



An Introduction to Electronic Copyright Management Systems (Digital Rights Management)

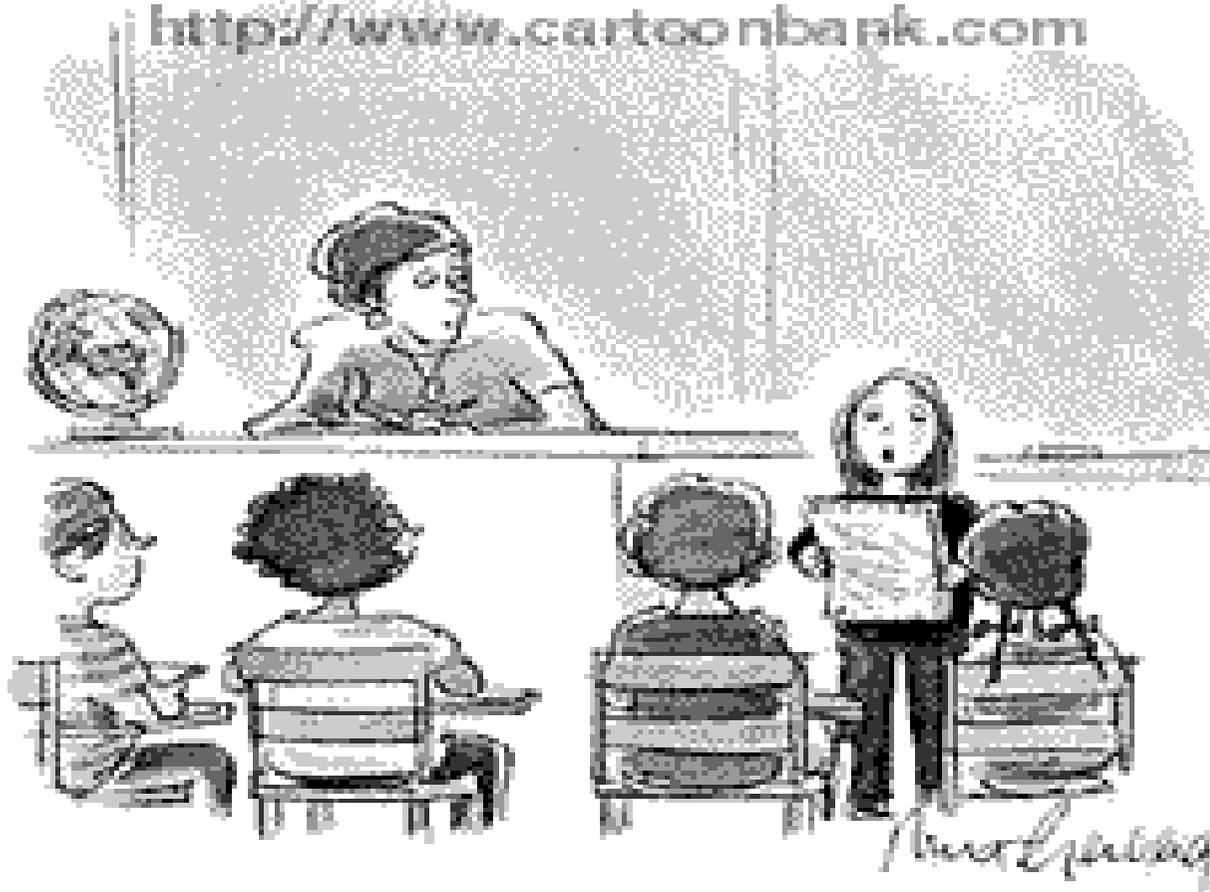
Peter L.Higgs
Co-founder
IPR Systems Pty Limited
phiggs@iprsystems.com



What are Electronic Copyright Management Systems (ECMS) or “Digital Rights Management Systems (DRM)”

“Digital Rights Management (DRM) involves the description, identification, trading, protection, monitoring and tracking of all forms of rights usages over both tangible and intangible assets - both in physical and digital form - including the management of the Rights Holders relationships”

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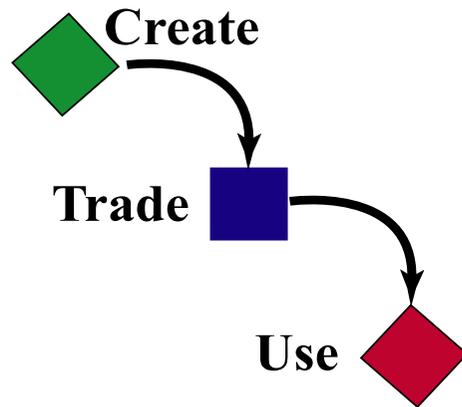


The Internet and Intellectual Property

- Digitization of everything:
 - Information, books, film, learning resources, music, images, data, knowledge ...
- Re-examination of processes, costs and revenue:
 - Free and instantaneous distribution of digital work
 - Direct relationship from creator to consumer
 - Profits being sought from previously sub-commercial assets especially "rights"
- New opportunities and threats
 - Demand for new systems to support & manage
 - What IP do I have, what do I require, what can I trade?
 - Deliver the appropriate "rights" or "licenses"
 - Deliver the media that are subject to these rights

... The Knowledge Based Economy

Digital Re-use is Key



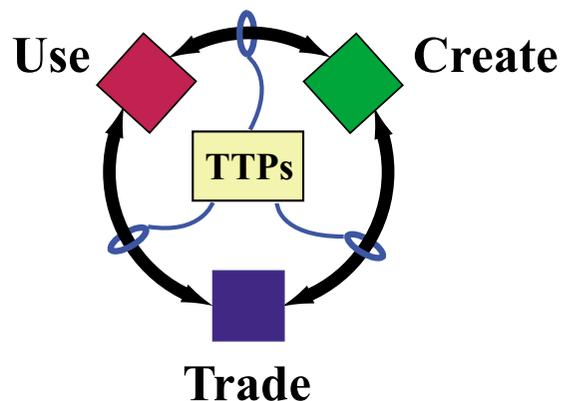
Ubiquitous networking and Digital Media means we are moving from:

Traditional Media “Creation Waterfall”

- Pay for possession
- Limited re-use rights available
- Up front purchase of simple rights
- Therefore expensive to move to digital environment

Towards

“Creation Cycle”



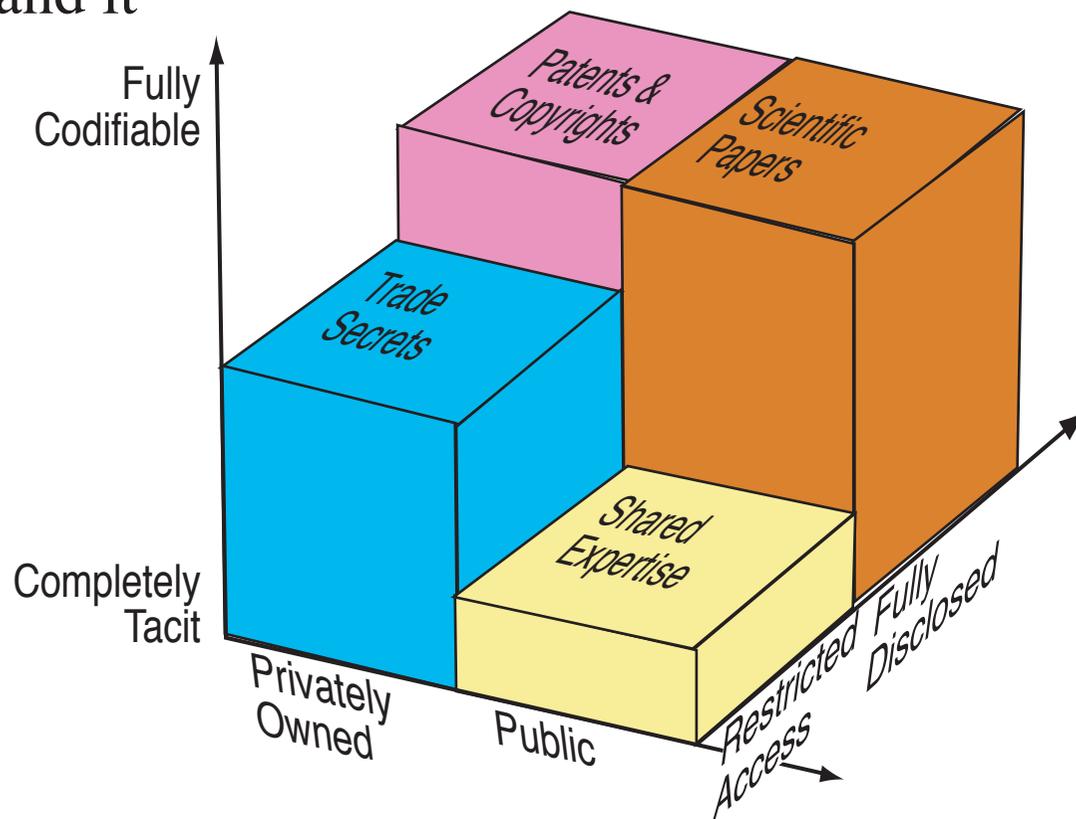
- Blurring between creation and use towards re-creation and re-use
- Pay for usage, not possession
- Share the rights, share the revenue
- Require Trusted Third Parties (TTP) to validate rights and trades

From “food chain” to dynamic “creation ecology”



Intellectual Property Rights

It is not a mysterious blob or black box
It can be understood by non-lawyers
It is logical & it has structure
Creators must manage it or they will lose it.
Recreators must understand it
or they wont be
able to work



