

MySecureCyberspace

Dena Haritos Tsamitis for the SAFE center at Carnegie Mellon

Inspired by the President's National Strategy to Secure Cyberspace, the MySecureCyberspace project – the portal and the game – empowers users to secure their part of cyberspace.

The MySecureCyberspace Portal

<https://www.mysecurecyberspace.com>

A customizable website for home users that provides information about common cybersecurity threats and trends. Based on the online activity and environment entered by the user, the tactical countermeasures and legal, ethical, and privacy issues related to each cybersecurity threat are presented in a dynamically-generated web page. Cybersecurity alerts and news items are provided via RSS feeds. An encyclopedia of terms, case studies, statistics and trends, and other topics related to cybersecurity are available through portlets.



Approach

- Cybersecurity information presented in a way that is easy to navigate and customize based on a user's specific needs
- Content taxonomy based on online activity, environment, and technical level (basic and advanced)
- 150 terms related to cybersecurity contained within encyclopedia
- 30 case-studies encompassing "everyday" people who encounter a wide range of situations that compromise their security online
- Portlets with information specific to the needs of parents and educators

Impact

- Publicly available since April 2005, since then:
 - more than 25,000 visitors
 - approximately 100 average visits per day
 - 00:06:42 average visit duration
 - 25 percent international visits
 - 70.54 percent visits from the US
- Fall 2006: third-party usability tests were favorable and recommended only minor changes to interface. Overall: *"Non-intimidating site with great technical material"*

Carnegie Cadets: The MySecureCyberspace Game

Carnegie Cadets: The MySecureCyberspace Game teaches elementary school children about cybersecurity by reinforcing principles of **safe, responsible and appropriate** online behavior. Players take on the role of cadets in the Carnegie Cyber Academy and, through a series of mini-games or "missions," learn the skills they need to protect themselves online from Internet predators as well as threats to their computer and data.



Approach – A "Game that Teaches"

- Traditional **game design elements** such as **character dialogue, storylines, points and rewards, inventories and an immersive environment** enhance the players' experiences and allow them to have fun while learning.
- **Scenario-based assessments** test player's knowledge retention "behind-the-scenes". After completing a mission, a player is given the opportunity to help another character resolve an issue by using their knowledge of that topic.
- Dorm rooms, which players can customize by earning points through missions, allow players to have **ownership** over their game progress and motivate them to perform better.

Impact

The game has been tested with local fourth and fifth grade children of different gender, race, socio-economic and academic backgrounds. Initial tests show that the game is appropriate and fun for the target audience, and the content delivery is effective.

In the next phase, the game will be integrated into school curricula for use in the classroom in thousands of schools nationwide.