AI is already here with its risks and rewards
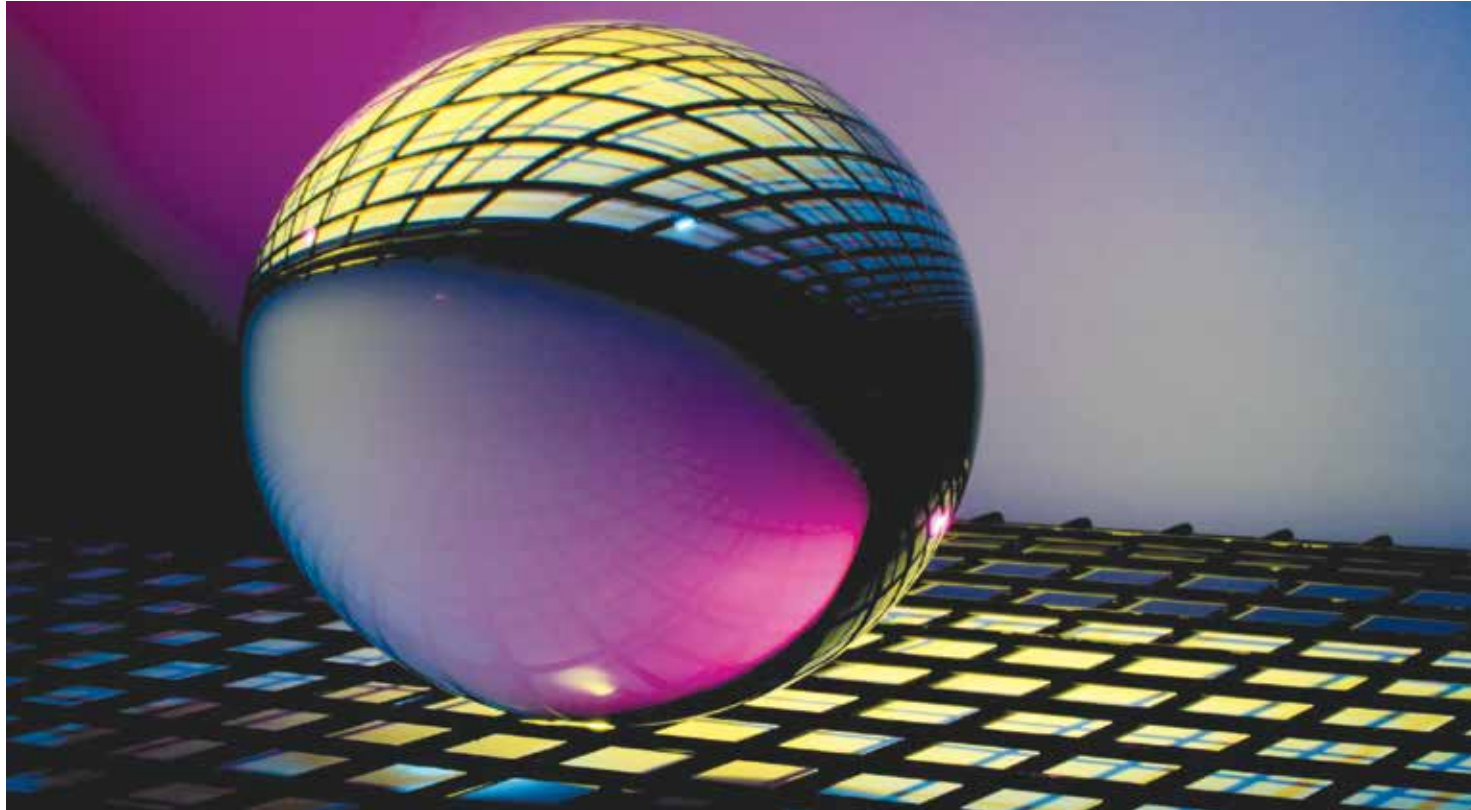
Rise of AI and its risks

Artificial intelligence (AI) is no longer a futuristic concept that businesses can afford to ignore. It's here, and it's poised to revolutionize every industry. With the arrival of generative AI like ChatGPT, we have witnessed AI at a visceral level, and we have seen the potential for AI to change the world. However, with that potential comes risk, and many corporate boards and management teams have yet to develop an AI risk management plan. In this article, we will define the risks that come with widespread implementation of AI.

Risk of disruption

Artificial intelligence will disrupt existing business models and markets like no technology before it. Creative industries like media and advertising are at risk, as are personalized service professions such as teaching and financial advisory, and even elite skill segments like pharmaceutical R&D and computer science. According to a March 2023 report, as many as 300 million jobs may be eliminated worldwide by generative AI like ChatGPT. Whatever business or profession you are in, it is almost certain that your company will face massive change within the next few years.

Cybersecurity risk

Keeping organization data, systems, and personnel safe from hackers and other saboteurs was already a growing problem for business leaders. Artificial Intelligence will exacerbate this challenge exponentially. The use of Deepfake technology like voice clones in cyber swindles have been reported since at least 2019. With AI improving and diversifying every day, the problem of cyber risk management will only get worse from here.

Reputational risk

When your AI behaves in a way that is not in accordance with your values, it can result in a PR disaster. Nascent forms of AI have already acted like a racist, misogynist creep, led to wrongful arrests, and amplified bias in staff recruiting. Sometimes, AI can ruin your relationships with customers. According to a report, 75 percent of consumers are disappointed by customer service chatbots, and 30 percent take their business elsewhere after a poor AI-driven customer service interaction.

