2020-2021

Model Arab League

BACKGROUND GUIDE

Special Council on Technology and Cybersecurity

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National Council on US-Arab Relations

Original draft by *Ilze Greever*, Chair of the *Special Council on Technology and Cybersecurity* at the 2020-2021 National University Model Arab League, with contributions from the dedicated staff and volunteers at the National Council on U.S.-Arab Relations.

Delegates,

Welcome to the 2020-2021 Special Council on Technology and Cybersecurity. My name is Ilze Greever, and I'm excited for the opportunity to be your chair this year. I am a third year at Northeastern University, studying Political Science with minors in International Relations and Computer Science.

This year's Special Council is focused on the future of the Arab world and the importance of adapting policy to changing technology. The topics of the council explore the many impacts of technology on everything from economic opportunities to human rights norms, to security policies.

As you prepare for this council, I want to emphasize the importance of in-depth research and understanding the specific position and needs of the state you represent. The topics this council will take on are complex and there is a wide range of technological capacity between states in the League, so understanding what each state brings to the discussion will be especially important in this council. Creating League wide solutions for these issues will require creativity, cooperation, and problem solving, and all of that begins with your research. I also want to emphasize the importance of not just debate, but of diplomacy. Diplomacy is not just about representing the interests of your state (or representing your ideas); it is also about negotiation, working together, and finding common ground. I am confident that if you focus on these two things, not only will you be well prepared, you will also have a great time participating in debate.

Though it will be different than our typical experience at conferences in past years, we will still have the chance to learn about policy issues, discuss them, and propose solutions together and I am very excited to work with all of you towards that goal as your chair. I can't wait to meet all of you at either the Northeast Regional or National University model and hear all of your amazing ideas on these topics.

Best,
Ilze Greever

Topic I: Evaluating broadband access and information and communication infrastructure in order to improve technological access in the region.

I. Intro

A. General Background

Globally, economic and social development is increasingly driven by digital technologies. Technology has created new opportunities for communication through video calling, messaging, and online meetings. Technology has expanded commerce through online banking and mobile money transfers while improving education through digital classrooms, online resources, and learning management applications. Advances in technology have also increased information access and political mobilization. All play an important role in shaping the way people interact with the world and the way the world develops. But, broadband access and Information and Communication Technologies (ICTs) exist as a precursor to all that development because without internet access digital resources are inaccessible. This lack of access is referred to as the digital divide. Globally, only 53.6 percent of the world's population was estimated to have access to the internet in 2019.[1]

From 2010 to 2017, an increase of 1 percent in broadband penetration (that is the percentage of the country that has access to broadband internet) yielded a 0.08 percent increase in GDP.[2] For mobile broadband, a 1 percent increase yielded a 0.15 percent increase in GDP.[3] Beyond fueling domestic growth, internet infrastructure contributes to a state's ability to attract foreign investment, boost competitiveness in global markets, and increase overall productivity- all of which have economic impacts.[4] Network access can also help countries diversify their economies with new market sectors, which is especially relevant in the Arab World where many of the region's economies are centered around energy exports.[5] Digitization provides many opportunities for increased development, all of which rely on broadband and ICT infrastructure.

B. History in the Arab World

Access to broadband internet and other information and communication technologies varies throughout the League. While many of the GCC countries have nearly universal connectivity, other states struggle with the basic infrastructure to support widespread access to technology. Mobile network density significantly outpaces broadband access in the region. The region has

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[1] *Statistics.* International Telecommunications Union. 2020. https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

[2] *Arab Development Portal.* United Nation Development Program. December 2018. https://www.arabdevelopmentportal.com/indicator/ict-0

[3] Ibid

[4] *Broadband Networks in the Middle East and North Africa.* The World Bank. February 2014. https://www.worldbank.org/content/dam/Worldbank/document/MNA/Broadband_report/Broadband_MENA_Chapter1.pdf

[5] Ibid

high mobile coverage; 91 percent of the population of Arab states is covered by a 3G or higher mobile network.[6] On the other hand, fixed broadband access levels remain low in the region, with 5.1 subscriptions per 100 people as of 2018.[7] This difference in density is largely due to the high rates of mobile connectivity in GCC countries.

