

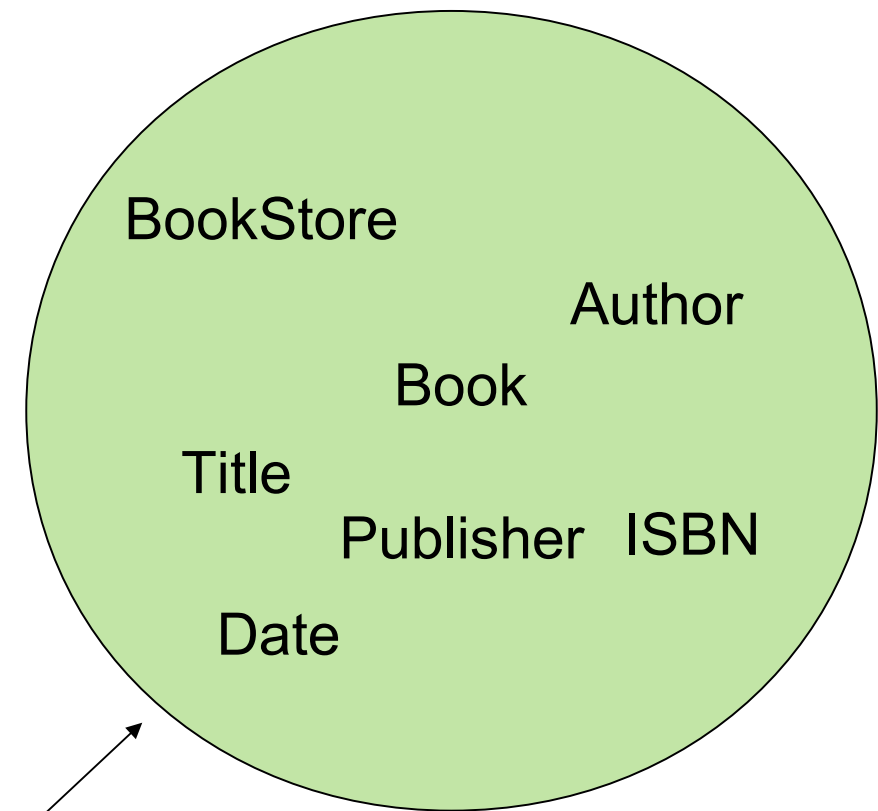
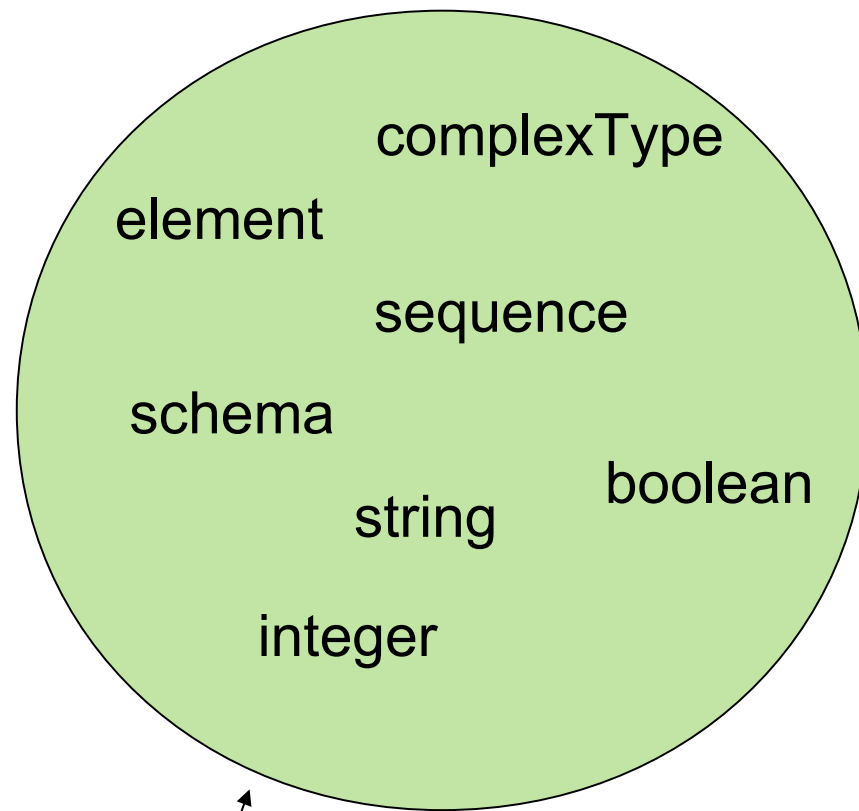
Espaces de noms

