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## SETTING UP MAILVELOPE

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# Introduction to Cyber Security

## Setting up Mailvelope

You have learned that using cryptographic tools for email is not particularly straightforward and there is no single tool that works across all computer systems.

In the following steps you will download and install the Mailvelope software that will allow you to send an encrypted email through existing web-based email accounts such as Gmail or Yahoo mail. The video shows how to use Mailvelope.

To send the encrypted email, you'll need to be able to install software on the computer you are using for this course. If you're not able to do this then please read through the steps so that you understand the process.

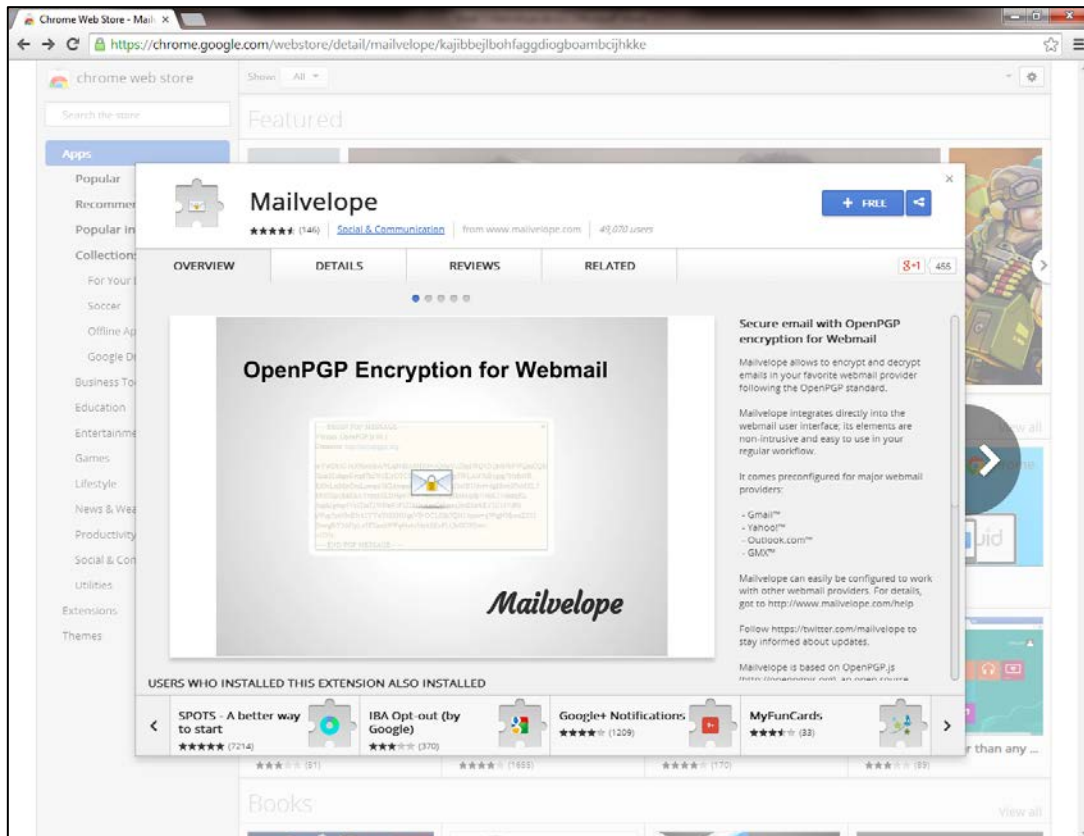
You'll also need Chrome web browser and a web-based email account. If you don't have Chrome already installed on your computer, you can download it from [Google Chrome](#). Most email accounts are accessible via the web even if your email comes to your computer.

The tool you will be using is called Mailvelope.

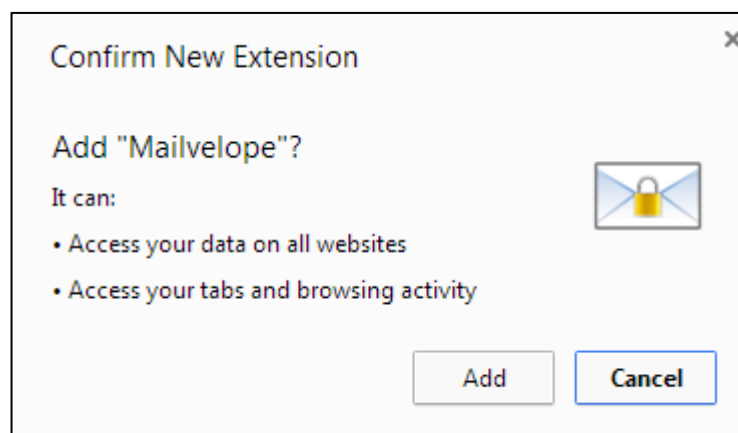
## Installing Mailvelope

Firstly, you will download and install Mailvelope as an extension to your browser.

