

## General Studies-3; Topic: Awareness in internet and computers

### Bots in Today's World

#### 1) Introduction

- A bot is a software application that runs automated tasks over the Internet.
- Mainly used to gather information on the Internet or perform repetitive jobs at a much higher rate than would be possible for a human alone.
- Microsoft CEO Satya Nadella has said, “Bots are the new apps.”
- Some popular examples of bots are Apple’s Siri, the Google Assistant, Amazon’s Alexa and Microsoft’s Cortana.

#### 2) Benefits

- One of the typical beneficial uses of a bot is to gather information.
- Automatic interaction using instant messaging and instant relay chat can handle customer queries and guide customers
- Dynamic interaction with websites
- Artificial intelligence-based bots are used by organisations to provide customer care, and sales and marketing services.
- Banks have also introduced AI-based chatbots that are capable of interacting with users and answering information-related queries.
- Improve workplace efficiency
- Many bots are programmed to act like humans which provide highly personalized and emotionally-aware interactions.
- Weather bots which inform about the weather conditions in the locality
- Track personal finances and provide personal finance assistance.

#### 3) Growing usage of Bots

- According to research, by 2021 more than 50% of enterprises will be spending more per annum on bots
- The bots are carrying out the first-level of hiring, looking through resumes, and also conducting the first-level of interviews
- According to a survey, 93 per cent of Indian workers feel positive about meeting bots and virtual assistants at their workplace
- The 'Made-in-India' robo-healer Wysa has got 1.25 lakh virtual 'patients' in 30 countries
- Therapy bots are important in countries like India as there is an acute shortage of psychologists.

#### 4) Concerns / Challenges

- Malicious bot acts as self-propagating malware that infects its host
- Malicious bots can gather passwords, obtain financial information, relay spam, and exploit by viruses.
- Automated accounts on Twitter and Facebook is spreading misinformation
- Bots can't replace the power of intuition
- Fear of data privacy and security concerns.
- Robodocs can't deal with crisis situations.

- Ninety percent of the new internet users are expected to be non-English speakers in the next few years. Addressing this is a challenge.
- Fears that humans, who are limited by slow biological evolution, could be superseded by AI.
- Bots have the ability to create huge problems for website owners, from stealing content to taking a website offline.

### 5) **Way Forward**

- Bots must be conditioned to respond to each customer in a way that is personalised and feels natural.
- Bots need to be designed to be faster and easier to use
- They need to be more intuitive and respond to fewer clicks, touches, and typing.
- To act against malicious bot it is important to have good anti-malware software. All software should be updated and system updates should not be ignored.