The lower rates of broadband connectivity are also affected by a lack of investment in broadband infrastructure, especially in lower income countries. Underdeveloped infrastructure poses a huge challenge when networks fail. For example, in Yemen in January of 2020, a severed undersea cable took out 80 percent of the country's broadband network capacity.[8] The severed cable affected other countries in the region including Kuwait and Saudi Arabia, but Yemen's undeveloped infrastructure contributed to the lack of redundancy that made the effects so extreme.[9] Improving infrastructure in the region, especially for less wealthy states is critical to improving ICT access in the Arab world.

Additionally, while individuals may be covered by or have access to a network, they may not be able to afford to use the network or have a device to connect with. In the MENA region, an estimated 50% of the population is not connected to mobile broadband internet despite being covered by a network.[10] Much of this can be attributed to smartphone access, as of 2018 while 75% of Gulf citizens had smartphones, only 52% of those in North Africa and 39% in other Arab states had mobile devices.[11]

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

The Broadband Commission for Sustainable Development has seven targets for 2025 towards closing the digital divide, including all states having a funded National Broadband Plan, having entry level broadband services priced at less than 2% of monthly Gross National Income (GNI) per capita, and broadband internet penetration reaching 75% worldwide for both men and women.[12] As of 2018, Somalia, Yemen, Mauritania, Libya, Lebanon, and Iraq all lacked national broadband development plans or policies for improving ICT access.[13] And even in states where broadband is available, it may not be affordable. For the MENA region, broadband services on

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[6] *Measuring Digital Development*. International Telecommunication Union. 2019. https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2019.pdf

[7] *Arab Development Portal* 2018

[8] Hay Newman, Lily. *Cut undersea cable plunges Yemen into days-long internet outage*. Wired. 13 January 2020. https://wired.me/technology/privacy/yemen-internet-blackout-undersea-cable/

[9] Ibid

[10]

[11] Ibid

[12] *2025 Targets: "Connecting the Other Half"*. The Broadband Commission for Sustainable Development. https://www.broadbandcommission.org/Documents/BD_BB_Commission_2025%20Targets_430817_e.pdf

[13] The State of Broadband: Broadband catalyzing sustainable development. The Broadband Commission for Sustainable Development. September 2018. https://saluddigital.com/wp-content/uploads/2019/06/BBC.-The-State-of-Broadband-2018.pdf

average cost 3.6 percent of the average monthly income and mobile broadband services cost on average 7.7 percent of the average monthly income.[14] To reach these goals states will not only need to improve access to broadband, but also the affordability of broadband services.

Network improvements are also critical to improving growth and opportunity in the MENA region. Increasing connections between regions to allow for redundancy and improving network capacities through higher speed connections and fiber optic cables would play an important role in improving digital access and communication. A 10 percent rise in broadband access could increase GDP growth by up to 1.4 percent.[15] Even more so, a unified digital market, connecting the many states in the region, could increase GDP by around $95 billion per year.[16]

The region also has other opportunities for improving access, notably by focusing on emerging technologies. One of the largest advancements in Middle Eastern ICT infrastructure has been the development of 5G networks in Qatar, Saudi Arabia, and the UAE.[17] 5G networks have several benefits over previous networks including speeds closer to fixed broadband, higher network capacity, and decreased network latency.[18] It is estimated that 5G technology in GCC states could generate over 273 billion dollars in the next ten years.[19] Expanding network technology is a huge boon for the GCC and if expanded to other countries could provide similar benefits.

II. Questions to Consider in Your Research

- What does technology access look like in my state? Is it widespread or limited? Is access equitable?
- What are the common uses of technology and innovation for my state? How might those uses be expanded?
- How widespread is broadband access for my state? What does my state's national broadband plan include?
- What obstacles exist for expanding access?

III. Questions a Resolution Might Answer

- What obstacles exist to improving broadband access throughout the League?

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[14] Rogy, Michel. *Lowering Barriers to High Speed Internet in the Arab World.* World Bank Blogs. 5 February 2014. https://blogs.worldbank.org/arabvoices/lowering-barriers-high-speed-internet-arab-world

[15] Langendorf, Manuel. *Digital stability: How technology can empower future generations in the Middle East.* European Council on Foreign Relations. 24 March 2020. https://www.ecfr.eu/publications/summary/digital_stability_how_technology_can_empower_future_generations_middle_east

[16] Ibid

[17] Calabrese, John. *The Huawei Wars and the 5G Revolution in the Gulf*. Middle East Institute. 30 July 2019. https://www.mei.edu/publications/huawei-wars-and-5g-revolution-gulf

[18] Ibid

[19] Langendorf 2020

- What goals should exist when improving access to technology?
- How can the League most effectively invest in broadband infrastructure?
- What can the League do to close the gap between different states in terms of technological access?
- How interconnected can (and should) ICT infrastructure in the region be?

