

Workshop on use of AI in Pharma during 7th Pakistan Pharma Summit 2024

# With the use of Artificial Intelligence Health and Pharma industry will get better information and ensure 40%-time saving

Currently two thousand AI tools are being used, in 2030 it is expected to contribute 15.7 Trillion Dollars to world economy- Dr. Semih Kumluk

Challenges include lack of high quality data, data privacy and security, regulatory and ethical concerns

By Shaukat Ali Jawaid

ISLAMABAD: With the use of Artificial Intelligence, Health industry and Pharma industry will get better information. It ensures efficiency, is cost effective and also results in almost 40% time saving. At present over two thousand AI tools are being used and in the Year 2030 AI is expected to contribute about 15.7 Trillion dollars to world economy. This

Intelligence, he said has more uses as well as it has more data. My company Dr. Semih sated was using AI which offers numerous advantages in pharmaceutical industry and biotechnology. Artificial Intelligence is now being used in drug discovery, personalized treatment with medicines as well as for drug monitoring. AI is also being used in diagnostic and in disease diagnosis.

psychoanalysis of a person based on his conversation with Chat GPT. AI is also being used in discovering of drugs in clinical trials. He also disclosed that during the last

produce highly diagnostic data. AI can also be used in predictive measures. It can be used to identify before any problem occurs. It can be used in predictive maintenance and preventive maintenance of machines, equipment. It can differ either to use it once or twice a month. It can be used for predictive maintenance as well as preventive maintenance to avoid machine breakdown during the process. It can alert two days or two hours before the problem is likely to occur, he remarked.

Generative AI, he stated, was a new project. One can use it asking suggest me something to convert it into new ideas. It can also result in hallucinations hence may not

understanding of your customers, patients. It can be effectively used in marketing, sales. While hiring executives, the pharma industry should prefer people who can use these tools in their career instead of development of AI tools. We

(ICMJE) World Association of Medical Editors (WAME) or Committee on Publication Ethics (COPE) have come out with suggestions and guidelines on use of AI tools in scientific writing, peer review and editing,

**During 2023, sixty-seven drugs were discovered with the use of Artificial Intelligence**

need to ensure more awareness and must be more careful while using AI tools.

During the next part of his presentation Dr. Semih Kumluk referred to AI driven transformation utilizing AI in real times. He concluded his presentation by suggesting establishing company

Dr. Semih stated that no final guidelines, recommendations about the use of AI in Pharma and Business are available. Since it was something new and it is emerging and evolving. However, one of the participants pointed out that WHO has issued some guidelines on the use of AI in pharmaceuticals.

Dr. Kaiser Waheed Chairman of 7th Pakistan Pharma Summit in his address stated that "Tomorrow is Today, it is not far off." We have to adopt Pharma 4.0 and embrace reality whatever be the cost. We are already using these technologies in our daily life.

Earlier Mr. Haroon Qassim Co-Chairman of the 7th Pakistan Pharma Summit 2024 in his welcome address introduced the guest speaker. Dr. Semih Kumluk's expertise he said, spans a unique blend of business acumen and data analytics, achieving significant results in AI, business transformation, strategy, execution,

**Data is new oil and Artificial Intelligence is the new electricity**

was stated by Dr. Semih Kumluk who is currently leading AI and digital business transformation leader undertaking programmes for clients in the Middle East. He is known to be a futurist and a prominent figure in the realm of AI driven leadership, innovation and digital transformation with over fourteen years of experience in Unilever, Turkcell (telecommunications). He was the facilitator at the Workshop on "AI in Pharma" organized by Pakistan Pharmaceutical Manufacturers Association (PPMA) as a part of its 7th Pakistan Pharma Summit held at Islamabad on September 25th 2024. He conducted the pre-conference workshops at Karachi on September 23rd and at Islamabad on September 24th 2024.

Data sharing Dr. Semih opined

For detection of Alzheimer disease, it is used for image segregation, feature formulation and then these images help in identification of AZ disease. While doing all this manually, one gets tired but the machines keep on working and continue to diagnose and detect

**Use of AI ensures efficiency & it is also cost effective**

diseases. However, he made it clear that we cannot have 100% trust in technology. AI is a device which has a supportive role. It can diagnose about 45-50% of Alzheimer's disease patients and also offers some additional help. Humans have limited memory but machines have much more capacity and it will not forget, he remarked. Describing in detail how the AI will help in making Alzheimer's



Dr. Semih Kumluk, Mr. Haroon Qassim and Dr. Kaiser Waheed speaking at the workshop on "Use of Artificial Intelligence in Pharma" organized by PPMA at Islamabad on September 24th, 2024.

year 2023, sixty seven drugs were discovered with the use of Artificial Intelligence. AI is being used in

be perfect. Hence all this must be validated by humans first before its use. Data that we generate also has some bias. Questions we ask can be biased. Hence in view of biased data, answer may not be correct, he added. He then quoted Bill Gates who had once remarked that "Generative AI revolution is

related knowledge, list problems for AI to address, kick off pilot

**We have to adopt Pharma 4.0 and embrace reality whatever be the cost- Dr. Kaiser Waheed**

projects, incentivize efforts, Review data, AI tools and platforms. With Smart phones we have the world

innovation, project management and founding the Singularity University Dubai Chapter. His name was included among the Top50 Thought Leaders and Influencers in Artificial Intelligence by Thinker360, receiving the Global AI Ambassador title from SwissCognitive and earning the Instructor of The Year Award twice.

