

# Introduction: Generative AI Tools and How They Work

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# Essential Terms



# Essential Terms: A-D

- Artificial Intelligence (AI)
- Automation
- Bias
- Chatbot
- Deep Learning (DL)

# Essential Terms: G-M

- Generator
- Generative AI
- Hallucination
- Large Language Model (LLM)
- Machine Learning (ML)

# Essential Terms: M-T

- Model
- Neural Network
- Prompt
- Retrieval Augmented Generation (RAG)
- Training
- Transformer

# Emerging Applications



# Research Support: Discovery

Discovery and summarization:

- Summaries of resources and materials
- Topic overviews
- Annotated bibliographies
- Related resource suggestions

# Research Support: Research

Reference and research:

- Virtual research assistants can aid in forming research questions
- User queries can be translated into database-friendly search strings using Boolean terms and limiters
- Multilingual support and translation

# Information Literacy & Instruction

## Lessons and Tutorials

- Generating teaching materials such as quizzes, exercises, and handouts
- Grading/scoring rubrics
- Customized, discipline-specific modules
- Podcast-style audio overview of materials [Google Notebook LM]

## Search Strategies

- Guidance on evaluating sources, spotting misinformation, and using databases

## Study aids

# Cataloging, Metadata, & Collections

## Metadata Enhancement

- Suggest subject headings, summaries, or keywords
- Normalize or crosswalk metadata between schemas

## Collection Development

- Predict areas of emerging demand, such as in research trends
- Summarize publisher catalogs or academic reviews to inform decision-making

# User Services & Accessibility

## 24/7 Help Desk

- FAQ

## Accessibility Services

- Convert content (alt text, transcripts, simplified language)
- Accessible descriptions for archival items/images

# Archives & Special Collections

## Transcription and Description

- Transcribe documents or oral-history recordings
- Draft finding-aid content and collection descriptions

## Digital exhibits

- Create narrative text, timelines, captions for digital exhibits

# Scholarly Communication & Publishing

## Writing and Formatting Assistance

- Format citations, draft abstracts, check for clarity
- Guidance on open-access policies

## Data management

- Help structure datasets

# Internal Ops & Workflow Automation

## Documentation

- Draft policies or internal procedure manuals and user guides

## Email and communication support

- Draft mass emails, announcements, and/or marketing materials

## Analytics and Reporting

- Summarize usage data and annual report content

# How AI Works

