



Artificial Intelligence and services for occupational pension schemes

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Applications for artificial intelligence

Generative artificial intelligence (AI) has not only made AI tools accessible to a wider audience, but has also expanded the range of applications for many businesses. Within just two months of its launch in 2022, ChatGPT had more than 100 million users.¹ Since then, Microsoft and Alphabet have integrated AI into almost all of their services and are investing billions of US dollars in further development. Even though the expectations for this technology are high, its use so far varies greatly depending on the industry and company size.²

AI has already been used for many years in the administration of occupational pension schemes - as in the entire service sector - to answer queries or categorize data, for example. Generative AI is creating new opportunities here to significantly improve existing applications and expand the scope of use. This article outlines the new opportunities and challenges of AI for occupational pensions. The interview with Dr. Barthold Albrecht, IA, and Dr. Franziska Kühnemund, WTW, also provides insights into practical experiences.³

New possibilities through generative AI

Generative AI differs from conventional AI approaches in that it not only recognizes existing patterns, but also generates new data. This data can be used to generate new content that is similar to that with which the AI model was trained. This approach opens up a wide range of new applications for services in the field of occupational pension schemes, which is characterized by "a lot of text" (or other media) and also includes complex contexts, (expert) technical language, references to various legal bases and areas of law, etc.

So why is generative AI particularly suitable for company pension schemes?

- *Summarizing complex texts:* Generative AI models can summarize and rephrase long texts (e.g. legal bases, communication materials) without losing the original context. In addition, redundant information can be removed to make the text

¹ Economist, "ChatGPT mania may be cooling, but a serious new industry is taking shape", September 21, 2023, Link: <https://www.economist.com/leaders/2023/09/21/chatgpt-mania-may-be-cooling-but-a-serious-new-industry-is-taking-shape>

² Economist, "How businesses are actually using generative AI", February 29, 2024, <https://www.economist.com/business/2024/02/29/how-businesses-are-actually-using-generative-ai>

³ See Albrecht, Kühnemund, Thum „Artificial Intelligence and services for occupational pension services - interview“, WTW, 29 May 2024, Link: <https://www.wtwco.com/de-de/insights/campaigns/the-future-of-occupational-pension-services-current-topics>

clearer and more precise. Extensive and complex texts can thus be reduced to the essentials and edited according to their intended use and target audience. With this capability, generative AI can help to reduce the complexity of occupational pension schemes.

- *Simplification of pension terminology:* Generative AI can translate pension terminology or complicated expressions into generally understandable language. This is helpful when creating communication bases for employees and beneficiaries who are not familiar with the technical language.
- *Linguistic improvement and multilingualism:* Generative AI can improve texts linguistically (e.g. eliminate grammatical errors, style problems) and make suggestions for improvement. In addition, AI can be used for translation into different languages, making access to bAV much easier, especially for non-native speakers.
- *24/7 availability:* AI models are available around the clock via corresponding services and can be integrated into existing applications using relatively simple standard technical means.

Specific areas of application for company pension schemes

With these capabilities, there are many applications for services in the field occupational pension schemes. Three practical examples will illustrate the added value of using generative AI.

In the field of *customer service*, chatbots are often at the forefront of answering questions, solving problems and providing information. These virtual assistants can use generative AI to not only formulate predefined answers, but also respond to natural language and continuously improve. The key advantage here is that employees or beneficiaries can ask questions in their natural language (without knowledge of pension terminology and professional language) and the answer is provided in a language that the questioner understands. This is independent of the medium (text, spoken language) and the language (multilingualism).

Administrators are often faced with many legal bases, implementing regulations and other rules. Managing this complexity is a major challenge for many administrations. This is where AI can be used effectively to improve knowledge management. It helps to categorize and organize information and make it easily accessible. With the help of this technology, administrators can access relevant sources much faster, have the decisive regulations prepared according to their intended use and process them further.

Challenges and measures

Although the integration of generative artificial intelligence into occupational pension schemes opens up numerous opportunities, it also harbors general risks that must be limited with suitable measures. In connection with its use in occupational pension schemes, "reliability" and "data privacy and security" are frequently discussed.

Reliability: Generative AI can produce unexpected results such as "hallucinations" or errors, which can severely limit its use due to quality deficiencies or acceptance problems among users. These risks can (and must) be limited with suitable measures throughout the entire process, e.g. limiting the purpose of the application, selecting suitable training data, human evaluation of the answers as part of supervision.

Data privacy, security and intellectual property: Generative AI use is based on personal and company-specific data during both training and also during productive use. The relevant data protection regulations and security standards must be taken into account. Again, risk management requires specific measures to limit or eliminate risks. These include, for example, the selection of appropriate IT and software architectures, the restriction of the data space to relevant and usable information and anonymization of training data.

Recommendation: Test use

Predictions about the potential applications and speed of adoption of generative AI solutions vary widely. Generative AI offers good application possibilities in the context of occupational pension administration, such as further automation, improvement of the user experience, support in coping with complexity (e.g. information searches, summaries, analytics), efficiency improvements in software development and IT security. However, there are also some challenges to overcome during implementation and use.

As the technological development is very dynamic, a pragmatic approach to testing AI can be recommended:

1. Define goals and narrow down areas of responsibility - start "small" with concrete use cases
2. Consider regulatory and corporate policies (e.g. privacy and security) - ideally embedded in existing technology structures
3. Limit risks through appropriate technology and quality assurance measures - (human) monitoring as an integral part of oversight

4. Use agile approach: iterative development and learning from experience
5. Regularly review efficiency and adjust the process if necessary

There is also no clear answer yet to the question of economic efficiency. Further practical experience is needed to determine the extent to which this technology can lead to savings. In any case, it is advisable for decision-makers to consider AI in the context of occupational pensions, as there is also a risk of being left behind by technological developments.

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