IV. Additional Resources

Broadband Networks in the Middle East and North Africa
A good overview of the importance of broadband networks for social and economic development. The case studies are a bit outdated (since the research was published in 2015), but they provide a good framework for understanding the progress the region has made.

Accelerating the Digital Economy in the Middle East, North Africa, and Turkey
An overview of digital business trends in the MENA region. The section on creating a local digital ecosystem is especially relevant to some of the challenges the region faces compared to global competitors.

Submarine Cable Map
A map of global underwater network cables serves as a great visual indicator of the differences in network connectivity between countries. Especially useful for seeing which states have more resilient infrastructure due to greater redundancy in fiber connectivity.

Arab Information and Communication Technologies Organization
The web page of the AICTO outlines the objectives and policies of an organization dedicated to improving ICT in the Arab region.

Topic II: Discussing the role of the digital economy and emerging technologies as a means of addressing youth education and unemployment gaps in the Arab world.

I. Intro

A. General Background

Youth unemployment poses major challenges both structurally and individually. Age is one of the most significant determinants of unemployment globally.[20] For those unable to enter the workforce, their skills depreciate and they face diminished job prospects in the future.[21] The inability to enter the labor market while young decreases future earning potential and, for those in low income countries, exacerbates the chances of being stuck in working poverty.[22] And on a broader level, high rates of youth unemployment can cause both economic and social instability and hurt development.[23]

As the global economy becomes increasingly digital, it requires new skill sets from potential employees to remain competitive in the job market. Digital skills include everything from basic online research, computer literacy, and use of word processors, to more advanced skills like graphic design and social media marketing, to more technical skills like information technology, programming, and cybersecurity.[24] Regardless of type, digital skills need to keep pace with current technology and require specific training to stay relevant to the needs of the current job market.

B. History in the Arab World

For over 25 years, the MENA region has had the highest rates of youth unemployment in the world.[25] In 2018, over a quarter (27.7%) of Arab youth (ages 15-24) were unemployed. For young women in the region, that rate rises to over 40 percent (41.9%).[26] As youth make up 60

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[20] *Global Youth Unemployment: a ticking timebomb.* The Guardian. 27 March 2013. https://www.theguardian.com/global-development-professionals-network/2013/mar/26/global-youth-unemployment-ticking-time-bomb

[21] Daduch, Uri and Maria Demertzis. *Youth unemployment: Common problem, different solutions?*. Bruegel. 29 November 2018. https://www.bruegel.org/2018/11/youth-unemployment-common-problem-different-solutions/?utm_content=buffer9d4ba&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer+(bruegel)

[22] *Global Youth Unemployment: a ticking timebomb* 2013

[23] Daduch and Demertzis 2018

[24] Blom, Andreas and Nicole Goldin and Mariam Nusrat. *Starting line — Where does MENA stand with digital skills?*. World Bank Blogs. 14 July 2020. https://blogs.worldbank.org/arabvoices/starting-line-where-does-mena-stand-digital-skills

[25] Kabbani, Nader. *Youth employment in the Middle East and North Africa: Revisiting and reframing the challenge.* The Brookings Institute. 26 February 2019. https://www.brookings.edu/research/youth-employment-in-the-middle-east-and-north-africa-revisiting-and-reframing-the-challenge/

[26] *World Development Indicator*s. The World Bank. https://databank.worldbank.org/source/world-development-indicators#

percent of the region's population, an estimated 27 million people will enter the labor market over the next five years.[27] Considering future population dynamics and the increasing share of young people in the labor market, to close the youth unemployment gap in the region, Arab countries need to create 10 million jobs a year between now and 2050.[28]

The Arab world also faces a major digital skills gap, exacerbating the issue of joblessness in the region. The World Economic Forum estimates across the MENA region, high skilled employment makes up only 21% of the workforce.[29] This represents a huge gap in human capital potential, where opportunities exist for creating new jobs, but a skills gap exists in meeting demand for those jobs.[30] Almost 30 percent of business leaders in the region reported significant challenges when filling technology roles.[31] This gap is even greater for women in the region, who have less job potential, even when highly educated. Increasing digital and technical skills training will be important for the region in addressing youth unemployment, and those efforts must be tailored to the needs of women to address many of the inequalities in the labor market and provide them with equal opportunities.

