



# AI For Education

ABS IT Department

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# What is Artificial Intelligence?

# AI is:

- Online and in-store shopping
- Robotic tractors, precision agriculture
- Warehouse Fulfillment
- Credit Card Fraud Protection
- Insurance Rates
- NASA images from space
- Text to Speech
- Foreign Language Translation
- Mapping and Navigation

**It is in all of our lives and industries.**

# AI is NOT:

- Alive
- Smarter than us
- Killer robots
- Only for geniuses
- Only for people in tech cities
- Always physical. It is inside our computer software and phone apps.

**And it is not going away.**

# Education with AI is:

- Personalized learning: More practice problems for struggling students, more advanced concepts for students who are ahead
- Differentiation in seconds
- Increased student persistence
- Handwriting conversion to digital
- Text to speech, speech to text
- Language Translation

# Education with AI is NOT:

- Replacing teachers
- Going to solve every problem
- One more thing that needs to take a lot of time for busy educators
- Another subject that must be separate from other subjects

# AI Literacy

The knowledge, skills, and attitudes associated with how artificial intelligence works, including its principles, concepts, and applications, as well as how to use artificial intelligence, such as its limitations, implications, and ethical considerations.

How to Use + How it Works

AI Literacy + Computer Science

With AI Literacy, I CAN:

- Personalize my learning
- Assess safety and privacy with apps and data sharing
- Properly cite AI usage when writing or creating
- Prepare for the future of work
- Act as an informed citizen

With AI/CS integration, I CAN:

- Collect data responsibly
- Break down complex problems
- Analyze data critically
- Identify patterns and trends
- Evaluate the effectiveness of solutions
- Ethically evaluate AI systems to minimize bias

# Generative AI



**Generative AI:** Tools that create text, images, code, and sound based on vast datasets.

Generative AI tools such as Bard, Bing, and ChatGPT, are trained on massive amounts of data to recognize patterns and relationships between words, images, sounds and code. They use that understanding to generate brand-new, original, often creative outputs customized to the prompts users provide.



# What If We Do Nothing?

The American Baccalaureate School  
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# Will AI Widen the Digital Divide?

## Old Digital Divide

Computers in  
Schools, High Speed  
Internet,  
1:1 devices...



## New Digital Divide

Who is empowered  
to learn with and  
about AI

# Types of Questions about AI in Education

Risk

Opportunity

Present

**“How do we stop kids from cheating?”**

**“How can we use AI tools to improve education?”**

Future

**“Will AI replace teachers?”**

**“How can we rethink education in an age of AI?”**

# Science and AI: Literacy to Career

## Understanding

All students learn about scientific concepts that shape our world.

All students need to use technologies safely and make positive choices for themselves.

## Application

Most people apply this knowledge to understand the weather forecast and other common phenomena in their work and home lives.

Most students will need to know how to apply AI technologies in life and career.

## Career

Only a few people become scientists.

Only a few people become AI developers.

