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Tereza Malíková & Tero Uusitalo (eds.)

Benefits from AI in Project-Based Learning and Business Development

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AI IN MARKETING, BUSINESS AND SALES

CREATING WITH AI

1 AI – Let´s Take the Bull from the Horn!

ARTIFICIAL INTELLIGENCE (AI) has become our daily life, both in work and in education – it is here and now. Therefore, we wanted to take the bull from the horn in the project-based education in Business Management at Laurea University of Applied Sciences in during Spring 2024.

THE AI REVOLUTION

Artificial intelligence is rapidly transforming our world, weaving its way into various aspects of our lives, but AI is more than just a buzzword. Many people interact with AI daily and do not even realize it. From facial recognition unlocking to voice assistants like Siri, through platforms like Facebook and Instagram that use AI algorithms to personalize user's feeds to spam filtering in email, protecting inboxes from unwanted messages (Allen 2024).

According to the definition from the European Parliament (2020), AI is the ability of a machine to display human-like capabilities such as reasoning, learning, planning and creativity. Think of it as a student who gets better through experience. But how does it apply and impact various industries such as education, healthcare, finance, manufacturing, or marketing? The latest chapter in AI's evolution, is about widely used generative AI with OpenAI releasing its first GPT models in 2018 (Thomas & Urwin 2024).

The AI revolution in education could be introduced as offering a more personalized and effective learning experience for students, as well as for lecturers. Utilizing various AI tools could support improving writing, checking grammar, or helping with ideation processes. Focusing on the revolution in businesses are the main areas located in data-driven decisions, enhancing efficiency, or supporting personalized customer experience. (West & Allen 2018.)

Ka Yuk Chan (2023, 18-19) found in her research ten key priority areas to adapt universities to responsible AI usage. For example, she highlighted the development of students' competencies for the AI-based workplace. On the other hand, her findings suggest that AI may hinder the development of generic skills such as teamwork, leadership, empathy, and creativity skills during studies. The interview study of Aalto, Jaakkola, Tallgren and Uusitalo (2019, 2128-2130), shows that studying in real-life projects, in contrast, strengthens students' learning of generic skills. Laurea's P2P project studies this spring combines the development of AI skills for future working life and generic soft skills on the one hand.

P2P - STUDYING IN REAL-LIFE AI PROJECTS

At Laurea, studying is closely linked to working life. The cornerstone of the newly reformed Laurea pedagogical strategy is the Learning by Developing model (LbD), in which students study in a work-oriented way (Laurea University of Applied Sciences 2023). In the Business Management programs, learning through LbD model is implemented as real-life projects assigned by companies. The model is called Peer to Peer "P2P". (Tallgren & Uusitalo 2022, 1977-1978).

During the academic semester of 2024, P2P students implemented a total of 40 authentic work-life projects. Of these, 15 were international projects in which worked Finnish Laurea students in addition to international students from Germany, Mexico, Chile, Poland, China (Hong Kong), Ukraine and United States of America. (Laurea University of Applied Sciences 2024a) Therefore, 95 students and 5 supervisors collaborated on writing the articles – 100 writers altogether.

All the projects were related to the Laurea Business Management study program Service Design and Digital Marketing and Sales project studies (Laurea University of Applied Sciences 2024b). The projects consisted of 15 credits and lasted for the entire academic spring semester.

AI – COMMON CHALLENGE FOR INTERNATIONAL PROJECTS

At the beginning of the semester, we challenged our international project teams to use AI in projects – with the aim of generating benefit and efficiency for both projects and companies.

Development opportunities were based on implementing AI tools in various aspects of the project process. Students utilized AI tools in areas such as ideation, research, image and video creation, or in the writing process to improve writing. The main aim was normalizing the usage of AI in project-based studies and work.

The instructions for the use of artificial intelligence were also to follow the instructions of the Laurea (Laurea University of Applied Sciences 2024c). The publication process is shown in figure 1.

Figure 1. *The publication process in Spring 2024.*

At the beginning of March, we held a kick-off brief for the project teams and lecturers, where the objectives and technical guidelines of the publication and articles were presented, as well as practical tips. Afterwards, the project teams had one month to write the articles. They had to manage writing strategies and adapt time schedules to work effectively (figure 2). The articles' first review was completed by the lecturers supervising the project teams, before submitting them to the editors. In mid-April, the articles were reviewed by editors and Laurea Publication's planner. If necessary, the articles were returned to the project teams for further development. This publication was published in May 2024.

Figure 2. *The Article Time Schedule of Project Teams 2024.*

BENEFITTING AI IN PRACTICE

Our international project teams used artificial intelligence in different ways in the development challenges assigned by companies. This publication deals with the use of AI in real business project development challenges and situations such as for example market researching and analysing, service designing, creating marketing materials, visualizing target personas and marketing communications. The use of AI is presented practically in various articles in this publication. The publication is targeted for all who are interested in utilizing AI in their working, teaching or studying. We all have extensively employed AI and wish to share our experiences of utilizing AI across diverse business development projects.

We are very grateful to all students and lecturers for their active work on both artificial intelligence in projects and the articles in this publication! Thank you also to the companies that assigned the project challenges. Thanks to the diversity of our projects we all had the opportunity to use different AI tools for different purposes. We also would like to express our special thanks also to Laurea's Publication services and Planner Maija Merimaa, whose help was invaluable in designing and publishing the publication!

We hope you enjoy reading the publication and also get useful tips on how to use artificial intelligence in your daily life!

Editors,
Tereza Malíková and Tero Uusitalo
Laurea University of Applied Sciences

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QuillBot, ChatGPT has been used to modify the grammar of this text. The figures have been drawn by Canva program.

Possibilities of AI

2 Using AI in Business and Education – Different Experiments and Future Ideas

Piia Haavisto

Artificial intelligence (later AI) is a hot topic in research and a large variety of different experiments on the use of AI has been done. This paper aims at giving a clear, but simplified picture of latest AI experiments in business and education, and its future possibilities. As it is impossible to predict what AI will bring later, this paper concentrates on only the near future.

AI RESEARCH EXPERIMENTS IN BUSINESS AND EDUCATION

AI interests many researchers and business professionals alike. Typically, this interest is seen as an on-going situation, although Skjuve, Brandzaeg and Folstad (2023) argue that it might be partly due to novelty, technology and social hype, and the appeal might diminish in time.

In business the main interest lies in improving efficiency and saving money with AI. Typical examples are chatbots that have emerged to give answers to simple frequently asked questions (Makasi, Nili, Desouza & Tate 2020). On the one hand chatbots reduce the waiting time to services and help the client to find the information s/he needs. On the other hand, chatbots often annoy people, as they are unable to answer more complicated or detailed questions. Another typical example of using AI in business is reducing and categorizing information with AI to make improved decisions or save time (Skjuve et al. 2023).

New possibilities in technological development have also raised interest among researchers. Various experiments have been conducted, for example, to utilize AI in idea generation and content creation within product development (Skjuve et al. 2023). Also, AI is used to create knowledge systems and develop intelligent robots that could also imitate, think logically and even show emotions (Zhang & Lu 2021, 7).

In education the discussion regarding the use of AI has focused on preventing cheating by creating software that detects materials created with AI (Baidoo-Anu & Ansah 2023, 58-59). Another main concern has

been AI´s limited understanding of the topics that the students are learning. In addition, interaction with AI should not replace real interaction between a student and a teacher. (Baiduu-Anu & Ansah 2023, 55-57.)

Only a little attention has been paid to the link between new technology and learning outcomes (Chiu, Xia, Chai & Zheng 2023, 1). However, Chen, Chen & Li (2020, 75269-75270) point out that AI has also a positive influence on learning. As positive applications they name web-based platforms, virtual reality, video conferencing, 3D technology and automatic on-time commenting which promote learning. This attitude is supported by Grassini (2023) who suggests concentrating on AI´s enriching role in learning and different experiments in education. Ultimately, there are numerous possibilities for utilizing AI in education.

WHAT DOES THE NEAR FUTURE WITH AI LOOK LIKE?

AI has certainly come to stay, and new tests and experiments will interest both researchers, business life and public sector. To respond to emerging challenges that AI has brought, multidisciplinary work teams, consisting not only of technical engineers, should be established (Criado, Sandovan-Almazan, Valle-Cruz & Ruvalcaba-Gomez 2021; Bennani-Taylor 2023).The more advanced the AI becomes, the more essential it will be to understand the ethical, legal, privacy and security concerns related to it (Makasi, Nili, Desouza & Tate 2020; Ferrara 2023a).

The legal discussion on AI in early 2020's concentrates mostly on identification harms (McStay & Urquhart 2019), possible biases in program code and manipulation (Skjuve et al. 2024). Ferrara (2023a) presents the growing risk of malicious attacks as social bots become more advanced at avoiding detection and argues that questions related to ethical and privacy concerns need to be addressed already at the early development stages of AI. These concerns need to be addressed quickly, as the near future breakthrough could be the technique having not only logical reasoning skills but also emotional skills (Zhang & Lu 2021, 7).

Companies and researchers study and build their own AI technologies, but less attention is paid to reliability of the answers provided and responsible use of AI (Wu, He, Liu, Sun, Liu & Han 2023, 1132). New methodologies that could improve the existing technique need to be researched. This includes preventing or detecting biases that AI could cause, as well as studying new techniques that could easily recognize if the content was created by AI or by a human-being (Ferrara 2023a; Ferrara 2023b).

According to Norman (2022, 57) a new way to organize work and realize competences and skills emerges with AI: work will be divided into different projects and tasks that will be partly completed by robots and partly by human-beings. It is predicted that in the future AI could help marketers to foresee what customers will buy and thus AI could even make companies change their business models (Davenport, Guha, Grewal & Brescott 2019, 24). In the future employees might not even be recruited to a certain position in a certain organisation, but person´s competences and skills could be used in several organizations and jobs at the same time (Norman 2022, 57).

Davenport et al. (2019, 24) present new research opportunities such as purchase behavior, marketing strategies, forecasting price level and need for promotions, and most importantly forecasting demand for radical product innovations (incremental product innovations often seen as minor adjustments to the products that have already been studied). Norman (2022, 57-58) adds recruitment as one development direction. AI could be used to find suitable people with competences needed for the position, which in its turn would both save time and reduce human participation in the process.

Realistically, teachers will need to rethink how students should be assessed (Baidoo-Anu & Ansah 2023, 59) and teachers themselves should be taught how AI can be applied in teaching and how it can be added to

pedagogical strategy (Chiu et al. 2023, 12) while keeping in mind that the purpose a is to enrich student learning and not to replace interaction with other students and teachers (Fuchs 2023, 3). Research experiments show the possibility to use AI in personalized tutoring or to give feedback to students on their individual learning progress, to grade student assignments, to translate instructions and other materials (Baidoo-Anu & Ansah 2023, 55-56), to create innovative virtual learning or to predict data (Chen et al. 2020, 75267). In addition, AI could enhance interactivity in digital environments and predict student´s learning outcomes that in its turn could help teachers to plan the course contents more accurately (Chiu et al. 2023, 11).

A more abstract wish stated by the researchers is to study AI´s possibility for continuous or even lifelong learning (Wu et al. 2023). This could help companies in situations in which customers´ choices and preferences differ from previous, for instance because of a changed lifestyle. Having AI to retarget in this kind of situation is a very interesting challenge (Davenport et al. 2019, 37).

From the research point of view Grassini (2023, 9) presents pedagogical innovation between educational sector, politicians, researchers, and companies as the best solution to guarantee the best possible future specialists for the future job market. There are some obstacles that need to be overcome and studied more, the biggest being the teachers´ lacking knowledge of AI technologies that make them unable to teach or even answer students´ questions and define learning and teaching outcomes as well as assess the students (Chiu et al. 2023, 12). However, AI techniques should be used only to support learning and not replace the role of critical thinking, problem solving and information searching (Fuchs 2023, 3).

- **AI brings many possibilities for developing processes in business and education.**
- **Ethical, legal and privacy concerns need to be solved fast.**
- **Educational sector, companies and researchers working together make the best innovations with AI.**

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3 Harnessing Artificial Intelligence in Project-based Business Studies

Aino Aalo, Sanna Rosqvist-Mattila, Suvi Koskela, Joonas Sandelin,
Jenna Sorsa & Piia Haavisto (Sr. lecturer)

DIGITALISATION HAS ENABLED the creation and development of artificial intelligence. Nowadays, AI is present in our daily lives. The use of AI in learning is growing, but the right way to use it is a topic of constant debate. AI offers a lot of potential for learning, but it also has negative effects, for example on students and learning.

THE ROLE OF AI IN PROJECT-BASED BUSINESS STUDIES

There is a definite interest in the business sector in using AI both in current practices and developing and finding new ways for its use. It is now used, for instance, in studying the market, customers and trends (Haleem, Javad & Singh 2022), creating new recruitment practices (Norman 2022, 57) and developing new products and services (Skjuve, Brandzaeg & Folstad 2024). Although one of the main topics in AI research in education so far has been how to prevent cheating in assignments, Baiduu-Anu & Ansah (2023, 59) suggest concentrating on preparing students to succeed and thrive in work positions in which AI has come to stay.

Business professionals, researchers and educators working together will ensure the best future workers for the labor market (Grassini 2023). In this setting, business life student projects, such as P2P projects, are a very good alternative to consider. Students will learn, and at the same time bring their own skills (such as IT and social media skills) for everyone else involved to learn. Safe, ethical, legal and constructive use of AI tools should thus be part of the learning process (Baiduu-Anu & Ansah 2023, 59). It should be remembered, however, that AI is supposed to support the learning process, and not stop individual problem-solving process or finding or assessing the relevance of the information sought (Fuchs 2023).

STUDENT EXPERIENCES LEVERAGING AI IN STUDIES

According to a study by Von Garrel & Mayer (2023), business students use AI most for research and literature study, text translation, analysis, processing and production. At times students may need help from AI with their studies. This could be, for example, translating a language, searching for sources or summarising a text. Below are some of the AIs that we have experimented with during our project studies.

DeepL Translate is an artificial intelligence translation service for text and files. We translated a text from Finnish into English using DeepL and evaluated the grammatical success of the translation. The text produced by DeepL was not always grammatically correct, so we had to correct the grammatical errors ourselves. The most common translation errors concern grammar, lack of context and the translation of metaphors. We also tested translating from a foreign language into Finnish, which showed that translating from English into Finnish was much smoother than translating from, for example, Spanish into Finnish.

The Elsa Speak app uses artificial intelligence to teach English in short daily lessons. For example, the AI helps you with pronunciation by giving you instructions on how to pronounce a word and showing you a picture that illustrates what the word you are looking for means. We tested the AI on the word "confident", which gave us pronunciation instructions and a picture of what the word "confident" means.

Today, AI can even be used to create images**. Craiyon** is an example of such a service. You can enter a keyword or a search phrase on any topic. A keyword will give more comprehensible results than a search phrase. We did a search with the keyword "artificial intelligence in learning". The search returned ten different images, but some of them were very blurred. The quality of the images was therefore lower than expected.

ChatGPT is a versatile AI chatbot developed by OpenAI. ChatGPT can answer questions, produce text, discuss topics, assist in problem solving, information retrieval, learning and decision-making. We used ChatGPT to summarise text and extract key points by telling the AI what we want from the summary. In addition, the chatbot was able to discuss the topic more with us, and we were able to ask ChatGPT more specific questions. For example, ChatGPT can use bullet points to highlight key points in the summary. ChatGPT can be used to create different text structures, for example for an essay or a larger article. In such situations, the AI can be asked for headings or content tips, for example. For example, the titles of this article were created using ChatGPT.

Artificial intelligence provides its users with assistance in finding sources and searching for information. The AI can be asked to provide guidance as if it were a teacher. As with asking a teacher, the way the question is asked plays a big role when asking an AI. A more specific question will give a more accurate answer than an overly broad question. For example, we asked ChatGPT about project risk management and its main points. To the first question, ChatGPT gave a general answer about risk management, while to the more specific question it gave a more detailed answer about the content. ChatGPT can provide suggestions for sources on a topic of interest or information on where to learn more about the subject. For example, if a student wants to find out more about service design, ChatGPT suggests literature, websites, research articles and online courses. This makes it safe to use the AI, as ChatGPT in this situation provides tips on useful learning materials rather than direct instruction.

Another AI useful for information retrieval is **Copilot,** provided by Microsoft Bing. Copilot collects its data directly from company websites and the Internet and provides the source information to the user after a response. In this way, the information provided by the AI can be verified from the sources provided. Copilot also allows you to adjust the conversation style between creative, balanced and precise. A creative style gives the user more imaginative answers, while a balanced style helps with the formatting of an email, for example, and a precise style helps with the wording of a scientific text.

Picture 1. Artificial intelligence in learning. Image created with Crayon.

BENEFITS AND DRAWBACKS ASSOCIATED WITH THE USE OF AI AND FUTURE PROSPECTS

There are pros and cons to using AI in learning. AI has created new opportunities, especially in web-based learning, but there are concerns about student responsibility and engagement with AI (Seo, Tang, Roll, Fels & Yoon 2021). When using AI, it should always be kept in mind that it is not necessarily correct. Depending on the AI used, it might give different answers to the same question. For example, we asked about the key elements of project work, to which Copilot provided five work practices, while ChatGPT provided seven key elements of project management. It depends on the AI whether it gives its user source information. Today, AI is so readily available that it can lower the threshold for a student to use it and thus become addictive. AI prevents students from developing non-measurable skills such as problem-solving, creativity, empathy and critical thinking. Wu, Duan & Ni (2023) state in their study that ChatGPT, for example, does not meet the GDPR requirements for personal data protection, which should be kept in mind when using AI.

As Guerra predicts, the use of AI becomes more common and more used in learning. AI will make it better in the future to create individual learning materials to meet the needs of students. A more personal approach increases motivation of students to study. AI can also provide tutoring systems providing personal guidance and support. Intelligent tutoring systems enable students to find guidance whenever you need it and promote self-directed learning. Teaching materials will be available to everyone because artificial intelligence technology allows you to adapt in a variety of ways in the future user interfaces. AI-based data analytics enables teachers to compile information on the development of students and thus can direct the right measures for learning individuals. AI can help with administrative tasks such as reviewing exams or scheduling lessons, allowing more time for teachers to focus on students. Different educational institutions can collaborate virtually without traveling to the place. (Guerra 2023.)