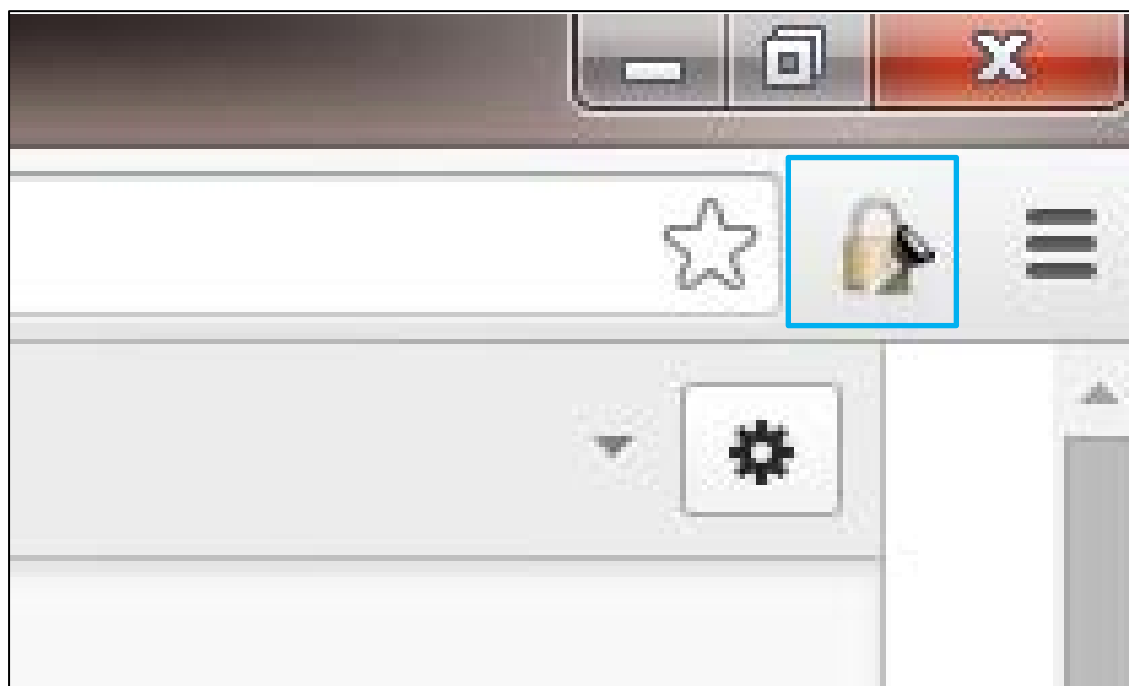
1. Find Mailvelope in the [Chrome Webstore](https://chrome.google.com/webstore/detail/mailvelope/kajibbejlbhohfaggdioqboambcjhkke) (if this link doesn't work for you, visit <http://goo.gl/DDgvi8>)



2. Click '+ FREE' and select 'Add'.



3. You should now see the Mailvelope icon appear in the Chrome toolbar, at the far right hand side

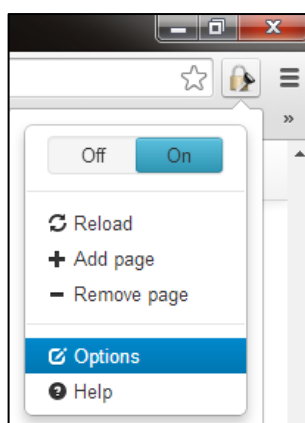


To exchange signed and encrypted email you will need to generate a public and private key for yourself and tell Mailvelope about the public keys of the people you plan to communicate with.

