**Censorship Evasion Techniques: A Systematic Review of Methods and Effectiveness**

**Week 1: Topic Selection & Research Question Formulation**

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**1. Research Topic:** Censorship Evasion Techniques: A Systematic Review of Methods and Effectiveness

**2. Research Questions:**

* What are the most effective censorship evasion techniques currently utilized to bypass government-imposed firewalls?
* How do governmental bodies detect and counteract these evasion methods?
* What emerging trends and challenges exist in the realm of censorship circumvention?

**3. Literature Search Strategy:** To address these questions, a comprehensive literature search was conducted focusing on high-quality, peer-reviewed papers from reputable journals and conferences. The following databases were utilized:

* IEEE Xplore
* ACM Digital Library
* SpringerLink
* Elsevier ScienceDirect

**4. Selection Criteria:** Inclusion criteria:

* Papers published within the last ten years
* Studies focusing on censorship evasion techniques
* Research providing empirical data or comprehensive reviews

Exclusion criteria:

* Non-peer-reviewed articles
* Studies not directly related to censorship evasion

**5. Selected Papers:** Based on the search and selection criteria, the following ten papers were identified as highly relevant:

1. **"A Study of China's Censorship and Its Evasion Through the Lens of Online Games"**  
   Authors: Yuzhou Feng, Ruyu Zhai, Radu Sion, Bogdan Carbunar  
   Summary: This paper presents results from surveys and interviews revealing commonly deployed censorship evasion techniques in China, highlighting vulnerabilities in automated censorship systems.
2. **"Circumventing Censorship of Social Media and Online Content in a Polarized Environment"**  
   Authors: Ghazal Behrouzian, Erik C. Nisbet, Ali Çarkoğlu  
   Summary: The study explores how state-sponsored political identity and attitudes about media freedom influence resistance to censorship, providing a theoretical model of user behavior in polarized environments.
3. **"Geneva: Evolving Censorship Evasion Strategies"**  
   Authors: Kevin Bock, George Hughey, Xiao Qiang, Dave Levin  
   Summary: This research introduces Geneva, a novel genetic algorithm that automates the discovery of packet-manipulation-based censorship evasion strategies against nation-state level censors.
4. **"How Sudden Censorship Can Increase Access to Information"**  
   Authors: William Hobbs, Margaret E. Roberts  
   Summary: The paper discusses the "gateway effect," where evasion of censorship motivated by demand for entertainment leads individuals to access previously blocked political information.
5. **"GET /out: Automated Discovery of Application-Layer Censorship Evasion Strategies"**  
   Authors: John P. Harrity, Kevin Bock, Dave Levin  
   Summary: This study presents techniques to automate the discovery of new censorship evasion methods purely in the application layer, enhancing the ability to circumvent censors without manual intervention.
6. **"A Comparison of Censorship Evasion Techniques Under the Great Firewall of China"**  
   Authors: Michael Noonan  
   Summary: This technical report compares various censorship evasion techniques and tools, evaluating their effectiveness against the Great Firewall of China.
7. **"Resilience to Online Censorship"**  
   Authors: Margaret E. Roberts  
   Summary: The article examines how individuals develop resilience to online censorship, discussing various evasion strategies and their implications for access to information.
8. **"A Survey of Internet Censorship and its Measurement"**  
   Authors: Md. Nurul Amin Nourin, Md. Abdur Razzaque, Mohammed Atiquzzaman  
   Summary: This survey provides a comprehensive overview of internet censorship mechanisms and the methodologies employed to measure and evade them.
9. **"A Closer Look at Evading Stateful Internet Censorship"**  
   Authors: Sadia Afroz, Ahsan Khattak, Mobin Javed, Vern Paxson, Srikanth Sundaresan, J. Alex Halderman, Damon McCoy  
   Summary: The paper undertakes an extensive measurement study on TCP-level evasion techniques, providing insights into the effectiveness of various methods against stateful internet censorship.
10. **"TorKameleon: Improving Tor's Censorship Resistance with K-anonymization and Media-based Covert Channels"**  
    Authors: Iago Vilalonga, José Fernández-Hernández, José María de Fuentes, Ana Isabel González-Tablas  
    Summary: This research introduces TorKameleon, a solution designed to enhance Tor's resistance to censorship by employing K-anonymization techniques and media-based covert channels.

**6. Organization of References:** All selected papers have been organized using Zotero, a reference management tool, to ensure efficient citation and accessibility throughout the research process.

**Deliverable:**

* **Research Topic:** Censorship Evasion Techniques: A Systematic Review of Methods and Effectiveness
* **Research Questions:** As outlined above.
* **Selected References:** Ten peer-reviewed papers organized in Zotero.

This foundational work sets the stage for a comprehensive systematic review, aiming to synthesize existing knowledge and identify future research directions in the field of censorship evasion techniques.