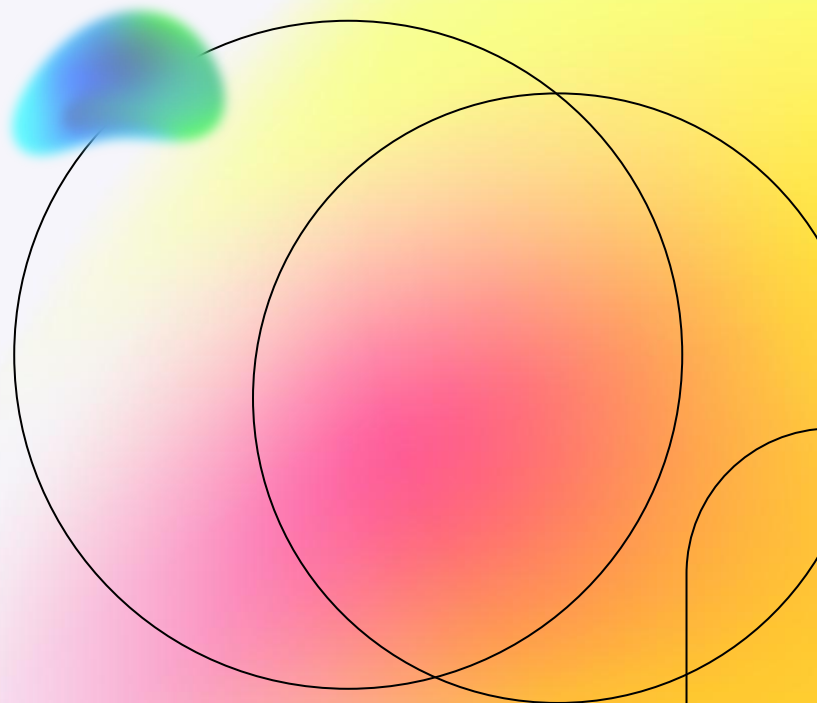Empowering Libraries:

