteria for relevant sources were defined [131], [134]. Thematic analysis is a method that enables researchers to identify patterns or themes in qualitative data. However, it has limitations such as potential inconsistencies in interpretation and limitations in stating language use in specific contexts. The lack of substantial literature on thematic analysis may also discourage less experienced researchers from implementing it comprehensively. Additionally, human factors like personal bias and limited data can affect the inclusion of themes. Generalizing findings for other studies may also be challenging due to limited data. To address these limitations, researchers have tried triangulating data from multiple sources and peer debriefing to enhance the credibility of the analysis.[126], [135]

## 7.2 Analysis

The study topic was: What criteria influence the use of AI tools in enterprises' entrepreneurial content marketing initiatives, and which AI tools are employed for this purpose? This study used a systematic thematic analysis process to identify seven themes from interview data. Initial codes were used to determine preliminary themes, refined through iterative discussion and review. These themes were then separated into seven clear categories using inductive thematic analysis, all relevant to the research question.

### 7.2.1 What drives technology adoption in a company?

Among the 10 participants, one had a technical background with experience in adopting new technology, which they attributed to their current ease of adopting new tools. Participant 1 had a competitive advantage: they were aware of the benefits of technology due to their years of working in IT and were very comfortable with it. For Participant 6, there was no economic justification for using the technology. Participant 4 stated that he thought companies saw adopting new technology as an exciting or



necessary opportunity to stay competitive. Participant 4 explained that despite the size of the company, the need to use new technologies was very effective, Participant 4 also stated that they adopted the new technology because of the added benefits that would have a clear impact compared to their current solutions, otherwise, they would not have implemented a new system. Most participants were motivated to implement the new technology in their company to save time and money and become more efficient. Participant 10 argued that startups must continue to build, measure, learn and adapt in a pivoting manner, motivating them to adopt new technology to stay in the market. Participant 8 emphasized the need to be able to communicate using new technology to create jobs even at home. Participant 3 stated that spending a lot of time integrating new technology that may not yield results can be costly and requires evaluating the potential of the technology, they emphasized that they incurred a lot of financial losses by purchasing a new system that did not have the necessary compatibility with the company's systems and ultimately could not be implemented. Participant 9 stated that there must be clear communication within the team to prevent uneven technology adoption. Another common issue discussed by participants that prevents them from adopting new technology is price, performance, user-friendliness and the time required to learn, which are significant barriers to implementation.

"My experience: Leveraging the advantages of AI in content marketing enables professionals to optimize their potential, fostering greater creativity, efficiency, and engagement, like: Identifying innovative strategies, enhancing the effectiveness of meetings, and discovering improved methods to engage and acquire new customers."

### **7.2.2 What are the primary risks of using AI tools?**

Participants expressed concerns about the negative aspects of AI in business and society, including possible human dependency, potentially misleading, and potential distortion of human intelligence. AI tools can disrupt critical thinking, make mistakes, and be limited when using other languages. They also worry about job losses due to AI technologies, reduced creativity, and socialization. Negative aspects of AI include ethics, copyright, human discrimination, and responsible use. AI-generated content can be misleading and difficult to trust and provide incorrect answers to questions. AI



tools can negatively impact Google's ranking system and cause information spam. Understanding AI tools is challenging due to rapid innovation and experimentation. A market for new AI tools can create problems for people because they no longer know what tools to use. Furthermore, AI tools cannot provide a "human experience" compared to interacting with people, raising concerns about fraud and ethics. Overall, understanding and addressing the negative aspects of AI is crucial to ensuring its responsible use and promoting a more ethical and inclusive society.

"My experience: Over-reliance on AI can have negative consequences. It can stifle creativity, inhibit critical thinking, and encourage experts to trust AI-generated ideas because of the convenience it offers. This approach can lead to repetitive and non-unique outputs. Furthermore, in fields like design, the generation of unlimited and creative outputs by AI has the potential to lead to the displacement of many skilled professionals."

