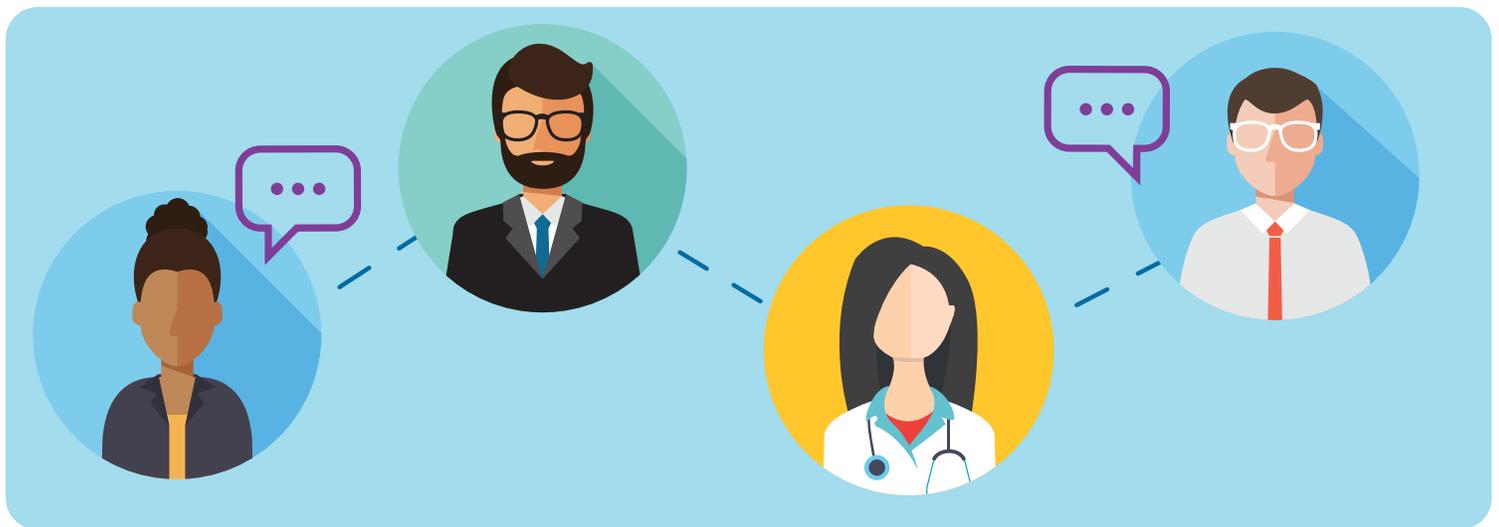# Community Voices: Evaluating AI Risks and Rewards

Grade Levels: 6-12
Duration: 75 min

Students will take on the roles of community stakeholders and determine whether or not they would vote for or against adopting AI solutions to community issues. Then they will be given information about what happened in their community six months later and decide whether to have a revote and make changes.

Outline

Frame the Activity	10 min
Activate Prior Knowledge	5 min
Introduce the Activity	5 min
Community Voices: Round 1	**30 min**
First Meeting of the Advisory Committee	20 min
Shareout Voting Decisions	10 min
Community Voices: Round 2	**35 min**
Second Meeting of the Advisory Committee: 6 Months Later	15 min
Shareout	10 min
Debrief	10 min

Grade Levels: 6-12

Duration: 75 min

Concepts/Skills
Artificial Intelligence, community planning, cost-benefit analysis, critical thinking

Objectives
Students will:
- Explore the potential costs and benefits of using AI solutions for community issues.
- Consider the perspectives of multiple community members by having students taking on the role of community stakeholder personas.
- Use critical thinking to analyze their voting decisions based on new information.

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Materials and Preparation

Materials

☐ **Community Stakeholders Handout** *(1 per team)*

☐ **6 Months Later Handout** *(1 per team)*

☐ Pens or pencils

Preparation

1. Print out the handouts.
2. Set up the **Round 1 Advisory Committee Votes table** (see below) on a whiteboard or chart paper.
3. Try out the activity yourself, with other educators or students you know. This will give you practice with the resources so that you can anticipate student questions.

