

**Science Serial, “Welcome to Tomorrow”  
(Aane Wala Kal)**

**Episode 44**

**May I request you to Show Your Presence!**

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**##### (Opening part of the Title Song/Music) #####**

**Narrator:** - Hello listeners! Welcome. We are here with the 44<sup>th</sup> episode of the Science Serial “Welcome to Tomorrow” popularly known as ‘Aane Wala Kal’ in Hindi. By this time the concept of Artificial Intelligence may be clear to most of the listeners. Its utility and presence can be seen in all sphere of our life. Am I right? Be ready to enjoy the benefit of AI in our life. Now with the use of Artificial Intelligence we are controlling our traffic systems. Trials are going on driver less cars. At some places, even some trucks are being run by AI. The impact of AI can be seen in hygiene & cleaning, food preparation, purchasing of general utilities items, sales and marketing, in our mobile and hand watches. In medicines manufacture and items used in our daily life are some more fields where its impact can be seen. Why only we talk of all these? Even in our houses and offices, AI influencing so many things. I mean in every sphere of life; AI has its impact. Let’s take a simple example of electricity. When Thomas Edison first talk about electric bulb, the matter was taken in the court by the oil lobby. During those days, oil lamps were used for lighting. Edison faced so many hurdles and many people were of the views that oil is far better then electric bulbs as electric current is dangerous and can caused death. Even many slaves who were working in American houses were died, while lighting the oil lamps. But who care for them? Ultimately electric bulbs were there for lighting street, which is still going on. Now it become very easy to light the bulbs and start the fans. Just imagine, how the people were feeling during those days. A similar situation can be seen about the use of Artificial Intelligence. Today we shall talk about some new wonder of AI and will try to remove your doubt about it. Be ready to be with us in this episode to know many more new things.

**Participants & Artists**

1. **Sunil** --- 50 yrs (Journalist & Editor) and father of Ashu and Shouna
2. **Ashu** --- 24 yrs, Computer Science student
3. **Shouna** --- 22 yrs student of MBBS third year.
4. **Dr. Sneha** --- Doctor and mother of Ashu & Shouna.

**Scene – I**

**(Hot discussion between Ashu & Shouna with loud noise)**

**Ashu:** **(Laughing)**- OMG, you are wrong Shouna! The world is in great demand of Computer Science experts. Your Medicine degree is of little use. What doctors are doing will be done by technology and Toto-boats. Your MBBS is of no use in near future. This is my sincere advice. You are still in third year and if you desire, you can change your course and better to opt for Computer Science.

**(Ashu laugh but Shouna is listening silently)**

**Shouna:** No my dear brother. What research you are doing nobody now? But it is very much clear that this technology is designed and invented for our help. Do you understand? AI may enrich few people but that will be only possible when people will adopt it. ECG, Ultrasound, X-Ray etc are meant for diagnostic uses, similarly the new technology will be for humanity. It will never take the place of a doctors Yes it may take away your job, be alert (Laughing).

**Ashu:** **(Seriously)** Oh...our job, how that can be?

**Shouna:** Oh still you are confused. Who are feeding the data in computer? Who are analyzing these data? Computer Scientists. These types of jobs are very straight and AI is learning all these at fast speed. This very Artificial Analysis will snatch your jobs. Be alert.

**(Shouna is laughing)**

**Ashu:** What.... are we going to lose our job. Aare.... I simply requested you to provide me some basic information for my project and .....you...you are snatching.....our jobs. What type of sister are you (Laughing).

**Shouna:** It is you, who started the problem. I simply told you that it can be very suitable for medical diagnosis. And you said (copying Ashu) that my job is in trouble. I simply told you that it can be very helpful in surgery and what you said, "I may be going to lose my job". When I said that in the invention of new medicines AI can play the role of a Gin. What was your reply, you are sure that our job will be in great trouble? What are you paying for the help that I am rendering in your new project based on Artificial Intelligence? You know nothing about medical science.... Again, and again a simple reply.... My job is in trouble...my service will be grabbed by AI.

