

VIEW of AI in Canyons

A Guidebook Designed for Educators, Students, & Families



Viewing AI as a valued innovative and implementable educational tool that prepares students for real-world experiences necessary to be college & career ready



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A Guidebook Designed for Educators, Students, & Families

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It is important to remember that while ideas presented here are simplified, for ease of understanding, the integration of Artificial Intelligence (AI) can be filled with nuance and complexity. In addition, AI is an evolving technology and what is published here may become quickly outdated.

Updates can be viewed in [Appendix E](#).



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| VERSION 1 |



For Our Community

As part of Canyons School District's mission and strategic vision we commit to prepare every student to be college and career ready through utilizing guiding evidence to inspire innovation and creativity.

As the inclusion of Artificial Intelligence (AI) becomes an ever-present element of life, it is our hope that in publishing this document we can provide sound principles of practice to inspire the next generation of innovators to utilize AI in a way that is both safe, appropriate, and strives for excellence.

Achieving this goal requires systems of support in a collaborative effort between educators, students, and families. This guidebook is formatted to help those systems of support and specific audiences understand, evaluate, utilize, and implement AI for the future.



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What is the VIEW?

Crucial Questions for All Stakeholders

VALUE

- How does valuing and understanding the role of AI impact our students, our communities, and our schools?

IMPLEMENTATION

- How can AI be used safely and effectively to support the mission and vision of Canyons School District?

EDUCATIONAL LEARNING

- What tools are available, and how can they be utilized to aid teaching and learning for student success?

WORLD PREPARATION

- How is AI necessary to prepare our students for college and career?

Additional Resources

- [ISTE - Bringing AI to School: Tips for School Leaders](#)
- [Office of Educational Technology: Artificial Intelligence and the Future of Teaching and Learning](#)
- [Canyons' Strategic Plan](#)



Value of Understanding



Implementing Safely



Educational Learning



World Preparation

The **VIEW** is an acronym that stands for **V**alue of Understanding, **I**mplementing Safely, **E**ducational Learning, and **W**orld Preparation.

The VIEW allows the community of Canyons School District to view the incorporation of Artificial Intelligence (AI) into the educational landscape with a balanced perspective answering key questions that help educators, students, and families utilize AI in a way that is both safe and strives for excellence in innovation. This acronym is ordered to recognize the benefit of knowing what and how AI works as a foundational piece. Then building to demonstrate the necessity of keeping students safe as innovative practice emerges. The acronym also acknowledges the partnership of educator training in preparing students for a world where the utilization of AI will be necessary for our students to be college and career ready.



Appropriate Uses of AI

Questions in Considering Appropriate Uses

VALUE

- Does utilizing AI in this way support, expand, or bring greater understanding while still allowing an individual to engage with the critical thinking process?

IMPLEMENTATION

- What tools am I utilizing that already use AI?
- Am I using AI in partnership learning and incorporating Digital Citizenship?
- Is an AI tool approved for use on LearnPlatform?

EDUCATIONAL LEARNING

- In implementing AI as a tool is it taking into consideration best practice in content, technology, and pedagogy?

WORLD PREPARATION

- Is how am I utilizing this tool going to help me grow and prepare for future opportunities I explore?

Additional Resources

- [ISTE - AI Exploration for Educators](#)
- [KSL- AI Revolution: The past, present, and future of artificial intelligence in Utah](#)
- [Canyons' Strategic Plan](#)

Educators

- Brainstorm lesson ideas, appropriate scaffolds, and discussion questions for the educator to evaluate for use.
- Modify text to provide scaffolds for student understanding.
- Create templates to be used for newsletters, emails, lists, rubrics, etc.
- Generate ideas on differentiation, and personalization for the learning environment.

Students

- Partner with AI to brainstorm for a learning task and then utilizing those ideas to generate their own work.
- Clarify understanding by asking for explanations or examples.
- Gather specific feedback on student work such as reviewing for grammatical errors or transitions in writing.
- Engage with AI to create new materials that are based off of student creativity.

Families

- Ask questions to fully understand how AI is being used with students in school and clarify appropriate use for homework.
- Utilize AI in a way that supports a family to be more efficient or communicate to provide greater understanding for members.
- Engage in conversation around AI to set family guidelines and use cases.

World Preparation

- Generate new job opportunities that were previously not possible without AI.
- Examine guidelines for future workplace opportunities.
- Explore how jobs are changing using AI such as in the career fields of technology, science, business, and healthcare.

