

Digital Rights Management

Karen Coyle

<http://www.kcoyle.net>

With the development of trusted system technology and usage rights languages with which to encode the rights associated with copyrighted material, authors and publishers can have more, not less, control over their work.

Mark Stefik

SHIFTING THE POSSIBLE: HOW TRUSTED SYSTEMS AND DIGITAL PROPERTY RIGHTS CHALLENGE US TO RETHINK DIGITAL PUBLISHING

http://www.law.berkeley.edu/journals/btlj/articles/12_1/Stefik/html/text.html

Acrobat WebBuy



A valid license was not found for this document. Access was denied because the following test failed:
<eq CPU CPU-PCC83C7035032053CCE4B>

OK

Document Properties ✕

- Advanced
- Description
- Fonts
- Security

Document Security

The document's Security Method is used to restrict what can be done to the document.

Security Method: No Security Show Details...

Can be Opened by: All versions of Acrobat

Document Restrictions Summary

Printing:	Allowed
Document Assembly:	Not Allowed
Content Copying or Extraction:	Allowed
Content Extraction for Accessibility:	Allowed
Commenting:	Not Allowed
Filling of form fields:	Allowed
Signing:	Not Allowed
Creation of Template Pages:	Not Allowed
Submitting Forms:	Not Allowed

Help

OK

Cancel

Document Properties

- Advanced
- Description
- Fonts
- Security

Document Security

The document's Security Method is used to restrict what can be done to the document.

Security Method: Adobe DRM

Show Details...

Can be Opened by: Acrobat 6.0 and later

Document Restrictions Summary

- Printing: Not Allowed
- Document Assembly: Not Allowed
- Content Copying or Extraction: Not Allowed
- Content Extraction for Accessibility: Not Allowed
- Commenting: Allowed
- Filling of form fields: Allowed
- Signing: Not Allowed
- Creation of Template Pages: Not Allowed
- Submitting Forms: Not Allowed

Help

OK

Cancel

▼ *Microsoft® Reader Help*

right protection. Some levels prevent you from using certain Microsoft Reader features, such as copying and pasting text into other applications. You can use Microsoft Reader to view all of the following security level eBooks:


- **Sealed eBooks** - Sealed books allow you to use all features of Microsoft Reader, while ensuring the authenticity of content, which means that you cannot modify the text and other content.
- **Inscribed eBooks** - Inscribed content displays information from the purchaser (for example, the name of the purchaser) on the cover page. This reinforces honest usage by consumers.

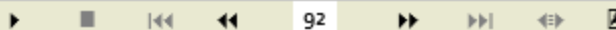
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- **Owner Exclusive eBooks** - Publishers provide these eBooks with inscribed security plus an additional encrypted license that requires you to **activate your computer** for Microsoft Reader before purchasing and reading these eBooks. Publishers prohibit you from copying and pasting text from Owner Exclusive eBooks into other applications. They also prohibit you from using the Text-to-Speech functionality.

Why activate Microsoft Reader?