Exploring the AI Frontier

British Columbia Library Association

Dr. Brandy McNeil
PLA President-Elect
NYPL Deputy Director
10/30/24

Table **of contents**

01 **Ethics**
Addressing AI concerns

02 **Legality**
Copyright, privacy &
regulatory challenges

03 **Educating**
Empowering staff &
patrons

04 **Gen AI**
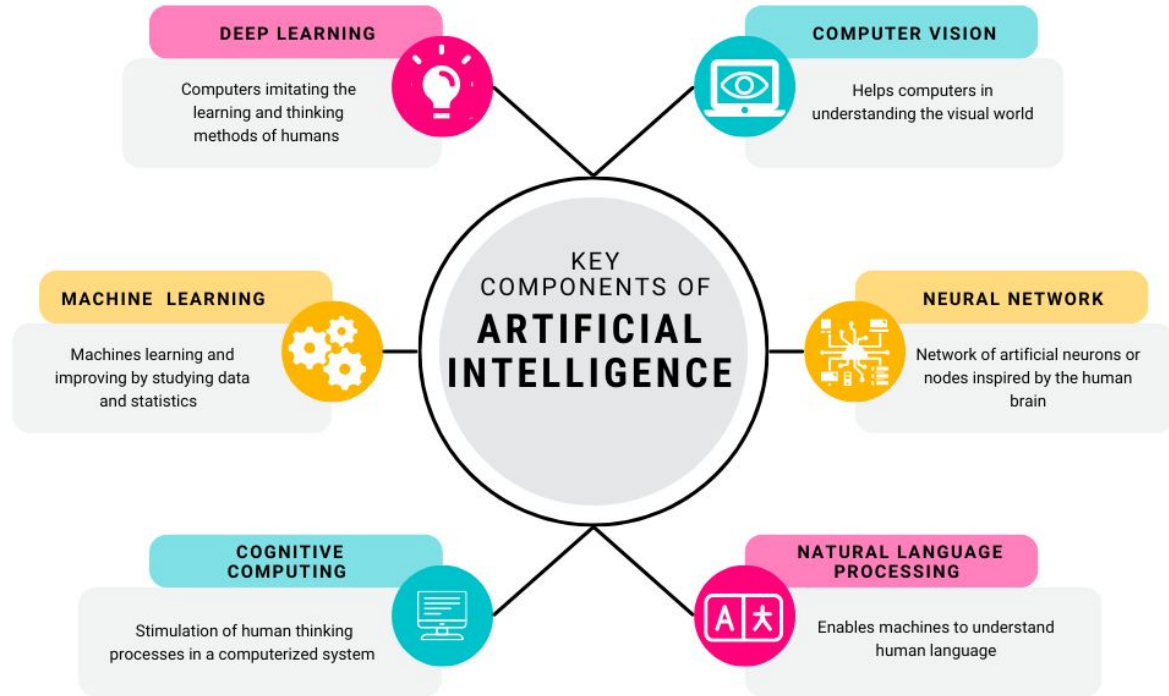Gen AI & Libraries

Ethics

200,000,000

Number of ChatGPT Users

AI isn't just one technology!

Artificial intelligence is the science of making machines that can think like humans. It can do things that are considered "smart." AI technology can process large amounts of data in ways, unlike humans. The goal for AI is to be able to do things such as recognize patterns, make decisions and judge like humans.

- HCL Tech

KEY COMPONENTS OF **ARTIFICIAL INTELLIGENCE**

DEEP LEARNING
Computers imitating the learning and thinking methods of humans

COMPUTER VISION
Helps computers in understanding the visual world

MACHINE LEARNING
Machines learning and improving by studying data and statistics

NEURAL NETWORK
Network of artificial neurons or nodes inspired by the human brain

COGNITIVE COMPUTING
Stimulation of human thinking processes in a computerized system

