Revolutionizing Legislation through AI

This editorial is based on **"Directing AI for better and smarter legislation"** which was published in the Hindu on 10/04/2023. It highlights the potential benefits and opportunities that AI could offer in improving the efficiency, transparency, and effectiveness of law-making, policy-making, and parliamentary activities.

For Prelims: Artificial Intelligence, Legislation, Indian Penal Code, Press and Registration of Books Act, 1867, the Public Gambling Act, 1867, Prisons Act, 1894, Cybersecurity, National e-Vidhan (NeVA) Portal, Epidemic Diseases Act, 1897, Covid-19, Census

For Mains: Role of Artificial Intelligence in Legislation and related challenges

Artificial Intelligence (AI) has been increasingly used in various industries to automate and streamline processes. In recent years, **there has been a growing interest in using AI tools to enhance legislative procedures.** These tools can help legislators analyze large amounts of data, identify patterns and trends, and make more informed decisions.

However, there are also **concerns about the ethical implications of using AI in legislative procedures,** particularly around issues of bias and transparency. Also, there are **challenges with current laws in India, which are complex and opaque**, making it difficult for AI to function effectively.

- Therefore, it is important to carefully consider the benefits and potential drawbacks of using AI in legislative procedures.

What Role Artificial Intelligence can play in Legislation?

- **Enhance Legislative Procedures:**
    - AI tools can **assist parliamentarians in preparing responses for legislators, enhancing research quality, obtaining information about any Bill,** preparing briefs, providing information on particular House rules, legislative drafting, amendments, interventions, etc. This can help to streamline legislative processes and make them more efficient.
        - The House of Representatives in the United States has **introduced an AI tool to automate the process of analysing differences between Bills,** amendments and current laws.
- **Research Quality:**
    - AI can assist in **conducting thorough research by analyzing large volumes of data, identifying patterns and trends, and presenting the results** in a comprehensive manner. This **can help lawmakers to make informed decisions** based on reliable data and evidence.
- **Assist in Decision-Making:**

- AI can provide **decision-making support to lawmakers by analyzing various factors and making predictions** about the potential outcomes of different policy options. This can help to improve the accuracy of decision-making and minimize the risk of unintended consequences.
- **Analysing Citizens' Grievances:**
  - Compared to western democratic nations, in India, **parliamentarians manage constituencies with a huge population.**
  - AI can **analyse citizens' grievances and social media responses,** and flag issues and priorities that need immediate attention.
  - It can also assist parliamentarians in seeking citizen inputs for public consultation of laws and preparing a manifesto.
- **Simulate the Potential Effects of Laws:**
  - The **use of AI in legislative procedures can help in modelling various datasets** such as the **Census**, data on household consumption, taxpayers, beneficiaries from various schemes, and public infrastructure to uncover potential outcomes of a policy.
  - It can also **help in flagging laws that are outdated in the present circumstances** and which require amendment.
  - For example, during the **Covid-19 pandemic**, it became evident that 'the **Epidemic Diseases Act, 1897**' failed to address the situation adequately, highlighting the need to revisit and update outdated laws.
  - Several provisions in the **Indian Penal Code (IPC)** are also controversial and redundant, such as **Article 309 (attempted suicide),** which continues to be a criminal offence.
  - AI can help identify such outdated laws and streamline the legislative process by focusing on more relevant laws and policies.
    - There are several pieces of criminal legislation that were enacted more than 100 years ago that are of hardly any use today, such as the Press and Registration of Books Act, 1867**, the Public Gambling Act, 1867, and the** Prisons Act, 1894.

What are the Concerns with the use AI in Legislative Procedures?

- **Lack of Transparency:**
  - AI models **can be highly complex, and it may be difficult to understand how they are making decisions.** This lack of transparency could undermine the democratic process if legislators and the public are unable to understand the reasoning behind legislative decisions.
- **Bias:**
  - AI models are **only as objective as the data they are trained on.** If the data used to train an AI model is biased, the model may replicate and even amplify that bias in its decisions.
    - This could lead to discriminatory outcomes, such as laws that disproportionately impact certain groups.
- **Accountability:**
  - If AI is used in legislative decision-making, **it may be difficult to hold anyone accountable for the outcomes.** This could pose a challenge to the democratic process, as accountability is a critical component of representative governance.
- **Cybersecurity:**
  - Legislative procedures often **involve sensitive and confidential information.** If AI systems used in these procedures are not properly secured, they could be vulnerable to cyberattacks that could compromise this information.
- **Dependence:**
  - Overreliance on AI in legislative procedures could reduce the human element in decision-making and could lead to a loss of expertise and judgment that comes from human interaction and debate.

