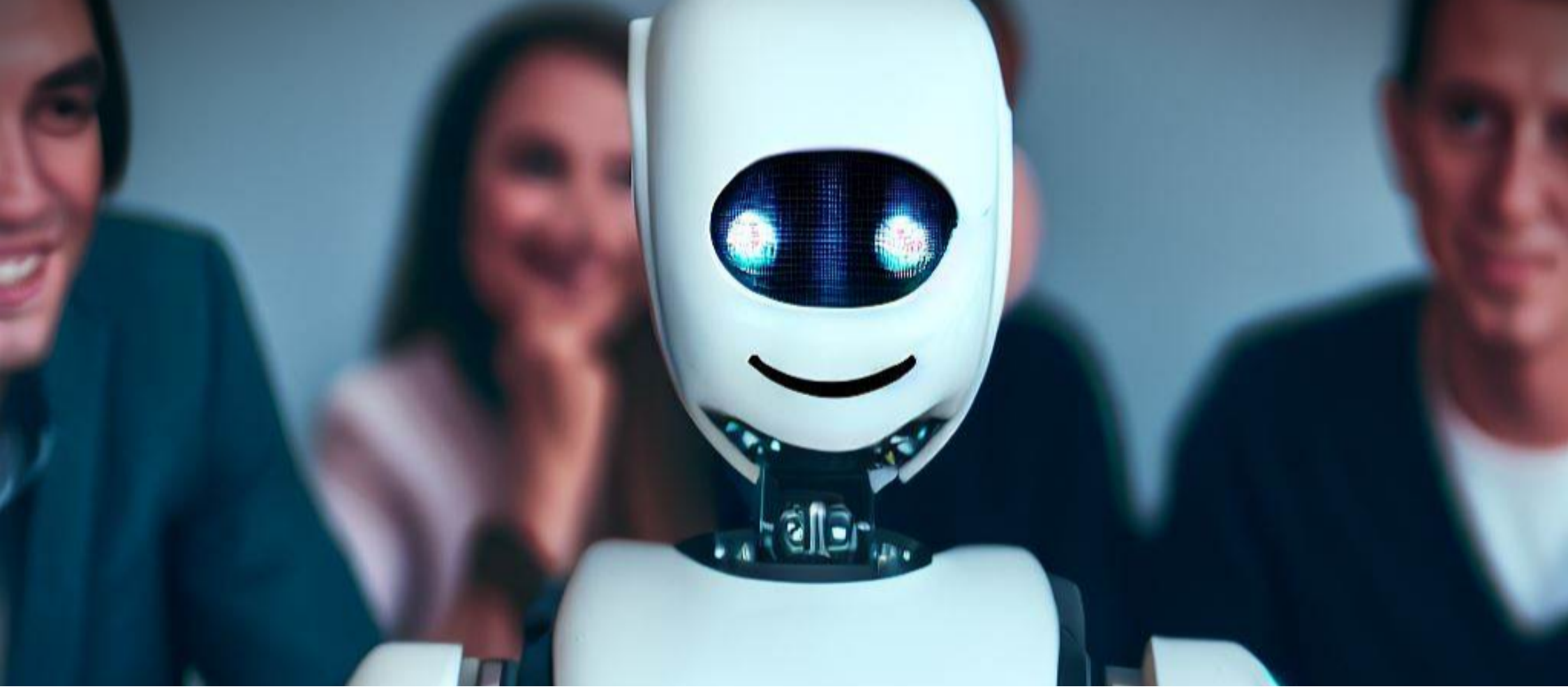

AI - The Way of Thinking

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Program to implement a strong AI culture throughout the company

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AI - new corporate realities

At present, we are witnessing an extraordinary technological revolution unfolding right before our eyes. Its impact on humanity will be comparable to the invention of the wheel, writing, industrialization, electrification and so on. And this is not a matter of some distant future; the future is already here, although not everyone has fully realised it yet. In these unprecedented times, companies face substantial challenges in adapting to new and intricate conditions while striving to thrive in an intensely competitive environment.

Neural networks are everywhere, they capture new niches and discover new horizons with stunning speed, they become a part of our daily life. The boom in generative networks and ChatGPT lead using AI capabilities on a new level, and people who mastered their ability to use them effectively are becoming more competitive and successful, alongside with companies where they work in.

