Artificial Intelligence in the Public Sector Using Chatbot: Romania vs Austria, Belgium, Bulgaria and Czech Republic

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Abstract: Artificial intelligence (AI) is making lightning-fast inroads into the public sector as agencies pursue greater efficiency, better quality, and more personalized services for their clients.

Social security institutions are no exception. While AI applications are varied, each with its own far-reaching implications, "conversational AI" or "chatbots" have led the way in terms of AI adoption by government agencies. Chatbot is a useful and widespread tool with great potential for public administration. All types of chatbots have a great benefit and a revolutionary impact for public administration users.

The basic characteristics of chatbots are described, their classification, examines in the form of a SWOT analysis the strengths and limitations of this technology in the application in public administration. It has been confirmed that chatbots (and their subsequent modifications and development variants such as voice bots or digital assistants) will become a fixed part of the modern AI apparatus that the public administration will use for public relations.

The present paper explores in a comparative manner the applicability of chatbots in the international versus Romanian context, focusing on the functional characteristics of these technologies, their classification in relation to the purpose and logical architecture, as well as on the SWOT analysis, to highlight both their benefits and limitations in the practical implementation in the public sector.

Keywords: artificial intelligence; chatbot; technology, public, impact

1. Introduction

The accelerated progress of artificial intelligence (AI) in the field of public administration is marked by a generalized trend of adoption of emerging technologies to increase operational efficiency, improve the quality of services provided and personalize institutional interactions with beneficiaries. Among the many applications of AI, conversational ones – materialized in chatbots – have stood out as strategic tools with a remarkable disruptive potential, reconfiguring the traditional mechanisms of institutional communication and management of the relationship with citizens.

While the Fourth Industrial Revolution (sometimes referred to as 4IR or Industry 4.0) is poised to change society like never before, it builds on the foundations laid by the first three industrial revolutions. The advent of the steam engine in the eighteenth century led to the first industrial revolution, allowing production to be mechanized for the first time and driving social change as people became increasingly urbanized. In the Second Industrial Revolution, electricity and other scientific advances led to mass production. A third industrial revolution, which began in the 1950s, saw the emergence of computers and digital technology. This has led to increased production automation and disruption of industries, including banking, energy, and communications.

Artificial intelligence, although conceptualized and developed theoretically for more than half a century, has been experiencing an unprecedented scale in recent decades, transforming from an abstract field of research into one with concrete applicability in multiple industries, including in the field of human resources. The term "artificial" is,

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according to the Oxford Dictionary, associated with everything that is created by man and reproduces or substitutes elements of natural reality, which implicitly implies the ability to imitate human cognitive processes, such as learning, reasoning and decision-making.

In the same vein, Kaplan (2016) defines intelligence as the ability to formulate relevant generalizations in an optimal time frame, starting from incomplete data, which reflects the essence of current intelligent algorithms that underpin modern AI applications.

2. Teoretical Framework: Chatbots, definitions and functional features

Chatbots, also known in the literature as digital assistants, conversational agents or conversational interfaces based on artificial intelligence, are software entities programmed to simulate human verbal interaction, by automatically providing answers to user requests, to streamline the process of assistance, information or guidance within digital services.

These technologies, based on natural language processing (NLP) algorithms, can analyze varied inputs, interpreting user intentions and formulating pertinent responses in a coherent and fluent way, replicating a human conversation in an automated and round-the-clock framework. Chatbots have the capabilities to emit real-time conversations with a human interlocutor.

The most common types of chatbots are online stores, sites where online appointments are made 24 hours a day, seven days a week. Bots are solutions for optimizing the activities of both companies and budgetary institutions.
A dedicated HR chatbot will optimize answers to the most frequently asked questions faced by retirees and can receive quick and effective answers.