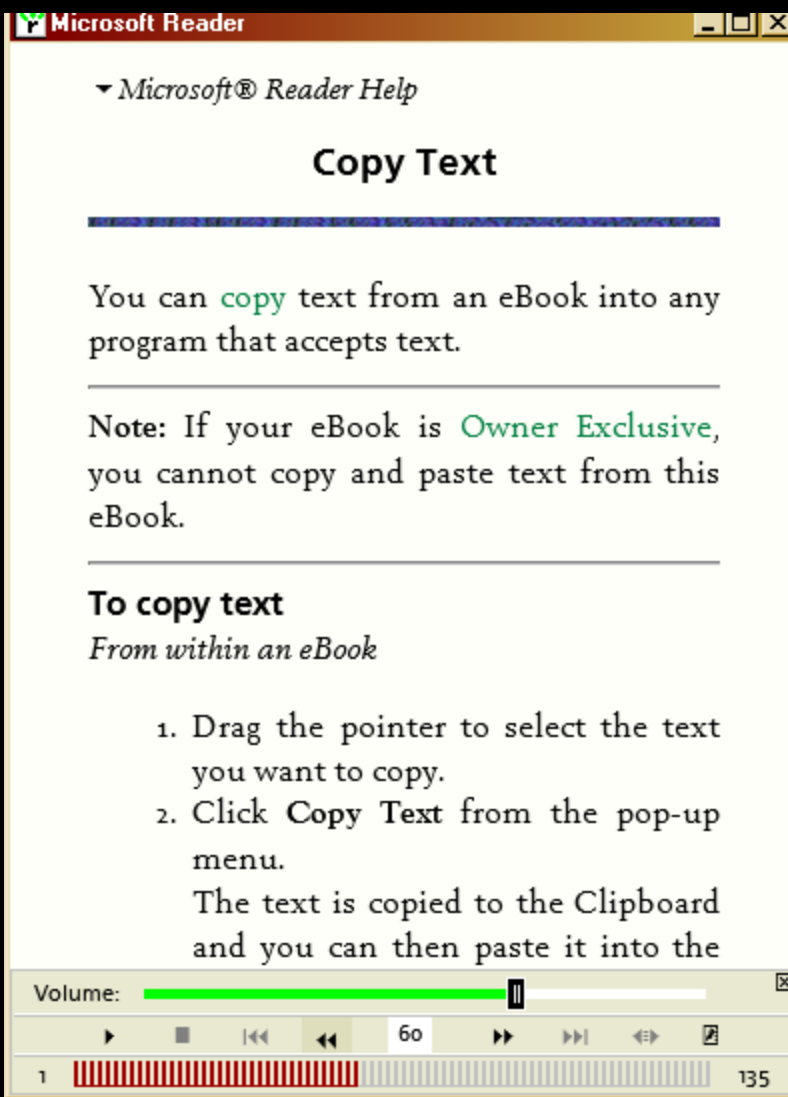
Many publishers require the highest level of copy protection for their eBooks. Content secured at the Owner Exclusive level requires that you activate your Microsoft Reader before you can purchase these

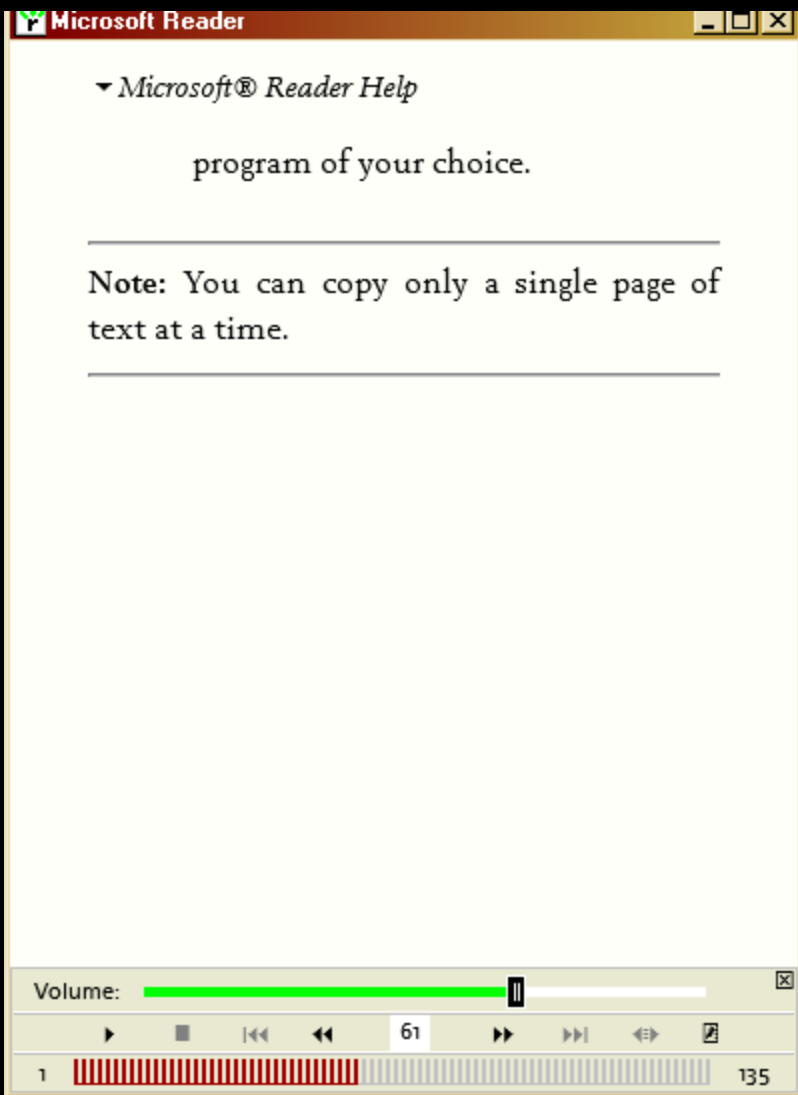
Volume: 

