

# DRM: Digital Restrictions Management

Day against DRM 2016

Ruben De Smet

May 3, 2016



# Part I

## Introduction

# Thank you!

► InfoGroep

Thank you!

- ▶ InfoGroep
- ▶ Free Software Foundation



**FREE SOFTWARE**  
F O U N D A T I O N

# Who are you?

I like to know my audience!

- ▶ What brings you here?
- ▶ Did you hear about DRM before?
- ▶ Your education?

Ten seconds per person should be enough.

# Who am I?

Ruben De Smet:

- ▶ Free software advocate, user and developer since  $\pm 2006$ .
- ▶ Opiniated.
- ▶ Not representing the FSF, nor the EFF.



## Part II

### What is DRM?

# Digital Restrictions Management

## DRM

- ▶ is proprietary software;
- ▶ imposes artificial restrictions on usage, e.g.;
  - ▶ limits usage of media to certain devices;
  - ▶ limits saving a video when streaming;
  - ▶ playing a game without its CD in the drive;
  - ▶ playing a single player game offline.

It limits your freedom to use and share media, hence it is **defective by design**.

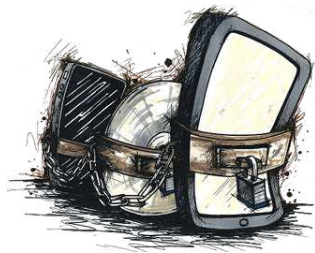


# Digital Restrictions Management

DRM vendors **claim** that their software **enforces copyright**. *It does much more than that.*

It **disables rightful usage** of media: home copies, playing a Blu-Ray on your home theatre system, recording music from streaming services for your own use, ...

It **spies** on its users by sending back info on how the media was used.



CC BY-SA 3.0 - Brendan Mruk and Matt Lee

# Part III

Very concrete examples

## Amazon Swindle (“Kindle”): e-reader

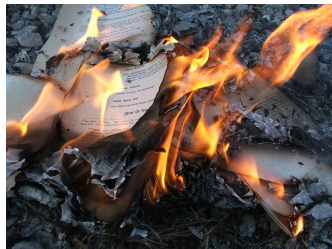
In 2009, Amazon remotely deleted thousands of copies of Orwell's *1984*.

## Amazon Swindle (“Kindle”): e-reader

In 2009, Amazon remotely deleted thousands of copies of Orwell's *1984*.

A book about rulers having full control on media. **Ironic, isn't it?**

DRM enables *digital book burnings*.



CC BY 2.0 - LearningLark

# Amazon Swindle: privacy

Another one:

The Swindle sends the company every page it's user reads, whenever it gets online.



CC SA 2.5 - Paweł Zdziarski

*"If consumers even know there's a DRM, what it is, and how it works, we've already failed."*

– Peter Lee, Disney Executive

## Disney: copyright

*Since 1990, The Walt Disney Company has lobbied for copyright extension. The legalisation delayed the entry into the public domain of the earliest Mickey Mouse movies, leading detractors to the nickname it "The Mickey Mouse Protection Act".*

– Wikipedia



## Intermezzo: copyright lengths in different countries

<b>Country</b>	<b>Copyright duration</b>
Belgium	



## Intermezzo: copyright lengths in different countries

<b>Country</b>	<b>Copyright duration</b>
Belgium	life + 70 years
USA	

## Intermezzo: copyright lengths in different countries

<b>Country</b>	<b>Copyright duration</b>
Belgium	life + 70 years
USA	life + 70 years

Most countries between 50 and 70 years after death of author.

## Intermezzo: copyright lengths in different countries

<b>Country</b>	<b>Copyright duration</b>
Belgium	life + 70 years
USA	life + 70 years

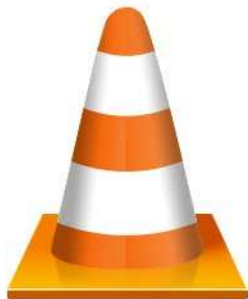
Most countries between 50 and 70 years after death of author.

Disney wants it to be **longer**.

# DVD

DVD copying was impossible for a while. DRM called “Content Scramble System” (CSS) disabled it.

The system was introduced around 1996 and was first **compromised** in 1999.



GNU GPLv2+ – Richard C. G. Øiestad

## Sony: Blu-Ray

Blu-Ray's use "Advanced Access Content System" (AACS), which is build by **less laughable** software engineers.

Blu-Ray discs can **fight back**. Newer discs sometimes take time before they are cracked.

## Telenet: Yelo and CI+

**Yelo**, the online television service, uses *ReadyPlay* (by Microsoft). ReadyPlay has a “blackbox DLL”, that executes **any instruction** it gets from Microsoft and **sends usage statistics** back. Not to Telenet, **to Microsoft**.

**CI+** (“TV met een kaartje”) makes it impossible to watch digital TV on your computer (or HTPC) without Telenet’s explicit per-device permission.

# Coffee machines not accepting coffee

*Keurig Will Use DRM In New Coffee Maker To Lock Out Refill Market*

– [www.techdirt.com](http://www.techdirt.com) in 2014

A coffee machine that only accepts one brand of coffee? Come on!

# Why is this important?

- ▶ Almost every DRM system spies on their users, without their knowledge;



# Why is this important?

- ▶ Almost every DRM system spies on their users, without their knowledge;
- ▶ DRM does *not* fix “piracy” issues. Copyright should do that;

# Why is this important?

- ▶ Almost every DRM system spies on their users, without their knowledge;
- ▶ DRM does *not* fix “piracy” issues. Copyright should do that;
- ▶ It makes many regular people criminals (copyright infringement): there is **no legal way** to watch a DVD or Blu-Ray in VLC in many countries;

# Part IV

## Fixing DRM

## Disney: copyright

*Since 1990, The Walt Disney Company has lobbied for copyright extension. The legalisation delayed the entry into the public domain of the earliest Mickey Mouse movies, leading detractors to the nickname it "The Mickey Mouse Protection Act".*

– Wikipedia

We need people to be **aware** of DRM, and people to **oppose** DRM.



# Opposing DRM

Some ways to oppose DRM:

- ▶ Cancel your Netflix account and tell them to drop DRM;
- ▶ Crack existing DRM solutions → **illegal**;

Please keep in mind: cracking DRM is illegal. Therefore, if you find a way to make coffee with that Keurig machine, **you get in jail for brewing coffee!**

<http://www.defectivebydesign.org/action>

# Discuss!

Didn't understand something? Want to talk about DRM? Go for it!