NATURAL LANGUAGE PROCESSING
Enables machines to understand human language

AI and Society

Industries

AI Applications

Food Tech

Logistics and Transportation

Healthcare

Manufacturing

Information Technology

Automation

Data Analysis & Insights

Predictive Analytics

Personali-zation

NLP

Image & Video Analysis

Risk Assessment

Optimization Manage-ment

Decision Support Systems

Process Improvement

Customer Service

Quality Control

Research & Development

Marketing & Advertising

Legal Business

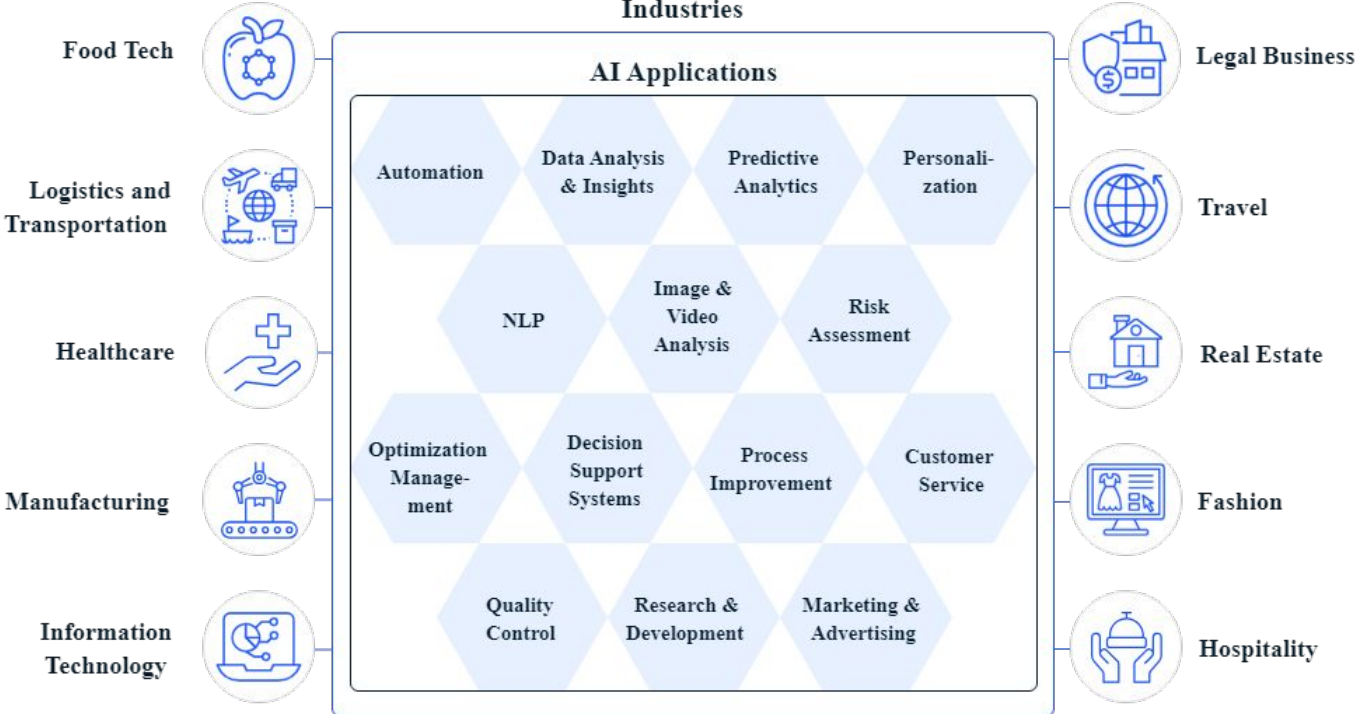Travel

Real Estate

Fashion

Hospitality

Image Source: LeewayHertz

AI Concerns: Bias

The data is trained by scraping data that is already biased. In addition, the data it is being trained from is by a human who also has biases.

-

AI Concerns: EDI

Can lead to unequal outcomes and lack of inclusivity

AI Concerns: Privacy

Can compromise personal privacy through data misuse and unauthorized facial recognition

AI Concerns: Deep Fakes

Can harm people and erode trust.

HOW TO IDENTIFY AI DEEPFAKES

NEW THIS MORNING
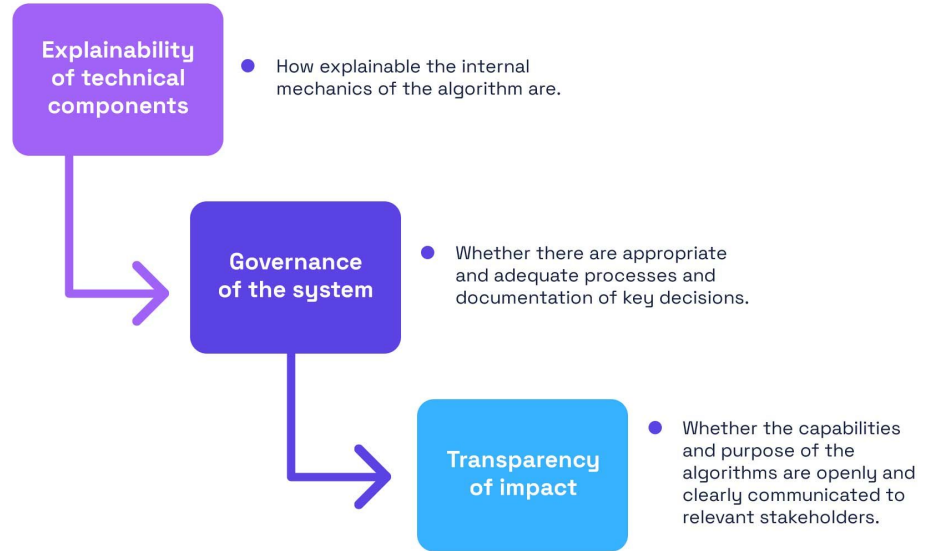
AI Concerns: Climate Change

1 ChatGPT search uses nearly

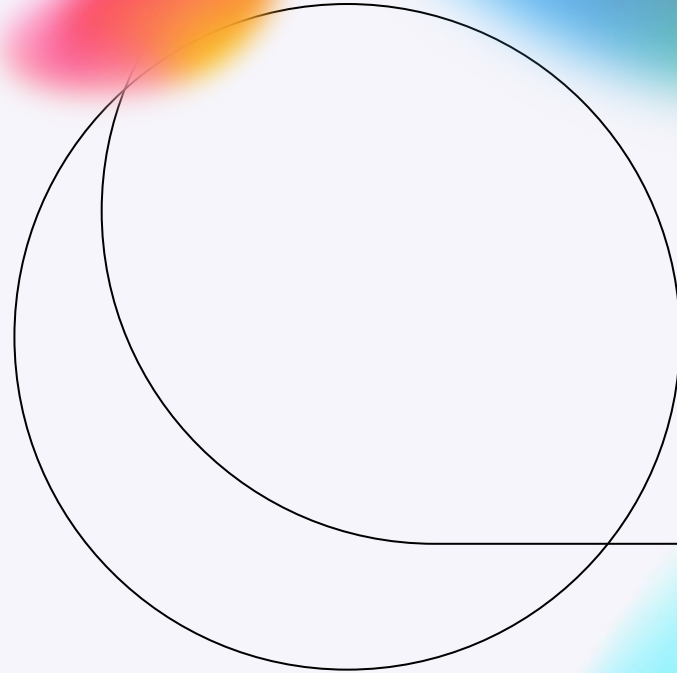10x the electricity of a typical internet search.