# Science and AI: Literacy to Career

## Top 10 jobs involving AI skills

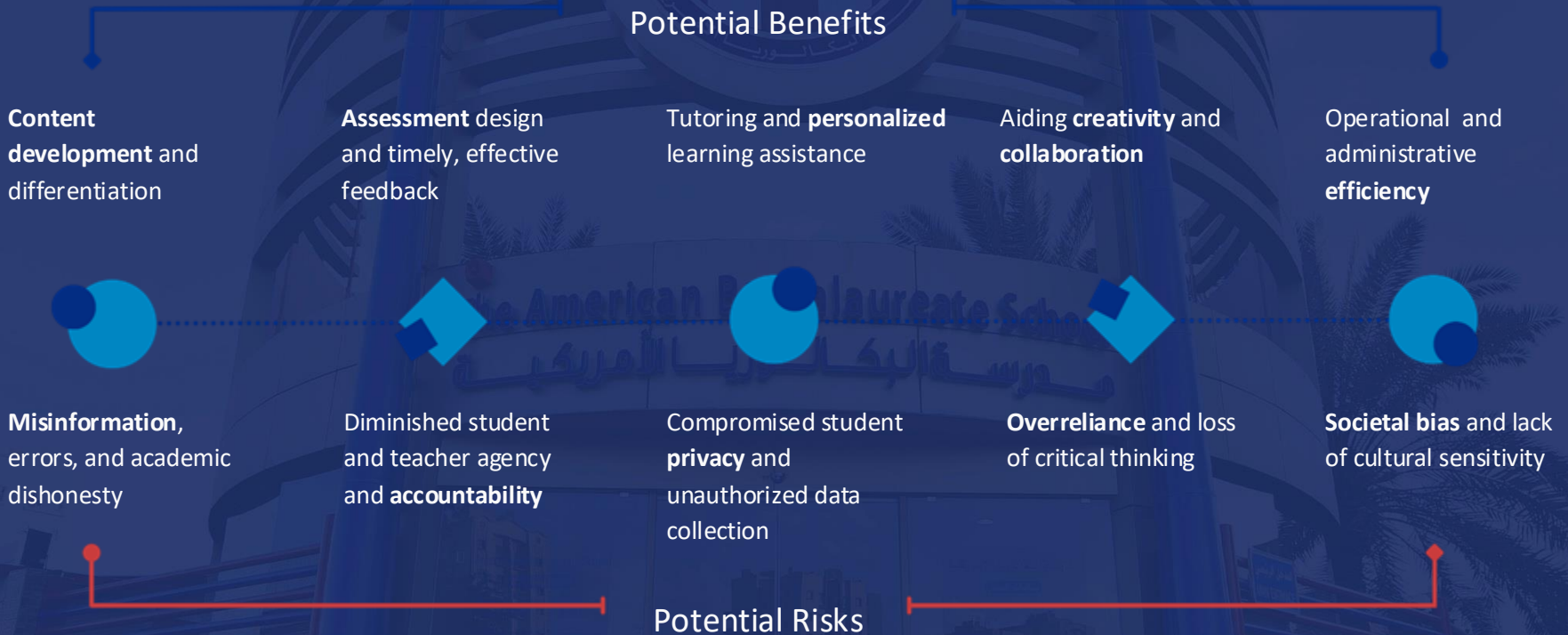
Top jobs seeking artificial intelligence or machine learning skills

Rank	Job	% of job descriptions that contain artificial intelligence or machine learning	% of jobs open after 60 days
1.	Machine learning engineer	94.2%	40.8%
2.	Data scientist	75.1%	33.0%
3.	Computer vision engineer	64.6%	45.2%
4.	Algorithm engineer	37.4%	48.6%
5.	Principal scientist	28.8%	46.4%
6.	Computer scientist	27.6%	63.8%
7.	Research engineer	24.3%	44.1%
8.	Statistician	24.0%	29.0%
9.	Director of analytics	23.3%	34.5%
10.	Data engineer	22.1%	34.8%



# AI Benefits and Risks

# Potential Benefits & Risks of Using AI in Education



# Benefits and Related Risks of AI in Education

## Benefits

- ✓ Personalized learning
- ✓ Access to high-quality education
- ✓ Efficiency and productivity
- ✓ Predictive analytics
- ✓ Engaging learning experiences
- ✓ Lifelong learning and upskilling

## Risks

- ✓ School is more than content
- ✓ Still dependent on infrastructure
- ✓ Dependence on AI tools
- ✓ Bias and standardized processes
- ✓ More screen time

# Risks and Related Benefits of AI in Education

## Risks

- ✓ Loss of jobs
- ✓ Loss of creativity
- ✓ Lack of personalized interaction
- ✓ Access and inequality
- ✓ Learning without understanding
- ✓ Privacy and confidentiality

## Benefits

- ✓ Reduce teacher shortage
- ✓ Less burdens = more creativity
- ✓ Time for human relationships
- ✓ 24/7 access to personal tutor
- ✓ Learning at the highest levels
- ✓ Current laws cover most issues



# Steps for Implementing AI

# AI Roles and Responsibilities in Education

## Superintendent

- Drives innovation
- Provides guidance
- Engages in policy
- Approves resources

## Principal

- Implements education system's requirements
- Supports teachers
- Provides guidance to families

## IT Department

- Gives technical guidance
- Reviews software
- Authorizes access
- Ensures privacy and security


## Teacher

- Implements policy
- Instructs student AI use
- Ensures academic integrity and ethical applications
- Uses AI to support instruction

# Sample Student Agreement for AI Use

AI can help me learn better and is important for my future, so I promise to use it the right way and make smart choices.

1. I will use AI tools responsibly and will not use AI in a way that could harm myself or others.
2. I will only use AI to support my learning and will follow my school's rules and teacher's instructions on when and how to use AI on an assignment.
3. I will be honest about when I use AI to help with assignments, and I will not turn in work that is fully created by an AI as my own.
4. If I use AI, I will review its work for mistakes.
5. I will check with my teacher when unsure about what is acceptable.

 Sample language when reviewing your class syllabus: AI tools may be used for brainstorming or preliminary research, but using AI to generate answers or complete assignments without proper citation or passing off AI-generated content as one's own is considered plagiarism.