Off The Record messaging

A gentle introduction

London CryptoFestival 2013

Why bother?

- Casually chatting ON the record is dangerous
- Casual = you will say something that can be used against you

- Perhaps 30 years from now.

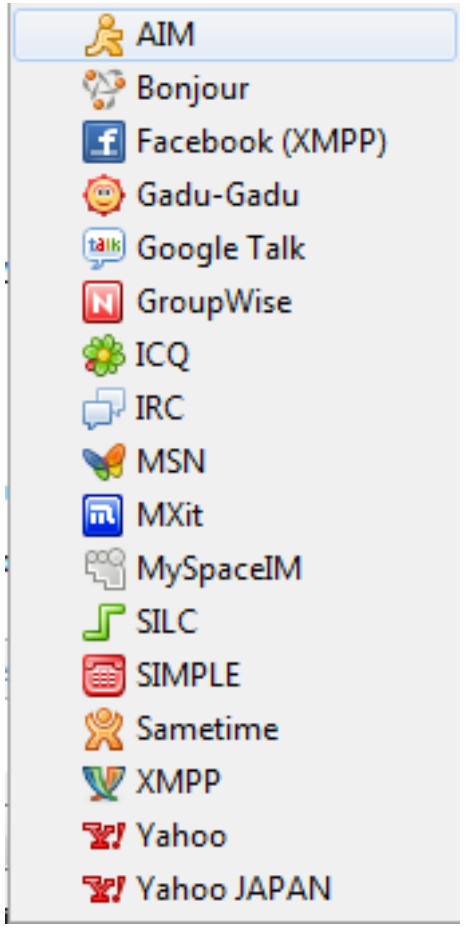
- Hey, it’s all recorded and you can’t delete the record. You can’t even see your record!

But I can delete my chat history!

- No you can't.
- All you can do is *stop seeing the record*
  - Google's "Go off the record" => STILL RECORDED!
  - Facebook's "Delete" => DOESN'T DELETE!
- But I have rights to my data as an EU citizen!
  - In theory, you should be able to get a copy of your data.
  - Good luck with that - see "Europe vs Facebook" http://europe-v-facebook.org/EN/en.html

But all my friends are on…

- No need to change your current chatting/social network – most are supported



- Off The Record (OTR) messaging
  - Privacy over public channels
  - Use Google chat without Google reading what you say!

What OTR gives you

- **Encryption**
  - No one else can read your instant messages.
- **Authentication**
  - You are assured the correspondent is who you think it is.
- **Deniability**
  - The messages you send do *not* have digital signatures that are checkable by a third party.
  - Anyone can forge messages after a conversation to make them look like they came from you.
  - *During* a conversation, your correspondent is assured the messages he sees are authentic and unmodified.
- **Perfect forward secrecy**
  - If you lose control of your private keys, no previous conversation is compromised.

Best OTR tools

-  with pidgin-otr on Windows

  http://pidgin.im/ and https://otr.cypherpunks.ca/

- ChatSecure on Android & iOS
  https://guardianproject.info/howto/chatsecurely/

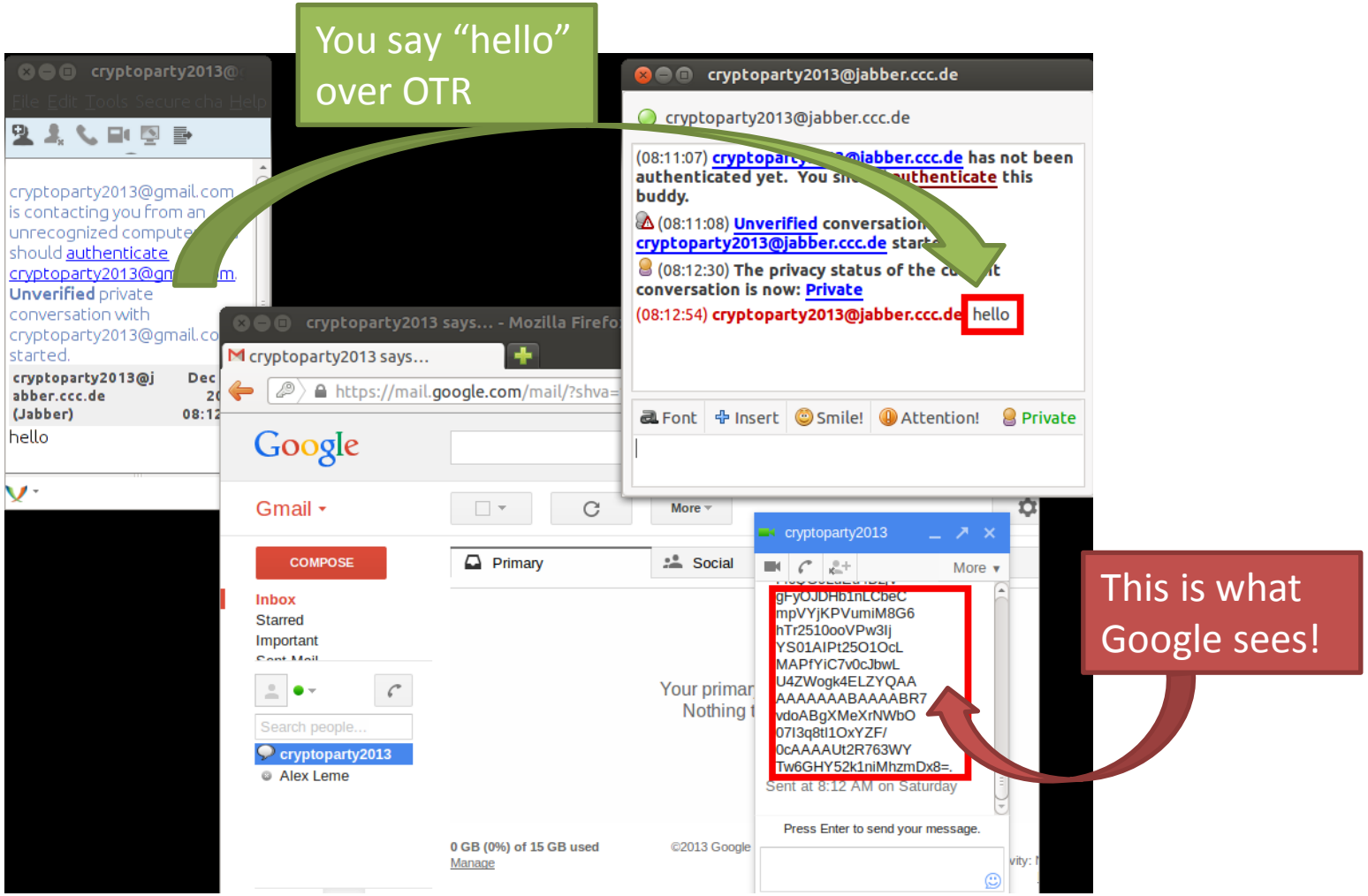
-  Adium on Mac https://www.adium.im/

-  CryptoCat on anything! https://crypto.cat

Key verification

- Verifying your correspondent ensures there is no “Man In The Middle” (i.e. eavesdropper)
- Video tutorial: https://www.youtube.com/watch?v=vgx7VSrDGjk
- You only need to do it once!
  - for each correspondent

What encryption looks like



Demo time!

Questions?

- Step-by-step instructions:
  - Using OTR with Facebook: http://apapadop.wordpress.com/2012/03/29/stop-facebook-recording-your-chats/
  - Using OTR with Google Chat: http://apapadop.wordpress.com/2012/04/15/stop-google-recording-your-chats/