The Future of AI

AI Transparency deals with concepts such as explainable AI (XAI): Understanding how data predictions and algorithms are produced help people to understand the influence of decisions made.

Explainability of technical components
- How explainable the internal mechanics of the algorithm are.

Governance of the system
- Whether there are appropriate and adequate processes and documentation of key decisions.

Transparency of impact
- Whether the capabilities and purpose of the algorithms are openly and clearly communicated to relevant stakeholders.

02

Legality

& Libraries

Are AI tools just "assistants," or can they be considered creators?

AI Concerns: Consent

The data that has been scraped is not data that most people have given these companies permission to use. Copyright and AI laws are grey.
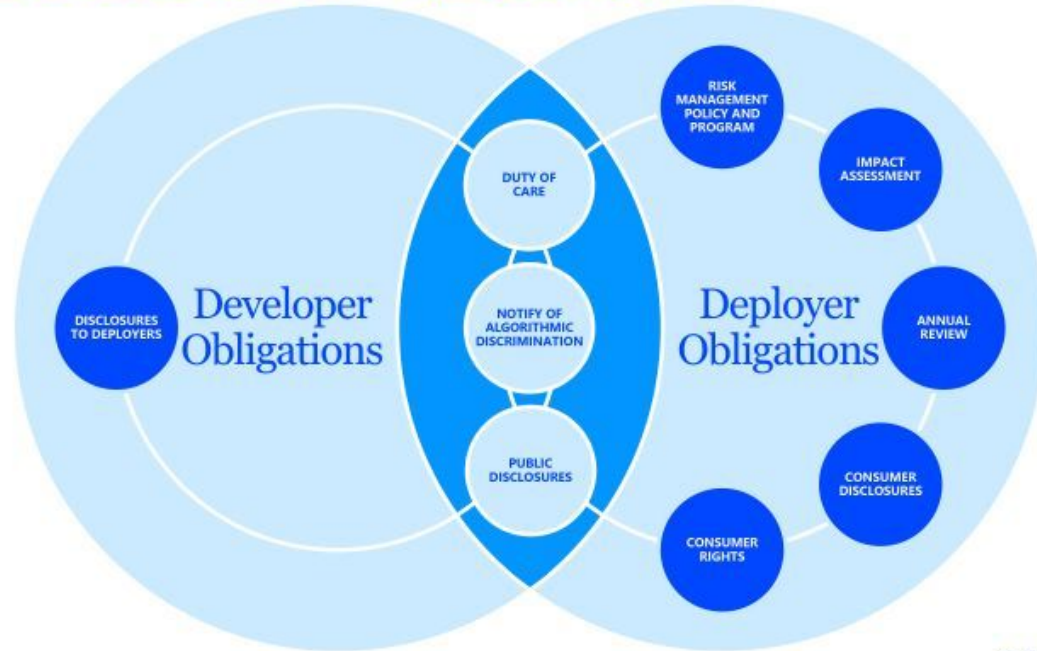
-

EU AI Act

EU Artificial Intelligence Act: Risk levels

Social scoring, mass surveillance, manipulation of behaviour causing harm	**Unacceptable risk**	🚫 Prohibited
Access to employment, education and public services, safety components of vehicles, law enforcement, etc.	**High risk**	Conformity assessment
Impersonation, Chatbots, emotion recognition, biometric categorization deep fake	**Limited risk**	Transparency obligation
Remaining	**Minimal risk**	No obligation

(Source: Telefónica)

Colorado AI Act

Colorado
AI Act:

