



# W3C Digital Rights Management Workshop

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## Open Digital Rights Management

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# Overview

- **DRM Definition**
- **DRM Perspectives**
- **New Opportunities**
- **Web Architecture**
- **Metadata Model**
- **Technical Framework**
- **Open Digital Rights Language (ODRL)**
- **Rights Trading**
- **W3C Role**
- **Conclusion**



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**"You forgot your intellectual property"**



# DRM Definitions???

- “Digital rights management (DRM), the technologies, tools and processes that **protect** intellectual property during digital content commerce”
  - <http://www.publishers.org/home/drm.pdf>
- “The definition, **protection, or enforcement** of rights pertaining to Content produced, delivered or accessed electronically”
  - <http://www.openebook.org/framework/>
- “In a very broad definition, DRM determines who or what has access to information. In a single word, it is **security**”

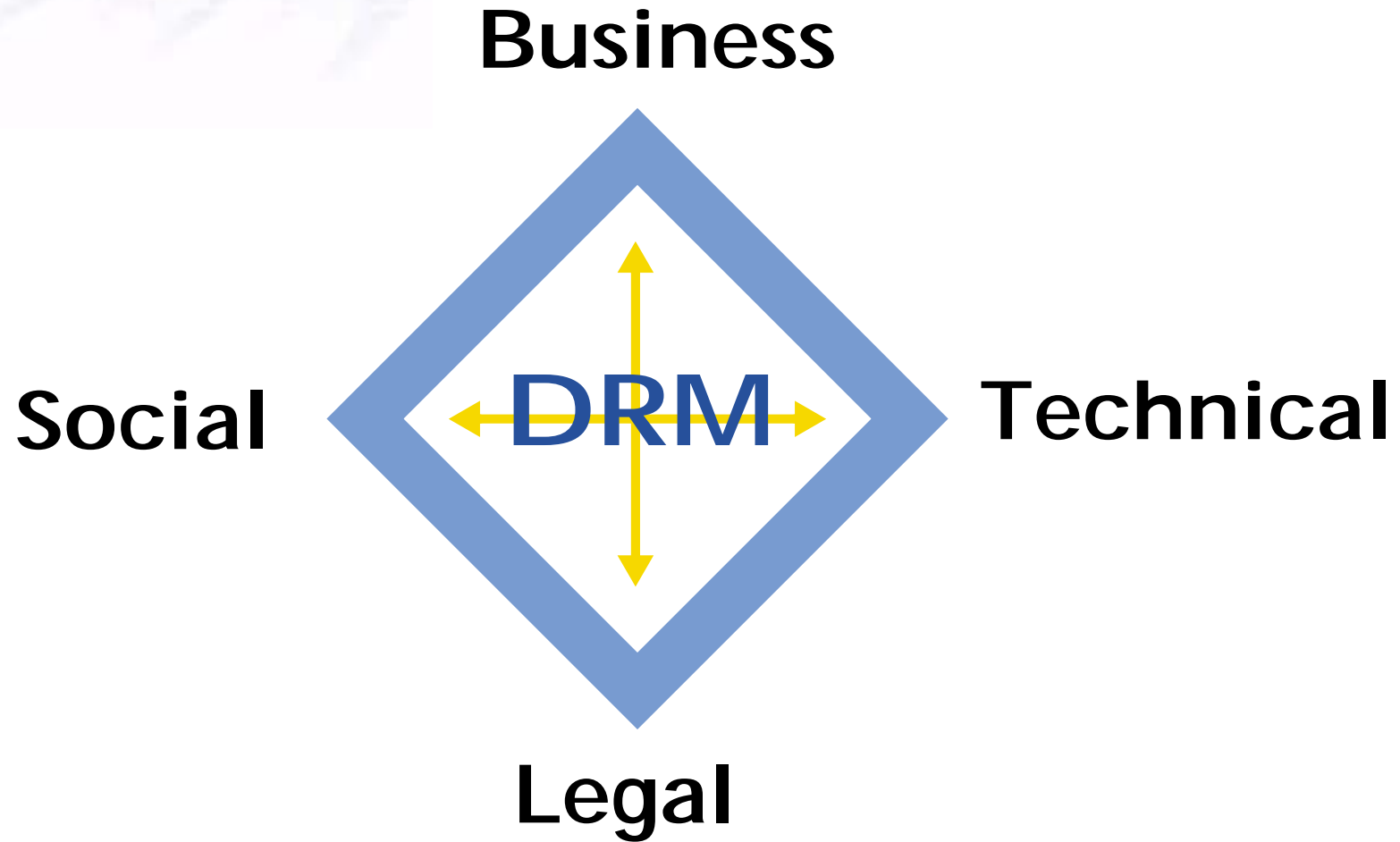


# DRM Definition

- **“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 management of Rights Holders relationships”**