In considering the use of AI, it is vital that this technology be recognized as a tool that does not replace critical thinking, but supports it. This utilization may bring up questions of appropriate AI use. It is important to remember that the use of AI is not inherently right or wrong, it depends on how it is utilized. A student who uses AI to copy and paste an entire essay without editing is plagiarizing, but a student who uses AI to generate an image as cover art and gives proper citation has efficiently used a technology tool.

Historically, technology integration teaches us that as long as we continue to maintain honesty, integrity, and responsibility when utilizing these tools they can help foster innovation and lifelong learning. Historical precedence also teaches us that technology innovation is initially met with resistance, then acceptance, and finally, larger scale integration in helping prepare students for college and career readiness. In keeping with Canyons' vision to prepare students, it is our goal to provide guidelines early on in this historical process to help support students become lifelong learners who are prepared to meet the future.



VIEW of AI in Canyons for Educators

Crucial Questions for Educators

VALUE

- What is AI and how does it work?
- How does this impact education?

IMPLEMENTATION

- What are the different types of AI?
- How does AI use data?
- How can AI be used safely and effectively?

EDUCATION LEARNING

- How can I utilize AI for myself and students to redefine my teaching practice?
- How can I determine what tools to use?

WORLD PREPARATION

- What strategies can I utilize to prepare students for the future?

Additional Resources

- [CSD LearnPlatform Submit for Review](#)
- [Common Sense Education: Free Resources to Explore and Use](#)
- [ControlAltAchieve: 10 Questions for Student AI Guidelines](#)
- [ISTE AI Exploration for Educators](#)
- [Learning Tools for Teaching about Artificial Intelligence](#)



Value of Understanding

What is AI and how does it work?

"AI is a branch of computer science aimed at creating machines that mimic human intelligence.... like understanding language, recognizing patterns, or making decisions."¹ AI developers train computers using datasets to solve problems. AI neural networks then extract information from those datasets to make decisions when they encounter new scenarios.²

How does this impact education?

AI has the potential to impact many areas of education including: enhancing personalized support for teachers at scale, providing personalized learning, and improving learning and assessment quality



Implementing Safely

What are the different types of AI?

There are multiple types of AI including: Reactive, Predictive, and Generative (see [Appendix A](#)). Each of these types of AI mimic human intelligence in a different way, though they have a foundational process that is similar. Each AI utilizes a vast dataset to decipher patterns, predict decision-making patterns, and generate new data all based on this dataset.

How does AI use data? How can AI be used safely and effectively?

AI utilizes the data it has to make decisions. Sometimes this presents problems with bias and misinformation if the dataset is not accurate or equitable. Any tool with AI should be approved through Canyons School District's LearnPlatform to ensure data privacy. Just as any technology, AI should be utilized in partnership with educators who use it for educational practices that are aligned with CSDs instructional priorities and MTSS Framework.



Educational Learning

How can I utilize AI for myself and students to redefine my teaching practice?

AI tools have the potential to be incredibly impactful for education including by supporting the teacher work load and student creativity. The key is to utilizing this tool in a way that empowers learners and redefines teaching in new ways. You can utilize AI to personal learning, provide feedback, brainstorm lesson ideas, create instructional videos, and as a partner to help prepare to teach. The best teachers are those who do not allow technology to replace them, but partner in making a better space for student learning ([See Appendix E](#)).

How can I determine what tools to use?

Just as any other technology tool educators need to consider the impact that tool will have on the educational landscape of their classroom. All AI tools need to be approved through Canyons School District's LearnPlatform to meet data privacy requirements. If you don't see a tool, you can submit it for review online.



World Preparation

What strategies can I utilize to prepare students for the future?

To help prepare students for the future with AI, educators can utilize the following strategies:

- *Teach AI Fundamentals* - Utilize this guidebook to find common definitions and information to share with students and incorporate CSD's Digital Citizenship AI Lessons.
- *Develop Human Skills* - Critical thinking, problem solving, collaboration, empathy, and adaptability are all skills that AI cannot replace. These are skills that are necessary to be prepared for the workforce with AI.
- *Digital Citizenship* - Encourage responsible online behavior, and considerations of being a Digital Citizen when using AI.
- *Stay Up to Date* - Keep engaging and learning about AI to share accurate and relevant information with students.



VIEW of AI in Canyons for Students

Crucial Questions for Students

VALUE

- What is AI?
- How does it work
- How does this impact my future?

IMPLEMENTATION

- How can AI be used safely and effectively?
- How can AI have bias?
- How can AI be inaccurate?

EDUCATION LEARNING

- What AI tools can I utilize for myself and what guidelines should I follow?

WORLD PREPARATION

- How does AI prepare me for the future?

