

Overview of Sustainable Development Goals (SDGs)

Introduction to AI for Sustainable Development Goals

- SDGs encompass a diverse approach to development, with research focused on the Prosperity section and industrial changes due to Al implementation.
- Studies discuss industrial barriers hindering effective technology application and relationships between companies, partners, and customers.



Introduction to AI for Sustainable Development Goals

1

Technical aspect explores algorithms addressing global challenges like healthcare, knowledge, and humanity.

2

Research suggests AI's potential positive impact on achieving SDGs across various sectors, including society, economy, and environment.

Introduction to AI for Sustainable Development Goals

- All has the potential to positively impact the achievement of SDGs, but there are potential negative impacts such as increased inequalities and biases in decisionmaking.
- Gaps in understanding the specific impacts of AI on different targets within the SDGs have been identified, particularly in societal biases, economic disparities, and environmental sustainability.
- Further research is needed to address these gaps and develop tailored analyses and tools to better understand the role of AI in achieving the SDGs.

Introduction to AI for Sustainable Development Goals

- Challenges include the potential for AI to exacerbate inequalities, increase energy consumption, and lack transparency and ethical oversight.
- Al presents opportunities to enable the achievement of many SDGs, particularly in the areas of society, economy, and environment.
- It can support the provision of essential services, promote low-carbon systems, and contribute to sustainable development.

AI Applications for specific SDGs

- AI can assist in predicting and preventing health issues related to poverty and hunger.
- AI applications can help in information verification and validation for sustainable development initiatives.
- AI has the potential to contribute significantly to poverty eradication and zero hunger through various applications and initiatives.

AI Applications for Specific SDGs

- Al can personalize learning experiences for students, catering to individual needs and abilities.
- Al can provide access to educational resources in remote or underserved areas.
- Al can assist in the assessment of student progress and the identification of areas where additional support may be needed.

Al for climate action and environmental sustainability (SDG 13 and 15)

AI Applications for Specific SDGs

- Al enables the analysis of large-scale interconnected databases to develop joint actions aimed at preserving the environment.
- Al supports the understanding of climate change and modeling its possible impacts.
- Al can be used to improve the health of ecosystems, combat desertification, and restore degraded land and soil.

1

Al's potential to enable SDGs by improving efficiency and decision-making

2

Ethical concerns related to Al's negative impacts on privacy and biases

Ethical considerations in Al applications for SDGs



Importance of aligning AI applications with principles of fairness and human rights



Need for regulatory oversight to ensure responsible and sustainable AI development

1

Influence of human factors such as culture and cognitive biases on AI adoption

2

Leveraging AI to drive positive social, environmental, and economic outcomes

1

Exploring impact of AI on job displacement and creating new job opportunities

2

Understanding cultural dimensions and biases for inclusive AI-driven solutions

1

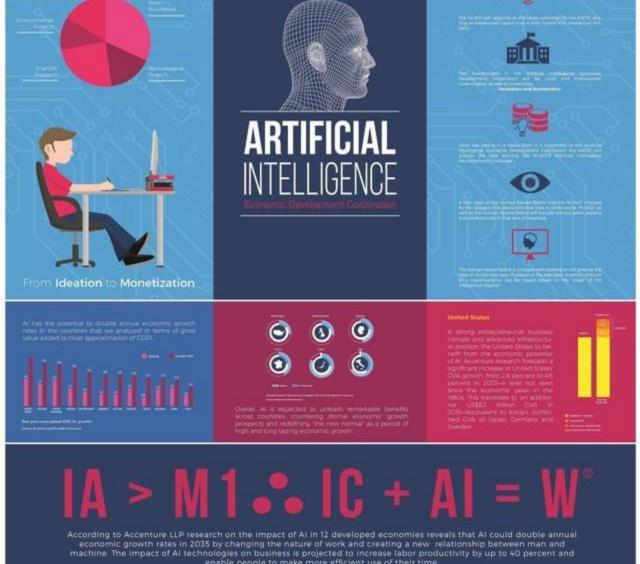
Potential of technological advancement to improve human welfare and provide new opportunities 2

Creating regulations and guidelines to ensure beneficial use of technological advancements

- Considering potential impacts of new technologies on different groups within society
- Harnessing technological advancement to improve human welfare while being mindful of potential risks

Identifying gaps in AI research for SDGs

- Need for more long-term studies to assess realworld impacts of Al
- Development of methodologies to ensure impact assessment from the perspectives of efficiency, ethics, and sustainability
- Promotion of cooperation and limitation of control of citizen behavior through AI





- More research on the impact of AI on institutions and legislation regarding transparency and accountability of AI
- Adoption of decentralized AI approaches for more equitable development

- Forming interdisciplinary research teams
- Creating interdisciplinary research centers or institutes
- Establishing interdisciplinary research networks

Funding and resource allocation for Al-driven sustainable development projects

- Variety of sources including government grants, private investments, corporate sponsorships, and non-profit organizations
- Funding from international bodies and institutions supporting sustainable development initiatives

Funding and resource allocation for Al-driven sustainable development projects

- Careful planning and consideration of specific needs and goals of each initiative
- Partnerships and collaborations between different stakeholders to leverage resources and expertise

Emerging trends in AI for SDGs

Future Outlook and Conclusion

- Use of AI in smart farming and precision agriculture
- Application of AI in smart health and precision medicine
- Potential to improve crop management, resource use, and personalized healthcare

Future Outlook and Conclusion

1

Assistance in achieving each of the Sustainable Development Goals (SDGs)

2

Optimizing resource consumption and reducing pollution

3

Enhancing industry performance, reducing inequalities, and promoting sustainable communities

Call to action for researchers to contribute to Al-driven sustainable development

Future Outlook and Conclusion

- Focus on the ethical and responsible use of AI
- Address global challenges such as climate change and inequality
- Develop innovative solutions that promote social, environmental, and economic wellbeing