### **7.2.3 How do companies utilize AI for content marketing?**

The participants reported on various content marketing techniques, and they would employ different content marketing tactics based on the target market's context. Several participants used social media platforms including Instagram, Reddit, Facebook, TikTok, and LinkedIn. A few businesses have acknowledged using AI for SEO ranking for copywriting, email marketing, and blog/article articles. The everyday use of AI applied to content marketing by the companies interviewed was leveraging AI to generate text for SEO articles. For example, ChatGPT can be used to rewrite the text via promoting or an external AI tool. Another purpose of text generation was to write a post on social media like LinkedIn. Several participants are using paid and free advertising tactics. Participant 4 claimed that they employ paid and free advertising. Still Participant 1 stated that they only utilize free advertising strategies: "All of our marketing has been free, and it works. So, we won't pay for anything just yet." A more specific application of AI in content marketing occurred when Participant 3 used ChatGPT to build messages to deliver to clients. He accomplished this by providing the AI with information on the possibility. Some people are aware of various ways to



generate content for marketing, such as picture production. This would be the next stage because it allows you to produce more.

“My Experience: The most effective approach to content marketing involves staying updated on trends while maintaining a unique perspective. Drawing inspiration from others' ideas is valuable, but it is essential to adapt and present them in a personal, creative way. Tools like ChatGPT and similar platforms are useful, but to craft a truly distinctive style, it is crucial to connect deeply with the author's ideas and linguistic nuances.”

#### **7.2.4 Interviewees' usage of AI tools in their companies**

The majority of participants, except for Participant 6, used AI tools in their businesses, with ChatGPT being the most common tool. Other tools included Adobe Podcast AI, OpenAI, DALL·E, copy.ai, AutoGPT, Grammarly, Jasper.ai, Surferseo, Zapier AI, make.com, and Nifty. Participants learned about AI tools from social media, friends, television, and school. ChatGPT was used for social media content generation, text analysis, copywriting, SEO, website content, website building, and CV building. Other tools included design, photoshop, content optimization, logo creation, brand color creation, business idea testing, customer personas building, video generation, image generation, finance calculations, prompt writing, and Google ads. The majority of participants see a future without AI tools due to their significant benefits and predict that more businesses will use them soon. However, most companies do not have the time to adopt new tools due to the quick competition within AI.

“My Experience (as outlined in my internship report): I used AnswerThePublic for inspiration and reviewed competitors' websites to guide article creation. Instead of Grammarly, I leveraged eJOY English to manage and refine content effectively. Additionally, I optimized all articles using keyword tools to enhance their search engine performance.”



### 7.2.5 What does a company setting's client journey look like?

One theme throughout the participants' descriptions of their customer journeys was that content marketing, whether paid or free, was frequently used to build the pre-purchase period. The participants took advantage of Google Ads, SEO, Instagram, Pinterest, LinkedIn, and Facebook. For instance, "I have my website," said participant 2. I employ a few keywords. They either contact me via my website or discover me on Google. Additionally, they contact me through LinkedIn, where I frequently publish. Additionally, Participant 2 said, "We are using Pinterest tools to reach our customers." "We distribute posters that include all of our services, and add other strategies like email marketing, which is the best strategy for us." However, this was not always the case. To establish first contact and raise knowledge of his offer, Participant 5 would cold call potential customers. As explained by Participant 7, who would utilize content marketing in addition to contacting clients directly through LinkedIn, there may also be a combination of marketing methods. According to Participant 8, he mostly utilized Instagram for promotion, directly or indirectly reaching out to clients. Through word-of-mouth, Participant 9 would acquire leads. Later, he would invite his clients to a webinar. "I don't have that many viewers on a webinar, but those few people, they convert," said Participant 2. Most participants stated that the website is where the purchase step will most frequently occur. Interestingly, none of the participants brought up the post-purchase period.

"My Experience: I used free tools to enhance efficiency and focused on improving website performance as part of B2B marketing efforts. My approach included leveraging LinkedIn for targeted marketing and optimizing content using keyword tools to achieve better reach and engagement."

### 7.2.6 What impact do AI technologies have, and how do they help businesses?

Many participants mentioned the advantages of integrating AI into their business and marketing initiatives. Increasing efficiency, generating ideas, and saving time and money were some of the main and frequently mentioned advantages of integrating AI into the participants' companies. AI could help him when he was too exhausted to think, according to Participant 1. Without requiring a lot of validation work,





Participant 3 said AI may help identify a target audience and contact them with personalized content: "You're able to reach out to specific customer groups without conducting a large amount of validation." One example of how Participant 2 used AI to get my mind going was, " Give me five smart social media marketing ideas, and I'm free to utilize them any way I see fit. Participant 4 would provide AI user data and machine learning predictions to optimize when to send emails to clients.