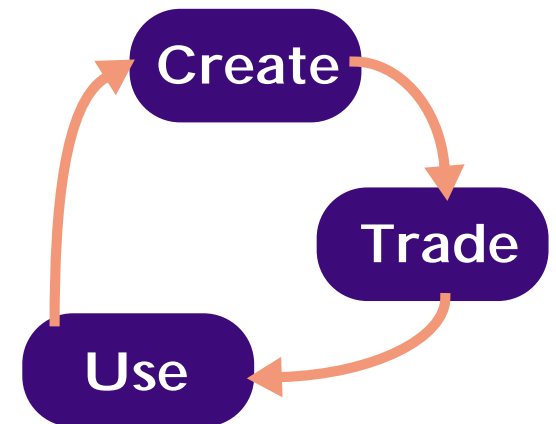
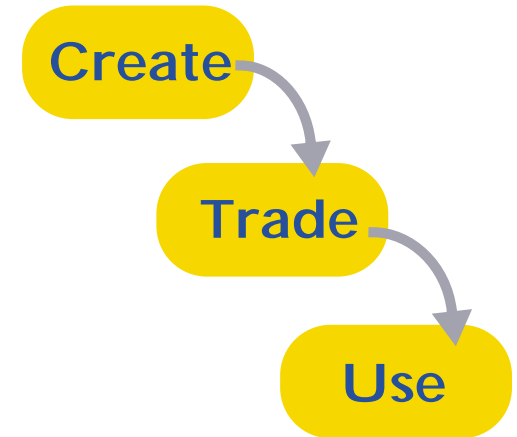


# DRM Perspectives



# DRM: New Opportunities

- From “Creation Waterfall”
  - Pay for possession
  - Limited re-use rights available
- Towards “Creation Life-Cycle”
  - Blurring creation and use towards re-creation and re-use
  - Pay for usage, not possession
  - Share the rights, share the revenue
  - Require Trusted services to validate rights and trades
- Transparent Rights





# 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.

## **Print**

You are permitted to print 10 pages every 5 days.  
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

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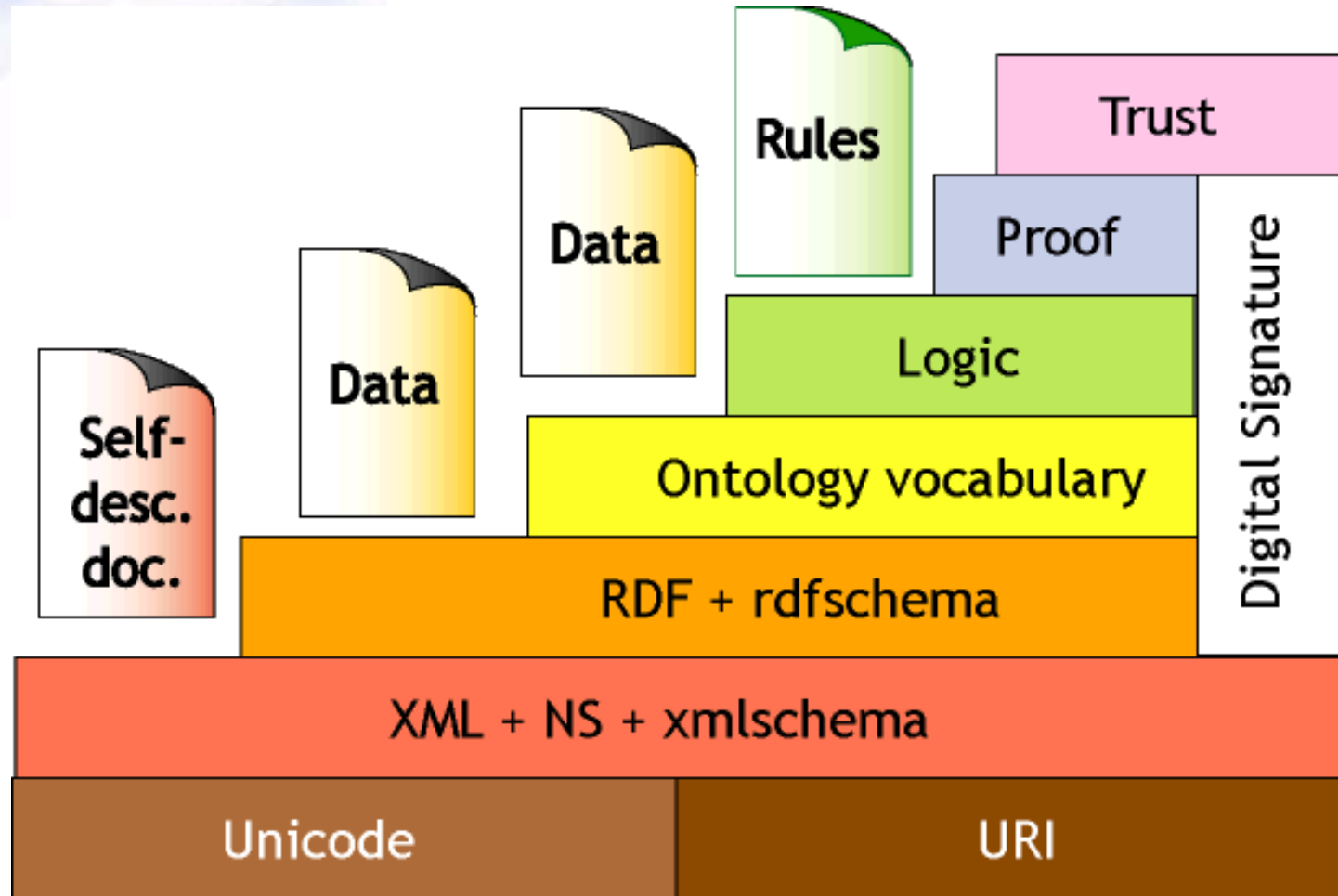
[Preferences](#)