Reda Bendraou

Les espaces de noms

<http://www.w3.org/2001/XMLSchema>

<http://www.books.org> (*targetNamespace*)

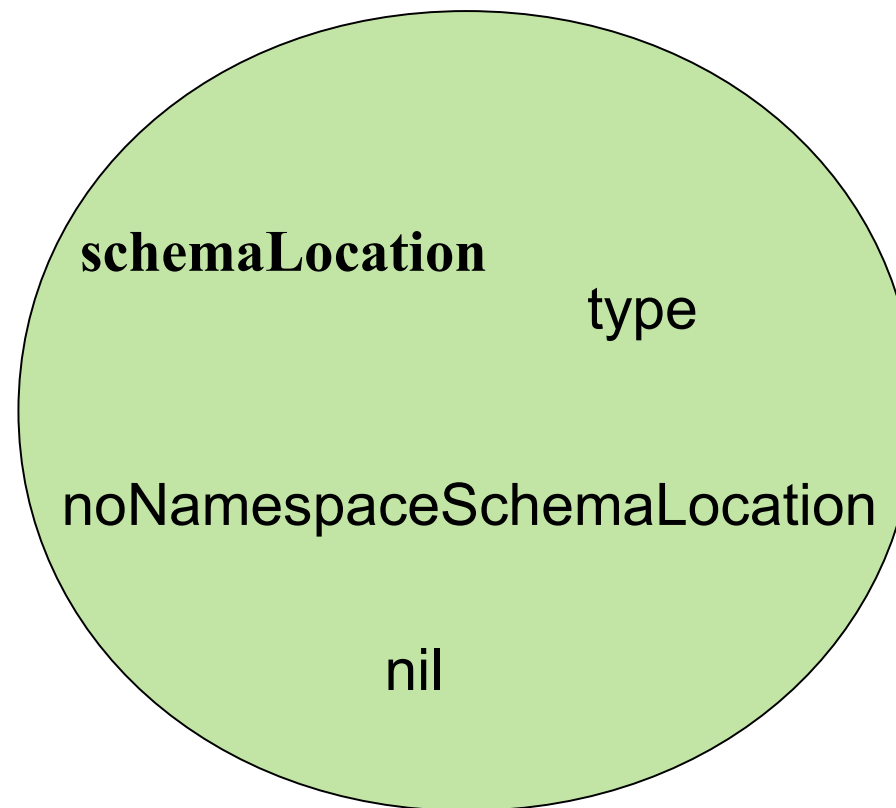


Utilisation de l'espace de nom
XMLSchema pour définir un nouveau
espace du noms

Les espaces de noms

XMLSchema-instance Namespace

<http://www.w3.org/2001/XMLSchema-instance>

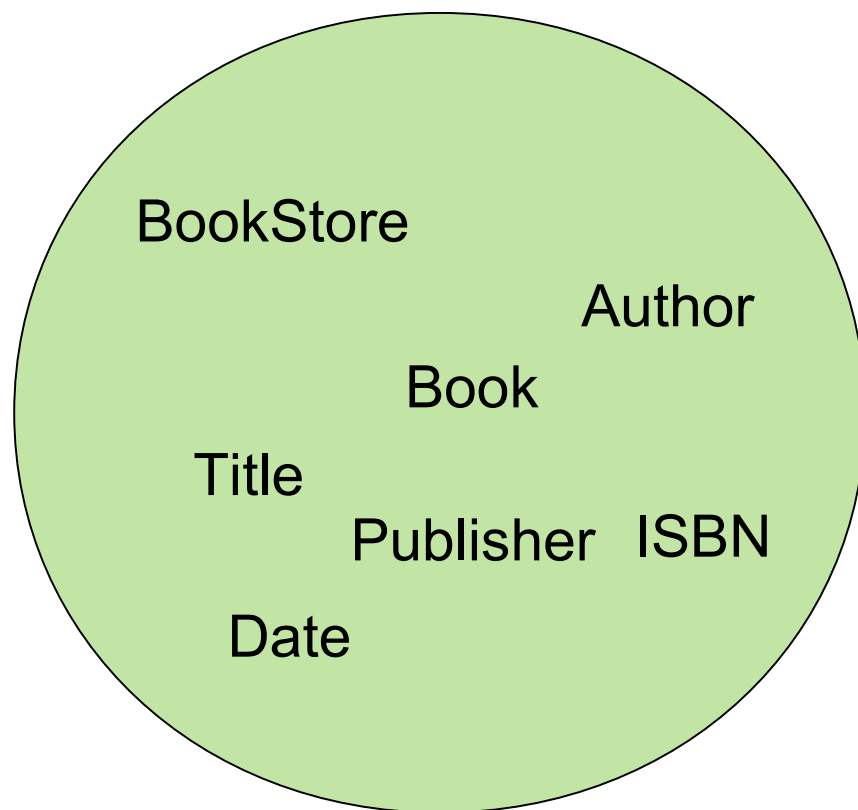


Les documents xml utilisent un autre namespace

<http://www.w3.org/2001/XMLSchema-instance> pour les données

Les espaces de noms

`http://www.books.org` (*targetNamespace*)