For example, such a bot would diminish the complicated situations of dialogue between a civil servant of a pension house in the country and a pensioner. This artificial adaptation eliminates phone calls, emails, or other cumbersome communications. Chatbot systems leave an extraordinary impression on those who interact with public institutions and can be the element that attracts qualified personnel, which can be a huge advantage, especially in the field where qualified personnel are lacking and their specializations cost enormously. (Fratica-Dragomir, 2024)

2.1. Chatbots in human resources field

An HR chatbot is an advanced conversational AI programmed to handle various HR-related tasks and questions (Selvaraj,2023). It is not only a tool for answering fundamental questions, is an intelligent system equipped with generative AI and natural language processing (NLP) capabilities. These capabilities allow them to understand and answer various HR questions, from employee benefits and leave policies to more complex issues such as performance reviews, onboarding processes, and training programs. (Jorge, 2023)

The main objective of an HR chatbot is to automate and streamline laborious and repetitive HR tasks. This can significantly improve the employee experience, reduce the workload of HR staff, and allow them to focus on strategic and complex issues. These chatbots are adept at conducting employee surveys, collecting feedback, and facilitating self-service portals, making them an integral part of the modern HR toolkit. HR chatbots are versatile and can be integrated across various platforms, such as intranets, company websites, messaging apps, and mobile apps. This multi-platform presence ensures that employees can access HR support whenever and wherever they need it, promoting a more connected and efficient workplace. The integration of HR chatbots is redefining the efficiency and effectiveness of HR departments in various industries.

2.2. The future of human resources with chatbots

The role of HR chatbots is becoming increasingly important in the modern workplace.

They are not just a trend, but a vital tool in the evolution of human resource management. With their ability to streamline processes, improve employee experiences, and provide actionable insights, HR chatbots are reshaping the HR landscape. As companies continue to navigate the complexities of modern work environments, the

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adoption of HR chatbots will be vital to staying competitive, efficient, and responsive to employee needs. The person who laid the foundations for today's progress was Klaus Schwab.

In an article (Schwab, 2016) he wrote that these new digital revolutions, the fourth industrial revolution, have the potential to increase global income levels and improve the quality of life for populations around the world. The researchers showed that in the future, technological innovation will also lead to a miracle on the supply side, with long-term gains in efficiency and productivity. (Schwab, 2016)

Transport and communication costs will fall, logistics and global supply systems will become favorable, and trade costs will fall, all of which will open up new markets and boost economic growth. The revolution could lead to inequality, especially in the potential to disrupt the labor market. (Schwab, 2016)

The labor market may become increasingly segregated into 'low-skilled, low-paid' and 'high-skilled/high-paid' roles, which could escalate social tensions. According to Schwab, "the changes are so profound that, from the perspective of human history, there has never been a moment of greater promise or potential danger

3. Industrial Technologies 4.0

The easiest way to understand the Fourth Industrial Revolution is to focus on the technologies that drive it. These include the following points (Stancioiu; 2017)

A. Artificial intelligence (AI)
B. Web3
C. Blockchain
D. Faster computer processing
E. Virtual reality (VR) and augmented reality (AR)
F. Biotechnology
G. Robotics
H. Internet of Things
I. 3D printing
3.1. Information Society (Society 5.0)

In 2016, the term IoT was introduced and the transition to Society 5.0 is a broad concept because it provides for a complete transformation of our way of life.

The four pillars of Society 5.0 are:

1. Health
2. Mobility
3. Infrastructure
4. FinTech

3.1. What is artificial intelligence

Artificial intelligence (AI) refers to the creation of computer systems capable of performing tasks that, historically, only a human could do, such as reasoning, decision-making, or problem-solving. (Jianu, 2018). Today, the term "AI" describes a wide range of technologies that power many of the services and goods we use every day, from apps that recommend TV shows to chatbots that provide customer support.

Artificial intelligence (AI) is the ability of technologies or machines to copy human intelligence as realistically as possible, to solve problems and achieve goals. Artificial Intelligence systems adapt, analyze data, observe future actions based on existing information and operate autonomously.

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An interesting change has occurred over time, in the past the focus was on hardware and software was a weak component. Over time, the software element has developed and over time, hardware engineers have adapted to the evolution and become software engineers.

The algorithms used are to make predictions in almost any field, and if they are used correctly, the predictions and results are beneficial and commendable. The adoption of these applications with artificial intelligence in public institutions is useful to everyone. Therefore, developing and refining basic human skills is important in the long run. Above all, technology allows work to become more human. As managers, leaders or directors this has an extraordinary result.