AI might produce text, according to Participant 4, and it could also be used to teach people a skill linked to the work they are attempting to do and improve their content-generating abilities. For instance, you may ask ChatGPT to fix a text's grammar, inquire what it fixed, and request grammar-improvement tasks. According to Participant 2, he utilized AI to search for information, summarize books, and fix language. According to Participant 2, "So my opinion is, by all means, bring it in if you can help me gather stuff so that I do my work faster, better, more efficiently." ChatGPT was frequently praised for being speedy, simple to use, and intuitive. Participants 4 and 2 also claimed that ChatGPT saved them time since it was quicker than Google at finding information. Participants would receive information immediately via ChatGPT, eliminating the need for them to sort it out.

"My Experience: Using AI-generated platforms significantly reduces the time required for content creation while enhancing the performance of social media platforms. Utilizing these tools helps businesses increase their visibility to target audiences and enables users to discover better suppliers easily."

### **7.2.7 Interviewees' difficulties in marketing and content creation**

One recurrent topic among the problems that the participants noted was the difficulty in attaining a profitable conversion rate. Participant 9 and Participant 6 brought up this problem. "I think right now it is the conversion rate, which is, uh, which is the problem," said Participant 9, for instance. We don't have time to spend on it since other activities take so much time and we are tiny," said Participant 6, adding that content marketing takes a lot of time and can be difficult to manage with other marketing chores across several channels. One of the difficulties with content marketing, according to Participant 8, is that there is a lot of competition, and it might be difficult



to distinguish. said Participant 5, “We don't know exactly which tool to use for greater effectiveness.” So, unless you already have a huge audience, it's difficult to build anything that will stand out.” Several participants noted time-consuming challenges with content marketing. These problems included evaluating massive volumes of data to identify patterns and then creating bite-sized material that would attract the interest of potential buyers. Participant 1 mentioned that it might be tough to target their customers while doing content marketing for LinkedIn: “Sometimes it is just difficult to target one specific niche”.

“My Experience: With the vast amount of articles and information available on the internet, creating unique and engaging content that grabs the attention of your audience can be challenging. Content creators must take the time to do thorough research and strategically use tools and ideas to produce content that stands out and appeals to their target audience.”

### 7.2.8 Result

**I used these websites for analyse our website performance:**

**Google Search Console:**

[Google Search Console](#): Google's official explanation on the website, [136]

- Fix indexing problems and request re-indexing of new or updated content.

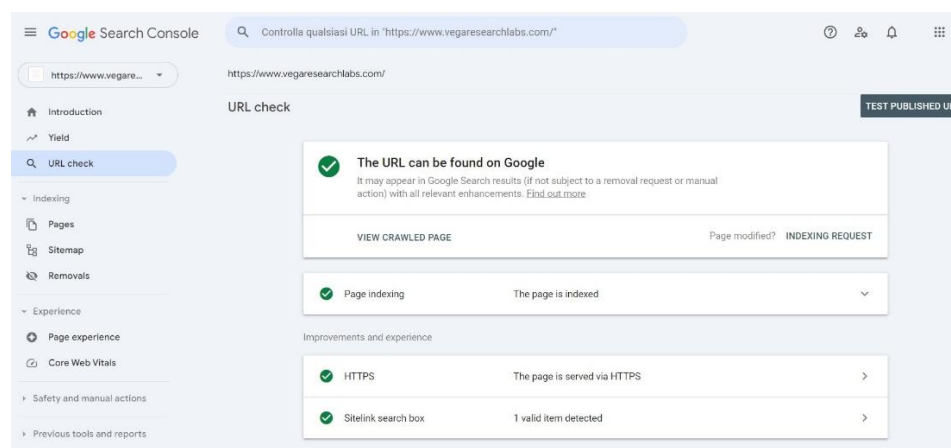


Figure 26: URL done.



- View Google Search traffic data for your site: how often your site appears in Google Search, which search queries show your site, how often searchers click through for those queries, and more.