There are also good points in using AI in learning. We asked ChatGPT what it thinks are good points of using AI. ChatGPT tells that the good points are that it can provide immediate, high-quality feedback to the student, as well as making the student's tasks more efficient by providing, for example, automatic proofreading or simplifying the task question. It is possible that AI can identify the strengths and weaknesses of a student and thus enable them to focus on improving problem areas. The availability of AI is its greatest benefit, as it can be accessed anywhere and at any time.

- **Nowadays, AI can provide tools to students to enhance their learning.**
- **There is an AI for almost every learning situation.**
- **AI is a good back-up, but it is no replacement for a real teacher or a real learning situation.**
- **When using AI, the user should always be aware that it is not always right.**

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4 Modern AI Is a Useful Tool but Shouldn't Be Blindly Trusted

Aksel Eskola, Pablo González, Heta Kannela, Tuomas Könnilä & Sofía Tapia

IN THIS ARTICLE we will talk about Artificial Intelligence and how it can be a useful tool for the market research process of a company seeking to collect data and information to assess the feasibility and profitability of its entry into a foreign country. First, we must define what artificial intelligence is, which is defined by compiling proposals from John McCarthy, Alan Turing, and Nils Nilsson, who propose that artificial intelligence is a field of computer science dedicated to the creation of systems capable of performing tasks that normally require human intelligence. (Tecnologia BI, 2024.)

Knowing the definition, we can infer that AI's capabilities can be used profitably for a market research process as a tool to help process the data collected from the research in a way that is just as effective as a natural person would do. AI, being a continuous learning intelligence, will internalize data collected from various market research effectively and be a useful tool for the process. However, as with everything in life, we cannot blindly trust these machines even though they are of great help and increasingly internalized in various aspects of our lives and seem to know everything. Artificial intelligence has proven to be an effective tool as long as a human judgment is made, and the information provided is analyzed to be 100 % accurate. That is why, in this essay we will see the uses that can be given to AI in the market research process of a company and the benefits and dangers that the use of this tool in this process gives us. We will describe how AI has been used in our consulting project and tell what practices we recommend making a correct and useful use of this tool that can be a double-edged sword for humanity.

UTILIZING AI IN MARKET RESEARCH

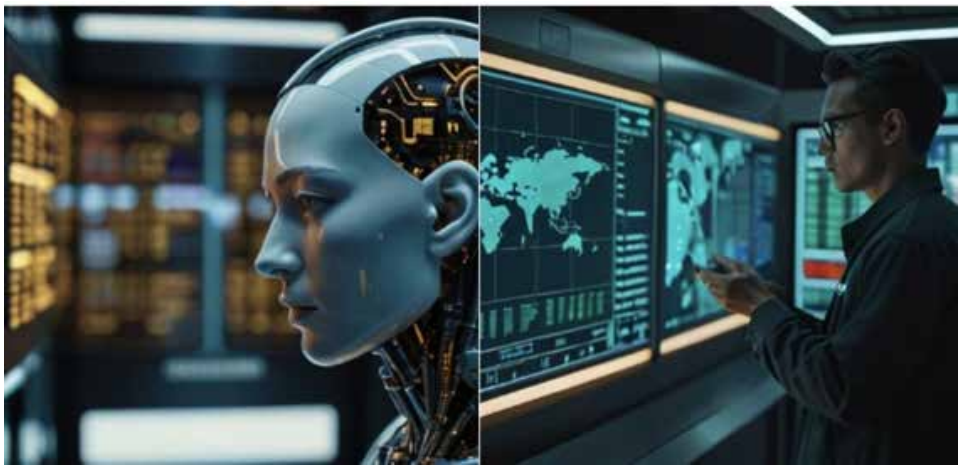
Market research is a fundamental process for companies that wish to understand necessities, preferences, and behaviour of their clients. This information has helped the companies to take informed decisions about their

products, services, marketing strategies, and prices. However, conducting comprehensive market research today involves using traditional methods. These are very efficient tools, but at the same time quite costly and slow to report analysis due to their manual mechanics. Nowadays there is no industry beyond the long reach of AI. AI is rapidly transforming and revolutionizing the world of market research with efficiency and automatization.

AI can be used in any step or phase of market research from the problem definition to the presentation of results. Some specific examples are survey design, data collection and analysis, personalization and customer segmentation, predictive analytics and competitive analysis and market intelligence. The examples are just a few of many in which this tool has helped to increase the accuracy and efficiency of the data obtained. However, it is also important to understand and ask the following question, "how can AI be used in market research?". It can be used through various tools and techniques, including natural language processing, automatic learning, and deep neural networks.

Having understood the variety of AI techniques, the following are the most popular tools used to date to conduct market research: IBM Watson Analytics, Google Cloud AI, and Microsoft AI. To summarize, these three tools are characterized by storing large amounts of information and providing a clear analysis of them, helping to understand the information in depth. They differ mainly in their objectives and the results that each one delivers.

The main benefits of AI in market research are that it helps to improve efficiency, as it can automate many tasks that are performed manually, saving time and costs. Finally, it helps to have greater accuracy through the analysis of patterns and trends which would be slower to obtain manually. But there are also risks about using and trusting 100 % in the AI. Some challenges and risks lie in ethics and data privacy. It is crucial to ensure that the process for data collection and use is responsible and supports and safeguards the privacy of customers. Also, it is crucial to monitor algorithmic bias and to avoid bias in AI algorithms to ensure that the results are truthful, accurate and objective. Conducting purely manual market research can be costly, but AI implementation can be equally so.



Picture 1. *Utilizing AI in international market research (Generated 31.3.2024 by Aitubo).*

AI is a powerful tool that can be efficient and precise, but it must be used responsibly in market research. Although there are challenges and risks, the companies that adopt AI into their processes will be better positioned in understanding their clients and taking strategic decisions, and thus they have a competitive advantage in the market.

DANGERS AND BENEFITS OF USING AI FOR INTERNATIONAL MARKET RESEARCH

Artificial intelligence can be a huge help in conducting international market research. However, some caution is needed when thinking about the way AI can be utilized and what precautions should be taken regarding the information gathered with the help of AI. This part of the article focuses on the dangers and benefits when using AI in international market research.

The project our team is working on relates to international market research. The client company is called FLAIR, and it operates in the HVAC industry. In the project, AI has been used for searching competitors and finding general information about the target market area. AI can also be used to visualize presentations in the project or to find insights of a previously unknown topic. Among other AIs, Gemini is one option for this. It can also conclude the most important points in a document which helps to focus on necessary things. Artificial intelligence can understand the meaning of sentences, even if there are some spelling errors. That said, caution is always recommended, and facts should be checked when working with AI.

In general, AI can be a useful tool to make international market research easier and can increase efficiency. It can help with the search for competitors and in comparing the characteristics of the companies. It is possible to create profiles of the companies quickly with AI, which can also help competitive benchmarking. (Hughes 2023.) When the work is done with the help of AI, the overall work efficiency improves. This happens because AI finds information much faster than people. The information AI provides is fact-based, so emotions don't create bias (Tapia 2024).

AI usage can be highly beneficial for various other reasons too. It can help spot the areas where there is space to differentiate between companies. The amount of data collected in a minimal amount of time is very valuable when implementing successful market research. For example, reviews of the products, services, features and pricing can be found faster. (Hughes 2023.) This may lead to a possibility to enter markets rapidly. However, benchmarking competitors in other countries can be difficult because of the scarcity of public information, even if AI is used.

Monitoring of social media platforms can be automated with the help of AI (Hughes 2023). This helps in analyzing competitors' long-term and adjusting operations to meet the market's requirements in an agile way. In this way, it's possible to keep in track what type of business maneuvers other companies implement regarding partners, clients, and company strategy (Hughes 2023).

The segmentation and positioning of the competitors can also be recognized with the help of AI and social media accounts or articles about competitors that may give information about the internal situation and management of the companies. (Hughes 2023.) There is a possibility that some key points regarding e.g. the best market entry strategy are left out when using traditional methods. AI gives inspiration by helping to create a large viewpoint to the matter, which helps in considering the best possibilities for implementation. This also helps people to work in a way that makes it possible to meet the clients' needs by showing the weekly spots of other companies (Hughes 2023).

There are some points to consider before implementing AI usage and what AI is chosen. The AI that is used to do research must operate legally and ethically. The AI's data sourcing should be monitored frequently to make sure the policies are adhered to by the person responsible. (Hughes 2023). However, this may be difficult to ascertain. Using AI requires the ability to think critically. The information must be checked for validity before usage, analyzed and interpreted in a way that suits the situation. If the information produced by AI seems off it shouldn't be used – especially in relation to market research, every fact must be evaluated carefully. (Hughes 2023.)

According to Weitzman (2023) information in some AI's may be old or the information can simply be untrue. Using different academical sources or field experts to back up the information is considered smart. (Hughes 2023.) Also, the language AIs use, in this case Gemini, typically phrase sentences in a way that doesn't indicate 100 % certainty. The reason for this is that the owning body isn't accountable for possible misinformation in this way. This is one reason why critical thinking is important and you can't blindly rely on AI. If you ask the AI the same question many times, it mostly gives the same answer, but critical thinking is also recommended here. In the project, the information provided using AI was checked for validity using other sources and companies own homepage.

In conclusion, AI can be a great tool when doing international market research. Now-a-days it is a highly important part of some business operations, and it improves continuously (Weitzman 2023). According to Weizman (2023) the benefits of utilizing it in various ways are outweighing the downsides of the usage and the risks fall into a scale where they can be worked with. The risks must be noted and taken seriously. The information that has been gathered using AI should be checked carefully to avoid misinformation from spreading.

HOW AI WAS USED TO MARKET RESEARCH IN THIS PROJECT

Our recent market research project for FLAIR leveraged the power of Artificial Intelligence (AI) to gain a deeper understanding of the competitive landscape of HVAC systems enhancing industry. As we are moving forward AI acted as a research assistant, streamlining tasks, and uncovering valuable insights that would have been difficult or time-consuming with traditional methods.

One key area where AI excelled was in competitor analysis. AI tools were used to gather information on competitors, including companies' websites, product offerings, marketing strategies, result publication dates etc. This comprehensive data provided a better picture of the competitive landscape, allowing us to identify strengths, weaknesses, and potential opportunities. The AI tools used were Google Gemini and Chat GPT.

The power of AI wasn't limited to data collection. AI-powered sentiment analysis tools were used to analyze the already gathered information. Our team also used AI to condense lengthy product descriptions from an entire page of text into a more concise form. The rapid data processing of AI helps in some cases to identify the most important information from the text, thus improving work efficiency. Giving commands to AI plays a significant role in this process. When generating tasks for AI, you must be careful to ensure that the instructions meet the criteria clearly. For example: you can define which information points you want especially to gather and what details to look for. In what form do you want it? In what order? Give AI clear instructions to get the best results out.

BEST PRACTICES AND RECOMMENDATIONS FOR USING AI FOR MARKET RESEARCH

Fundamentally the process or methods for conducting market research does not differ between doing the research for one's home country or doing it for a country abroad. The biggest variables are of course the local culture and customs.

Good ways to utilize performance of AI is to use its tools for competitor research. Integrate AI into search engines to get new ways to gather data. Use AI to track competitors' actions on the web in real time. Scourge through customer reviews and company plans to claim clues about competitors' movements. Use AI to analyze company structures and key personnel. Nevertheless, AI tools give good suggestions and gather the raw data, but the actual evaluation should always be done by professionals. Therefore, always review manually all the material that AI gives. (Hughes 2024.)

For "product" use AI for producing new product concepts, review the performance of the existing products or give product suggestions for customers. Gather data of the general price levels of competitor's solutions. Automated monitoring of the fluctuations in factors that contribute to products' total price to gain better understanding of costs.

Utilize AI for "place" to write distribution chain performance reports and to analyze the demand and reach of products at different regions of operation. Use AI for promotional activities. For example, make it design marketing content for different personas and adjust promotion channels. Elaborate call scripts and lists of contacts and contacting strategies according to segments with to help efforts of direct marketing (Brandon 2017). Lastly don't let AI do all the work, since modern AI is still prone to errors. Examine the outputs and work with professionals to make the final solution.

CONCLUSION

Artificial intelligence has become a game-changer in market research, revolutionizing the way businesses collect, analyze, and interpret information about their customers and competitors. As main benefits of using AI in market research we can highlight the efficiency that AI provides, the accuracy that AI could give for reports based on a lot of data and the deeper insights that AI provides for identifying preferences, buying patterns or sore points, thus allowing to the company to launch better products and strategies. The main risk of using AI are ethical problems with the data and bias, the interpretations made by people that work with it. AI also cannot predict future trends or behaviors. In conclusion, AI is a powerful tool that can significantly enhance market research capabilities when used responsibly and in conjunction with human expertise. Companies that strategically adopt AI, while considering its limitations, will be better positioned to understand their customers, make more informed decisions, and gain a competitive edge in the global marketplace.

- AI can be a useful tool for the market research process of a company, mostly to collect data and information. IAI can deliver effective results and insights just as a natural person would if the information provided is complete and correct.
- While artificial intelligence-based tools can be very comprehensive and effective, they must be complemented with in-house knowledge and expertise.

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5 Students' Experiences with AI Tools in Project Work

Sofia Jokinen, Anne Warren, Alfredo Pérez Quiñónez, Jesus Alcarez, Arezu Azarqaderi & Salla Rajala

THIS ARTICLE DESCRIBES Laurea University of Applied Sciences Business Management students' international business project, where our assignment was to develop HEIComp projects brand awareness in Latin America and meet the given KPIs (Key Performance Indicators). The project was assigned by U.Experince, which is a communication partner in the HEIComp project. The U.Experience is a Brazilian consultancy agency specializing in the internationalization of higher education. During this project, we used various types of artificial intelligence in the learning process and this article discusses the usage and experiences of different AI tools within the project work. (HEIComp 2023.)

HEIComp is a project funded by the European Union and it is about bridging the gap between students' competencies and working life needs. It aims to bring students from higher education closer to companies and meet the companies' needs in the labor market. The HEIComp project brings awareness in Latin America to the modern study method: Working Life Connected study model (WLC) where the students learn in projects with real working life organizations. (HEIComp.)

USAGE OF DIFFERENT AI TOOLS

During the project we explored how AI could be used for different purposes, for example, to assist the learning process by visualizing the target groups and helping us to find what to research. The tools we used were for example **ChatGPT, Gemini, QuillBot** and **Google Translator.**

- **ChatGPT** is an OpenAI model which can interact by conversation. For example, when asking questions from ChatGPT, it gives detailed answers using internet data it has been trained on. (OpenAI 2022.) ChatGPT was released in November 2022, and it has gained popularity fast on social media (Marr 2023) .

- **Gemini** (previously known as Bard) is Google's AI model. It can produce information, for example text, code, audio, image, and video. The user can also interact with it through conversation. (Pichai & Hassabis, 2023.)
- **QuillBot** is an AI-powered paraphrasing tool. With QuillBot, you can rephrase text in many ways. It can be used for finding synonyms for words and producing citations. It has also a grammar checker, a plagiarism checker and a translator. (QuillBot.)
- **Google Translator** can be used to translate text and speech in different languages. It also has a feature for translating spoken language and it can identify a language. The camera can be used in Google Translator, and the translator will translate the text seen in the picture to the selected language. (Google Translator.)

Table 1. *AI tools used in the project*

CHAT GPT (OPEN AI)	GEMINI	QUILLBOT	GOOGLE TRANSLATOR
• Gives detailed answers to questions • Uses data from Internet • Interaction by conversation	• Produces text, code, audio, images and videos • Interaction by conversation	• Rephrases text • Finds synonyms • Has grammar checker and plagiarism checker	• Translates text and speech • Knows multiple languages • Identifies languages

In the chapters below we provide more detailed explanations on how we as the project team used the different AI tools in the project work. The chapters address research, translating and image creation.

ARTIFICIAL INTELLIGENCE FACILITATING RESEARCH WORK

To accomplish the KPI's set by the HEIComp project we conducted research on universities in Latin America that use project based (PB) learning approaches, which required a methodological search across a variety of topics. AI made the work much simpler and faster.

We used Gemini for our research purposes, because the free version of ChatGPT contained outdated information. Latin American universities were searched by using prompts such as, "Tell me, as a researcher, which universities in Colombia use project-based or alternative learning methods, and provide a source for that?" Gemini provided examples, and we could check their websites to see if they used project-based learning approaches.

When using AI, the only limit is the imagination. One can always reframe the prompt if not pleased with the results. In this situation, one may use the following prompt "PB — or alternative learning methods" as separate possibilities, and Gemini provides different variations. Alternatively, one can ask: "Where can I obtain information about Colombians who employ PB learning methods?" For example, one might ask the same prompt from ten universities, but modify a few words or add words.

Gemini can also be polite. Once it told: "Well, you are pretty interested in this subject!" It is smart and suggests where you can find more relevant information, as well as whether the content has changed or has become outdated. AI saves time while searching for information. You can immediately form the query for which you require an answer. Based on our experience, Gemini is significantly faster and easier to use than Google Search Engine.

USING AI TRANSLATION TOOLS TO ASSIST WITH INTERNATIONAL COOPERATION

When it comes to writing in a foreign language, AI tools present an easy and accessible way of breaking through the language barrier of international collaboration. DeepL shows itself as a strong tool when it comes to translating texts to and from English. Its ability to fine tune the answer remains unrivaled in the translation tools market.

For this project, both communication with the clients and the surveys for the target groups, had to be written in both Spanish and Portuguese while our team's main working language was English. This proved to be a challenging situation. Having two native Spanish speakers in the project team certainly helped, but there wasn't any native Portuguese speaker, so AI tools had to be used to assist in the translation.