It should be remembered that, from the first light bulb to the appearance of the smartphone, technology is evolving. The composition that never changes is the people behind technology and the most important aspect we can say is that artificial intelligence changes the world of work.

Artificial beings with intelligence appeared as devices in antiquity and were common with fiction, as in Frankenstein by Mary Shelley or R.U.R. by Karel Capek. These characters raised many of the issues now discussed in the ethics of artificial intelligence. (Sfetcu, 2021).

Artificial intelligence (AI) is based on the theory and development of computer systems that can perform tasks based on human intelligence. AI is an umbrella term that encompasses a wide range of technologies, including machine learning, deep learning, and natural language processing (NLP). The term is commonly used to describe several different technologies currently in use, many disagree that they constitute artificial intelligence. Instead, some argue that much of the technology used in the real world today actually constitutes highly advanced machine learning, which is simply a first step towards true artificial intelligence or "general artificial intelligence" (GAI-General Artificial Intelligence).

However, despite the many philosophical disagreements about the true existence of "true" artificial intelligence, when most people today use the term AI, they refer to a suite of technologies based on machine learning, such as Chat GPT or computer vision, which allow machines to perform tasks that previously only humans could do, such as generating written content, driving a car, or analyzing data. (Coursera, 2023)

The artificial layout of AI is quite simple and refers to anything that is not natural and, in this case, man-made. It can also be represented using terms such as machines, computers, or systems. Intelligence is a much more disputed concept, explaining why there is still no consensus on how to define AI, even among experts (Miaihle, Hodes, 2017).

(Miaihe, Hodes, 2017) mentions John McCarthy, considered to be the father of artificial intelligence as defined artificial intelligence in 1956 as "the science and engineering of making intelligent machines". Many general definitions reflect this approach, including the definition of AI systems used by the OECD, which has been accepted by 42 national governments. In addition to being machines that mimic humans, AI can also be understood as the field of knowledge associated with the design of these machines or the discipline of creating algorithms that can learn and reason.

In the year 1950, the English mathematician Alan Turing developed a test, which was later named after him, it was designed to determine whether a machine (computer) could be considered intelligent. The test involved three participants: a human evaluator would ask questions, and a human and a machine would write answers. The test defines an intelligent machine as a machine that produces answers that the evaluator cannot distinguish from those of the human respondent.

The process is monitored, and the programmer must be quite convincing when telling the computer what things to look for by imposing an algorithm with new data inputs, how to calculate them and what measures to adopt.
Through machine learning, unsupervised algorithms develop reasoning, and this phenomenon is not learned from the programmer. This is where the beauty of AI comes in because intelligent machines can see work or other important points that the programmer cannot notice. Machine learning has a multitude of applications that have not yet been transcribed.

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3.1.1. What are the advantages and disadvantages of artificial intelligence?

Artificial neural networks and deep learning AI technologies are evolving rapidly, primarily because AI can process large amounts of data much faster and make predictions more accurately than is humanly possible. While the huge volume of data created daily would bury a human researcher, AI applications that use machine learning can take that data and quickly turn it into useful insights. At the time of writing, a primary disadvantage of AI is that it is expensive to process the large amounts of data required for AI programming. As AI techniques are incorporated into more products and services, organizations also need to be adapted to AI's potential to create biased and discriminatory systems, intentionally or inadvertently.

3.1.2 How does AI play a role in human resource management?

AI has become increasingly prevalent in human resource management. AI-powered solutions are used to streamline many of the traditional processes associated with human resources, such as recruitment, onboarding, performance management, and learning and development initiatives. The HR system is moving towards the digital revolution and uses various methods to simplify resources using big data analytics, artificial intelligence, and cloud computing (Amla & Malhotra, 2017).

Most of the organization has used artificial intelligence or digital technologies in the field of human resources, such as chatbots, machine learning, and automation of robot processes in human resource management that support recruitment, screening, onboarding, and interviewing. AI plays a role in human resource management (Tawalkar:2019).

AI can help streamline the recruitment and selection process in human resource management.