While youth unemployment remains a problem for the entire region, different states in the League face different obstacles to overcome this issue which is contingent on their economic and political situations. Political instability, ongoing conflict, immigration rates, and many other factors all complicate the causes of youth unemployment. All solutions for increasing opportunities for Arab youth must take into account the different situations throughout the region and tailor policy towards the needs of different states.

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

The rise of a digital economy creates an important opportunity for improving employment opportunities in the MENA region, but taking advantage of this opportunity requires significant investments in human capital throughout the region. This would include education and workforce training programs to provide those entering the labor market with desirable skills, as well as increasing opportunities in the digital job market. Enhancing the digital job market could

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[27] England, Andrew. *Middle East jobs crisis risks fuelling unrest, IMF warns.* Financial Times. 12 July 2018. https://www.ft.com/content/3daf3d5a-8525-11e8-a29d-73e3d454535d

[28] *The Middle East and North Africa: From Transition to Transformation.* The World Bank. 11 April 2019. https://www.worldbank.org/en/region/mena/publication/the-middle-east-and-north-africa-from-transition-to-transformation

[29] Schmitt, Georg. *Close Skills Gaps and Gender Gaps to Prepare MENA for the Future of Jobs*. World Economic Forum. 17 May 2017. https://www.weforum.org/press/2017/05/close-skills-gaps-and-gender-gaps-to-prepare-mena-for-the-future-of-jobs/

[30] Ibid

[31] Galviz, Jamie. *Mind the gap: the region's digital-skills shortage… and what to do about it.* Wired. 17 March 2020. https://wired.me/technology/microsoft-digital-jobs-middle-east/

create an additional 1.3 million jobs in the GCC alone by 2025.[32] One example of a digital job creation program was the New Vision for Arab Employment which used public-private partnerships to provide skills training 250,000 people in the region in 2017.[33] Finding opportunities to develop new programs, especially those focused on youth will be critical to address the digital skills gap and reduce youth unemployment.

Youth unemployment is not a new issue in the MENA region, and many have developed policies surrounding youth issues in the past decade. Lebanon, Morocco, Djibouti, Jordan, and Palestine all have developed and adopted national youth strategies.[34] However, out of the entire League, only Yemen has adopted a plan specifically focused on youth employment.[35] While these programs provided useful technical skills training, less than 10 percent of youth employment programming in the region focused on entrepreneurship or other opportunities posed by a more digital market.[36] Youth in the MENA region are significantly less likely than youth globally to engage in entrepreneurship, only 9.3 percent are engaged in entrepreneurial activity, with one of the largest barriers to entrepreneurship being a lack of access to financial resources.[37]

Investments in startups and youth entrepreneurship are specific opportunities granted by a digital market. Digitization has vastly increased the funding available for Arab startups, including providing over 700 million USD of investments in 2019, a 12 percent increase from the previous year.[38] While digitization is not without risks, as increased technology can automate existing jobs, it provides important value by increasing opportunities for the Arab world.[39]

II. Questions to Consider in Your Research

- What has my state done to address youth unemployment?
- What does the technology sector of my state's economy look like?
- What do workforce development and education look like in my state?
- What other obstacles exist in addressing unemployment in my state?
- How can solutions adapt to the specific needs of my state?

III. Questions a Resolution Might Answer

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[32] Langendorf, Manuel. *Digital stability: How technology can empower future generations in the Middle East.* European Council on Foreign Relations. 24 March 2020. https://www.ecfr.eu/publications/summary/digital_stability_how_technology_can_empower_future_generations_middle_east
[33] Schmitt 2017
[34] Kabbani 2019
[35] Ibid
[36] Ibid
[37] Ibid
[38] Langendorf 2020
[39] Ibid

- What investments are needed to address youth unemployment?
- What are the best ways to prepare youth for working in the digital economy?
- How can efforts to address youth unemployment serve women and other disadvantaged groups?
- How should programs be structured to adapt to new technologies and market changes?

