2024 - 2025
Model Arab League
BACKGROUND GUIDE

Special Council on Technology and Development

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Honorable Delegates,

Hello and welcome to the 2024-2025 Model Arab League season! My name is Nylah Hill and I'm a 4th year at Northeastern University pursuing a combined major in International Affairs and Economics as well as a Masters in International Affairs with a concentration in Sustainability and Climate Change Policy. This will be my third year at the National University Model Arab League and my first time chairing the conference! Needless to say, I am incredibly excited to be a part of the special committee this year and witness everyone debate this especially relevant subject. At the intersection of technology and development, there exists a plethora of different issues and solutions that can help create a more sustainable and equitable future. So, I'm excited to see what you bring forward to solve these pressing issues!

This background guide should serve as the foundation of your knowledge of these topics but further research will certainly be necessary to round out your country's position and goals. My recommendation is that you should prioritize representing your country in an authentic way by taking the time to gain a robust understanding of its policies, culture, and ideals. Although none of these topics are particularly divisive, keep in mind that every country has its own priorities and resources. My hope is that the majority of the time spent debating, and the resolutions that come out of it, seek out the most efficient and sustainable solutions for the problems you will face.

Please remember that whether this is your fourth conference or your first, this will be a space and opportunity for you (and me!) to learn and grow. Don't be overly stressed about following the rules and procedures, and be ready to be challenged by others. I will do everything in my power to make this as inclusive of a space as I can, and I expect all delegates to come in with an open mind, maintain respect for others, and most importantly, work to collaborate with everyone in the room while maintaining firm in your country's beliefs.

I wish you the best of luck during your preparation and I'm excited to see what potential solutions come out of debate! If you have any questions, please don't hesitate to reach out to me (hill.ny@northeastern.edu).

Best,

Nylah Hill

Topic I: Promoting the development of agrarian technology to increase food production in the MENA region.

I. Introduction to the Topic

A. General Background

As the world population is projected to grow exponentially by 2050, agricultural and food systems will be strained to meet the needs of the people and be limited by the constraints of the planet. The United Nations has sought to solve this problem in the 2nd Sustainable Development Goal. SDG 2's objectives are to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture. Yet globally, 790 million people continue to suffer from hunger.[1] Improvements in the agricultural sectors of most countries are necessary to meet these goals as well as to improve food systems, and the networks that produce food and ensure they reach consumers, to be more sustainable. Food systems and agriculture are currently still impacted by disruptions from COVID-19, extreme weather due to climate change, conflicts, and volatility of global food prices.[2] Technological advances in the agricultural field can help address these challenges and aid countries in their development.

In most developing nations, Agriculture is the primary sector in most developing nations, employing millions of people. Digital transformation of the sector can help meet local, national, and global food needs. Technology has improved precision farming, for example, by giving farmers access to satellite imagery and sensors which can help them most efficiently meet the needs of their crops through linking equipment that is designed to respond to different inputs.[3] In tackling food waste, the digitalization of agriculture could mean the creation and use of online marketplaces which can connect farmers to consumers, cutting out the middlemen which will boost the income of farmers, and ensure less food is lost due to time spent in transit.[4]

Although there have been improvements to agrarian technology, the majority of farmers in the world are smallholder farmers, owning less than two hectares of land, while producing one-third of the world's food.[5] This means that the main challenge is not necessarily a lack of innovation, but rather a lack of access, affordability, and adoption of the technology. Additionally, investment from public, private, domestic, and foreign sources has been trending

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[1] United Nations. "Goal 2: End Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture — SDG Indicators." *Un.org*, 2024, unstats.un.org/sdgs/report/2016/goal-02/. Accessed 6 Aug. 2024.

[2] "Agriculture and Food Overview." *World Bank*, 2024, www.worldbank.org/en/topic/agriculture/overview#1. Accessed 6 Aug. 2024.

[3] Dace, Hermoine. "Technology to Feed the World." *Tony Blair Institute for Global Change*, Tony Blair Institute, 3 Dec. 2020, www.institute.global/insights/tech-and-digitalisation/technology-feed-world. Accessed 6 Aug. 2024.

[4] Lim, Xinyi. "Agriculture Needs Technology for Resilient Food Production." *World Economic Forum*, 22 Mar. 2022, www.weforum.org/agenda/2022/03/how-technology-can-help-address-challenges-in-agriculture/. Accessed 6 Aug. 2024.

[5] Ibid.

down, with aid to developing countries for agriculture stagnating around 8% since the 1990s.[6] Perhaps without the support of the state, smallholder farmers can't make use of the innovative agrarian technology that has been developed, dampening their potential to make great strides in a nation's development.

B. History in the Arab World

Historically, agriculture has been at the center of social and economic life in the MENA region, making up 13% of the region's GDP with 28% of the region entirely reliant on the agricultural sector.[7] However, the MENA region is diverse, many countries suffer from a lack of arable land and water scarcity both of which are necessary components of a strong food system and made worse by the effects of climate change. This, in conjunction with the pressures put on the region by an increasing population and urbanization, means that innovation in the agrarian field will be necessary to accommodate the increased need for food and resolve the overreliance on imported agricultural goods. [8]

In the last decade, and in the aftermath of the COVID-19 pandemic, there has been renewed interest in agrarian technology investment in an effort to aid the development of member nations but also to decrease the volatility and uncertainty that accompanies being overly reliant on imported food products. In the Arab world, there has been an overall lack of investment from most countries into research and development into agrarian technologies as that funding often competes with other priority public domains like health and education. Additionally, even with the more recent invested interest in increasing spending for innovative technologies that may aid development, most Arab countries still fall below the United Nations 1% guideline of total agricultural R&D spending as a percentage of agricultural GDP.[9] Furthermore, in terms of funding, private funding is mostly untapped in most Arab countries and there is a lack of diversity in funding as well.

