POLICY PERISCOPE

## ABCs of AI

■ **WHAT IT IS:** Artificial intelligence (AI) is a branch of computer science focused on creating systems that can perform tasks requiring human-like intelligence, including learning, reasoning, and problem-solving.

■ **HOW IT WORKS:** AI systems use statistical models to learn from data, identifying patterns to make decisions or predictions, similar to how a child learns to recognize an apple by being shown various images labeled accordingly. As more data is introduced, the AI becomes more accurate in its identifications.

## TYPES OF AI

■ **MACHINE LEARNING**
An example is Netflix's recommendation system. It analyzes your viewing history, including genres, ratings, and watch time, to suggest movies and shows that you are likely to enjoy based on patterns observed in data from many users.

■ **DEEP LEARNING**
A practical application is in self-driving cars. These vehicles use deep learning algorithms to process data from cameras and sensors, enabling them to recognize objects like pedestrians, traffic lights, and other vehicles.

■ **COMPUTER VISION**
Facial recognition technology is a key example. It is used in security systems and social media platforms to identify and tag people in photos, automatically recognizing faces based on learned visual patterns.

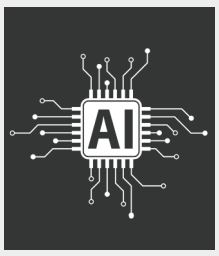
■ **NATURAL LANGUAGE PROCESSING (NLP)**
A common use of NLP is in chatbots like those found on customer service websites. They can understand user inquiries, interpret the intent behind the questions, and provide relevant responses or solutions.

## CONSIDER THIS

Debates arose recently in Springfield and Eugene over the deployment of Flock surveillance cameras. **Do the benefits to law enforcement using this AI-powered system outweigh concerns about individual privacy rights and Flock's use in immigration enforcement?**

SPOTLIGHT: ARTIFICAL INTELLIGENCE

# The role of AI in Democracy




**EDITOR'S NOTE:** The League of Women Voters of Lane County has in December published a study on "*The Evolving Role of Artificial Intelligence in Democracy,*" focusing on defining AI, its development, and its impact on democratic institutions and governance challenges. This month, *The Chronicle* partners with the LWV-LC, as part of a policy-deep dive into the ever-evolving subject.

LWV LEAGUE OF WOMEN VOTERS OF LANE COUNTY

### ABOUT THE LEAGUE

The League of Women Voters of Lane County is a nonpartisan, grassroots organization dedicated to empowering local voters and defending democracy through candidate forums, unbiased ballot information, and advocacy on public policy issues. **lwvlc.org / 541-343-7917**

**FULL REPORT:** tinyurl.com/LWV-LC-AI-report
**ABOUT THIS STUDY:** Over 30 sources were examined as part of this study. Material prepared by Sharon Amasha, Karen Bankston, Lori Barker, Rhonda Livesay, Morgan Vierheller; proofread by Merle Bottge.

AI has become essential in daily life, enhancing business with data analytics, supporting education with personalized learning, and advancing healthcare through diagnostic tools and telehealth.

Democracy, meaning "rule by the people," is complex and relies on governmental authority stemming from the consent of the governed through free elections. For true democracy, citizens must have access to unbiased information, the freedom to organize and dissent, real choices, and the ability to hold leaders accountable. Without participation and transparency, elections lose their significance.

When developed responsibly, AI can enhance civic engagement and improve democratic processes. By prioritizing fairness and equitable access, and facilitating civic engagement, providing personalized information about candidates and voting, and simplifying the voting process through chatbots that answer questions about registration and polling.

It can also promote individual rights by simplifying legal documents and clarifying privacy policies, empowering people to recognize rights violations and understand data sharing.

AI can enhance election integrity by swiftly detecting disinformation, identifying inauthentic behavior, and securing voting infrastructure against real-time threats. It aids fact-checkers and journalists in verifying claims and the authenticity of media.

Additionally, AI optimizes polling locations to reduce wait times and analyzes ballot processing irregularities, improving election administration and ensuring a smoother voting experience for citizens.

### Threats to democracy

The use of AI can spread misinformation and disinformation, eroding trust in institutions and distorting public discourse. Biased AI systems can lead to unfair government decisions, and the use of AI to track people can suppress fundamental rights such as free speech and assembly.

Deepfakes are altered images or recordings that misrepresent individuals. OpenAI's latest smartphone app lets users create hyper-realistic videos that raise concerns about distinguishing between reality and fiction.

As deepfakes become more common, they amplify uncertainty, causing viewers to question even credible sources. Disinformation from deepfakes can lead people to believe false "facts," distorting discussions of important policies and can influence elections by spreading damaging content about candidates, especially if released right before an election, when debunking is difficult.