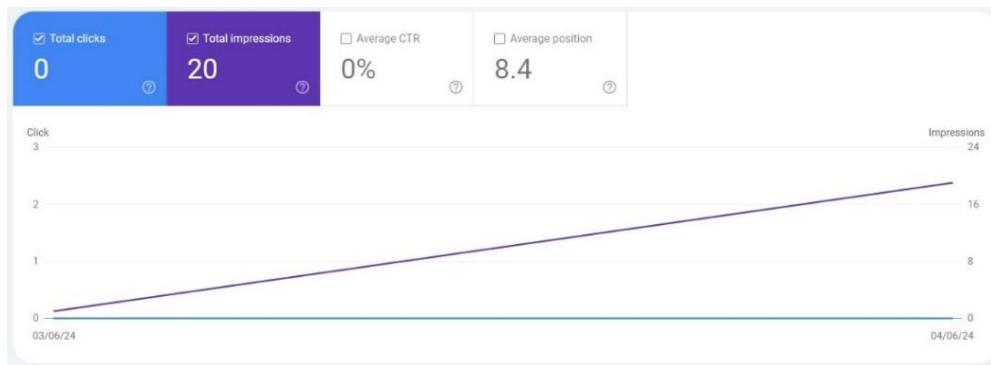


Figure 27: Google search traffic data for the website at first.

These terms are key metrics in Google Search Console (GSC) and other SEO tools, helping you analyse your website's performance in search results. Here's what each means and how they relate:

1. **Total Clicks** – The number of times users clicked on your website's link from Google search results. More clicks usually indicate higher engagement.
2. **Total Impressions** – The number of times your website appeared in Google search results, regardless of whether it was clicked. More impressions suggest better visibility.
3. **Average CTR (Click-Through Rate)** – The percentage of impressions that resulted in clicks. It's calculated as:

$$\text{CTR} = \left( \frac{\text{Total Clicks}}{\text{Total Impressions}} \right) \times 100$$

A higher CTR means your search result is compelling enough for users to click.

4. **Average Position** – The average ranking position of your website for all keywords it appears for in Google search results. Lower numbers (e.g., position 1, 2, or 3) indicate higher rankings.

How They Relate to Each Other:



- More **impressions** mean your website is showing up in searches, but if clicks are low, your **CTR** might be poor, meaning your title or meta description isn't enticing.
- A high **average position** (closer to 1) generally leads to more **clicks** because top-ranked results get the most attention.
- If you have high **impressions** but low **clicks**, improving **CTR** with better meta titles, descriptions, and featured snippets can help.

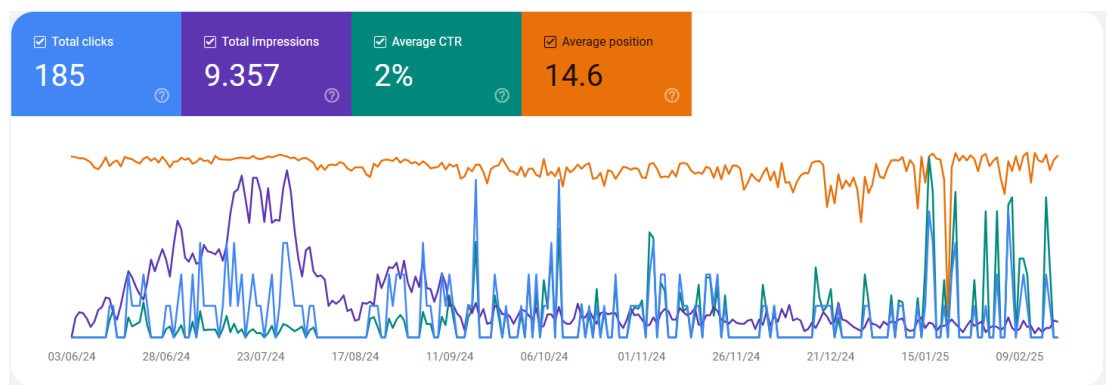


Figure 28: After website optimization.

- Receive alerts when Google encounters indexing, spam, or other issues on your site.
  - Show you which sites link to your website.
- They are crucial because they can help consumers and search engines navigate this extensive network, increasing the authority and exposure of your website.

Target Page <a href="https://www.vegaresearchlabs.com/">https://www.vegaresearchlabs.com/</a>	Total external links 57	Total sites 20
Main sites that link to this page		
Site	Link	
datascienceseed.com	15	
smau.it	13	
unige.it	5	
stupendio.it	4	
simulationteam.com	3	
dihliguria.it	2	

Figure 29: Main sites that link to the webpage.