The Arab League established the Arab Organization for Agricultural Development (AOAD) in 1970 with the goal of bringing change and innovation to the field of agriculture in the Arab region.[10] Its strategy seeks to address the challenges of adopting innovative

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[6] Ibid.

[7] Bernadaux, Chloé. "Agricultural Technology in the Middle East: Sowing the Seeds of the Future." *Middle East Institute*, 19 May 2021, www.mei.edu/publications/agricultural-technology-middle-east-sowing-seeds-future. Accessed 6 Aug. 2024.

[8] Ibid.

[9] Stads, Gert-Jan. "Agricultural R&D Capacity in the Arab World: Positive Progress, but Challenges Remain." *IFPRI*, 20 May 2015, www.ifpri.org/blog/agricultural-rd-capacity-arab-world-positive-progress-challenges-remain/. Accessed 6 Aug. 2024.

[10] El-Dukheri, Ibrahim, and Kamel Mostafa Amer. "Role of the Arab Organization for Agricultural Development in Promoting Agricultural Development and Food Security in the Arab Region." *Food and Nutrition Security in the Kingdom of Saudi Arabia*, Springer Nature, Jan. 2024, pp. 29–64, https://doi.org/10.1007/978-3-031-46716-5_2. Accessed 6 Aug. 2024.

technologies through its policy advocacy. However, the AOAD's financing is based on contributions from member states which can be unstable, and thus affects its ability to meet their objectives and carry out projects long-term. The AOAD also faces another large issue that plagues the agrarian technology development field which is a struggle to recruit and retain talent. Many promising researchers in the field have left their government positions to take better positions at universities or outside of the region with the promise of better wages and benefits. [11] This brain drain in the research and development field is another reason why many countries are struggling with developing technology that fits the needs of their nation.

C. *Finding a Solution to the Problem: Past, Present, and Future*

There is new momentum for developing agri-tech initiatives in the region after the severe blow to global food supply chains during and in the aftermath of the COVID-19 pandemic. In the current climate, there should be a focus on agrarian technology development that emphasizes sustainability, which will help increase food production, ensure food security, and improve the livelihoods of workers in the agricultural sector.[12] The AOAD has historically been part of developing agricultural strategies including endorsing new technologies and has also led groundbreaking national and international projects.[13] There is a chance for the organization to play a revitalized role in developing a multi-faceted solution. Real progress will be made only through commitments to long-term investments in the field, with an emphasis on affordability, attainability, and sustainability.

There are many ways the Arab League can begin addressing increasing food production. It will likely be necessary for there to be the digitization of agri-food systems throughout member states, through the use of smart irrigation systems and satellite technology. The UN Trade and Development office, for example, has backed a program for countries in the global south to get access to satellite technology to improve crop monitoring, helping farmers make more informed decisions.[14] Additionally, member states will also need to address the skills gap that accompanies adopting new technologies. Giving farmers access to digital financing systems and an e-marketplace also could potentially help decrease food waste.[15] Finally, knowledge

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[11] Ibid.

[12] Hildebrandt, Elena. "Unlocking the Potential for Agricultural Development in the Middle East and North Africa." *IFPRI*, 22 Aug. 2018, www.ifpri.org/blog/unlocking-potential-agricultural-development-middle-east-and-north-africa/. Accessed 6 Aug. 2024.

[13] Ibid.

[14] UN Trade and Development. "Using Satellite Technology to Transform Agriculture in Developing Countries." *UNCTAD*, 28 Apr. 2023, unctad.org/news/using-satellite-technology-transform-agriculture-developing-countries#main-content. Accessed 6 Aug. 2024.

[15] Bahn, Rachel A., et al. "Digitalization for Sustainable Agri-Food Systems: Potential, Status, and Risks for the MENA Region." *Mdpi.com*, vol. 13, no. 6, Multidisciplinary Digital Publishing Institute, Mar. 2021, pp. 3223–23, https://doi.org/10.3390/su13063223 . Accessed 6 Aug. 2024.

sharing between different entities, whether that be agri-tech start-ups, independent organizations, or government offices will support sustainable growth of the sector. [16]

A robust solution would first consider how best member states can utilize current technologies that exist to make improvements in the agrarian field. This includes addressing concerns around affordability and accessibility that may prevent smallholder farmers from taking full advantage of newly created opportunities. Additionally, debate could also center around how to prevent potential brain drain and retain knowledgeable individuals in the agri-tech field. Sustainability goals, such as the SDGs and member states' own sustainability targets, should also be considered when debating solutions. A potential resolution may establish guidelines for the use of new innovative technologies to ensure widespread use could positively impact moving towards achieving sustainability targets.

II.   Questions to Consider in Your Research
- How can member states address the skills gap in labor between traditional methods of agriculture and new technology?
- Given the high start-up costs associated with the adoption of innovative agrarian technologies, how can a long-term agricultural transition into innovative technology be more attainable for lower-income member states?
- How can the Arab League address competition for natural resources that may accompany an increased demand for agricultural products in the region?
- How are member states currently supporting citizens in the agricultural field and how adequate are the responses to their needs?

III.   Questions a Resolution Might Answer
- How can the Arab League mitigate the financial instability of the AOAD so as not to negatively impact the organization's objectives and projects?
- Should the league consider integration of agricultural research and development and prioritize information and technology sharing?
- To what extent should member states prioritize sustainability objectives over the rapid development of their agricultural sector?
- How can member states bolster the Research and Development sectors for new Agrarian technologies?