Legal risk

New regulations might be coming soon and the risk to your company goes beyond compliance. If something goes wrong with a product or service that uses AI, who will be held accountable: the product manufacturer, the software developer, or the company that implemented the AI? There need to be legislation to govern AI, targeting facial recognition, hiring bias, addictive algorithms, and other AI use cases.

AI risk management

The risks of AI are significant, but they can be managed. Here are some strategies for AI risk management:

Risk assessment: Begin by assessing the risks specific to your company and industry. Consider the impact of AI on your existing business model, the potential for cyber-attacks, and the reputational risk associated with AI.

Compliance: Stay informed about relevant laws and regulations, and ensure your company is in compliance. Develop an ethical framework for your AI use, and ensure that your AI aligns with your company's values.

Cybersecurity: As AI increases the risk of cyber-attacks, companies need to be proactive in securing their systems. Ensure that your AI systems are secure, and train employees on how to recognize and respond to cyber threats.

Transparency: Be transparent about how AI is being used in your organization. Ensure that employees and customers understand the role of AI in your business, and how it is impacting their interactions with your company.

Education: Provide education and training for your employees on AI and its potential risks. Help your employees understand the implications of AI for your business and the broader industry, as well as how to recognize and respond to potential risks.

Continuous monitoring: Regularly monitor and review the performance of your AI systems to identify any potential risks or issues. This will help you to quickly identify and address any problems before they become more serious. AI has the potential to revolutionize the way we do business, but it also comes with significant risks. To ensure that your business is able to take full advantage of the benefits of AI while minimizing the risks, it is important to develop an AI risk management plan. This plan should include strategies for risk assessment, compliance, cybersecurity, transparency, education, and continuous monitoring. By proactively managing the risks of AI, your business can stay ahead of the curve and successfully navigate the rapidly evolving landscape of AI.

AI integration crucial for Iranian messaging apps to stay competitive

In recent years, Iran has forged ahead in the realm of messaging and social media platforms. While the majority of Iranians still utilize popular international apps such as Telegram, WhatsApp, Instagram, and YouTube, which have all been deemed prohibited, a slew of domestic platforms, including Eitaa, Bale, Rubika, and Aparat, have successfully garnered a remarkable number of users.

Although Iranian enterprises have ventured into developing messaging apps and social media, hoping to compete with the world's leaders, developing AI requires infrastructure that is immensely expensive and relies heavily on vast amounts of knowledge and know-how. The necessary infrastructure can be broadly classified into three categories: hardware, software, and data.

First and foremost, AI requires high-performance hardware to process large amounts of data quickly and efficiently. This includes powerful processors, high-speed memory, and specialized hardware such as GPUs (Graphics Processing Units) and TPUs (Tensor Processing Units) that are designed specifically for AI workloads. The hardware infrastructure also includes storage devices to store the massive amounts of data required for training AI models.

Then, AI development requires specialized software tools and frameworks that enable developers to build, train, and deploy AI models. These tools include programming languages such as Python, R, and Java, as well as AI-specific libraries such as TensorFlow, PyTorch, and Keras. AI developers also use integrated development environments (IDEs) such as Jupyter Notebook and Visual Studio Code to write and test their code. Finally, AI models require large amounts of data to learn from. Therefore, a robust data infrastructure is necessary for AI development. This includes data storage systems such as databases and data warehouses that can handle large volumes of structured and unstructured data. It also includes data processing tools such as Apache Hadoop and Apache Spark that can process data at scale. Additionally, AI developers need access to high-quality, diverse datasets to train their models effectively.

To sum up, the necessary infrastructure for developing Artificial Intelligence requires a significant investment in both hardware and software resources, as well as data collection. However, with the right infrastructure in place, organizations can unlock the full potential of AI and drive innovation across a wide range of industries.

Stressed tomato and tobacco plants emit ultrasonic sounds similar to bubble-wrap popping, which may be detectable by insects, mammals, and other plants. Researchers recorded the sounds and used machine-learning to identify stress types and plant species, offering insights into plant communication and potential agricultural applications. What does a stressed plant sound like? A bit like bubble-wrap being popped. Researchers report in the journal Cell on March 30 that tomato and tobacco plants that are stressed – from dehydration or having their stems severed – emit sounds that are comparable in volume to normal human conversation. The frequency of these noises is too high for our ears to detect, but they can probably be heard by insects, other mammals, and possibly other plants, according to SciTechDaily.

"Even in a quiet field, there are actually sounds that we don't hear, and those sounds carry information," says senior author Lilach Hadany, an evolutionary biologist and theoretician. "There are animals that can hear these sounds, so there is the possibility that a lot of acoustic interaction is occurring."

Although ultrasonic vibrations have been recorded from plants before, this is the first evidence that they are airborne, a fact that makes them more relevant for other organisms in the environment. "Plants interact with insects and other animals all the time, and many of these organisms use sound for communication, so it would be very suboptimal for plants to not use sound at all," says Hadany.

The researchers used microphones to record healthy and stressed tomato and tobacco plants, first in a soundproofed acoustic chamber and then in a noisier greenhouse environment. They stressed the plants via two methods: by not watering them for several days and by cutting their stems. After recording the plants, the researchers trained a machine-learning algorithm to differentiate between unstressed plants, thirsty plants, and cut plants.