-

Colorado AI Act: Developer v. Deployer Obligations

Developer Obligations

Deployer Obligations

DISCLOSURES TO DEPLOYERS

DUTY OF CARE

NOTIFY OF ALGORITHMIC DISCRIMINATION

PUBLIC DISCLOSURES

RISK MANAGEMENT POLICY AND PROGRAM

IMPACT ASSESSMENT

ANNUAL REVIEW

CONSUMER DISCLOSURES
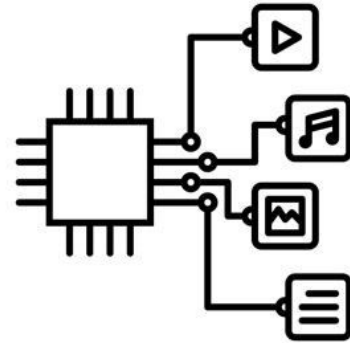
CONSUMER RIGHTS

HUSCH BLACKWELL

California AI Transparency Act

California Legislature Passes Generative AI Training Data Transparency Bill

-

The California AI Transparency Act

*****SIGNED INTO LAW*****

AI in Political Campaigns

States with laws regulating the use of AI in p
campaigns

As of Sept. 16, 2024

🟦 Law(s) passed   🟧 Bill(s) under consideration   ⬜ None

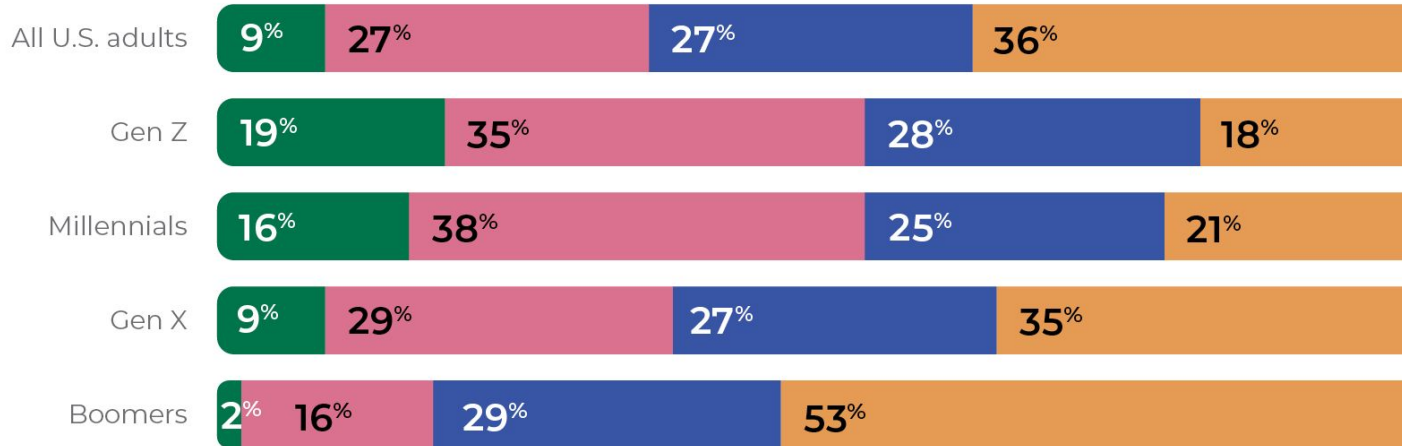Source: Axios research; Map: Axios Visuals

Educating

Who is Using AI?

Younger Generations Are More Likely to Use AI

How often are you using AI in your personal life?

