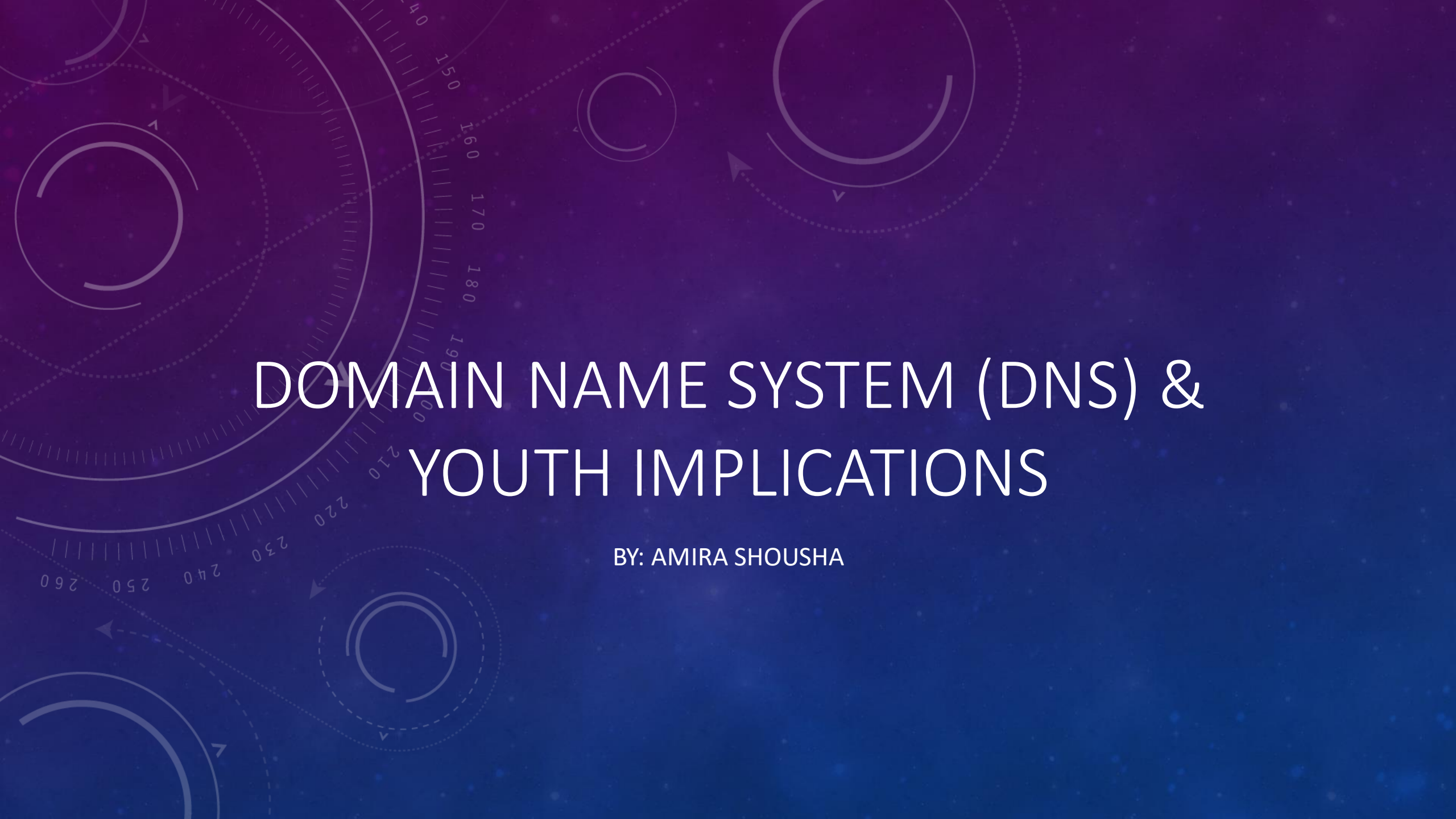




# DOMAIN NAME SYSTEM (DNS) & YOUTH IMPLICATIONS

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# INTRODUCTION

- What is DNS?
  - The Domain Name System (DNS) translates human-readable domain names (e.g., google.com) into IP addresses.
  - This connects a user with a website's IP address – without it, individuals would have to memorize the IP of every website they access.
- What is ICANN's Role in DNS?
  - The Internet Corporation for Assigned Names and Numbers (ICANN) oversees the global DNS to ensure stability, security, and interoperability.
  - One of the most impressive efforts that stood out to me is renaming websites to fit into the country or language of the people that utilize it!

