**Robots Experiencing Emotions:**

Research is ongoing regarding the development of robots that can express emotions. For example, A group of researchers from Osaka college in Japan have recently built up a robot called ‘Affetto’ that can feel pain. The robot is built in such a way that it can wince when an electric charge is applied to its skin, in plans to teach empathy to artificial intelligence. An interesting point here is that the Lead researcher professor Minoru Asada, who is likewise President of the Robotics Society of Japan, says that by feeling pain, robots would be able to feel compassion and profound morality.

**Purpose of Presentation:**

The robots may actually feel emotions or may be just programmed to mimic emotions. In either way, their decision-making ability would be influenced by their emotions (which may be actual or just simulated using algorithm).

So, in this presentation, my goal is not to explore how the robots will express these emotions, but I am basically going to discuss the ability of robots to experience emotions, and its influence on moral decision-making skills in robots.

**The importance of ethics:**

As robots have become more capable of autonomous actions, there is a greater need to ensure that they act ethically. We want robots on highways, battlefields, hospitals to act in the interests of human beings, just as good people do. Robots now-a-days excel in reasoning. But ethics is not just a matter of cold calculation, needing to take into account emotional processes such as caring and empathy. The emotional makeup of human brains makes us capable of caring about other people and understanding them empathically.

**The importance of emotions for robot ethics:**

We generally consider the emotions to have a negative influence on our productivity and decisions. According to obsolete ideas, rationality and emotion are fundamentally opposed because rationality is a cold, calculating practice using deductive logic, probabilities, and utilities. But there is abundant evidence from psychology, neuroscience, and behavioral economics that cognition and emotion are intertwined in the human minds. Emotions, even those that are generally deemed negative like anger, anxiety, can help people to decide what is important and to integrate complex information into crucial decisions.

So, if robots are going to be ethical in the way that people are, they do need emotions.

Robots that can decide on the basis of emotions in addition to reasoning, will be able to express empathy and be compassionate.

This is especially true when we are talking about people’s emotions – something very personal. If AI systems are expected to make decisions or act on your behalf, what are they allowed to do or not do? Share or not share? If your family robot detects that your teen is showing signs of depression, who should it disclose this to? Building AI systems that have empathy with clear ethical guidelines is critical to the decision-making logic of these AI systems.

Punishments can start to mean something! Fear of imprisonment and other penalties could enable robots to act ethically. Tech experts worry about artificial intelligence committing crimes in the future. Researchers say that robots could be the offenders committing most crimes by 2040.

“It’s only a matter of time before we see instances of people left helpless, unable to drive their cars unless they pay up a ransom.” A statement by Raj Samani, who has served as Chief Technology Officer at Intel Security.

**Concerns Regarding Emotional Robots**

* With growing intelligence and capability of even good emotions like empathy, they may start developing negative feelings toward human beings:
* Their logic, combined with their emotional intelligence can also make them more *emphatic towards the Earth* and wildlife which we are clearly destroying… From bombing massive swaths of land to pumping carbon dioxide into the atmosphere to causing the sixth mass extinction, human impact on the earth is clearly not positive. And environment and animals are clearly the victims here. Hence, this can result in our fear of AI takeover turning into a reality!
* They could start developing needs and desires that conflict with our own. For example, a robot that can feel pain and fear may attempt to save themselves rather than a human in need.
* Also, robots that could experience emotions will also have to be able to deal with these emotions. For example, an emotional therapy/healthcare robot going through any emotional condition itself, like anger or anxiety, can give morally wrong advices.

So, I think that the emotions alone cannot be helpful in assigning full moral agency to robots and can in fact pose more ethical concerns. This is because, with emotions, they will also need to be able to navigate complex human community norms.

An example of a difficult situation: a person in extreme pain in a hospital begs a nurse robot to give him a certain medicine. That medicine would reduce the pain but would be detrimental for his heart due to his heart condition. If a nurse robot is empathic, it could give him that medicine.