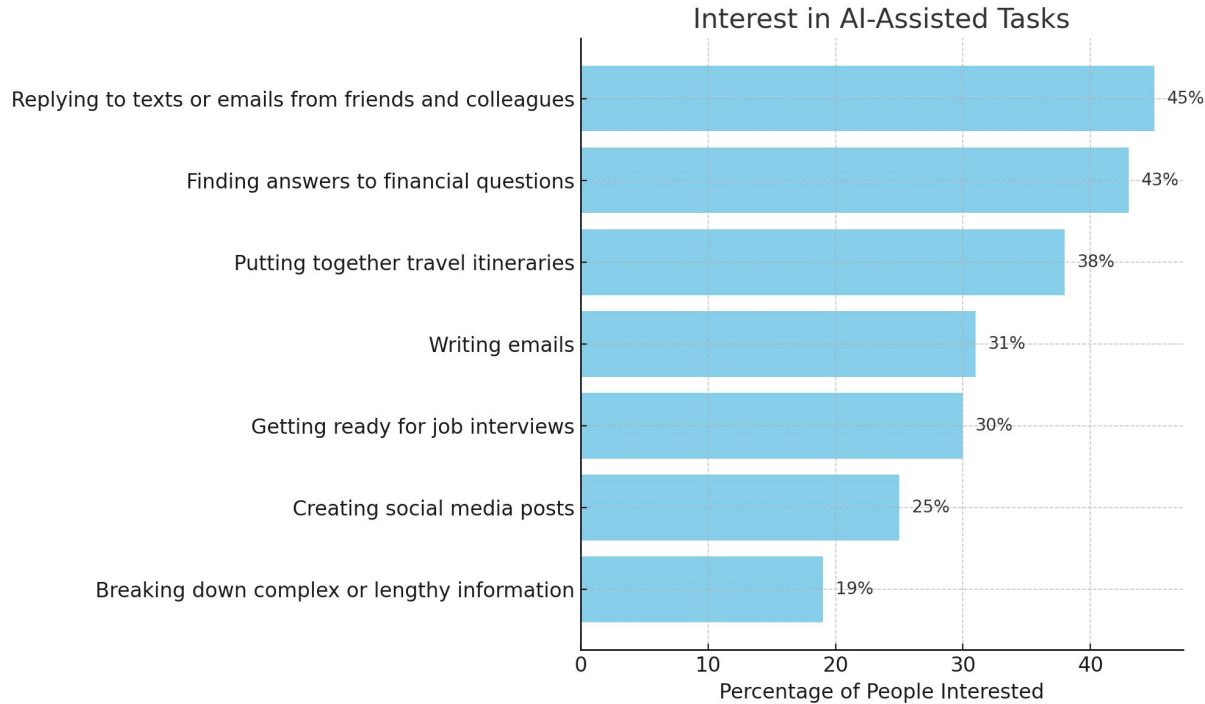● Often ● Sometimes ● Not very much ● Not at all

	Often	Sometimes	Not very much	Not at all
All U.S. adults	9%	27%	27%	36%
Gen Z	19%	35%	28%	18%
Millennials	16%	38%	25%	21%
Gen X	9%	29%	27%	35%
Boomers	2%	16%	29%	53%

n=1,500 U.S. adults, July 28–August 7, 2023.

Barna

Image Source: Barna

Interest in AI-Assisted Tasks

Interest in AI-Assisted Tasks

Task	Percentage
Replying to texts or emails from friends and colleagues	45%
Finding answers to financial questions	43%
Putting together travel itineraries	38%
Writing emails	31%
Getting ready for job interviews	30%
Creating social media posts	25%
Breaking down complex or lengthy information	19%

Percentage of People Interested

Source: Forbes Advisor Survey 2024

AI Impact on Workplace

AI Usage and Impact in the U.S. Workplace

Full-time workers agreeing AI will change work	55%
All U.S. Adults agreeing AI will change work	42%
Working Adults using AI (often/sometimes)	34%