Advisory Committee Voting

Name	Public Health	Environment	Budget Cuts
Dr. Ellen Suzuki	Yes No	Yes No	Yes No
Alex Moreno	Yes No	Yes No	Yes No
Jordan Shah	Yes No	Yes No	Yes No
Tasha Wallace	Yes No	Yes No	Yes No
Evelyn Brooks	Yes No	Yes No	Yes No
Mira Cruz	Yes No	Yes No	Yes No

Frame the Activity

Activate Prior Knowledge *(5 min)*

1. Start by having learners think about places they see **artificial intelligence** (AI) in their daily lives.
   - *Does the AI make these tasks easier or smoother?*
   - *Are there additional problems that using the AI tool can potentially create?*
2. Now ask the learners to name some issues in their community (traffic, environmental issues, etc.).
   - *Could using AI tools be an effective solution for some of these situations?*
   - *How might members of a community decide whether or not to use AI tools to help with these issues?*
3. Let them know that they will have a chance to examine some of these issues from the perspectives of the different people in a community who might be affected by the decisions.

Introduce the Activity *(10 min)*

1. Introduce the scenario:

   > You are taking on the roles of representatives on the Advisory Committee for AI Adoption for your city. There are currently multiple proposals for incorporating AI into the city's public services. Your job is to review the proposals, consider how your representative would respond and vote whether or not to adopt each of the AI proposals.

2. Show learners the **Community Stakeholders Handout.**
   - Introduce these stakeholders as profiles or stakeholders of people who are representing the community. They will be voting whether or not to adopt an AI solution for three separate community issues.
   - Emphasize that they will be deciding how they think their stakeholder would vote, not how they would personally vote. They will base their decision on:
     – The information given.
     – Their group discussion.
3. Point out the **Round 1 Advisory Committee Votes table** on the white board or chart paper. Let them know that when the time is up, they will need to:
   - Come to the table and show how they voted on behalf of their stakeholder by checking the yes or no boxes.
   - Be ready to explain why they made their choice on behalf of their stakeholder for each issue.

   > **Stakeholders**
   > Stakeholders are people who are interested in or affected by a course of action. In this activity, the stakeholders will make up a committee that determines whether or not to make changes to city planning through **majority voting.**

Community Voices: Round 1

First Meeting of the Advisory Committee *(20 min)*

1. Have learners get into teams of 3–4.
2. Pass out the **Community Stakeholders Handouts**.
   - Try to distribute stakeholders evenly between teams before repeating them.
   - Ask learners to spend a couple minutes reading through their stakeholder's information and the community issues independently before starting their discussion.
3. While teams are discussing how their stakeholder might vote, support teams with open ended **Guiding Questions**:
   - *Would using AI tools address some or all of your stakeholders goals?*
   - *What kinds of risks would concern your stakeholder about adopting the AI? Would your stakeholder think the risks are worth the potential benefits?*

4. Remind teams as needed to put their votes on the **Round 1 Advisory Committee Votes table** once they have made their decisions.

5. Bring the whole class back together when either the time is up or all teams have recorded their votes.

Share-out Voting Decisions *(10 min)*

1. Briefly discuss each issue by asking for volunteers to share why they voted yes or no on behalf of their stakeholder.
   - *How did your choices compare to the other Community Stakeholder representatives?*
   - *What were the most important factors in making your decision on how to vote?*
   - *Was there other information you wish you'd had?*

2. Add up votes to determine whether the city would adopt the AI solution for each issue or not.

> ### Adaptation
> **Partial Adoption:** Students may want to only vote for some parts of the AI solution for each issue. Consider allowing students to determine which aspects of the solution(s) to adopt rather than just voting yes or no. During **Round 2,** ask students to consider whether they would have different results than what is in the handout.