Foray David Economic Knowledge Matrix

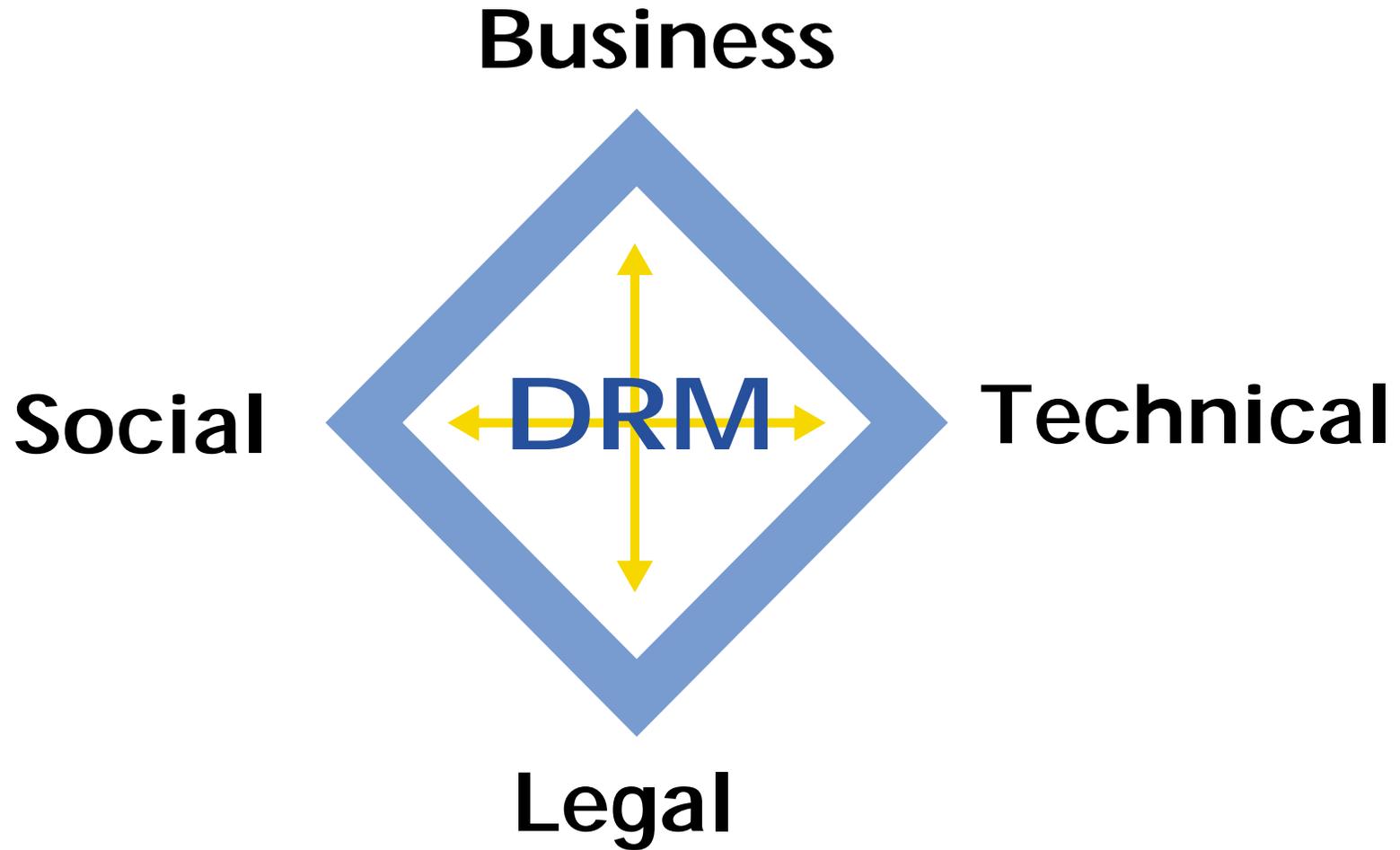


The Questions

- What have I got to Trade?
- How can I trade it?
- How can I describe and promote it to the market without giving the IP away?
- What usages of it are valuable to others?
- How can I balance the likelihood and impact of my risk and my rewards?

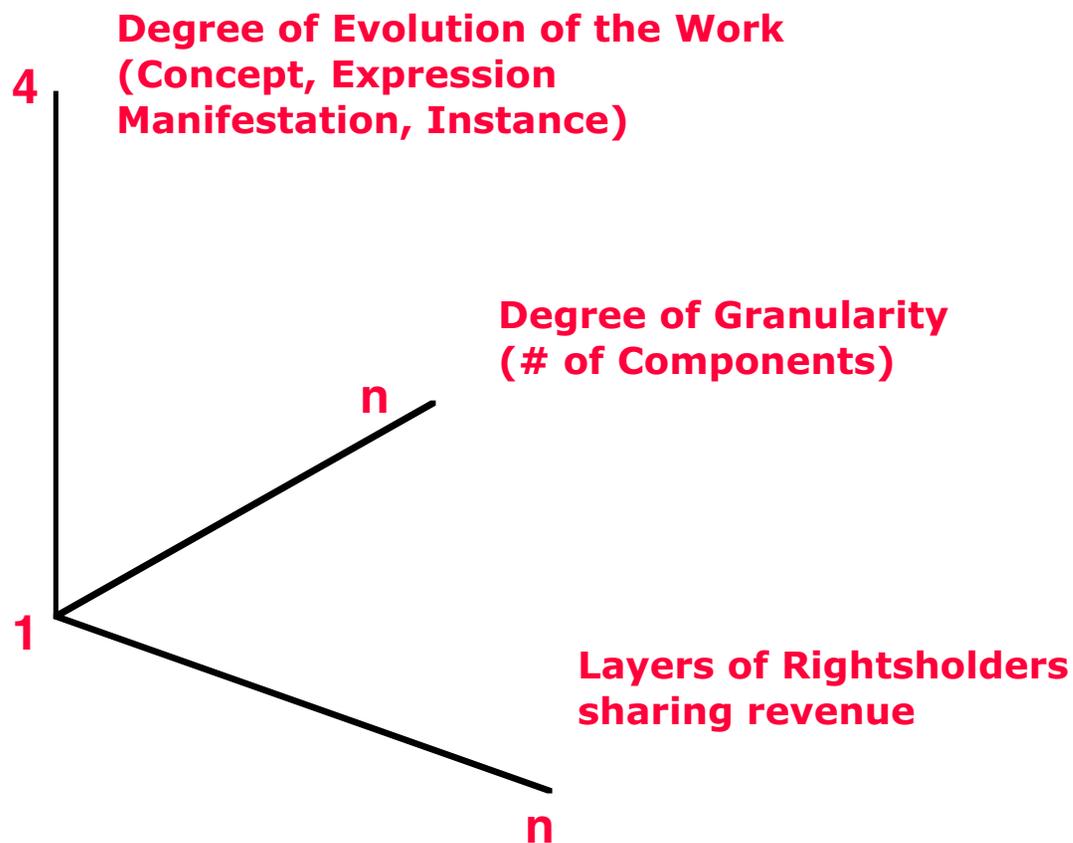


DRM Perspectives





What have I got?: Three Dimensions of Rights and Works

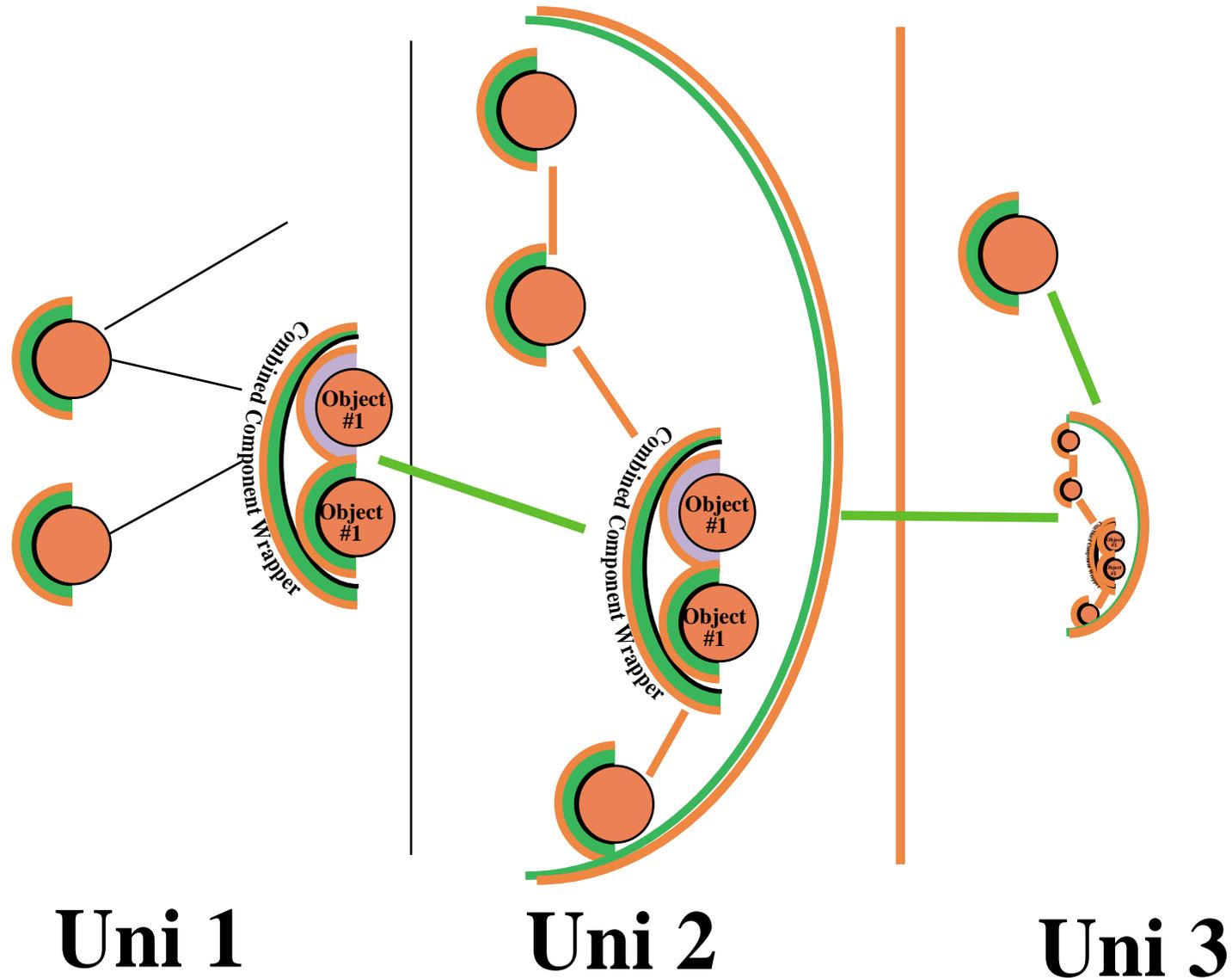




Dimension One: Granularity

- Discrete Components within Components within Components: heterogenous or compound work
- A compound object can be decomposed to its individual components and each sold separately.
- Examples:
 - Illustrations within a book
 - Anthology
 - Spanish Translation of a book
 - Subtitles of a movie
 - Learning objects combined into a module into a course into a syllabus
- Can be described as a “Manifest” or “Bill of Materials”
- It is not a “Recipe”

