**Purpose** - The module "Marketing Entrepreneurial products/ services" provides the current and future capabilities of digital communication and neuromarketing technologies (e.g., eye-tracking) which allow participants to redesign, communicate their value proposition to potential customers, build and develop relationships with customers.

**Skills and competences** - To provide knowledge of current and future digital communication marketing trends and existing tools that enable course participants to test their value proposition and enhance their digital communication strategies. The learning outcomes include (1) knowledge set captures digital communication platforms and marketing trends: Artificial Intelligence (AI), and Machine Learning (ML) tools; (2) uncover the power of digital and AI/ ML tools for marketing activities; (3) make better data-driven decisions for digital marketing activities.

#### TOPICS:

1. The knowledge about Artificial Intelligence (AI), and Machine Learning (ML) tools for marketing activities; 2. Experimentation with Products/Services using Neuromarketing Techniques (ML eye-tracking tool); 3. (Digital) Marketing Methods and communication plan

### 1.The knowledge about Artificial Intelligence (AI), and Machine Learning (ML) tools for marketing activities.

As an entrepreneur, you should be aware of importance of marketing entrepreneurial products and services. As owners/managers of your business ideas, you need to embrace innovative and digital based marketing practices to achieve a competitive edge in the market. You also need to continuously come up with more innovative products/ services if they are report better performance. Therefor it is important to focus on innovative marketing strategies of digital marketing, relationship marketing, and effective pricing strategies and continuously innovate in their products/services offerings. Many researchers and practitioners (Haleem et al., 2022; D. Shah, E. Shay, 2019; J. Paschen, U. Paschen, E. Pala, 2021; Y. Yang, Y. Liu, X. Lv, J. Ai, Y. Li, (2022); N. Syam, A. Sharma, 2018) are discussing the importance of artificial intelligence (AI) and machine learning (ML) tools for marketing activities. AI applications in digital marketing can sift through billions of data points on the internet and tell precisely what it needs to know for business. It will describe what price will get the most conversions, when is the best time to post, what subject line will get the most attention, etc. Intelligent marketers stay current with all trends. It simplifies jobs and allows for more creativity and out-of-the-box thinking. It also adds value to the customers who benefit.

According to Haleem et al., 2022, Artificial Intelligence (AI) has vast potential in marketing. It aids in proliferating information and data sources, improving software's data management capabilities, and designing intricate and advanced algorithms. Al is changing the way brands and users interact with one another. The application of this technology is highly dependent on the nature of the website and the type of business. Marketers can now focus more on the customer and meet their needs in real time. By using AI, they can quickly determine what content to target customers and which channel to employ at what moment, thanks to the data collected and generated by its algorithms. Users feel at ease and are more inclined to buy what is offered when AI is used to personalise their experiences. Al tools can also be used to analyse the performance of a competitor's campaigns and reveal their customers' expectations. Machine Learning (ML) is a subset of AI that allows computers to analyse and interpret data without being explicitly programmed.



Furthermore, ML assists humans in solving problems efficiently. The algorithm learns and improves performance and accuracy as more data is fed into the algorithm. The various primary marketing segments of AI initiatives are depicted in Fig. 1. Pricing, strategy and planning, product, promotion, and place management have been vital in targeting AI-based systems in marketing scenarios.

Al is a strong tool when combined with high-quality market research data. This enables companies to complete a wide range of tasks. Marketers can use AI technology to identify trends and forecast them for the future. Based on these facts, they can then decide how to allocate their budgets and whom to target. Brands can spend less on digital advertising and more time on high-value work. The AI can also comprehend advertising needs and recommend a suitable target audience. The algorithms analyse user information such as age, gender, demographics, interests, and other vital information to determine the best audience for that specific brand. Haleem et al., 2022, analyses AI applications for marketing and suggests the table below, which allows to better understand AI application for marketing, as it identifies 23 possible AI applications.