### Who should use Search Console?

- Business owners: Even if you won't be using Search Console yourself, you should be aware of it, become familiar with the basics of optimizing your site for search engines, and know what features are available in Google Search.
- SEO specialists or marketers: As someone focused on online marketing, Search Console will help you monitor your website traffic, optimize your ranking, and make informed decisions about the appearance of your site's search results. You can use the information in Search Console to influence technical decisions for the website and do sophisticated marketing analysis in conjunction with other Google tools like Analytics, Google Trends, and Google Ads.
- Site administrators: As a site admin, you care about the healthy operation of your site. Search Console lets you easily monitor and, in some cases, resolve server errors, site load issues, and security issues like hacking and malware. You can also use it to ensure any site maintenance or adjustments you make happen smoothly with respect to search performance.
- Web developers: If you are creating the actual markup and/or code for your site, Search Console helps you monitor and resolve common issues with markup, such as errors in structured data.

### Google Analytics:

[Google Analytics](#): Google's official explanation on the website, [137]

Google Analytics is a platform that collects data from your websites and apps to create reports that provide insights into your business.

To measure a website, create a Google Analytics account and use a tracking code to collect pseudonymous information about user interactions with the page. This can include tracking visits to different products or tracking purchases. The code also collects information from the browser, including language settings, browser type, device, and operating system. The "traffic source" can be a search engine, advertisement, or email marketing campaign.

The data is processed into reports by Google Analytics, which aggregates and organizes it based on specific criteria. Configuration settings allow users to customize



how data is processed, such as applying filters to exclude internal company or developer traffic. Once processed, the data is stored in a database, which can be accessed later. It is important to not exclude any data that might be analysed later.

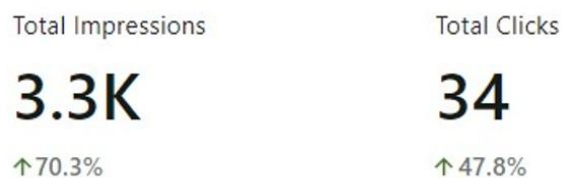


Figure 30: Google Analytics result.

### Domain Authority (DA):

A search engine ranking score called Domain Authority (DA) [138] forecasts a website's likelihood of appearing in search engine result pages (SERPs). Higher Domain Authority ratings indicate a higher chance of ranking; the values range from 1 to 100.

At the beginning:

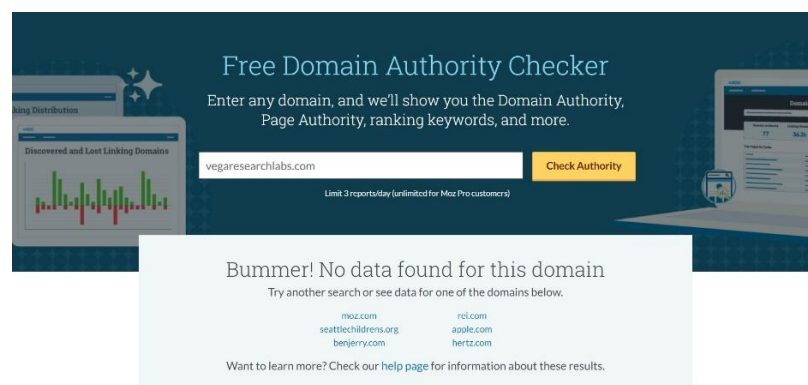


Figure 31: Domain authority checker at first.

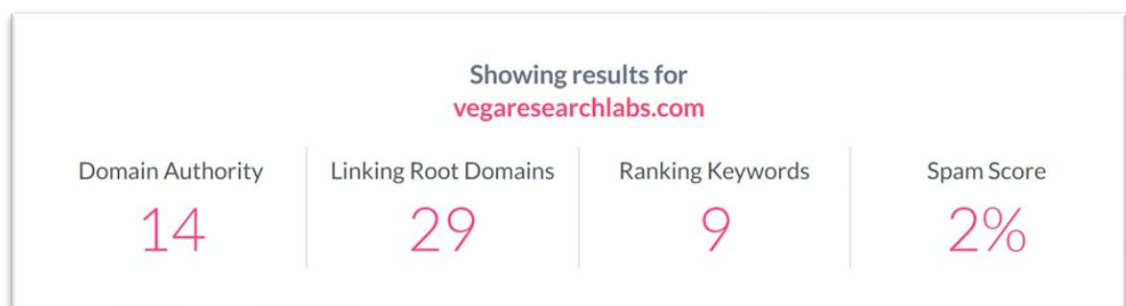


Figure 32: After website optimization.