IV.   Additional Resources
[Promoting Sustainable Agriculture to End Hunger in the Arab Region](#)
This outlines how the UNDP is supporting projects in the Arab region to work towards sustainable agricultural practices and working toward SDG 2. It outlines key initiatives in water management, climate resilience, innovation and technology, and community involvement.

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[16]Ibid.

[Agricultural R&D in West Asia and North Africa](#)
The International Food Policy Research Institute has outlined in this report common challenges countries in West Asia and North Africa face with improving agricultural productivity, assesses trends and investments in research and development, and policy solutions for governments in the region.

[How the Middle East can Promote Agri-tech](#)
This source lays out a few different ways governments in the MENA region can push agricultural technologies and prevent issues associated with a heavy reliance on food imports.

[Agriculture and Rural Development For Inclusive Growth and Food Security in Morocco](#)
Using Morocco as an example due to the relative stability, this paper outlines the importance of agriculture and rural development, and a strategy to ensure food security in the country through and move away from their high dependence on food imports.

Topic II: Exploring ways to create or expand public transportation infrastructure within the Arab League.

V.   Introduction to the Topic

A. General Background

Global development has historically been driven by urbanization. More than 50% of the global population lives in an urban area, regions with high population density and infrastructure, which is expected to continue to increase for the next 35 years.[17] Additionally, transportation accounts for roughly 15% of greenhouse gas emissions[18], meaning that improvements made to public transport can be useful in the fight against the climate crisis. The creation and expansion of transportation infrastructure not only acts as a tool against climate change by decreasing the amount of private vehicle usage, but it can reduce inequalities at the same time by giving people access to things like better job opportunities or healthcare, and it can stimulate local, regional, and national economies. For example, in Mexico a public transit project that connected different parts of Mexico City gave more informally employed workers access to the city center where they could find more formal employment, thus having the option of more job security and better pay.[19] Public transit offers another way for countries to move towards better social equity and accessibility for people experiencing significant disability and rural areas.

Currently, the public transit sector is not on track to meet climate or development goals despite the growth in global public transit infrastructure, especially after the COVID-19 pandemic which caused ridership for public transport to fall as much as 90%.[20] The growth of public transport is simply not enough in most regions of the world, and not fast enough at that. It is necessary for governments to increase their commitments to public transport. Additionally, transportation technology and infrastructure can benefit greatly from investment from the private sector, with guidance, support, and collaboration with the public sector and civil society. Transportation policy offers a wide array in which states can begin or speed up tackling the issue, including making improvements in new vehicles, such as electrification, expanding urban

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[17] World Bank Group. "Investing in Public Transit Systems Can Empower Workers and Transform Urban Economies, New Research Shows." *World Bank*, World Bank Group, 31 Oct. 2022, www.worldbank.org/en/news/feature/2022/10/31/investing-in-public-transit-systems-can-empower-workers-and-transform-urban-economies . Accessed 6 Aug. 2024.

[18] Leman, Mehdi. "5 Reasons Why Affordable and Accessible Public Transport Is Crucial for Social and Climate Justice." *Greenpeace International*, 14 Sept. 2023, www.greenpeace.org/international/story/62234/5-reasons-why-affordable-and-accessible-public-transport-is-crucial-for-social-and-climate-justice/ . Accessed 6 Aug. 2024.

[19]Ibid.

[20] Welle, Ben, et al. "Post-Pandemic, Public Transport Needs to Get Back on Track to Meet Global Climate Goals." *World Resources Institute*, 2023, www.wri.org/insights/current-state-of-public-transport-climate-goals . Accessed 6 Aug. 2024.

infrastructure to be more suitable for sustainable transit options like biking and walking, and supporting the implementation and expansion of high-speed rail. [21]

B. History in the Arab World

Road travel accounts for 75% of transport emissions and the Arab region suffers from 'car culture'- car ownership has been associated with higher status and freedom whereas public transport is more associated with lower status.[22] Thus car culture poses a barrier to acceptance of public transportation. Additionally, public transit infrastructure is an incredibly large investment that lower-income member states can not dedicate funding for in a broad way, where funding for health and education may be seen as the priority. Establishing a comprehensive transit system is challenging, because economic and environmental objectives must be balanced, legislation and regulations may prevent implementation, and it requires cooperation and coordination from a number of different sectors.[23] Public perception can also be a barrier. For example, in Oman, a study showed 66% of people didn't have a positive experience with public transportation services, indicating they likely have a negative perception of public transit overall.[24]

However, perception is slowly changing. Market reports show an increased demand for sustainable public transit solutions with growth in major cities around the region as the driver. Governments in the region are beginning or have already invested in public transit projects, specifically Bus Rapid Transit. [25] Countries are motivated both by the need for comprehensive public transit infrastructure and to increase public transport ridership to help meet their sustainability goals. Many countries are working on Smart Mobility projects, an innovative system of transportation that yields cleaner, safer, and more efficient modes of transport. At the forefront of this initiative are the Gulf Countries.[26] Two Saudi Arabian cities have plans for