[Support](#)





# Web Architecture



- Tim Berners-Lee, Director, W3C
- XML 2000 Conference, Washington DC, Dec 2000.

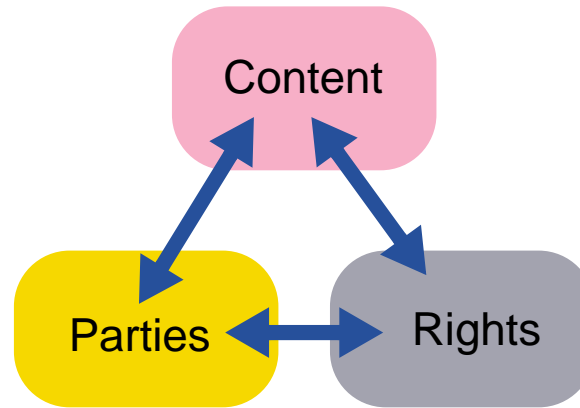


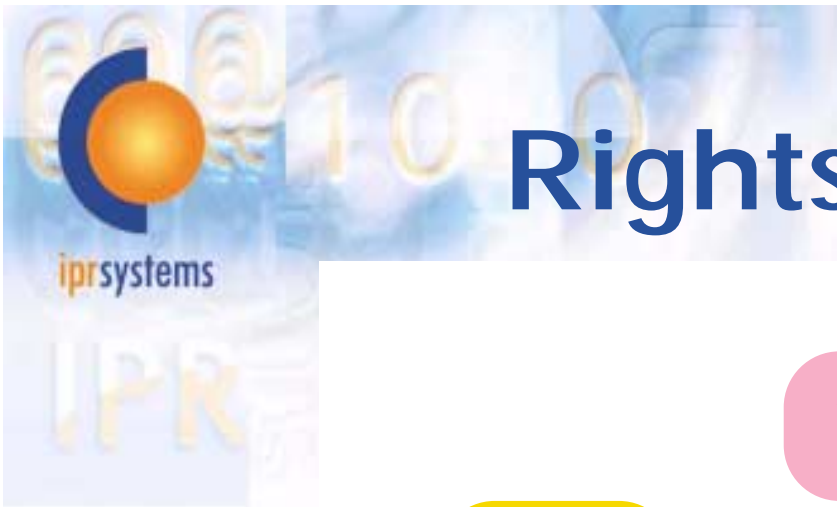
# Web Architecture

- **Need for new/updated technologies:**
- **Metadata Framework**
  - RDF integrated closer XML
  - Trust (Digital Signatures)
  - Better Structure
  - Lessons from P3P, CC/PP
- **Identification**
  - URIs: Identification, Location, and Naming
  - URI Activity
- **XML Packaging and Protocols**