Granularity: Components within Components





Dimension Two: Layers of Rightsholders

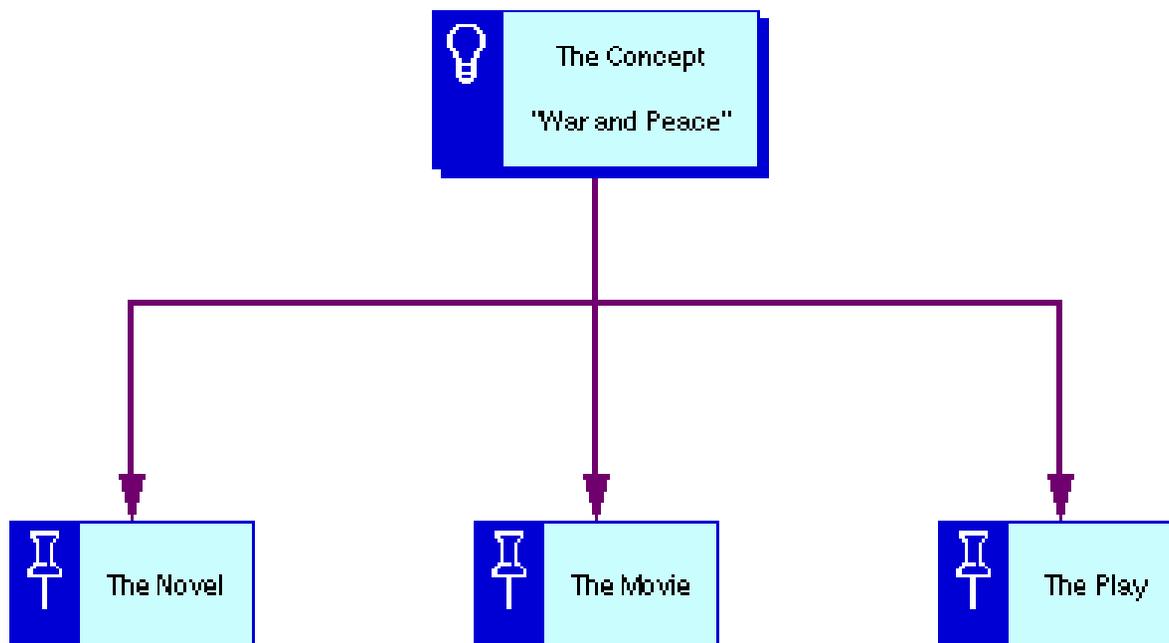
- A work can have more than one rightsholder in a particular usage or market.
- They share the rights, possibly share the revenue
- A result of a “recipe”. You can’t decompose a cake but you can slice it.
- Eg a collaboration on a script or an editor and author
- A single learning object in a Uni could have revenue split between:
 - Commercialisation company 20%
 - Company Paying for original development 10%
 - University 20%
 - Department 10%
 - Learning Design Expert 5%
 - Programmer 5%
 - Academic Expert and originator 30%



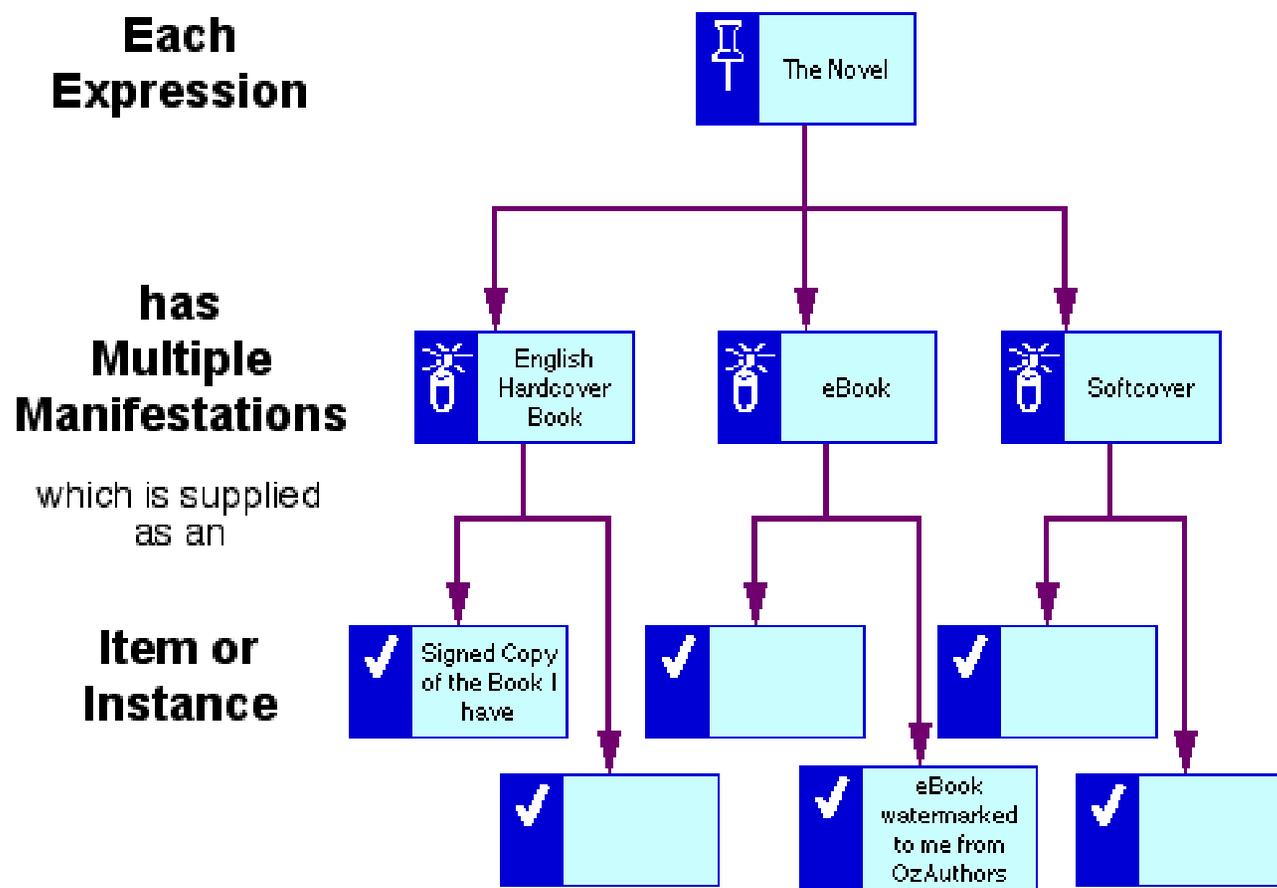
Dimension Three: The International Federation of Library Associations Hierarchy of "Works"