[21] IEA. "Transport – Sustainable Recovery – Analysis - IEA." *IEA*, 2024, www.iea.org/reports/sustainable-recovery/transport . Accessed 6 Aug. 2024.
[22] Neal, Elliot J. "Public Transportation Uptake in the Arab Region: Where Are the Private Car Deterrents? - International Affairs Forum." *Ia-Forum.org*, 2024, ia-forum.org/Content/ViewInternal_Document.cfm?contenttype_id=0&ContentID=9288 . Accessed 6 Aug. 2024.
[23] Hrelja, Robert, et al. "How to Create Efficient Public Transport Systems? A Systematic Review of Critical Problems and Approaches for Addressing the Problems." *Transport Policy*, vol. 98, Elsevier BV, Nov. 2020, pp. 186–96, https://doi.org/10.1016/j.tranpol.2019.10.012 . Accessed 6 Aug. 2024.
[24] Rakesh Belwal, and Shweta Belwal. "Public Transportation Services in Oman: A Study of Public Perceptions." *Journal of Public Transportation*, vol. 13, no. 4, Dec. 2010, pp. 1–21, https://doi.org/10.5038/2375-0901.13.4.1 . Accessed 6 Aug. 2024.
[25] Research and Markets. "Middle East Bus Market Set to Grow, Driven by Urbanization and Innovative Public-Private Partnerships." *GlobeNewswire News Room*, Research and Markets, 22 Jan. 2024, www.globenewswire.com/en/news-release/2024/01/22/2812624/28124/en/Middle-East-Bus-Market-Set-to-Grow-Driven-by-Urbanization-and-Innovative-Public-Private-Partnerships.html . Accessed 6 Aug. 2024.
[26] Selim, Tarek. "Smart Mobility in the MENA Region Munich Personal RePEc Archive." *Munich Personal RePEc Archive*, June 2024, https://mpra.ub.uni-muenchen.de/121453/1/MPRA_paper_121453.pdf. Accessed 6 Aug. 2024.

driverless metro lines and expansion of high-speed rail[27] while the UAE's Smart Dubai Initiative plans to shift 25% of transportation into autonomous modes.[28]

Despite these initiatives, there still remain challenges. First, the majority of new public transportation infrastructure projects are concentrated in major cities in the Arab region. This helps meet the needs and demands of the majority of people who live in urban areas, yet by solely focusing on urban regions, there is the likelihood the urban-rural divide will become wider. What's more, in the absence of resources many areas face to provide adequate public transportation options, the informal sector has filled in the gap outside of planning regulations or oversight. Investing in public infrastructure means forcing them to navigate their relationships with private actors, which opens up the possibility for corruption or mismanagement.[29] There are also some other challenges for the path of adopting Smart Mobility, such as strengthening digital infrastructure, regional cooperation, supportive legislative frameworks, and expanding their educated human resources.[30]

C. Finding a Solution to the Problem: Past, Present, and Future

Solutions must take into account the diverse points member states are at in the journey to having sustainable and reliable public transit infrastructure as well as the diverse terrains in which they are developing their systems. It requires both regional cooperation but also the acknowledgment that countries should be met where they are in terms of technological development, goals, and funding. It is undeniable that public transport will be incredibly beneficial to many member states but it also requires a hefty up-front cost that some will struggle to finance. It is important to start by making sustainable public transit a part of National Development plans. For example, Egypt made raising public transport ridership a part of their Egypt 2030 plan.[31] Currently, Saudi Arabia has made their objectives encouraging new car sales to be electric vehicles, electrifying public transport vehicles, and incentivizing programs to steer consumers to take more sustainable options.[32] This is a good example of a more comprehensive approach to possible public transit plans other member states could consider.

[27] UITP. "Developing Public Transport in the MENA Region." *UITP*, 28 Oct. 2021, www.uitp.org/news/developing-public-transport-in-the-mena-region/ . Accessed 6 Aug. 2024.
[28]Ibid.
[29] Sustainable Urban Transport Project. "Big Cities, Big Challenges: Sustainable Urban Transport across Major Middle East and North African Cities." *SUTP*, 5 May 2023, sutp.org/publications/big-cities-big-challenges-sustainable-urban-transport-across-major-middle-east-and-north-african-cities-2 /. Accessed 6 Aug. 2024.
[30]Ibid.
[31] Ibid.
[32] Walid, Reem. "How Saudi Arabia Is Reshaping Transportation Infrastructure amid Climate Change Challenges." *Arab News*, Arabnews, 20 Jan. 2024, www.arabnews.com/node/2444856/business-economy . Accessed 6 Aug. 2024.

Member states might also consider how to combat the prevalence of car culture in major cities as well as address the underlying issues of developing new infrastructure. Public transit infrastructure projects could also include the creation of expansion of bike lanes, making bikes more accessible, or encouraging ride-sharing if private vehicles are used. Additionally, the Arab League must address the urban-rural divide and connect the different areas through public transit infrastructure projects. For example, on-demand public transportation could be an affordable and flexible way for those in rural areas to access urban ones.[33] Urban and rural communities may also require different approaches to make public transportation more prevalent, including flexible financing plans. Delegates should consider the unique circumstances each of these communities have and create a diverse strategy which addresses the different needs of communities.

VI.   Questions to Consider in Your Research
- How can the League leverage economic appraisal of transport projects to garner financing and public support for them despite what might be considered a heavy cost?
- How can member states consider the successes and failures of existing comprehensive transit systems in other parts of the world into their own infrastructure projects?
- How can the League bridge the gap between rural and urban areas when creating or expanding public transit infrastructure?
- How does current public perception surrounding public transport options impact member states' already established plans?

VII.   Questions a Resolution Might Answer
- How can the League leverage public-private partnerships for the development of public transportation projects?
- How can the Arab League address issues with car culture and encourage more people to utilize their public transit options?
- What universal safety and security measures should be included in a possible public transportation framework?
- What is the best way to offer reliable sources of financing for member states to invest in public transit infrastructure?