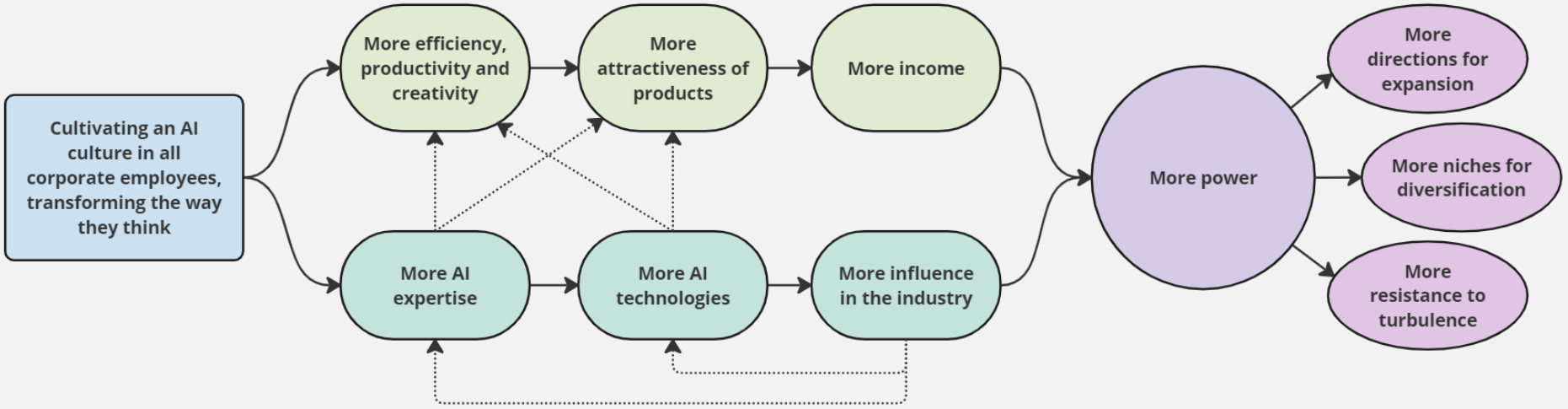
AI culture development

AI culture of a company *- it is a set of rules and guidelines, strategies and approaches, beliefs and values about AI technologies and how the company conducts business and processes. It determines how people in the company generally think, act, and make their deals done.*

It is important to develop an AI culture on all levels in a company for many reasons: from increasing the efficiency, productivity and creativity of each employee to integrated approaches related to Data-Driven Decision-Making and User-Centric Focus.

It is not effective enough to simply have a dedicated AI Department without the involvement of all employees of the company, as people on the ground better understand the features and needs of their domains.

Employees themselves are not always capable of initiating and carrying out changes and improvements - initially they must be launched at the managerial level. Thus, this program can serve as a kind of ignition to start the engine of the widespread cultivation of AI technologies in the company.



Main idea

The main idea is to ensure the continuous involvement of each employee in the study and use of AI technologies and the constant exchange of experience between various units and structures of the organisation.

Using AI technologies is a skill, and like any skill it needs to be developed and trained. AI should become a new way of thinking.

Each **Studio** or large **Business Unit** is divided into **Domains** according to the principle of specialisation: Art , Java, C#, QA, PO...

An **Ambassador** is responsible for each domain and is one of the leads (tech, art, others) of that domain. At the studio level, the work of Ambassadors is organised by a **Mentor**, this role can be combined with a studio director. Ambassadors and Mentors are the key figures in the implementation of the entire program. Other roles are **Advisor** on a division level (if needed) and **Program Owner.**

Ambassadors (Domain level):

- Hold regular, once a sprint (2 weeks), meetings in their domains, where there is an exchange of experience in using AI tools within the domain.
- Explain, promote, encourage domain employees to use the capabilities of AI.
- Exchange experience with Ambassadors of other domains of the studio and the same domain of other studios, discuss the best cases and plans for further development.

Mentors (Studio or Business Unit level):

- Organises the work of ambassadors.
- Working with studio management.
- Interacts with mentors of other studios and business units.

The involvement of employees and the exchange of experience occurs through:

- Regular meetings within the domain (once a sprint - 2 weeks).
- Reports on new successful use cases.
- Cross-studio domain round tables.
- Regular contests with prizes for the best implementations and ideas.
- Incentives for implementations within studios.
- Regular mailing with the latest relevant news and updates in the field of AI in the organisation.
- Thematic conferences for ambassadors and mentors.
- Learning the basics of AI by every employee.
- Deeper learning for tech leads and architects.

