AI for Humanity | Module 2 | Lesson 4

# Your Data, Your Story: Navigating AI and Your Online Identity

Middle School & High School

## AI, Big Data & Global Goals

### Overview & Purpose

AI doesn't just shape individual experiences—it influences entire societies. From predicting disease outbreaks to supporting climate solutions, big data and AI are transforming how we address global challenges. By understanding how collective data contributes to these efforts, students can see themselves as part of a worldwide network of digital citizens who help (and sometimes unintentionally hinder) progress toward the UN Sustainable Development Goals (SDGs).

### Objectives

Students will:

1. Understand how AI and big data are used to tackle global issues like climate change, health, and equality.
2. Explore how individual and collective data can contribute to both positive and negative global outcomes.
3. Evaluate the ethical considerations of using big data and AI for global decision-making.
4. Reflect on their potential role in using technology responsibly to support global good.

### Materials Needed

1. AI for Global Good Map (found of page 6)
2. Projector or Smart TV
3. Internet access or printed case studies
4. Chart paper or digital whiteboard

### Assessment

Students will demonstrate understanding by:

1. Explaining how AI and big data connect to one or more SDGs.
2. Identifying both benefits and risks of using AI for global problem-solving.
3. Proposing one responsible action or ethical guideline for AI systems working toward social good.

## Warm-Up - 5 minutes

| Teacher Will | Students Will |
| --- | --- |
| **1.** Display a current example of AI in action for global good, such as:<br><br>• Predicting the spread of wildfires<br>• Tracking endangered species<br>• Improving access to healthcare in underserved areas | **1.** Respond in pairs or small groups. |
| **2.** Ask:<br><br>*How might the same data that helps solve one global problem create challenges or risks in another area?* | **2.** Share examples of both benefits and concerns related to the use of big data and AI.<br><br>Possible student answers:<br><br>• *AI can track pollution, but it also collects location data that might be misused.*<br>• *Big data can find solutions, but sometimes the people providing the data never benefit from it.* |

## Introduction - 25 minutes

| Teacher Will | Students Will |
| --- | --- |
| **1.** Explain:<br><br>*AI systems depend on massive datasets from around the world—images, health data, social media posts, satellite data, and more. These systems can accelerate progress on the UN's 17 Sustainable Development Goals (SDGs).* | **1.** Listen, summarize definitions, and respond to questions. |
| **2.** Introduce key terms:<br><br>**Big Data** – Extremely large datasets that can be analyzed to reveal patterns and trends.<br>**Algorithmic Bias** – When AI systems produce unfair results due to biased or incomplete data.<br>**AI for Good** – The intentional design of AI to solve social, economic, or environmental challenges. | **2.** Discuss examples where AI could be helpful—or harmful—if applied globally.<br><br>Possible student responses to guiding questions<br><br>• *AI could use big data to model possible futures — like how rising temperatures will affect farming or wildlife.*<br>• *If some people aren't included in the data, the AI might make unfair or inaccurate predictions.*<br>• *AI should always protect people's privacy and not collect more data than needed.*<br>• *Fairness — AI should treat all people and countries equally.* |
| **3.** Ask guiding questions:<br><br>• *How could AI use data to make global decisions?*<br>• *What might happen if some people's data is missing or misrepresented?*<br>• *What values should guide how AI is used to solve global issues?* | |

# Discovery Activity: AI for Global Good Map - 20 minutes

| Teacher Will | Students Will |
| --- | --- |
| **1.** Divide the class into small groups and distribute the AI for Global Good Map (found on page 6). | **1.** Collaborate to complete the handout. |
| **2.** Assign each group one SDG focus area, such as:<br>• Climate Action (SDG 13)<br>• Zero Hunger (SDG 2)<br>• Good Health and Well-Being (SDG 3)<br>• Quality Education (SDG 4)<br>• Life Below Water (SDG 14) | **2.** Discuss both benefits and tradeoffs of their assigned AI project. |
| **3.** Instruct each group tp research or review a brief case study (provided and selected online).<br>Examples:<br>• **BlueDot** – uses AI to track disease outbreaks.<br>• **PlantVillage Nuru** – detects crop diseases using image recognition.<br>• **Wildbook** – uses facial recognition to identify and protect wildlife.<br>• **ClimateAI** – predicts climate-related agricultural impacts. | **3.** Present one takeaway on how global AI systems depend on everyone's data—and everyone's choices. |
| **4.** Instruct groups to map out the following on their handout:<br>• What data does the AI system rely on?<br>• Who provides or generates the data?<br>• Who benefits? Who might be left out?<br>• What ethical or social concerns exist?<br>• How could this technology be improved? | |

| Teacher Will | Students Will |
| --- | --- |
| **5.** Invite groups to share highlights from their findings. | |

## Closure - 5 minutes

| Teacher Will | Students Will |
| --- | --- |
| **1.** Facilitate a brief discussion using these reflection prompts:<br>• *How is your data connected to global systems you didn't realize?*<br>• *What responsibility do individuals, companies, and governments share in ensuring AI supports human well-being?* | **1.** Respond to prompts and share their sentence. |
| **2.** Ask students to complete the sentence on a sticky note or digital board:<br>*AI should be used for good by...* | **2.** Reflect on their role as global digital citizens who influence the direction of AI and big data. |
| **3.** Summarize the key idea:<br>*Every digital action—small or large—feeds into a global network of data that shapes the world. The challenge for this generation is to ensure that network is used ethically and equitably.* | |

# AI for Global Good Map

**Purpose:**
To explore how AI systems use global data to support the UN Sustainable Development Goals (SDGs) — and to analyze both the benefits and ethical challenges that come with them.

---

**Part 1: Project Overview**

**AI Project / Case Study Name:** _____
**Connected SDG(s):** _____

**Brief Description:**
Summarize in 2–3 sentences what this AI system does and what global challenge it aims to solve.

---

---

---

**Part 2: Mapping the Data Flow**

| Data Question | Your Group's Findings |
|---|---|
| What *types of data* does this AI system collect or use? (e.g., satellite images, user input, social media, sensors) | |
| Where does the data *come from*? (Who provides it — people, governments, organizations, devices?) | |
| How does AI *analyze or learn* from the data? (Pattern recognition, prediction, recommendation, etc.) | |
| Who *benefits* most from this system? | |
| Who *might be left out* or negatively affected? | |

**Part 3: Benefits & Risks**

| Potential Benefits | Possible Risks or Challenges |
|---|---|
| e.g., Improves health outcomes, protects wildlife, reduces waste | e.g., Data privacy concerns, biased training data, limited access |

**Part 4: Ethical & Human Impact Questions**

Discuss these as a group and record your main ideas below.

1. What values should guide how this AI system is designed and used?

   _____

2. How could this system be improved to make it fairer or more inclusive?

   _____

3. What responsibilities do **you**, as a digital citizen, have in the data ecosystem that powers AI for global good?

   _____

**Part 5: Reflection & Takeaway**

**Complete the sentence:**

*AI should be used for good by...* _____

_____