VIII.   Additional Resources

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[33] Dutt, Suparna. "On-Demand Public Transportation in the Middle East Is a Few Stops Away." *Fast Company Middle East | the Future of Tech, Business and Innovation.*, https://fastcompanyme.com, 14 Apr. 2023, fastcompanyme.com/impact/on-demand-public-transportation-in-the-middle-east-is-a-few-stops-away/ . Accessed 6 Aug. 2024.

[Why Public Transport is Key to achieve SDGs](#)
This report comes from the International Association of Public Transport which outlines how public transport is vital to achieving the United Nations SDGs, specifically SDG 10 (reducing inequalities), SDG 11 (promoting sustainable cities), and SDG13 (supporting climate action).

[Transportation and Mobility- Arab Digital Inclusion Platform](#)
This source gives more information on the intersection between transportation and accessibility. It speaks on the accessibility barriers persons with disabilities face in the Arab region and what some cities are doing to improve urban inclusivity. Persons with disabilities and their mobility needs are often not considered in a comprehensive way but how to make improvements for their mobility is important when building a great transportation infrastructure.

[Recommendations for the Future of Transportation in the Middle East](#)
This article is a list of recommendations on how improvements to transportation infrastructure can be made throughout the Middle East.

[Sustainable Transport, Sustainable Development | Interagency Report](#)
The 2021 United Nations Sustainable Transit Report focuses on how transportation can play a role in accomplishing the Sustainable Development Goals. It highlights the current state of transportation trends including environmental impact, accessibility, and current levels of investment and also includes possible policy recommendations.

Topic III: Discovering methods of utilizing Artificial Intelligence to address issues in key areas of development.

IX.   Introduction to the Topic

A. General Background

Generative AI is a machine-learning model that is trained to create new data and differs from previous machine-learning models that could only make predictions based on data.[34] AI has the ability to learn and adapt and with this adaptability, the use of AI can be impactful for a variety of diverse fields. Although AI is still a relatively new and emerging technology, it has been quickly adopted in different sectors. For example, in the transportation sector, AI can be used to analyze data and information in real-time and improve navigation and collision avoidance, both important safety features.[35] However, the development of AI technology has brought up some important ethical, regulatory, and political issues around the world.

AI is still a relatively new technology, which is constantly changing and improving. Thus regulations and policies around the world have failed to keep up. The International Monetary Fund has found that new technology, like AI, can widen the gap between poor and rich countries, pointing out that the landscape for developing countries to invest in human capital accumulation and AI technologies will become more challenging.[36] AI forces the world to tackle ethical considerations as policymakers set out to regulate the technology on an international scale. Key ethical concerns include the impact of bias in AI due to systemic injustice that translates from our biases into the data fed into AI systems, selection bias due to unrepresentative data being fed to a machine-learning model, methods of accountability for AI-powered systems, and overconfidence in the results AI-driven models can produce. [37]

Yet, AI also gives the opportunity to make positive impacts on development. AI is already being implemented in international development projects, specifically for use in R&D.[38] AI has the potential to increase the efficiency and effectiveness of actors in international

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[34] Zewe, Adam. "Explained: Generative AI." *MIT News | Massachusetts Institute of Technology*, Nov. 2023, news.mit.edu/2023/explained-generative-ai-1109 . Accessed 6 Aug. 2024.
[35] West, Darrell M., and John R. Allen. "How Artificial Intelligence Is Transforming the World." *Brookings*, 24 Apr. 2018, www.brookings.edu/articles/how-artificial-intelligence-is-transforming-the-world/ . Accessed 6 Aug. 2024.
[36] Alonso, Cristian, et al. "How Artificial Intelligence Could Widen the Gap between Rich and Poor Nations." *IMF*, 2 Dec. 2020, www.imf.org/en/Blogs/Articles/2020/12/02/blog-how-artificial-intelligence-could-widen-the-gap-between-rich-and-poor-nations . Accessed 6 Aug. 2024.
[37] Anderson, Lindsey. "Artificial Intelligence in International Development: Avoiding Ethical Pitfalls." *Journal of Public and International Affairs*, 20 May 2019, jpia.princeton.edu/news/artificial-intelligence-international-development-avoiding-ethical-pitfalls . Accessed 6 Aug. 2024.
[38] Ibid.

development, including organizations, government, the private sector, and civil society. With its adaptability to be used in a variety of fields, AI-enabled tools can make vast improvements for public education, healthcare, financial inclusion, agriculture, and urban development in many countries if they can get access to the technology.[39]

B. History in the Arab World

The development of Artificial Intelligence is still in its relative infancy. Development of AI technologies in the Arab region ranges widely yet it is still a potential solution to the unique development issues member states face for those who have access to it. The Arab Working Group for Artificial Intelligence was recently created to help develop a joint Arab strategy and a unified plan of action for the development and use of AI.[40] Professionals in the MENA region have an overall optimistic view that AI can transform their fields and businesses in the region are already working leveraging AI technologies into their business strategies.[41]

AI can be particularly beneficial for education and labor force development. AI has been touted as a solution to address the Arab region's underperforming education system and make a positive impact on the quality of education students receive at all levels.[42] AI also has the potential to bridge the gap for digital literacy, improve language education, specifically for job seekers, and foster entrepreneurship and collaboration.[43] While the potential impact of utilizing AI technology to address these key parts of national development can not be overstated, there is severe inequity with access to this technology. The UAE is at the front to drive innovation for AI in the Arab world, but most of the social and digital infrastructure in the MENA region is too young for countries to adequately 'catch up'.[44] To do so may require partnering with already

[39] Miller, Laurel. "Reflecting on the Implications of Artificial Intelligence for International Development ." *Devpolicy Blog from the Development Policy Centre*, 19 Dec. 2023, devpolicy.org/reflecting-on-the-implications-of-ai-for-international-development-20231220/ . Accessed 6 Aug. 2024.