Artificial Intelligence Mr. Haroon Qassim said refers to the simulation of human intelligence in machines enabling them to perform tasks that typically require human-like intelligence which includes Learning, Problem solving, Reasoning, Perception and language understanding. Various AI technologies include Machine learning, Deep Learning, Neural Networks, Cognitive Computing and Evolutionary computation. Artificial Intelligence

**AI is being used in drug discovery, personalized treatment with medicines besides drug monitoring**

is important. We can use AI for predictive maintenance and we have no other options. Use of AI ensures efficiency and it is also cost effective. It also ensures data collaboration effectiveness, he added. Data is new oil and AI is the new electricity. We need data and must know the new rules of competition. He discussed in detail Data Sciences, Big Data,

disease diagnosis Dr. Semih said that starting with brain images it leads to image segregation, features establishment, image identification and then AI will diagnose the disease.

**AI use in Clinical Trials**

AI use in clinical trials and research was also discussed in detail. He reiterated that use of AI helps in time saving and

gene therapy using AI. AI is also being used in genotyping. Good quality data and health research he emphasized was very important because if we put Garbage In, it will lead to Garbage Out. AI tools can be effectively used in sales operations and marketing data. Efforts, Dr. Semih emphasized should be made to put in good quality data. AI tools can be used to generate good quality data in different fields.

every bit as important as the PC and the internet which will change the whole world."

Dr. Semih Kumluk suggested that we must learn how to read and write. Now people depend on technology all the time. Studies have showed that use of AI leads to 37% less time and shift in allocation of timing. Most of the time is spent on writing but with AI most time is spent on editing. Creative

in our hands. However, be more cautious when use more data.

**Pharma industry should be allowed to retain 35% of revenue it generates which will help it invest in modernization, improvement in quality assurance departments and opt for International approval of their drug manufacturing plants-Haroon Qassim**

**Discussion**

His presentation was followed by lively discussion. Responding to a question regarding any

offers numerous advantages like increased efficiency, improved accuracy, Enhanced decision making, Personalization and Automation. However, at the same time there are certain concerns as well like it may lead to job displacement, Bias and ethical concerns, security risks, privacy issues and too much dependence on Technology. The future of AI holds immense potential with ongoing research and development aimed at creating more sophisticated, transparent and beneficial AI tools.

Mr. Haroon Qassim suggested that we must establish and

**We cannot have Hundred percent trust in AI Technology, this device has a supportive role**

Machine learning, Data mining and pointed out that Data sciences was more popular than data mining. At present there are over two thousand Artificial Intelligence tools which are being used. We need to explore new AI tools. He also talked about navigating a mine field of technology and pointed out that machine learning is a new project of AI. It is learning more data hence is very important.

Continuing Dr. Semih sated that Deep learning was more advanced machine learning. He then spoke about type of analytics, use of AI in economy, AI use in healthcare and marketing. Google map also uses AI. He further pointed out that in the year 2030 AI is expected to contribute 15.7 Trillion US\$ to the world economy. AI has now become a good part of our daily life and now we wish to bring its use in business. As compared to traditional programmes, machine learning is learning from data. Chat GPT is learning from previous data and it cannot answer all the questions.

There are three types of machine learning i.e.

1. Unsupervised learning,
2. Supervised learning and
3. Reinforcement learning.

Contents are similar but one has to be cautious because they are based on the interests of different groups. He then talked about AI and Generative AI. Artificial

cost reduction. Talking about the benefits and challenges of Artificial Intelligence Dr. Semih



Group photograph of participants of the workshop on "Use of Artificial Intelligence in Pharma" at Karachi organized by PPMA with Dr. Semih Kumluk and organizers of Pharma Summit.

said that the challenges include lack of high quality of data, data privacy and security, regulatory and ethical concerns. AI use can do

Other uses of AI include DNA sequencing, life style modification, laboratory technology and imaging. With patient's history added, it will

Thinking, he remarked should never be left to AI. Drafting text and editing takes much less time by using AI tools. AI helps in better

guidelines of use of AI in Pharma or other business just like the International Committee of Medical Journals Editors

**Creative thinking should never be left to Artificial Intelligence**

provide facilities of Electronic Medical Health Record Systems in our healthcare facilities to have computerized date. Government needs to hold our hand, help and cooperate with us. At present the pharma industry can retain just 15% of the revenue generated which must be increased to 35% so that the industry can invest in modernization of their drug manufacturing facilities, quality assurance departments and opt for International approval of their manufacturing plants.



Malik Mukhtar Ahmad Bharath Coordinator to the Prime Minister on Health presenting Mementoes to some of the executives of the Pharma Industry at the Pharma Summit 2024 held at Islamabad recently.