**The
Asset,
Artefact
or
Concept**

**has
Multiple
Expressions**

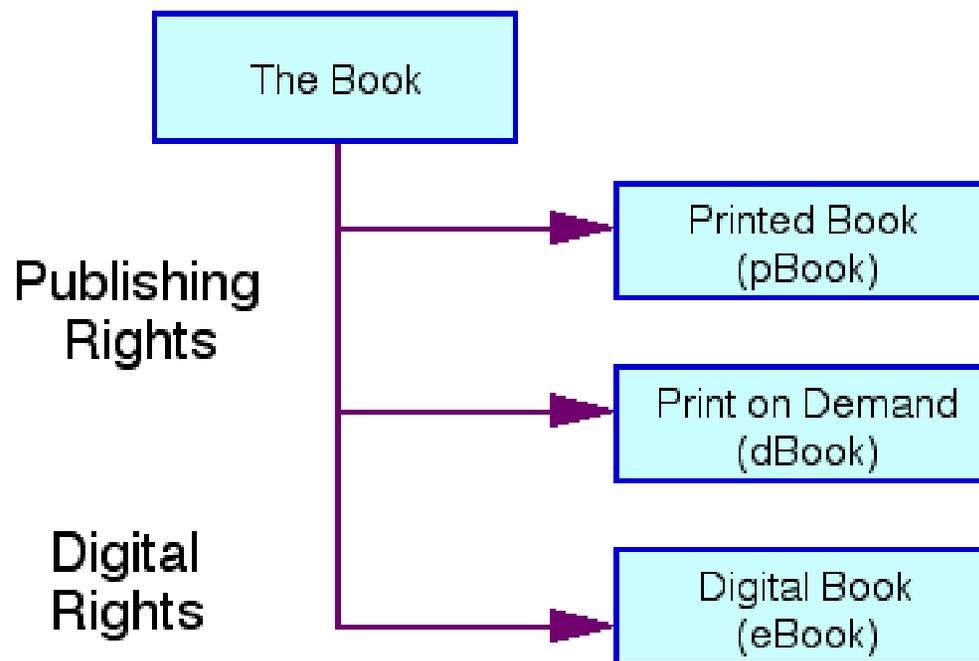


IFLA Expressions and Manifestations



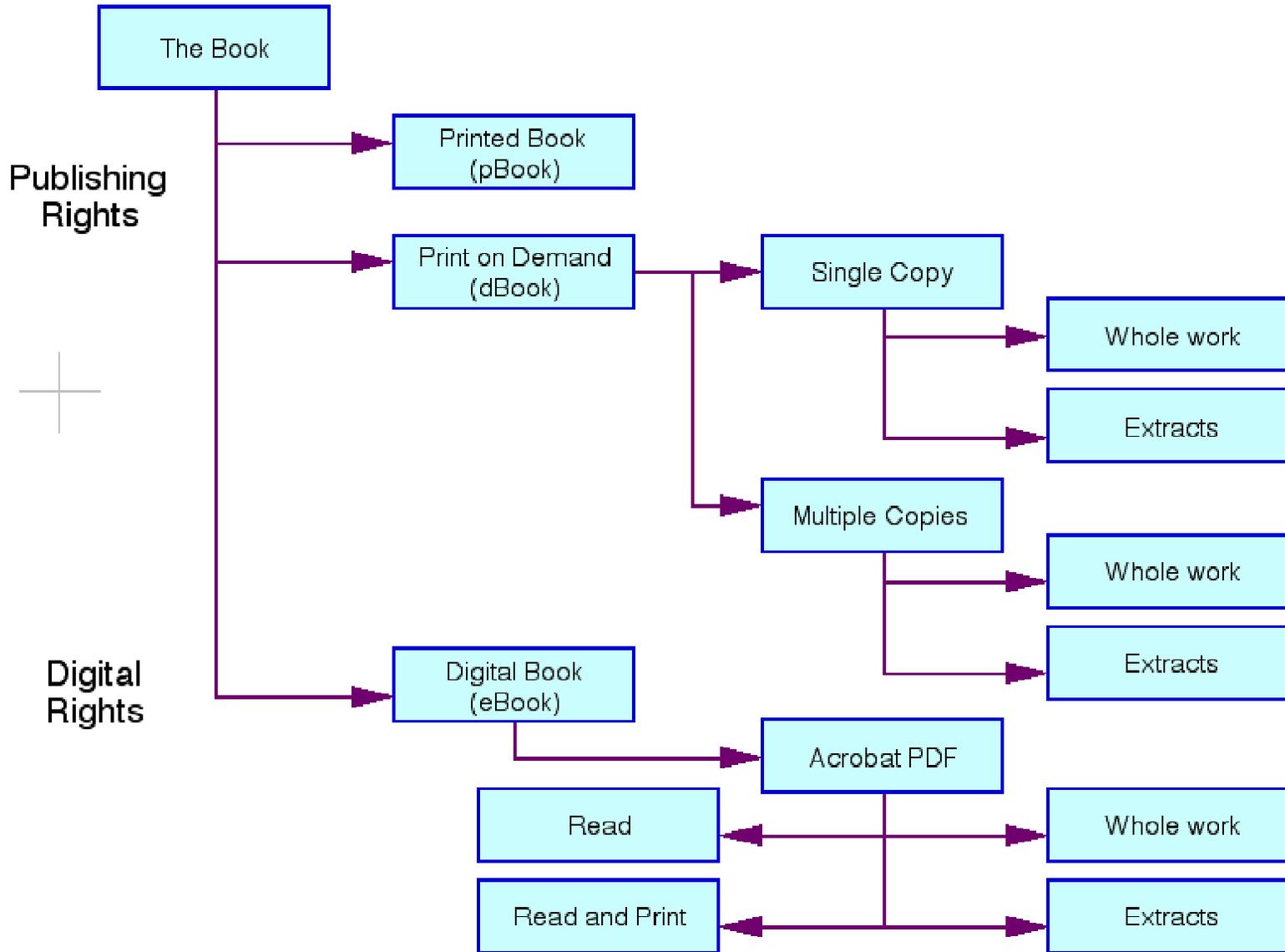


Book Manifestations



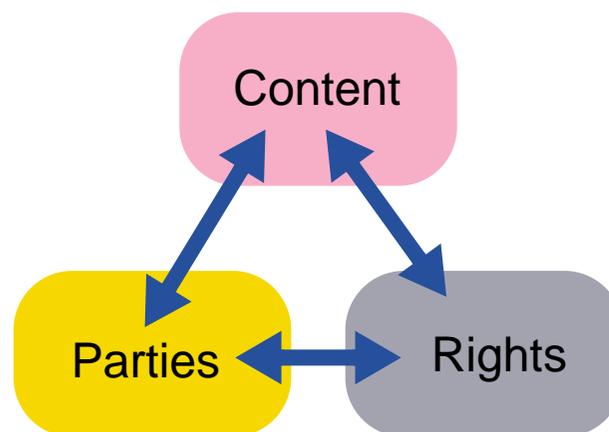


The future of Books: Which Format do you need?

