CONESTOGA — Connect Life and Learning

Desire2Learn

A wave of security updates to all major browsers in August and September of 2013 had the unfortunate side-effect of disabling certain Desire2Learn content pages, links, and embedded media. This guide will explain why the problem occurs and how you and your students can work around it.
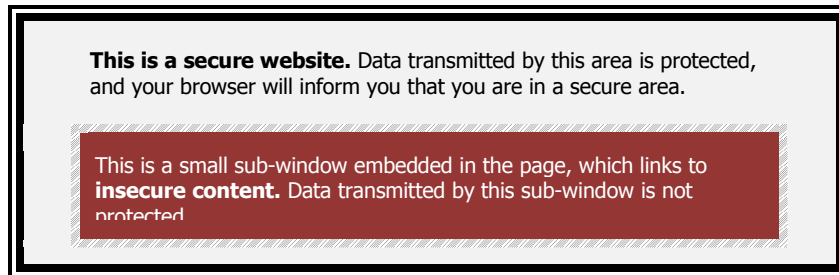
First, some definitions

When data is transmitted on the Internet, it can be delivered in one of two protocols:

- **Secure** content is encrypted by the sender, and then decrypted by the recipient. This stops "snoopers" from intercepting the data and accessing its contents. A Secure connection is generally used any time a user's personal data is being transmitted.
    - o **Examples of Secure websites:** Desire2Learn, online banking, the checkout screens of any online store

- **Insecure** content is transmitted without encryption. This makes it vulnerable to interception, but the lack of extra processing results in faster loading times. The lower security tends not to be an issue, since most sites are not transmitting any personal or private information.
    - o **Examples of Insecure websites:** The Conestoga website, your bank's main informational website, the shopping screens of any online store

What is "mixed content"?

Ordinarily, an entire screen of web content will be either secure or insecure, but it's possible to instead construct a webpage like this:

> **This is a secure website.** Data transmitted by this area is protected, and your browser will inform you that you are in a secure area.
>
> > This is a small sub-window embedded in the page, which links to **insecure content.** Data transmitted by this sub-window is not protected.

So in a nutshell, while the overall website is secure, a smaller area of it is not. This is called **mixed content,** because it mixes secure and insecure within the same page.

In most cases, this is not done for nefarious reasons—it is simply convenient to be able to show something from the "open web" (eg, a YouTube video) in an area that is otherwise secure (eg, within Desire2Learn).

So, what's the problem?

In the past, browsers noted when a page contained mixed content, and allowed users to allow or disallow it on a case-by-case basis. However, all major browsers were updated in August or September of 2013 with a new default setting: **mixed content is now blocked by default** with minimal notice provided, and must be turned *on* where desired.

How does this impact D2L?

Desire2Learn as a whole is a secure environment, but uses mixed content in several ways. The two most common instances are:

- **When creating a link to an external website**, the default behavior is to open the external page (insecure) within Desire2Learn's graphics and menus (secure).
- **When embedding media from an external website** (eg., a Youtube video) using Insert Stuff, the video itself is an insecure content item set into an otherwise secure page.

The result in either of these cases is a **blank white space**—a link to an external site displays blank white in the entire content frame, while embedded media is a blank area on the page. All content from the insecure page is simply ignored.

How can an instructor avoid this problem?

1. When using external web content of any kind *(websites, journal links, online videos, etc)* within your Desire2Learn course, always do so by creating a link to the site or content and having it "**Open In A New Window**".
2. Do not embed videos from external websites (such as YouTube) directly into a D2L page using "Insert Stuff", as they will likely not work for most users. Instead, create a link to the YouTube video and make sure that it opens in a new window. *(Insert Stuff can be used without complications for video files that you upload yourself into D2L).*

## How can a student deal with this problem?

If your instructor has posted insecure content, you can instruct your browser to display it anyway. The method varies by browser:

Internet Explorer: A confirmation appears at the bottom of the screen. Click "Show All Content".

> Only secure content is displayed. What's the risk? | Show all content
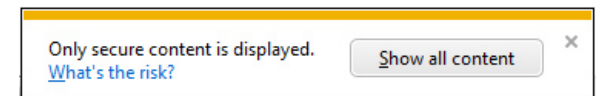
Firefox: A shield icon appears to the left of the address bar. Click it, click the down arrow beside "Keep Blocking", and instead choose "Disable Protection"

> https://conestoga.desire2learn.com/d2l/le/co
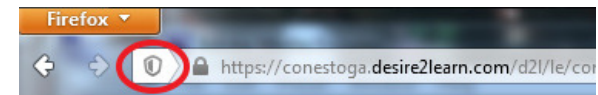
Chrome: A shield icon appears to the right of the address bar. Click it and choose "Load Unsafe Script".

> tps://conestoga.desire2learn.com/d2l/le/conter
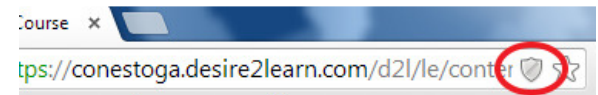
Additional Support

If you have any questions, please feel free to e-mail eLearning Support at:
eLearningSupport@conestogac.on.ca.