For conclusion we can acknowledge that AI refers to techniques that allow machines to perform cognitive functions that require human intelligence. These include learning, reasoning, and interacting with the machine's surroundings. ML and deep learning are two of the most well-known AI techniques. But we want to discuss and provide some information on marketing techniques such as eye-tracking tool, which becomes popular over different disciplines.

Significant applications of Artificial Intelligence (AI) for Marketing (Haleem et al., 2022):

- 1. Digital Marketing AI has a massive influence on digital marketing. Marketers may use AI to understand consumer behaviour, actions, and indicators.
- 2. Reduction of human mistakes AI has reduced human mistakes, particularly in the most critical area. This technology can also develop and optimise content in various email formats that are nice and relevant to the recipients.
- 3. Connect business process AI uses the power of information systems to connect end-to-end business processes and give a faultless experience.
- 4. Analyse massive amounts of market data AI can analyse massive amounts of market data and predict what action a user is likely to take next. It comprehends billions of search queries and assists in determining how close a user is to make a purchase.
- 5. Deliver valuable information AI technologies make things easier by examining every new piece of data and delivering more relevant information to clients depending on their preferences.
- 6. Enable convenient customer support AI enables us to give clients intelligent, simple, and convenient customer support at every point in their journey.
- 7. Better marketing automation tool AI helps marketers swiftly identify qualified leads, develop better nurturing tactics, and generate relevant content when integrated into marketing automation tools.
- 8. Ease workload Predictive analysis, as an application of AI in marketing, has the potential to unleash a powerful pull across all of our marketing activities. Predictive analysis driven by AI can take existing data and extract enormous value from it.
- 9. Speeds up data processing AI speeds up data processing compared to human interaction, ensures accuracy and security, and allows the team to focus on strategic goals to create effective AI-powered campaigns.
- 10. Make customer-centred choices The insights that AI gathers for organisations are valuable resources to understand their consumers better and make customer-centred choices.
- 11. Examine data about customer ML may examine millions of data points about a customer to decide the optimum times and days of the week to contact them, the suggested frequency, the material that piques their interest the most, and which email topics and headers produce the most hits.
- 12. Improve stock control AI may improve stock control during intense demand and buying, naturally discouraging customers from purchasing more than realistic amounts and optimising income for the firm.
- 13. Customise shopping processes AI can construct simulation models and customise shopping processes by making suggestions based on ML technologies and interacting with virtual assistants. Amazon utilises AI to propose goods based on prior purchases, views, and searches.
- 14. Digital advertising AI is frequently employed in digital advertising to ensure maximum success; it is used across platforms such as Facebook, Google, and Instagram to deliver the best possible expert.

15. Better customer experience - Intelligent technology solutions are increasingly used by businesses and their marketing departments to improve operational efficiency and consumer experience.

16. Assisting marketers - AI helps marketers to interact with their clients effectively.

17. Increased customer satisfaction and revenue - AI can help deliver personalised messaging to customers at the right time in their lives. This technology could also help marketers identify at-risk customers and provide information to entice them to return to the business.

18. Development of a predictive model - AI-powered tools can assist in collecting data, developing a predictive model, and testing and validating that model on real customers.

19. Learning about customer preferences - Marketing teams may use AI to learn about customer preferences and specific demographic data on a detailed, personalised level. This enables marketers to build tailored experiences depending on their customers' preferences. 20. Make better decisions - By analysing quantitative and qualitative data, AI enables humans to gain better insight and, as a result, help in better decisions. Al in Google Ads allows account managers and marketers to focus on higher-level choices such as campaign plans.

21. Target audience - AI marketing assists businesses in determining who their target audience is to provide a more personalised experience for each of their customers.

22. Deliver the right message in time - AI solutions give marketers a better understanding of their customers and prospective customers, allowing them to deliver the right message to the right person at the right time.

23. Assist businesses - AI plays a significant role in assisting businesses in understanding their customers' needs and providing a personalised user experience. Companies can target and reach customers more efficiently by collecting their purchase history and social media data.