books.xsd

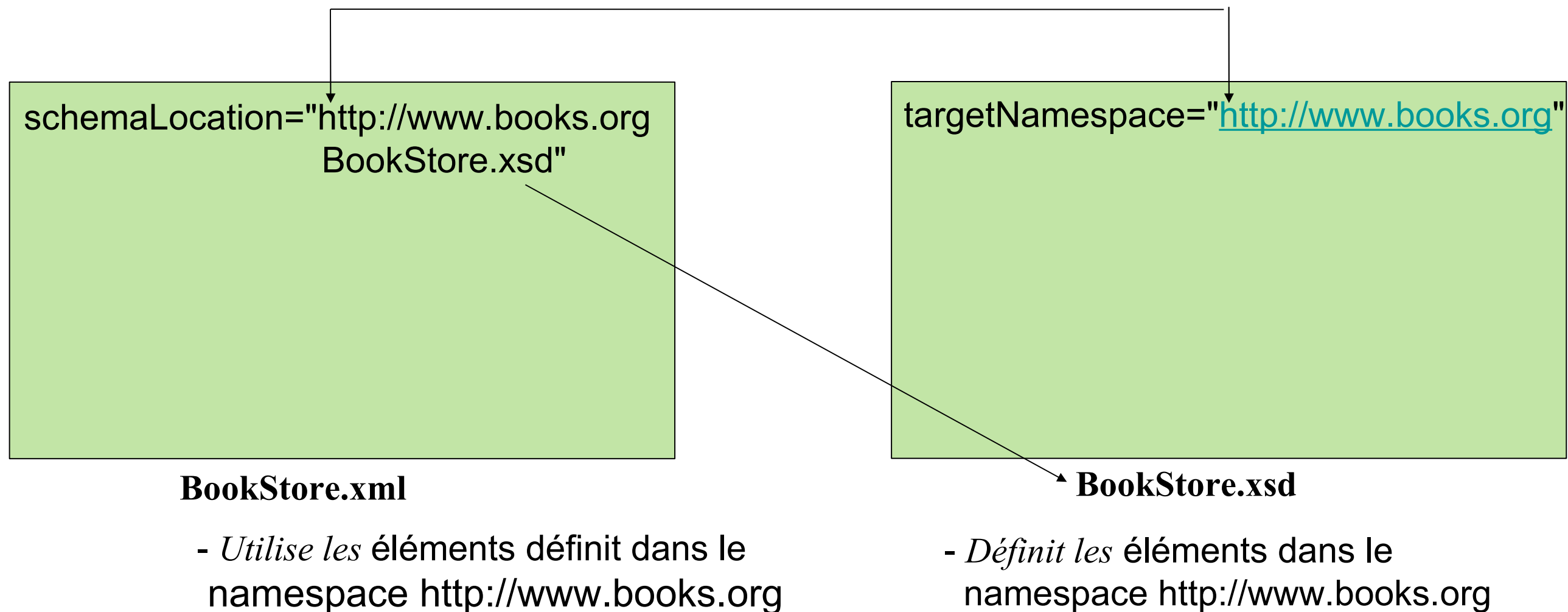
```
<?xml version="1.0"?>
<BookStore xmlns="http://www.books.org"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xsi:schemaLocation="http://www.books.org
                                BookStore.xsd">

    <Book>
        <Title>My Life and Times</Title>
        <Author>Paul McCartney</Author>
        <Date>July, 1998</Date>
        <ISBN>94303-12021-43892</ISBN>
        <Publisher>McMillin Publishing</Publisher>
    </Book>
    ...
</BookStore>
```

