## Implementing LCP in Reading Systems and Servers

Technical Requirements and FAQs

# 10 years

The European Digital Reading Lab (EDRLab) was founded in 2015.

Based in France, Paris

## 3 110 members from 36 countries

Publishers, Distributors, Libraries, Retailers, Developers

members.edrlab.org

# Open Source and open standards

Collaborative projects, non partisan

# Team of 10



#### LCP is Copy Protection

DRM

#### Requirements for the LCP DRM

- Manage constraints (time period, copy, print)
- Almost invisible for users
- Widely supported (interoperable)
- Non-proprietary and distributed
- Versatile (multiple formats)
- Non breaking for accessibility
- Not harmful for user privacy

#### LCP Principles

#### The retailer or library:

- Installs an LCP Server
- 2. Encrypts a large set of publications (ebook, audiobook ...)
- 3. Recommends one or more LCP-compliant applications
- 4. Each user is given a "passphrase"
- 5. For each publication
  - a. The user gets a "license",
  - b. He loads it in the application
  - c. He enters his "passphrase" (only once)
  - d. He reads the publication

### LCP compared to other DRMs

#### Ease of use?



Proprietary DRMs (Amazon, etc.)



Adobe DRM (Adobe account, Adobe Digital Edition, bugs, cryptic errors)



Readium LCP DRM (passphrase)

#### Multiple formats?



Proprietary DRMs (ebooks & audiobooks, download)



Adobe DRM (EPUB, PDF, download)



Readium LCP DRM (EPUB, PDF, Web Publications, comics, audiobooks, download & streaming. DAISY possible)

#### Accessibility?



Proprietary DRMs (it depends)



Adobe DRM (no evolution for years)



Readium LCP DRM (HTML5 is accessible to screen readers)

#### Accessibility?

#### What does it mean?

- Text is not rendered as image
- Audio rendering (TTS) is not blocked
- When the content is pre-processed for screen readers, every HTML5 detail is available to the tool:
  - Alternative text in images
  - Mathematical expressions in MathML
  - ARIA labels

#### International standard?



Proprietary DRMs





Readium LCP DRM : ISO\_IEC\_DIS-23078-2

#### Non-proprietary, Distributed?





Adobe DRM (Adobe account)



Readium LCP DRM

#### Business model?

Proprietary DRMs (not sold)



Adobe DRM (fix fee + transaction)



Readium LCP DRM (/ gross revenue or transaction)
Free for specialized reading applications

#### LCP: Diversity of devices (interoperability)









More than 100 applications, including **Thorium Reader** (free, localized in Japanese, desktop, web and soon mobile).

Pocketbook InkBook Vivlio Boox (Android) Kobo (2026) **Selvas**BrailleSense,
eMotion etc.

#### Adopting LCP

#### Adoption, server-side

- Install and set up the LCP Server software
  - open-source
  - plus a confidential software module
- Interface your ebook delivery system to the LCP Server
- Encrypt the catalog
- 1 month of work?

#### Adoption, client-side

- Recommend the use of an existing application
  - Thorium Reader
  - Can be customized
- Integrating LCP into an existing application
  - Include the confidential LCP-client software module
  - o 1 month of work?
- Developing a new reading application
  - Readium Toolkits, open-source (mobile, web)
  - o 6 months to 1 year of work?

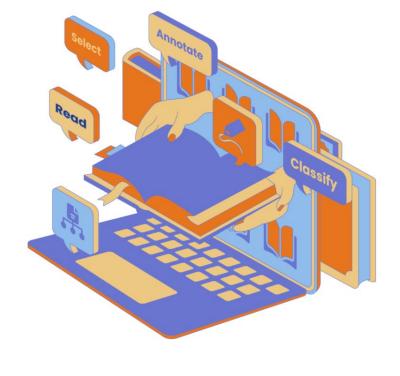


#### Read, Select, Annotate, Classify

Perfect for heavy readers, library-goers, and students alike! No ads, or data leaks to worry about

#### Th Download links (Thorium 3.1)





Minimum system requirement: macOS Big Sur and up; Windows 10 and up; Ubuntu 18.04, Fedora 32, Debian 10 and newer.

#### Thorium can be customized

#### Thorium

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□ 図書目録



#### **Thorium**

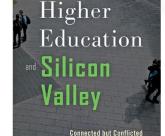
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読書

- All publications
- □ Catalogs
- DemoReader catalog
- (i) FAQ
- ① Help

EPUB

High



Higher Education and Sili...
W. Richard Scott, Michael W....

#### Resume reading



Le Mystère de la chambre... Gaston Leroux





Inishowen
Joseph O'Connor

EPUB

EPUB

:

EPUB

#### LCP Worldwide



#### Some adopters





























#### Thanks a lot. More information

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