Additional Resources

- [How AI Works, Code.org \[Video\]](#)
- [How Neural Networks Work, Code.org \[Video\]](#)
- [Edutopia: Guiding Students to Assess the Merits of Artificial Intelligence Tools](#)
- [ISTE: What Educators - And Students - Can Learn from ChatGPT](#)



Value of Understanding

What is AI and how does it work?

"AI is a branch of computer science aimed at creating machines that mimic human intelligence.... like understanding language, recognizing patterns, or making decisions." ¹ AI developers train computers using datasets to solve problems. AI neural networks then extract information from those datasets to make decisions when they encounter new scenarios. ² (See Appendix A)

How does this impact my future?

AI has the potential to change the future. It is all around us and changing how we work, play, and learn! In the coming years you will need to understand how AI works to be able to navigate your future and be successful (See Appendix B)



Implementing Safely

How can AI be used safely and effectively?

It is important to know when using AI to keep being a positive Digital Citizen. Read and follow the guidelines, including age requirements. Be informed, be engaged, be alert!

How can AI have bias?

If the data has bias built within it, then AI only make data based decisions as this is what it "knows". For example, if a company wanted to hire people like it currently hires. Then the AI looked at the data and found the company only hired young people, this would be a bias (See Appendix C)

How can AI be inaccurate?

While AI is a great tool, it is making decisions using data. Sometimes this data can be flawed. For example, if the data said all cows were black and white, it would only know that cows are black and white. This would be a flawed, because we know in the real world that there are cows that are different colors.



Educational Learning

What AI tools can I utilize for myself and what guidelines should I follow?

It is important when you use AI to think of two questions: In using this AI, am I following positive Digital Citizenship practices for safe, responsible use? And, is how I am utilizing AI helping support my learning or is it learning for me?

To answer the first question above, as a positive Digital Citizen you should be informed and evaluate the information that you get from an AI for accuracy, perspective, and validity. Additionally, if using the AI in material you should source that information in the same way you would an a website or other source. You should also make sure that you are engaged, using the AI to solve problems, and as a force for good.

For the second question, ask yourself, does what I just learned help me create, collaborate, communicate, or be more creative? Or does it simply give me the answer? AI should be utilized as a tool that you partner with to elevate learning, rather than just have it giving you the right answer.



World Preparation

How does AI prepare me for the future?

AI can help prepare you for the future by helping you learn new skills, clarify understanding, gain knowledge, and allow you to apply critical thinking skills. In the future, you will be asked to partner with AI in the workplace and understand key skills that will help you know how to utilize AI to advance your career. Examples of how AI can help students prepare for the future include personalized training, increased skills, increased pace of problem-solving and critical thinking in every field. As AI continues to develop, we can expect to see even more innovative and effective ways to use AI to enhance education and change in this rapidly growing field. (See Appendix D)



VIEW of AI in Canyons for Families

Crucial Questions for Families

VALUE

- What is AI?
- How does it work?

IMPLEMENTATION

- What types of AI are available?
- How does AI use data?
- How can AI be used safely and effectively?

EDUCATION LEARNING

- What AI tools can I utilize to support my student(s) with their education?

WORLD PREPARATION

- How does AI prepare my students to be college and career ready?

Additional Resources

- [InternetMatters.org: A Parent's Guide to using AI with Kids](#)
- [DigitalParentingCoach.com: Parent's Guide to Artificial Intelligence \(AI\) and Chat GPT](#)
- [TED Talk: Education in the age of AI \(Dale Lane\)](#)
- [Canyons School District: Artificial Intelligence What? How? Why?](#)



Value of Understanding

What is AI? How does it work?

AI is "a branch of computer science aimed at creating machines that mimic human intelligence.... like understanding language, recognizing patterns, or making decisions." ¹To create an AI, "AI developers train computer programs [using data sets] to recognize patterns and tackle complex problems. In many cases machine learning algorithms called neural networks extract information from examples in the training data....Once a program has been trained on the data set it can then encounter new scenarios and start making predictions" ²



Implementing Safely

What types of AI are available? How does AI utilize data?

There are multiple types of AI including: Reactive (spam filter), Predictive (Netflix recommendations), and Generative (ChatGPT). (see Appendix A). Each of these mimics human intelligence in different ways. AI utilizes vast data sets for decision making, pattern searching, and idea generation. Sometimes this presents problems with bias and misinformation if the dataset is not accurate or equitable.

How can AI be used safely and effectively?

Check the Terms of Service and Privacy Policy for each tool that utilizes AI to see what you can legally do and not do, as well as how your data will be used. Independently verify the accuracy of information produced by AI. Make sure to give proper credit and cite sources when AI is used.



