



**Crypter Aims and Uses:**

Crypter (www.crypter.co.uk) is an extension for Google Chrome and Mozilla Firefox. It allows users to send encrypted messages using the well-established messaging service Facebook messenger. It was designed and created by University of Sussex Computer Science student Max Mitchell (max@maxis.me).

It works by first agreeing upon a password between the sender and receiver. This password is then used to locally encrypt messages on the sender side, creates ciphered text, which is sent across the Facebook server, and is then used again to locally decrypt the ciphered text on the receivers’ side. It is powered by the Crypto-JS library using AES (Advanced Encryption Standard) encryption methods.

Unencrypted conversations leave people’s private conversations vulnerable to interception from private companies and Governments without user consent. This is a growing concern with laws such as the ‘Snooper’s Charter’ being introduced in the UK and SOPA and PIPA in the US. These would allow our Governments’ to intercept our private messages without the need of a warrant from law enforcement or consent from the users.

Because of the issue Crypter solves, it leaves itself open to be useful in a multitude of ways. In countries where Governments can prosecute and kill for inciting protest, having a tool like Crypter would be incredibly beneficial for the oppressed. They can now use social media to spread and share ideas. Having something akin to Crypter could have completely rewritten history in respect to events like the Arab Spring.

In times where it’s of concern that social media companies sell your data to advertising companies in order to provide target advertising, using Crypter could be immensely valuable. Your messages become totally illegible to prying eyes rendering them useless to advertising companies.

Finally, it’s human nature to want privacy. In light of Edward Snowden’s Global Surveillance disclosures, people don’t want their messages stored and analysed regardless of whether their topic of discussion is illegal. Crypter can put millions of people at ease.

We had an “if you can’t beat them, join them” attitude, to designing Crypter. Instead of inviting users to join a brand new chat application we decided to apply it to an already established one – Facebook. And at the same time making sure that we don’t interrupt with our users existing habits.

Crypter solves the issue of getting unwanted hands on your Facebook messenger data, and we believe this to be incredibly important in 2016 where Internet privacy is at the forefront of debate. It’s a current, global issue affecting 1.55 billion people worldwide. Having an unobtrusive application like Crypter emerge into the market now could immensely aid efforts to increase Internet autonomy.