#### 2. Experimentation with Products/Services using Neuromarketing Techniques (ML eye-tracking tool)

The use of neuroscientific methods (NM) has gained prominence in various marketing applications and has contributed to greater understanding of human behaviour. According to Martinez (2011), NM is the result of the integration of three different disciplines:

• Neurology: focuses on the study of the human brain;

• Cognitive psychology: studies the relationship between mind and human behaviour;

· Marketing: the discipline responsible for developing new, profitable products and services to meet the needs of consumers.

NM focuses on researching and understanding consumer behaviour through studies of the Central and Peripheral Nervous System. NM researchers measure people's responses to marketing stimuli. The development of this field depends on the progress of several fields of study: neuroscience, applied physics, and computer science (Bercea, 2013). According to Calvert and Brammer (2012), NM is the application of cognitive neuroscientific tools in marketing in order to measure the unconscious responses of consumers. NM is being integrated more and more into traditional market research, incorporating information derived from traditional, explicit tools with new ideas to reveal how consumers really feel.

Eye-Tracking as a Research Tool. ET measures where the person is looking (gaze or fixation point), the time that this person looked at this certain point, the movement of his eyes in relation to his head, pupil dilation, and the number of blinks (Zurawicki, 2010). When connected to facial coding, the results show : exactly where people are looking; how people felt about what they saw, etc.. The synchronisation between emotional response and visual focus provides a reliable method for understanding what is driving the reactions to a given stimulus (Hill, 2011). This is of inestimable value, especially for TV advertisements, in which lots of information is generated every millisecond, possibly hindering the identification of what the viewer really liked, or what actually called his attention in a positive or negative way.

One possible eye tracking application for marketing is how humans interact with computers, especially the evaluation of web pages and online advertisements and behavioural patterns of navigation (Zurawicki, 2010).

Importance of communication and marketing methods is another topic that entrepreneurs should get knowledge about while starting the new ventures and trying to reach the audience.

What can be tracked?	Application			
Gaze direction and gaze point	Gaze interaction with computers and other interfaces in behavioural research Tests the human response to better understand what attracts people's attention.			
Detection of eye presence	Finding the eyes is the first thing the eye-tracking system does and is therefore a key part of eye-tracking.			
Eye position	The ability to calculate the eye position in real time is part of what makes the ET system accurate and precise with regard to visual attention, including studies of advertising campaigns on television, internet, and cinemas, with no delays in the processing of this information.			
Eye identification	Eye tracking identifies individual ocular characteristics based on geometric calibration. The geometrical characteristics of the eye and iris identification ca also be used for user identification.			
Eyelid closure	Eyelid closure is used to monitor the attention or sleepiness of people.			
Pupil dilation and size	These are reliable measures of emotions and are used in market research.			

#### Table 1. Variables usually measured by eye-tracking

Source: Tobii Technology (2013)

#### 3. (Digital) Marketing Methods and communication plan

In the digital world, all organizations, business want to promote their products and services, in order to survive in conditions of intense competition and different from their competitors, businesses implement digital marketing according to their own interests and objectives. With the help of digital marketing tools, customers can access information about the products or services they want by using digital platforms whenever and wherever they want (Yasmin, Tasneem, & Fatema, 2015). Digital marketing can be classified in a variety of ways. One way to classify the marketing channel is to present it based on the company's point of view or target audience, namely one-way communication channels or two-way communication channels.

1. One-way Communication Channels: website and e-mail are communication tools that can be seen as examples of one-way online tools. 2. Two-way Communication Channels: An example is Facebook, Facebook has become a communication channel that includes two-way communication tools that have engaged consumers and created awareness of brands (branding). But not only Facebook, other social media such as Twitter, Instagram, etc. can be a two-way communication tool to convey information and build relationships with customers.

Digital marketing tools can be grouped into Earned Media, Paid Media, and Owned Media:

1. Earned Media. Earned media is when a user or customer shares content, disseminates information by word of mouth, and generally discusses brands, products, or services. This earned designation is either negative or positive, which means it is given voluntarily by others (Gateway, 2018).