IV. Additional Resources

Perspectives on the Digital Economy in the Arab Region
A (very) long overview of the digital economy in the Arab world. While the whole thing has a lot of great information, the executive summary is only a few pages, so at a minimum, I'd suggest reading that for an overview of challenges and policy recommendations for the region.

Mashreq 2.0: Digital Transformation for Inclusive Growth and Jobs
An overview of Legal, regulatory, and institutional frameworks for each country in the Levant region, as well as broader regional challenges.

Job Creation and Returns to Education in the Arab World
An analysis of the role of education compared to wages in the Arab region. A great analysis of some of the challenges of matching education programs to the demands of the labor market.

Topic III: Developing League-wide frameworks for ensuring privacy and data security in the context of digital surveillance.

I. Intro

A. General Background

Internationally, the right to privacy is recognized both in Article 12 of the Universal Declaration of Human Rights and in Article 17 of the International Covenant on Civil and Political Rights (ICCPR). The first General Assembly's resolution on digital privacy was resolution 68/167, which was adopted in December of 2013 and focused on concerns of the impact of digital surveillance and interception of communications on privacy rights.[40] The resolution additionally affirmed that all rights that exist offline also must be enforced in digital spaces.[41] Since 2013 the UNGA has adopted 3 additional resolutions regarding digital privacy rights, including establishing a Special Rapporteur.[42] While the right to privacy is not absolute under international law, any action that interferes with the privacy of an individual must be necessary, legitimate, and proportional to the benefit it provides as affirmed by the UNGA.[43]

The best example of modern data protection regulations is the European Global Data Protection Regulation (GDPR). The GDPR requires all entities that control or process personal data to comply with a series of regulations limiting the use of personal data, mandating consent for usage, requiring security and confidentiality for data storage, and holding entities accountable for data breaches or misuse of personal data.[44] These regulations also take into account the transnational flow of data and require anyone who collects the data of EU citizens to comply with the regulations.[45]

B. History in the Arab World

Article 21 of the Arab Charter on Human Rights mirrors the language of the ICCPR and affirms that "No one shall be subjected to arbitrary or unlawful interference concerning his privacy, family, home or correspondence."[46] However, the Arab League has not taken specific action on the issue of digital privacy or discussed the impact of digital surveillance on privacy rights. As

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[40] *The Right to Privacy in the Digital Age.* United Nations Office of the High Commissioner for Human Rights. https://www.ohchr.org/en/issues/digitalage/pages/digitalageindex.aspx

[41] Ibid

[42] Yilma, Knife Michael. *The United Nation's Evolving Privacy Discourse and Corporate Human Rights Obligations.* American Society of International Law. 17 May 2019. https://www.asil.org/insights/volume/23/issue/4/united-nations-evolving-privacy-discourse-and-corporate-human-rights

[43] *The Right to Privacy in the Digital Age*

[44] Wolford, Ben. *What is GDPR, the EU's new data protection law?*. GDPR.EU. https://gdpr.eu/what-is-gdpr/#:~:text=The%20General%20Data%20Protection%20Regulation,to%20people%20in%20the%20EU.

[45] Ibid

[46] Arab Charter on Human Rights. 2004. http://hrlibrary.umn.edu/instree/loas2005.html

Arab states increase economic and digital ties around the globe, regulations will become increasingly important. Data flows across borders, so for other states to willingly do business with MENA countries, MENA data privacy standards must meet those state's own data protection expectations. A few states, including Bahrain and Qatar, have data protection laws in line with many of the standards of the GDPR, and several others, including Egypt and Jordan, have draft laws under consideration, but most countries in the League lack meaningful protections for personal data.[47]

Yet, as many states lack data protection regulations they instead have significant cyber-surveillance and cybercrime laws. Government cyber-surveillance plays an increasingly important role in the security and public expression policies of Arab governments. Many governments across the region have purchased technology enabling them to view the communications of their citizens both domestically and abroad.[48] Several of the GCC countries have purchased Pegasus software developed by Israel's NSO Group to surveil those who criticize the government.[49]

Additionally, many states in the region have increasingly posed laws specifically considering digital communications. Egypt, Jordan, Tunisia, the UAE, Qatar, and Saudi Arabia all have instituted broad cybercrime laws that can be used to punish digital speech.[50] For example, the UAE has made it illegal to demonstrate support for Qatar during the GCC crisis as a violation of the federal decree on Combating Information Technology Crimes.[51] Upholding these laws relies on surveilling and restricting prohibited digital communication. The importance of digital surveillance in upholding cybercrime laws highlights the importance of a clearer understanding of digital privacy and the rights of Arab citizens in the digital sphere. Surveillance inherently sacrifices privacy to obtain information about digital usage. The largest issue for the League when discussing digital privacy is understanding how data protection fits with digital surveillance and if the two can be balanced.