 92

1  134

“Activation associates your Microsoft Passport account with the specific copy of Microsoft Reader on your computer. The activation process downloads a software module to your computer’s memory unique to you and your computer. This software module also uses your Microsoft Passport account number and other information unique to your computer, to protect eBook titles against unauthorized copying.”







Microsoft Reader



Go to

Microsoft® Reader Help

Microsoft Reader Team

No instances of "print" were found.

Library

Shop

Help

Settings



Return

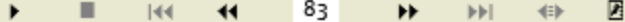
▼ Microsoft® Reader Help


button changes the behavior of **⏪** and **⏩** to navigate by your selection. If the eBook has no chapters or subsections, the double arrows appear dimmed.

4. To stop the Book-to-Speech playback, click **Stop** from the **Riffle Control**, or press CTRL+S.
5. To begin playback from a specific word on a page, select that word, and then click **Play** from the menu, or press CTRL+P. You may need to press TAB to place your cursor into the body of text.

Note: If you attempt to look up a word in an Owner Exclusive dictionary, Microsoft Reader Microsoft Reader opens the text

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definition but does not voice the definition. Owner Exclusive dictionaries cannot be voiced. The Owner Exclusive security level is determined by the publisher and cannot be reset once the book has been purchased. For better results, choose a [Sealed](#) or [Inscribed](#) dictionary.

