

Putting AI to Work

# 16

## The Societal Impact of AI

# Learning Objectives

- Analyze the social and emotional consequences of AI use, including reduced motivation, human connection, or employment stability
- Describe the benefits AI can offer individuals and communities, such as increased productivity, learning, creativity, and access
- Examine how AI availability varies across populations and assess its impact on social equity and opportunity
- Interpret landmark legal cases involving AI to understand how courts and governments are shaping AI policy and rights

# Module 16.1: Negative Effects

An over-reliance on AI leads to unintended negative consequences in work, learning, and social interactions.

- The effects often appear gradually and are not always easy to recognize without awareness.
- When students or employees use AI to complete tasks too quickly or easily, it reduces their motivation.
- It leads to disengagement from learning or creative process and weaker skill development.
- It leads to decreased human interaction (for example, from chatbots, automated help desks, and AI scheduling tools).
- Efficiency gains may weaken social bonds or create feelings of isolation.

# Module 16.1: Negative Effects (cont.)

- Job displacement will result as AI automates customer service, data entry, and content creation roles.
- Responsibilities shift in ways that require new training or create job insecurity.
- It can lead to emotional dependence on AI companions that are designed for companionship or support.
- It may interfere with building or maintaining healthy real-world relationships.
- Misinformation fatigue sets in as AI-generated content floods the internet.
- Users become skeptical or overwhelmed and unsure of what information to trust.

# Module 16.1: Ethics in Action

- AI's emotional and social effects are often subtle but are significant for individuals and communities.
- Developers and users share responsibility for promoting its thoughtful use.
- AI should enhance rather than replace human connection and skill development.
- Designing AI with social well-being in mind balances progress with care.

# Module 16.1: Techie Dive

- Many AI tools are optimized for efficiency, not empathy, missing emotional cues or social norms.
- Chatbots trained on transactional data lack nuanced human communication understanding.
- Reward functions prioritize task-completion over human-flourishing metrics.
- Technical design choices directly impact whether AI supports or undermines well-being.

## Module 16.1: Business Lens

- Companies must weigh productivity gains against damage to employee morale and culture.
- Customer relationships may suffer when human touchpoints are replaced.
- Responsible deployment includes retraining programs and transparent communication.
- Long-term brand reputation depends on maintaining trust with employees and customers.

# Module 16.2: Positive Effects

- Generative AI supports human progress by enhancing learning, efficiency, and creativity.
- AI acts as collaborator amplifying what people can do, not replacing human intelligence.
- AI supports creativity: Artists, writers, and musicians use AI to brainstorm and visualize concepts.
- AI enables faster exploration of new styles without advanced technical skills.
- It enhances accessibility (for example, it can generate subtitles, convert speech to text, and translate into other languages).
- It makes digital content more usable for people with hearing, vision, or language barriers.
- It improves education by providing real-time feedback and study guides and allowing for a personalized learning pace.



## Module 16.2: Positive Effects (cont.)

- Educators can use AI to more easily design differentiated instruction for diverse learners.
- It boosts productivity byu allowing users to summarize documents, generate drafts, automate communications.
- It frees up time for higher-level tasks and strategic thinking.
- It's expanding access to services in areas with limited infrastructure.
- AI chatbots and translation tools connect people to legal, medical, and educational resources.

## Module 16.2: Ethics in Action

- Equity matters when designing and distributing AI tools to avoid widening social gaps.
- Benefits must be accessible across all communities regardless of economic status.
- Developers and policy makers must ensure AI enhances opportunity for everyone.
- Transparent deployment builds trust and encourages responsible adoption.

## Module 16.2: Techie Dive

- Positive AI effects come from fine-tuning models for specific goals and populations.
- Specialized AI versions demonstrate how technical choices shape human outcomes.
- Adaptive learning algorithms personalize education based on individual progress.
- Accessibility features require intentional design that incorporates diverse user needs.

## Module 16.2: Business Lens

- Companies embracing AI thoughtfully improve customer service and employee satisfaction.
- Real value comes from using AI to empower people, not just to cut costs.
- Investing in tools that benefit employees and customers creates competitive advantages.
- Positive AI deployment strengthens brand reputation and attracts ethical talent.

# Module 16.3: AI Access and the Digital Divide

- The digital divide is disparities in internet access, device ownership, and digital literacy.
- It's not just about hardware but also education, language, and trust.
- Urban vs. rural: A lack of high-speed internet limits cloud-based AI tool access.
- Rural communities face slow or unreliable connections that affect AI usability.
- School inequity: Funding disparities affect AI-supported learning platform availability, which creates gaps in learning opportunities and future career readiness.

# Module 16.3: AI Access and the Digital Divide (cont.)

- Language barriers: Most AI tools are designed for the English language, and non-English speakers get reduced functionality.
- Economic barriers: Advanced AI features are locked behind paywalls.
- Freelancers, small business owners, and students are unable to afford premium access.
- Digital literacy gaps: People without tech experience or who distrust AI miss out on its benefits.
- Even available AI tools go unused due to a lack of knowledge or confidence.

