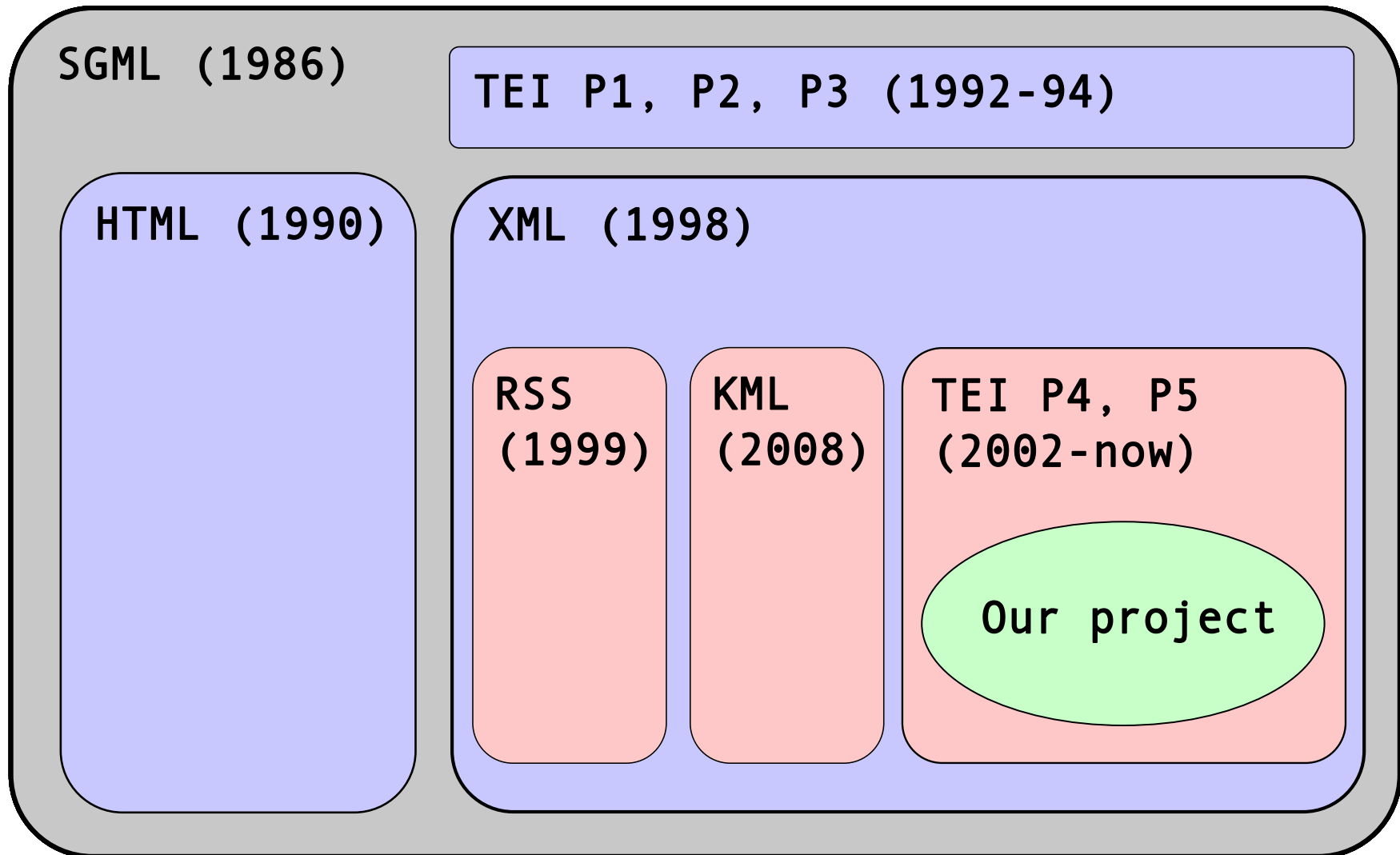# The ISE, TEI and XML Encoding

The ISE is contemplating moving to TEI

- Why?