Community Voices: Round 2

Second Meeting of the Advisory Committee: 6 Months Later *(20 min)*

1. Next, let the class know that they are now going to explore what happened 6 months after they voted to adopt or not adopt the AI. They will need to:
   - Read each scenario to learn what happened after they voted.
   - Discuss with their team whether their stakeholder would change their decision if the Advisory Committee was able to have a revote.

2. Pass out a **6 Months Later handout** to each team. Let them know they will not need to record their decisions on a table this time, just be ready to discuss if their stakeholder would change any of their votes.

3. Continue to support teams with open-ended **Guiding Questions**:
   - *Do you think the outcomes from adopting or not adopting the AI make it worth continuing?*
   - *What factors about the outcomes would be especially important to your stakeholder?*

4. Bring the class back together when the time is up.

Share Solutions *(10 min)*

1. Briefly discuss each issue once again by asking for volunteers to share their decisions.
   - *Did you choose to have a revote on any of the issues? Why or why not?*
   - *What kind of factors were significant in your decision making?*
   - *Was there other information you wish you'd had about the outcomes and their effect on citizens?*

Debrief *(10 min)*

1. After students share their decisions, lead a short debrief with some of these questions. Possible **Debrief Questions** include:
   - *What was challenging to make decisions on behalf of a stakeholder rather than yourself?*
   - *What do you think is important when considering whether to incorporate AI solutions for community issues?*
   - *Do you see places where these AI solutions may have affected some people differently than others? How do we prioritize equity?*

Standards Connections

Next Generation Science Standards		
Grades	**Standard**	**Description**
3-5	PS2-1	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.
MS	ETS1-1	Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
	PS2-2	Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.
HS	PS3-3	Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy
	ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.
Related Standards		
Science and Engineering Practices	Asking Questions and Defining Problems Planning and Carrying Out Investigations	
Cross Cutting Concepts	Patterns Cause and Effect	

Vocabulary

Term	Definition
Artificial intelligence	Most often refers to a device or program designed to mimic aspects of human intelligence to complete complex tasks and make decisions
Persona	A fictional character that represents a certain demographic of a target audience
Stakeholder	A person with interest in an issue or someone who is affected by a course of action
Majority voting	Voting that requires an issue to receive over half the total votes to be adopted

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Advisory Committee Voting

Name: _____

Date: _____

Below is the community stakeholder stakeholder you are representing. Read and discuss each community issue and the suggested AI solution on the back. Consider how you think your stakeholder would vote based on their profile.

Before you vote on behalf of your stakeholder, think about how these issues could potentially affect other citizens in your community:

- What would be the benefits?
- What are the risks?
- Who is helped or harmed?

Community Stakeholder

Dr. Ellen Suzuki
Public Health Director

Dr. Suzuki's Opinions about AI

Dr. Suzuki is excited that AI could shorten the amount of time her patients have to wait to get care, and help her to know early on when an outbreak is happening.

At the same time, she worries that AI might not protect her patients' privacy. She wants her patients to be able to consent to their information being used. She also worries that the AI might have some biases, depending on how well it was trained on specific groups of patients.

Priorities:

- Improving efficiency
- Reducing human error
- Expanding access to healthcare

Issue 1: Public Health

A sudden outbreak of the flu has overwhelmed local hospitals. AI can bring together and analyze different large data sets to help health workers make decisions.

To slow the outbreak, policymakers want to link data tracking viruses in wastewater with people's vaccination records. This will allow health workers to quickly forecast where the flu might hit hardest. Some are worried about privacy, however, and the need to ask patients permission before putting their data into the AI.

Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

Issue 2: Environment

Some of the city's neighborhoods have overflowing garbage cans and litter in the streets, while others stay clean.

Using sensors on trash bins that signal when they are full, AI can set trash pickup routes that respond to greatest need. But the AI also uses data from past cleanup schedules in predicting where pickups are needed. This data might make the new routes unfair, repeating existing inequalities.

Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

Issue 3: City Budget Cuts

The city has to cut 10% of its budget from the previous year.

AI can reduce costs by automating city services and administrative tasks, but this will result in some city workers losing their jobs. It be challenging to transition remaining staff onto this new technology.

Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

Advisory Committee Voting

Name:_____

Date: _____

Below is the community stakeholder stakeholder you are representing. Read and discuss each community issue and the suggested AI solution on the back. Consider how you think your stakeholder would vote based on their profile.

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- What would be the benefits?
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- Who is helped or harmed?

Community Stakeholder

Alex Moreno
High School Teacher

Alex Moreno's Opinions about AI

Alex believes that AI tutors could help struggling students to learn at their own pace. He also thinks that automated grading could reduce the workload of teachers like him who struggle with burnout.

But he also fears that students could start to rely on AI for quick answers and lose some of their critical thinking skills. He wonders: should AI really be used on young people? And he knows that AI explanations are sometimes not accurate.

Priorities:
- Protect students
- Keep things fair for students
- Manage their amount of work

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Vote: **Why did your stakeholder choose to vote yes or no?**

      Yes

      No

Issue 2: Environment

Some of the city's neighborhoods have overflowing garbage cans and litter in the streets, while others stay clean.

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Vote: **Why did your stakeholder choose to vote yes or no?**

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Advisory Committee Voting

Name:_____

Date: _____

Below is the community stakeholder stakeholder you are representing. Read and discuss each community issue and the suggested AI solution on the back. Consider how you think your stakeholder would vote based on their profile.

Before you vote on behalf of your stakeholder, think about how these issues could potentially affect other citizens in your community:

- What would be the benefits?

- What are the risks?

- Who is helped or harmed?

Community Stakeholder

Evelyn Brooks
Visual Artist

Evelyn Brooks' Opinions about AI

Evelyn is intrigued with the idea that AI could be used for preliminary tasks like concept sketching. It also could be useful for things she knows less about, like marketing or developing business plans.

At the same time, she resents the fact that AI models often train on artists' work without asking permission or compensating them. She worries that it will be harder to make a living as an artist if AI-generated art made for free devalues human-made work.

Priorities:
- Protect original artistic expression
- Preserve human creativity and cultural meaning

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      No

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Advisory Committee Voting

Name:_____

Date: _____

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Before you vote on behalf of your stakeholder, think about how these issues could potentially affect other citizens in your community:

• What would be the benefits?

• What are the risks?

• Who is helped or harmed?

Community Stakeholder

Jordan Shah
Small Business Owner

Jordan Shah's Opinions about AI

Jordan is interested in using AI to predict demand for his small business goods and automate his bookkeeping. This could potentially help him compete with big corporations.

At the same time, he worries that integrating AI will be costly. It also could mean that he would have to fire some of his current staff.

Priorities:
• Cutting costs
• Increasing competitiveness

Issue 1: Public Health

A sudden outbreak of the flu has overwhelmed local hospitals. AI can bring together and analyze different large data sets to help health workers make decisions.

To slow the outbreak, policymakers want to link data tracking viruses in wastewater with people's vaccination records. This will allow health workers to quickly forecast where the flu might hit hardest. Some are worried about privacy, however, and the need to ask patients permission before putting their data into the AI.

Vote: **Why did your stakeholder choose to vote yes or no?**

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Vote: **Why did your stakeholder choose to vote yes or no?**

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The city has to cut 10% of its budget from the previous year.

AI can reduce costs by automating city services and administrative tasks, but this will result in some city workers losing their jobs. It be challenging to transition remaining staff onto this new technology.

Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

Advisory Committee Voting

Name:_____

Date: _____

Below is the community stakeholder stakeholder you are representing. Read and discuss each community issue and the suggested AI solution on the back. Consider how you think your stakeholder would vote based on their profile.

Before you vote on behalf of your stakeholder, think about how these issues could potentially affect other citizens in your community:

• What would be the benefits?

• What are the risks?

• Who is helped or harmed?

Community Stakeholder

Tasha Wallace
Environmental Engineer

Tasha Wallace's Opinions about AI

Tasha is interested in using AI to model environmental impacts and improve energy use. She also thinks it could help solve climate issues by predicting the risk of flooding and wildfires.