# HOW DOES THIS IMPACT YOUTH?

- As a society we organize everything in labels, as such what we name things impacts our ability to retrieve that information again.
- DNS matters because how websites are named impacts who can access them.
  - i.e) Naming a university resource in an unfamiliar name, that does not relate to the resource. (ex: omega3 resources)

# WHY DOES DNS MATTER TO YOUTH?

- Accurate DNS naming influences youth's access to educational resources, internships, and job opportunities.
  - Example - Canada's Youth Works Website
- Fosters communities of support and innovation. Using universal terminology makes it easier for people to connect.
- Empowers youth-led initiatives and youth activism: Youth-led movements utilize websites and online platforms to organize, advocate, and amplify their voices on social issues.
- Enables youth to have a digital identity and online presence. (domain registrations, reaching global communities, etc.)

# LIMITATIONS & IMPLICATIONS OF DNS MISUSE

- Digital Divide
  - Limited access to reliable internet infrastructure hinders participation in the digital economy and access to DNS services.
  - Disproportionately impacts low-income and racialized communities' access to the digital world.
- Lack of Representation
  - Youth voices often missing in DNS policymaking, thus leaving their unique needs unaddressed.
- Affordability Issues
  - Cost barriers to domain registration and ownership.
  - Hinders their ability to access these tools to empower themselves (economically, educationally, etc.)

# CHALLENGES OF DNS

**DNS abuse** refers to the exploitation of the Domain Name System (DNS) for malicious purposes. Youth being uninformed leaves them at risk for any of the following:

1. **Phishing:** Attackers create fake websites that mimic legitimate ones to steal sensitive information (e.g., passwords, banking details).
2. **Malware Distribution:** Cybercriminals use domains to spread viruses, ransomware, or spyware. (i.e. A website tricking users into downloading infected software or attachments.)
3. **Botnets:** Networks of infected computers controlled remotely to launch large-scale attacks (e.g., DDoS, or hackers using compromised devices to flood a website with traffic and take it down.)

# CHALLENGES OF DNS

- 4. DNS Hijacking:** Attackers redirect users from legitimate websites to malicious ones by altering DNS settings. (i.e: Typing “instagram.com” but being taken to a fake login page.)
- 5. Domain Name Infringement & Spam:** Registering domains that mimic popular brands to deceive users or send spam emails. (i.e.: “amaz0n-login.com” used for scams.)

# ICANN'S ROLE IN ADDRESSING DNS ABUSE

- **Policies & Agreements:** Enforces rules requiring domain registries to address abuse.
- **Collaboration:** with cybersecurity experts and law enforcement to mitigate threats.
- **Awareness Campaigns:** Educates internet users on recognizing and reporting abuse
- **ICANN's Projects:**
  - KINDNS Initiative - Launched to promote DNS security best practices, while also encouraging DNS operators to adopt measures that enhance the security and stability of the DNS.
  - INFERMAL Initiative - A research initiative focused on understanding cybercriminal behaviors and patterns and aims to develop strategies to mitigate these threats.

# COMMUNITY SOLUTIONS

- **Enhance DNS Literacy:** Educate youth about the importance of DNS and how it affects daily internet usage.
- **Advocate for Inclusive Policies:** Support initiatives that promote linguistic diversity and universal acceptance in the DNS.
- **Digital Inclusion in Policy Development:** Participate in policy-making processes to ensure youth perspectives are considered in DNS governance.



THANK YOU!  
QUESTIONS? COMMENTS?