The AI tools we used for translation were ChatGPT and DeepL, with the former offering the possibility to translate the whole survey in a single prompt while the latter proving to be more accurate when translating a set of questions and their possible answers. The biggest disadvantage that ChatGPT has over DeepL, is that the fine tuning of the answer's tone and writing style needs to be included in the prompt, either by explicitly specifying the expected result or by requesting the answer to be shaped in a specific way. When it comes to DeepL, the answer's writing style and tone can be selected from the interface. DeepL also provides the possibility to change only part of the generated text without needing to make a new prompt, further simplifying the process of translation. (DeepL)

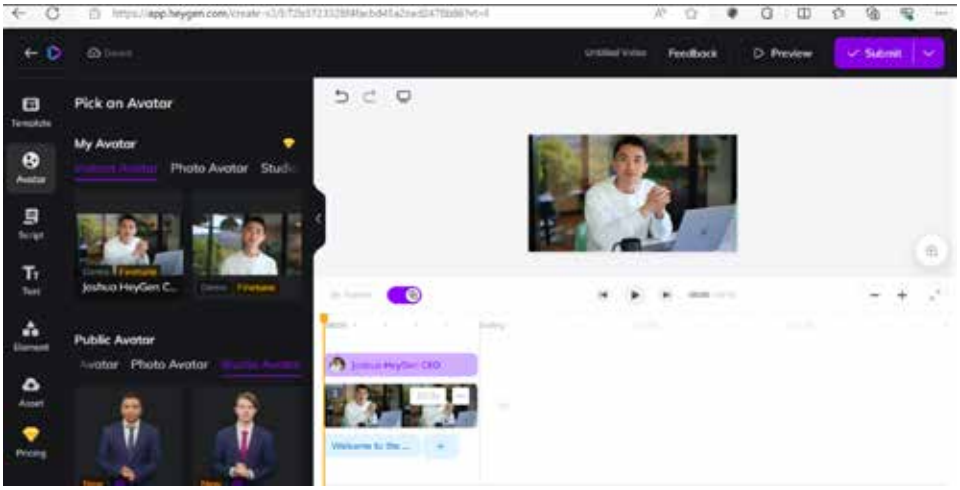
For the surveys' translations, we asked the Spanish speaking students to check and correct them, if necessary, while for the Portuguese translations the project team had to ask the client to check the accuracy of the text produced.

AI GENERATED IMAGE CREATION

Exploring AI for targeted video and image creation was a mixed journey. Initial excitement led to testing platforms like **Invideo AI**, **Pictory**, and **Veed.IO**, but results often fell short, resembling collages rather than professional content (Veed.IO).

- **HeyGen** offered structured video creation using avatars, but its limitations were evident. A lack of free editing options meant charges applied for modifications beyond the trial video (HeyGen). Selecting AI-generated scripts proved tricky due to unpredictable lengths, emphasizing the need for concise planning. The platform's handling of speech pauses added realism, but the absence of a preview feature meant videos were final unless additional credits were purchased.
- **Generated Photos** provides ethically created images resembling real people without directly depicting individuals. While the full repository required payment, some images were free, reflecting the balance between cost and accessibility in AI-driven content creation (Generated Photos).

In conclusion, AI offers immense potential for video and image generation, but challenges persist, such as output quality and associated costs. Platforms like HeyGen and Generated Photos showcase AI's capabilities within constraints. Creative solutions are essential for maximizing these tools' utility, whether by circumventing financial barriers or tailoring content to free trial limitations. (Generated Photos.)



Picture 1. *Avatar creation 1.*

CONCLUSIONS

We utilized AI, particularly ChatGPT, Gemini, QuillBot, and Google Translator, for various tasks, including research, communication, and content creation. These tools have expedited processes, improved accuracy, and facilitated multilingual communication, demonstrating AI's adaptability in international projects.

Gemini played a crucial role in the research efforts, swiftly providing relevant information and refining search queries to identify Latin American universities using project-based learning. Its user-friendly interface and adaptability made the workflow smoother, showcasing how AI can transform education.

In translation tasks, AI tools like ChatGPT and DeepL streamlined the process, enabling effective communication across language barriers. While ChatGPT excelled in generating responses, DeepL offered greater control over tone and style, enhancing translations.

Despite challenges in image and video generation, platforms like HeyGen and Generated photos showcased the evolving landscape of AI-driven content creation. While limitations exist, such as subscription costs and output quality, these platforms provide valuable opportunities for creative expression and storytelling.

Overall, the HEIComp project represents the intersection of AI technology and international collaboration, highlighting its potential to enhance efficiency, correctness, and creativity in project-based learning and business development initiatives. As AI continues to evolve, its integration into future projects promises to drive innovation and foster global partnerships.

In summary, AI streamlined research, communication, and content creation in the HEIComp project, demonwstrating its transformative potential in diverse project settings.

ARTIFICIAL INTELLIGENCE IN HEICOMP PROJECT

- Research Simplification: AI, notably Gemini, expedited research on Latin American universities in use of project-based learning (PB) approaches, surpassing conventional search engines.
- Multilingual Communication: AI translation tools like ChatGPT and DeepL facilitated seamless translation into Spanish and Portuguese, enhancing communication efficiency.
- Image Creation: Platforms like HeyGen and Generated Photos showcased AI's potential in video and image creation, despite challenges in output quality and cost-effectiveness.

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Using AI as an Agent for Change

6 Uses of AI to Help Research and Analysis Tasks in Cross-cultural Teams

Tiana Kevic, Anne Warren, Rilla Räsänen, Esperanza Sanchez, Fabrizio Enriotti & Paulette Fernandez

THE WORLD IS constantly changing, and globalization is further blurring geographical boundaries. This development is also reflected in the dynamics of collaboration, as international teams with members from diverse cultural backgrounds are at the forefront of innovation and knowledge creation. The need for international teams is further highlighted as nations and economies are becoming increasingly intertwined, increasing the need for cross-border cooperation. International teams are now commonplace in academia, business, and scientific research, bringing together diverse cultural, linguistic, and scientific backgrounds.

Navigating the complexity of multicultural cooperation brings challenges, especially in research and analysis tasks. This is where Artificial Intelligence (AI), a revolutionary force that is ready to shape the landscape of teamwork and research, emerges. Utilizing artificial intelligence in multicultural research and analysis tasks offers numerous benefits, but amidst the promises of AI lie several risks and factors to consider.

How can technology act as an enabler for the research and analytical work of a cross-cultural team? AI has great potential to contribute to this mission. In the next paragraphs, there are some suggested tools and their application to enhance the research and analysis of a cross-cultural team.

CROSS-CULTURAL TEAMS AND CULTURAL DIFFERENCES

A cross-cultural team is usually defined as a global team that includes people who come from different cultures and have unique experiences. A cross-cultural team is the greatest opportunity to learn different backgrounds, innovate new solutions, and procreate success. (Henman 2023.)

Cultural differences involve the integrated and maintained system of socially acquired values, beliefs, and rules of conduct which impact the range of accepted behaviors distinguishable from one societal group to

another (Jackson & Guerra 2011). Most common cultural differences are related to various beliefs, behaviors, languages, practices, and expressions. According to statistics published by The New York Times, culturally diverse teams outperform non-diverse teams by 35% (Wolfers 2015).

When cultural differences are understood and utilized as a resource, all benefit. When they are not, the costs are significant. (Moran, Harris & Moran 2014). While cultural differences bring many benefits, it also takes a lot of effort to manage them. People are challenged to face the obstacles of working in cross-cultural teams rather than ignore them. There have been more and more tools at our disposal to achieve this goal. Our best ally is technology.

AI TOOLS AND THEIR BENEFITS IN RESEARCH AND ANALYSIS TASK

Artificial intelligence offers several significant advantages for improving remote teamwork while facilitating the cultural intersection that can exist in a working group. More specifically, this tool improves team coordination, knowledge sharing, and learning, and supports decision-making, as well as team evaluation and performance. However, there are detailed examples of how AI can benefit from these aspects:

- AI systems, such as chatbots and AI-based collaboration platforms, can enhance communication by providing real-time machine translation to overcome language barriers in multicultural teams, for example The Quillbot platform, which is used to translate texts and documents. This facilitates understanding and collaboration regardless of the native language of each team member.
- AI tools can also help in project management by automating routine tasks, optimally allocating resources, and providing predictive analysis to identify potential problems before they occur. For example the platform called Asana can filter and analyze data, and predict events and problems by identifying trends and patterns in an organization. This allows for more efficient coordination and reduces time spent on administrative tasks.
- AI can facilitate collaboration by providing smart recommendations on how to organize meetings, assign responsibilities, and distribute tasks according to the skills and availability of each team member. One of the most used AI platforms in these cases is Microsoft Teams. This platform can identify the best times to schedule meetings based on the availability and preferences of team members and at the same time, can analyze the workload of each team member and distribute tasks according to their ability and availabilities. This optimizes productivity and fosters a collaborative working environment.

MANAGING CULTURAL DIFFERENCES USING AI

In a multinational corporation, managing diverse nationalities naturally creates conflicts between employees and between work management and employees.

Artificial intelligence can be an effective tool for addressing cultural differences in today's globalized environment. The translator is useful for verbal communication, but AI may also be employed as a researcher to learn about the country, its people, and its culture. Teams can do work with greater pride and confidence, as well as communicate more successfully.

Picture 1. *The project team getting to know each other and beautiful Santiago De Chile.*

Identifying cultural patterns in communication styles, attitudes, and preferences requires cultural empathy, which involves viewing the world through the eyes of another. This leads to a more sophisticated understanding of how different cultures interpret information and interact.

While AI enables data analysis, cultural awareness extends beyond numbers and helps to clarify the image. It makes people understand better the opportunities of another culture, and how the cultural differences can be used for the benefit of the team. This is comparable to project-based learning. Amongst different cultures, people can lean on each other and offer their knowledge for everyone to use.

INTERNATIONAL CONSULTING PROJECT APPLICATION

International Consulting Project was a collaboration between students from LAUREA and UDD, Finnish and Chilean universities, respectively. This work's objectives were to develop communication skills, foster cross-cultural working relationships, and contribute knowledge and techniques that contribute to consulting work. For this initiative, students were working with Alloxentric, a company that provides services related to artificial intelligence to other companies to improve their processes and services. The main goal was to identify relevant industries where their products and services could be applied and deliver information about potential clients.

When combining students from different countries the language barrier is usually the highest one. Translator apps are useful for communication between team members, allowing their communication and

understanding in a better way. Some translators, like DeepL, offer AI suggestions that are a great tool when writing essays, articles, and other documents needed for the project.

During the project, they were used when making PESTELE analysis, benchmarking excels, researching, and getting information and sources about topics used in essays and articles. We observed that during the project preferences depended on the culture, Finnish used a Chat GPT and Chilean students are more familiar with Gemini. The importance of communicating and discussing the results obtained by using these tools was demonstrated during the project. AI can produce a lot of information and the way people communicate about what is needed can produce different answers, so having different languages could help to have more than one way to request something, but also leads to misunderstandings.

CONSIDERATIONS ABOUT AI

When using any tool, one should consider that it is just that: a tool. Therefore, it requires action on the part of the user. It means users of AI should not place all the responsibility on the tools they use but need to be focused on some special things instead of the whole task.

It is very important that all cultures are respected rather than imposing one culture on others. Some AI responses may be more attached to some culture, making it seem the most important. Depending on which AI is used and how it is asked for information, different results may be obtained as the information provided may come from different sources that might have some bias, sometimes even ethnocentrism. It is essential to discuss the results obtained and review the sources to ensure that the different cultures are respected and balanced and not to provoke conflict through unintentional invalidation.

CONCLUSION

In conclusion, the article underscores the potential of a multicultural collaboration facilitated by Artificial Intelligence in today's rapidly evolving global landscape. It emphasizes the dual nature of cultural diversity within cross-cultural teams, highlighting both its immense opportunities for innovation and its inherent challenges in communication and coordination.

The integration of cultural awareness with technological innovation presents a compelling vision for the future of cross-cultural teamwork. Don´t forget that balancing the benefits, risks, and costs of adopting AI in multicultural research and analysis teams requires a subtle approach. Adopting artificial intelligence as a tool rather than human intelligence is paramount and can bring many benefits if teams are committed to understanding it, learning about it, and using it correctly.

- The world is experiencing rapid change driven by globalization, which necessitates increased cross-border cooperation and the formation of multicultural teams. It represents a great opportunity but is also a challenge where AI could be useful.
- AI-based tools can facilitate language-to-language translation, overcoming linguistic barriers and ensuring each team member can participate in and understand conversations.
- By utilizing artificial intelligence to streamline routine work, such as computing and information retrieval, team members can spend more time and energy on collaborative meaning creation, critical thinking, and building relationships the cornerstones of effective multicultural teamwork.

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7 Leveraging AI for Sustainable Development in the Hospitality Industry

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Lau Pik-Ying (Candi) & Oona Lokka

THIS ARTICLE REVIEWS our project with Hotel Sveitsi on their promotion of sustainability in their hotel and on how AI is linked to the hospitality industry. This article also reviews how we have used AI tools during the project to promote sustainable development in Hotel Sveitsi, and presents the results and conclusions about the benefits of AI in this project.

In recent years Artificial Intelligence (AI) has transformed the world, revolutionized industries, reshaped economies, and redefined the ways we live, work, and interact. AI has undergone remarkable development over the years, evolving from its theoretical origins to a pervasive and transformative force. At its core, AI is characterized by its ability to emulate human intelligence through computational algorithms and models. AI possesses the capability to perform autonomous decision-making and reasoning, enabling it to navigate uncertain and dynamic environments with agility and precision. As AI continues to advance, its potential to revolutionize industries, enhance human capabilities, and shape society's future is virtually limitless. (ChatGPT 2024.)

The topic of our project was service design and sustainability in the hospitality industry. The hospitality sector is characterized by high energy consumption, resource utilization, and waste production, and it faces significant pressure to adopt sustainable practices. AI technologies offer innovative tools to address these challenges by optimizing operations and minimizing environmental impact. As the hospitality industry continues to prioritize sustainability, the integration of AI technologies offers a transformative opportunity to achieve environmental objectives while enhancing operational efficiency. By harnessing the Power of AI, hospitality businesses can pave the way for a more sustainable future, where responsible practices and innovative technologies converge to create memorable experiences for guests while preserving the planet for future generations. (Karagiannis 2024.)

HOTEL SVEITSI'S CURRENT SUSTAINABLE ACTIONS

Hotel Sveitsi is located in Hyvinkää, Finland, and it's part of Primehotels Oy group. Its team has a strong desire to make the hotel's operations more sustainable and environmentally friendly, particularly due to its location amidst nature, which accentuates the importance of sustainability. Nature and its biodiversity are important to the hotel team. The hotel has a sustainability working group that deliberates on sustainability-related matters and how they can increase taking care of nature and reflects on alternatives that could be integrated into their business operations. Additionally, they have initiated close collaboration with Laurea University of Applied Sciences to gain an external perspective on sustainability issues. (Hotel Sveitsi website 2024.)

Sveitsi invests significantly in sustainable development. They efficiently recycle waste, segregate oil and grease waste from the kitchen separately, and endeavor to reduce food waste from the breakfast buffet by utilizing the ResQ app, an app that gives a platform for rescuing the food surplus from restaurants, cafés, and grocery stores for a reduced price. The app has been highly popular in the hotel's area. To avoid unnecessary depletion of natural resources Hotel Sveitsi aims to use their furniture versatilely and efficiently as much as they can until the end of the furniture's lifecycle. Hotel Sveitsi holds both the Green Key certification and the Sustainable Travel Finland label. To obtain these recognitions, the company must take concrete actions to promote sustainable development as well as increasing their sustainable development each year. (Hotel Sveitsi website, client.)

Artificial intelligence has many roles in the hospitality industry, such as virtual assistants that appear when booking or scrolling on hotel web page, smart room features that provide more comfort to the user, language translation services, etc. AI is also used in predictive analytics. The question arises: How can we use artificial intelligence in the hospitality industry for sustainable service design?

AI IMPLEMENTATION IN A SUSTAINABLE HOSPITALITY INDUSTRY

Artificial intelligence is a growing field. Applying it to the hospitality industry and relating it to sustainability was a challenge. As Hotel Sveitsi and its partners seek a more sustainable complex, we wondered how artificial intelligence can be used to make this goal achievable. Besides this, our goal was also to communicate effectively sustainable measures in the complex. In our research, AI was helpful. For example, a tool like ChatGPT was useful when we needed to brainstorm about sustainability in hotels. AI also helped us to translate texts and websites when we benchmarked different hotels around the world.

In Hotel Sveitsi AI is used in very subtle but useful ways such as the **cookies** on their website. According to Lavin (2006), cookies give the opportunity for measuring customer response to offers and personalizing them. Online websites, based on the customer's past activity on the site, make suggestions regarding products likely to satisfy a particular customer's need; this can help find customers who are looking for a sustainable option for vacation or just relaxing outside of the city and for connecting more with nature and Sveitsi's amenities. For this to happen it is also important that Sveitsi uses keywords that relate to sustainability so that their content shows up for the correct public. The hotel also works in cooperation with the **ResQ app**. The main page of the app shows a map that uses your location to show you what available food options you have near you so you can come and pick food up. (ResQ Club 2024.)

Using AI for sustainable service design can include several areas. Among these are waste management, water consumption, and energy usage. For the benchmarking, we researched these areas and highlighted

findings from hotels that could help us come up with new implementations at Hotel Sveitsi. AI inside the hotel can be used for **data collection and analysis** of guest preferences. In the kitchen area, the product usage frequency data can be gathered and analyzed by AI and used to inform when to purchase certain products again. The same idea can also be used for monitoring cleaning supply. In **smart rooms** AI can predict efficient usage of warming and lights, and energy usage can be reduced. (Bartender 2024).

Other areas where AI can be included are personalized recommendations for clients, intelligent energy management for rooms and halls, **supply chain optimization** (including sustainable packaging, and reducing transportation emissions, among others) and **predictive maintenance** (AI systems that can anticipate equipment failures and optimize maintenance schedules extending the lifespan of equipment) (ChatGPT 2024.). When communicating sustainable practices to the client, AI can be useful in **creating** different **posts** for social media or brainstorming (Campbell 2023).

In addition to the outlined steps, here are some further considerations for implementing AI in the sustainable hospitality industry at Hotel Sveitsi. AI can be used in utilizing AI-powered dynamic pricing strategies to encourage guests to choose sustainable options during their stay. For example, offering discounted rates for guests who opt for **energy-efficient room features** or participate in eco-friendly activities

Picture 1. *Created with Copilot. AI Photo Designer.*

can encourage sustainability while also increasing revenue. In addition to the pricing, AI can be utilised for measuring impact and reporting key performance indicators (KPIs) and metrics that measure the impact of AI-driven sustainability initiatives at Hotel Sveitsi. Regularly track and report on progress toward sustainability goals to stakeholders, including guests, investors, and regulatory authorities.