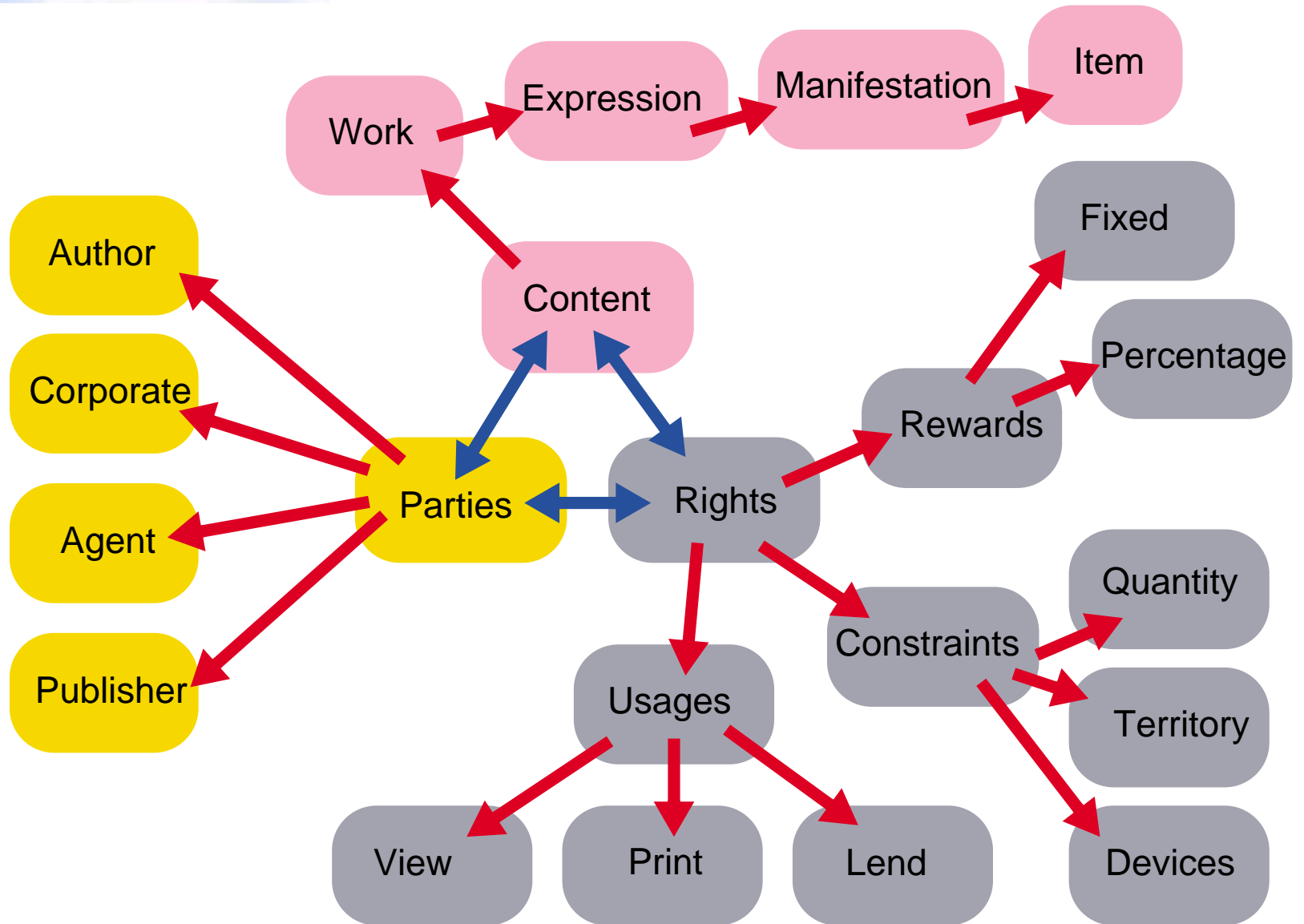


# Rights Metadata Model



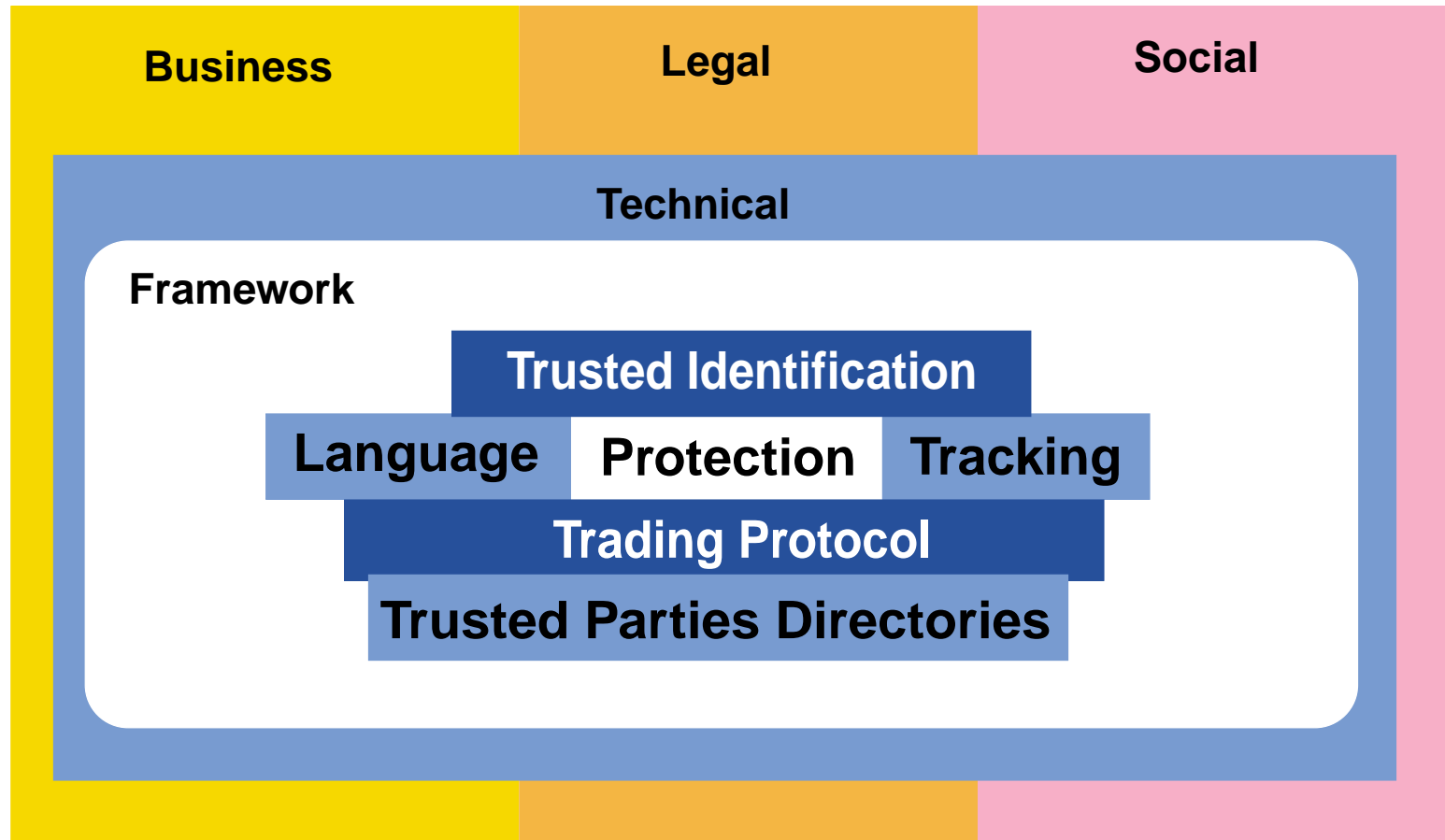


# Rights Metadata Model





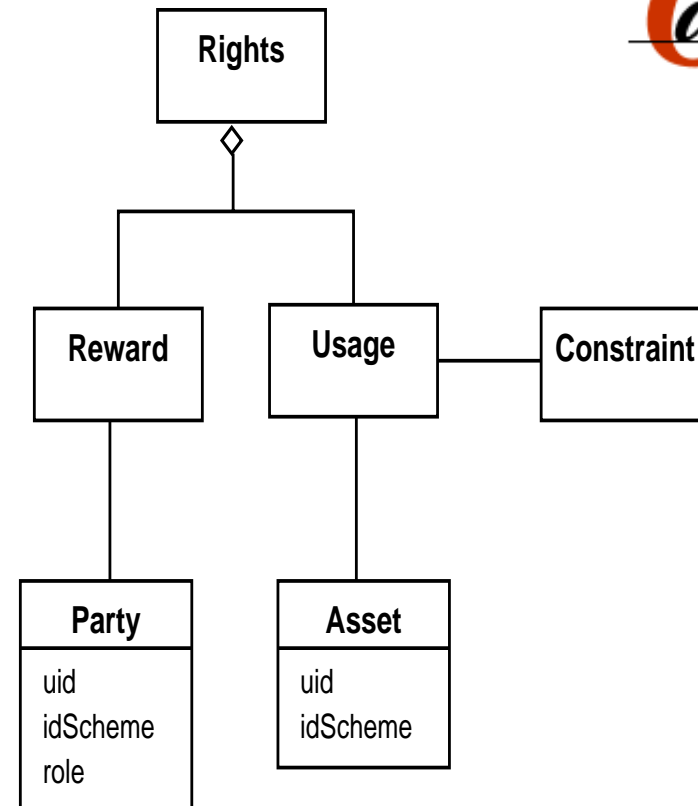