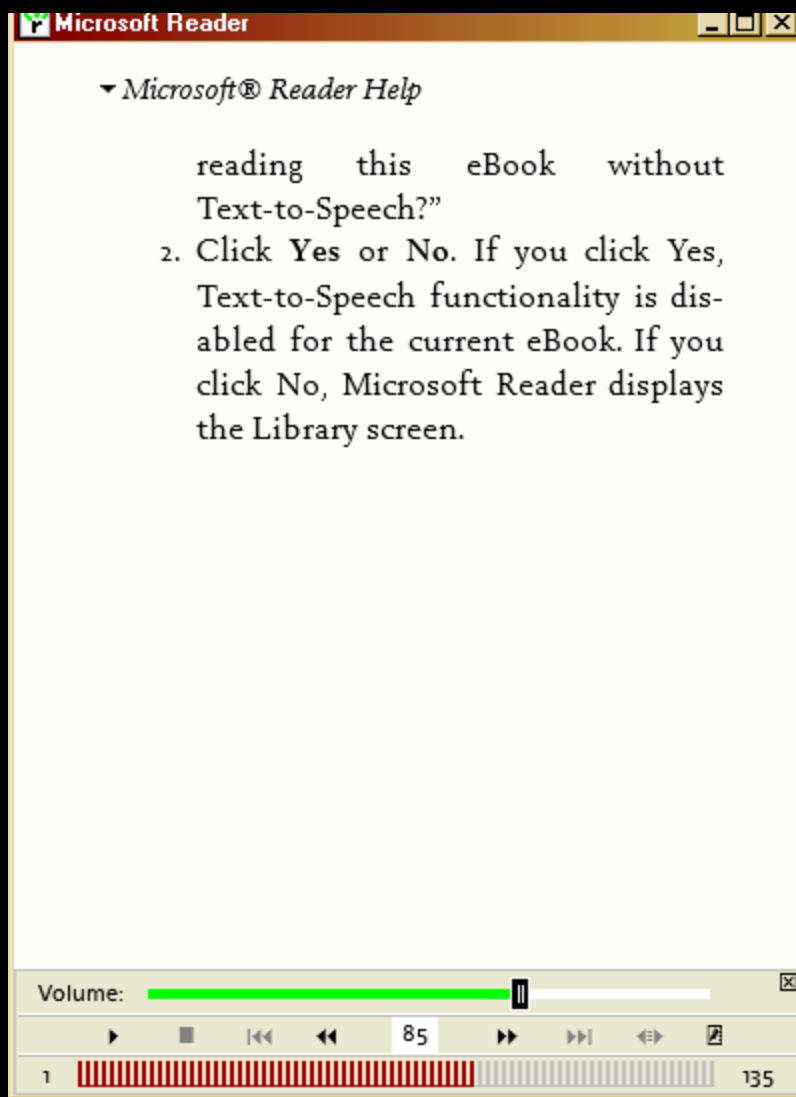
From within an Owner Exclusive eBook

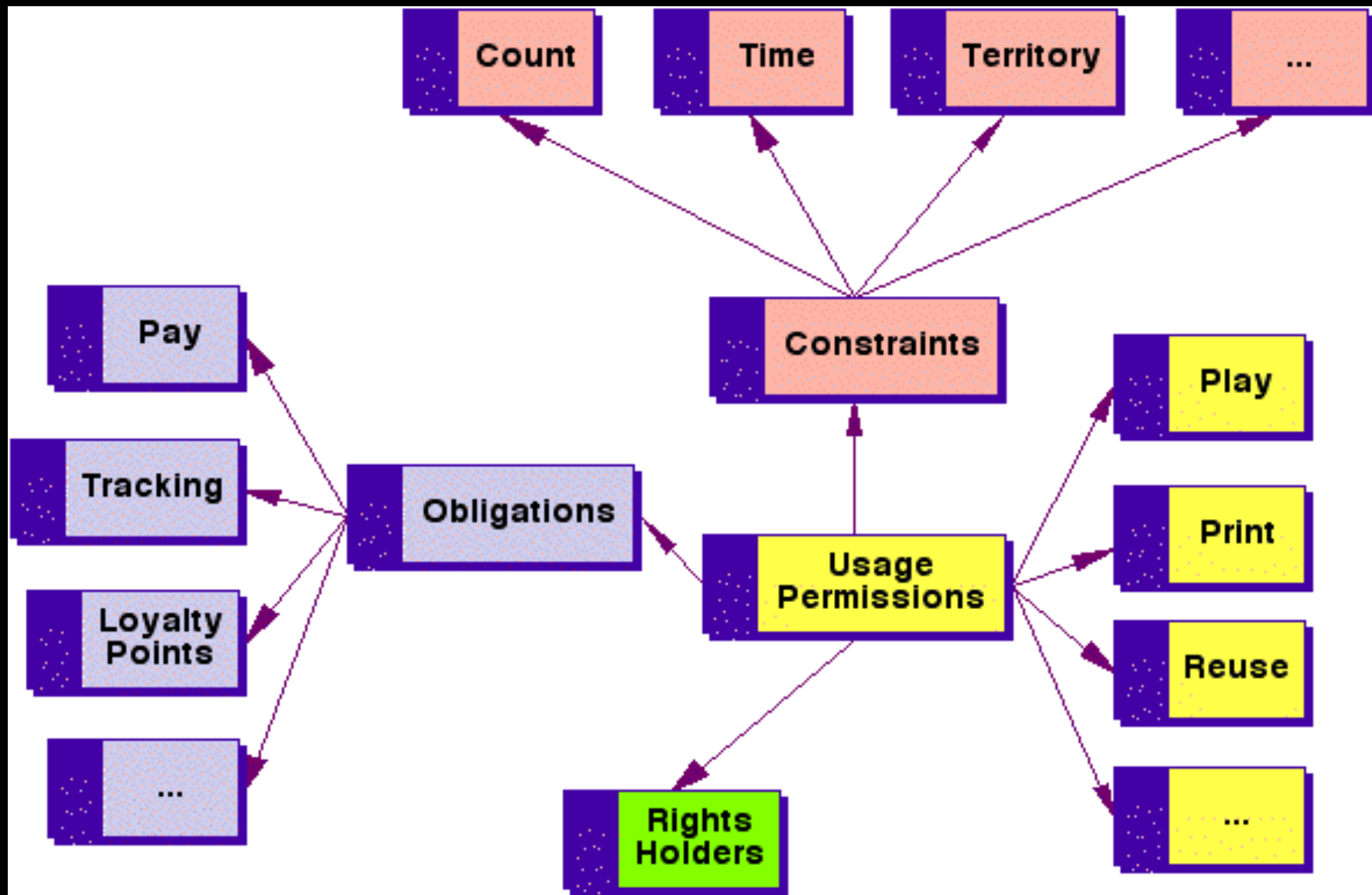
1. In an Owner Exclusive eBook, the audio playback options appear dimmed on the voice-enabled **Riffle Control**, and Microsoft Reader voices the following message, "Text-to-Speech functionality cannot be used with Owner-Exclusive eBooks. Do you want to continue