On the other hand, she is concerned that AI uses too much energy and requires checks to make sure that it is analyzing data properly.

Priorities:
• Sustainability
• Long term planning

Issue 1: Public Health

A sudden outbreak of the flu has overwhelmed local hospitals. AI can bring together and analyze different large data sets to help health workers make decisions.

To slow the outbreak, policymakers want to link data tracking viruses in wastewater with people's vaccination records. This will allow health workers to quickly forecast where the flu might hit hardest. Some are worried about privacy, however, and the need to ask patients permission before putting their data into the AI.

Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

Issue 2: Environment

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Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

Issue 3: City Budget Cuts

The city has to cut 10% of its budget from the previous year.

AI can reduce costs by automating city services and administrative tasks, but this will result in some city workers losing their jobs. It be challenging to transition remaining staff onto this new technology.

Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

Advisory Committee Voting

Name:_____

Date: _____

Below is the community stakeholder stakeholder you are representing. Read and discuss each community issue and the suggested AI solution on the back. Consider how you think your stakeholder would vote based on their profile.

Before you vote on behalf of your stakeholder, think about how these issues could potentially affect other citizens in your community:

- What would be the benefits?
- What are the risks?
- Who is helped or harmed?

Community Stakeholder

Mira Cruz
Youth Activist Leader

Mira Cruz's Opinions about AI

Mira believes that AI could help expose patterns of inequality, such as school funding gaps and housing access. The way that AI can analyze large volumes of public feedback and social media to highlight youth concerns makes it a useful tool.

She also worries, however, that AI systems can be biased and can lead to discrimination against youth, particularly from underserved communities. She is concerned that AI systems might replace vital youth supports, such as counselors or mentors, but be less effective.

Priorities:
- Support young people in having a voice in decisions that shape their future.
- Prevent systems that create inequality.

Issue 1: Public Health

A sudden outbreak of the flu has overwhelmed local hospitals. AI can bring together and analyze different large data sets to help health workers make decisions.

To slow the outbreak, policymakers want to link data tracking viruses in wastewater with people's vaccination records. This will allow health workers to quickly forecast where the flu might hit hardest. Some are worried about privacy, however, and the need to ask patients permission before putting their data into the AI.

Vote: **Why did your stakeholder choose to vote yes or no?**

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No

Issue 2: Environment

Some of the city's neighborhoods have overflowing garbage cans and litter in the streets, while others stay clean.

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Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

Issue 3: City Budget Cuts

The city has to cut 10% of its budget from the previous year.

AI can reduce costs by automating city services and administrative tasks, but this will result in some city workers losing their jobs. It be challenging to transition remaining staff onto this new technology.

Vote: **Why did your stakeholder choose to vote yes or no?**

Yes

No

6 Months Later

Name:_____

Date: _____

Below are the outcomes of the voting decisions six months later. Decide whether you think your stakeholder would change their vote based on the results.

Issue 1: Public Health

Voted Yes: The doctors and administrators had additional time to see more patients. However, the hospital in a nearby city suffered a huge data breach, resulting in the exposure of citizen's medical data.

Voted No: Continued long wait lines, especially in county hospital that serves more vulnerable communities.

Change your vote?   **Why did your stakeholder choose to change or keep their vote?**

Yes

No

Issue 2: Environment

Voted Yes: AI helped identify some intersections that needed additional alerts like signals and signage. However, it also issued incorrect traffic warnings on a few occasions, resulting in huge traffic pile ups.

Voted No: Traffic continued to be an issue. Several accidents were reported.

Change your vote?   **Why did your stakeholder choose to change or keep their vote?**

Yes

No

Issue 3: City Budget Cuts

Voted Yes: AI was able to save their city significant funding, but it resulted in the termination of 50 city jobs.

Voted No: City was over budget by $$. The state is now monitoring the city's spending budget, resulting in additional steps for spending money and slowing down hiring.

Change your vote?   **Why did your stakeholder choose to change or keep their vote?**

Yes

No