6 Ways Gen erative AI Ca post Bublication Access f

EQUALIZING QUILL

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AI-Assisted Accessibility for Marginalized Authors

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"Our writing tools are also working on our thoughts." -Nietzsche



Accessibility and Publishing

Malling-Hansen Writing Ball

"For Nietzsche, the typewriter was an assistive aid to give him access to something he lost when he lost his sight, like a spellboard might give an Autistic person their voice back."





"The printing press" was at first mistaken for an engine of *immortality by* everybody except Shakespeare." - Marshall McLuhan



Promoting Empowerment and Autonomy

- excluded groups.



• Past writing tech was feared but led to creative opportunities. • History shows new writing tech faced backlash but empowered





Generative AI at Work

Erik Brynjolfsson, Danielle Li & Lindsey R. Raymond

> National Bureau of Economic Research



AI Benefits Lower-Skilled Workers

"High-skilled workers may have less to gain from AI assistance precisely because AI recommendations capture the knowledge embodied in their own behaviors."







Experimental **Evidence** on the **Productivity Effects of** Generative Artificial Intelligence Shakked Noy & Whitney Zhang

MIT

Surprising New Research

- Automation has historically displaced human workers in factories or in performing routine computational tasks.
- College-educated professionals completed incentivized writing tasks.
- Participants assigned to use ChatGPT were more productive, efficient, and enjoyed the tasks more. • Participants with weaker skills benefited the most
- from ChatGPT, which carries policy implications for efforts to reduce productivity inequality through AI.







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"Disability is part of the human experience. We all need to engage in the work to make our world accessible to everyone. Inclusion is a choice." – Haben Girma

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Systemic Barriers to Publishing

- The traditional publishing industry has long been plagued by systemic racism, patriarchy, and other forms of marginalization.
- This gatekeeping has not only excluded traditionally marginalized voices from being able to write and publish books, but it has also resulted in them making less money off their intellectual property.





Concerns about AI are valid but not the only relevant data.

Ethical Preservation of Creativity and Meaning

- Loss of Control: AI systems can produce misleading, biased, or harmful information, leading to unintended consequences.
- Ethical Implications: Potential misuse, such as the spread of misinformation, deepfake content, or the creation of malicious texts that can be used for harmful purposes.
- **Privacy and Security:** The amount of personal information they breaches or unauthorized access to sensitive information.
- Job Displacement: Replacing human workers in various industries could lead to unemployment or a decline in job opportunities.
- existing biases present in the data they are trained on, resulting in unfair or discriminatory outcomes. This raises questions about the ethical guidelines and regulations.



provide to these models and the potential risks associated with data

• **Bias and Fairness:** Large-language models may perpetuate or amplify impact of AI models on marginalized communities and the need for





"When you" design for accessibility, you literally pave the way for better innovation for the entire community." Haben Girma

Promoting Inclusion and Access

- Physical and neurological disabilities can also impede writing.
- AI makes writing a book possible for more people. • Studies show AI boosts underperforming writers more than elite ones.
- AI provides accessibility through dictation, text-to-speech, predictive text
- Saves "spoons" to focus on creativity over mechanics • Feelings of imposter syndrome are amplified for
- marginalized authors.





"We never come to thoughts. They come to us." - Martin Heidegger

Evaluating AI Advantage

Good books require clear, focused thinking, which AI can supplement but not replace.

- Quality thinking leads to impactful writing, not just writing skills.
- AI should augment, not drive, the writing process.

- Human discernment is still needed for high-quality results.



• AI can suggest ideas, but authors must direct the book's shape.

• Iteration with AI aids organization, but thinking is still required. • AI can assist with content, style, tone, and proofreading edits.





"Those who *cannot remember* the past are condemned to repeat it." – George Santayana

The Future of Accessible Publishing

- AI can aid accessibility if developed responsibly
- Sure, ethical risks must be addressed to avoid harm
- opportunities for inclusion



• Our choices today shape future







Appendix



Arthritis

- Voice Recognition: AI models can transcribe spoken words, enabling individuals with arthritis to dictate and convert their speech into text, reducing the need for typing.
- Virtual Assistants: AI-powered virtual assistants can help with tasks like scheduling appointments, setting reminders, and managing daily activities, reducing the physical strain on individuals with arthritis.





Dyslexia

- Text-to-Speech: AI models can convert written text into spoken words, aiding individuals with dyslexia in understanding and comprehending written content more effectively.
- Spell-Check and Grammar Correction: AI algorithms can assist in detecting and correcting spelling and grammar errors, providing real-time feedback to individuals with dyslexia and improving their written communication skills.





Dystonia

Voice-Controlled Devices: AI-powered voice assistants can control various devices and perform tasks, allowing individuals with dystonia to interact with technology hands-free and reducing physical strain. Smart Home Integration: AI can enable individuals with dystonia to control their environment using voice commands, such as adjusting lights, temperature, or entertainment systems.





ADHD

- Task and Time Management: AI-based applications and reminders can assist individuals with ADHD in organizing tasks, setting priorities, and managing time effectively.
- Focus and Productivity Tools: AI models can provide features like distraction-blocking, focus timers, and noise cancellation to help individuals with ADHD stay focused on their tasks and boost productivity.





Autism

- Social Skills/ Double Empathy Gap: AI models can simulate social interactions, providing Autistic people a playground to understand neurotypical interpretations in a safe and controlled environment.
- Information Overload: Because of autism's monotropic nature it can be difficult to write at a level of basic understanding for the common reader. AI can help simplify complex ideas that brains without the pattern-matching skills of an Autistic in their special interest can still comprehend.





Visual Impairments:

- Audio Description: AI can generate audio descriptions of images, videos, and other visual content, enabling individuals with visual impairments to access and understand visual information.
- **Optical Character Recognition (OCR): AI-powered** OCR technology can convert printed text into speech or Braille, facilitating access to printed materials for individuals with visual impairments.





Apraxia, Aphasia, & Dysphonia

- Augmentative and Alternative Communication (AAC): AI models can assist individuals with speech and language disorders in generating speech output by converting text or symbols into spoken words.
- Text-to-Speech (TTS) Feedback: For those who want to "hear" what they've written, TTS technology can read back the text. This can be especially valuable during the editing phase or for individuals who process information better when it's auditory.





Cognitive Disabilities

Memory Aids: AI-based apps and reminders can support individuals with cognitive disabilities in remembering tasks, appointments, and important information.

Cognitive Enhancement: AI models can offer cognitive training exercises and brain games to improve cognitive abilities such as memory, attention, and problem-solving.







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