Volume: 

 84

1  135





Data Elements (ODRL)

- dateAndOrTime
- accumulated
- feeType
- aggregate
- annotate
- attribution
- backup
- count
- cpu
- date
- datetime
- delete
- display
- dLocation
- duplicate
- event
- excerpt
- execute
- fixedamount
- format
- give
- group
- hardware
- individual
- industry
- install
- interval
- lease
- lend
- memory
- modify
- move
- name
- network
- payment
- percentage
- peruse
- play
- pLocation
- postpay
- prepay
- print
- printer
- purpose
- quality
- range
- recontext
- reference
- register
- remark
- restore
- role
- save
- screen
- sell
- service
- software
- spatial
- storage
- tracked
- transaction
- transferPerm
- uid
- uninstall
- unit
- verify
- version
- watermark

```
<o-ex:permission>
  <o-dd:display>
    <o-ex:constraint>
      <o-dd:unit o-ex:type="onix:NumberOfPages">
        <o-ex:constraint>
          <o-dd:range>
            <o-dd:min>1</o-dd:min>
            <o-dd:max>5</o-dd:max>
          </o-dd:range>
        </o-ex:constraint>
      </o-dd:unit>
    </o-ex:constraint>
  </o-dd:display>
</o-ex:permission>
```

[<http://www.odrl.net>]

Data Elements (XrML)

- Grant/forAll
- Grant/principal
- Grant/right
- Grant/resource
- Grant/condition
- Grant/delegationControl
- Grant/encryptedGrant
- Principal
- The AllPrincipals Principal
- The KeyHolder Principal
- Right
- The Issue Right
- The Revoke Right
- The PossessProperty Right
- The Obtain Right