Additionally, AI is increasingly used in gerrymandering, where partisan mapmakers manipulate electoral district boundaries to favor specific parties. By analyzing voter preferences, demographics, and geographic data, AI helps identify areas likely to support certain candidates and optimize district configurations to maximize votes for those parties.

This raises ethical and legal issues, as gerrymandering can disenfranchise voters and undermine democratic principles. The lack of transparency in the algorithms used further complicates accountability and fairness in elections.

### Algorithmic bias

AI systems are trained on datasets created by people, and biased datasets can lead to algorithmic bias, where certain attributes like age or gender are prioritized, sampling bias when data isn't representative, and representation bias when the data fails to model the population accurately.

These biases can produce inconsistent or harmful outcomes. For instance, COMPAS, an AI used for predicting criminal reoffending, was found to have racial bias: it over-predicted reoffending for Black defendants while under-predicting it for white defendants. Companies often keep their algorithms proprietary, keeping the public and lawmakers in the dark about these issues.

### Surveillance

We are increasingly under surveillance wherever we go. Cameras monitor intersections and highways, while stores track shopper movements and employers oversee their workers, compromising personal privacy and posing risks to citizens' rights.

Facial recognition software, designed to identify criminals, has shown biases, particularly against women and people of color, due to the makeup of training images.

Residents of Springfield raised concerns last year regarding the Springfield Police Department's use of Flock cameras – automated license plate recognition (ALPR) cameras. Residents expressed concerns about privacy invasions and data-sharing issues, particularly regarding the placement of these cameras in residential areas rather than retail spaces. The situation escalated when the cameras captured images of a stolen vehicle while they were supposed to be inactive.

In response to the public outcry, the SPD severed ties with the camera company and removed the devices in December.

Jay Stanley of the American Civil Liberties Union cautions that, "In a democracy, the government shouldn't be watching its citizens all the time *just in case* we do something wrong."

## LWV moinitoring AI use in elections

**Citizens need to stay informed about the impact of AI in their daily lives. The League of Women Voters and other civic organizations need to continue monitoring how AI might be used in elections and in facilitating or hampering public participation in government. The importance of transparency and truth in information disseminated in political campaigns is not a partisan issue. It should be the minimum expectation of a healthy democracy to provide voters with complete and truthful information about political candidates, parties, and issues.** While the League does not have an official stance on AI, it is actively monitoring its effects on elections:

■ In June 2024, they joined 50 other organizations in urging Congress to legislate against deceptive AI-generated election content.

■ In October 2023, the League supported a petition to the Federal Election Commission to regulate deceptive AI campaign communications similarly to other misleading campaign communications.

***"Humans were always far better at inventing tools than using them wisely."*** *–Yuval Noah Harari, historian*

## AI: A TIMELINE

■ **1950:** Alan Turing publishes "Computing Machinery and Intelligence," introducing the Turing Test as a measure of machine intelligence.

■ **1956:** The Dartmouth Workshop marks the official birth of AI; the term "artificial intelligence" is coined by John McCarthy.

■ **Early 1960s:** Development of early AI programs like Logic Theorist and the chatbot ELIZA showcases initial successes.

■ **1970s:** Early optimism fades as AI programs struggle to scale, leading to the first "AI winter" characterized by funding cuts and stagnation.

■ **1980s:** A brief resurgence occurs with expert systems achieving commercial success but revealing limitations, leading to another lull.

■ **1997:** IBM's Deep Blue defeats chess champion Garry Kasparov, showcasing advancements in machine learning.

■ **2011:** IBM's Watson wins "Jeopardy!" demonstrating AI's capabilities in understanding natural language.

■ **2010s:** The field shifts toward machine learning, driven by the rise of internet data.

■ **2017:** The advent of transformer architecture revolutionizes natural language processing.

■ **2022:** The public release of ChatGPT makes generative AI mainstream, demonstrating the power of large language models.

■ **2023:** Further advancements in generative AI continue, with improved versions enhancing context understanding.

■ **Mid-2023:** Tech companies like Google and Microsoft release advanced AI models, boosting competition and innovation.

■ **Late 2023:** AI governance gains attention, focusing on privacy, misinformation, and workforce impacts.

## Ai still has a long way to go

Today's AI is known as "weak AI" or narrow AI, designed for specific tasks (natural language processing cannot interpret images). In contrast, "strong AI" or artificial general intelligence does not currently exist but aims to replicate human-like understanding, learning, and problem-solving across various domains, along with self-aware-