[40] Merouane, Bouzid. "The future of artificial intelligence in the Arab world The experience of some Arab countries." *International Journal of Economic Performance*. 19 August 2023. https://cnrs.hal.science/hal-04183436/document . Accessed 6 August 2024.

[41] Thomson Reuters. "AI Will Be 'Transformational', Say Professionals in Middle East & North Africa - TR - Legal Insight MENA." *TR - Legal Insight MENA*, 28 May 2024, insight.thomsonreuters.com/mena/legal/posts/ai-will-be-transformational-middle-east-north-africa . Accessed 6 Aug. 2024.

[42] Mellor, Noha. "Using AI to Develop Capabilities in Arab Universities." *Studies in Big Data*, Springer International Publishing, Jan. 2024, pp. 247–58, https://doi.org/10.1007/978-3-031-52280-2_16 . Accessed 6 Aug. 2024.

[43] Mannuru, Nishith Reddy, et al. "Artificial Intelligence in Developing Countries: The Impact of Generative Artificial Intelligence (AI) Technologies for Development" *Information Development*, 14 Sept. 2023, journals.sagepub.com/doi/abs/10.1177/02666669231200628?casa_token=GNWF9NNHJ6MAAAAA%3AHZZHJQGgAreFe-1CkXVhOc4ZFIlcnFba5RtuFwnhOtnjVU1LZtf2ONOiZfmCayHu1DXYffAvbqY&journalCode=idva . Accessed 6 Aug. 2024.

[44] Brodsky, Sascha. "AI Is Booming in the Middle East." *Aibusiness.com*, 1 Feb. 2024, aibusiness.com/ml/ai-is-booming-in-the-middle-east#close-modal . Accessed 6 Aug. 2024.

established private companies and other entities rather than building up their own AI research labs.

Challenges in the development and utilization of AI technology faced in the region include a lack of proper infrastructure, investment, and education. High barriers to entry prevent financing and supporting private start-ups and enterprises to leverage AI technology for their development goals.[45] The development of AI is also still in its 'wild west' phase in that there is a lack of policy frameworks and regulations to guide the safety and rules around the utilization and development of AI. This poses the problem that as the technology innovates, it may evolve in a way that is no longer useful to tackle key issues for development. Digital technologies have been one of the main drivers of wealth and income inequality[46], and if cooperation is not adequately emphasized, AI will continue to add to an issue Arab countries are already struggling to solve.

C. Finding a Solution to the Problem: Past, Present, and Future

Member states still have the opportunity to utilize AI in a way to make big strides in their development goals. Perhaps instead of having a focus on 'catching up' to AI powerhouses in the United States and China, it is best that they consider how the development of their own AI technologies would best fit into their own national goals and objectives. What is first and foremost missing from the discussion is a regulatory framework that establishes the acceptable parameters and uses for AI. To successfully harness AI for development, the League could focus on creating a safe, ethical, and responsible environment for AI to develop in.[47]

Such a policy framework should address the ethical concerns of AI as well as guidelines to how best member states can make use of AI. Delegates could consider how to address the biases which exist in data to train AI, guidelines to streamline cooperation in the adaption of new AI technologies, and regulations in which fields AI can be used in. Moreover, because AI is still a relatively new technology which has potential to continuously improve and change, member states must recognize the need for flexibility in a regulatory framework so as regulations can be updated as improvements and uses of AI technology are updated as well.

Knowledge sharing is another crucial factor that will be necessary for the MENA region to have a strategic plan to utilize AI. Knowledge sharing can, for example, address the language gap that currently exists with many AI technologies. Currently, many Arab speakers can not leverage AI to its fullest potential because most AI-driven technologies solely produce results in

[45] Ibid.

[46] Yusuf, Shahid. *Digital Technology and Inequality: The Impact on Arab Countries*. 2021, erf.org.eg/app/uploads/2021/09/1632920263_470_2894109_1486 .pdf.

[47] Khoury, Zaki. "Harnessing Artificial Intelligence for Development -." *OECD.AI Policy Observatory*, 29 July 2020, oecd.ai/en/wonk/harnessing-artificial-intelligence-for-development. Accessed 6 Aug. 2024.

English.[48] A cooperative effort to solve this issue ensures research is done most efficiently with duplication. In tangent with knowledge sharing, the Arab League must also ensure inclusivity when creating strategies to leverage AI technology in the region. Due to the diversity of resources, it is easy for some to be left behind. Thus methods to find solutions must acknowledge this issue.

X.   **Questions to Consider in Your Research**
   - What current challenges is your country facing that is limiting its ability to invest in AI infrastructure?
   - How is Generative AI expected to evolve in the coming years?
   - What are the most pressing development issues that can be addressed by utilizing AI?
   - How can public-private partnerships be leveraged to create the environment for innovative AI-driven technology to be developed?

XI.   **Questions a Resolution Might Answer**
   - What role does government policy play in the regulation and development of Artificial Intelligence and its application to help meet development goals?
   - How can the League incorporate community concerns into the development and implementation of AI technology?
   - How often should regulatory frameworks get updated knowing how quickly the technology has been evolving?
   - How can AI be used to address the digital divide that exists between Member states?