# DRM Technical Framework





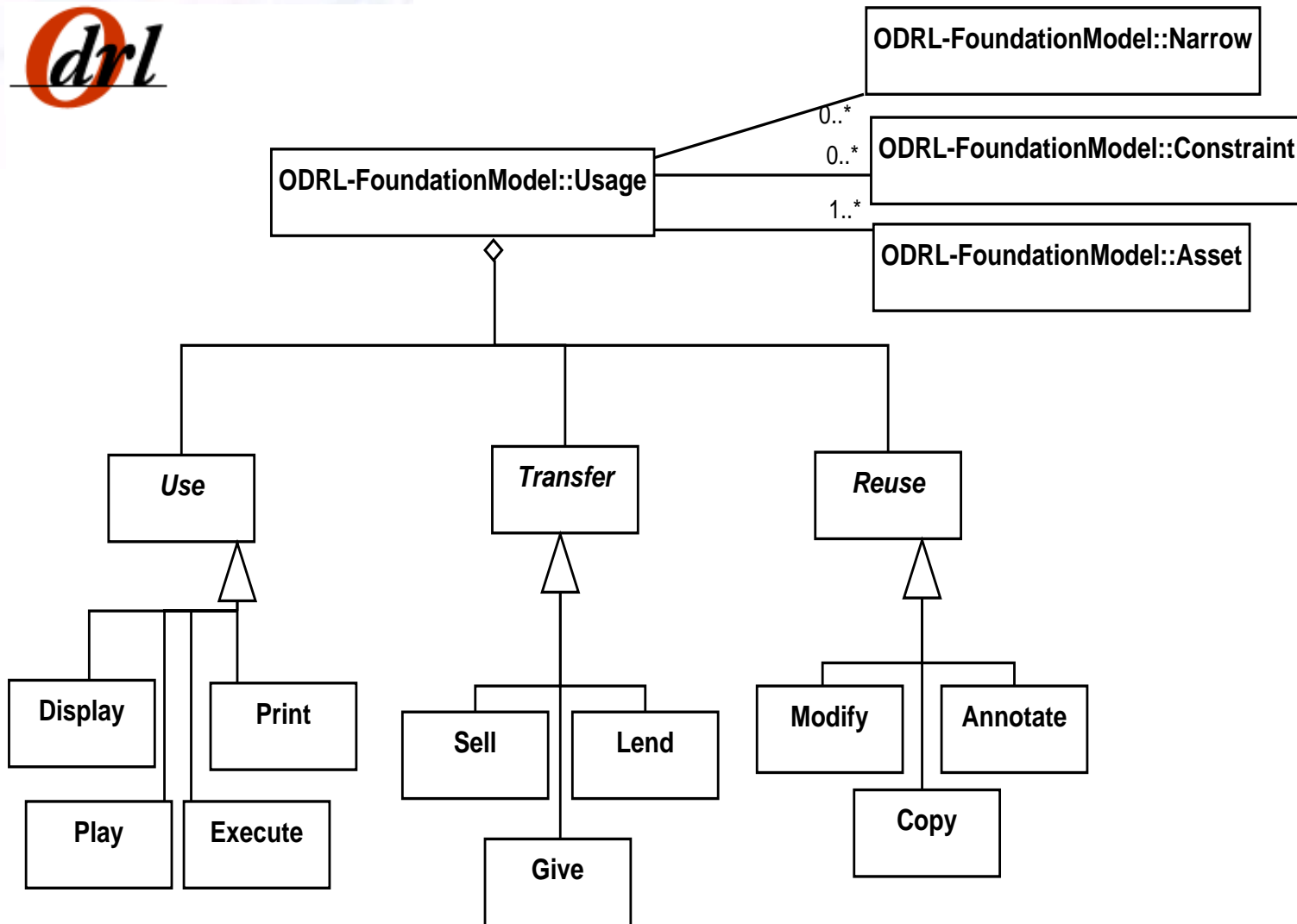
# Open Digital Rights Language

- Semantics of a core DRM Language
  - Open or Trusted environments
  - Foundation for extensible sector-specific rights language
  - Interoperability across sectors
- ➔ <http://odrl.net/>
- Feedback welcome...