Educational Learning

How can I use AI tools to support my student(s) with their education?

First recognize that while generative AI is largely new to the public, reactive and predictive AI are already embedded into many things we already use. Some examples of how to use AI with school work and homework could be checking to see if the answer is correct with a math problem, check grammar and spelling for an essay, generating ideas for a science fair project, and setting up focus times for a study hour by managing device availability. AI can assist with family time activities such as finding a new recipe, planning a trip, or learning family history.



World Preparation

How does AI prepare my students to be college and career ready?

Thirty years ago, using personal computer for tasks such as communication (email), word processing (electronic documents), and data processing (spreadsheet) became vital skills to the workforce. Fifteen years ago, internet searches and internet advertising became critical for many industries. AI and automation will represent the next step in the evolution of technology for college and career readiness. Our students will need to be comfortable with AI assistance to: provide support for problem solving processes, rely on critical thinking skills rather than rote memorization that can be automated by AI, and critically evaluate information that is produced by AI. (See Appendix D)



Leadership Considerations

Additional Resources

- [ISTE: Bringing AI to School: Tips for School Leaders](#)
- [Office of Educational Technology: Artificial Intelligence and the Future of Teaching and Learning](#)
- [Canyons' Strategic Plan](#)
- [American Federation of School Administrators: Artificial Intelligence and Education](#)
- [TED Talk: Education in the age of AI \(Dale Lane\)](#)
- [ISTE: Artificial Intelligence in Education Resource Hub](#)

GUIDING QUESTIONS

When considering the VEW of AI in Canyons School District as an instructional leader, here are some guiding questions to consider as artificial intelligence issues come up. Please note: These questions may not have a straightforward answer at this time, but can guide conversation that occur as AI evolves.



Value of Understanding

- What are the fundamental principles and concepts of AI that educators, students, and families need to be aware of?
- What programs are already being used in your building/in the district that already use AI?
- What ethical considerations and potential biases should stakeholders be aware of when using AI in education?
- What are the latest advancements and trends in AI, and how might they influence decision making at a school and/or district level?



Implementing Safely

- What are the best practices for training educators and staff to use AI tools in the classroom?
- What measures should be in place to protect sensitive student data and privacy when using AI-powered educational tools and systems? What procedures and protocols are already in place at the building and/or district level?



Educational Learning

- How can AI be used to provide personalized learning experiences for students?
- What role can AI play in supporting students, including our special populations and multilingual learners?
- What resources and infrastructure exist and/or need to be developed to support AI implementation in Canyons School District?



World Preparation

- How does AI impact the current and future job market, and what skills will be in demand?
- What career guidance and counseling services can we offer to help students navigate AI-related career paths?
- How can we foster a culture of innovation and adaptability to ensure Canyons School District remains relevant in an AI-driven world?
- What opportunities are we providing students and families to learn about AI and related fields?



Additional Resources

Educators

- [Common Sense Education: Free Resources to Explore and Use](#)
- [ControlAltAchieve: 10 Questions for Student AI Guidelines](#)
- [ISTE AI Exploration for Educators](#)
- [Learning Tools for Teaching about Artificial Intelligence](#)
- [UNESCO - Artificial Intelligence in Education](#)
- [USU - AI Tools and Teaching](#)
- [ISTE- Artificial Intelligence in Education Resource Hub](#)

Families

- [Common Sense Media - Guide to ChatGPT for Parents and Caregivers](#)
- [Digital Parent Coach: A Parent's Guide to Artificial Intelligence and ChatGPT](#)
- [NetLiteracy.com - A Parent's Guide to Discussing AI](#)
- [Office of Educational Technology - Parent and Family Digital Learning Guide](#)
- [UNICEF.org - AI and Children: AI Guide for Parents](#)
- [ISTE- Artificial Intelligence in Education Resource Hub](#)

Leadership

- [EdTech Digest - Bringing AI to School](#)
- [Forbes - The Impact of Artificial Intelligence on Leadership](#)
- [ISTE - Bringing AI to School: Tips for School Leaders](#)
- [Learning Innovation Catalyst - AI for School & District Leaders](#)
- [ISTE- Artificial Intelligence in Education Resource Hub](#)

PLEASE NOTE:

The sources presented on this document are shared as reliable and valid sources that can be utilized for information. The inclusion of these sources does not mean that Canyons School District endorses all resources present on these sites.



SOURCES

- 1- *ISTE Mini ebook on AI, Bringing AI to Schools: Tips for School Leaders*
- 2- *Museum of Science, Boston*
- 3- *Stanford University, Human-Centered Artificial Intelligence*



APPENDICES

Appendix A: Types of AI and Common Usage

TYPES OF ARTIFICIAL INTELLIGENCE

WHAT ARE THE TYPES OF AI AND HOW DO THEY WORK?