Percentage
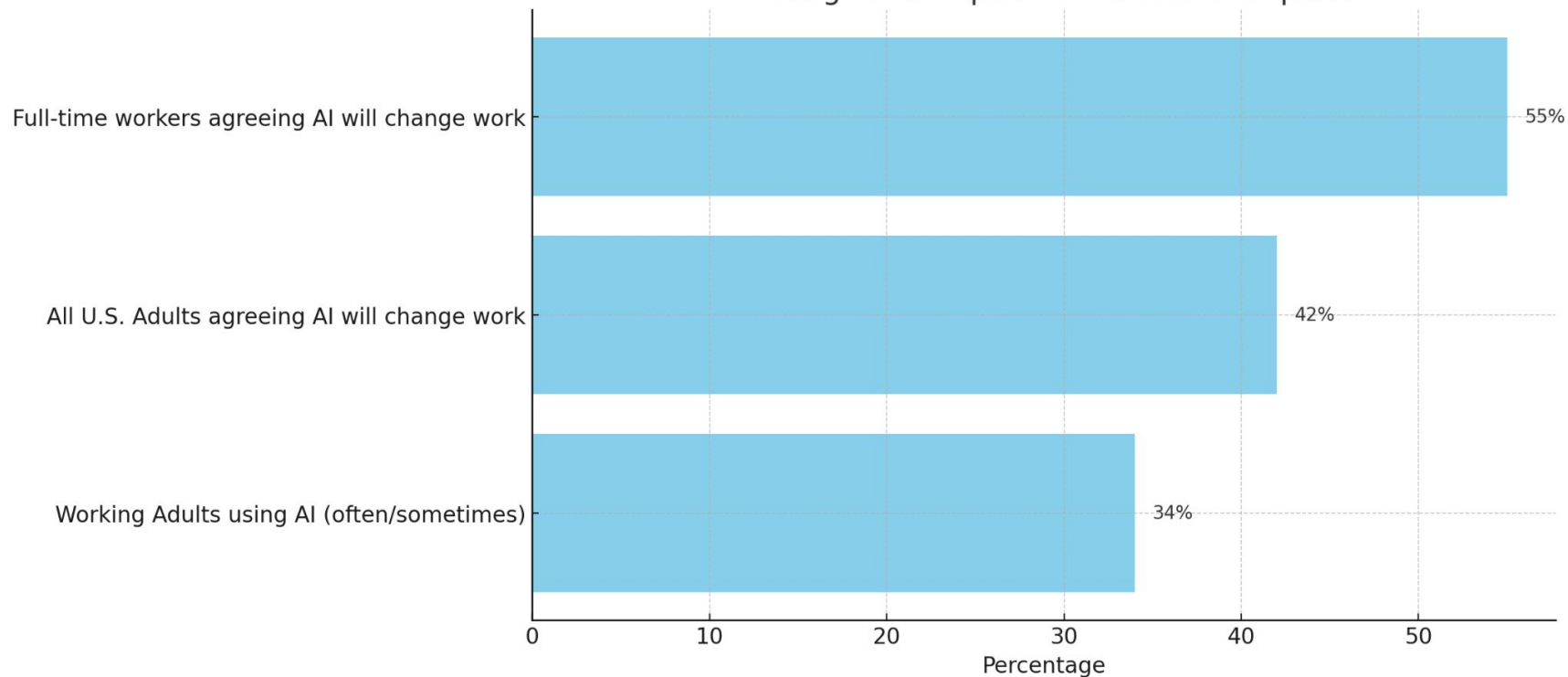
AI Importance: Career Benefits

Understanding AI leads to faster productivity and more career opportunities.

AI Importance: Social Benefits

Fosters community growth, increases access to resources and enhances collaboration for a more inclusive future.

AI Importance: Learning Benefits

Makes learning engaging, supports critical thinking and through awareness of possibilities helps with mis/dis information.

Another Notebook LM Video: https://www.tiktok.com/@leahmiami/video/7419141961753300267
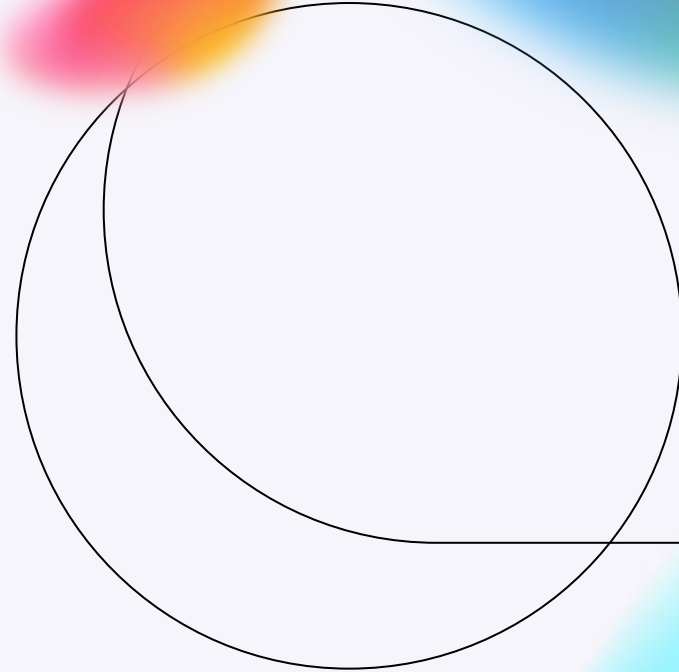
Impact on Communities

- Cultural Changes
- Everyday Tasks
- Increased Expectations
- Access to Resources
- Vulnerability

GenAI

AI Adoption Opportunities in Libraries

- Preparing patrons by helping them understand AI, the accuracy of it, their rights and how to use it responsibly
- Content discoverability through the use of small language models
- Breaking down communication barriers by using voice ai for customer service help or translation capabilities
- Increased efficiency reducing time spent on mundane tasks.

