

Automation for Good

Learn how to use automation tools for social good

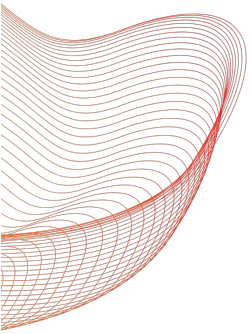


Introduction to Automation for Good

Automation is becoming increasingly prevalent in today's world.

While some worry about potential job loss and other negative effects, there are many ways automation can be used for good.

We will explore what automation is, how it can be used for social good, and some examples of automation being used to make a positive impact.





What is Automation?

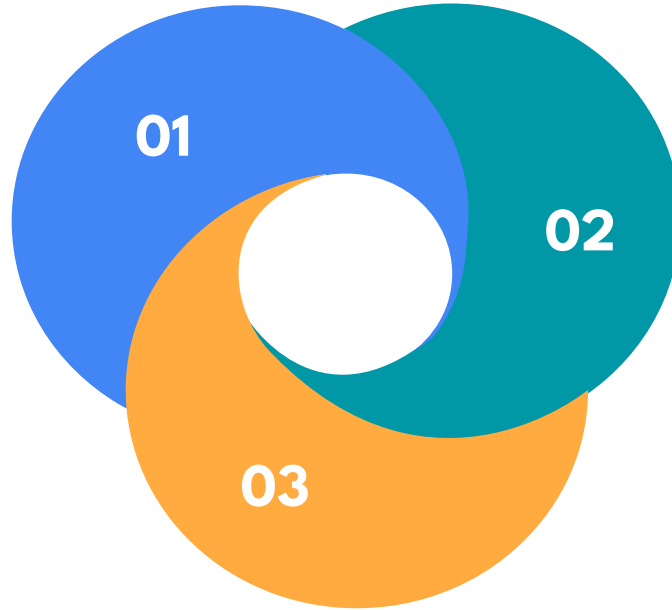
- Automation involves using technology to perform tasks automatically without human intervention.
- This can range from simple tasks like sorting emails to more complex ones like driving a car.
- Recent advances in artificial intelligence and robotics have made automation more powerful and versatile than ever before.



Automation for Social Good

Automation has the potential to improve people's lives in many ways.

There are countless examples of automation being used for social good.



It can increase efficiency, improve safety, and enhance accessibility.



Examples of Automation for Good

- Water.org uses a mobile app to automate loan applications for people in developing countries who lack access to clean water and sanitation.
- Drones are used for humanitarian aid delivery.
- The National Kidney Registry uses an AI-powered algorithm to match kidney donors with patients who need transplants.

Carol Gilligan
Response
Attending
Community
Context
CARE
ETHICS
Relationships
Situational
Responsibility
Relational
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Ethics of Automation for Social Impact

- 01** We will explore the ethical considerations of automation and how it can be used in ways that benefit society while minimizing harm.
- 02** While automation has the potential to make a positive impact on society, it's important to consider the ethical implications of its use.



Ethical Considerations of Automation

- There are several ethical considerations to keep in mind when implementing automated systems.
- These include bias, privacy, autonomy, and job displacement.



Mitigating Harm and Maximizing Benefits

- 01** Strategies include using diverse data, implementing strong privacy protections, providing transparency, prioritizing human oversight, and investing in retraining.
- 02** To ensure that automation is used in a way that maximizes benefits while minimizing harm, it's important to address these ethical considerations.





Ethical Dilemmas and Trade-offs

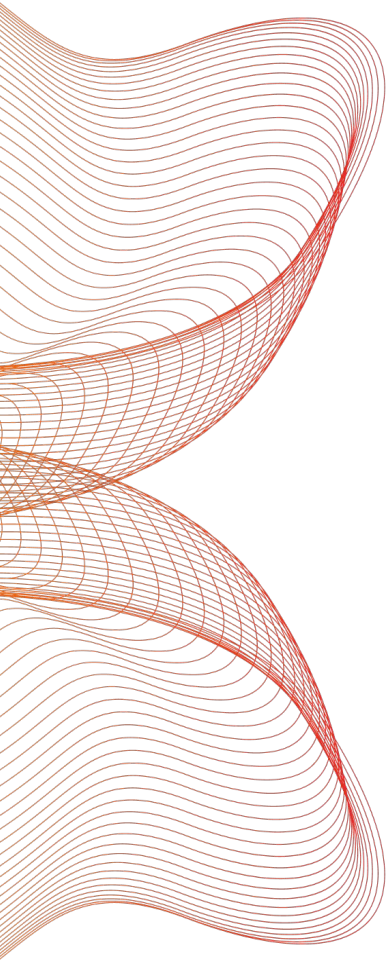
- There may be ethical dilemmas and tradeoffs involved in the use of automation for social good.
- It's important to engage in ongoing dialogue and collaboration with stakeholders to address these dilemmas and tradeoffs.