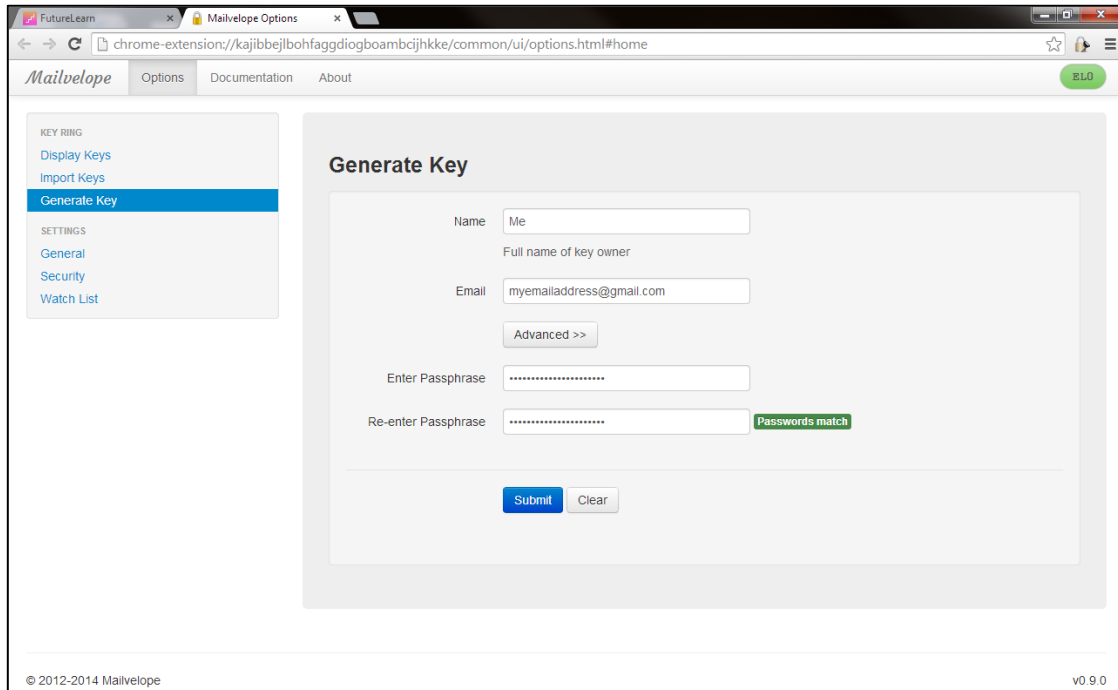
## Generating Keys

Now let's generate your keys.

1. Click the Mailvelope icon in your Chrome toolbar and select 'Options'. This will show your 'Key Ring' – the set of keys that Mailvelope knows about. At the moment there are no keys listed:



2. Click the menu option 'Generate Key' from the list at the left of the screen. You will be presented with a form asking for the name, email address and pass phrase that will be associated with the generated key:



3. Fill in the information, making sure to use a strong and memorable pass phrase – as you learned in Week 2. Mailvelope will ask for this pass phrase when you try to use this key to sign or decrypt a message. Clicking submit will show a progress indicator and a message that the key is being generated. Once this is complete you will see the message: 'Success! New key generated and imported into key ring' at the bottom of the form.