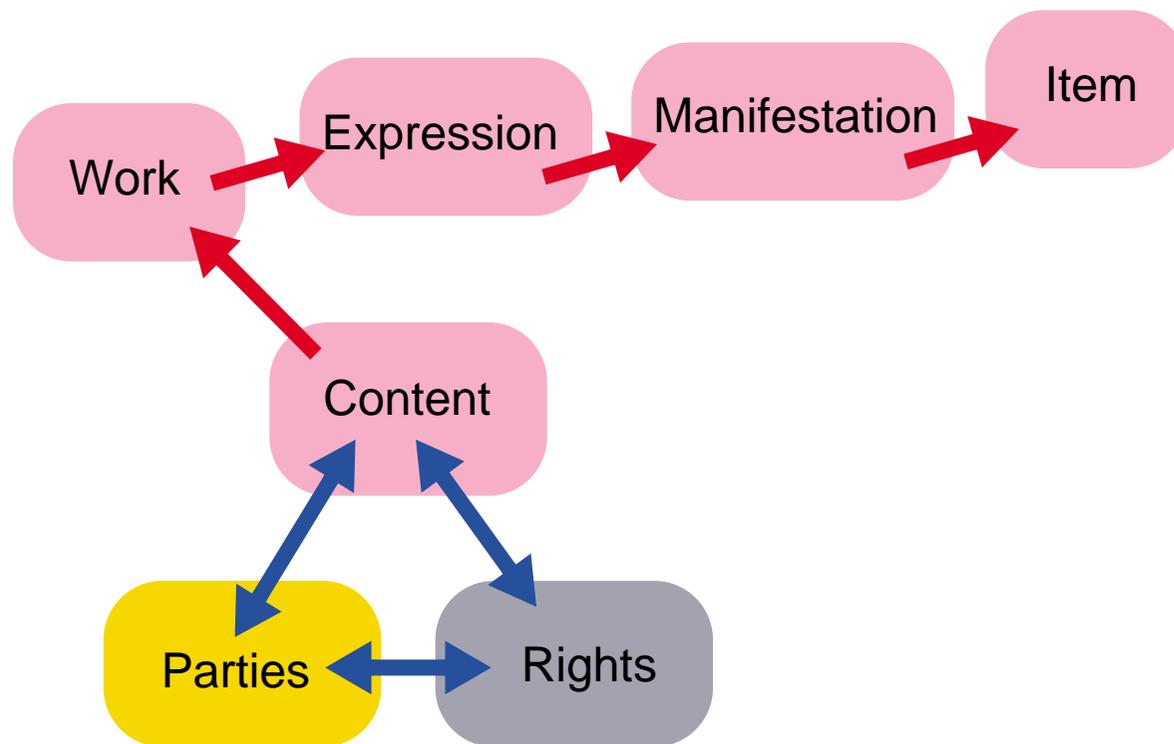




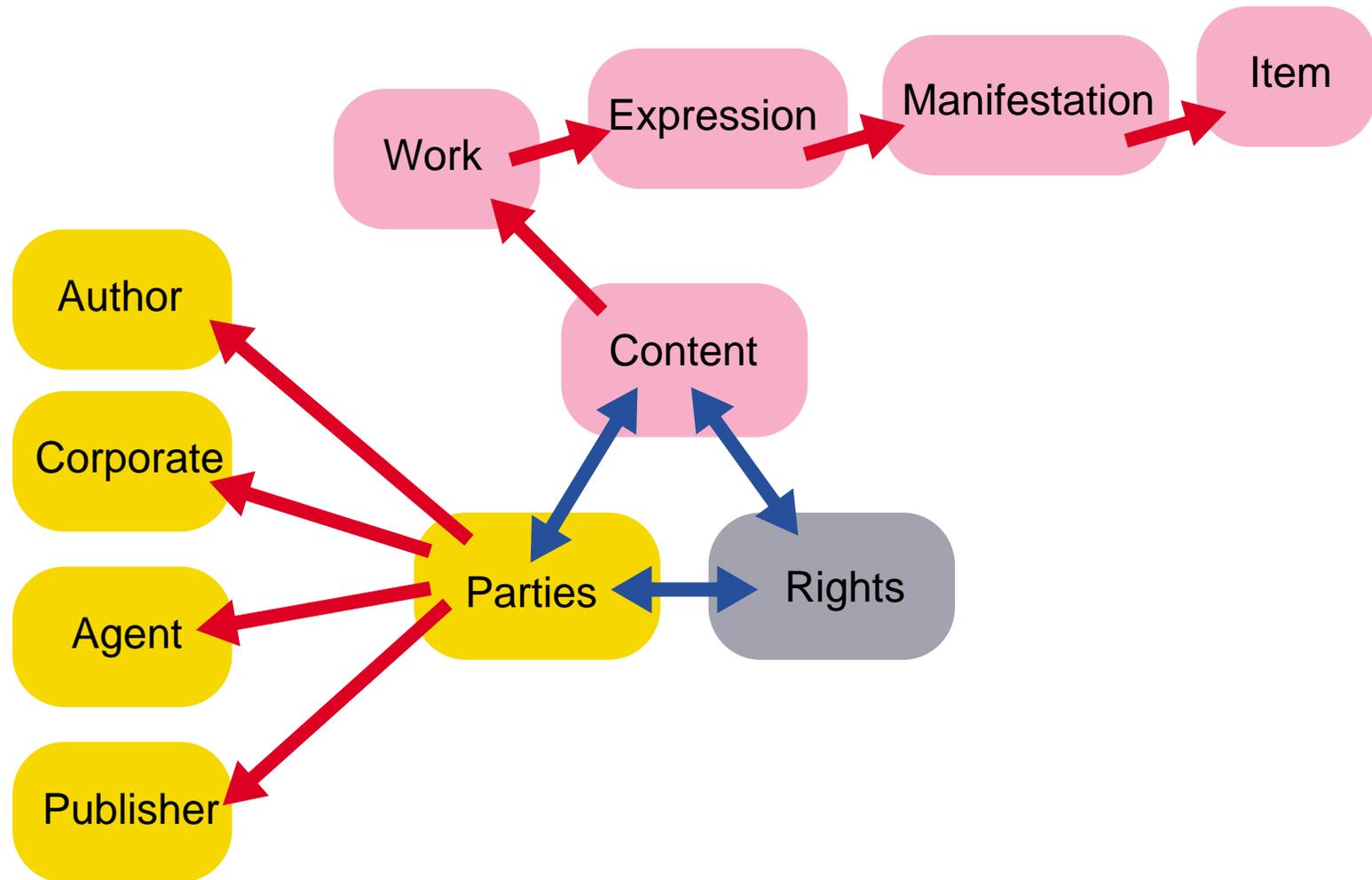
Rights Metadata Model



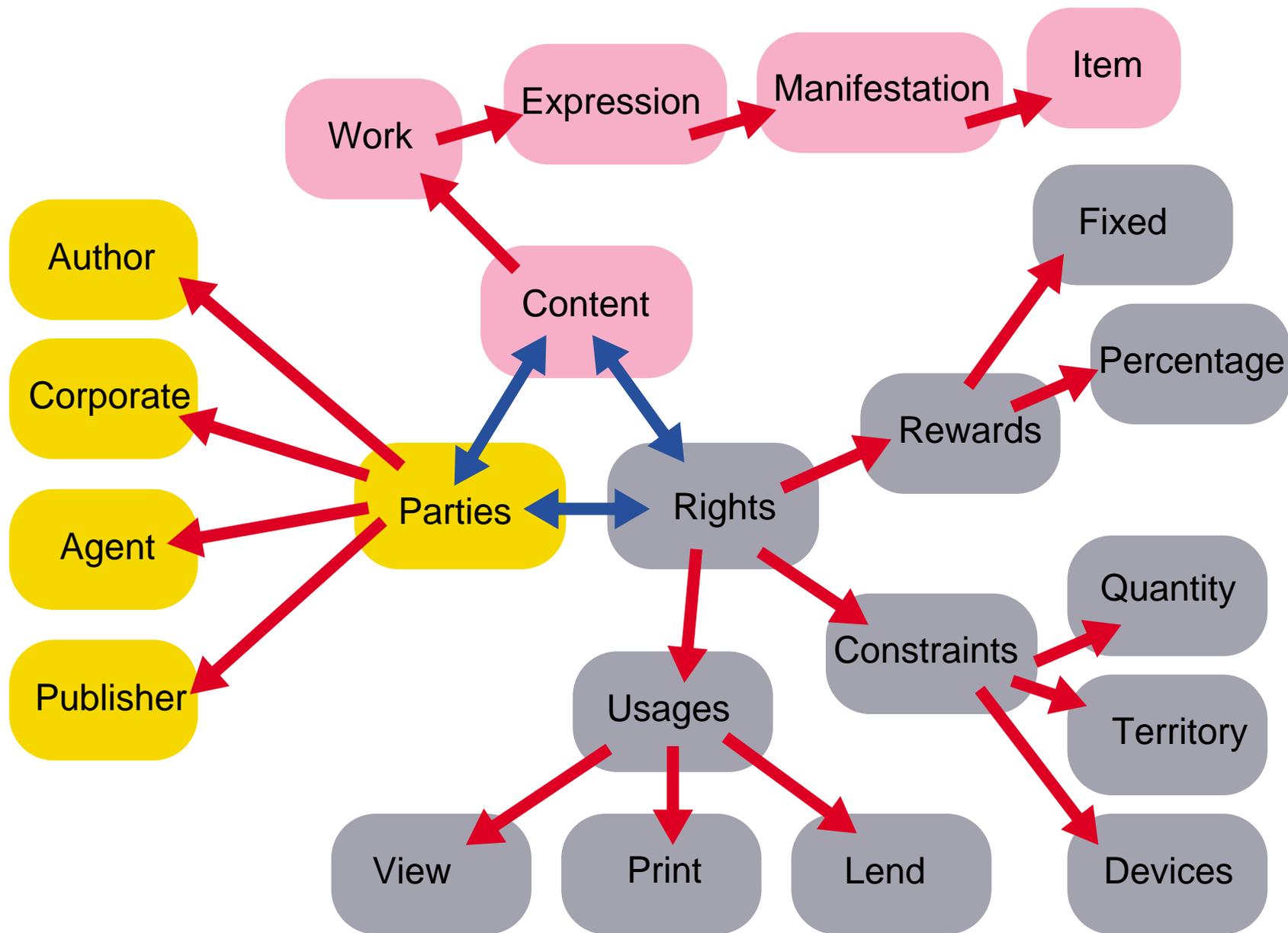
Rights Metadata Model



Rights Metadata Model



Rights Metadata Model



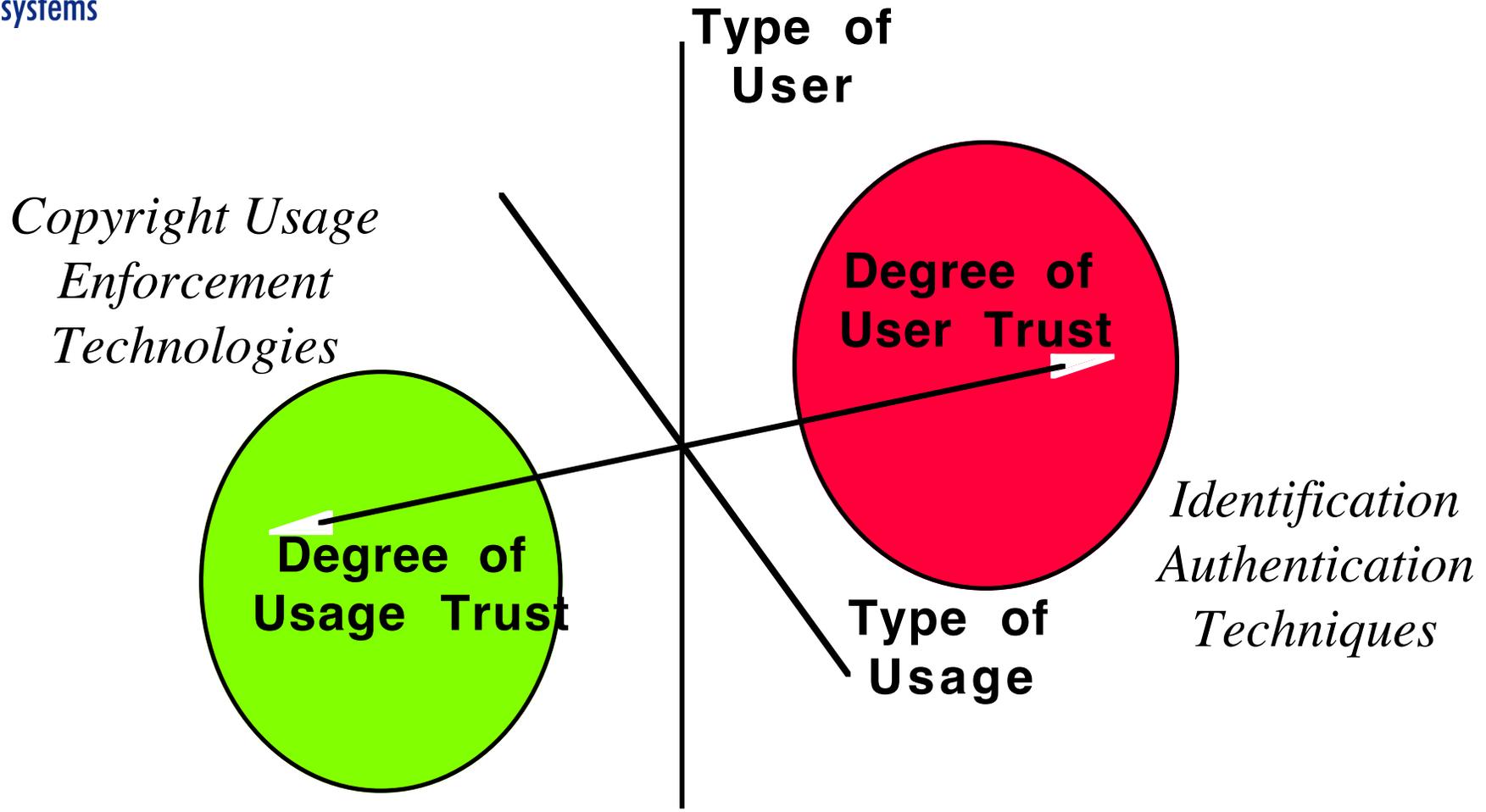


5 Co-ordinated Strategies for Effective DRM

- Management of the rights of works through their complete stage of evolution
- Supply Media that is appropriate for Use
- Clarity of permissible usages
- Identification using Digital Object Identifiers, watermarks to manage provenance and more easily identify cases of misuse.
- Real world negotiation, follow up and sometimes legal action of deviations from permitted usages.

