



Digital Infrastructure Expansion for a Sustainable Future

By: Akindra, Jason, Max, Sanaa

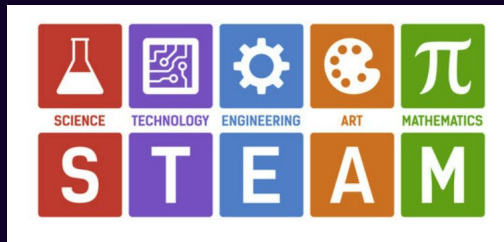
Introduction

Max

A Rough Start

At first our group had different ideas about how we should start our project.

- ⊗ Broadband Expansion
- ⊗ IPV6 Implementation
- ⊗ Cyber security improvement
- ⊗ Restructuring education
- ⊗ etc



"Can Our Digital Infrastructure Be Expanded in an Equitable, Secure, and Sustainable Way?"



The term "Digital Infrastructure" should encompass:

- ⊗ physical servers
- ⊗ devices
- ⊗ electrical lines
- ⊗ broadband/cellular connections
- ⊗ Trained personnel
- ⊗ Resources needed for maintenance and building



Equitable, Secure, and Sustainable

In some parts of the country, our infrastructure relies on devices that are several decades old.

Not to mention there are some places that just do not have the proper resources for these connections.

In our project we attempt to discern why there are so many problems and propose a few ideas and strategies that can be widely accessible, safe to use, without causing further damage to our climate.

Objectives of Research

Akindra

Objectives

The objective of this research is to find reasons and ways to Improve our digital Infrastructure and discuss the Issue experienced In structuring them.

Methodology

Jason

Methodology

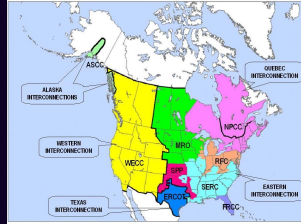
- ⊗ Looking at the problem we saw that it would be best to break it down.
- ⊗ Upon breaking down our problem we saw a common thread across all of our original topics
- ⊗ We saw that improving infrastructure on a large scale involved addressing getting a trained workforce, security, availability for all, and sustainability

Results

Max

Houston...We Have a Ton of Problems

- ⊗ Lack of trained personnel
- ⊗ Lack of relevant education
- ⊗ Insufficient power generation
- ⊗ Power grid unification
- ⊗ Interference from large corporations
- ⊗ Unsecure work environments
- ⊗ Overwhelming use of precious minerals and resources
- ⊗ Cloud computing space and access
- ⊗ Recycling unused or old materials



Discussion/Findings

Akindra

Discussion/findings

- ⊗ Complications with expansion in digital infrastructure
- ⊗ BroadBand and ISPs plagued with issues
- ⊗ Not enough IT/technical manpower
- ⊗ Need for more comprehensive studies to understand digital transformation

Recommendations

Jason

Recommendations

- ⊗ Equally expanding the infrastructure with deploying of digital services like remote learning and distance learning.
- ⊗ Using this tech to innovative ways of delivery of public services.

Recommendations

- ⊗ Improving security and supplying better education for use of digital technologies
- ⊗ Insure that this new infrastructure is sustainable
- ⊗ Have government involvement in the process for improvement

Conclusion

Sanaa

Concluding Our Presentation

From our research and what we've discovered, there seem to be four main conclusions to draw about the difficulty and breadth of this project.

- First, improving and expanding sustainable digital infrastructure requires a massive overhaul of the existing infrastructure.



Concluding Our Presentation(continued)



- This leads to our second point.
- One thing that will be needed to make this project work is a large increase in skilled technical workers in general. As we said above, not all regions of the country have a surplus of these kinds of skilled IT workers. It may be useful to sponsor or encourage training programs in areas where there is a skilled worker shortage.

Concluding Our Presentation(continued)



- Third, the infrastructure that exists in some of these regions, like the Midwest, is already smaller and less efficient than the existing digital infrastructure elsewhere.
- Finally, climate change will have to be taken into account as this new infrastructure is designed and built.

Concluding Our Presentation(continued)

- The hardest thing to accomplish will be the equitability of this expansion, since some regions of the country have older or less developed digital infrastructure to begin with, and because much of the technology is privately owned.





FIN

Thanks for listening and please let us know if
you have any questions :)