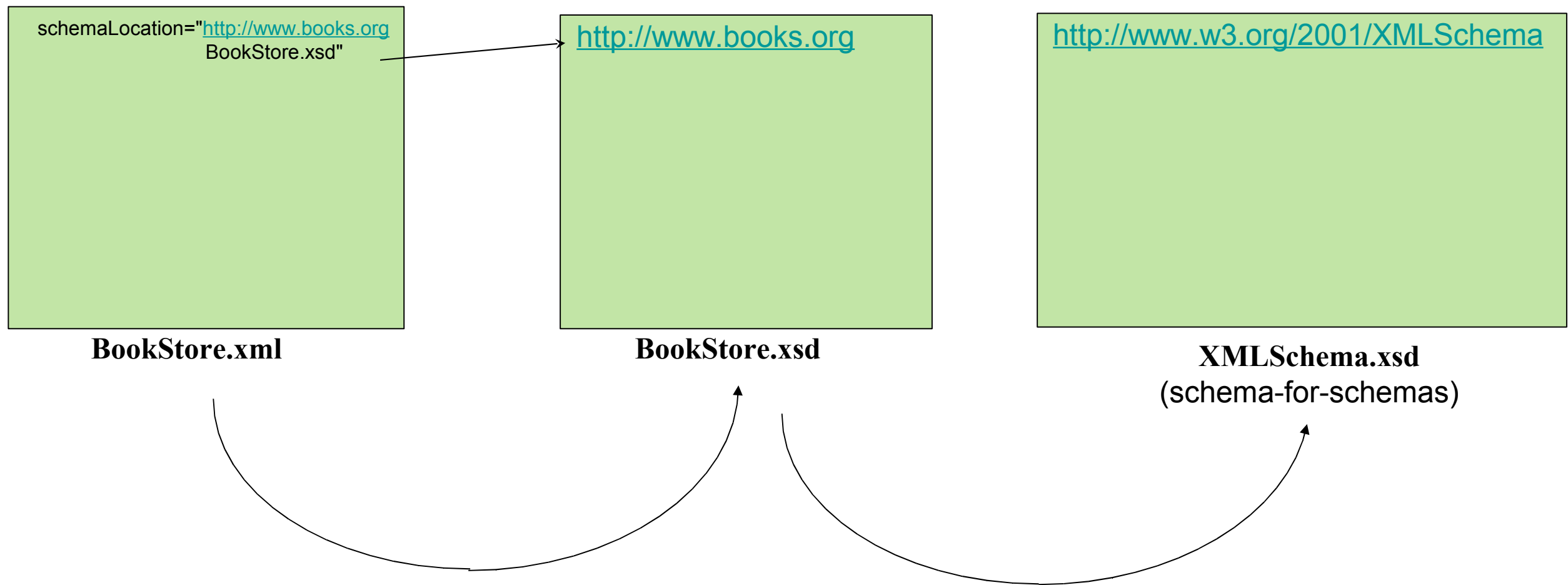
books.xml

Les espaces de noms

Le schéma définit un nouveau vocabulaire. Les documents xml instances du schéma *utilisent* le nouveau vocabulaire.



Les espaces de noms



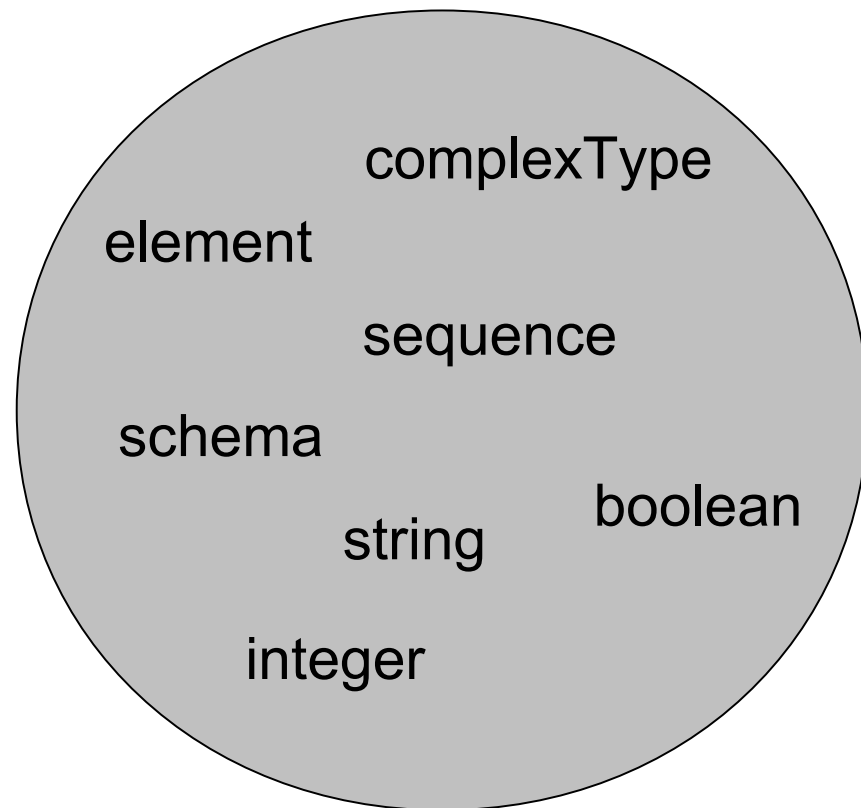
Les espaces de noms

```
<?xml version="1.0"?>
<schema xmlns="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://www.books.org"
  xmlns:bk="http://www.books.org"
  elementFormDefault="qualified">
  <element name="BookStore">
    <complexType>
      <sequence>
        <element ref="bk:Book" minOccurs="1" maxOccurs="unbounded"/>
      </sequence>
    </complexType>
  </element>
  <element name="Book">
    <complexType>
      <sequence>
        <element ref="bk:Title"/>
        <element ref="bk:Author"/>
        <element ref="bk:Date"/>
        <element ref="bk:ISBN"/>
        <element ref="bk:Publisher"/>
      </sequence>
    </complexType>
  </element>
  <element name="Title" type="string"/>
  <element name="Author" type="string"/>
  <element name="Date" type="string"/>
  <element name="ISBN" type="string"/>
  <element name="Publisher" type="string"/>
</schema>
```