**Ashu:** **(Gently)** My dear sister cool down. you have to submit your project on AI and who can guide better than me? That was a simple joke. Don't take it so seriously. I am your elder brother and mummy always say, never mind the words of elders.

**Shouna:** Vow ! My dear brother, why all these buttering. Papa always say that respect those who deserve for it. You are downgrading the profession of doctors. AI can never take the place of a doctor.

**Ashu:** Shouna, you are true that AI can't take the place of a good doctor but it can replace the inefficient doctor.

**##### Ashu laughing very loudly/  
doorbell effect/effect of door opening #####**

**Ashu:** Oh mummy, surprise ! So early. There may be very few patients to take care.

**Shouna:** Mummy see, what your darling son is saying? He doesn't know that you are coming after two days.

**Sneha:** Both of you are still fighting. Why all these tit - bit? Let me first have my bath after that we shall have some discussion. Ashu in the meantime, you can put pot for preparation of tea. Your papa is also on the way.

**Ashu:** (with little hesitation) I am doing that; it is good that papa is also coming.

**Sneha:** (From some distance) Ashu, you are not doing what I told you?

**Ashu:** Mummy, it will be ready by the time you take your bath.

**Shouna:** My dear brother. Now you can take help of your AI (Laughing).

**Ashu:** Don't worry, you will find all these in near future. AI is there to provide solutions for all human problems.

**Shouna:** It can never be possible . How can it provide solution for all problem. It is not a, "Jaadu ka Chirag".

**Ashu:** Why not?

**Shouna:** That is because, there is diagnosis that can cure the mind of some people. (Shouna laughing).

**Ashu:** Shouna, just wait. It is time to tight you.

**Shouna:** **(crying)** Mummy...O...Mummy !

**Sneha:** What is matter? You can't wait for a moment?

**Ashu:** I am going in the kitchen. No need to call mummy.

## **Scene-2**

**###Sound effect of the kitchen, burner....**

**and there is sound of a call bell on the door ###**

**Sneha:** I am going to see, who is there?

**##### Sound Effect of Door #####**

**Sneha:** Welcome...welcome...Editor Sir! The great Editor in Chief of 'Udai Bhaskar' and the great literary personality of this country, I mean Mr. Sunil Ji.... Your newspaper is OK.

**Sunil:** Dr. Sneha Ji, surprise to see you at our home. Your new home is in the hospital. Great to find you here. Am I right?

**Sneha:** Keep quite. Come inside. Your most darling son has just prepared tea for you.

**##### Laughing #####**

**Sunil:** Since last two days, Ashu is handling most of the task of the kitchen including preparation of tea.

**Shouna:** But papa, I always served biscuits and again biscuits of your choice are here on the table.

**Sunil:** **(Laughing)** Shouna please ask your brother to give one more boil to the tea. I am just going to take my bath. This face mask will be washed so that it can be reused once again.

**Sneha:** That is O.K. From tomorrow onwards always use fresh mask. I ordered for two dozen of masks.

**Sunil:** O.K.Dr. Sneha, I am going to obey your order (Laughing)

**#####Change over music /  
Sound effects of cups & plates #####**

**Sunil:** Now come to the point. You were discussing Artificial Intelligence. Am I right? O.K. Aushu, have you heard about the Baby-X ?

**Ashu:** No papa, I don't have any idea about Baby-X

**Shouna:** **(Laughing)** Vow! The AI Expert don't know. He is feeling proud that he doesn't know about his own subject (Voice modulation).

**Ashu:** I have no idea, please tell me, what is Baby-X?

**Sunil:** Actually, one of the American Scientist, gave a thought, why can't we give the expression to the child's emotions and his feelings?

**Ashu:** Did he succeeded in his aim?

**Shouna:** Yes Ashu. The scientist scans the face and feelings of her own daughter with the help of a camera. He recorded all feeling, expressions, smile, mood etc. and feed all these in his computer. He analyzed all the data with the help of AI. Thus, a child came with all-natural feelings, expressions and smile. The child was able to talk, speak and give reply to the question that have been raised to her.

