



Store and retrieve (rights) information using ebook watermarks and fingerprints

BooXtream ebook watermarking and personalisation enhanced for ARDITO

Huub van de Pol, CEO at Icontact BV huub@icontact.nl
Brussels, 19 June 2018



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731760

BooXstream ebook watermarking

- **Transactional:** unique, hidden codes are inserted into the ebook file during a (sales) transaction. The codes are linked to transactional (meta)data, stored in a central database
- **Redundant:** multiple code occurrences in the same ebook; tamper proof
- **Multiple algorithms:** content dependent, algorithms can be changed, updated, improved; difficult to reverse engineer

→ *Tough, persistent watermarks carry information, survive several ebook manipulations, hard to hack*

Use cases for watermarking in ebook publishing

- Ebook **publishers** use BooXtream to create personalised advanced reader copies, review copies for journalists, authors - *'Manual / ARC Watermarking'*
 - Ebook **distributors** use BooXtream to create unique, traceable master copies of the ebooks in their supply chain to web shops, platforms and ecosystems in order to trace 'embargo leaks' - *'Channel Watermarking'*
 - Ebook **web shops** and publishers selling ebooks direct to consumers (D2C) use BooXtream to protect the ebooks. *Watermarking copy protection (aka Social DRM or Soft DRM)* instead of DRM improves accessibility and UX.
- *Watermarking enables personal ebooks, traceable ebooks, less illegal copying, reduced piracy, improved accessibility*

'ARDITO enabled' BooXtream for ebook publishers, self publishing authors

- **Upload** the ebook in BooXtream
- The ebook will be automatically **fingerprinted** by BooXtream
- Relevant metadata will be onboarded in **The Copyright Hub**
- The ebook can be **sold with any web shop** connected to the BooXtream API
- Every ebook sold will be **uniquely watermarked**

→ *ARDITO features are integrated in BooXtream; enables identification by recognizing fingerprints and watermarks*

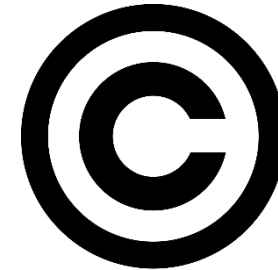
Encoding data in watermarks



Transaction data
(order number, date, time)



Personal information
(Name, Email address)



Rights and license
information (DRS)



BooXtream
eBook watermarking and personalisation



Watermarked and
fingerprinted ebook



**THE
COPYRIGHT
HUB**



Creating HubKey,
onboarding in
Copyright Hub.

ARDITO

example 1: fingerprints

Select text fragment:

"Veggies es bonus vobis, proinde vos postulo essum magis kohlrabi welsh onion daikon amaranth tatsoi
tomatillo melon azuki bean garlic."

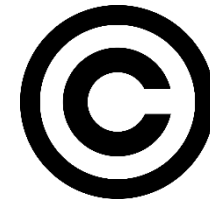


Upload using

Copyright Hub browser plug-in




Ebook information




Rights and license
information

Excerpt:

There are three roles in a scrum team: the product owner, the scrum (or developers). The team is self-organizing and multidisciplinary, w There is no room for test managers in this type of team.

Copy	Ctrl+C
Search Google for "There are three roles in a scrum team: the..."	
Print...	Ctrl+P
 Get permission to use this	



BooXtream
eBook watermarking and personalisation

Asset Information

<p>Description</p> <p>Neil's Quest for Quality</p>	<p>Identifiers</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">isbn</td> <td>9789075414844</td> </tr> </table>	isbn	9789075414844
isbn	9789075414844		

About


BooXtream

☆☆☆☆☆

<p>Email</p> <p>huub@icontact.nl</p>	<p>Website</p> <p>http://www.booxtream.com/</p>
---	--

Description

With this award winning technology, every publisher can protect its digital content without sacrificing customer satisfaction. BooXtream@ offers the perfect solution. With BooXtream@, every eBook sold is unique using advanced watermarking and personalisation features.