Designing Automated Systems for Social Good

- 01** We will explore best practices for designing automated systems that benefit society.
- 02** When designing automated systems for social good, it's important to have a clear understanding of the problem you're trying to solve and how automation can help.





Identifying Opportunities for Automation

- The first step in designing an automated system for social good is to identify opportunities where automation can make a positive impact.
- This involves analyzing existing processes and considering the needs of the people who will be affected by the automated system.



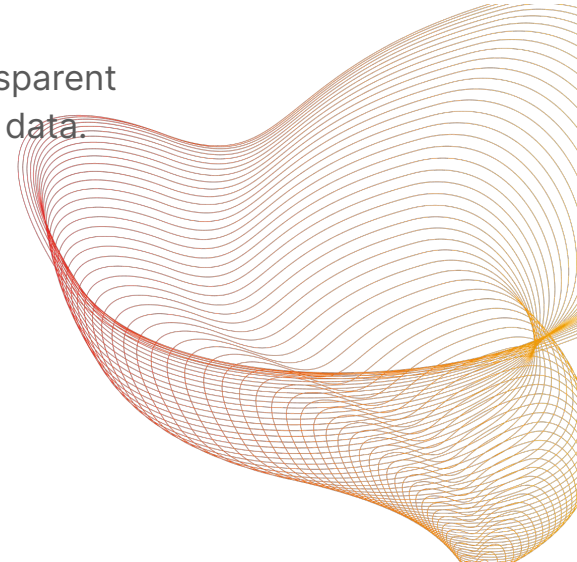


Ethics in Design

As we discussed in the previous module, ethics is an important consideration when designing automated systems for social good. In addition to mitigating harm and maximizing benefits, ethical considerations should inform every stage of the design process.

For example, designers should ensure that the automated system is transparent about its decision-making process and that users have control over their data.

Check out our other presentation on Design Thinking for details.





MUSTs

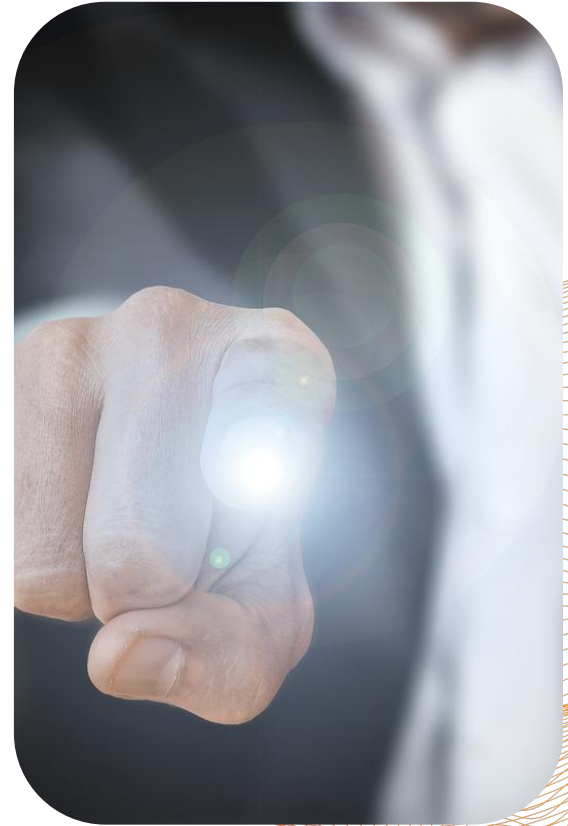
- Designers should ensure that the automated system is transparent about its decision-making process.
- Users should have control over their data.



Human-Centered Design

Human-centered design is an approach to designing automated systems that prioritizes the needs and experiences of the people who will be using the system.

- This involves engaging with users throughout the design process to understand their needs and perspectives and incorporating their feedback into the design.



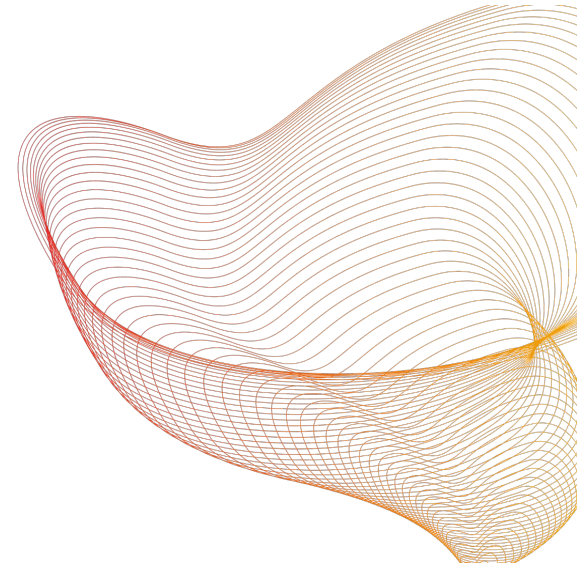


Example of Human-Centered Design

One example of human-centered design in action is the development of an automated system for scheduling court dates in Los Angeles.