XII.   **Additional Resources**
UNESCO supports Arab States in developing AI competencies for students and teachers
UNESCO highlights the initiatives they are currently working on in the MENA region to enhance AI competencies specifically in the education field and how AI has the potential to improve digital literacy and innovation in the region.

Future of Professionals Report- Asia and Emerging Markets
The Future of Professionals Report shows how thousands of professionals across specific industries and countries feel about the potential for AI to be transformative for their industries over the next few years.

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[48] El Mekki, Amal. "The AI Revolution Is Leaving Arabic Speakers Behind." *Middle East Eye*, 28 Apr. 2023, www.middleeasteye.net/opinion/al-revolution-arabic-speakers-left-behind . Accessed 6 Aug. 2024.

[AI for Social Good: McKinsey](#)

This article discusses how AI has the potential to drive social good across key development sectors including healthcare, education, and environmental sustainability. It includes a few successful case studies of how AI in its current capacity has made a positive impact.

[Bridging the AI Divide: The Arab World's Journey Towards Technological Sovereignty](#)

This speaks on current efforts in the MENA region to develop their own AI capabilities and become self-reliant on their own technologies. It highlights the major challenges they face in this endeavor as well as opportunities for improvements.

Topic IV: Devising strategies to expand and/or implement broadband infrastructure in member states.

I.   **Introduction to the Topic**

   A. General Background

Internet Communication Technology (ICT) is defined as the different tools used to transmit, store, create, share, or exchange information such as computers, the Internet, live broadcasting technologies, recorded broadcasting technologies, and telephony.[49] Internet connectivity has become an essential part of the world's operations. More and more, the world heavily relies on broadband infrastructure and the use of technological platforms for telecommunications, information delivery, broadcasting, and computing. At present, roughly 4.1 billion people globally have access to the internet and 19.1% of the least connected people come from low-income countries.[50] Because of how essential internet access and the use of broadband infrastructure are to daily life, some argue that universal access to the internet should be considered a human right, and more efforts should be made to connect the regions that severely lack that access.

With the disparity between those who have access to internet connectivity and those who do not due to the rapid evolution of technological progress, there exists a 'digital divide'.[51] Due to the digital divide, low-income countries are not able to benefit from the opportunities that accompany connectivity. However, ICT can play a significant role in socioeconomic development. A compilation of studies done by the World Bank found that most, in spite of the different methodologies, found a positive economic impact with fixed broadband.[52] Currently, mobile telephones are the most affordable and accessible method for internet connectivity, making it one of the most widespread.[53] However, by developing or expanding broadband infrastructure, countries can access a greater amount of resources to meet their development goals, particularly for use in education.

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[49] UNESCO. "Information and Communication Technologies (ICT) ." *Unesco.org*, 2017, learningportal.iiep.unesco.org/en/glossary/information-and-communication-technologies-ict . Accessed 6 Aug. 2024.

[50] ITU. "Infrastructures and Services." *ITU*, 2024, www.itu.int/en/ITU-D/ICT-Infrastructure/Pages/ICT-Infrastructure_about.aspx . Accessed 6 Aug. 2024.

[51] UN Office of the High Commissioner. "It May Be Time to Reinforce Universal Access to the Internet as a Human Right, Not Just a Privilege, High Commissioner Tells Human Rights Council." *OHCHR*, 10 Mar. 2023, www.ohchr.org/en/news/2023/03/it-may-be-time-reinforce-universal-access-internet-human-right-not-just-privilege-high . Accessed 6 Aug. 2024.

[52] Minges, Michael. "Digital Dividends: Exploring the Relationship between Broadband and Economic Growth." *World Bank*, 2016, documents1.worldbank.org/curated/en/178701467988875888/pdf/102955-WP-Box394845B-PUBLIC-WDR16-BP-Exploring-the-Relationship-between-Broadband-and-Economic-Growth-Minges.pdf. Accessed 6 August 2024.

[53] OECD. "ICTs for Development: Improving Policy Coherence." *Oecd-Ilibrary.org*, 22 Jan. 2010, www.oecd-ilibrary.org/development/icts-for-development_9789264077409-en. Accessed 6 Aug. 2024.

B. *History in the Arab World*

The MENA region is one of the more diverse digital development regions but has seen slow growth in broadband infrastructure access and use.[54] Those in the region have rapidly gained access to mobile cellular options with the number of mobile cellular subscriptions going from 126 million to 350 million between 2006 and 2011.[55] Even with many being able to access a 3G coverage level in most countries, there is a significant gap between the availability and adoption of mobile broadband.[56]The inequality caused by uneven access to the internet became especially apparent when governments ordered lockdown mandates. Most were unable to shift their education or job responsibilities online due to a lack of resources and those who could be met with internet bandwidth issues because the system was strained under the sudden shift in usage.[57] Development of broadband infrastructure is further limited by a lack of effective competition and a lack of appropriate regulations.[58]

The continued challenges with the expansion of broadband infrastructure not only include the number of people who have coverage but also individuals using their coverage. The region's digital infrastructure mostly requires upgrades, save for a select few who have been able to make notable advancements in their broadband infrastructure. Many governments have viewed the digitization of society through a lens of control and surveillance which has been stifling innovation and competition.[59] Furthermore, for some in rural areas, access remains inconsistent, and connecting is something that is financially unaffordable. Some of the least affordable prices for fixed-broadband have been found in the Arab region.[60]

Even though the MENA region is the most connected it has ever been, internet connectivity has been easily weaponized to silence, oppress, and surveil certain groups. During the Arab Spring, social media platforms were thought to play a crucial role in an attempt to enable democracy and social transition.[61] However, in the aftermath of the Arab Spring, some

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[54] ITU."Digital Trends In the Arab States Region 2021" *Regional Preparatory Meeting for WTDC-21 for Arab States*. Apr. 7, 2021. https://www.itu.int/dms_pub/itu-d/md/18/rpmarb/c/D18-RPMARB-C-0002!R1!PDF-E.pdf. Accessed 6 August 2024.