Applications **in libraries**

MeetGeek

Take notes &
create summaries
for meetings

Canva

Create flyers and
social media posts

ChatGPT

Assist w/ performance
reviews, grant writing,
book list, program ideas,
patron responses

COPILOT

Create outlines
and presentations

Whisper

Multi-Lingual
Support

perplexity

FAQ's and Chatbots
for frequent queries

Navigating Vendor AI Integration

- What's the track record and expertise of vendor?
- What type of support and training are provided?
- What's the ROI?
- Does it solve your specific problem & is it scalable?
- How does the vendor handle data privacy?
- What security measures are in place?
- Does it integrate seamless with your current tech stack? (software, databases, API's)
- Can you customize the solution?
- Has it been tested for bias?
- Does the vendor provide transparency around training data?
- Can the vendor explain how AI makes decisions?
- How's the performance and accuracy?
- Who will own the AI's systems output?
- Are there any societal impacts?

Steps to implement AI

Understand AI

- Learn from other organizations and agencies

Explore Tools

- Experiment with various tools
- Develop rubric to evaluate tools

Collect Data

- What are staff using and why?
- What would people like to use?

Governance

- Create a governance structure
- Create an AI Policy

Evaluate

- Vendor evaluation
- Use Case Evaluation

Launch

- Staff training
- Tools to be used
- Patron training

Why GenAI Literacy
for **Patrons & Staff?**

- Most people don't realize they interact with it everyday

- We don't want the digital divide to grow even wider

- It is becoming a career skill people need to know and changing the way we work

- To avoid misinformation

- Grow support for responsible AI

- To protect privacy

AI & **Library Roles**

Non-Managerial Positions	Middle Management	Administration	Senior Leadership
• Pages • Clerks • Information Assistants	• Library Managers • Librarians • Specialists	• IT / Digital • HR • Legal • Procurement	• Trustees • CEO • VP • Directors
• Get familiar with al tools for automated tasks • Practice better prompt techniques • Seek professional development • Understand privacy, security & other ethical concerns	• Evaluate solutions for team productivity & workflow optimization • Learn from other library institutions using AI • Ensure use of tools align with business goals & values	• Assess scalability, security & compliance • Establish ethics policies, regulations & governance • Pay close attention to copyright cases • Learn from city, state and federal agencies	• Determine reason for wanting to integrate AU solutions (cost effectiveness, efficiencies) • Set strategy & align vision with organizational objectives • Foster an AI ready culture

Overall Recommendations

Resources

Sites

[AI Test for Older Adults](#) by AARP

[Database of AI Tools](#) by Futurepedia.io

[AI Literacy Lessons Grade 6-12](#) by CommonSense.org

[AI & The Future of Teaching and Learning Report](#) by The Dept. of Ed.

[AI Creation Tool for Girls](#) by GirlsJam.ai

[How AI Is Trained](#) by Google QuickDraw

[Real or AI Quiz](#) - by Britannica Education

Podcasts & Youtubes

[Hard Fork](#) by NY Times

[Machine Learning Street Talk (MLST)](#)

Books

Brave New Worlds: How AI Will Revolutionize Education by Salman Khan

Teaching with AI: A Practical Guide to a new Era of Human Learning by Jose Antonio Bowen & C. Edward Watson

Coded Bias by Dr. Joy Buolamwini

Unmasking AI by Dr. Joy Buolamwini

Weapons of Math Destruction by Cathy O'Neill

Algorithms of Oppression by Safiya Noble

Thank you!

Want to Contact Me?
Personal: 1DrMcNeil@gmail.com
Work: BrandyMcNeil@nypl.org
Website: www.brandymcneil.com