It is worth noting that at the initial stages, the program should be tailored to the use of publicly available free third-party AI tools, which will save the company from excessive expenses associated with the purchase of licences and subscriptions for those AI tools, and from the implementation of expensive technologies within the company.

5 levels of AI maturity of the company

I see the following gradation of the company's AI maturity:

Lvl 1: Employees actively use third-party AI tools in their daily activities to improve their own efficiency, productivity and creativity.

Lvl 2: Employees understand the basics of AI and are able to reflect on the use of AI technologies in their work projects. They detect places where AI can be applied.

Lvl 3: Studios are actively involved in the process of implementing AI in their projects with the support of the AI department.

Lvl 4: Studios are able to independently implement AI technologies in their projects, the assistance of the AI Department is advisory.

Lvl 5: Deep integration of AI technologies at all levels, AI is tightly embedded in complex technological pipelines, the company has its own unique developments and research in the field of AI.

The described program easily covers the first two levels, but does not lose its relevance further with some additions and tunings.

Initial survey

At the beginning, we need to conduct an anonymous survey of all employees in order to see the whole picture - this will allow us to fix the current state, set clear KPI goals, and determine the most important requests for planning and implementation by the AI Department.

Questions may be similar to the following:

- Do you use AI tools in your daily work?

- Which ones and how often?

- What AI tools do you miss in your daily work?

- What AI tools and technologies would be useful for your project and company as a whole?

- How familiar do you feel with AI technologies (on a scale of 1 to 5)?

- What do you feel when someone starts discussing AI technologies or they pop up in the news?

- How do you generally perceive the rapid development of AI - enthusiastically, calmly, neutrally, cautiously, with fear?

- Can you tell the difference between AI, ML, NN, DL without referring to search engines?

Stage 1: Initiation

Initial approvals

Agreements on:

- Strategic goals and approaches
- Performers and responsible people
- KPI metrics and its measurement methods
- What to do with contractors from other companies
- Plan
- Define MVP of this project for quick expansion
- Decide on having a pilot run (we can adjust our approach on a smaller group of employees)
- Roadmap and deadlines
- Budget

Declaration of intent

The Company declares its intention to rise AI way of thinking across all its domains:

- Internal announce letter
- Internal video call
- Public announce letter (to influence the stock market)
- Public video message (or mention on the regular report for shareholders)

Stage 2: Survey

Survey preparation

Define:

- What to measure (today's KPI metrics)
- Questions for measuring (employee needs, do they use AI, how?)

Preparation of infrastructure for saving and processing results

Survey conducting

The survey may take up to a week or two. During the survey:

- Control readiness and remind about deadlines
- Test processing on intermediate results

Results processing

Overview the whole picture and define:

- Current state
- KPI goals
- Most valuable needs (80/20 Pareto principle + prio techniques)

Identifying and planning most valuable needs (AI Department)

From the data gathered through the survey

Stage 3: Preparation

Identifying the structure and domains, roles and responsibilities

Need to revise the company structure to define Domains for Studios and Business Units with their Mentors and Ambassadors.

Studio Domains: PO, Analytics, Art & Creators, Java, C#, QA, Marketing...

Business Unit Domains: need to revise non-studio structures to define their Mentors/Ambassadors structure.

Infrastructure

- Project in JIRA
- Mail groups
- Educational materials
- Knowledge portal (Confluence for a start? Req. inner tools review.)
- Feedback system
- Teams channels (additional point of interaction for cross-studio domain exchange of experience)

Stage 4: Introduction

Introduction on the program plan and details for the whole company

Training sessions on the basics of AI

- AI basics (what AI is and how it works in very simple words)
- Common use cases (suitable for getting started)
- Acknowledging the strengths and weaknesses
- AI security (how to use third party tools and services, what can be fed as input and what not)
- Recommendations for discovering tasks worth assigning to AI capabilities

Stage 5: Implementation

Implementation of the Program

The Program was described above in the "Main Idea" section.

Regular trainings and round tables

- What was implemented inside the company and how it works
- General state of the AI industry

Deeper learning for tech leads and architects

Inner contests

Regular contests with prizes for the best implementations and ideas.