[55] PRB. "In Arab Countries, Mobile Internet and Social Media Are Dominant, but Disparities in Access Remain." *PRB*, 23 Apr. 2012, www.prb.org/resources/in-arab-countries-mobile-internet-and-social-media-are-dominant-but-disparities-in-access-remain/ . Accessed 6 Aug. 2024.

[56] Gelvanovska, Natalija, et al. *Broadband Networks in the Middle East and North Africa: Accelerating High-Speed Internet Access*. The World Bank, 2014, https://doi.org/10.1596/978-1-4648-0112-9 . Accessed 6 August 2024.

[57] Langendorf, Manuel, and Alexander Farley. "Digital Transformation and COVID-19 in MENA: Turning Challenge into Opportunity." *Wilson Center*, 10 May 2021, www.wilsoncenter.org/article/digital-transformation-and-covid-19-mena-turning-challenge-opportunity . Accessed 6 Aug. 2024.

[58] Ibid.

[59] Ibid.

[60] Ibid.

[61] "High-Speed Internet and the Values of the Arab Spring." *World Bank Blogs*, 2014, blogs.worldbank.org/en/arabvoices/high-speed-internet-and-values-arab-spring . Accessed 19 Aug. 2024.

regimes have thought to exert power over the online sphere, criminalizing online speech through legislation, shutting down the internet to disrupt the flow of information during protests or widespread acts of civil disobedience, or using the internet to for surveillance purposes while targeting those deemed as adversaries. [62] Thus, some regimes may perceive internet connectivity and the online sphere as a weapon that could be used against them, instead of a space that gives citizens access to increased opportunities.

C. Finding a Solution to the Problem: Past, Present, and Future

Increasing access to internet technology in rural areas within the Arab League is essential for fostering equitable development, enhancing educational opportunities, and driving economic growth. There is a strong link between income levels and access to an internet connection which emphasizes the importance of finding solutions that make digital services more affordable and improve ICT literacy levels.[63] Due to the high upfront costs associated with implementing up-to-date broadband access, member states will have to work together to 'leapfrog' themselves into current infrastructure to quickly make available the next generation of mobile and fixed technology. Delegates should look to investigate how best to utilize the current infrastructure needed to increase internet connectivity. Additionally, member states should also consider the possible need to regulate internet providers and leverage competition between providers to ensure better service is provided for consumers.

Improved internet connectivity can bridge the digital divide, providing rural communities with access to vital information, online education, telemedicine, and e-commerce. When considering how best to expand broadband access, member states should directly address how to provide and utilize internet connectivity in key areas of development such as education and healthcare. Strong policy coordination and involvement at the local level can help ensure rural areas aren't left behind in the transition to more modern broadband infrastructure. Member states could consider creating internet connectivity guidelines to ensure both rural and urban areas can reach similar levels of access to one another. Additionally, the need for constant adaptation will be required. 5G is currently being launched in a number of cities in the region.[64] Investment and financing opportunities will be crucial to address the digital divide along with considering public spaces that can give people access to broadband technology as a short-term solution.

II.   Questions to Consider in Your Research

[62] Fatafta, Marwa. "From Free Space to a Tool of Oppression: What Happened to the Internet since the Arab Spring?" *The Tahrir Institute for Middle East Policy.* 17 Dec. 2020, timep.org/2020/12/17/from-free-space-to-a-tool-of-oppression-what-happened-to-the-internet-since-the-arab-spring/ . Accessed 19 Aug. 2024.
[63] Ibid.
[64] Ibid.

- How will the heterogeneity of member states impact how policies pertaining to broadband infrastructure are adopted?
- What could be the impacts of broadband infrastructure on key areas of development such as education?
- How does the current regulatory framework inhibit the development of the ICT sector?
- How do political challenges impact the development of broadband infrastructure?

III.   Questions a Resolution Might Answer
- How can member States address the gap between the opportunities for urban broadband connectivity and rural broadband connectivity?
- Knowing that it takes time to implement physical infrastructure, what other short-term solutions are available?
- How should the Arab League adjust for increasing accessibility of broadband access to potentially displace some workers in the labor field?
- Can the Arab League remove the severe disparity between member states in terms of broadband infrastructure and access?

IV.   Additional Resources

Broadband Networks in the Middle East and North Africa
This chapter from the World Bank Publication 'Broadband Networks in the Middle East and North Africa' focuses on the current state of broadband infrastructure and identifies key challenges in improving broadband coverage and affordability.

Digital Divide in the MENA Region
This interview highlights the importance of digital inclusion in the Arab region. In particular, the disparity between internet connectivity in urban and rural regions.

Impact of COVID-19 on the internet ecosystem in the MENA region
The Internet Society Report focuses on how the COVID-19 Pandemic impacted the reliance on digital technology in the MENA region. It mentions both challenges to internet connectivity and recommendations to improve internet access in an equitable way.

4th Industrial Revolution: Challenges and Opportunities for the MENA region
This chapter focuses on the topic of digital inclusion and how it can benefit smart cities and sustainable development. It talks about potential pathways for countries in the MENA region to benefit from taking advantage of a new digital economy.