By incorporating these additional considerations into the implementation of AI in the sustainable hospitality industry, Hotel Sveitsi can further enhance its sustainability efforts and differentiate itself as a leader in eco-friendly hospitality practices.

UTILIZING AI TO PRODUCE RESULTS

So far, our results rely on our benchmarking analysis and innovative new ideas partly based on its results. Through this approach, we aimed to get comprehensive insights into the current state of sustainability in the hospitality industry, while also fostering new perspectives for future development.

Benchmarking sustainability standards and practices against other competitors in Finland and abroad provided us with valuable information for evaluating Hotel Sveitsi's performance and identifying areas of improvement. Our analysis revealed several key findings, including notable strengths in energy efficiency, waste management and water consumption. However, we also identified opportunities for improvement, mostly in communicating the sustainability commitments to customers. In our opinion, AI could also be used to improve communication in general. All the insights given abound with concrete tools and ideas that could help develop sustainability in Sveitsi. The benchmarking results and conclusions provide a basis for advice and initiatives for the future of Hotel Sveitsi.

Our project team brainstormed together to generate fresh ideas and innovative solutions. With the help of AI tool ChatGPT brainstorming was efficient. We leveraged diverse perspectives and explored options to solve existing challenges and capitalize on appearing opportunities. These ideas hold the potential to drive significant value to create differentiation for Hotel Sveitsi in the highly competitive hospitality industry. The results of our study highlight the importance of both benchmarking and innovative thinking and using AI in driving continuous improvement. By leveraging understanding from our analysis, we can help Hotel Sveitsi enhance its competitive position and drive its sustainable and responsible growth, which is very important in today's market.

AI AND HOTEL'S SUSTAINABILITY IN COOPERATION

As we know with the trend of AI, multiple industries wish to implement it in their works, and the hospitality industry is not the exception. Hotel Sveitsi wishes to keep and improve its sustainability levels, and this is a chance for it to drive its sustainability to the next level by using AI.

In this article, concrete measures were provided of how AI can help sustainability in the hospitality industry. Measures such as the use of cookies in the websites and the use efficient keywords, data collection and analysis can help with supply chain efficiency, smart rooms that can upgrade their energy usage, predictive maintenance, creation of posts for communicating effectively their sustainable actions, between others.

This article shows that artificial intelligence is no longer the opposite side of natural, sustainable, or eco-friendly. They have the potential to cooperate and create amazing and optimized services. AI will change our world; it is needed to keep up in the industries that form our daily lives.

- AI can help hotels optimize energy usage, water consumption, and waste management through data collection and analysis, therefore reduce environmental impact
- AI can personalize recommendations for guests, create smart rooms that adjust to guest preferences, and help communicate the hotel's sustainable practices.
- AI can be used for benchmarking against competitors and brainstorming new sustainability initiatives.

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8 Utilizing a Custom GPT for Enchanced Insight into Maritime Industry and Vessel Traffic Systems

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LAUREA COMPLETES HUNDREDS of student projects annually. Many of these of the projects are done in a genuine co-operation with different Finnish and international companies and organizations. Without an exception, the projects require students to learn the client companies' business models and practices to a relatively high degree. With the help of our project client, Wärtsilä, we explored the possibilities of custom GPTs to help bridge the knowledge gap between industry experts and students.

All airports have an air traffic control system, and in the same way all commercial harbours have a vessel traffic system (VTS). These systems, like all other current operational systems, evolve as new technologies emerge. One of the most demanding VTS environments can be found in of the busiest ports on the planet, Singapore.

Singapore is also where Wärtsilä tasked our Laurea students to find fresh, seaworthy ideas for the next generation vessel traffic system they are designing for Singapore maritime authorities. The result of this project was a design concept for a next generation vessel traffic system.

Understanding vessel traffic systems entails grasping the basics of the marine industry, including things like the maritime guidelines established by the International Maritime Organization, current vessel traffic guidance systems, and their historical evolution, future development prospects, and, crucially, the practical VTS applications for system operators (ports), ship captains, pilots, regional authorities, and commercial entities such as shipping companies.

To help students acquire all the knowledge needed Wärtsilä set up several meetings with the aforementioned experts, but the following question arose: How should the students prepare for interviews with these specialists? To help alleviate this problem, Wärtsilä's IT department stepped up and programmed a custom GPT for the students. This paper explains what custom GPTs are and how Laurea students utilized one for the benefit of their project.

THE THREE DIFFERENT VERSIONS OF CHATGPT

Our project was realized in spring 2024. At the time OpenAI offered two different versions of their Large Language Model AI, the ChatGPT: Free to use version called ChatGPT-3.5 and the paid subscription version ChatGPT-4. OpenAI also allows various ways to modify and enhance the interaction with the 4.0 version, and one of these ways is known as building a customized GPT. Custom GPTs are simply modifications of the ChatGPT-4 technology. (OpenAI 2024.) In our project the students had access to a Custom GPT programmed specifically to focus on maritime knowledge and to answer questions in maritime context.

Custom GPT models, derived from base architectures such as GPT-3, are tailored to specific datasets to optimize outcomes across diverse domains, including content generation and specialized fields like legal analysis and medical diagnostics. The Custom GPTs present a significant advancement in enhancing task-specific performance by leveraging the transformative architecture introduced by Vaswani et al. (2017) in their paper "Attention Is All You Need."

The customization of GPT models is grounded in the principle of transfer learning, wherein a model originally designed for one task is adapted for related tasks, thereby enhancing its versatility across different applications. The deployment of Custom GPT models underscores the potential of artificial intelligence (AI) to offer bespoke solutions tailored to address unique challenges encountered across industries. (OpenAI 2024.)

In summary, the Customized GPTs are advanced language models that have been tailored to support specific user needs and applications. The key advantage of these customized models is their ability to generate personalized and contextually relevant responses, enhancing user experience and increasing the naturalness of interactions. Customized GPTs learn from user inputs and adapt accordingly, offering more personalized recommendations and responses. This makes them extremely useful in a variety of applications, such as supporting tailored learning in education, providing precise solutions to customer inquiries in customer service and many other areas where a personalized approach is valuable. (Roumeliotis & Tselikas, 2023; Fuchs 2023.) Customization also allows for the flexible application of the models across different languages and cultural contexts, broadening their global applicability (Liu et al. 2023).

BRIEF SUMMARY OF WHAT HAPPENED IN THE PROJECT

The project began with exploring Marine Industry, Vessel Traffic Systems (VTS) and learning to understand the project assignment. This phase provided the team with foundational knowledge about the topic and its requirements. Subsequently, the team prepared condensed presentations for the client based on the material handed over to the project team. These presentations were concise summaries of key information and potential approaches to the new VTS-design.

The team then devised and crafted an interview plan, including questions about VTS and the special marine routes known as green corridors. This phase was pivotal for information gathering and facilitated a deeper understanding of the subject matter. Following the plan, the team conducted interviews aimed at acquiring additional insights into VTS and the green corridors, while also learning about service design principles. The goal of these interviews was to deepen the understanding of the topic and gain practical perspectives, and potentially generate new ideas from the professionals the team interviewed.

The last phase of the interviews focused on interviewing the VTSO's (Vessel Traffic System Operators) in Turku. This hands-on approach underscored the team's commitment to gain firsthand insights and

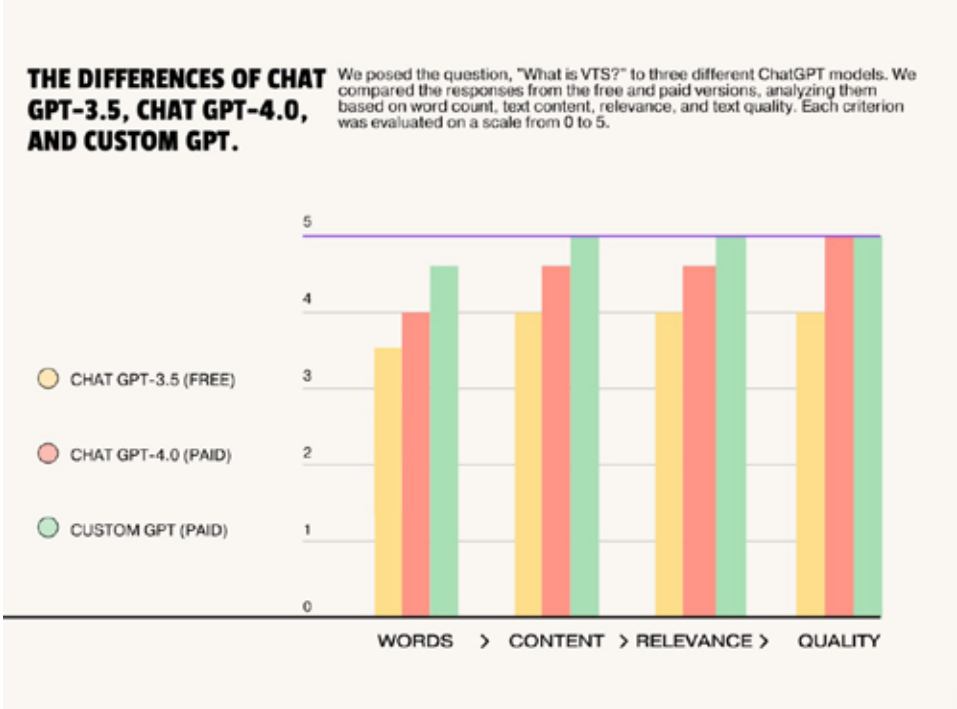
understanding of the day-to-day realities VTSOs face. Furthermore, the visit to Turku VTS presented a unique opportunity to observe VTS operations in action, providing the team with a deeper understanding of the complexities and intricacies involved.

Through these phases, the team was able to gather information, enhance their understanding about VTS and the green corridors, and acquire practical knowledge of service design. Finally, the team presented the Wärtsilä project commissioners their concept ideas for the new vessel traffic system.

THE DIFFERENCES OF CHATGPT-3.5, CHATGPT-4 AND CUSTOM GPT

Throughout the project, the different versions of Chat GPTs helped the project team gain knowledge needed to handle the discussions with industry experts. To highlight the differences between the different GPT versions, the project team carried out an illustrative test.

The differences between GPT-3.5, GPT-4, and Custom GPT models become evident when one evaluates their performances across various criteria such as word count, content, relevance, and quality. By asking the same basic question, "What is VTS," to these three AI models, the team sought to compare and analyze the distinctions between the responses from both free and paid versions. To make the results more apparent, the group gave scores for each of the performance criteria.



Picture 1. *Differences of ChatGPT 3.5, ChatGPT 4.0 and Custom GPT.*

Word Count

In terms of word count, GPT models have shown a progressive increase in their ability to produce more extensive and complex texts. GPT-3.5 generated a response with 106 words, reflecting its competence in producing cohesive text. However, GPT-4 showcased enhanced control over word count, resulting in a more detailed response of 127 words. The Custom GPT model, tailored for specific needs, produced the most extensive reply with 150 words, highlighting its capability to provide more comprehensive information. Accordingly, GPT-3.5 scores 3.5/5, GPT-4 scores 4/5, and Custom GPT leads with 4.5/5.

Content

GPT-3.5's broad general knowledge awarded it a solid 4/5, making it a versatile tool. GPT-4, with its deeper understanding and nuanced handling of specialized content, received a 4.5/5. The Custom GPT model, capable of being trained on highly specific content, achieves a perfect score of 5/5, making it the ideal solution for tasks requiring expert knowledge.

Relevance

The relevance of the content saw GPT-4 distinguishing itself from its predecessor by providing more current and contextually suitable responses, earning it a 4.5/5. Custom GPT models, designed to meet precise needs, stood out by delivering exceptionally accurate information, justifying their top score of 5/5. GPT-3.5 managed to secure a 4/5, appreciating its still relevant contributions.

Quality

Quality assessments reveal significant improvements from GPT-3.5 to GPT-4, with the latter achieving a 5/5 for producing fewer errors and better understanding complex concepts. Custom GPT models, tailored to specific fields, also scored a 5/5, emphasizing their ability to offer high-quality, specialized content. GPT-3.5, while improved upon by its successors, received a respectable 4/5.

Summary

These evaluations underscore the evolving capabilities of GPT models in generating text that is not only extensive and specialized but also highly relevant and of superior quality. Custom GPT models demonstrate the potential for tailored AI solutions to meet specific informational and operational needs with unparalleled precision and effectiveness. This was also observed and confirmed throughout the project in various times and situations.

CONCLUSIONS

Through the exploration of Vessel Traffic Systems (VTS) and in collaboration with Wärtsilä, the project has demonstrated the effectiveness of Custom GPTs in providing comprehensive and specialized information relevant to the maritime industry. These models, designed to focus specifically on maritime knowledge, have shown remarkable capabilities in generating extensive, relevant, and high-quality information.

Moreover, the project has highlighted the differences between Chat GPT-3.5, Chat GPT-4, and Custom GPT models, showcasing the evolution of AI capabilities in producing text that is not only extensive but also

Picture 2. *Futuristic Port. Picture created with Copilot.*

highly relevant and of superior quality. Custom GPT models have emerged as powerful tools for meeting specific informational and operational needs with precision and effectiveness.

Overall, this project has demonstrated the transformative potential of Custom GPT models in enhancing understanding in complex domains such as maritime Vessel Traffic Systems. By harnessing the power of AI, it is possible to unlock new opportunities for understanding, learning and innovation in industries around the world.

- **Collaboration with Wärtsilä made it possible to explore Custom GPTs in education.**
- **Custom GPT models enhance team performance in acquiring new and relevant knowledge.**
- **The overall depth of the Laurea student projects can improve with the help of AI.**
- **There are true differences between different GPT versions, both measurable and experienced.**
- **The key to gaining new understanding in this project was the ability work together with industry experts, enhanced by the AI capabilities.**

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9 Utilization of Artificial Intelligence in Scenario Planning to Empower SMEs

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As industries evolve rapidly due to technological advancements and global market shifts, businesses face a choice: adapt or risk being left behind. However, what if they could not only survive but also thrive? What if they could foresee how changes in the global business environment would affect them and prepare for the future? What if they could use Artificial Intelligence (AI) to anticipate skill needs and integrate learning into daily operations and tasks?

THE POWER OF SCENARIOS AND ARTIFICIAL INTELLIGENCE

In this article, we present a solution tailored for small and medium-sized enterprises (SMEs) to gain insight into future skill needs. Our approach integrates scenario-building and AI-driven discussions. Scenarios are crafted storylines or imagined situations that help companies prepare for potential changes. They serve as strategic tools, enabling businesses to stay agile, resilient, and future-ready. (Meristö 2017.)

AI-driven discussions utilize tools like ChatGPT to facilitate interactive conversations within SMEs, functioning similarly to virtual assistants. Through these discussions, company team members efficiently explore ideas, evaluate options, and exchange insights, enhancing decision-making processes and strategic planning. By leveraging AI capabilities, businesses gain data-driven insights, delve into topics deeply, consider diverse perspectives, and innovate more effectively. (Graham 2023.)

A future skills environment embodies the skill sets and competencies that will be in demand in the coming years. It reflects the evolving needs of industries due to external factors. AI's impact on future skills necessitates continuous learning, adaptability, and a holistic understanding of its potential. (Brasse et. al 2023.)

Figure 1. *A futuristic AI-driven discussion (DALL-E 2024).*

AI-DRIVEN SCENARIO PLANNING

Scenario planning serves as a strategic tool for businesses to anticipate and prepare for potential future events, offering a proactive approach to addressing uncertainties (Meristö & Laitinen 2021). To assist SMEs in this process, a step-by-step guide was developed by Laurea UAS' business students in collaboration with the SURE Research, Development, and Innovation project. This model is adapted from the framework proposed by Meristö and Laitinen (2021) and integrates the PESTE analysis method to construct scenarios. Additionally, the incorporation of artificial intelligence (AI) insights enhances the robustness of the model.

To effectively utilize this guide, SMEs can simply follow these steps:

Step 1: Define Your Focus
Start by selecting a specific business area to concentrate on for scenario planning.

Step 2: Gather Information
Utilize AI-driven analysis to collect data on Political, Economic, Social, Technological, Ecological, and Legal factors (PESTEL) relevant to your business to better understand your operating environment.

With AI's ability to swiftly sift through vast amounts of data from various sources and to uncover patterns not immediately obvious to humans, you can efficiently gather information for decision-making (Finkenstadt et al. 2023).

Step 3: Analyse Insights
Review the insights gathered from AI discussions to pinpoint key drivers that could impact your business in the future.

Step 4: Generate Scenarios

Envision different scenarios for the future, like continuation, positive and negative development, catastrophic, and unexpected.

Leverage AI to help craft scenarios by using different combinations of key drivers. Machine learning models can generate predictive scenarios, demonstrating how various factors might interact over time and providing insights into potential future outcomes. This process helps you anticipate challenges and opportunities, enabling proactive decision-making.

Step 5: Analyse Scenarios

Utilize AI to delve deeper into scenario analysis, evaluating how each scenario impacts future skills environments. Identify potential changes in skill requirements and learning needs resulting from each scenario. AI algorithms can track real-world data, comparing it against scenario indicators to determine the evolution of scenarios and their implications for future skills environments.

Step 6: Keep Learning

Foresight should not be seen as a one-time exercise but as a continuous effort integrated into strategic planning.

Figure 2. *AI-driven scenario planning.*

Scenario planning broadens our perspective and prepares us for future challenges and opportunities. It's important to note that scenarios aren't predictions; rather, they're tools that help us broaden our perspective and readiness for what lies ahead. (Savkin 2022.)

FORECASTING FUTURE

Scenario planning helps companies envision various future events, offering insights into potential adaptations and strategies for different market conditions and trends. This aids in understanding changing factors, formulating strategies, and crafting diverse stories about the future. (Nathan 2023.) Inspired by Meristö and Laitinen's framework (2021), our model generated five distinct scenarios.

The continuation scenario explores continuous future trends that will not have sudden changes but rather exhibit steady growth, stability, and predictable outcomes. It helps establish a clear direction, enabling SMEs to develop long-term and staged strategies easily.