These are SEO (Search Engine Optimization) terms used to evaluate a website's performance and authority in search engines like Google. Here's what each term means:

1. **Domain Authority (DA)** – A score (typically from 1 to 100) developed by Moz that predicts how well a website is likely to rank on search engine result pages (SERPs). Higher DA means a stronger website with better ranking potential.
2. **Linking Root Domains** – The number of unique domains (websites) that have at least one backlink to your site. If multiple pages from the same website link to you, they still count as just one linking root domain.
3. **Ranking Keywords** – The keywords for which your website appears in search engine results. These keywords drive traffic to your site, and their rankings determine your visibility in searches.
4. **Spam Score** – Another Moz metric, spam score estimates how likely a website is to be penalized or devalued by search engines due to low-quality or suspicious backlinks and poor SEO practices. A higher score may indicate a risky domain.

### LinkedIn Marketing:

Using LinkedIn to build contacts, create leads, increase brand recognition, cultivate business alliances, exchange content, and increase website traffic is known as LinkedIn marketing.

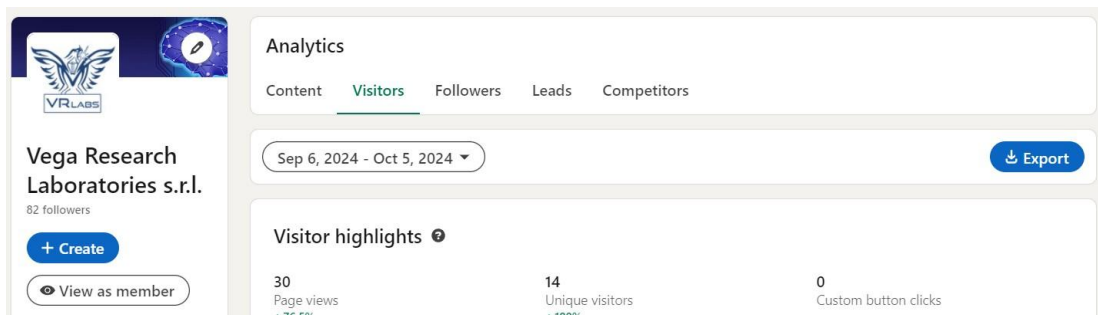


Figure 33: LinkedIn Analytics

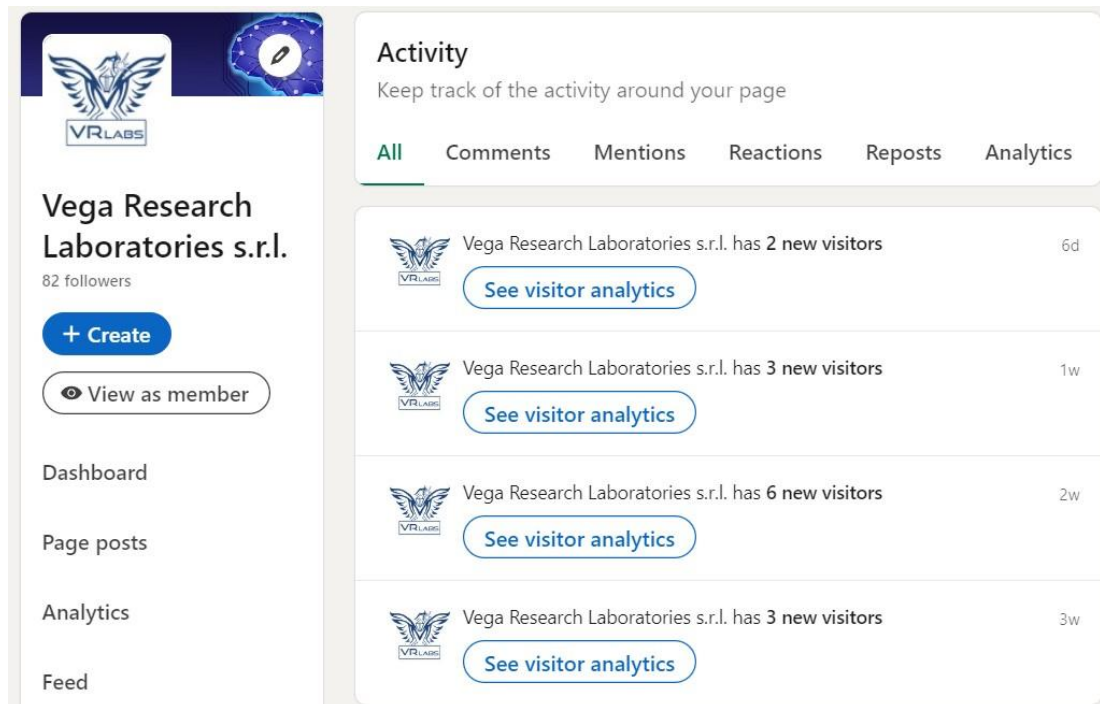


Figure 34: Improve LinkedIn traffic.





## 8. Chapter6: Discussion

The study analysed interview data to identify patterns affecting tech and AI adoption, negative aspects of AI, content marketing, AI tools, customer journey, AI benefits/effects on the business, and challenges in marketing. The study aimed to answer the question of factors affecting the adoption of AI tools in entrepreneurial content marketing efforts at businesses. The main findings showed that decision-makers within businesses are motivated to adopt new technologies due to their background, adaptiveness to new tech, and the benefits of adopting AI. AI tools can improve business efficiency and save resources, and tools like ChatGPT, notion, and copy.ai are integrated into entrepreneurial content marketing. Marketing decision-makers aim to understand AI tools to save time and gain a competitive advantage in the marketplace. However, participants identified many negatives and concerns of AI technology and suggested that businesses adopting new technologies have a higher chance of staying competitive.

