

CYBERSECURITY

Expanding Knowledge-Sharing of Cybersecurity Through An Indigenous Lens



Dr. Sarah Plosker & Dr. Gautam Srivastava
Math & Computer Science



CyberSecurity 101

Email is an essential part of our online life. Unfortunately, it's also one of the easiest ways for cyber criminals to target people. A weak email account password can leave your personal information vulnerable, potentially compromising other accounts that use that same email address as a log-in.

Cyber Threats To Your Mobile

It's difficult to find a Canadian who isn't glued to their phone these days. Unfortunately, that means we need to stay vigilant about protecting our smartphones, tablets and other devices from cyber criminals. Viruses or worms can be spread through anything you download from the internet via your phone, by text attachments (multimedia messaging service or MMS) and by Bluetooth transfers.

Phishing by phone is another way cyber criminals can scam you. They'll send a text or email with a phone number for you to call to verify account information. They may also call you directly and ask you to enter your account number before continuing.

If you think your mobile device has been infected with malicious software, call your manufacturer or service provider.

Stay informed! Follow Get Cyber Safe to learn more about how you can keep yourself—and your family—safe.
<https://www.getcybersafe.gc.ca/>

Banking & Financial Cyber Threats

Banking online has simplified our lives in so many ways. We can check our account balance, pay bills, shop online. But what's convenient, isn't always what's secure.

Banking websites have layers of security systems in place to protect your information. Which is good, but it forces cyber criminals to use other means to get to your personal financial information. For example: Email phishing. Cyber criminals create fake emails that look like 'real' emails from your bank or financial institution asking you to reply with personal information.

How can you protect yourself?
By practicing good cyber hygiene, even when it's not the most convenient. Also do not save passwords to cell phone devices!

PRO TIP:
Don't use public wifi to conduct online banking!

Engagement

Our main priority is to provide research and knowledge sharing activities that broaden public understanding and participation in Internet policy development, governance and cybersecurity

Rural communities in Manitoba are experiencing a higher level of connectivity to the internet; with this increase in connectivity comes potential security risks.

At the same time, we would like cybersecurity knowledge to be couched in Indigenous learning and knowledge.

Cyber Threats & Social Media

Canadians love social media, eh? The chance to connect with friends, follow celebrities, comedians Don Burnstick, Wabigut and other Native icons. The downside to being active on social media platforms such as Instagram, Facebook and Twitter is that it leaves us vulnerable to cyber attacks. The threats are numerous: Cyber criminals could hack into your accounts and impersonate you.

Or they could use the personal information we share on social media to piece together our email address and password.

What's the best defence against cyber threats on social networking?
A strong password, a tactical approach to privacy settings and always thinking carefully about what you choose to post online. Also changing your passwords once a month.

The DO'S & DON'T'S of Passwords

- The longer the better (at least 8 characters)
- Mix of upper and lower case letters
- Include numbers and special characters
- Use a different password for each site you use
- Don't use your birthdate, pet name, "password", etc
- Don't write down your password
- Use a password manager if you have lots of passwords

HTTP VS HTTPS Take a look at the address of the websites you use—does it start with http or https? http is not secure, so your data can be seen when it's transmitted. There are plugins and browser extensions you can get that transform many http websites to https.

A Better Online Canada

Our initiative is to facilitate Indigenous communities creating and building relevance within cybersecurity knowledge-sharing and education to their cultures and communities, with focus on online social media as a means of understanding research in cybersecurity.

The project will provide research and knowledge-sharing activities in rural Indigenous communities on the topic of cryptography, broadening the communities' understanding and participation in cybersecurity. We hope to create positive, reciprocal relationships with Indigenous communities, identify community needs and priorities, and facilitate discussions on cybersecurity awareness and education guided by an Indigenous knowledge framework.

For More Information

Dr. Sarah Plosker Dr. Gautam Srivastava
ploskers@brandonu.ca srivastavag@brandonu.ca
204-727-7473 204-727-9748

Math & Computer Science
Brandon University
270 18th Brandon MB
R7A 6A9