AI-based solutions are used to quickly identify potential candidates who have the necessary skills and experience for a job (Thakur, 2023; Bondorouk,2017,). It can also be used to ensure that companies hire the most qualified candidate by selecting all applicants who do not meet certain requirements. This helps to save time and money while ensuring that only the best people are hired for each position.

Artificial intelligence can analyze candidate data quickly and accurately, using advanced algorithms and machine learning capabilities. This allows it to identify top candidates faster than recruiters.

AI can provide valuable insights into a candidate's behavior and personality in the workplace, using factors such as language analysis, tone of voice, and facial expressions that a typical recruiter cannot recognize through a resume. (Schosser, 2023)

3.2 The meaning of AI for Romania

To support the provisions of the White Paper on Artificial Intelligence, Romania adopted Decision No. 28 of 8 September 2020 on the adoption of the opinion on the White Paper, Artificial Intelligence. The researchers argued that it is a European approach focused on excellence and trust. Stefan,V(2018)

It is evident that countries take seriously the significance of AI technology and the impact it can have on our society. While AI laws are being drafted, we can expect several important goals that will influence how we use this technology using data protection, ethics, and transparency.

AI ethics refers to the issues that stakeholders (from engineers to government officials) need to consider ensuring that AI technology is developed and used responsibly. This means taking a safe, secure, humane, and environmentally friendly approach to AI.

AI ethics can cover avoiding bias, ensuring the privacy of users and their data, and mitigating environmental risks. Codes of ethics in companies and government-led regulatory frameworks are two primary ways AI ethics can be implemented. By covering global and national ethical AI issues and laying the groundwork for ethical AI policy in

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companies, both approaches help regulate AI technology. More broadly, the discussion of AI ethics has progressed from being centered on academic research and nonprofits.

Today, big tech companies like Google and Meta have assembled teams to address the ethical issues that arise from collecting massive amounts of data. At the same time, governmental and intergovernmental entities have begun to develop regulations based on academic research.

3.3. Artificial Intelligence in Public Sector

Artificial intelligence (AI) is making rapid inroads into the public sector as public institutions pursue greater efficiency, better quality, and more personalized services for their customers. Social security institutions are no exception. While AI applications are varied, "conversational AI" or "chatbots" are leading the way in terms of AI adoption by government agencies.

In a survey of 166 government agencies across the globe, chatbots emerged as the leaders, 26% of institutions are already implementing them, and another 59% of public institutions plan to implement them within three years. In an analysis of 230 AI-enabled public services across the European Union, chatbots emerged as the first choice, accounting for more than a fifth of the cases used (European Commission, 2020).

The global conversational artificial intelligence market, including chatbot and intelligent virtual assistants are expected to have a compound annual growth rate (CAGR) de 22% in the period 2020-2025, reaching almost 14 billion US dollars (USD) (Deloitte, 2017).

A chatbot (or virtual assistant) is an algorithm that conducts a textual or oral conversation. While chatbots are not really a new technology – for example, the first chatbot was already programmed in 1966 to discover whether people could tell if they were talking to a person or a machine, the potential of chatbots is now considerably greater thanks to advances in AI technologies and ever-changing communication patterns (Van Noordt and Misuraca, 2019).Chatbots are essentially computer programs that can recognize input from a user using pattern-matching technologies, access information, and respond with information found in the knowledge base.

While basic chatbots communicate through pre-programmed responses, more advanced ones use AI, which allows machines to better analyze and process the context of languages (known as Natural Language Processing, or NLP), which in turn allows chatbots to tackle more complex tasks and hosts more human-like conversations. Chatbots are increasingly being used by governments to help manage large volumes of contact with citizens and help them navigate complex policies and legislation to eventually access quality public services (Henman, 2020).

4. Artificial Intelligence in the Public Sector Using Chat boat in Romania vs Austria, Belgium, Bulgaria, Czech Republic

4.1. Romania

Changes in the labor market, the digitalization of HR, the need to streamline work processes determine companies to put more and more emphasis on the employee experience.

Basically, in recent years, the need to create physical and digital spaces that offer employees experiences that increase job satisfaction, retention, and productivity has become a priority for the HR department. For this reason, a chatbot virtual assistant has been created that provides permanent support to employees and reduces the workload of the human resources department.