The study suggests that AI could replace jobs and lead to job loss. It also raises ethical concerns about its misuse, potential wealth inequality, and potential data privacy violations. AI could also hinder transparency in decision-making, allow unauthorized access to confidential information, and potentially manipulate biased data, causing political or social polarization. Furthermore, AI can cause data security problems. The study emphasizes the need to understand the benefits and disadvantages of using AI tools in business, considering the scientific literature and the potential for AI to create both benefits and drawbacks.

Recent years have seen the development of numerous AI tools for commercial purposes, which can save resources, time, and process legal data. A study found that these tools can benefit businesses, helping them stay innovative and competitive. The study identified five main AI tools for customer journey, content generation, business process improvement, and SEO: ChatGPT, copy.ai, Grammarly, and Jasper.ai.

The study reveals that small and large companies utilize content marketing, using platforms like Instagram, Facebook, TikTok, LinkedIn, Reddit, SEO content, and traditional marketing channels. AI is expected to revolutionize content marketing, as



participants use AI tools to create content and increase brand awareness. AI can also improve marketing efforts by speeding up social media posts, emails, and SEO articles. Some participants used Grammarly to enhance the quality of content and save time. The study concludes that incorporating content marketing into a company's marketing strategy is crucial for success and acquiring new clients.

The study reveals that AI tools can enhance marketing efficiency, improve work quality, and provide a competitive advantage in the marketplace. They can also provide deeper customer insights and personalized marketing. When used wisely, AI tools can help design specific customer personas and generate specific text. Additionally, AI tools can save resources and time. However, only a small percentage of businesses use AI to improve results. The study suggests that business owners should leverage AI tools to maximize their benefits, as they are beneficial and can save time and resources. The study reveals that small companies are early adopters of new technologies, willing to take higher risks and gain a competitive advantage. Factors influencing their adoption include character traits, background, technology effectiveness, education, and the cost of new technologies. Other factors include the personal qualities of founders, environmental influences, organizational scope, competitive advantage, and expenses. Small companies are more likely to adopt new technologies than large corporations, as they are motivated to gain a competitive advantage, save costs, and improve business activities. Cost benefits, social factors, and the perception of benefits play a significant role in adoption decisions. Small companies are more likely to adopt new technologies to stay competitive in the marketplace.