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

When considering data protection and digital surveillance, one of the largest challenges is deciding when the surveillance is harmful and when it is beneficial. The League must determine what restrictions should exist on digital surveillance and when the benefits of surveillance

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[47] *Data Privacy Frameworks in MENA.* GSMA. June 2019. https://www.gsma.com/mena/wp-content/uploads/2019/06/GSMA-Data-Privacy-in-MENA-Full-Report.pdf

[48] Langendorf, Manuel. *Coronavirus: Why digitisation is a double-edged sword for the Middle East.* Middle East Eye. 22 June 2020. https://www.middleeasteye.net/opinion/coronavirus-why-digitisation-double-edged-sword-middle-east

[49] Ibid

[50] Ritzen, Yarno. *How Arab governments use cyberspace laws to shut down activism. Aljazeera.* 25 July 2019. https://www.aljazeera.com/news/2019/07/arab-governments-cyber-laws-shut-activism-190717075018688.html

[51] Ibid

outweigh the loss of privacy that results. One of the largest uses of digital surveillance in the region is for security and counterterrorism efforts. Since 2011, Arab states have increasingly passed anti-terror laws that gave widespread government authority to prevent disorder or terrorist propaganda.[52] Examples include Jordan's 2014 law, the UAE's 2014 law, and Morocco's 2015 law, all of which are characterized by vague definitions and broad authority.[53] These laws provide a strong legal basis for justifying domestic surveillance practices.

More recently, as part of their strategies to combat the global outbreak of COVID-19, many governments in the region are incorporating digital surveillance as part of their contact tracing efforts. By tracing phone location data, governments can more closely monitor and identify those who may have been exposed to the virus.[54] The UAE, Qatar, and Morocco have all relied on digital surveillance as a means of contact tracing. These efforts however have raised concerns over the protection of the data gathered and security vulnerabilities.[55] Any efforts to expand digital surveillance must keep in mind data protection and other information safety measures to avoid doing more harm than good.

But beyond just creating frameworks for surveillance, states must also consider what improvements can be made to digital privacy laws. For states without existing data regulations, creating legal digital privacy protections is a critical step towards not only protecting citizen's privacy rights but also digital trade opportunities. And for those with some existing regulations, taking the opportunity to bring them in line with global standards and collaborate on region wide data protection measures will allow for increased interconnectedness with the European and other global institutions for Arab businesses.[56]

II. Questions to Consider in Your Research

- What is my state's current philosophy towards surveillance?
- How has my state adapted privacy regulations in the face of new technology?
- What data security regulations exist in my state?
- How does my state currently balance privacy and security?

III. Questions a Resolution Might Answer

- What should be the standards for digital privacy in the Arad world?

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[52] Josua, Maria. Anti-Terror Legislation as a Tool of Repression in Arab States. German Institute for Global and Area Studies. July 2019. https://www.giga-hamburg.de/en/publication/anti-terror-legislation-as-a-tool-of-repression-in-arab-states

[53] Ibid

[54] Langendorf 2020

[55] Ibid

[56] Coos, Andrada. Data Protection Regulations in the Middle East. Endpoint Protector. 3 December 2018. https://www.endpointprotector.com/blog/data-protection-regulations-middle-east/#:~:text=Issued%20at%20the%20end%20of,up%20to%20US%241.35%20million

- Is digital surveillance necessary to protect state security?
- How can efforts to protect data security and allow for digital surveillance be balanced?
- What (if any) restrictions should be placed on surveillance in the League?

IV. Additional Resources

Digital Surveillance
A must read. A detailed resource for understanding many of the key terms surrounding digital communication and digital surveillance and how surveillance takes place.

Data Privacy: Frameworks in MENA
An overview of data protection and privacy regulations of the Gulf and Levant states. Also, overviews which states regulations are in line with the GDPR.