## Module 16.3: Ethics in Action

- Equity and inclusion must be central to AI development from the design phase on.
- Designers, companies, and governments should actively close the digital divide.
- Ignoring access disparities reinforces inequality and marginalizes vulnerable populations.
- Fair access requires inclusive design, digital education, and support systems.

## Module 16.3: Techie Dive

- AI systems often require constant internet and significant computing power.
- These resources are not equally distributed across the world, creating access challenges.
- Edge AI runs on local devices, making AI more accessible in low-resource environments.
- Open-source tools and model compression can expand the potential user base globally.



## Module 16.3: Business Lens

- Businesses designing AI should consider global- and community-level access.
- Free versions, low-bandwidth options, and multilingual interfaces expand reach.
- Investing in equitable access grows future markets and customer loyalty.
- Companies prioritizing inclusion gain competitive advantage as AI adoption increases.

# Module 16.4: Legal Precedent Related to AI

- Courts and lawmakers are scrambling to establish legal frameworks for AI.
- Legal precedent guides future rulings and defines the boundaries of AI usage.
- Key questions:
  - Who owns AI-generated content?
  - Can AI outputs be copyrighted?
- What rights do individuals have if their voice or likeness is used without consent?
- Are creators or platforms responsible for harmful or illegal AI content?

# Module 16.4: Legal Precedent Related to AI (cont.)

## Zarya of the Dawn Case (2023)

- Kris Kashtanova used Midjourney AI to create illustrations for a graphic novel.
- The U.S. Copyright Office originally granted copyright but later revised their decision after discovering the use of AI.
- It ruled the text and arrangement were copyrightable but the AI-generated images were not.
- This set the precedent that AI-generated work may not be protected without substantial human authorship.

# Module 16.4: Legal Precedent Related to AI (cont.)

## SAG-AFTRA and WGA Strikes (2023)

- Hollywood actors and writers struck over AI concerns in film and television.
- The actors feared studios would scan faces or voices and reuse them via AI without the actor's consent.
- The writers were concerned AI tools could replace them or generate scripts.
- New contracts included protections for an actor's likeness and voice and consent requirements.

# Module 16.4: Legal Precedent Related to AI (cont.)

## Getty Images v. Stability AI (2023)

- Getty sued Stability AI for allegedly scraping copyrighted images for training.
- It claimed the database included watermarked photos used without permission.
- The case raised questions about whether training AI on copyrighted material is fair use.
- The outcome could reshape data-sourcing practices for AI developers worldwide.

# Module 16.4: Legal Precedent Related to AI (cont.)

## RIAA v. AI-Generated Music Clones (2024)

- The Recording Industry Association took action against AI tools mimicking artists' voices.
- AI-generated songs closely imitated famous musicians without their permission.
- The case accelerated discussions about AI-generated music and copyright law.
- It highlighted tensions between technological innovation and artist rights protection.

# Module 16.4: Legal Precedent Related to AI (cont.)

## Deepfake Legislation

- Multiple countries and U.S. states passed new laws between 2019 and 2024.
- Deepfakes are used to spread misinformation, harass individuals, and impersonate public figures.
- Laws in California and Texas prohibit deepfakes in political ads and nonconsensual content.
- The efforts aim to balance free expression with personal privacy and harm prevention.

## Module 16.4: Ethics in Action

- Legal systems are reactive, relying on people to bring cases after harm occurs.
- Ethical AI use means anticipating the spirit of the law, not just following current rules.
- Users should consider fairness, consent, and potential harms when legal boundaries are unclear.
- Responsible adoption requires staying informed about evolving legal standards.



## Module 16.4: Techie Dive

- AI trained on copyrighted data raises questions about pattern learning vs. copying.
- Technical watermarking and provenance tracking help identify AI-generated content.
- Voice cloning and deepfake detection tools developed alongside generation capabilities.
- Understanding model training processes is essential for evaluating IP claims.

## Module 16.4: Business Lens

- AI legal missteps result in lawsuits, fines, or public backlash.
- Training models on copyrighted data or generating misleading outputs creates liability.
- Businesses must establish internal policies, review licensing, and document AI usage.
- Proactive compliance protects brand reputation and avoids costly legal battles.

# Key Takeaways

- AI's societal impact is dual-natured, with tremendous benefits and significant challenges.
- Its negative effects emerge gradually and require proactive awareness to address.
- Its positive impacts are maximized when AI is used as a human collaborator, not a human replacement.
- The digital divide extends beyond hardware to education, language, trust, and economics.
- The legal precedents are rapidly evolving for AI ownership, copyright, and labor protections.
- Responsible adoption balances efficiency with ethical considerations about human impact.
- Individual users and organizations share responsibility for beneficial AI use.