



Astro Robot

 drishtias.com/printpdf/astro-robot

Why in News

Recently, **Amazon** has unveiled its '**Astro**' home robot, which is designed to help customers with a range of tasks like home monitoring and keeping in touch with family.

However, civil society has highlighted the **concerns of privacy** issues of **24×7 surveillance**.

Key Points

- **About Astro Robot:**



- Astro is primed to be a **home security device**. It is **designed to move around the home** and keep a check on pets, and detect something unusual in the absence of the owner.
- It comes with a “**periscope**” camera that pops up from its head and can be used to keep an eye on the home.
- It is basically a combination of the **Echo Show (smart speaker)** and **sophisticated Ring security camera** integrated into one single device.
- The device captures live videos, recognises faces, plays music or videos, and delivers a beer across the home.
- It can **recognise the faces of people and analyse them** until it figures out if it's a family member or an outsider.

- **Issues Related to Privacy:**

- Civil society is worried that the **amount of data** Amazon gets to fetch with the Astro, giving the company easy access to the household,
 - This is going one step beyond Alexa which had access to vocals and sound until now.
 - Amazon has asserted that **Astro stores face data locally** rather than in the cloud, but it is still a privacy concern as with any internet-connected device.
- There are **concerns of stealing or hacking of the device**. Due to this, the perpetrator can get access to the digital map that the robot creates of someone's home.
- The prime concern, in the long-run, could contribute to greater public acceptance of **Artificial Intelligence**-powered surveillance.

In the past, hackers have managed to access Ring cameras, used in the devices of Amazon technologies.

- **Other Recent Experiments:**

- Softbank earlier this year “suspended” the production of **Pepper**, one of the first humanoid robots able to “read” emotions.
- Jibo has started an **Indiegogo project**, which aims to build a world's first social robot for the home.

Robotics

- **About:**

- **Robotics** is a branch of engineering that involves the **conception, design, manufacture and operation of robots**.

Robot is any **automatically operated machine** that replaces human effort.

- The objective of the robotics field is to **create intelligent machines** that can assist humans in a variety of ways.

- **Advantages:**

- In many situations robots can **increase productivity, efficiency, quality and consistency** of products.
- Robots **can work in environments which are unsafe for humans** as they don't have the same environmental requirements that humans do – such as lighting, air conditioning or noise protection.
- Robots have some sensors/actuators which are **more capable than humans**.
 - Unlike humans, robots don't get bored. Until they wear out, they can do the same thing again and again.
 - They can be very accurate – to fractions of an inch (as is needed for example in manufacturing of microelectronics).

- **Disadvantages:**

- The use of robots can create **economic problems if they replace human jobs**.
- Robots can only do what they are told to do – **they can't improvise**
- This means that **safety procedures are needed** to protect humans and other robots.
- Although robots can be superior to humans in some ways, **they are less dexterous than humans**.
 - Robotics **lack emotional intelligence**, which plays a critical role in intense situations.
- Often robots are **very costly** – in terms of the initial cost, maintenance, the need for extra components and the need to be programmed to do the task.
- **Surveillance concerns** pose a problem of entering a privacy nightmare.

Source: IE