The positive scenario envisions favorable conditions and outcomes. By anticipating potential opportunities, SMEs can discover new market trends and predict the benefits that can be achieved through different strategies and tools. This enables them to make robust and resilient decisions, allocating more resources to major opportunities.

The negative scenario portrays an adverse future stemming from challenges, failures, or unaddressed risks. It aids in risk assessment and prompts SMEs to prepare advance contingency plans for coping with sudden adversities. It serves to explore and mitigate potential adverse consequences by considering uncertain risks and adverse circumstances.

The catastrophic scenario depicts an extreme and highly disruptive future marked by major crises, disasters, or events with severe and lasting impacts on society. SMEs can develop robust contingency plans and implement risk management strategies by understanding and analyzing associated risks and consequences. They can also prepare for significant business opportunities both during and after catastrophes in advance.

The unexpectedly positive scenario envisions unforeseen events benefiting SMEs, like technological breakthroughs or market shifts. By preparing for these scenarios, SMEs can adapt quickly and seize new growth opportunities.

In each of these scenarios, there are implications for the learning needs of the workforce. To prepare for future scenarios, businesses need to assess current workforce skills against future needs, identify skill gaps, and prioritize learning initiatives based on scenario likelihood and impact. By aligning continuous learning with scenario insights, companies boost resilience and adaptability for upcoming challenges.

AI'S ROLE IN BUSINESS AGILITY AND SKILL DEVELOPMENT

We underscore the critical role of AI-driven scenarios in anticipating future skills needs, providing insights for business leaders. As industries evolve and technology advances, businesses must increasingly rely on AI capabilities to drive competitiveness and agility in the global market.

SMEs should focus on mastering AI and workplace learning to enhance decision-making and adaptability. Maintaining a critical view of AI insights is vital, ensuring a balance between automation and human judgment for better outcomes.

To stay ahead in the evolving AI landscape, SMEs must prioritize acquiring AI skills and embrace continuous learning. This proactive approach fosters resilience and positions businesses for long-term success in a rapidly changing environment (Krause 2023).

Take the first step towards leveraging AI-driven scenarios for your business agility and skills development today!

- **Scenario planning is a powerful tool for SMEs in fostering a resilient, innovative, and strategically agile business environment.**
- **AI empowers SMEs to conduct scenario planning with greater efficiency, streamlining the process and conserving time and resources.**
- **The core objective of scenario planning is to prepare for the future while mitigating risks.**

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AI in Marketing, Business and Sales

10 Revolutionizing Market Analysis: The Role of Artificial Intelligence

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WHEN ARTIFICIAL INTELLIGENCE is integrated into market analysis, it enables a deeper analysis of data and provides a new perspective into the dimensions of marketing. This article explores how AI can revolutionize traditional market research models and offer businesses new opportunities for sharper strategic market analysis.

THE ROLE OF ARTIFICIAL INTELLIGENCE IN MARKET ANALYSIS

Recent advancements in artificial intelligence offer a promising solution for radically improving many market research capabilities. When AI is utilized, tools based on it can free up resources with an efficiency that was impossible just a few years ago (Hughes 2023). For example, in conducting marketing research, AI can be utilized in various stages, such as determining competitive advantage (Huang & Rust 2020, 30).

The use of AI in monitoring competitors also plays a significant role in maintaining organizational competitiveness. AI enables real-time monitoring of competitors' activities and provides organizations with the opportunity to quickly respond to market changes (Prasanth, Densy, Surendran & Bindhya 2023). For instance, when examining competitors' pricing strategies, AI can analyse vast amounts of data and identify patterns in competitors' responses to price changes.

THE BENEFITS OF ARTIFICIAL INTELLIGENCE IN MARKET RESEARCH

The project involved providing the client with a project plan, competitor analysis of Swedish competitors, and an investigation into the country's regulatory requirements. The aim of the project was to find out what

opportunities our client has to expand into Sweden and to investigate the authorities that control the industry. The use of artificial intelligence played a central role in every phase of the project, particularly in information gathering, text summarization and processing, and the creation of visual materials.

Microsoft's AI application Copilot was utilized in the competitor analysis. Copilot operates on an iterative process; it takes user input, which is then sent to AI to obtain a response. The application can search for information directly from various websites, summarize the information, and provide source references. However, a drawback of using the application is that users should manually fact-check the sources provided by the application since the offered sources are not always relevant. Another significant weakness in the application is its inability to grasp the context of the input, which consequently hinders its ability to differentiate similar or similarly named items from one another. For example, when conducting competitor analysis, the user might need to specify and clarify certain details about a company, such as its location, to ensure the software identifies and directs its response to the correct entity.

Translation of text using artificial intelligence was part of the project. The information obtained in the competitor analysis was summarized in Finnish, then DeepL and ChatGPT softwares were used to translate

Picture 1. Thinking AI. Created with DALL-E:

the information into English. DeepL is a neural network-based software that provides natural translations for various languages. Its user interface is based on text data and machine translation technology, which allows it to understand language structures and word meanings. On the other hand, ChatGPT utilizes principles of deep learning for text-based comprehension and generating responses from user inputs. It continuously updates its knowledge based on the latest available information and aims to understand the user's context.

One weakness observed during the translation work with DeepL was that the software limits the amount of text a user can input within a 24-hour period. However, this challenge could be overcome by allowing another user to continue the translation work once the text limit was reached. Another significant weakness was the software's limitation to process only texts of up to five thousand characters at a time. This limitation was circumvented by clearing the input when the character limit was reached, allowing the application to provide the translation. Based on the user experience of the project team, ChatGPT possibly offered better translations due to its strong contextual understanding.

In conducting regulatory investigations, it was necessary to familiarize ourselves with the legislation concerning Swedish companies and collaborate with entities such as the Migrationsverket and Skatteverket (Swedish Tax Agency). Materials produced in regulatory investigations, as well as inquiries, were first translated into Swedish using the DeepL application and then sent to the Swedish authorities. The responses received were translated into Finnish and analysed. The analysed material was then translated into English. The application performed flawlessly in translating between both languages, and there was no negative feedback received from Sweden regarding the comprehensibility of the translations.

THE FUTURE OUTLOOK OF ARTIFICIAL INTELLIGENCE: BENEFITS, CRITIQUES, AND OPPORTUNITIES

There were no specific expectations regarding the use of AI in project work, as it was the first project where we utilised AI. Therefore, it was pleasantly surprising to discover how much AI ultimately aided and enhanced the workflow, particularly in competitor analysis. Based on this experience, it can be concluded that the use of AI can provide significant added value, especially in project-based learning. In the future, the project team recommends expanding the strategic use of AI and leveraging it in innovative projects for peer-to-peer learning, where students and collaborators solve real-world business challenges.

The power of AI-driven competitor analysis is significant when applied effectively. Utilizing AI in competitor analysis enables extensive market data collection, such as pricing, product features, reviews, and customer feedback, gathered from competitors' online sources. Additionally, it can help monitor the activities of new competitors, partnerships, and strategic changes in real-time. AI can also assist in assessing competitors' positioning and segmentation compared to one's own data. Lastly, it can aid in identifying potential new market opportunities and the potential to meet customer needs.

While AI offers significant advantages in monitoring competitors' activities, it's essential to recognize its current limitations, especially in forecasting (Parry 2023). However, improvements in AI forecasting capabilities in the future could offer new opportunities in organizational decision-making. Evolving algorithms and the increasing availability of data can help AI predict competitors' future actions more accurately.

Therefore, while artificial intelligence provides valuable tools for organizations to monitor competitors' activities and support decision-making, it is also important to track its development and leverage the opportunities it offers in the future. This helps organizations make better decisions and maintain a competitive advantage in the market. (Parry 2023.)

Many companies acquire data and analyses provided by third parties, especially for external markets and competitors' activities. Such analyses are usually standardized across different companies, meaning they cannot be fully tailored to meet the specific needs of an individual company. This may result in insights that are not as useful in supporting unique value creation. (Huang & Rust 2020, 41.)

Although the importance of artificial intelligence and its development has grown in recent years, the answers produced by AI cannot be entirely trusted. There may be issues in AI language processing in understanding difficult or unclear questions, which can lead to incomplete answers. (Li, Yan & Zhang 2023, 4.)

When examining the role of artificial intelligence in the future of work and information retrieval, it is clear that its ability to streamline and reduce work hours is significant. With AI, even complex tasks can be completed faster and more accurately, freeing up time for other work or even allowing for a reduction in working hours. However, it is important to remember that AI is not meant to entirely replace humans; it can replace tasks where its information processing capabilities surpass those of humans, but not the people who know how to use it assistively. Additionally, it is significant to note that using AI can be considerably more convenient than using a traditional search engine, making it an attractive and user-friendly option.

Integrating artificial intelligence into market analysis:
- **Opens up the possibility for deeper data analysis.**
- **Provides new perspectives on marketing.**

Use of artificial intelligence in market research:
- **Frees up resources.**
- **Allows for gathering extensive market data from competitors.**
- **Enables real-time monitoring of competitors' activities.**

Recognizing the limitations and monitoring the development of AI:
- **Important to recognize the current limitations of AI.**
- **Continuous monitoring of AI development is essential.**
- **Offers valuable tools for monitoring competitors' activities.**

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AI TOOLS USED

ChatGPT

Copilot

DALL-E

DeepL

11 Empowering Partnership: The Role of Artificial Intelligence in Engaging Cooperation and Business Partners

Ida Kujanpää, Jenni Laine, Katariina Punnonen, Mikko Lappalainen, Miro Ahtinen, Moona Hujanen, Pihla Johansson & Sini Laakso

IN TODAY'S FAST-PACED business environment, creating meaningful partnerships is crucial for sustainable growth and innovation. Artificial intelligence (AI) has emerged as a powerful ally in this effort, revolutionising the way organisations engage with potential collaborators and business partners. This article delves into the ways in which AI can be used as part of the process of engaging customers, as well as potential business partners.

AI AS A TOOL IN COLLABORATIONS

Artificial intelligence (AI) offers us an opportunity to enhance the quality of customer service while also minimizing human errors. With AI, it becomes feasible to analyse a wide array of data, events, and outcomes, leveraging them for marketing and business development purposes (CGI.com).

Integrating AI alongside one's own work can expedite work processes, and this way it might be able to free up more time for employees to engage in tasks that are either more important or more demanding, such as analysis or ideation. As highlighted in Forbes, while an employee's responsibility and contribution remain paramount, AI can be utilized to guide activities in the desired direction alongside one's own work (McKendrick 2024).

AI can be utilized in collaborations with business partners, for instance, in selecting the right partner. It is crucial and advantageous to identify suitable partners. By employing AI, a company can identify potential partners who share similar values and objectives by analysing data. Additionally, by analysing historical data, profitabillty and success rates can be determined.

Picture 1. *Source: Kuvapankkikuvat platform, located on Microsoft-365.*

Through data analysis (identifying strengths, weaknesses, and opportunities), AI can also create win-win situations, where collaboration will be beneficial for both parties. That would be ideal for both partners in collaboration and is able to forward the possible emergence of cooperation (Vaz 2023).

Therefore, AI can be used to handle data extensively, making it an excellent tool for various projects. For example, it can be used to analyse interview responses, as we did.On that note, AI is extremely useful and important tool as a part in collaboration.

PROJECT BACKGROUND

The Shopping Center Lohi, initiated in 2019, is a carbon-negative shopping centre owned by Suur-Seudun Osuuskauppa and located in Lohja. Key values for the shopping centre include responsibility and community spirit. Currently, the shopping centre houses 17 stores, accommodating both tenants and employees.

The aim of our project was to increase awareness of responsibility among tenants, promote good dialogue, and determine concrete actions to increase responsibility. The goal was to find a common denominator among tenants to make them to understand the importance of responsibility. The idea was to highlight responsibility and community spirit to tenants through activities such as sales promotion and brand image enhancement, as well as customer engagement – exploring opportunities for initiatives like recycling, local charity involvement, etc. The objective was to understand how tenants perceive these activities and to see whether they comprehend the significance of the activities in their own business operations.

The plan was to develop a functional concept that could potentially be further refined and utilized in the future across other properties owned by Suur-Seudun Osuuskauppa. The project plan involved conducting personal interviews with tenants, followed by a workshop. The goal of the workshop was to raise awareness

of individual and collective responsibility and promote community spirit within the shopping centre. The workshop engaged tenants through brainstorming sessions aimed at fostering discussion and exchanging different perspectives.

USING AI TO CREATE UNDERSTANDING OF SUSTAINABILITY

In today's business world, artificial intelligence has become a crucial element, acting as a backbone for companies. The increasing competition in the market puts pressure on companies to leverage the opportunities offered by AI even more extensively. The application areas of AI are diverse, and one of them is its use in creating and analysing interview questions. (CGI)

The aim of the project was to create a deeper understanding of sustainability issues between the Lohi shopping centre and its tenants. We decided to approach this objective through a qualitative study that focused directly on the tenants. In designing the qualitative interview, we used AI to help us create the interview questions. By interviewing tenants, we aimed to deepen our understanding of how sustainability is reflected in their business practice, what factors drive their decisions on sustainability and how important they consider sustainability to be in their own operations. The interviews provided us with a large amount of data to process, which we analysed using AI Chat GPT. Through this research, we gained an understanding of how sustainability is seen and experienced in practice in the shopping centre environment, and what opportunities and challenges tenants face when trying to act responsibly.

Creating interview questions

The goal of deepening customer understanding within the organization was set by the project's client. To gather the necessary information for this goal, we conducted interviews with the target audience, and collected data to enhance customer understanding. Planning interview questions is recognized as complex and demanding work, that requires a thoughtful approach. We decided to streamline this process by utilizing Chat GPT AI in developing the questions. Initially, we crafted the questions partially manually and partially with the assistance of AI, after which we thoroughly reviewed them manually. The use of AI helped us to ensure the quality of the questions and avoid potential human errors.

In order to familiarize ourselves with the backgrounds of the interviewees, we analysed their websites meticulously. This provided us with deeper insight into their operations and needs. Based on this information, we personalised the questions to better match the profiles and expectations of the interviewees. Once we had gathered sufficient information about the interviewees, we provided detailed instructions to Chat GPT for crafting the desired questions. This approach enabled us to achieve the desired answers and allowed the project to continue.

Analysis of the interviews

We decided to use AI as an analytical method for processing interview data, as traditional analytics are proven to be limited for complex or large amounts of data and require more manual work.

In the analysis process, we leveraged AI by feeding the responses from the interviews to the Chat GPT algorithm and giving it precise instructions. This step was a key part of the analysis work, as we wanted to use AI to ensure comprehensive processing of the responses and to produce relevant analysis. AI executed the given instructions accurately and correctly. In this way, a key role was played by AI in ensuring the quality and accuracy of the analysis based on the interview responses.

Once the responses from the interview answers provided were analysed by AI, we were able to check them manually. This allowed us to ensure consistency between AI's responses and the original interview responses.

We created a PowerPoint presentation for the client based on the responses analysed by AI. The presentation included ideas that had emerged from the interviews. We could also use the PowerPoint presentation in the design of the workshop and as a basis for discussion and decision-making. The AI-generated analysis provided valuable content and a basis for creating the presentation, and significantly contributed to the design and implementation of the workshop.

AI-GENERATED ANALYSIS

In our project, we used AI effectively to analyse the interview responses. This was a significant step forward from traditional methods, as it allowed us to gain an in-depth understanding of a large amount of data quickly and accurately.

The first step in our project was to collect the responses from the interviews in the different thematic areas. Once the responses were collected, they were fed into Chat GPT. The AI analysed these responses in a variety of ways and produced comprehensive reports based on them.

After using Chat GPT, we manually reviewed the responses to ensure that the analyses produced by the AI were consistent with the interview responses.

Using Chat GPT, we were able to identify key themes and trends in the responses, which helped us understand the most common concerns, aspirations and opinions among respondents. After completing the analysis, we prepared a PowerPoint presentation that we could use in a future workshop. The PowerPoint presentation will provide our key partner with a deeper understanding of tenants' interest in sustainability.

- **AI can be used to extensively analyze data, making it a useful tool for various projects (e.g., analyzing interview responses).**
- **AI can be used to create and analyze interview questions, streamlining the process and reducing human error.**
- **AI can be used to process large amounts of interview data and identify key themes and trends.**
- **AI can help ensure the quality and accuracy of data analysis based on interview responses.**

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12 Where Innovation Meets Business: Maximizing Business Potential through Artificial Intelligence

Gabrielle Goerler, Olena Holub, Niko Horttanainen, Jussi Jouppila, Mirjam Kõrgemäe, Mirka Mäkelä, Julius Nordström, Satu Saloranta, Angel Snider, Alexa Theuerling & Miisa Voutilainen

THE INTEGRATION OF Artificial Intelligence is transforming business operations, offering automation and optimization solutions for unprecedented growth. Recent research reveals AI's widespread adoption across sectors, revolutionizing practices and enhancing productivity. In this article, more information is provided about the results of this interesting study.

COLLABORATIVE RESEARCH IS EXPLORING THE IMPACT OF AI ON BUSINESS

The business operations landscape is undergoing a fundamental transformation, accelerated by the integration of Artificial Intelligence (AI) technologies. Cardillo (2024) highlights the widespread adoption of AI, with over 250 million companies exploring its applications. This shift is evident in various sectors, where tools like ChatGPT are revolutionizing traditional practices, and offering solutions for automation and optimization (Qasem 2023). AI's potential to enhance workplace efficiency and task delegation is underscored by insights, emphasizing its strategic importance in improving productivity and competitiveness (Pasca & Arcese 2024). Moreover, AI is increasingly recognized as a catalyst for sustainable development, promising economic agility and operational optimization (Chen, Chu & Zhao 2024).

However, this transformation accompanies challenges such as data ownership, privacy concerns, and ethical considerations (Ooi et al. 2023). Despite these hurdles, the trend towards AI integration into everyday business culture appears inevitable, as organizations strive to harness its potential and navigate the evolving digital landscape.

This research project was conducted by undergraduate students in collaboration with Laurea University of Applied Sciences and Mount Saint Joseph University. The research aimed to examine the attitudes towards AI and its utilization in businesses by companies from Finland and the United States. It also investigated the limitations, benefits, and future directions of AI in the workforce.

The research was done by interviewing companies of different business levels. The purpose of the interviews was to gather information about how different business fields are using AI in their job tasks and do they see any risks in using AI.