Newsletters

- News and reports on new successful cases
- Tutorial articles
- Announces
- Winners
- The Program reports

Contests on Kaggle

Delegating some tasks such as training needed models with finding best approaches and params to the Kaggle community for prize money - it can save a lot of time and money, free our inner sources for other tasks, and make the work done in parallel.

Hiring AI talents

And not only for the AI Department, The whole hiring strategy can be turned into preferring AI-using candidates.

Stage 5: Maintenance

Revise outcome of the Program and adjust KPI-s

Control the execution of established processes

Review feedbacks on the Program and make tunings

Define, plan, implement new needs (AI Department)

Be in the loop

Mentors and Ambassadors attend relevant conferences and round tables, follow new technologies and news in the field of AI.

They prepare thematic reports and articles, which are published on a regular basis.

Risks of using AI tools

The main risk when using third-party AI tools and services is obviously the risk of leaking sensitive information. To prevent this from happening, training of employees on the safe use of third-party AI tools and services is included in the Program. For example, feeding a piece of art to generate an art scene doesn't seem dangerous, while feeding personal data to generate a letter in a suitable style is certainly not a good idea.

The remaining risks are related to specific implementations and require separate consideration, but there are still common points:

- We can not rely only on AI in solving issues that are sensitive for employees, because any complex system tends to accumulate or amplify errors. For example, the assessment of the usefulness of an employee and a salary increase or dismissal should be decided exclusively by a person, albeit with the help of some AI tools that allow to identify aspects that need to be paid special attention.

- Lack of transparency and interpretability can lead to regulatory issues in regulated areas.

- Influence on the demand for certain specialists within the company. Some daily human activities will be transformed into others under the influence of automation introduced by the use of AI tools. Therefore, it is important to prepare people for such challenges as acquiring new knowledge and skills.

- Technical challenges and limitations: scaling, integration with existing systems, limitations of algorithms or hardware. These challenges require good understanding and careful planning by all concerned.

- Various ethical risks associated with the use of AI tools require human control of the final results.

- Losing control over decision-making processes: overreliance on AI without appropriate human oversight can lead to errors or incorrect outcomes.

Overall, putting this program into action can provide significant benefits in detecting and mitigating all of these risks, because company workers will have a deeper understanding of AI technologies.

Psychological and ethical aspects

Most people feel insecure in rapidly changing environments. The rapid development of AI technologies poses such difficult questions for employees as:

- Will I lose my job because AI will replace me?

- Will I be competitive in the labour market in a year, two, five years?

- Do I need to quit what I'm doing now and urgently retrain?

It is important that employees feel in the safest and most beneficial environment possible. It should be emphasised that they are important for the company, and that the company is ready to invest in their training and development, that they will not lose their jobs due to natural process automation using AI technologies, but will acquire new competencies that will be especially valuable and in demand in the future.

It is **not allowed** to even jokingly mention dismissal in connection with the development and implementation of AI technologies. People are very sensitive to any jokes about being fired, especially from managers.

It is worth mentioning that forcing employees to use AI technologies will not be as effective as if they themselves become involved in this process, change their way of thinking, and begin to bring their own contributions and ideas over time. To do this, we need to explain to people that the company cares about them and their future, and what competitive advantages they will get from owning new AI technologies:

- **Moral boost**: employees will no longer be afraid that something important and incomprehensible passes them by, and will feel confident in a rapidly changing technological environment.

- **Self-confidence**: understanding and mastering new technologies creates a competitive edge in the labour market.

- **Efficiency**: By shifting some of the routine and monotonous tasks to the shoulders of AI tools, workers will find that these tasks are spent much less time, but with better quality.

- **Productivity**: people will achieve more through efficiency, which, coupled with the growth of the company's success, contributes to their financial success in the form of bonuses.

- **Creativity**: due to the reduction of time spent on routine, there is more time for really interesting tasks that require new non-standard approaches and less monotony. In addition, communication with relatively speaking “ChatGPT” can bring new interesting ideas.

It needs to be presented to people in such a way that being Ambassadors and Mentors is a privilege and opportunity to be on the cutting edge of progress and new technologies. It is necessary to put in these positions only those leads who are really interested in diving headlong into the topic of AI and are ready to bring it to the masses.