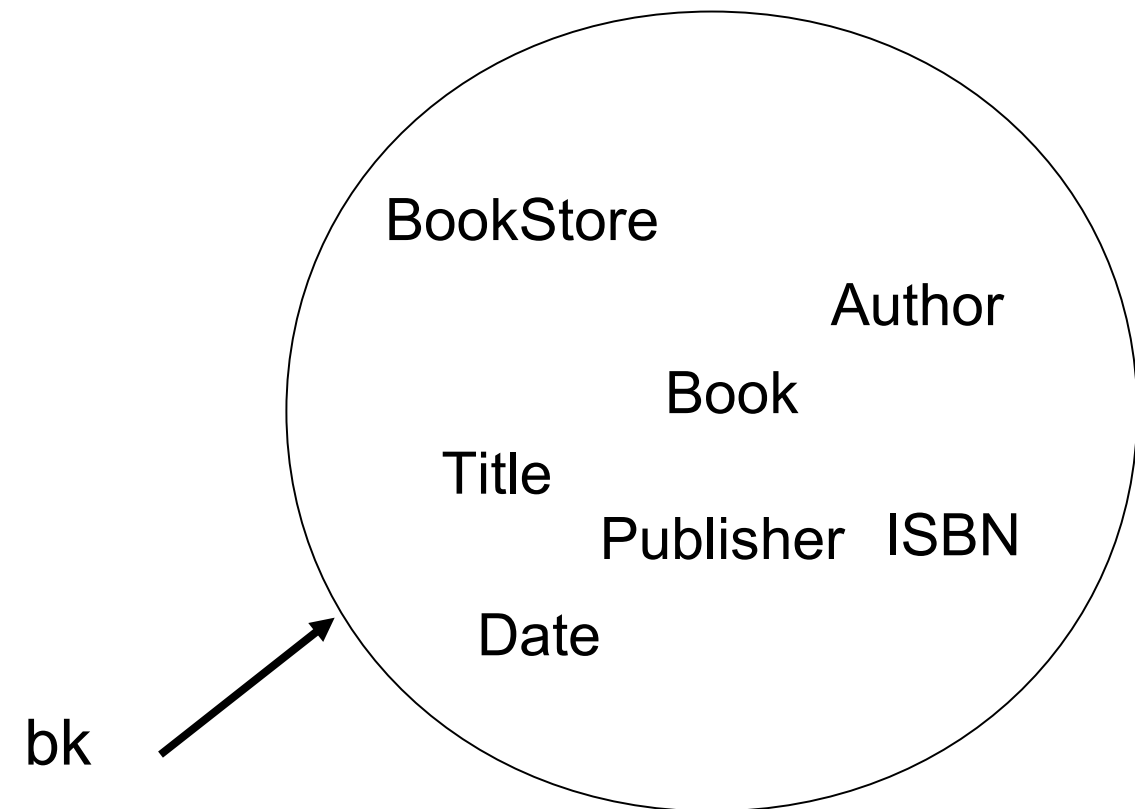
Les éléments sont définis
dans l'espace de nom
bk:<http://www.books.org>

Les espaces de noms

<http://www.w3.org/2001/XMLSchema>



<http://www.books.org> (targetNamespace)