The research project fostered an inspiring environment in which students from different backgrounds studied together, exploring the potential of using artificial intelligence in business. The collaboration was conducted in mixed groups including students from the USA and Finland. Different perspectives and cultural insights created a spirit of curiosity and mutual respect. Cultural differences were embraced and recognized as opportunities to learn in new ways. The discussions became a lively exchange of ideas, leading to new insights and perspectives on the project's goals. Intercultural cooperation also created meaningful relationships and networks between students. Giving those working on the project better collaborative and communication skills to take with them into the workforce.

INVESTIGATING AI UTILIZATION IN BUSINESS OPERATIONS THROUGH COLLABORATIVE RESEARCH

The research project started with a course on Datacamp focusing on ChatGPT. Subsequently, four research teams created literature reviews analyzing AI's limitations, benefits, and future directions in business, which informed the development of interview questions for participants.

The research project's data collection was conducted by interviewing 20 participants, all from varying fields, and who had some familiarity with AI. The interviews consisted of thirteen different questions concerning how AI has been implemented into their businesses, ethical considerations, rules about the use of AI in their business, and the names of programs and applications run through AI. ChatGPT was used to help summarize the text from the interviews, aiding in making the full analysis not only easier but also more time efficient. After completing our research project, we made an academic poster showcasing our findings and presented it at Laurea University of Applied Sciences International Week.

The project organization utilized AI tools during the project, AI tools turned out to be extremely beneficial in creating visuals, summarizing data, and translating texts. An AI tool called Pixrl AI was used to create visuals for a poster, which showcased our project and research. The research provided numerous counts of data, which was later summarized utilizing Chat GPT. Summarizing data benefited the project team in making conclusions, finding similarities between interviews, and comprehending gathered data more efficiently.

AI IN BUSINESS: DISCOVERING INSIGHTS AND UNLEASHING POTENTIAL

Insights gathered from interviews with industry experts shed light on the extensive use of AI and its impact on business practices. Among the findings, it was evident that the ChatGPT program emerged as one of the most prevalent AI applications. Additionally, AI proved to be instrumental in facilitating various aspects of business operations, particularly in the early stages of projects. From aiding in strategy planning to problem-solving and generating clean, coherent text, AI demonstrated its versatility and value across different domains. One of the interviewees stated, *"As a developer, AI is really beneficial. If someone refuses to use AI, they may lose a significant amount of efficiency in their job tasks."* Figure 1 shows that AI is most used to summarize text, create content, brainstorm and analyze data, by doing that people can save time.

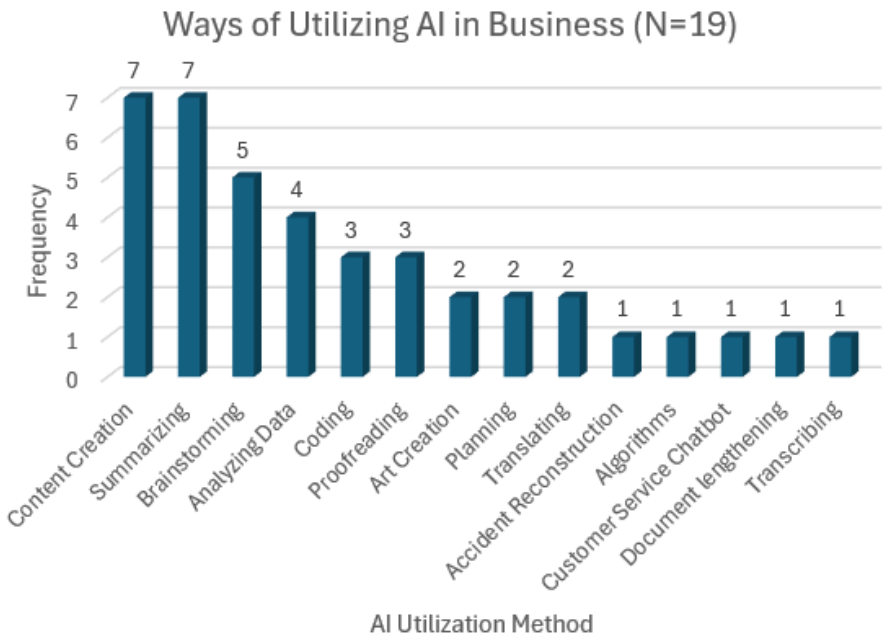

Figure 1. *AI utilization methods based on interview answers (created with Excel).*

The data based on the interviews reveals people's mostly optimistic attitudes towards AI. However, the interviewees expressed various concerns regarding the potential risks associated with AI adoption in businesses. These concerns include data privacy and security breaches, copyright issues, misinformation dissemination, and the risk of sensitive information exposure. Additionally, there is apprehension about the reliance on AI for critical decisions and the potential loss of creative jobs. However, measures such as thorough risk assessment, employee training, and the establishment of clear guidelines for AI use are being implemented to mitigate these risks. Despite these concerns, many acknowledge the benefits of AI in streamlining processes and enhancing efficiency, emphasizing the need for careful and responsible application in specific instances.

As AI continues to evolve, it becomes critical for organizations and governments to implement robust measures to safeguard the development and usage of AI, with international collaboration being essential to address AI-related security threats effectively. According to the interviews, companies have already recognized the importance of establishing protocols and guidelines to govern its use. Furthermore, integrating morals and ethical values into AI systems is vital to mitigate potential negative societal impacts. By instilling ethical principles, organizations can ensure responsible and ethical AI deployment, fostering trust among stakeholders. Overall, addressing ethical considerations and implementing stringent safeguards are crucial steps in harnessing the benefits of AI while minimizing risks and ensuring ethical AI development and deployment. (Marr 2023.)

According to the research, the future of AI in the business landscape is promising, offering increased speed and efficiency through automation of tasks like customer service inquiries and data analysis. This empowers organizations to work more efficiently, gaining a competitive edge. However, adaptation is crucial, with a focus on reskilling workers to meet the demands of AI integration, ensuring innovation and sustained growth.

Picture 1. *Created with Pixlr..*

CONCLUSIONS

In conclusion, the landscape of business operations is witnessing a significant transformation fueled by the integration of Artificial Intelligence technologies. As highlighted by Cardillo (2024) and supported by our research findings, AI is experiencing widespread adoption across various sectors, revolutionizing traditional practices, and offering solutions for automation and optimization.

As evidenced by the findings of this research project, AI tools like ChatGPT are reshaping traditional practices, offering solutions for automation and optimization across various sectors. Leveraging generative AI, businesses can automate data analysis, personalize interactions with customers, and streamline operations, leading to increased productivity and competitiveness.

Despite the vast opportunities AI presents, significant challenges must be addressed, including data privacy, ethical considerations, regulatory frameworks, and the reliability of AI-generated answers. Concerns about bias in algorithms and training data, opacity in decision-making processes, and the need for ongoing monitoring contribute to this challenge. Ensuring reliability requires measures such as bias mitigation, transparency initiatives, and ethical guidelines. By addressing these issues, businesses can maximize AI benefits, mitigate risks, and maintain trust in its outputs. The future of AI in business remains promising, offering unprecedented speed, efficiency, and cost-effectiveness.

MAIN FINDINGS

Introduction:

- Business landscape undergoing transformation with AI integration.
- Over 250 million companies are exploring AI applications.
- AI enhances workplace efficiency and competitiveness.
- Challenges include data ownership, privacy, and ethics.
- Research project conducted by undergraduate students from two universities aimed to understand AI attitudes and utilization in businesses.

Methods and Project Execution:

- Started with a Datacamp course about ChatGPT.
- Project team conducted four literature reviews.
- Interviewed 20 participants from various fields about AI implementation, ethics, and applications.
- Utilized ChatGPT for text summarization.
- Presented findings at Laurea University of Applied Sciences International Week.

AI in Business:

- Insights from interviews highlighted ChatGPT's prevalence and versatility.
- AI facilitates strategy planning, problem-solving, and text generation.
- Companies recognize the need for protocols and guidelines.
- Optimistic attitudes towards AI, but concerns about risks exist.
- Emphasis on ethical AI deployment and international collaboration.
- The future of AI in business promises increased speed and efficiency.

Conclusions:

- Widespread adoption of AI revolutionizing traditional practices.
- AI tools like ChatGPT reshape operations and optimize processes.
- Challenges include data privacy, ethics, and bias.
- Reliability ensured through bias mitigation and transparency.
- AI in business is promising but requires adaptation and reskilling.
- Balance is needed between AI capabilities and human touch for sustained success.

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AI TOOLS USED IN THIS ARTICLE

Chat GPT was used to summarize interview answers, improve structure and style, and check grammar.

Pixlr was used to create the image.

13 Digital Tools Revolutionizing International Sales in the Construction Industry

Neea Koljonen, Mikko Lappalainen, Mikko Markkanen, Tuomas Könnilä, Sini Laakso, Joonas Järvilehto & Aaro Pentikäinen

IN THIS ARTICLE, we explore the challenges and opportunities of AI in streamlining work and automating common business tasks, whether they're sales, prospecting or content creation. We give a deep dive at different scenarios in a project with Lumon International Ltd and Laurea University of Applied Sciences. The project's aim was to find potential clients in the construction industry in Ireland with the help of AI tools.

TAKING A LEAP TOWARDS THE FUTURE

The project primarily relied on traditional methods such as emails and phone calls, but strategically incorporated artificial intelligence (AI) to make certain tasks more efficient. We made use of free tools such as Google Gemini and Microsoft Copilot. However, access to comprehensive data was limited to the commercial version of ChatGPT, which affected some aspects of the search. Regardless, the AI significantly improved the two different email versions created for different focus groups, resulting in a more polished look and tone.

AI represents a rapidly advancing technology transforming how we work, learn, and access information. By leveraging well-designed prompts, we can achieve heightened efficiency and effectiveness. The abundance of both free and commercial AI tools is striking, spanning from image and video creation to text enhancement and generation, empowering professionals and individuals alike. Importantly, employing AI not only boosts performance but also contributes diverse cultural perspectives to AI databases through our interactions and prompts. (Kolari & Kallio 2023, 27, 108-111; Mueller & Massaron 2018, 17-27.)

Picture 1. *Created with CoPilot.*

The global construction industry is undergoing a profound transformation, driven by digital innovation. Traditionally, construction companies have faced numerous challenges in expanding sales internationally, such as language barriers, cultural differences, complex regulations, and logistical hurdles. These barriers often hindered their ability to penetrate global markets effectively and limited their growth potential.

However, the rise of digital technologies has revolutionized international sales in the construction sector. Tools such as building information modeling (BIM), cloud-based project management platforms, augmented reality (AR), virtual reality (VR), and advanced data analytics are transforming traditional practices. These digital tools enable construction companies to cross geographical boundaries and facilitate seamless collaboration, communication, and project management between international teams.

Market trends are driving the adoption of digital tools for international sales. Growing demand for sustainable and intelligent infrastructure, together with the rise of remote working and virtual collaboration, is forcing companies to adopt digital solutions. In addition, the need for informed decision-making and the pursuit of operational efficiency are driving construction companies to use digital innovation to gain a competitive advantage in global markets. (Google Gemini; Jääskeläinen 2019, 11-48; Ollila 2019, 22.)

The benefits of digital transformation in international sales are manifold. Enhanced project visualization and communication capabilities enable construction firms to articulate their vision more effectively to international clients, fostering greater understanding and alignment. Improved collaboration and efficiency through digital platforms streamline project workflows, driving productivity and minimizing delays. Moreover, digital tools expand market reach and customer engagement, while providing invaluable data-driven insights for informed decision-making. Looking ahead, the future of international sales in the construction industry is undeniably digital. By embracing digital innovation, firms can position themselves at the forefront of industry transformation, unlocking new opportunities and driving sustainable growth in international markets. (Gigerenzer 2022, 105; Google Gemini; Kolari & Kallio 2023, 27-29.)

PROJECT IMPLEMENTATION/ EXECUTION STRATEGY AND IMPLEMENTATION PLAN

Throughout the project we used two AI tools, ChatGPT and Copilot, in different tasks. We used ChatGPT occasionally, but Copilot only once to make pictures for this article. When trying to find possible partners for our client we used ChatGPT. We asked it to find different trade unions focused on glass installation companies in Ireland.

Another thing we used ChatGPT for were emails for possible partners for Lumon International. We also used ChatGPT for producing ideas to personalized emails. We chose two different emails for A/B variants to different customer types of the options produced by ChatGPT. Of course, the text needed to be modified a little bit, but it gave a good basis for the emails. ChatGPT was useful for creating different texts and making them sound professional.

Where ChatGPT can read and create text, Copilot can generate code, create images, and make other creative solutions. We utilized Copilot to make the pictures that you can find in this article. We gave Copilot the headline of the article and added more instructions and prompts to add more details for it. For example in the second photo, "Ireland" was added as a prompt and it generated four examples to choose from.

In summary, by using these AI tools in our project we were able to be more creative and have more ideas for our project tasks. We would have managed without AI tools but using them made our work a little bit better and less time-consuming.

RESULTS/OUTCOMES AND DELIVERABLES

We utilized AI technology to craft tailored email templates and efficiently identify potential prospects. Despite a diverse range of emails being generated, a low response rate was observed, with only one recipient engaging with the outreach.

In response, efforts have been escalated by initiating direct phone calls with the identified prospects. This proactive approach is aimed at enhancing engagement and establishing direct communication with the target audience.

While the initial email outreach yielded limited responses, incorporating direct calls demonstrated a commitment to proactive engagement. By leveraging AI technology and personalized communication, efforts are aimed at strengthening connections with prospects and driving positive outcomes for initiatives.

Picture 2. *Created with CoPilot.*

IN CLOSING

The integration of AI tools alongside traditional methods is transforming international sales in the construction industry. Useful tools, such as Google Gemini, Microsoft Copilot, and ChatGPT are used to enhance efficiency of specific tasks like email creation or image generation, resulting in better effectiveness of work. These digital innovations can help construction companies to penetrate global markets more effectively and handle gathered information about existing competition and products in the market. When looking for new market opportunities and partners, they give great assistance in generating personalized emails, crafting tailored communication, and creating images without copyright, ultimately improving the quality and speed of project tasks. (Google Gemini.)

Looking ahead in time, the future of international sales in the construction industry is undeniably digital and AI powered. Embracing digital innovation positions firms at the forefront of industry transformation, unlocking new opportunities, and driving sustainable growth in international markets. By leveraging AI technology and personalized communication, companies can strengthen connections with prospects and

achieve positive outcomes for their initiatives. One can simply do more tasks and save a lot of time with these tools. In summary, the integration of AI tools with traditional methods, along with the adoption of digital solutions, holds promise for revolutionizing international sales in the construction industry. (Kolari & Kallio 2023, 27; Google Gemini.)

Looking ahead, the integration of AI tools with traditional methods holds promise for revolutionizing international sales in the construction industry, unlocking new opportunities and driving sustainable growth.

- **AI tools boost efficiency (e.g., email creation) in international construction sales.**
- **Despite limitations in accessing comprehensive data, AI notably enhanced email creation and improved communication tone.**
- **AI's transformative potential is highlighted, offering solutions for language barriers, cultural differences, and logistical challenges in international sales.**
- **AI tools like ChatGPT and Copilot were utilized for tasks such as email creation, idea generation, and image production, enhancing project creativity and efficiency.**

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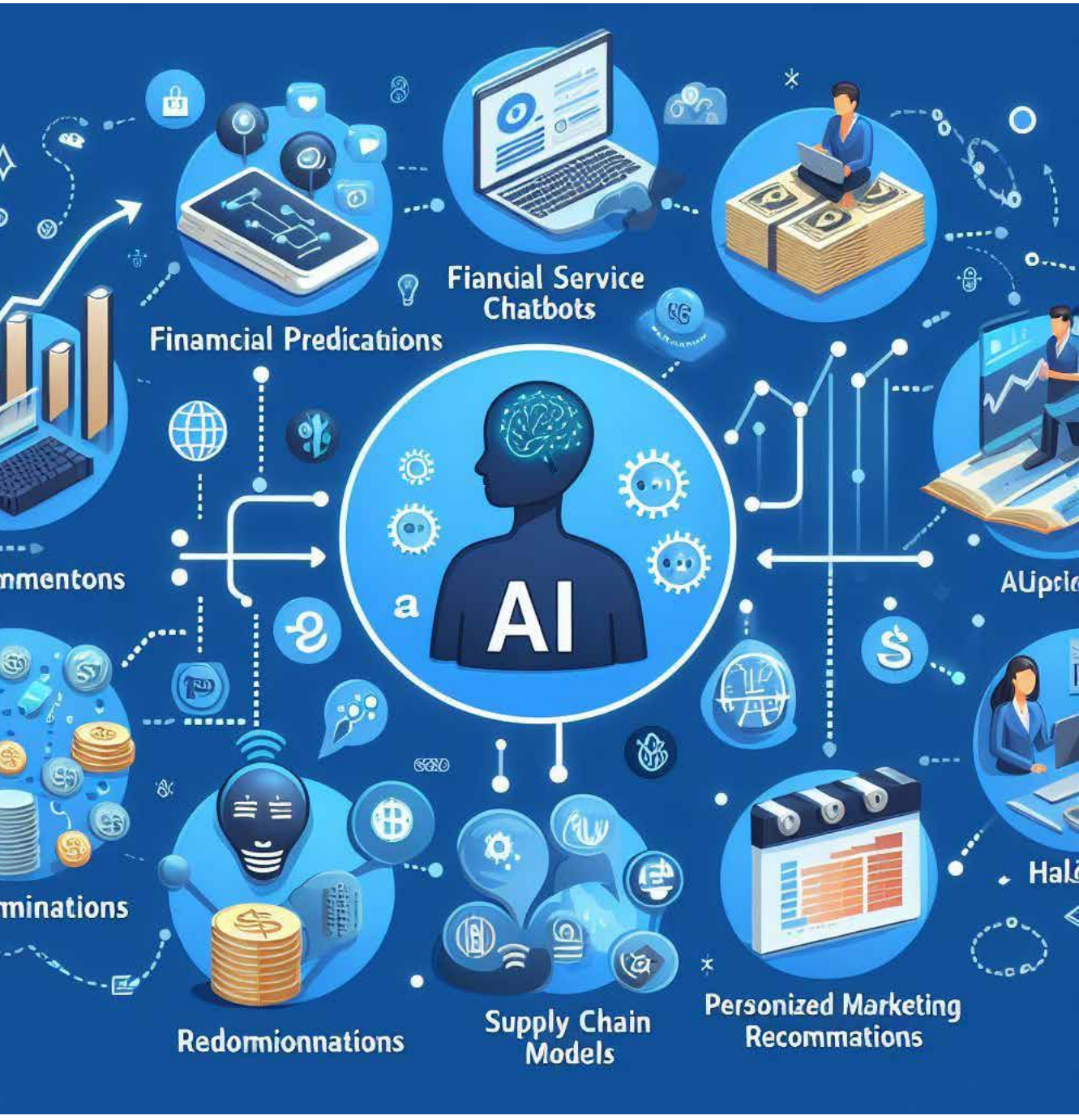
Finamcial Predications
Fiancial Service Chatbots
AI
Redormionnations
Supply Chain Models
Personized Marketing Recommations

Creating with AI

14 Embracing AI Tools in an International Marketing Analysis Project

Lei Zhang with contribution of Marika Tuominen, Leena Taavitsainen, Veeti Tanskanen & Pik Lau

AI, ARTIFICIAL INTELLIGENCE, generally refers to making computers act like people. AI is not as new as we think. The term was first created by John McCarthy, professor emeritus of computer science at Stanford University when he held the Darthmouth Summer Research Project on Artificial Intelligence in 1956. It was the first academic conference on the subject. (Stern 2017, 9-10; Soni, Sharma, Singh, Kapoor 2020, 3; Ojanperä 2023, 24.) In fact, AI is an umbrella term for a variety of technologies. It includes machine learning, natural language processing, visual recognition, voice recognition, affective computing and robotics. (Stern 2017, 9-10; Rouhiainen 2019, 30.)