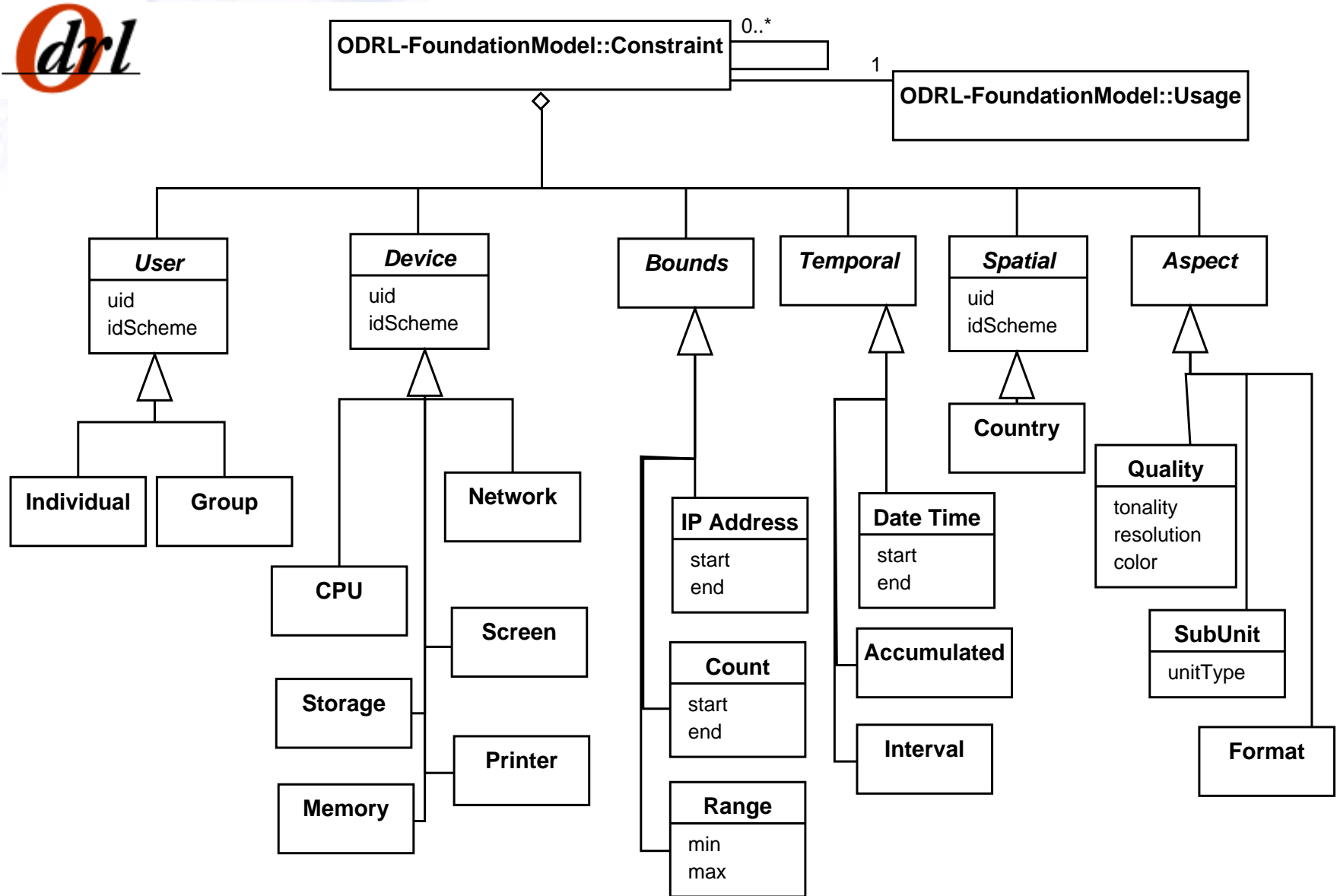


# ODRL Model





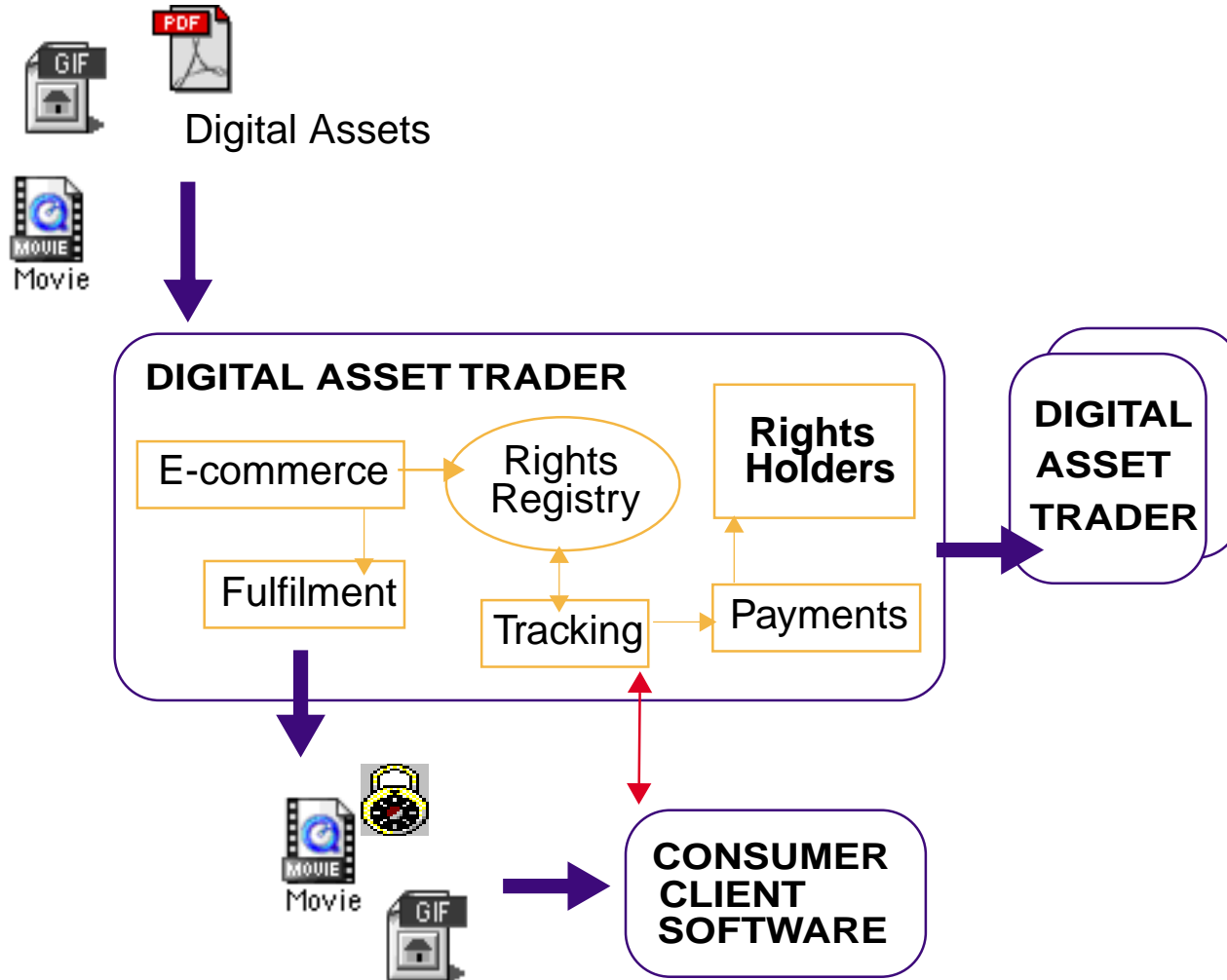
# ODRL Model







# Rights Trading



## Value Chain

Originators

Intermediaries

End Users



# W3C Role

- **Digital Rights Language (DRL) WG**
  - Develop the semantics of an cross-sector digital rights language - encoded in XML
- **Trusted Metadata (TM) WG**
  - Architecture that supports the encoding and transmission of DRM (and other) metadata
  - RDF II
- **DRM Interest Group**
  - Discuss the next steps that W3C should take in developing solutions to the larger DRM issues
  - Establish strong relationships with other communities developing open DRM solutions



# Conclusions

- DRM is a big issue/problem
- W3C can and should play a leading role in addressing DRM issues
  - Solve some of them
  - Co-ordinate others
  - Empower the User community
- “Leading the Web to its **Full** Potential...”
- DRM is that potential...