- 5.5.2.1 Authorization of Located Bits
- Let g be any authorized Grant containing a Resource d which is a DigitalResource. Let b be the sequence of bits which is the result of any execution of the location algorithm of d . Then the Grant g' which is identical to g except that d is replaced by a DigitalResource which contains a child binary element which contains a base64 encoding of b is also authorized.

```
<datum>
  <keyHolder licensePartIdRef="Alice"/>
</datum>
<datum>
  <mx:diReference licensePartIdRef="eBook"/>
</datum>
<datum>
  <oebx:recurrencePeriod>
    <oebx:period>
      <oebx:unit>oebx:day</oebx:unit>
      <oebx:unitCount>7</oebx:unitCount>
    </oebx:period>
  </oebx:recurrencePeriod>
</datum>
<datum>
  <oebx:exerciseLimitPerPeriod>5</oebx:exerciseLimitPerPeriod>
</datum>
```

Adobe Reader - [prism_dduel.pdf]

File Edit View Document Tools Window Help

PRISM 1.2 Quick Reference

PRISM ELEMENTS BY FUNCTION

<u>GENERAL PURPOSE</u>	<u>PROVENANCE</u>	<u>RELATIONS</u>	<u>RIGHTS</u>
dc:identifier	dc:publisher	dc:relation	dc:rights
dc:title	prism:publicationName	prism:hasAlternative	prism:copyright
dc:creator	prism:volume	prism:hasCorrection	prism:embargoDate
dc:contributor	prism:number	prism:hasFormat	prism:expirationDate
dc:language	prism:edition	prism:hasPart	prism:rightsAgent
dc:description	prism:issueName	prism:hasPreviousVersion	prl:geography
dc:format	prism:receptionDate	prism:hasTranslation	prl:industry
dc:subject	prism:distributor	prism:isCorrectionOf	prl:usage
dc:type	dc:source	prism:isFormatOf	
prism:category	<u>SUBJECT DESCRIPTION</u>	prism:isPartOf	
prism:startingPage	dc:subject	prism:isReferencedBy	
prism:byteCount	dc:description	prism:isTranslationOf	
prism:wordCount	dc:coverage	prism:isRequiredBy	
<u>TIMES AND DATES</u>	prism:section	prism:isVersionOf	
dc:date	prism:teaser	prism:references	

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Publishing Requirements for Industry Standard Metadata

[<http://www.prismstandard.org>]

ANITA WENT THROUGH THE LICENSING APPLICATION AND ANSWERED THREE SIMPLE QUESTIONS ABOUT WHAT PERMISSIONS AND RESTRICTIONS SHE WANTED FOR HER SONG. THE WEBSITE POINTED HER TO THE LICENSE THAT REFLECTED HER PREFERENCES.

those conditions.

Read a detailed list of [the rights common to all Creative Commons licenses](#). You may also want to re

Do you want to:

Require attribution? ([more info](#))

- Yes
- No

Allow commercial uses of your work? ([more info](#))