With the development of computing technologies, AI is changing how we do business. This article briefly reviews how AI can be leveraged in marketing and what AI tools have been used in our study project.

WHAT WERE WE SUPPOSED TO DO?

The main client of our project is Senson Oy, a Finnish manufacturer renowned for its Finlandia Home Brew beer kits. Senson previously exported to the Russian market alongside other European countries. However, following the conflict between Russian Ukraine war, Senson ceased its operation in Russian. Currently, Senson is focusing on developing its existing markets while actively seeking new export opportunities in other countries. While Senson specializes mainly in B2B sales, it is now eager to expand its B2C presence across European countries collaborating with Bonne, a Finnish soft drinks company experienced with B2C market.

The objective of our project team is to conduct a comprehensive analysis of several foreign markets where Finlandia kits are already exported, as well as to explore potential export markets for Senson. We aim to assess the market potential for Finlandia kits in 10 European countries and choose 5 countries among them for in-depth analysis. This analysis will provide our clients with valuable market insights, including the typical

customer persona in each country, strategies to reach potential customers, and the identification of distribution partners. Due to the limited availability of data, we decided to utilize AI to achieve our objectives. This project represents a significant milestone to several team members, as it marks their inaugural encounter with AI technology.

HOW DID WE PROCEED?

To better understand AI, our project team first investigated the development of AI and the technologies behind it. We found that over the decades of AI development since its inception in the late 1950s, two pivotal technological breakthroughs have significantly influenced AI landscape: machine learning in the 1980s and generative AI since the 2010s. We discovered Ojanperä's book *Tekoälyn vallankumos: käsikirja* ("Artificial intelligence: a handbook") to be an excellent guide detailing the development history of AI and the technologies driving its evolution.

Generative AI is a subordinate category of machine learning that has received explosive popularity among people in recent years. Generative AI can be defined as algorithms that can create new content such as audio, code, images, text, simulation, and videos. Generative AI can be trained to predict the next word in a string of words and can generalize that ability to multiple text-generation tasks, for example writing articles. Therefore, generative AI has become an enormous step forward in power, sophistication, and utility. It has also changed our relationship with artificial intelligence fundamentally. (Deveau 2023.) Currently, the most well-known generative AI tool might be ChatGPT.

Secondly, we studied how AI could be utilized in marketing. In this endeavor, Rouhiainen's book *Artificial Intelligence for Marketing, Pracitical Applications* proved to be an enlightening resource. Rouhiainen outlines various marketing tasks where AI tools can be effectively utilized, such as anticipating development trends, gathering comprehensive competitor and consumer data insights, personalizing communication and advertisements, analyzing consumers' online behaviors, evaluating sales channel effectiveness, and so on. He mentions specific AI tools such as **Google Trends** and **Facebook Audience Insights** for trend anticipating, **Albert** integrated with **CRM (customer relationship management)** technology for transaction data analysis and identifying high-value features, as well as **Salesforce** and **IBM's Watson**, designed for the B2B market. (Rouhiainen 2019, 61-64.)

Furthermore, we examined the prevalence of AI tool usage have been used in Finnish companies and gauged the perception of AI tools within the Finnish business community.

Vähä-Ruka and Soininen (2024) representing Aava & Bang Oy, a Finnish marketing and communication company, conducted a webinar earlier this year wherein they summarized the AI tools available for marketers to incorporate into their daily workflow. The following table gives an overview of the various tools available.

Table 1. *AI tools for marketers' daily tasks, modified from Vähä-Ruka and Soininen 2024.*

PURPOSE	CONTENT CREATION	SEARCH ENGINE OPTIMISATION	VISUAL CREATIVITY	DATA ANALYSIS
Functions	Ideation Clarifying and summarising long texts Overcoming fears of blank paper Creating subtitles and metatexts Quick translation	Analysing search words Search engine optimisation of content Optimising meta-texts Optimising product description in online shops	Creating offers, flyers with visual effects Picture writing Presentation and team briefing Ideation and creation of ads Creating of short videos	Identifying new target groups Understanding target groups Analysing and structuring large amounts of data Foresighting and forecasting
Availabale AI tools	Chat GPT Microsoft Copilot HubSpot AI	ChatGPT (+plugins) Microsoft Copilot HubSpot AI Byword.ai	Canva DALL-E 3 (Copilot & Chat GPT) Midjourney Adobe Firefly & Photoshop	Chat GPT 4 Advanced Data Analysis

According to Vähä-Ruka and Soininen (2024) AI tools can be used at least in content creation, search engine optimization, visual creativity, and data analysis. However, they stress the importance of integrating these tools as support mechanisms for markets' daily tasks rather than outsourcing essential functions entirely. Crucially, companies looking to adopt AI must first develop a comprehensive AI strategy. The strategic process begins with an analysis of the company's current state and the establishment of development goals. Subsequently, a plan and roadmap for AI implementation should be formulated, with designated personnel and allocated resources. It is also essential to recognize that the adoption of AI is not an overnight transformation. Therefore, it's imperative to demonstrate the tangible benefits of using AI tools, such as time saved in ads creation. Ultimately, the journey of embracing AI is a process of change management that demands commitment from all stakeholders involved.

WHAT DID WE FIND?

To analyze the current export market, our approach involves identifying online platforms where the Finlandia kits are retailed, comparing the prices with similar products, and pinpointing social media channels where discussion about the pros and cons of home-brewed beer kits take place. In addition, we investigated the market trends concerning home-brewed beer and craft beer in these potential export markets.

Given that home-brewed beer caters to a niche market rather than mass consumption, acquiring relevant data online has proven challenging due to its limited availability. We have checked Statista to gather insights into sales volumes across each target country. However, it appears that statistics about the consumption of home-brewed beer are not readily available for the targeted countries. Besides, we found that AI adoption

within Senson's operation is currently not a standard practice. This sentiment reflects the broader trend within Finnish companies, where the integration of AI tools is still in its nascent stages.

During the period of late June to early August 2023, Solita — a Finnish tech company, conducted a research initiative titled "AI in Finnish Companies". The study targeted Finland's Top 500 companies' key business, development, and IT managers. The findings revealed that 51% of the big Finnish companies were gearing up to incorporate generative AI into their operations in some capacity. However, a notable 32% of companies have yet to embrace AI in their business practices and lack any plans or guidance for its implementation. Despite this, a significant 75% of the companies with prior AI experiences expressed confidence that AI would indeed revolutionize their business operations. (Solita 2023.)

The team used **ChatGPT** and **Google's Gemini** to study the markets in the target countries. Neither ChatGPT nor Gemini gave us specific statistics on sold Finlandia kits in targeted countries. In terms of market trend analysis, the answers given by ChatGPT were on a very general level, highlighting the increasing interest in craft beer, the growth of homebrewing communities, and the rising availability of homebrewing ingredients and equipment. There were only slight differences between ChatGPT's answers among different countries.

Google Gemini provided us with more detailed lists of online homebrewed beer shops as well as forum websites where people discuss homebrewing in the target countries. With this information, the team could continue to identify possible distribution partners for Senson. The team also consulted Google Gemini for insights into the characteristics of typical home brew kit consumers and received some general descriptions.

The project team also conducted a survey, reaching out to Senson's existing sales distributors across seven countries. Three distributors responded, offering valuable insights into their perspectives on Finlandia Home Brew kits regarding pricing, quality, market trends, and competitive positioning in their respective countries. According to the responders, Finlandia kits are perceived as high-quality products offered at the right price point, and they anticipate a stable market for home-brewed beer in the coming years.

The distributors were asked about the impact of Finlandia Home Brew kits offering six different flavors on sale. Surprisingly, some distributors expressed the view that having more flavor options could be beneficial for sales, suggesting an opportunity for Senson to expand its product range to cater to diverse consumer preferences.

Given the project's scope and the constraints imposed by the limited data available, the project team acknowledges the inability to explore all AI tools mentioned in this article. However, during the project, we have identified a synergistic approach combining traditional surveys with selected AI tools as an effective strategy for market analysis in foreign countries. We strongly advocate for Senson and Bonne to integrate available AI tools into their export expansion endeavors.

For instance, by collaborating with local sales partners, the AI tool **Albert** can be harnessed to craft personalized advertisements tailored to specific market segments. Additionally, utilizing tools like Quille Engage can facilitate the evaluation of the performance of Finlandia Home Brew kit's webpages in each country, thereby optimizing strategies to drive sales. Embracing such AI-driven solutions presents an opportunity for enhanced market penetration and growth both for Senson and Bonne .

- ChatGPT and Google Gemini have been used for market analysis, including gathering statistics, searching relevant websites, and asking for market trends and typical customer types (personas).
- ChatCPT and Grammaly have been used to refine this article.

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15 Using AI in Brainstorming – Creating Sustainability Marketing Communication Messages

Alfredo Pérez Quiñónez, Benjamin Arpiainen, Eetu Pyykkö, Elias Silvola, Oona Lokka, Sofia Saarinen, Nhu Tran & Aapo Hollanti (Sr. Lecturer)

THE USE OF artificial intelligence exploded in popularity in the recent years. Large Language Models (a type of AI) finally evolved enough for them to actually matter to the general public. The technology, spearheaded by OpenAI's ChatGPT, became mainstream, and it seems that in the 2024 the speed in which AI is developed will only increase and the use of AIs will diversify in ways we can't even predict. (Wanner, 2023, Memmert & Tavanapour 2023.)

As the AI's evolve more and more rapidly only few things remain constant and one of them seems to be a focus on the human and AI interaction. While AIs operating on their own are certainly useful, many other avenues of development include Human-AI interaction. One form of this Human-AI interaction can be described as brainstorming. In fact, Sam Altman, the CEO of OpenAI, that developed ChatGPT, recently predicted in a podcast, that the brainstorming function of the ChatGPT will drastically improve in the future (Friedman 2024).

In our project we were tasked to create a sustainability communication plan for a Finnish IT start up MyHomesID. Sustainability communication planning focuses on promoting environmentally and socially responsible practices while engaging stakeholders and public audience effectively. However, navigating complex stakeholder dynamics and addressing evolving societal values can make crafting an impactful, and relevant plan a challenge. This is where AI truly demonstrated its potential by educating the project team and enhancing the brainstorming processes.

By using AI-driven methods, project teams can unlock new levels of creativity and insight. AI can analyse large datasets to identify trends and preferences, offering guidance in various diffent fields, for example in shaping communication strategies. Moreover, AI can facilitate and enhance real-time collaboration, allowing teams to generate and refine ideas with exceptional efficiency.

To highlight Human-AI brainstorming we re-created a brainstorming workshop inspired by a brilliant research paper published by Lucas Memmert and Navid Tavanapour (2023). In their paper Memmert & Tavanapour describe their brainstorming study method. While we did not have the resources to repeat it, we did our best and created our own workshop experiment to highlight the benefits of AI-brainstorming. During our workshop, which was purposefully short, we divided the session into three parts. The first section of the workshop was done without the help of AI, second section involved individual Human-AI interaction and finally the results were discussed and decided on. The workshop organizer, with Service Design background observed the participants.

BRAINSTORMING WITH AI

The adoption of AI-driven writing tools in educational settings is on the rise. These tools do grammar checks, writing assistants, and even generate written pieces, such as essays, autonomously. They are user-friendly and efficient, reducing the workload for both students and teachers. Essentially, AI writing tools are designed to examine written content and offer feedback on various aspects, including grammar, vocabulary, sentence structure, etc. (Marzuki, Widiati, Rusdin, Darwin & Indrawati 2023.)

Brainstorming, originating from the needs of the advertising industry in the United States during the first half of the 20th century, is a manifestation of applied imagination. With the rapid advancement of artificial intelligence in recent years, many tasks traditionally performed by humans have been significantly impacted. (Gruning & Rowland 2024.)

The potential for generative large language models (LLMs) like AI to participate in brainstorming sessions and turn individual human work into collaborative efforts between humans and AI is apparent, but it's unclear how much the group dynamics seen in human brainstorming groups translate to this human-AI context. (Memmert & Tavanapour 2023.)

Recent advances in AI have led to machines outperforming humans in several fields. Trying to combine humans and AI to solve complicated problems might be the next challenge. It is one thing to develop a system that guides people through brainstorming. However, it is difficult to build a system that can contribute creative human-like ideas. This task is particularly challenging because the system does not have prior knowledge of the brainstorming questions that the users will ask. (Memmert & Tavanapour 2023.)

Even though, it is known that offering creative stimuli improves brainstorming performance, only a few systems offer content-level support for brainstorming. It is understood AIs have three roles in brainstorming: as facilitators to help users achieve a goal or complete a task, as peers to join human groups or act as partners for individuals, and finally as experts who have skills or expertise different from their teammates and mainly respond when asked. (Memmert & Tavanapour 2023.) However, even though these methods can influence the performance process, they do not create new ideas.

In summary AI has revolutionized approaches to various tasks and become an asset in facilitating brainstorming sessions and breaking down social barriers to creative collaboration, particularly in scenario planning. Recent studies have investigated how scepticism toward AI can undermine its potential benefits in brainstorming contexts. While AI can augment the creative exploration of existing ideas, it can also catalyse generating new creative concepts. In supporting individuals, AI offers diverse pathways for problem exploration and solution discovery. (Gruning & Rowland 2024.)

Picture 1. *Brainstorming AI. Picture created by Copilot.*

BRAINSTORMING MARKETING MESSAGES, THE WORKSHOP: THE STRUCTURE, RESULTS AND OBSERVATIONS

At the time of writing this article the students (workshop participants) had been working on the sustainability and communication matters for about three months. The project students were the actors in the workshop, and while the students had built their understanding on sustainability and communication matters this topic seemed unsuitable for the workshop. Luckily the client, MyHomesID, had already agreed on the content of the next project, which would deal with marketing and creating social media videos with messages on sustainability and ESG. This seemed a more suitable workshop topic also, as the students had not been able to form any pre-existing opinions on the topic. So, the goal for the workshop was to find sustainability related marketing messages.

The workshop had originally three parts to it (excluding the introduction to marketing and workshopping), firstly a six-minute group workshop session with a goal of finding the afore-mentioned marketing messages. After the first session, only the best ideas were kept (discussion left a total of 8 ideas). This then

was followed by another six-minute session where participants used ChatGPT 3.5 to enhance the ideas and find new ones. This was mostly individual work, although some natural discussion took place. Finally in the third phase a discussion was held on refining the best ideas with the goal of presenting the best marketing messages to the project client. The total time for the workshop was about one hour.

The fourth, unplanned phase of the process happened during the following week after the workshop where the project group further developed the marketing messages into more complete ideas.

***Table 1**. Observations from the workshop session (6 participants)*

	GROUP WORKSHOP I (6MIN)	HUMAN-AI WORKSHOP II (6MIN)	GENERAL DISCUSSION WORKSHOP III (20MIN)	THE FOURTH UNPLANNED WORKSHOP
Ideas produced	A total of 16 ideas, group kept 8 ideas for the second session.	Dozens of ideas with varying relevance, but creative.	Four marketing messages were kept.	
Observations	To produce the initial ideas proved typically difficult. Some participants had difficulties producing any ideas. This is typical for "sudden" workshops.	Every participant worked on the 8 ideas kept from the first session effortlessly. Ideas had a huge range in creativity. No one had trouble participating.	Marketing messages where the workshop team arrived seemed perfectly usable. There was confidence within the group to present the results.	The ideas evolved in the week after the workshop (client meeting taking place the following week). The fact that the group was willing and able to improve in the ideas is remarkable.

First observation to make of the workshop session is the setting. The workshop came as a surprise to the participants. As anyone with a background in the service design knows, this is the most difficult setting for a creative work. This would have impacted on the first session (6-minute group workshopping), and it's dragging atmosphere and the relatively low number of ideas produced in it. However, it all just goes to show the huge potential of the AI in the second session. Further development of the ideas with the help of AI lead to immediate creativity. There was quite a lot of variation amongst the participants: others became "super producers" effortlessly spitting out (rather thoughtful and useful) ideas with light speed, yet others explored their more out-of-the-box-like ideas in great depth resulting stories and detailed descriptions. Notably, nobody had trouble in exploring new ideas.

The third session, which involved discussing the ideas and deciding which marketing messages to actually bring forward to the project client was effortless and vivid. The usefulness of marketing messages will be judged by actual marketing efforts, but from the marketing and business point of view, they make a lot of sense. The ideas brought forward to the client were: green workplace culture, our data solutions – your green choice, saving trees 1-bit at a time and sustainable IT from Finland.