IRIS virtual assistantcan be found in the Employee Self Service application on the colorful.hr platform, available 24/7, because it never takes time off and does not go on sick leave.

Increase employee engagement:

• Employees instantly receive the answers they need.

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• Provide employees with interactive and user-friendly experiences.
• Improve employee productivity.

You streamline the work of the hr department:

• Eliminate human heroes.
• Reduce workload.
• Lower costs.

You make the best decisions:

• Find out what problems employees have and offer personalized solutions.
• Identify professional training opportunities in the company
• Make employee experience a strategic business priority.

Who needs IRIS:

• Small companies that do not have a human resources department.
• Large companies where the HR department is overloaded.
• Entrepreneurs who want to focus on business development and delegate repetitive tasks.

With the help of this virtual assistant, Romania could introduce the recruitment and selection of public employees, including at pension houses, an essential requirement: increasing the salaries of a new version in the new salary grid and by hiring high-performance people and reducing staff and equipping them with high-performance IT technology.

4.2. Austria

Over the past decade, AI has evolved rapidly, becoming increasingly sophisticated and capable of solving increasingly complex problems. AI is deployed in sectors as diverse as manufacturing, transport, finance, education and health.

IA Austria is an independent think tank and sees itself as a platform for the exchange of ideas on artificial intelligence.

By creating specific networks, coordinating and promoting researchers from science, business, education and society, the aim is to contribute to the targeted and sustainable application of AI in Austria.

In 2017, the new Mona chatbot was launched, intended to answer all questions for companies regarding the coronavirus crisis and the economy. The service of the Federal Ministry for Digitalization and Business Localization (BMDW) is available online on the website of the Unternehmens Service Portal (USP) and can also be used on mobile devices. The service can be found on the USP homepage and aims to provide companies with important information about essential points such as subsidies, labor law issues such as short-term work, and remote work in a simple way during these difficult times. On the one hand, users can ask questions freely, on the other hand, there is a classic information channel in which more detailed information on the three central topics is provided: work, financial aspects and research, all with a simple click.

Another chatbot in Austria, named after Austrian Airlines' first flight attendant, Maria (Austrian Airlines Homepage 2023), provides information that can be useful for travel, as well as valuable services such as booking flights. The Austrian chatbot can instantly book an alternative flight.

Maria speaks both German and English and is continuously learning and improving with every conversation.

In mid-December 2017, Wien Bot, a free chat bot and digital assistant for all things Vienna, was launched in the city of Vienna. In September 2021, the Austrian government published the "Austrian Artificial Intelligence Mission for

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2030 (AIM AT 2030)" strategy, which helps pave the way for Austria's contribution to achieving the Digital Decade goal, aiming for 75% of European companies to use AI. The '2030 TA target' pursues three objectives: the use of AI for the common good; establishing Austria as a European AI research and innovation region; ensuring competitiveness through optimal solutions and the use of AI in all strategic areas.

The strategy also has a strong focus on the development of 'AI for the environment', with implementation in two areas of action: 'Trustworthy AI', laying the foundations for a legal framework for AI; "Ecosystem building", which includes AI in education and training, in the development of university strategies, research institutes or companies, as well as funding for companies and public institutions that will want to cover the entire digital development cycle through AI.

Social services in Austria are no strangers to machine learning. At least two previous projects of Services der Sozialversicherungen GmbH" (IT-SV) have already been implemented.

In December 2019, they introduced at the ÖGK ("Österreichische Gesundheitskasse"), an automatic document classifier that sends emails from insured persons to the responsible departments based on the text and their attachments. Also, IT-SV received 2.8 million euros for the "KAI system", a project that aims to accelerate the reimbursement process for treatments performed by doctors who do not have a contract with health insurance. According to the largest annual report of health insurers, two-thirds of reimbursement requests were processed semi-automatically in October 2022.

Other public services in Austria have implemented artificial intelligence at scale, with controversial results. The employment agency launched an LLM-based chatbot called "Berufsinfomat" in January. It suggests that users ask questions such as "How do I become a programmer" or "I find cops interesting! What are the requirements?". A software developer has found that it discriminates against women if users disclose their gender in their requests. The same agency had previously tried to introduce an algorithm that ranked job seekers according to how likely they were to find a job.