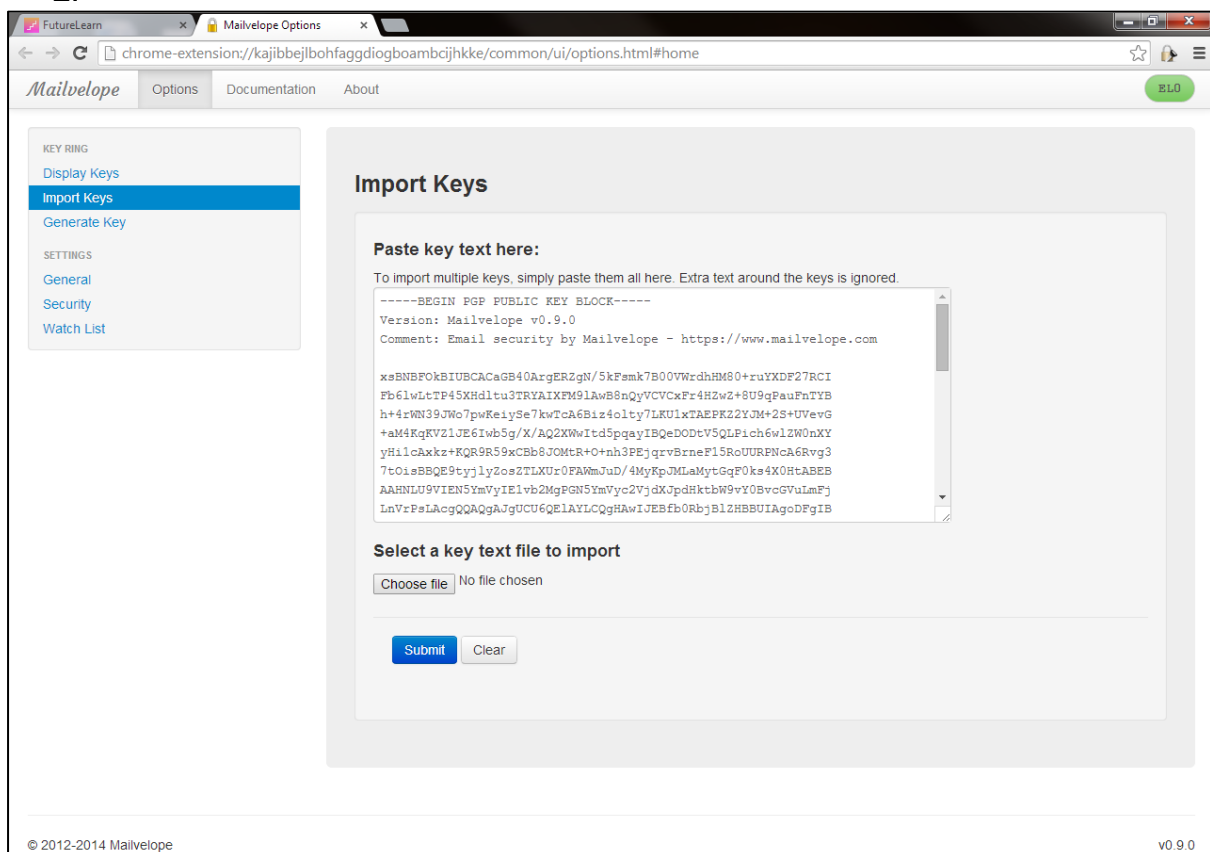


**Success!** New key generated and imported into key ring

## Importing Keys

The final part of configuring Mailvelope is to import a public key for someone you want exchange messages with. We've set up a special email address up for this task – [cybersecurity-mooc@open.ac.uk](mailto:cybersecurity-mooc@open.ac.uk).

1. Get started by clicking the menu option 'Import key' from the list at the left of the screen:
- 2.



The screenshot displays the Mailvelope 'Import Keys' interface. On the left, a sidebar menu includes 'KEY RING' (with sub-items 'Display Keys', 'Import Keys', and 'Generate Key'), and 'SETTINGS' (with sub-items 'General', 'Security', and 'Watch List'). The 'Import Keys' option is highlighted. The main content area is titled 'Import Keys' and contains a text input field with the following text:

```
-----BEGIN PGP PUBLIC KEY BLOCK-----  
Version: Mailvelope v0.9.0  
Comment: Email security by Mailvelope - https://www.mailvelope.com  
  
xsBNBFokBIUSCACA6B40ArgERZgN/5kFsmk7B00VwrhHM80+ruYXDF27RCI  
Fb61mLTP45XHdltu3TRYAIXFM91AwB8nQyVCVCxFr4H2w2+8U9gPauFnTYB  
h+4rN39JWo7pwKeiySe7kwTca6Biz4oltY7LKULxTAEPRZ2YJM+2S+UtevG  
+aM4KqRVZ1JE6Iwb5g/X/AQ2XWwItd5pqayIBqeDODtV5QLPich6w1ZW0nXY  
yH1lcAkkz+KQR9R59xCBb8JOMtR+O+nh3PEjqrVzrneP15RoUURPncA6Rvg3  
7t0iSBbQE9tyjly2osZTLXUc0FAWmJUD/4MyKpJMLaMytGgF0ks4X0HtABEB  
AAHNLU9VIEN5YmVyIE1vb2MgPGN5YmVyc2VjdXJpdHktbW9vY0BvcGVuLmFj  
LnVrPwLaCgQQAgA.JgUCU6QE1AYLCQgHAWIJEbfb0RbjB1ZHBBIUAgODFgIB
```

Below the text area, there is a section titled 'Select a key text file to import' with a 'Choose file' button and the text 'No file chosen'. At the bottom of this section are 'Submit' and 'Clear' buttons. The footer of the interface shows '© 2012-2014 Mailvelope' on the left and 'v0.9.0' on the right.

Public keys can be provided as plain text. Copy the one for our email address below, include the lines with '--- BEGIN ...' and '--- END ...' Paste it into the text area of the Mailvelope key import screen.