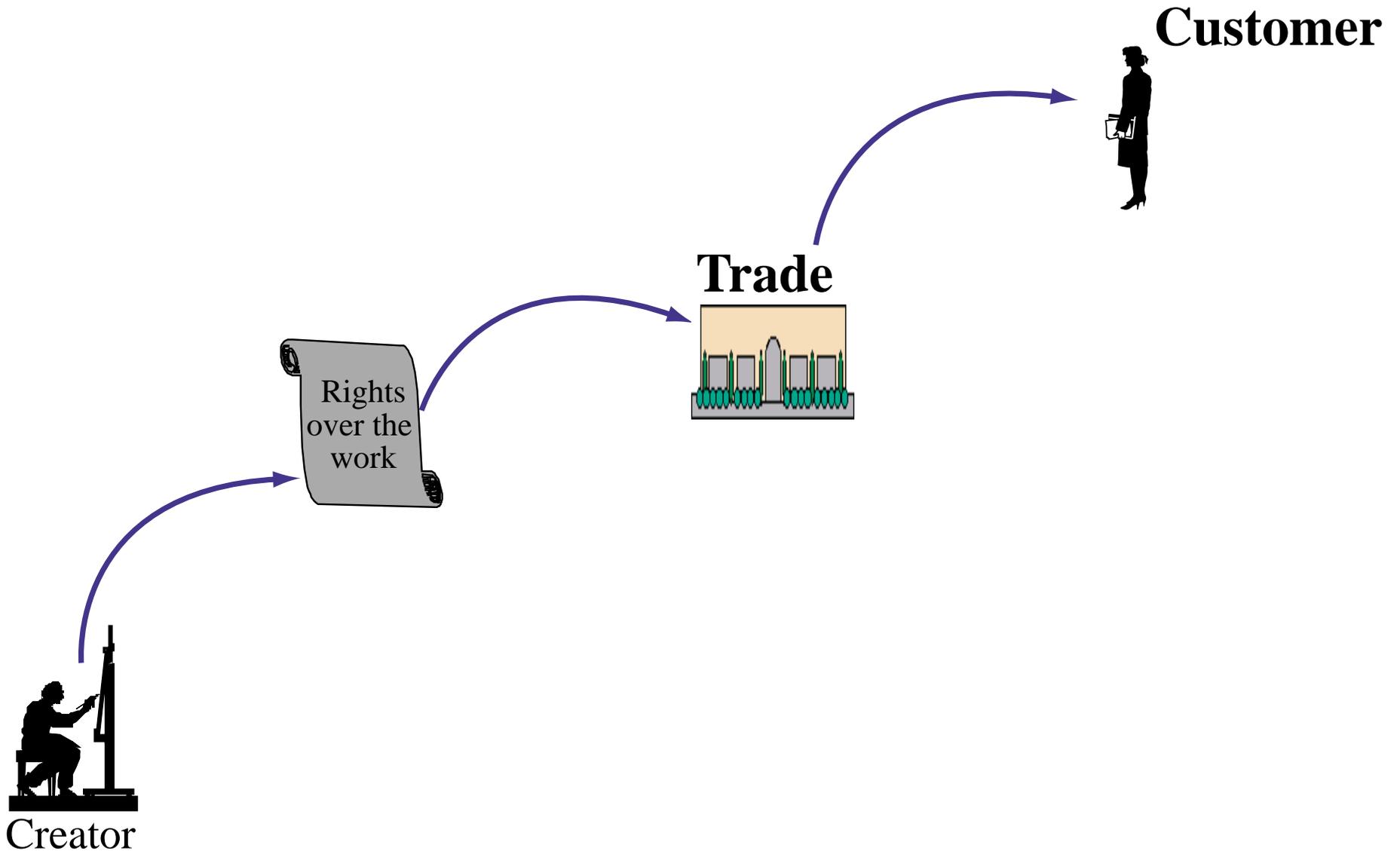


Rights Usage Matrix



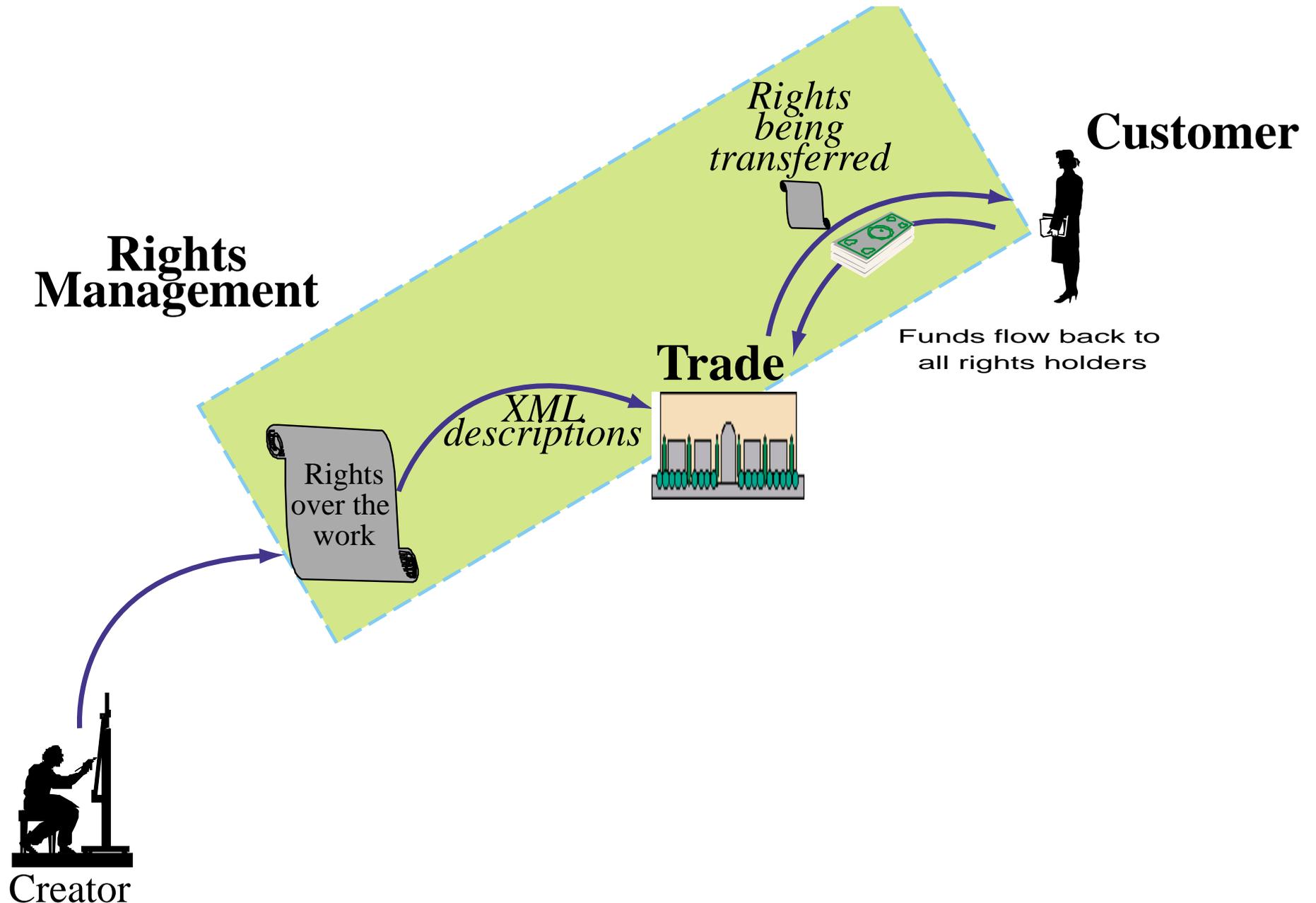
Elements of the Supply Chain

supply
chains
for the
knowledge
based
economy



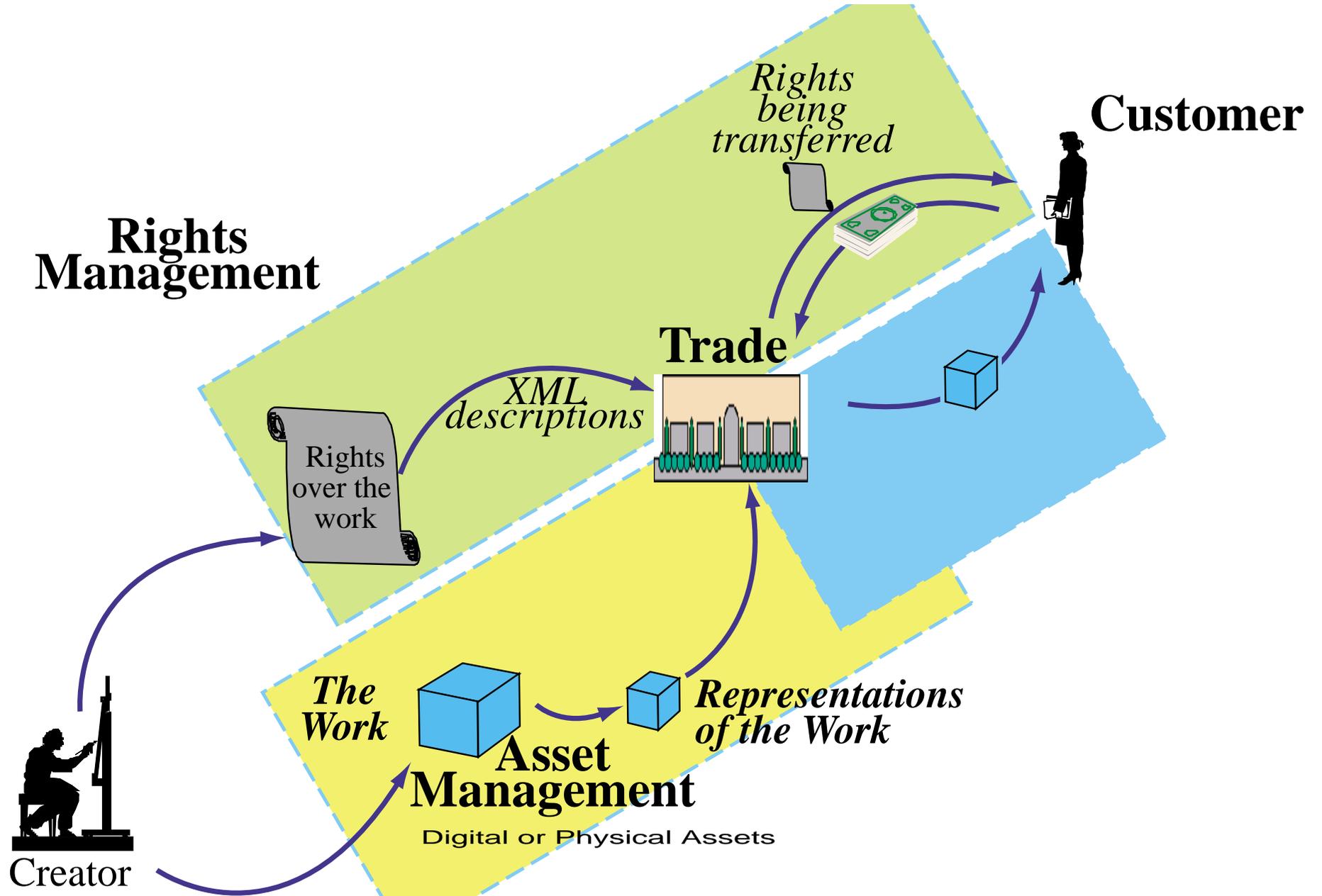
Elements of the Supply Chain

supply
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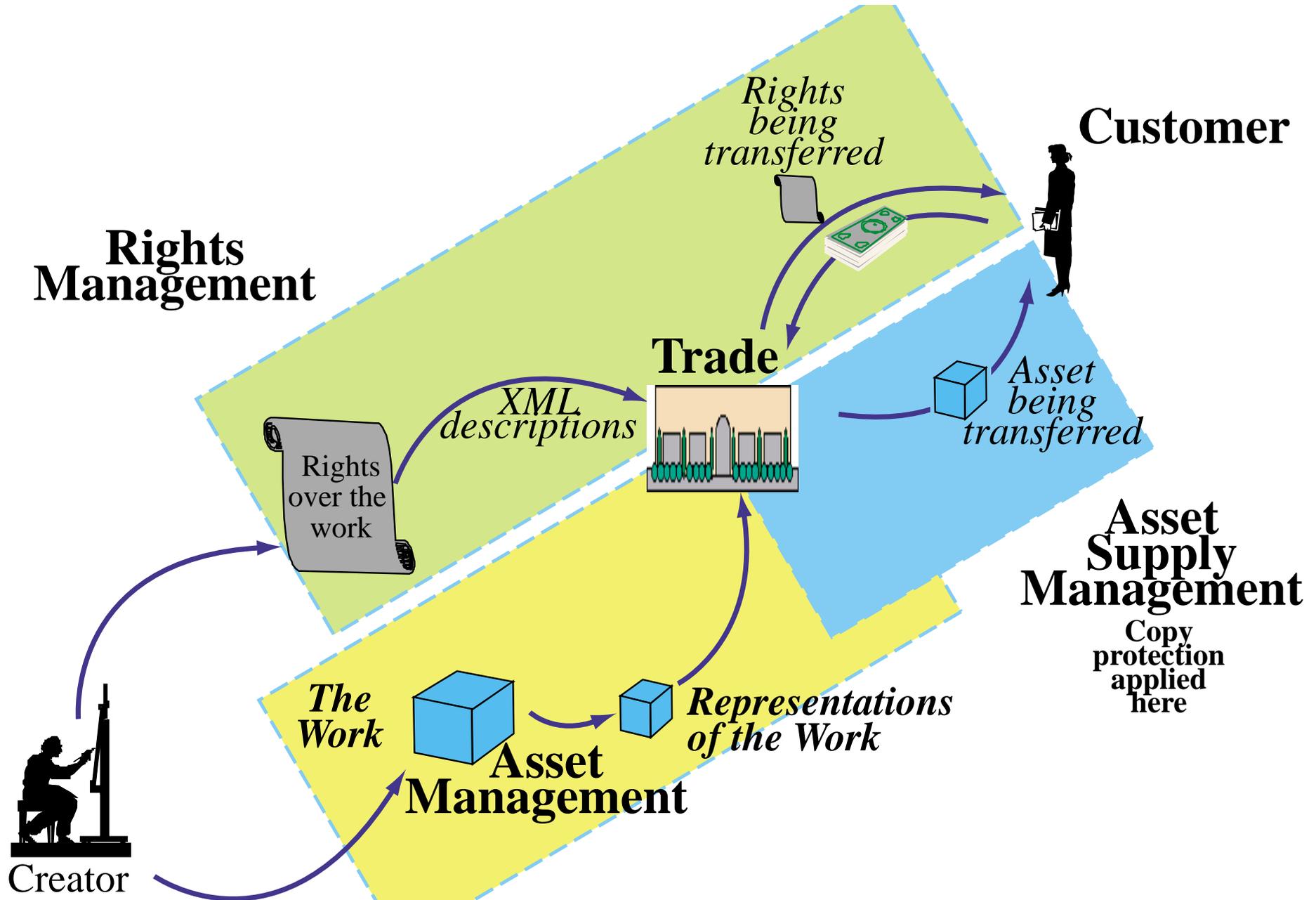
Elements of the Supply Chain

supply chains for the knowledge based economy



Elements of the Supply Chain

supply chains for the knowledge based economy





Copyright Enforcement Technology Vendors

Aegisoft

Alchemedia

ContentGuard

CyberSource

DigitalOwl.com

Digital River

IBM

InterTrust Technologies

MediaDNA

MediaShell

Microsoft

Perimele

Preview Systems

SealedMedia

Reciprocal

RightsMarket.com

SunHawk

Versaware

Yankee Rights
Management



Displayed List of Found Works

The screenshot shows a Microsoft Internet Explorer browser window displaying the OzAuthors website. The address bar shows the URL: <http://www.ozauthors.com.au/?hid=4980&pid=2109>. The website header includes navigation links: home, login, about, help, contact us, and the OzAuthors logo. A secondary navigation bar contains: Meeting place, Publish work, Writing tools, HSC english, Shopping bag, and Archives.

The main content area is titled "Search subjects" and includes a "Browse subject categories" link. Below this, there are three search results, each with a "more" link and an information icon:

- Writing for the Education Market**
Dale Spender
Dale Spender / 1st Ed. / July 8, 2000 P G
Provides information on the changing face of educational publishing
- Barracking for the Bull: Kylie Tennant and Her Work**
Lynne Spender
Lynne Spender / 1st Ed. / January 6, 2000 P G
A review of Kylie Tennant's life and work.
- Playing IT Smart: Learning And Earning In The Dotcom Age**
Dale Spender
Dale Spender / 1st Ed. / April 7, 2002 P G
Social impact of digital technology on living and working in an information age.

The left sidebar contains several sections: "Join OzAuthors" (with links to about OzAuthors, membership benefits, join as an author, and project timeline), "My OzAuthors" (with links to my account, shopping bag, bookshelf, and booklist), "Adding work" (with links to add a new work, preflight checklist, writing tip, policy & conditions, and show current works), and "Quick search" (with a search box containing "spender", a "go" button, radio buttons for Keyword, Title, Author, and All, and a "Power Search" link).