The Crime of Speech: How Arab Governments Use the Law to Silence Expression Online
An overview of cybercrime and speech laws in Egypt, Jordan, Saudi Arabia, and Tunisia.

TIMEP Brief: Use of Surveillance Technology in MENA
An excellent overview of different forms of digital surveillance and importance terms. Additionally, this article includes an overview of much of the technology used by Arab governments for surveillance.

The Global Expansion of AI Surveillance
An overview of surveillance technologies based on artificial intelligence and their use around the globe.

Topic IV: Analyzing the current state of cybersecurity regulations in the League and developing additional computer and data protection measures.

I. Intro

A. General Background

Cyber attacks cost the global economy 600 billion dollars in 2018 alone, about 0.8 percent of global GDP.[57] Improving cybersecurity is an increasingly important global issue. Malware, hacking, and attacks on communication networks all pose an expanding international threat.[58] Cyberattacks can cause chaos and have global impacts for minimal cost.[59] While perfect security is unachievable, improving cybersecurity practices is important for both protecting ICT infrastructure and individual data security.

Attacks can take a wide range of forms, from viruses and other malware aimed at crippling individual systems to distributed denial of service (DDoS) attacks aimed at taking down networks. Some of the most common attacks are data breaches, either through hacking, phishing, or malware, of which over 70% were financially motivated in 2019.[60] Understanding the wide range of vulnerabilities and training individuals in the basics of protecting their networks and data are key to mitigating the effects of cyberattacks.

B. History in the Arab World

Cybersecurity regulations and investments vary widely throughout the MENA region. Some states have few regulations and others lag behind the pace of technological advancements. The first cybercrime regulation in the region was a 2006 law passed by the United Arab Emirates.[61] The law was a first effort to define and criminalize attacks on internet systems. There is a widespread in cyber-capabilities in the League. According to the Global Cybersecurity Index, Saudi Arabia, Oman, and Qatar all rank in the top 20 nations for cybersecurity.[62] Meanwhile, Somalia, Djibouti, Yemen, and Comoros all rank in the bottom 20.[63] The UAE and Saudi Arabia

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[57] Von Finckenstein, Valentina. Cybersecurity in the Middle East and North Africa. Konrad Adenauer Foundation Lebanon Office. July 2019. https://www.kas.de/documents/284382/284431/Policy+Paper+on+Cybersecurity+in+the+Middle+East+and+North+Africa.pdf/50199440-b10e-3dea-52ca-c0e3714ebc75?version=1.0&t=1564581818218

[58] *How Important Has Cyber Warfare Become to the States of the Middle East?. Carnegie Middle East Center*. 1 February 2018. https://carnegie-mec.org/diwan/75395

[59] Ibid

[60] *2020 Data Breach Investigations Report*. Verizon. 2019. https://enterprise.verizon.com/en-gb/resources/reports/dbir/2019/summary-of-findings/

[61] The Federal Law No. (2) of 2006 on The Prevention of Information Technology Crimes. https://www.qcert.org/sites/default/files/public/documents/uae-ecrime-the_prevention_of_information_technology_crimes-eng-2006.pdf

[62] *Global Cybersecurity Index*. International Telecommunications Union. 2018. https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-GCI.01-2018-PDF-E.pdf

[63] Ibid

also have one of the highest rates of investment in cybersecurity of any country in the region.[64] While much of the region lags behind, the GCC cybersecurity market was worth $7.2 billion in 2016 and is expected to reach $11.4 billion by 2024.[65] Closing these gaps in the region and resolving the disparities in cyber-capabilities will be an important part of intra-League efforts to improve cybersecurity.

Cyber-attacks pose a massive risk to both economic and energy infrastructure in the MENA region. 56 percent of companies in the region have lost over $500,000 due to cyber-attacks.[66] Many of these attacks are based on phishing and exploit individuals who are not trained to recognize threats to cybersecurity. Additionally, half of all cyberattacks in the Middle East target the oil and gas sector.[67] Energy producers, including Saudi Aramco and Qatari RasGas, have been hit by numerous cyberattacks since 2012, including a variety of forms of viruses and malware.[68] The large impacts of cyber attacks highlight the importance of improving cybersecurity within the Arab world. As the MENA region becomes increasingly digitized the risk of these attacks will only increase.