Often in discussions such a reasonable question arises as the security of the future of mankind. Awareness and understanding of AI and its capabilities is the key to success in the further development of AI technologies, keeping them safe for humanity.

Examples of using AI tools

Things become ordinary when they are repeated multiple times. People should ask themselves more often:
- How can I be extraordinary in my work, or even just not-ordinary, when at a significant time at work I have to do ordinary things? Wouldn't it be better to delegate at least a part of those things to AI, so I free some space for something not ordinary for me yet?

Here are just some examples of using the power of AI for everyone and in some professional domains. I do not indicate specific tools, since every day there are more and more of them, and they win niches from each other. Therefore, it is much more important to understand the basic principles of what can be done and how than to become familiar with certain tools.

Everyone

- Can use AI tools as a companion for advice on a wide range of issues. No need to surf through a lot of links in the search engine - just ask questions and get answers.

- Generate new ideas or challenge existing ones.

- Not only translate texts and check for errors, but also easily generate texts of various subjects and styles, from letters to special reports.

HR Specialists

- AI tools can be used to monitor work chats, emails and various survey answers to identify upset and tired workers. When a signal is received about such a person, an HR specialist can ask the direct manager of this person to pay attention to him or her and find out the reason, maybe that person needs some help or has not been on vacation for a long time and has begun to burn out.

- Imagine such a complex and lengthy process as, for example, the relocation of studios from Minsk to Warsaw, which also took place in several waves. It is even difficult to imagine how many questions of the same type had to be answered in personal messages by HR specialists and various managers. How much easier it would be if there was a preliminary AI gate between workers and those answering such questions.

Artists and creators

- Based on a text description and additional materials, they can quickly generate sketches with various styles, scenes, images and object locations for discussion with POs and art leads to speed up the selection of a starting point.

- Can automatically do translation and voice acting into other languages.

- Can generate music by text description.

Marketing

- Data-driven personal offers for users. Not only personalization of values, but also the appearance, location and size of elements.

- The use of AI approaches will reduce the pain of setting up new events in the chain of Marketing - Operators - QA-s. Where there is a lot of data, accordingly, there are a lot of niches for possible errors. Machines in such cases are much more reliable.

Customer Support

- Mood detection can be used to alert negative comments and reviews to prioritise them and increase user satisfaction and loyalty.

- Significant time saving through a wide variety of automatic responses to thank you messages and preparation of preliminary responses for more complex questions that do not need to be formed from scratch, but only moderated before sending.

Product Owners

- Can use AI tools to inspire and generate new ideas.

- Imitation of real players in game chats and asking questions to get instant feedback on new features to make better settings and tunings: “So guys what do u think about new chests feature? Matter to jump in?”

- In the same way, AI can be used in a game to encourage users to try a particular game mechanic.

Programmers

- Skills and knowledge that are not used on a regular basis tend to be forgotten, such as regular expression syntax. And if earlier programmers had to go into the documentation to remember which descriptors are responsible for what, now with the help of AI tools there is no need to waste time on this, they can simply describe the desired behaviour of the regular expression in words and all that remains is to polish the result, which is already done very quickly if they have an understanding of the basics of how regular expressions work. Of course, this applies not only to regular expressions.

- Can create functions and even entire classes with the help of AI tools by a text description. Of course, the results require proofreading - however, as well as any written code. The time savings are significant given that there is little to no need to look through the documentation.

- Can not only ask AI tools to write unit tests for existing methods, but also go much further: describe the required behaviour to generate a unit test, and then generate the method itself based on this unit test.

- Can easily and quickly generate documentation for existing code. No need to hire a technical writer. Creators of engines and libraries will appreciate this opportunity.

Conclusion

AI technologies are developing with huge speed. It's not possible for one person, small team, or even a dedicated department to cover them all and implement them everywhere, but if we make every employee in the company be shorthand with AI tools, using them on an everyday basis, in that case coverage of the expertise can be tremendous.

It’s easy to say “let’s stand our company on AI rails”, but what exactly should be empowered by AI? How to find these points of future success? Being able to recognise such places for improvements is a skill which goes alongside with awareness of AI, and as any skill it should be developed and trained step by step from the basics.

That’s why it’s crucial for the company to train their employees on being well known to AI capabilities, transform their mindset to adopt new technologies and move towards new horizons.