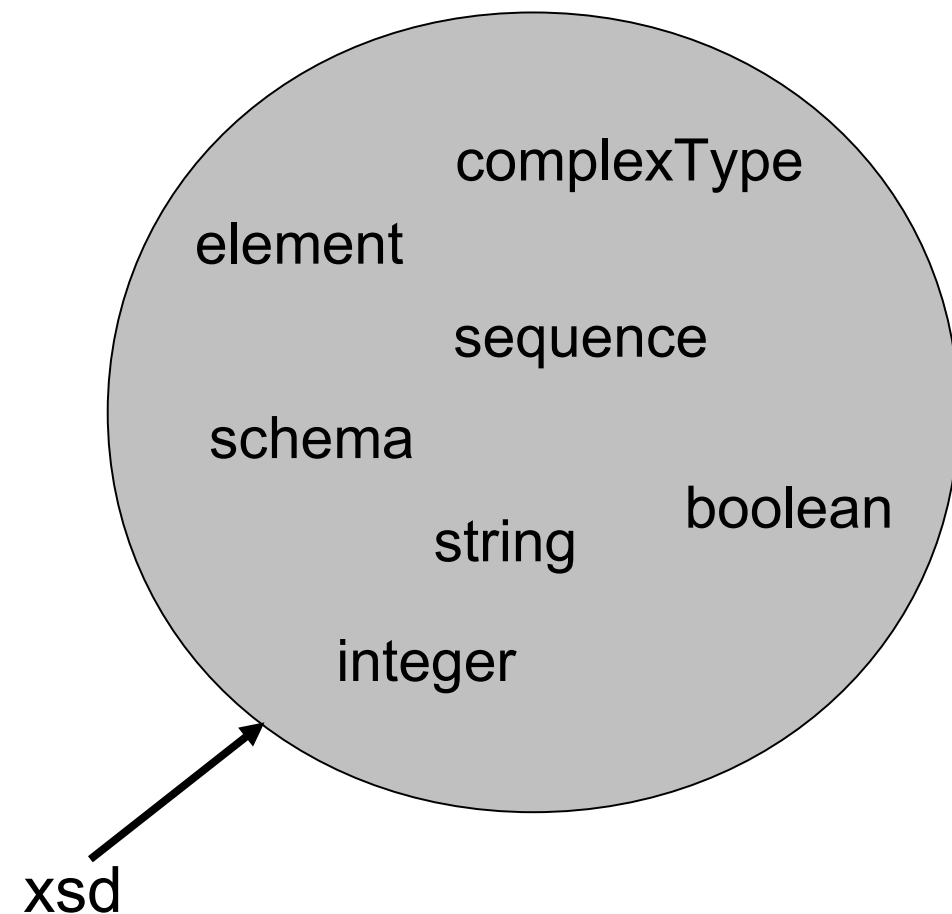
Les espaces de noms

```
<?xml version="1.0"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://www.books.org"
  xmlns="http://www.books.org"
  elementFormDefault="qualified">
  <xsd:element name="BookStore">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="Book" minOccurs="1" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="Book">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="Title"/>
        <xsd:element ref="Author"/>
        <xsd:element ref="Date"/>
        <xsd:element ref="bk:ISBN"/>
        <xsd:element ref="bk:Publisher"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="Title" type="xsd:string"/>
  <xsd:element name="Author" type="xsd:string"/>
  <xsd:element name="Date" type="xsd:string"/>
  <xsd:element name="ISBN" type="xsd:string"/>
  <xsd:element name="Publisher" type="xsd:string"/>
</xsd:schema>
```