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

Strong cyber-defense also relies on both cybersecurity and cybercrime efforts. Cybercrime efforts are based on legal frameworks and rely on judicial reactions to cyber attacks to respond to attacks. Jordan, Oman, Saudi Arabia, and the UAE all have laws that specifically deal with cybercrime and misuse of digital resources.[69] Cybersecurity efforts are preventative measures designed to improve data protections, strengthen network resiliency, and otherwise improve the overall security of digital systems. Efforts to create cyber-response or computer emergency response teams also fall under the realm of cybersecurity and play an important role for states in responding to and preventing cyber-incidents.

Information sharing and inter-state cooperation play an important role in combating cyber-threats. A notable example of past collaboration was the 2008 ITU Regional Workshop on Frameworks for Cybersecurity and Critical Information Infrastructure Protection, which brought

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[64] Alkhereiji, Mohammed. Iranian cyberthreat hovers over GCC region. The Arab Weekly. 8 March 2020. https://thearabweekly.com/iranian-cyberthreat-hovers-over-gcc-region

[65] Ibid

[66] Von Finckenstein 2019

[67] Tan, Weizhen. *Cyberattacks in the Middle East are on the rise. Here's who they're targeting.* CNBC. 18 June 2019. https://www.cnbc.com/2019/06/18/cyberattacks-in-uae-middle-east-darkmatter-report.html

[68] Rashad, Marwa. Saudi Aramco sees increase in attempted cyber attacks. Reuters. 6 February 2020. https://www.reuters.com/article/saudi-aramco-security/saudi-aramco-sees-increase-in-attempted-cyber-attacks-idUSL8N2A6703

[69] Aboul-Enein, Sameh. Cybersecurity Challenges in the Middle East. Geneva Centre for Security Policy. 2017. https://css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/resources/docs/GCSP-Cybersecurity%20Challenges%20in%20the%20Middle%20East.pdf

together the region to review national laws through the context of cyber threats and focus on the need for national computer security incident response teams.[70] Finding new avenues to collaborate on will be an important goal of the League to close the gaps in cybersecurity capabilities between states. Whether that includes sharing resources, creating League wide response organizations, or improving funding for cybersecurity programs, bridging the gap between the states which excel and those who are falling behind will be increasingly important for the digital security of the Arab world.

Improving regional cybersecurity relies not only on closing the gaps between countries in the League but also on addressing emerging threats. Attacks on mobile phones have become increasingly prevalent in the region. In the first half of 2020, Egypt saw the greatest number of attacks (220,000), followed by Saudi Arabia (150,00), the UAE (70,000), Kuwait (20,000), and Oman (15,000).[71] Cybersecurity regulations need to not only address current threats but also help future proof systems from increasing threats. The League must consider how current actions and efforts can adapt to new threats and prevent future vulnerabilities.

II. Questions to Consider in Your Research

- What is the current status of cybersecurity regulation in my state?
- What in my state is most vulnerable to cyberattacks?
- Is my state prepared to adapt regulations to new technologies?
- What resources does my state currently use to prevent cyberattacks?

III. Questions a Resolution Might Answer

- How integrated should cybersecurity efforts for the League be?
- Should the League create unified data protection mechanisms?
- What are the best opportunities for inter-League collaboration on cybersecurity?
- What poses the greatest threats to cybersecurity in the League?

IV. Additional Resources

Significant Cyber Incidents
A list of major cyber incidents since 2006 globally. Gives a good sense of the frequency of major cyber attacks.

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[70] Arab States call for heightened cybersecurity. International Telecommunications Union. 2008. https://www.itu.int/itunews/manager/display.asp?lang=en&year=2008&issue=03&ipage=A-S-call&ext=html
[71] *Saudi Arabia saw almost 160,000 cyberattacks on smartphones*. Zawya. 16 June 2020. https://www.zawya.com/mena/en/legal/story/Saudi_Arabia_saw_almost_160000_cyberattacks_on_smartphones-SNG_177207664/

Is the GCC Cyber Resilient?

A more in depth overview of GCC cyber-capabilities and cyber strategies. A good resource for understanding the capabilities of the states in the League with the best cybersecurity capacity.

Cybersecurity Challenges in the Middle East

An overview of many of the cybersecurity challenges facing the middle east, including an explanation of cybersecurity initiatives.

Cybercrime Legislation in the GCC Countries

A comparison of GCC states' cybercrime legislation to other countries around the world.