The court worked with a nonprofit called Code for America to create a system that streamlined the scheduling process, reducing the number of people who missed court appointments and were subject to arrest warrants.

The system was designed with input from people who had experienced challenges with the court system, and the result was a system that was easy to use and reduced the burden on court staff.





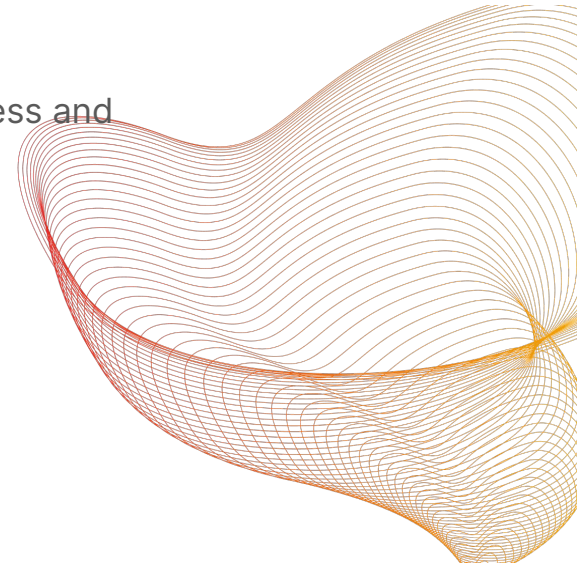
Agile Development

Agile development is an iterative approach to software development that prioritizes flexibility and adaptability.

This approach involves breaking the development process into small, manageable chunks and testing each piece as it is developed.

This allows designers to identify and address issues early on in the process and make changes as needed.

Learn more about Agile> <https://www.agilealliance.org/agile101/>





Benefits of Agile Development

- Agile development can be especially useful when designing automated systems for social good because it allows for rapid prototyping and testing.
- Instead of spending years developing a system that may not meet users' needs, designers can test each aspect of the system as it is developed and make changes along the way.

Practical exercises

Designing Ethical Automated Systems

Choose an automated system that is currently in use (e.g. self-driving cars, algorithmic hiring systems).

Identify ethical considerations associated with the system, such as bias, privacy concerns, or job displacement.

Brainstorm ways to mitigate these ethical concerns while still maximizing the benefits of the system.

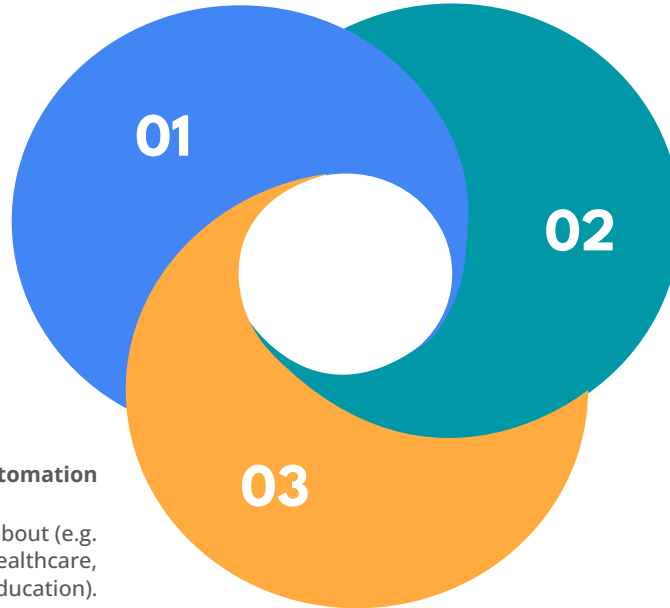
Present your ideas in a short pitch or report.

Identifying Opportunities for Automation

Choose a social issue that you are passionate about (e.g. environmental conservation, access to healthcare, education).

Research existing efforts to address this issue and identify an opportunity where automation could make a positive impact.

Write a brief summary of your idea and how it could benefit society.



Human-Centered Design Exercise

Choose a social issue that affects a specific community (e.g. access to fresh produce in low-income neighborhoods).

Engage with members of that community to understand their needs and perspectives.

Use this feedback to design an automated system that addresses their identified needs and priorities.

Present your design in a visual format, such as a flowchart or storyboard.