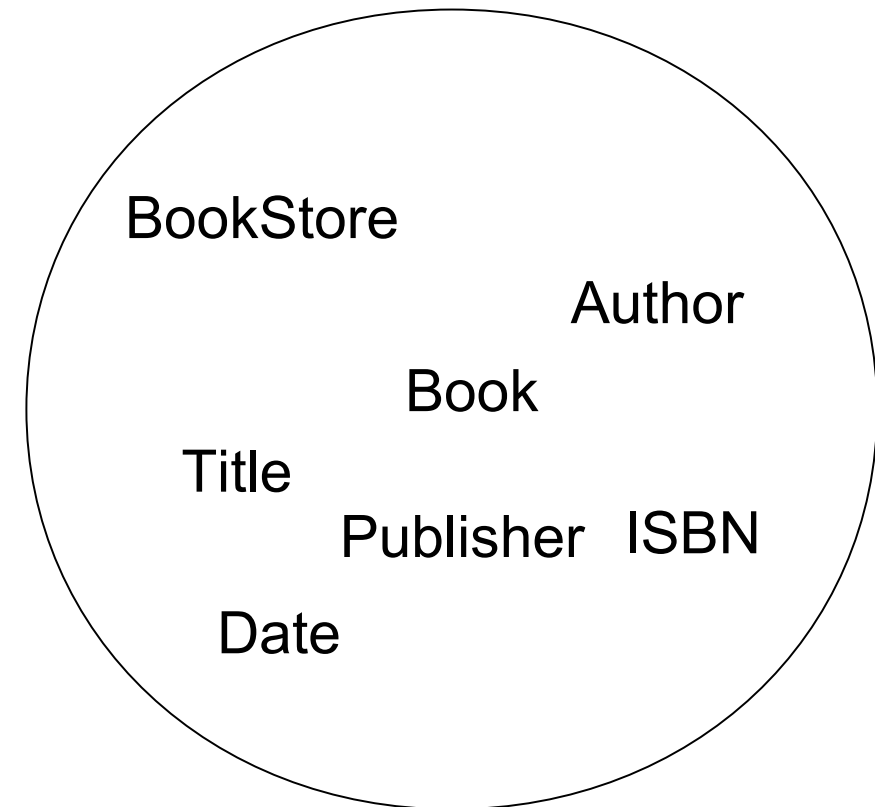
Les éléments sont définis dans
l'espace de nom par défaut
<http://www.books.org>

Les espaces de noms

<http://www.w3.org/2001/XMLSchema>

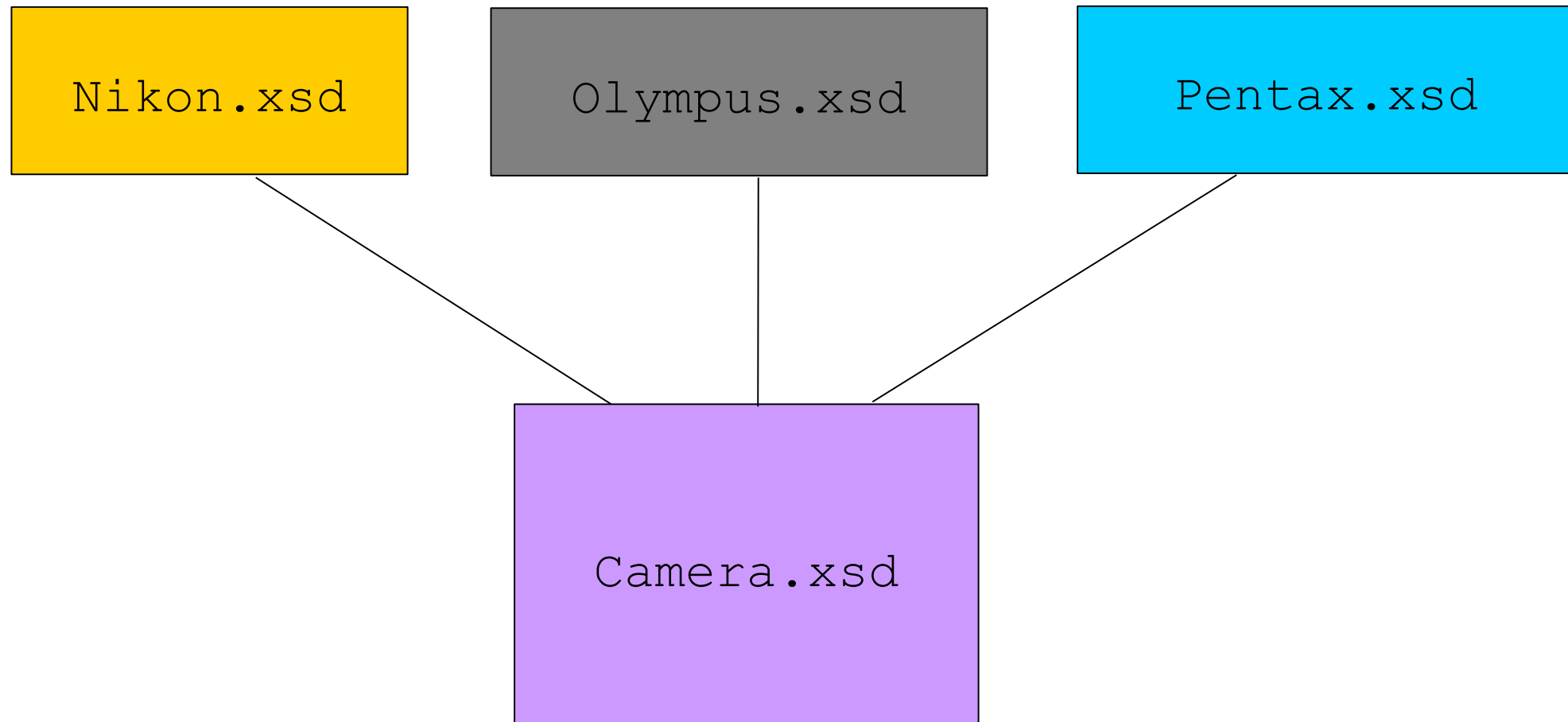


<http://www.books.org> (targetNamespace)