What are the Related Steps taken around the World?

- **Netherlands's "Speech2Write" System:**
  - The Netherlands House of Representatives, for instance, has **implemented the "Speech2Write" system which converts voice to text** and also "translates" voice into

written reports.
  - "Speech2Write **comprises automatic speech recognition and automated editing capabilities** that can remove filler words, make grammatical corrections and propose editing decisions."
- **Japan's AI Tool:**
  - It assists in the preparation of responses for its legislature and also helps in the automatic selection of relevant highlights in parliamentary debates.
- **Brazil's Ulysses:**
  - Brazil has **developed an AI system called Ulysses** which supports transparency and citizen participation.
- **India's Approach:**
  - India is also **innovating and working towards making parliamentary activities** digital such as the **'One Nation, One Application' and the** National e-Vidhan (NeVA) portal.

What Should be the Way forward?

- **Codify Laws and Regulations:**
  - The government **should continue its efforts to codify laws and regulations in a comprehensive and accessible manner.** This will provide a solid foundation for AI-based solutions to work with.
- **Develop a Unified Platform:**
  - A unified platform **should be developed that provides a complete view of all laws, regulations, and notifications**. This platform should be accessible to all stakeholders, including citizens, businesses, and government officials.
- **Encourage Collaboration:**
  - AI-based **solutions for legislation should be developed through collaboration between various stakeholders,** including government agencies, legal experts, technology companies, and civil society organizations.
- **Ensure Transparency and Accountability:**
  - AI-based solutions **should be designed to be transparent, explainable, and accountable.** Citizens should be able to understand how the AI arrived at a particular decision or recommendation.
- **Focus on Citizen-Centric Solutions:**
  - AI-based **solutions should be designed to meet the needs of citizens.** The solutions should be user-friendly and accessible to all, including those with disabilities or limited digital literacy.
- **Making Laws Machine-Consumable:**
  - There is a need to **make laws machine-consumable with a central law engine**, which can be a single source of truth for all acts, subordinate pieces of legislation, gazettes, compliances, and regulations.
  - **For Example:**
    - AI can tell us if an **entrepreneur wants to open a manufacturing unit in Maharashtra** and what acts and compliances are applicable.
    - If a citizen wants to check the eligibility for welfare schemes, AI can recommend which schemes are eligible, based on details provided by citizens.

> **_Drishti Mains Question_**
>
> What impact can Artificial Intelligence have on the legislative process and decision-making, and what challenges and opportunities does it present for lawmakers and society as a whole?

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. With the present state of development, Artificial Intelligence can effectively do which of the following? (2020)

1. Bring down electricity consumption in industrial units
2. Create meaningful short stories and songs
3. Disease diagnosis
4. Text-to-Speech Conversion
5. Wireless transmission of electrical energy

Select the correct answer using the code given below:

(a) 1, 2, 3 and 5 only
(b) 1, 3 and 4 only
(c) 2, 4 and 5 only
(d) 1, 2, 3, 4 and 5

Ans: (b)

- Google is using the Internet of Things (IoT) and Artificial Intelligence (AI) from its DeepMind acquisition to reduce energy consumption in its data centres by as much as 30%. Hence, 1 is correct.
- Using AI as a tool to make music or aid musicians has been in practice for quite some time. In the 1990s, David Bowie helped develop the Verbasizer, which took literary source material and randomly reordered the words to create new combinations that could be used as lyrics. However, as AI works in programmed ecosystem and does not have emotions so it would be hard for an AI to create meaningful short stories and songs. Hence, 2 is not correct.
- AI combined with robotics and the Internet of Medical Things (IoMT) could potentially be the new nervous system for healthcare, presenting solutions to address healthcare problems. Integration of AI technology in cancer care could improve the accuracy and speed of diagnosis, aid clinical decision-making, and lead to better health outcomes. Hence, 3 is correct.
- Speech synthesis is the artificial production of human speech. It is a way to convert language to human voice (or speech). For example, Google's Assistant, Amazon's Echo, Apple's Siri, etc. Hence, 4 is correct.
- Potential cases of AI's use in the energy sector include energy system modelling and forecasting to decrease unpredictability and increase efficiency in power balancing and usage. However, it can not be used for transmission of electrical energy. Hence, 5 is not correct.
- Therefore, option (b) is the correct answer.