**Sneha:** Vow! That is wonderful. But what are the uses of this technology?

**Ashu:** Not myself but even my mom don't know the answer. But your question is right.

**Shouna:** This can only be replied by an AI Expert like you (Laughing).

**Sunil:** Machines learning makes them intelligent and to develop the decision making power is a continuous process. With the help of the face of little Baby-X, now it becomes possible to develop prototype of any person. There are many uses of it. The person will be virtually present with you. One can have a new friend, who can be always with you to interact and discuss your problems. During old age, loneliness is the great problem and one can say bye ...bye to loneliness. That is wonder of this technology.

**Shouna:** The story that began with Baby-X is now taking a new shape (Laughing). I can guess that you might have listened about Mr. Shimon.

**Sneha:** That Robo, who can play music of your choice.

**Sunil:** Sneha, you are intelligent girl. From where you have heard about it?

**Sneha:** Mamma, I too see the TV and action movies. Besides that, I read scientific journal and magazines too. About Mr. Shimon, I have seen one report on TV.

**Ashu:** Mammy, what was that programme?

**Sneha:** Actually, Simon is also an AI based Robot. All musical notes and tunes have been feed in the system. As it is machine learning system, hence the system understands and operate on desired musical tone. It can also compose a new tune based on the mixing of so many tunes. You will be surprised to know that Mr. Simon has performed in many musical concerts.

**Ashu:** Mammy, there is no such thing as magic, if data have been feed in it. These days people and many young talents are preparing and inventing in such technology. Only thing that requires is money.

**Shouna:** That is the problem with these fellows. They give their inputs before listening. Can you imagine, what will happen if one start learning from the AI Machine?

**Ashu:** Nothing will happen. Only he can play music, composed music or even can teach some basic aspects of music and that can also be done by Mr.Simon.

**Sunil:** Ashu, you will be surprised to know that this very Simon has given hands to a person who was initially without hands and started composition of his music.

**Ashu:** How, it can be possible?

**Sunil:** Actually Ashu, with the help of technology a new hand was prepared to assist a person, who was expert in drum beating and whose right hand was amputated in an accident.

**Ashu:** Vow! This mean, he became incapable to perform on the drum.

**Sneha:** Though he continue his preformation on drum with the help of some other person but this technology changed the whole scenario. With the help of Mr. Simon, a hand was designed. This hand can understand the impulses of hand muscles and thus can move the fingers of a designer hand.

**Shouna:** Based on the AI technology, the person started per-formation in a more better way than his earlier per-formation. Can you imagine the name that had been given to the new hand?

**Ashu:** What is that name? Difficult to imagine.

**Shouna:** Ashu, the name is based on your one of the best favorite character. O.K., Let me have a hint about it. This character is from the Star- War series.

**Ashu:** Oh, let me recollect. Remember....his name is....is.....ya.....**Skywalker**.

**Sneha:** Great Ashu and this hand was given the name of, "Skywalker Hand".

**Ashu:** Vow! Now I have decided to opt for Skywalker as a part of my project. Mammy there are many other things that are now turning to AI. Even in the field of Medical Health, it's uses are immense. But what do you think, will be the most beneficial area?

**Shouna:** Mummy don't tell him. He is recording everything in his phone and will include in his project. What a great cheater?

**Ashu:** Mammy, I am asking for my knowledge as well as for my new project. Mammy have you find any breakthrough technology in Medical Science?

**Sneha:** There are many breakthrough but few are well remembered. Like Triclosan.

**Sunil:** You mean the component that have been used in toothpaste.

**Shouna:** Yes papa, you are hundred percent right(Laughing). It is very good mosquito's repellent. This chemical was invented with the help of AI. In pharmaceutical industries, with the help of AI new drugs formulae have been discovered for preparation of efficient drugs and that too in a short span of time. This means accuracy, efficacy and quick results.