Combinaison des namespaces

Camera Schema



Combinaison des namespaces

Nikon.xsd

```
<?xml version="1.0"?>
<xsd:schema
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    targetNamespace="http://www.nikon.com"
    xmlns="http://www.nikon.com"
    elementFormDefault="qualified">
  <xsd:complexType name="body_type">
    <xsd:sequence>
      <xsd:element name="description" type="xsd:string"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:schema>
```

Olympus.xsd

```
<?xml version="1.0"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://www.olympus.com"
  xmlns="http://www.olympus.com"
  elementFormDefault="qualified">
  <xsd:complexType name="lens_type">
    <xsd:sequence>
      <xsd:element name="zoom" type="xsd:string"/>
      <xsd:element name="f-stop" type="xsd:string"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:schema>
```

Pentax.xsd

```
<?xml version="1.0"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://www.pentax.com"
  xmlns="http://www.pentax.com"
  elementFormDefault="qualified">
  <xsd:complexType name="manual_adapter_type">
    <xsd:sequence>
      <xsd:element name="speed" type="xsd:string"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:schema>
```

Combinaison des namespaces

```
<?xml version="1.0"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://www.camera.org"
  xmlns:nikon="http://www.nikon.com"
  xmlns:olympus="http://www.olympus.com"
  xmlns:pentax="http://www.pentax.com"
  elementFormDefault="qualified">
  <xsd:import namespace="http://www.nikon.com"
    schemaLocation="Nikon.xsd"/>
  <xsd:import namespace="http://www.olympus.com"
    schemaLocation="Olympus.xsd"/>
  <xsd:import namespace="http://www.pentax.com"
    schemaLocation="Pentax.xsd"/>
  <xsd:element name="camera">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="body" type="nikon:body_type"/>
        <xsd:element name="lens" type="olympus:lens_type"/>
        <xsd:element name="manual_adapter" type="pentax:manual_adapter_type"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
</xsd:schema>
```

Combinaison des namespaces

■ XML instance:

```
<?xml version="1.0" encoding="UTF-8"?>
<camera xsi:schemaLocation="http://www.camera.org
camera.xsd" xmlns="http://www.camera.org" xmlns:nikon="http://
www.nikon.com" xmlns:olympus="http://www.olympus.com"
xmlns:pentax="http://www.pentax.com"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <body>
    <nikon:description/>
  </body>
  <lens>
    <olympus:zoom/>
    <olympus:f-stop/>
  </lens>
  <manual_adapter>
    <pentax:speed/>
  </manual_adapter>
</camera>
```

Exemple: Combien d'espaces de noms ?

A quel espace de noms **appartiennent** les éléments : document, html et h1

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
  xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
  xmlns:fo="http://www.w3.org/1999/XSL/Format">
  <document xmlns="http://www.xpp.fr/exo">
    <html>ceci est un exercices</html>
  </document>
  <xsl:template match="machin">
    <html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:wml="http://www.wapforum.org/2001/wml">
      <head xmlns:xpp="http://www.xpp.fr/exo">
        <xpp:document>ce texte n'a pas de sens</xpp:document>
        <title>Insert your title here</title>
      </head>
      <wml:card>
        <h1>Insert your headline here</h1>
        <p>Insert your text here</p>
      </wml:card>
    </html>
  </xsl:template>
</xsl:stylesheet>
```

Exemple: Combien d'espaces de noms ?

- Il y a 5 espaces de noms :
 1. <http://www.w3.org/1999/XSL/Transform>
 2. <http://www.w3.org/1999/XSL/Format>
 3. <http://www.xpp.fr/exo>
 4. <http://www.w3.org/1999/xhtml>
 5. <http://www.wapforum.org/2001/wml>
- les deux occurrences de [document](#) appartiennent à l'espace de noms : <http://www.xpp.fr/exo>
- la première occurrence de [html](#) appartient à l'espace de noms : <http://www.xpp.fr/exo>
- la deuxième occurrence de [html](#) appartient à l'espace de noms : <http://www.w3.org/1999/xhtml>
- l'occurrence de [h1](#) appartient à l'espace de noms : <http://www.w3.org/1999/xhtml>