In this study, many participants reported that creating content marketing can be time-consuming with various obstacles to overcome. One such challenge involves analyzing vast amounts of data to identify trends and then producing short-form content that captures the interest of prospective customers. Because of these reasons, small business owners should pay attention to new technologies and how to use them in business. The study can be overcome by adopting new technologies within the business by content marketing creation which can help companies with customer conversation and brand awareness. Moreover, we state that adoption new technology tools within a business can benefit companies and help save resources. This shows that



using latest technology tools in business can help overcome the challenges within business marketing efforts and beyond.

The customer journey is divided into three phases: pre-purchase, purchase, and post-purchase. Content marketing primarily focuses on the initial contact with the customer in the pre-purchase phase, highlighting the value proposition. Low conversion rates when using paid ads indicate an uneven focus, as the purchase phase is often associated with converting customers. ChatGPT is used as a copywriting or SEO tool, but it requires manual rewriting or additional tools to avoid Google tagging. Post-purchase marketing is rarely discussed. Focusing on the entire customer journey is needed, not just single touchpoints. The primary data shows a general theme of a single pre-purchase phase focus, which could lead to lower customer retention and unprofitable spending in the pre-purchase phase.

According to the interview and my experience, the budget should divide like this

Awareness: put 40% of its budget towards upper funnel efforts

Consideration: 40% of your budget goes to driving leads in the middle of the funnel to engage customers across different channels like social media.

Conversion: 20% is for serving product-focused ads to website visitors and email marketing.



## 9. Conclusions

The study reveals that company decision-makers are aware of new AI tools that can enhance content marketing efforts. However, they often lack time and resources to research and allocate resources for these tools. Despite this, these tools can significantly improve entrepreneurial marketing efforts within the company. The conclusion provides further guidance for future research and suggests that these tools could significantly help decision-making personnel enhance company efforts.

**The research question:** What factors influence the usage of AI tools in entrepreneurial content marketing initiatives at companies and which AI technologies are used for this purpose?

**Answer:** This thesis explores the adoption of AI in marketing and its potential tools for enhancing marketing efforts. Factors such as pricing, user-friendliness, background/previous experience, perceived advantages, barriers, and time/resource constraints influence the adoption of AI. The study identified several AI tools used by companies to improve content marketing efforts, including ChatGPT, motion.ai, abode podcast AI, Dall-e, jasper.ai, Surfero, Zapier AI, make.com, Nifty, Grammarly, copy.ai, and make.com. These tools are commonly used in social media content creation, SEO optimization, ads creation, email writing, data management, grammar correction, brand communication, and sales optimization.

The main motivators for adopting new technology include saving time and money, improving company efficiency, and integrating these tools based on user-friendliness and pricing. The study also explored the connection between technology adoption and the user's background, suggesting that a previous background in using novel technology may contribute to adoption. Additionally, limiting barriers like non-intuitive design may be perceived as more prevalent in novel tech users.

From a user-centric perspective, the research suggests that companies can leverage language models like ChatGPT to generate and optimize social media and SEO content creation, automate email campaigns, improve brand communication through



consistent, error-free content, and produce image content for social media and websites. For companies producing AI tools, the study highlights the importance of user-friendliness, pricing, and communication of benefits to increase efficiency and save resources.

In conclusion, the study highlights the potential benefits of AI in marketing and suggests that businesses should consider these factors when designing their interfaces and user experiences.

This study explores the factors influencing the adoption and use of AI tools in entrepreneurial marketing. It contributes to understanding the potential impact of new technologies on marketing and highlights potential factors influencing AI adoption. The study did not examine the political implications of AI but found concerns about job loss due to AI and the future watermarking of AI-generated content. The results may be limited to the current context and the study's findings may be limited due to the limited focus on participant geographic location in the interview selection. The study's findings may also be limited by the dynamic change in AI-generated content and the geographical location of participants.

**Future research:** Future research should include a diverse group of individuals without technical or entrepreneurial backgrounds, more participants, extended interviews, larger businesses with high revenues, and experienced professionals who implement AI tools. Data from different regions and a causal correlation between suggested factors and AI adoption could also be explored. Comparative studies could be conducted to understand the differences between businesses that implemented AI tools and those that did not. This will provide a more comprehensive understanding of the impact of AI tools on businesses and their marketing efforts.



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