2. Paid Media. Paid media is a space or content that companies pay to advertise on media (Gateway, 2018). In addition to the display of ads on social media, the media obtained includes retargeting, pay-per-click, paid reviews on dedicated blogs, or recommendations from influencers on social media. The paid media helps the development of content for and increase sales of products or services (Machado & Paulo, 2016).

3. Owned Media. Owned media is a platform that the company has that is fully controlled and does not need to be paid. Such platforms are like websites, or social media (YouTube, Instagram, Twitter) (Gateway, 2018). Each of these media offers its own advantages and objectives. All of them contribute to the development of digital marketing strategies, although each company must analyse what media is more suitable for them.

Digital marketing channels. Digital marketing channels are platforms that you can use to reach your target audience with information about your brand, product, or service. Here are the different digital marketing channels examples and how each can benefit your company.



#### Communication plan.

A communication plan is a policy-driven approach to providing company stakeholders/customers, beneficiaries with certain information. A communication plan formally defines the following:

- who should receive specific information;
- when that information should be delivered;
- what communication channels should be used to deliver the information.

An effective communication plan anticipates what information needs to be communicated to specific audience segments. While creating your own communication plan you should think about these aspects:- start by understanding the needs of your business and the people who are impacted by the communication. Here are some steps to follow as you create the plan:

- Define your mission and objectives. What do you hope to achieve? (examples of missions: Tesla: "To accelerate the world's transition to sustainable energy."LinkedIn: "Connect the world's professionals to make them more productive and successful"; Examples of business objectives are: Increased profit margins by X%; reduced churn rate by X%; Increased customer satisfaction by X%, etc.).
- Understand your audience. Who is impacted by the communication? What do they need to know? When do they need to know it?
- Select your communication channels. What communication channels work best for your audience and your objectives? (example: Blogs, case studies, and other resources on your website; Emails, both one-on-one and newsletters; Live events and conferences; Social media platforms; Press releases, etc.).
- Develop your message. What information do you need to communicate, and how can you do so effectively?
- Create a timeline. When does your communication take place? How often?
- Assign roles and responsibilities. Who is responsible for generating and delivering the communication? Who approves messages before they're sent?
- Test your plan. Once you've developed your communication plan, test it to ensure it works as intended. Get feedback from your audience, and make adjustments as needed.

# Assignments



### 1 assignments

Name at least 5 aspects how Artificial Intelligence (AI), and Machine Learning (ML) tools could be beneficial for your business marketing activities?

# **2** assignments

Define your business possible communication channels to have optimal effect to target audience/stakeholders.

### **3** assignments

Prepare Communication plan for your business idea according to the given template:

Define your mission and objectives and identify communicati on goals	Specify your audience/stak eholders/ customers	Select your communicati on channels	Timing	Responsibility

#### #1

#### Questions for the discussion?

- 1. What do you think is most important when presenting an idea?
- 2. Have you created your ideas to present, share your experience?
- 3. What do you think are the ways to reach your target audience?
- 4. What ideas do you think can be successful?
- 5. Do you remember the last idea that you really liked?



#### Useful links

- https://www.spiceworks.com/marketing/ai-in-marketing/articles/what-is-artificial-intelligence-machine-learning-in-marketing/
- https://www.spiralytics.com/blog/digital-marketing-channels/
- https://www.davechaffey.com/digital-marketing-glossary/digital-mediachannels/
- https://jyx.jyu.fi/bitstream/handle/123456789/48805/1/lipiainenthe%20usage %20of%20digital%20marketing%20channels%20in%20smes.pdf
- https://diggitymarketing.com/types-of-digital-marketing/



#### Become a co-author

This handbook is unique in that we invite everyone to co-author it. If you are an expert and work in the field of entrepreneurship, if you want to share useful information with the readers, if you are a creator of unique tasks and believe that you can contribute to entrepreneurship in one way or another, we invite you to share your information and we will add a new chapter to the handbook that you have created.

More information: TTO Edvinas Samys edvinas.samys@vdu.lt