- Yes
- No

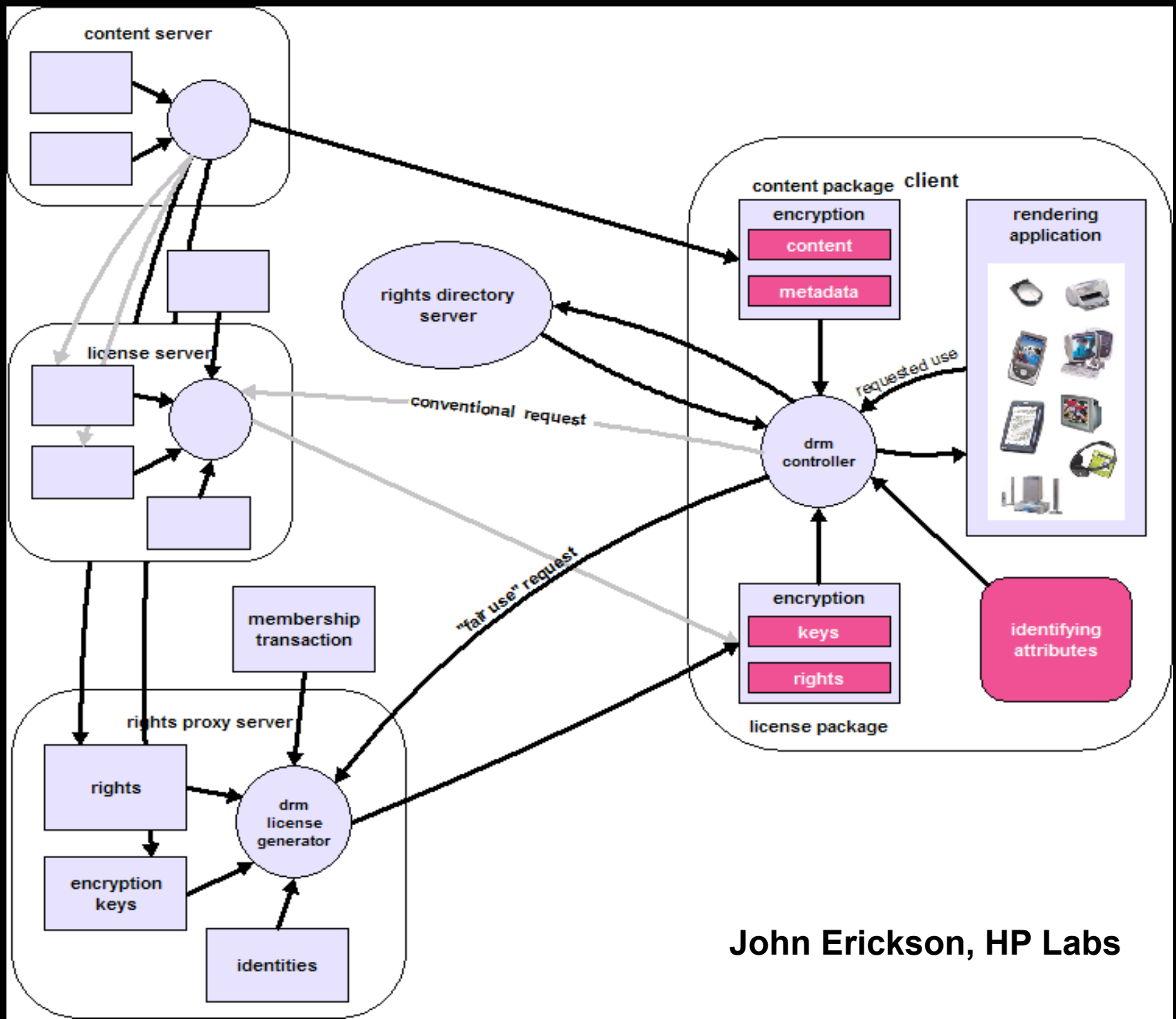
Allow modifications of your work? ([more info](#))

- Yes
- Yes, as long as others share alike ([more info](#))
- No

Select a License

Require attribution? Yeah, I want credit for my song. Allow commercial use? No, I don't want people making money without asking me first. Allow modifications? Sure, as long as they are required to share alike.