An analysis of the data (with no machine learning involved) showed that women lowered them because previous data indicated that they were less likely to be hired. The Austrian employment agency did not see any problem with this logic but refrained from implementing the algorithm after a civil society outcry (Hametner2024.)

4.3. Belgium

On 28 October 2022, the Council of Ministers approved the National Convergence Plan for the Development of Artificial Intelligence (the 'Convergence Plan'). Belgian Council of Ministers (2022)-

Belgium aims to be a leader in the deployment of AI applications in its economy and become an AI-smart nation. While AI offers opportunities in areas such as energy, climate and health, it is also important to anticipate the risks of AI applications and provide a safe framework in which these new technologies can develop.

The Convergence Plan sets out nine objectives:

1. Promote trusted AI,
2. Ensure cybersecurity,
3. Strengthening Belgium's competitiveness and attractiveness through AI,
4. Develop a data-driven economy and high-performance infrastructure,
5. Place AI at the center of healthcare,
6. Use artificial intelligence for sustainable mobility,
7. Protect the environment,
8. Provide better and lifelong training, and
9. Provide better service and protection to citizens.

Each objective is complemented by lines of action that materialize the objectives. Attention is also paid to the concrete implementation and governance of the Convergence Plan. A joint coordination committee will be set up

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by the Federal Public Services Policy and Support and Economics to contribute to the implementation of the Convergence Plan.

A first step in the use of AI was taken by Belgium's National Employment Office (Office national de l'emploi – ONEM) set up a chatbot to ease contact center pressures caused by unprecedented volumes following the COVID-19 crisis (National Employment Office, 2021 and 2022).

The first chatbot, known as Marc, was launched on the ONEM website in May 2022. ISSA (2022). In its initial phase, the chatbot was designed to serve only one type of customer request: it gave citizens quick access to the copies of tax certificates they needed. to submit together with the tax returns. In May 2021, the chatbot's capabilities were expanded considerably, and a new chatbot called Ori was launched.

Based on the analysis of questions asked by customers to Ori, an updated version was released in December 2021. She is now able to answer several questions related to unemployment and career breaks. It also helps customers navigate the ONEM website easily. Moreover, it serves as a promotional tool to encourage the use of the e-box, Belgium's virtual and secure mailbox, which allows authorities to communicate securely with citizens. Most importantly, the chatbot remembers the context the customer is in when asking questions, ensuring that the chatbot can continue to support the customer no matter where and how the customer navigates the site. Finally, the topics addressed by the chatbot are regularly updated based on the analysis of customer questions.

4.4. Bulgaria

With the increasing introduction of artificial intelligence (AI) in various decision-making processes that directly affect humans, more and more issues related to the protection of human rights arise such as: "Who is responsible when human rights are violated as a result of a Decision based on artificial intelligence?"; "Is it possible for AI-based systems to be impartial and non-discriminatory?" etc.

AI-based systems are also finding their place in the public sector, with increasingly ambitious tasks assigned to them – automating the distribution of social benefits, assisting jobseekers, assessing the risk of gender-based domestic violence, etc. Bulgarian Government (2022).

European Commission (2020 In 2019, the Council of Europe published 10 steps to protect human rights when using artificial intelligence (AI). The document places first and foremost the need for a legal framework that regulates the performance of human rights impact assessment when AI systems are introduced in the public sector. Second in the guidelines is the conduct of meaningful public consultations before the introduction of AI systems in the public sector. The establishment of safeguards for the accessibility, rights and safety of AI systems developed and deployed by companies should also be subject to review and regulation, in line with the 2019 European Commission White Paper 16 on AI and the Guidelines on the ethical aspects of trustworthy AI.

In Bulgaria, the adoption of legislation regulating AI and guaranteeing the protection of human rights in relation to the use of AI systems is still at a basic level. (Broadly speaking, it ends with the Data Protection Act, which introduced EU data protection law.) At the end of 2020, a concept for the development of artificial intelligence in Bulgaria by 2030 was adopted by the Bulgarian Government (2022). European Commission (2020. With the creation of a new Ministry of E-Government, which is the successor of the policy for information society and information technologies within the Ministry of Transport, IT and Communications, the establishment of a Public Council for Information Technologies and Information Society subordinated to the minister. of Government E is being considered. Thematic working groups will operate at the Public Council, one of which will be dedicated to Artificial Intelligence.