**Ashu:** Shouna ! What was the name of the chemical that you had just told?

**Sneha:** It is Triclosan.

**Ashu:** Thank you mammy.(Sound effect of paper and pencil writing). This will also be part of my project (Laughing). I am working in a field, where AI is efficiently used.

**Sunil:** For example to identify people in passport office, Aadhar card is also based on the very same principle. Supply of water, electricity, Birth & death certificates, Covid vaccination, marketing, payment, documents registration and in traffic police including challan and cancellation of driving licenses.

**Shouna:** Aare....Aare... papa so many things. You told about marketing. What is that? You mean payment through debit and credit cards or through cash valets. Anything else.

**Ashu:** Yes Shouna. Through AI, new smart home gazettes are manufactured. For example, fridge which are sensitive and cool only that portion of leftover food items. Even such fridge can calculate, what have been left like milk, vegetables, brade etc. and then place supply order to the grocery store and by the time you reach at home all items will be at your doorstep. Even payment is also made directly through your bank to the store owner.

**Shouna:** Vow, everything is automatic. Do you remembered, in the last month your paternal uncle challan was dispatched by the Robo Police officer in UAE? Simply because Mama Ji alerted your Mami Ji about his presence through car horn.

##### All are laughing #####

**Sneha:** Your Mama Ji is very simple and nice person. By mistake he had done blunder which is illegal in Dubai and even in many other countries.

**Aashu:** Mammy that was a minor mistake by Mama Ji but here in India we do blunder and escape from all the punishment. (Laughing)

**Sunil:** AI and Machine Learning is now becoming very popular in our day to day use. It is a technology that is evolving day by day just like Biological Evolution. I am still of the opinion that many things are still in their infant stage that is under experimental stage. Its uses will start first in rich and prosperous countries because money matter lots. But with due course of time, it will reach everywhere, and our own country is also doing good work in this field. One such example is that of Tim Show.

**Shouna:** What do you mean by Tim Show? Who is he?

**Sneha:** Shouna, have you not gone through the Editorial of last Sunday, written by your Papa. He was a popular Rugby player of USA.

**Aashu:** What do you mean by was? He is no more. What happened to him?

**Sunil:** It is not so. Tim Show is very brave, but he is unable to play anymore.

**Shouna:** What happened to him?

**Sneha:** One day while he was playing, he felt tired. This tiredness continues in his life and one day the Physician narrated him three words. That is ALS.

**Ashu:** ALS...What is that?

**Shouna:** ALS means Amyotrophic lateral Sclerosis. This is a physiological disorder in which degeneration of neuron cells started, which control our body muscles. In due course of time a man become incapable to do his routine work and other activities. He can't even move his hand. It is very painful diseases. Even the muscles that are needed for food digestion also stop functioning.

**Ashu:** Muscles that of tongue, stomach etc.

**Sunil:** Ashu...this means a man has no control over the muscles which are earlier functioning as per our wishes. This includes even our tongues muscles but the muscles which are in large intestine don't fall under the category. Tim, who was so laborious and hard working become dependent on others. Even food was given to him through plastic tube.

**Ashu:** That means that he become unable to speak. Is it correct?

**Sneha:** No Ashu. He was speaking but what he wants to say is difficult to understand. His tone was completely changed. One day he said to his papa that from today his name will be YoY o instead of Daddy.

**Shouna:** But what is link of this diseases with out today topic? I mean AI has solved the problem caused by ALS.

**Sunil:** Shouna, though our scientists are still unable do discover the medicines for the treatment of ALS but AI has given voice to Tim.

**Ashu:** How that become possible?

**Sunil:** At that time a competition was started through internet. People were challenging each other by taking bath, with ice cold water. People started challenging each other in the name of Tim. Through this coemption a huge amount of money was collected, and Google stated research work on voice modulation. Google collected voice sample of Tim under different situation. These data were feed in computer and with the help of AI a machine learning tool was designed. Now the machine become capable to type the words spoken by Tim.