Reactive
Responds to data (or inputs) without learning from that data.
EXAMPLES:
Adaptive Testing
Alexa
Chess.com

Predictive
Analyzes a data set to learn and predict future events or decisions.
EXAMPLES:
Netflix Suggestions
Auto-finish in Google Docs

Generative
Creates new content and generates ideas from learned data patterns.
EXAMPLES:
ChatGPT
Canva Text to Image

Appendix B: How Artificial Intelligence is All Around Us

ARTIFICIAL INTELLIGENCE IS ALL AROUND US

WHERE DO WE SEE AI IN OUR DAILY LIVES?

Chatbots

Smart assistants

E-Payments

Search algorithms

Media streaming

Smart cars

Navigation apps

Facial recognition

Text editors

Social media feeds



APPENDICES

Appendix C: How Can We Use AI to Support Students

HOW CAN WE HELP STUDENTS USE AI?

Help students become informed by considering the following:

- **INFORMED** - Information from AI can be biased, difficult to verify and sometimes inaccurate.
- **ENGAGED** - Information from AI can be used for good (brainstorming, problem-solving), but not to replace student thinking.
- **ALERT** - Be aware of age restrictions and how AI is using what you share.

Portrait of a Digital Citizen

Aspects of a Digital Footprint

I'm inclusive
I engage with others online with respect and empathy.

I'm informed
I evaluate the accuracy, perspective, and validity of online information. I give credit to other's work.

I'm engaged
I use technology for civic engagement, to solve problems and be a force for good.

I'm balanced
I make informed decisions about how to prioritize my time and activities online and off.

I'm alert
I am aware of my online actions, and know how to be safe and create safe spaces for others online.

How well does your digital footprint represent you?

#DigCitCanyon CANYONS

Appendix D: How AI is Changing the World [Video]

Artificial Intelligence AI



APPENDICES

Appendix E: Considerations for the Nuances & Complexity of AI

It is important to remember that while ideas presented here are simplified, for ease of understanding, the integration of Artificial Intelligence (AI) can be filled with nuance and complexity. We recognize there is always more to understand, and that in simplified models some intricacy can be lost. We also recognize because AI is an evolving technology that this guide will need to evolve with it. This means that what is published here may become quickly outdated, and as part of the process of integration, there will be regular updates to this guide. The current version may be viewed on the page i of the guide, with updates tracked in this Appendix E throughout the process.

- Version 1 - September 2023
 - Original publishing after review from the Digital Teaching & Learning Team, ISD Administrators & CSD Cabinet Members.

Appendix F: Approved Programs within Canyons School District that Utilize Forms of AI

- Adobe
- Canva
- DreamBox
- GoogleSuite Products
- iReady
- Lexia
- RISE Testing
- Utah Compose

With how AI evolves, how these programs utilize AI may change quickly. To find out more information please visit these program websites.



APPENDICES

Appendix G: Glossary of Terms

- **Algorithm**
 - "A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer" - Oxford Dictionary
- **Artificial Intelligence**
 - "AI is a branch of computer science aimed at creating machines that mimic human intelligence. It's used to perform tasks that usually require human thought, like understanding language, recognizing patterns, or making decisions." - ISTE Mini ebook on AI, Bringing AI to Schools: Tips for School Leaders
- **Digital Citizenship**
 - The ability to recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world; acting and modeling in ways that are safe, legal and ethical in online digital spaces.
- **Generative AI**
 - Creates new content and generates ideas from learned data patterns, such as with ChatGPT, text to image in Canva, or video creation features in AdobeExpress.
- **LearnPlatform**
 - The Learn Platform is a website designed to support educators and other stakeholders in knowing which apps, websites, and extensions have been reviewed for use in Canyons School District. Technology tools will be approved through Learn Platform if they follow FERPA, CIPA, and COPPA.
- **Neural Network**
 - Neural networks, also known as artificial neural networks (ANNs), are at the heart of AI as the algorithms that power it. Neural networks are named and structured after the pattern of a human brain, mimicking the way biological neurons signal to one other. It is this signaling method that is used to process data in a way similar to humans. Neural networks rely on training and data to learn and improve over time. - IBM, What Are Neural Networks?
- **Predictive AI**
 - Analyzes a data set to learn and predict future events or decisions, such as Netflix suggestions or automatically suggesting or finishing a sentence.
- **Reactive AI**
 - Responds to data (or inputs) without learning from that data, such as adaptive testing, Chess.com, or Alexa.