-----BEGIN PGP PUBLIC KEY BLOCK-----

Version: Mailvelope v0.10.2

Comment: Email security by Mailvelope - <https://www.mailvelope.com>

```
xsBNBFRTk80BCACZvweJzZdkQMGukYklmKC+57ER4d8WG0IYz4x7DX+4ZZn
NcMMPiWTi3f4dXJ8IJLsgNuksFOqdGVsQfWPNwDuAx+cKgKlzdMfUTqaUkwG
hNCWbLgUfpKzrc5nxbceaaczM8CcEM5DRR/RUXsb8PdF/+qUXGMD/dULbaZF
y3kWJm8eKtk34/Ddhl1BTrdsuqWc0Sd3T5fAunXmt5OVwJfQH4e0A80rYlv/
6x132fvTrc1O2PuhehOYis5GbllmEne3uLf2+qY1atituAsITNveRv1IH9k
vLEIIDAx7pg9wzMP56TCipcy7/Y0A4b/PosRr98lvxqro/PjmYvtXYdjABEB
AAHNM0N5YmVylFNiY3VyaXR5IE1PT0MgPgn5YmVyc2VjdXJpdHktbW9vY0Bv
cGVuLmFjLnVrPsLAcgQQAQgAJgUCVfOT2AYLCQgHAWIJEKcfnOAIYdbMBBUI
AgoDFglBAhsDAh4BAADp0gf+PPYfgJyisnXgpKH/lac4RH+xx17bVfQ5hbFk
p2cSPTLExba2OBgFT1QnuHfJex2arVEv5Iz/lm09BTzQSBSqrNnbmuAc9qif
mlJVvElvQ+5w0qA5Zllo9XrocLzTjW4nLTWZLrdfAJo9CB1D/q60xE8KFYD
vX7zRplTdZsRc85PM3yfKft4jsAY+Uv1gTHUfT2CBgi8wsnq6r1rPFE+1w5r
SNIQbugUzUzbczD4RqUL6DVbp3T04ZiPvIHh4j3yLktCNg6OhcLZ3NfrjL4
aD8YAI17uB9FEYSC9Z10xWO/knRHBYWjj7sp/IAzulki0+67XYMatBEQVCMl
nBUBn87ATQRUU5PYAQgAzZFiDoNzvSrzBzOpjIGdg24aC/nA0kxZgnHbTFD3
81gic6DKJ1wS3oN5kNT7WDsCRVM2vNEZ+dLGu3aR1AntbZfxsd7k7iTPNCeC
VV0X59cX9x5WCUuygl4rK4dDW8NUk1E6ef5eFAo4YPkaaSPqr+RcurS4mWa+
9zLvvrIxG7J4xPbC1FSe5GSCi+CyzxDV+ICI3h985DuIDNXShlUrSjhz+xy
TfVpLcjRODom8frO+7K4n04qUAvqoiqHaldeC2lrasURWDHpuhBpaSQeWtEF
NIMwBPjkQ3LS2vqqCTpugjZzLI0YzpUOFJKlvoX0c0wyCE0f01nFISkEQjFB
0wARAQABwsBfBBgBCAATBQUU5PhCRCnH5zgJWHWzAlbDAAAY7IH/2qzhjzB
lFnw2boWlYvUQwhaTUB8+DkGk0hXAOy8TspjQ6ph/8jC1ajSe4iElfqhI4nj
q+a2YhpVxMuXBIGPMdoG4fv/rJayKKSPr8w0Fyd/8+LeiHdiHmYrog0ds0Hb
hT6G3mXzLqXixaKMCADfv3yWYLhbgTNU90eBTblLW+b1hMXocmgWS4jHxePy
abjLUzBcjOIJ1dDsoxg2BIJT/1okvZa7c+uzcbTrm5wC+TLWqMbUDcGnPmid
7NUL8696ZKhrOeVc1ieOvc9v8Ax3Co5qQWh78/f3XS2pmv/reGPPPhaTSfmt
QAbFIDORGdx9/rkjhrPyl1YtMeuVNAHflA=
=RTLt
```

-----END PGP PUBLIC KEY BLOCK-----

### 3. Click 'Submit'.

You are now ready to send a signed and encrypted email with Mailvelope. You'll do this in the next step.

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**Disclaimer:** The Open University and partners associated with this course have found this software to be robust at the time of checking. However, installing software is done at your own risk and The Open University and their partners cannot be held responsible for any resulting damage to your computer.