As a guarantee that national plans will be adopted in accordance with basic principles and international standards in the field of human rights protection, it is necessary to ensure the participation of human rights organizations in the Public Council or at the level of working groups.

4.5. Czechia

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The greatest effects of AI on the economy are generally expected through automation and routine replacement and repetitive (even laborious) work by machines.

Thus, human capacity should be freed up for more creation, value-added work, and in general, performance, productivity, quality, and efficiency should be increased.

Therefore, there is probably no risk of total job loss, because those lost should be compensated by the emergence of new jobs.

However, it will be necessary to go through a successful transformation at the level of the entire economy, sectors and individuals, which can impose a considerable burden not only on the educational system, but also socially and bring many negative consequences if not managed properly. In most cases, retraining and support will be needed enough for workers to move them to identical or better jobs, while the scale and speed of finding a new job are largely individual. Potential threats include deepening problems in socially excluded regions, a temporary increase in structural and frictional unemployment, and the deepening of various forms of inequality and discrimination. The effects of automation are likely to be different for different population groups, with the middle class being among the most affected. The impacts can thus be not only purely economic, but also social and political.

It is also very likely that we will see a change in FTE, the emergence of new forms of work and the expansion of outsourcing, to which we will have to respond flexibly and consider the use of innovative approaches and their practical verification.

Conclusion

Two interesting notions have been launched in the literature of specialty, namely the concept of intelligent HR (Yabanici, 2019) and virtual human interviewers (Zhou, 2019).

Artificial intelligence (AI) can play an important role in human resource management, as it can automate mundane tasks and reduce the bias associated with the screening process.

Artificial intelligence can be used to support career development, increase employee engagement, and advance organizational strategies. AI technology can help provide employees with more personalized and tailored career development opportunities, as well as improve employee engagement.

Organizations should consider the financial costs of implementing and maintaining AI in HR, as well as the risk of unintentional errors and biases. In the future, AI will continue to grow and develop, leading to more automation, personalization, and data-driven decision-making in HR management.

In conclusion, the global ethical AI landscape is a dynamic and complex field, marked by a diverse range of national policies and strategies. As AI continues to advance and permeate every aspect of our lives, it is crucial for nations to engage in ongoing dialogue and collaboration to navigate ethical challenges and harness the potential of this transformative technology.

Bibliography

Scientific books and articles

1. Kaplan, J. (2016). *Artificial Intelligence: What Everyone Needs to Know*. Oxford University Press.
2. Porter, G., & Kakabadse, N. K. (2006). HRM perspectives on addiction to technology and work. *Journal of Management Development, 25*(6), 535–560. https://doi.org/10.1108/02621710610670119
3. Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences, 39*(2), 273–315. https://doi.org/10.1111/j.1540-5915.2008.00192.x
4. Huang, C. (2010). Internet Use and Psychological Well-being: A Meta-Analysis. *Cyberpsychology, Behavior, and Social Networking, 13*(3), 241–249. https://doi.org/10.1089/cyber.2009.0217

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Book chapters (in collective volume)

1. Simion, I., & Mitriţă, A. (2021). Romania's degree of digitalization: Where does Romania stand compared to other EU member states? Puchiu, R., Stoian, M., & Foca, M. (Eds.), *Digital Romania. Operational Concepts and Tools* (pp. 148–160). Club Romania Publishing House.
2. Iacob, I. (2018). Digital megatrends that are changing the world? Puchiu, R., Stoian, M., & Foca, M. (Eds.), *România digitală. Operational Concepts and Tools* (pp. 35–47). Club Romania Publishing House.
3. Jianu, A. (2018). R(e)digital evolution. In Puchiu, R., Stoian, M., & Foca, M. (Eds.), *România digitală. Operational Concepts and Tools* (pp. 54–63). Club Romania Publishing House.
4. Ştefan, V. (2018). Europe and the road to Digital Leader status. In Puchiu, R., Stoian, M., & Foca, M. (Eds.), *România digitală. Operational Concepts and Tools* (pp. 81–87). Club Romania Publishing House.