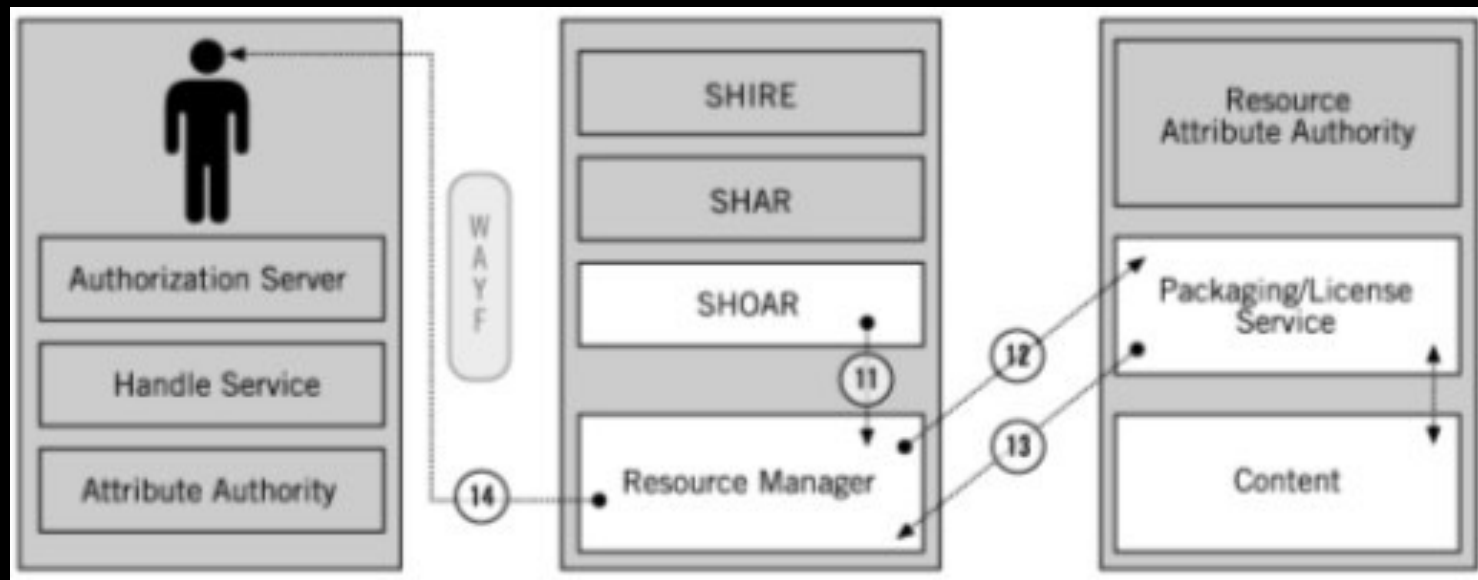
John Erickson, HP Labs

Elements	Complex types	Simple types
CanonicalizationMethod	CanonicalizationMethodType	CryptoBinary
DigestMethod	DigestMethodType	DigestValueType
DigestValue	DSAKeyValue	HMACOutputLengthType
DSAKeyValue	KeyInfoType	
KeyInfo	KeyValue	
KeyName	ManifestType	
KeyValue	ObjectType	
Manifest	PGPDataType	
MgmtData	ReferenceType	
Object	RetrievalMethodType	
PGPData	RSAKeyValue	
Reference	SignatureMethodType	
RetrievalMethod	SignaturePropertiesType	
RSAKeyValue	SignaturePropertyType	
Signature	SignatureType	
SignatureMethod	SignatureValueType	
SignatureProperties	SignedInfoType	
SignatureProperty	SPKIDataType	
SignatureValue	TransformsType	
SignedInfo	TransformType	
SPKIData	X509DataType	
Transform	X509IssuerSerialType	
Transforms		
X509Data		

schema location: <http://www.w3.org/Encryption/2001/Drafts/xmlenc-core/xenc-schema.xsd>

targetNamespace: <http://www.w3.org/2001/04/xmlenc#>

Elements	Complex types	Simple types
AgreementMethod	AgreementMethodType	KeySizeType
CipherData	CipherDataType	
CipherReference	CipherReferenceType	
EncryptedData	EncryptedDataType	
EncryptedKey	EncryptedKeyType	
EncryptionProperties	EncryptedType	
EncryptionProperty	EncryptionMethodType	
ReferenceList	EncryptionPropertiesType	
	EncryptionPropertyType	
	ReferenceType	
	TransformsType	



[Agnew/Martin <http://www.dlib.org/dlib/july02/martin/07martin.html>]

**Copyright
Law**

D R M



Everything
that is not
forbidden is
permitted

Everything
that is not
permitted
is
impossible

Karen Coyle

<http://www.kcoyle.net>