The status bar at the bottom shows the current URL: <http://www.ozauthors.com.au/?cmd=show&aoi=www-15> and the Internet Explorer logo.

Works Detail Screen



The screenshot shows a Microsoft Internet Explorer browser window displaying the OzAuthors website. The address bar shows the URL: <http://www.ozauthors.com.au/?cmd=show&aoi=www-15>. The website header includes navigation links: home, login, about, help, contact us, and the OzAuthors logo. Below the header are menu items: Meeting place, Publish work, Writing tools, HSC english, Shopping bag, and Archives.

The main content area displays the details for a work titled "Playing IT Smart, Learning And Earning In The Dotcom Age" by Dale Spender. The author's name is linked to a profile page. The description states: "Social impact of digital technology on living and working in an information age." The category is "General". Available formats include PDF and audio (indicated by a speaker icon and an "info" icon).

A "Publication details" section lists the following information:

Publisher	Dale Spender
Pub. date	April 7, 2002, AUSTRALIA
Edition	1st Ed.
ISBN	1 74064 000 4
Form	Article
Words	9,800

The left sidebar contains several sections: "Join OzAuthors" (with links for about, membership benefits, join as an author, and project timeline), "My OzAuthors" (with links for my account, shopping bag, bookshelf, and booklist), "Adding work" (with links for add a new work, preflight checklist, writing tip, policy & conditions, and show current works), "Quick search" (with a search box containing "spender" and a "go" button, and radio buttons for Keyword, Title, Author, and All), and "Browse subjects".

The Works Detail Screen and Available Expressions

- contact details
- personal details

Manage Members

- incomplete
- not reviewed
- accepted
- inactive

Manage ebooks

- incomplete
- being processed
- requires review
- accepted and live
- inactive
- generate previews
- lock documents

ebook reports

- view logs
- licence activities
- parameters

My OzAuthors

- shopping bag
- bookshelf

Quicksearch i

go

Keyword Title
 Author All

Find an ebook i

go

Great Moments in Science

Author/s: [Karl Kruszelnicki](#)

Literary form: Other

Subject categories: Science/General



Description

"So you thought science was dull and boring! That's not the way Karl Kruszelnicki tells it - all the way from how to make a mummified cat go "woof" to morphine in milk (so that's shy I go for Milo shakes!). Great stuff for the curious, like me". - Professor John F. Lovering, Dean, Faculty of Science, University of Melbourne.