**Shouna:** Vow! This mean, now it become easy for Tim parents to understand, what he is saying.

**Sunil:** First listen me, if it was up to typing then AI has not much role.

**Sneha:** Yes Shouna, you are right. Tim was a celebrity and very popular in USA. There were so many interviews that he had given at different time. The Google team started its research work taking Tim interviews in compilation of data. AI was used to analyze his voice data. After perfect matching between the AI and voice data, the voice that was produced by AI through machine learning. His parents were so happy after listening Tim voice after a long time and their eyes were flooded with tears.

**Ashu:** Vow, thus Tim get his voice back. Now 'Speech recognition with deep learning model' will be part of my own project

**##### (Sound effect of writing on paper) #####**

**Shouna:** Write one thing more. Do you know in our country five crore people are suffering from diabetes.

**Ashu:** Shouna, let me know what is unique in it ? Most of the people know that forty crore people are suffering with diabetes in the world and out of that seven crores are in India.

**Shouna:** Yes you are right. Retinopathy is linked with diabetes. It caused bleeding in the eyes retina and many people loss their eyesight due to this problem.

**Sunil:** Did AI play any role in its treatment.

**Shouna:** Yes papa. Data from more than thousand people were scanned and feed in the system. AI analyzed these data and stored in the system. When scan of some retina were feed in the system, AI perfectly give authentic report. The eye surgeon based on the scanned report given by the AI, performed surgery to stop blood from the eyes. Thus, the patient gets his eyesight to see this beautiful world.

**Sunil:** Vow, this is very interesting. Shouna you deserve all praise for this unique information. Let this technique be there in our country.

**Shouna:** Papa you will be happy to know that the trial of this technology begin in Southern part of India. Generally, AI is based on data. More the data better will be the results. India is good source of data and it is difficult to find too much data in other parts of the world.

**Sneha:** You are right Shouna. That is why big companies are coming in India to store and collect data. Even India is the third biggest investor in AI technology.

**Ashu:** O.K.that is enough for my project. Let's have some other project, I mean some home project (laughing).

**Shouna:** Do you have some other project in mind?

**Sunil:** Aushu, this is your project and it will be better, if you can do some preparation.(Laughing).

**Ashu:** The project for whom I am talking is more important. We can't sustain without it.

**Sneha:** If it was so urgent, then why we neglect it. Why not we have given first priority to it?

**Ashu:** Please first listen me.

**Sunil:** Let him say his matter. O.K. Ashu, what is the new project, will you elaborate?

**Ashu:** Papa, I am saying that we are neglecting our routine work.and...and ...that work is...

**Sneha:** (In serious mood), What is that?

**Ashu:** Dinner mammy. We are too late. Let's start work on that project.

**##### Effect of Group Laughter #####**

**Shouna:** Mammy is right. But Ashu is enough to complete that project and he requires nobody help to complete his routine project (Laughing).

**Ashu:** Yes, I myself will finish it(Laughing).

**Sunil:** See friends. We can't take help of AI to assist in meal preparation. Here self-help is the best help. I can help in chopping the raw vegetables.

**Ashu:** Papa, now Kitchen Robot is there to assist women in the kitchen.

**Sneha:** No more talk on AI, otherwise we have to sleep with empty stomach(laughing). Think about the kitchen project.

**Ashu:** Which kitchen project?

**Sneha:** It is family meal and food project.

**##### All are laughing #####**

**Moderator:-** Friends! Artificial Intelligence is ready for a big jump. In service sector, health, medicine, agriculture, education and in all allied fields, AI is helping us directly or indirectly. Data Scientists are collecting more and more information and simultaneously there is improvement in Machine Learning, we are getting new solution for difficult projects. Through AI, man is finding solution for his dreams. The day is not far away, when we will have solution for all our problems through AI, Machine learning and Nano-technology. To have more information on AI, please keep with us and continue to listen this Science Serial, Anne Wala Kal I mean Welcome to Tomorrow. We will be here with new information in our next episode. Till then goodbye and Namaskar

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