Powered by 

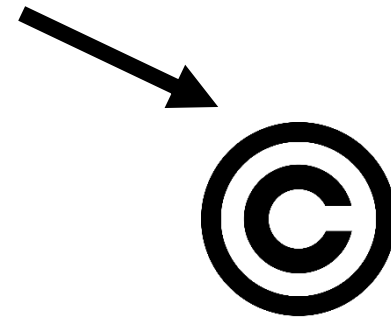
ARDITO

example 2: watermarks

'found' ebook with watermarks



Upload using
Copyright Hub browser plug-in

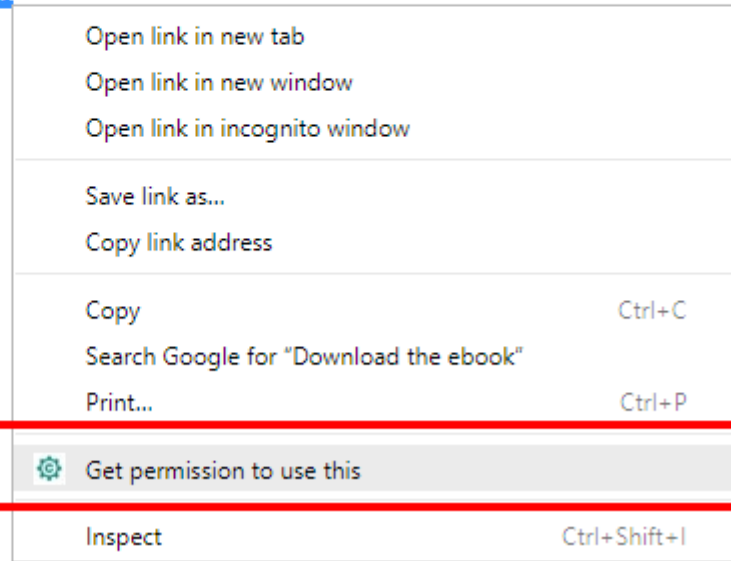


Rights and license
information



Neil's Quest for Quality

Download the ebook



BooXtream
eBook watermarking and personalisation

Asset Information

Description

Neil's Quest for Quality

Identifiers

isbn 9789075414844

ARDITO and BooXtream (1)

EMBEDDING WATERMARKS, CREATING FINGERPRINTS:

- The existing BooXtream API will be enhanced to support additional ARDITO metadata, like ebook **rights and licensing (DRS) data and DOI**
- Onboarding an ebook in the BooXtream repository automatically fingerprints the ebook and creates a **HubKey** for use by **The Copyright Hub plug-in**
- This data is added to the other transactional data used for the **invisible** ebook watermarks
- The rights information will also be inserted into the ebooks in a human readable (**visible**) form.
- Rights and license information can be **updated** after the ebook has been sold.

→ *An ebook can carry and deliver rights information to its users, readers*

ARDITO and BooXstream (2)

DECODING FINGERPRINTS:

- When a text (fragment) is uploaded using the Copyright Hub browser plug-in, BooXstream can find the related source ebook that **contains the text**.
- The fingerprint is **decoded** and the essential rights information and license information will be **shown**.
- The end user is directed to the best place to **obtain** a license

→ *Texts can be linked to the source ebook, even without an embedded watermark*

ARDITO and BooXtream (3)

DECODING WATERMARKS:

- When an ebook is uploaded by (or found by) the Copyright Hub site, their **webbrowser plug-in**, or eg. a crawler, the ebook is decoded by BooXtream.
- The watermark is **decoded**.
- The license information will be **shown**.
- The end user is directed to the best place to **obtain** a license

→ *Content 'found in the wild' can point to the ebook owner, publisher, webshop*

ARDITO and BooXtream: this summer

AUTOMATIC ONBOARDING:

- New BooXtream customers will be able to automatically onboard their ebooks in The Copyright Hub
- The Copyright Hub webbrowser plug-in can be used to 'decode' the hidden data in an ebook and show the relevant rights information

→ *The ARDITO tools will be available for all BooXtream customers*

ARDITO / BooXtream benefits

The aim of the ARDITO project:

To help professional digital content owners, like self-publishing authors, publishers, or photographers, to optimize the legal (re)use of their assets.

ARDITO enables any end user who wants to re-use (parts of) the content to obtain the necessary and up-to-date license and / or a legal copy.

ARDITO is relevant for

- Self publishing authors
- Educational (re)use of existing content
- Monetizing preview copies
- Monetizing web publications with excerpts of ebooks

Every BooXtream customer can benefit from the rights data services offered by ARDITO

Thank you!

Huub van de Pol

huub@icontact.nl

Skype: icontact

www.booxstream.com

[Twitter.com/booxstream](https://twitter.com/booxstream)

[Facebook.com/booxstream](https://facebook.com/booxstream)

BooXtream
eBook watermarking and personalisation