Publication details

Published date:	24/01/01		
Publish country:	AUSTRALIA	Parts:	36 Chapters
Edition:	1st	Words:	13500
ISBN:	1-74064035-7	Illustrations:	0

Purchase options

Usage	Details	Price (\$AUS inc.GST)	Add to my bag
P Preview	5 pages online	Free	view_
G Read	For any computer	\$10.00	buy
IP Read & Print	Locked to a single computer	\$10.00	buy



Creator View: Setting Protection Level and Prices

The screenshot shows the OzAuthors website interface. At the top, there is a navigation bar with links for home, logoff, help, about, and contact us. Below this is a secondary navigation bar with links for Meeting place, Publish ebook, Writing tools, Shopping bag, Hotpicks, and HSC english. The main content area is titled 'Publish ebook' and shows the title 'What Love Can Do'. A section titled 'Usage rights & pricing' contains instructions on how to set the price and security level. A table below this section allows the user to select usage options (Preview, Read, Read & Print) and security levels (Secure, Not Secure) with corresponding prices. The interface also includes a sidebar with various menu items like 'Manage details', 'Manage ebooks', and 'Publishing guide'. At the bottom, there are buttons for 'exit to menu', 'SAVE & go to menu', and 'SAVE & continue', along with footer information including copyright and contact details.

home | logoff | help | about | contact us **OzAuthors**

Meeting place | Publish ebook | Writing tools | Shopping bag | Hotpicks | HSC english

Manage details

- password
- personal
- contact
- profile
- account
- preview profile

Manage ebooks

- publish an ebook
- incomplete
- being processed
- requires review
- accepted and live
- inactive
- register member

ebook reports

- sales & activity report

My OzAuthors

- shopping bag
- bookshelf

Publishing guide

- how to prepare
- how to publish
- formatting an ebook
- service options
- registering first

Quicksearch

go

Keyword Title
 Author All

Find an ebook

Antiques go

Publish ebook

Title/Sub Title: What Love Can Do

7 Usage rights & pricing ⓘ
* move the cursor over the question for more information *

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<input type="checkbox"/> Read & Print	<input checked="" type="radio"/> Secure	<input type="radio"/> Not Secure	<input type="text" value="\$0.00"/>

exit to menu **SAVE & go to menu** **SAVE & continue**

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Internet zone

Creator View: Setting % of Revenue for Disburseses

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- submission status
- your live ebooks

ebook reports

- sales
- activity

My OzAuthors

- shopping bag
- bookshelf
- booklist

Publishing guide

- our checklist
- formatting
- pricing
- security
- fees and revenue

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Author All

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Member Name	Suburb	Reason	%	
1 Jack Benlow	Stirling	By (author)	80	<input type="checkbox"/>
2 Lynne Spender	Coogee	Translated by	10	<input type="checkbox"/>
3 Diane Fordham	Sandy Beach	Abridged by		<input type="checkbox"/>
4		Footnotes by		<input type="checkbox"/>
		Foreword by		<input type="checkbox"/>
		Illustrated by		<input type="checkbox"/>
		Introduction by	100	<input type="checkbox"/>
		Memoir by		<input type="checkbox"/>
		Notes by		<input type="checkbox"/>
		Other		<input type="checkbox"/>
		Photographs by		<input type="checkbox"/>
		Preface by		<input type="checkbox"/>
		Prologue by		<input type="checkbox"/>
		Retold by		<input type="checkbox"/>

[+ add new member](#)
[- delete selected member](#)
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Items in your shopping bag:

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Fire Horse Part 1 - In the eye of the vortex Denis Way 28 Aug 2000		Locked to a single computer	\$4.00	<input type="checkbox"/>
TOTAL:			\$4.00	

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Gif Based Online Preview of a Work

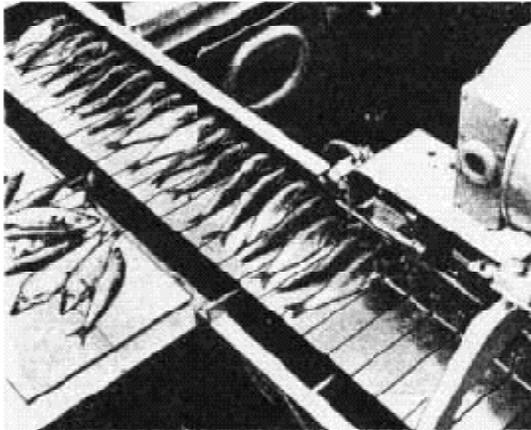
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Great Moments in Science

Acid rain



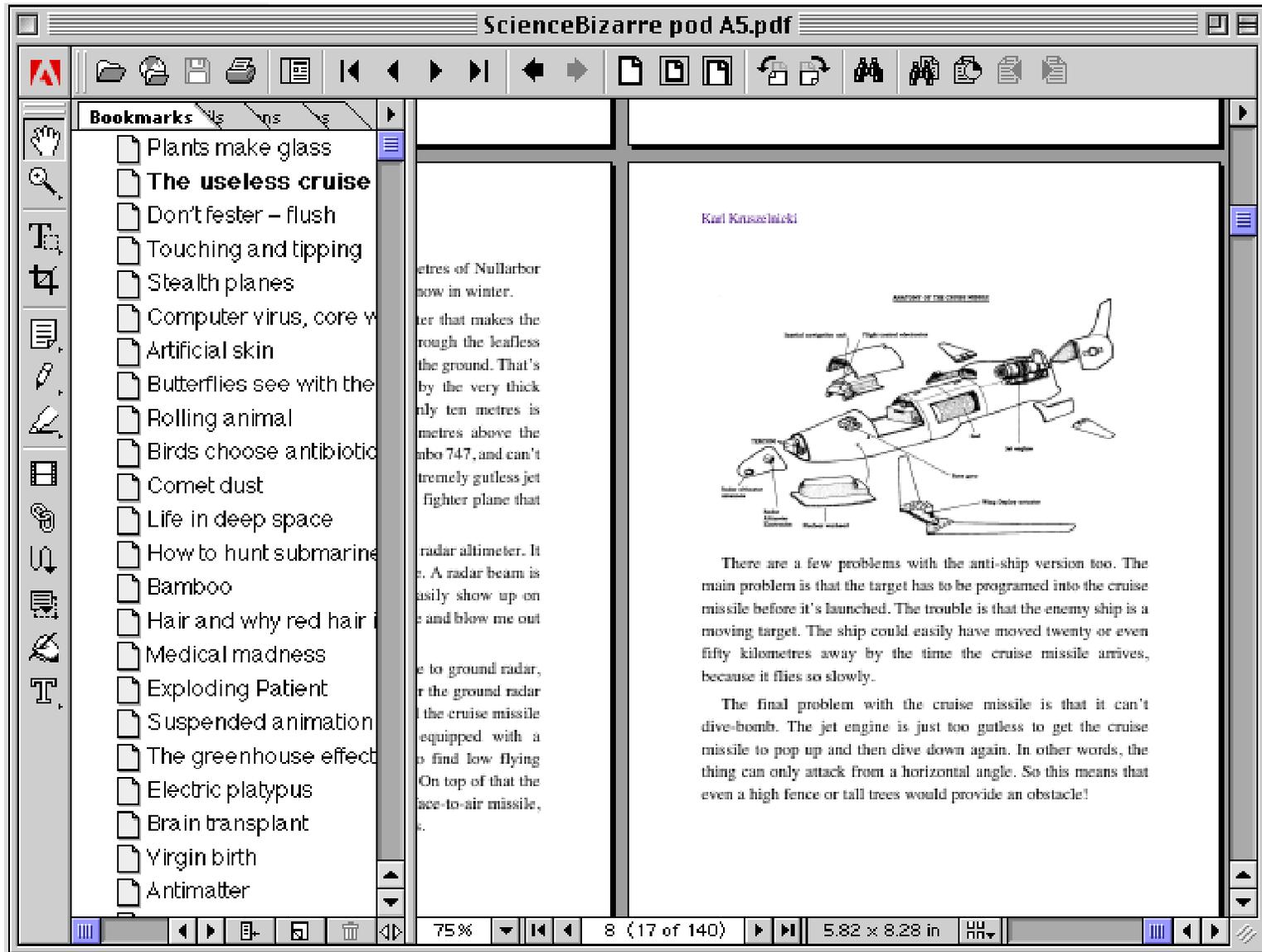
What have they done to the rain? A hard rain is already falling and it's called Acid Rain. The best way to see the effect of Acid Rain is to look at Stone Lake in Sweden. Around this lake is a rock wall which was piled together by some Vikings about 1000 years ago. The Vikings were being besieged by attackers and behind this rock wall they were able to hold off the attackers for about a year. They were able to drink water from the lake and they chopped down trees to keep them warm. They also ate vegetables grown with the lake water and they ate the trout from the lake.

Now, for the first time since the Ice Age this lake no longer has any trout. In fact 20% of the 100,000 lakes in Scandinavia no longer have any trout in them due to Acid Rain. What has happened is that oxides of sulphur and nitrogen which are emitted from power plants, from cars, and from metal smelters, have entered the atmosphere. They've then dissolved in the water-vapour carried around as clouds, and dropped to the Earth as Acid Rain. This rain can be more acidic than lemon juice — in fact, in Wheeling, West Virginia the rain was once measured at pH 1.5 which is just a bit less acidic than battery acid and a whole lot stronger than vinegar.

Ironically, one of the causes of the spread of Acid Rain was the Environmental Protection Act of 1970, which the Americans introduced to reduce local pollution. This resulted in higher smoke stacks being built and in this way the pollution has spread further afield.

Wales
Eager trout receive acid rain immunizations

Locked or Unlocked Adobe Acrobat Work File





DRM: New Business Models?

Permissions on : Through the Looking-Glass

Copy

You are permitted to copy 10 text selections every 5 days.
You have copied 0 text selections over the last 5 days.

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You have printed 0 pages over the last 5 days.

Lend

This book can be lent.

Give

This book can be given.

Read Aloud

Book cannot be read aloud

Info

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Support



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This book can be lent.

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The New Agenda

Class, today's lesson on sharing has been cancelled. It will be replaced by a lesson called "Protecting Intellectual Property".

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