The final observation of the workshop setting is the length of sessions: They are extremely short, both in total time and as individual sessions. They were also unstructured, only structure coming from the senior lecturer running the workshops. The fact that the one-hour workshop session was able to produce attention-worthy ideas, is astonishing. With very little doubt, it can be stated the Human-AI element of the workshop helped increase creativity, boost the quality of the conversation, managed to educate the participants, and almost entirely removed the typical human inability to produce ideas effortlessly.

CONCLUSIONS

Large Language Model-AI can understand, generate, and help write human-like text. Therefore, it can help make brainstorming sessions incredibly valuable, by improving the creativity, helping to form new ideas and making the workshops more efficient overall.

The use of LLM seems to help most with the creation of new ideas. Their ideas are not always to the point, but then again, in the workshop session this could also be seen as a positive. Ideas produced seem to correlate

Picture 2. *Using AI for Research. Created with Copilot.*

with the user's proficiency with LLM-AIis, although this would require more studying. The participants with better LLM-AI-skills seem to be more structured in their work, producing many problems specific ideas, while participants with lesser experience with LLM Ais seem to go for the more in-depth discussions with ChatGPT, producing ideas that are more thoughtful, creative and perhaps more out-of-the-box-like.

WORKSHOP GOAL: DEVELOP MARKETING MESSAGES FOCUSED ON SUSTAINABILITY.

Structure was three sessions which resulted into one more unplanned phase:

- Phase 1: 6-minute group session to brainstorm ideas.
- Phase 2: 6-minute individual session using ChatGPT to refine ideas.
- Phase 3: 20-minute discussion to finalize top marketing messages.
- Phase 4: Unplanned session for further idea development post-workshop.

Key Outputs:

- Initial 16 ideas narrowed down to 8.
- Final marketing messages presented to the client were: Green workplace culture, our data solutions – your green choice, saving trees 1-bit at a time, sustainable IT from Finland.

Observed AI Impact:

- Enhanced creativity and diversity of ideas.
- Aided in refining and expanding ideas.

Overall Observations:

- Boosting Workshop by AI seems to lead to more efficient and creative outputs.
- Participants' familiarity with AI influenced the quality of ideas generated.

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16 Creating and Visualizing Target Groups Using Artificial Intelligence

Saafi Duhulow, Katja Heikkilä, Sofia Jalonen,Aleksander Korelin, Mila Ruusuvirta, Toini Sjögren & Marja Isokangas (Sr. Lecturer).

IN A WORLD flooded with artificial intelligence (AI) generated imagery, authenticity is paramount. As professionals, we vow to uphold humanity amidst the digital deluge. Our commitment isn't just about producing stunning visuals — it's about infusing every creation with genuine emotion and integrity. While AI empowers us, it's the human touch that ensures our work remains grounded in reality.

Discover the dynamic fusion of AI and target audience visualization in the Central Baltic mentoring project for Migrant Women seeking Employment (CeMeWE). Experience the power of AI in describing and visualising the target audiences.

TARGET GROUP PERSONAS AND VISUALIZATION IN DESIGN THINKING

Design Thinking is commonly used in elevating customer experience, and it aims to develop a deep understanding of the target customer. According to Dam, empathy and human-centricity are used to re-frame the problem and to solve it. (Dam 2021). Stickdorn (2018) points out that in Design Thinking, Personas serve as archetypes describing a target group with similar needs and characterized by similar factors.

Personas aim to increase empathy and customer orientation in a collaborative process (Stickdorn & al. 2018, 78, 88). Salminen (2022, 9-10) notes that the use of personas is widely accepted and useful, especially in scenario work and strategic planning, but also in other business uses. Design Thinking uses a variety of visualizations as instruments (Bresciani 2019). According to Stickdorn visualization is one of the central instruments in iterative collaborative process (2018, 24).

When creating target groups with the help of AI for both companies and other parties in need, it is important to consider the responsibility to produce a high-quality result (Suojanen 2020, 16). Accordin to Reppa &

McDougall (2022), the aesthetic appeal of a picture is not effective when the target group or other audiences reject it. It is possible to create tasks with limited resources with the help of generative artificial intelligence. The resources are determined according to the goal and the budget of the company or the client organization. To produce a high-quality final product, you need a clear plan, testing and approval from the client. (Kemppainen 2023, 20.)

When designing pictures and videos for marketing with the help of AI, it is important to focus on the target group of the task (Suojanen 2020, 16.) To achieve this goal, it is critical to acknowledge the importance of good planning and finding the right platform. The planning phase outlines for both the author and the client what the pictures and videos are intended to show in the result. With good planning you can always look back and see if the goal was achieved or not. Searching for the right platform and making the final choice ensures high-quality and interesting pictures or videos to the company's target group. (Kemppainen 2023, 38-41.)

IMPLEMENTING VISUALIZATION TO PROJECT WITH AI

Our study group co-operated with CeMeWe project. Project team created personas for each pre-defined target group. The main goal of the project was to create customer personas of work seeking immigrant women and to find out how they can be reached and designing communication to them about different opportunities. For this endeavor, creating realistic images and videos of high quality necessitated the utilization of paid versions of specific AI tools, alongside funding from the project client. There was a need to create high quality results that were honest, realistic and respected by the people interviewed.

To reduce time spent on manual searches, for example, the team used ChatGPT prompts such as "What tools are commonly used for creating personas?". ChatGPT is an AI tool that can interact and assist with many different tasks (Siporski 2023). ChatGPT gave several commonly used tools and methods in the persona creation process including surveys, interviews, persona templates, empathy maps, storyboarding, and more. While designing the personas, the team created quotes by inputting persona descriptions into ChatGPT and asking it to generate a quote for each persona to help humanize them more. Using AI such as ChatGPT can significantly reduce the time spent on research.

AI was used to make visual presentations of the personas. There are many AI tools on the market such as the ones team discovered: HeyGen, Elai.io, and D-ID. Apart from D-ID, all others require payment; however, D-ID offers a free trial. As the project team did not have any budget for AI tools, project team chose D-ID because it offered a free trial, and it was also easiest to use. With free D-ID tool, the project team made pictures and videos of personas with watermarks as you can see in the figure 1 pictures on the left side.

Figure 1. *Qualitative difference in visual design when comparing the free and paid versions in the generating tool. Images created by the D-ID tool.*

According to Hamilton (2023) chatbots can help students to brainstorm ideas, to improve and to optimize their writing skills and optimize their study time. Using AI in the project made work more efficient. Without the use of AI tools, it would have taken much more time to create images and videos. In the end with a small budget, the project team decided to use paid version of the D-ID tool to produce high-quality images and videos without the watermark you can see in the figure 1 pictures on the right side. Visualizing the personas with videos made it significantly easier to understand each persona more deeply and to relate to them.

RESULTS

All in all, the visual results produced with the help of AI can be surprisingly realistic and even exceed the customer's expectations. AI was able to achieve the required totality with the data we provided, both in images and videos. However, several attempts and criticality were needed. As seen in figure 2, AI generated content must be carefully read and corrected, as algorithms may cause unexpected errors (Juhasz 2024).

Figure 2. AI generated images may contain unexpected errors. Image created by DALL-E 3.

Images and videos in this project have been created using demographic information such as age, educational background, family situation and data that was collected through interviews, as a starting point. All data has been collected anonymously to maximize the utility of the data. AI enabled a significant enhancement in both quality and quantity of visual output. It minimized the time dedicated to manual searches and to the creation of customized, complex personalized images and videos.

CONCLUSIONS

In many ways, AI is a great tool when it comes to creating and visualizing target groups, but successful use demands at least a small budget. Even if AI enables several ways to break boundaries, it doesn't operate without a human made prompt. AI cannot be responsible for the result, as it is only an artificial tool. The final responsibility always lies with the company or the user for a credible, high-quality, and ethical result.

This article contributes to a collaborative endeavor between Laurea University of Applied Sciences lecturers and students aimed at exploring the potential of AI within project-based learning in the business domain. This has been a collaborative effort to understand and to examine how to use AI tools in a business project. To conclude, the potential of AI is directly linked to the skills of the humans using it.

- **Responsibility for AI generated content always lies on the user.**
- **The potential of AI lies in the human ability to use it.**
- **Videos of target personas evoke empathy and made them real.**
- **In content creation, AI bypassed many time-consuming steps and improved the efficiency of the process.**
- **Better quality demands paid versions of AI.**

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AI TOOLS USED IN THE ARTICLE

ChatGPT: Used it for designing prompt, to list common tools, to find synonyms and to rephrase writers' text.

Deepl.com: Used it to translate some words and sentences.

Quillbot: Used it to translate some words and sentences.

Quillbot: Used for formatting sources.

DALL-E 3: Used to generate visual content for the article.

Canva: Used to generate visual content for the article.

D-ID: Used to generate visual personas.

17 Creating Marketing Materials with Canva-AI

Iida Kujanpää, Miro Ahtinen, Saga Majava & Pyry Rein

THE EVOLUTION OF artificial intelligence tools has altered working methods in many different fields of work, including sales and marketing. Is there a way to use AI tools in a way that doesn't affect the integrity of the work? This was one of the questions that we had on our mind when our project team set off to create materials for an alternative travel company.

POPULARIZATION OF AI TOOLS

The impact of AI on marketing is significant, and marketing is one of the fields that benefit most from this new technology. A 2018 McKinsey analysis of more than 400 advanced AI use cases indicates that marketing is the area where AI delivers the most value. AI can analyze large amounts of data quickly and efficiently, identify customer behavior patterns, and predict their needs and wants. This allows marketers to target their communications more individually and effectively, for example, leading to better results and customer satisfaction. (Davenport, Guha & Grewal 2021.)

The use of AI in marketing is not just a trend of the future, but a necessity to remain competitive in today's digitally enabled business environment. Marketing managers are increasingly embracing AI as a strategic tool. Deloitte's 2020 global survey of early adopters of AI found that three of the top five AI goals were marketing-related. These included improving existing products and services, creating innovations, and strengthening customer relationships. It is therefore clear that AI plays a key role in driving innovation and competitiveness in the marketing sector. (Davenport, Guha & Grewal 2021.)

AI-DRIVEN PARTNERSHIP PROPOSAL PRESENTATION DEVELOPMENT

Our goal was to create a partnership proposal for KÄPY mobile homes. The goal of the partnership proposal is to find manufacturers for a revolutionary mobile home that combines luxury and eco-friendly living and creates an alternative to traditional hotels. To create a presentation for the partnership proposal the project team decided to use an artificial intelligence tool called Canva. Canva is a web-based design tool for creating a variety of graphic content, such as presentations, and other visual materials.

We tried to accomplish a visually appealing marketing plan for our client, using AI tools such as Chat GPT and Canva. We chose Canva for our project due to its versatility and user-friendliness, these characteristics make it an ideal tool for marketing design. Canva is visually pleasing and easy to use, which we felt was important for our project.

Chat GPT's text generation capabilities supported us in planning the outlines of the presentations. It told us how long the presentation should be and what topics we should include in it. We only used Ghat GPT as a backbone and idea creation for the presentations, and Canva was the main AI tool we used for this project.

The entire team quickly got used to using Canva, even those who were unfamiliar with the platform. Canva is easy to use due to having clear prompts and suggestions in it while using it. Everything you need is written and on show when you open it. Using it for visualizing our project was easy since it gives you suggestions on how to visualize your slides. By customizing styles and color schemes within Canva, we created cohesive visuals within the presentation.

WHAT ARE THE MAIN AI PROPERTIES OF CANVA?

Canva utilizes artificial intelligence across various features to enhance the design process. These include auto-layouts, background removal, image recognition, design recommendations, text suggestions, Brand Kit customization, and Magic Resize. AI assists users in creating visually appealing designs, providing personalised recommendations, and streamlining tasks such as resizing and branding customization. Canva has AI tools that can be used to create images. The picture 1 on next page was created using the Magic AI in Canva.

Canvas' new tool "Magic Write" is made so that users can quickly write what they need, and it creates strategy documents, meeting agendas, or marketing briefs. They can create new versions of already existing text by highlighting it and adding more instructions, it can turn a paragraph into a full list or paraphrasing. Canva is continually developing its generative AI capabilities. (Goldman 2022.)

Picture 1. *Created with Canvas "magic" AI tool, 2024.*

HOW CAN CHAT GPT SUPPORT THE CREATION OF MARKETING MATERIALS WITH CANVA?

Using Chat GPT is especially productive while gathering details from a large pool of information. The usage of artificial intelligence while doing background research helps the process to become as streamlined as possible. Artificial intelligence can comprehend information much faster than a human, but its accuracy isn't always as good. While using artificial intelligence, it is always important to cross-examine the results with your own. This helps to maintain the integrity of the work and decreases the number of errors in the information-gathering process.

You can pair your Chat GPT and Canva accounts to combine their AI properties on a singular platform. After pairing your accounts, you can describe any kind of design base you want, and Canva will create it using the help of Chat GPT. These artificial intelligence tools make the creative process of constructing marketing material much simpler. (Canva 2024)

CREATING A PARTNERSHIP PROPOSAL USING AI TOOLS

By using Canva and its simple modification tools, creating the partnership proposal was quite a pain-free process. The customization options of Canva, for example, the built-in image search engine made it easier to alter the appearance of the presentation. While creating the presentation, the project team used Canva's artificial intelligence properties to create a sleek and professional-looking design template. The AI-generated design templates were created based on the images and other properties of the presentation so it could match the feeling the project team wanted to deliver.

The partnership proposal was made based on information gathered by the team while doing SWOT's and background research. While doing background research the project team researched the travel markets and KÄPYs potential competitors. In this background research, the team also used Chat GPT to gauge the current situation of the market, and the strengths and weaknesses of the competitors. Using artificial intelligence and doing the research manually allowed the team to compare the results, and fact-check the statements made by AI.

The partnership proposal's goal is to raise interest in possible partners, to help Como Designs produce the KÄPY mobile home. By using canvas artificial intelligence properties, the project team was able to take inspiration from the AI's creations and use it to make the presentation more polished structurally and visually. The built-in AI editing tools of Canva make the visual customization process a lot easier than using traditional search engines. All these different customization options also decrease the risk of copyright issues when publishing a document, because artificial intelligence can't copyright its creations.

In essence, the integration of Canva into the actual project work has not only facilitated the creation of a compelling partnership proposal but has also elevated the standard of visual communication. Through the fusion of AI tools and regular work hours, the project team has harnessed the full potential of Canva to create a presentation that is effective and visually pleasing.

RESULTS

In our project, we created a Partnership Proposal presentation with the help of AI for our key partner. The Partnership Proposal introduced the KÄPY mobile home, created by a company called Como Design for potential partners. The proposal consisted of an overview of the company, the intangible and tangible building blocks of KÄPY mobile homes, market opportunities, the sustainability factors of KÄPY home, value proposition, financial highlights, partnership proposals, the KÄPY Team and the owner's contact information. The presentation also included a few images created with AI. The picture 2 on next page was created using Canva's artificial intelligence DALL-E. The AI was given the command "Take a picture of a forest and lake landscape taken from a modern-style bedroom".

Picture 2. *Image created by Canva's artificial intelligence DALL-E, 2024.*

Canva's AI was a great help in creating the marketing materials, offering suggestions and assistance in creating the materials. Canvas AI recommended color and font choices that matched our partnership proposal. With these recommendations, we were able to make our presentation more visually appealing and professional looking, which was important for creating an impression.

Using Canvas AI capabilities, we also used image creation software to create images that were suitable for our presentation. The AI-generated images provided us with a good starting point, but it was important to ensure that they were realistic and suitable for our project. Overall, Canva made the creation of marketing materials more efficient and easier, allowing us to focus on what was important and produce better results.

CREATING A PARTNERSHIP PROPOSAL USING AI

While humans will always remain at the center of innovation and creativity, the positive impact of AI on these processes should not be underestimated. As McKendrick (2024.) says in his text, *"Because innovation*

often arises from adventurous possibilities, it is a useful reminder that technology is not a substitute for human creativity or human relationships."

In conclusion, the usage of AI tools in sales and marketing has become more normal in the 2020s. The use of AI tools such as Canva and Chat GPT has revolutionized the way we work in marketing. Chat GPT and Canva seek to leverage AI capabilities without compromising the integrity of the work. Canva and its AI capabilities enable the creation of visually appealing marketing materials. In the course of this project, we have been able to prove how useful these AI tools are.

Chat GPT helped with the research, as well as the content creation, making the team's work more efficient. Using Canva, the team created a presentation of the KÄPY mobile homes partnership proposal, outlining its features, market potential, and sustainability factors. Using these AI tools, we produced professional marketing materials integral to our project's success. The visual capabilities provided by Canva, combined with the knowledge gained through Chat GPT, have enabled us to create innovative and impactful presentations. The combination of AI and traditional working methods has brought significant added value to our marketing work, which is reflected in the project's results, efficiency and quality.

- **AI complements human creativity and innovation rather than replacing it, as emphasized by McKendrick (2024).**
- **Canva's AI capabilities facilitate the creation of visually captivating marketing materials.**
- **Adaptation of AI tools in sales and marketing has become commonplace in the 2020s.**
- **The team utilized Canva to craft a presentation for the KÄPY mobile homes partnership proposal.**
- **Canva's visual features, paired with Chat GPT's insights, facilitated the creation of innovative and impactful presentations.**
- **You can pair your Chat GPT, and Canva accounts to combine their AI properties on a singular platform. After pairing your accounts, you can describe any kind of design base you want, and Canva will create it using the help of Chat GPT. These artificial intelligence tools make the creative process of constructing marketing material much simpler. (Canva 2024)**

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AI USED IN THE PROJECT

DeepL for text translation

Chat GPT for spelling correction

Canva for image creation

LAUREA

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Benefits from AI in Project-Based Learning and Business Development" publication shares insights with the use of artificial intelligence (AI) in Laurea University of Applied Science´s real-life company study projects. This publication is aimed at all those who use artificial intelligence in the workplace or who are interested in using AI. Laurea's business management students used AI in an efficient way in a total of 15 international projects during Spring 2024, with Laurea key partners and other project partners as project clients. The experiences of use of AI are shared in the articles. Altogether 100 Laurea business management students and supervisors participated in the writing to create collection of 17 articles.

The publication provides concrete information on the exploitation of AI and the opportunities in business and marketing for companies. In addition, the articles highlight the sustainable use of artificial intelligence and concrete tools in the everyday life.