Reports and conference papers

1. Miailhe, N., & Hodes, C. (2017). *Making the AI revolution work for everyone* (Report to OECD). The Future Society at the Harvard Kennedy School of Government. http://ai-initiative.org/wp-content/uploads/2017/08/Making-the-AI-Revolution-workfor-everyone.-Report-to-OECD.-MARCH-2017.pdf
2. Trofymenko, O., Prokop, Y., Loginova, N., & Zadereyko, A. (2021). Taxonomy of Chatbots. In *ISIT 2021: II International Scientific and Practical Conference «Intellectual Systems and Information Technologies»*, CEUR Workshop Proceedings, https://ceur-ws.org/Vol-3126/paper24.pdf
3. Van Noordt, C., & Misuraca, G. (2019). New wine in old bottles: Chatbots in government. Paper presented at the 11th International Conference on Electronic Participation (ePart), San Benedetto Del Tronto, September.
4. National Employment Office. (2021, December 8). Chatbot Ori (ISSA Webinar: Improving customer services through intelligent chatbots). Geneva: International Social Security Association.

Online articles, web pages and blogs

1. Coursera. (2023, July 28). *What is Artificial Intelligence? Definition, Uses, and Types*. https://www.coursera.org/articles/what-is-artificial-intelligence [Accessed August 6, 2023]
2. Lock, S. (2022, December 5). What is AI chatbot phenomenon ChatGPT and could it replace humans? *The Guardian*. https://www.theguardian.com/technology/2022/dec/05/what-is-ai-chatbot-phenomenon-chatgpt-and-could-it-replace-humans [Retrieved 8 December 2023]
3. McMeel, C. (2022, August 9). The future of chatbots and online chat in financial services. *Pinsent Masons*. https://www.pinsentmasons.com/out-law/analysis/chatbots-online-chat-financial-services [Retrieved 6 August 2023]
4. Pophal, L. G. (2022, May 24). How HR Is Using Virtual Chat and Chatbots. https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/how-hr-is-using-virtual-chat-and-chatbots.aspx [Retrieved 22 November 2023]
5. Song, J. (2023, March 3). The Implications of Providing Voice-Based Chatbots in Public Service for Digital Inclusion and Public Communication. *IntechOpen*. https://www.intechopen.com/online-first/1139975 [Retrieved 3 November 2023]

Other online sources

1. Awabah launches Lolo chatbot to drive micro pension across Nigeria. (n.d.). https://businessday.ng/insurance/article/awabah-launches-lolo-chatbot-to-drive-micro-pension-across-nigeria/ [Retrieved 5 August 2023]
2. How ChatGPT Can Be a Game Changer in Human Resource Management. (n.d.). https://edunow.me/hr/how-chatgpt-can-be-a-game-changer-in-human-resource--management [Retrieved 2 September 2023]

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3. HR chatbots and virtual assistants in 2023: Transforming human resources management with advanced AI. (n.d.). https://medium.com/@livajorge7/hr-chatbots-and-virtual-assistants-in-2023-transforming-human-resources-management-with-advanced-fa469e993 [Retrieved 25 November 2023]
4. Artificial Intelligence in Social Security Institutions: The case of intelligent chatbots. (n.d.). https://ww1.issa.int/analysis/artificial-intelligence-social-security-institutions-case-intelligent-chatbots [Retrieved September 4, 2023]
5. Chatbot asistent virtual Iris. (n.d.). https://www.colorful.hr/produse/chatbot-asistent-virtual-iris/ [Retrieved 30 August 2023]
6. Applications of ChatGPT in Human Resources. (n.d.). https://www.pockethrms.com/blog/applications-of-chatgpt-in-human-resources/ [Retrieved 3 September 2023]
7. Artificial Intelligence in Social Security Institutions: The case of intelligent chatbots. (n.d.). https://www.issa.int/analysis/artificial-intelligence-social-security-institutions-case-intelligent-chatbots [Retrieved 2 December 2023]

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