- What are the implications for editors?

- How will it help them?

- How hard will it be?

- What tools are available and how do they work?

- What are the drawbacks?

- What more can we do?

What makes a good encoding system?

- intelligible

- precise

- nice (fine distinctions)

- concise

- comprehensive

- unambiguous

- well-supported with tools for editors

- open, standardized, documented, maintained...
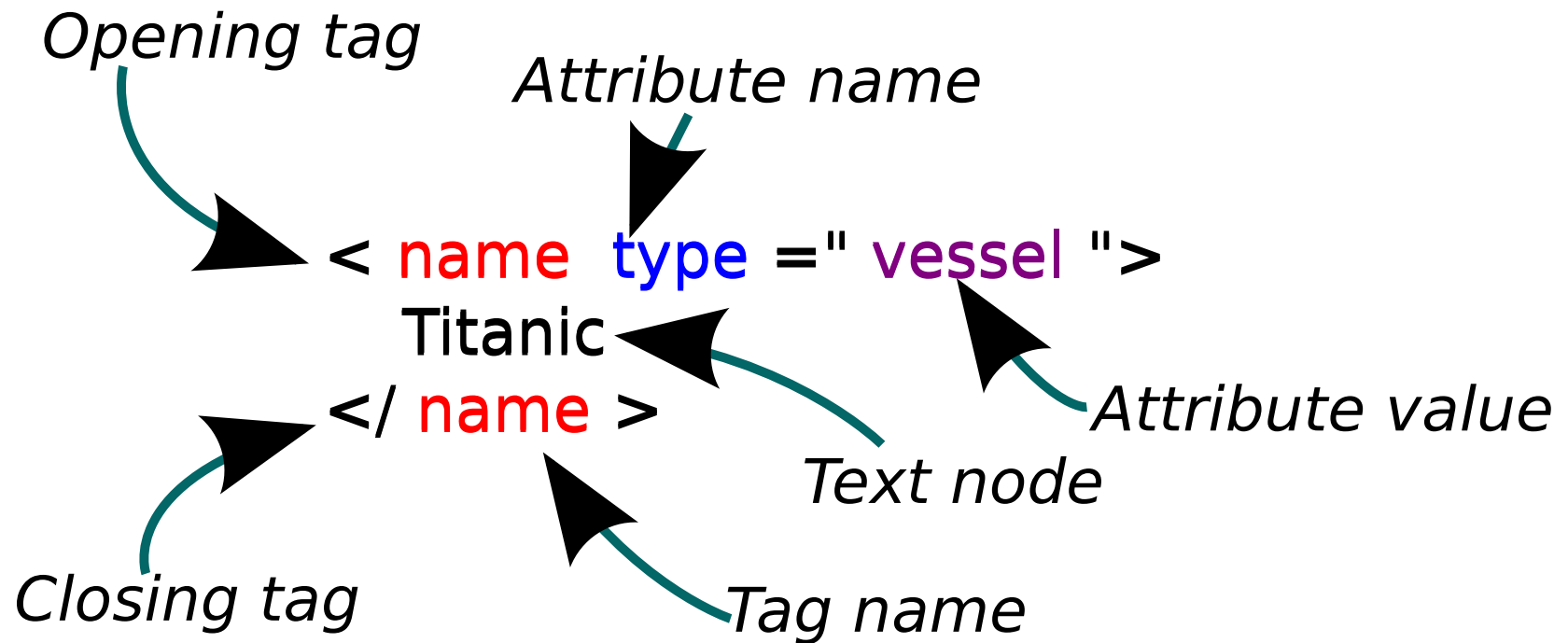
Encoding texts: where TEI fits

SGML (1986)

TEI P1, P2, P3 (1992-94)

HTML (1990)

XML (1998)

RSS (1999)

KML (2008)

TEI P4, P5 (2002-now)

Our project

A quick intro to/refresher on XML

XML elements

\<p\>His name is **\<name\>**Fred**\</name\>**.**\</p\>**

- Opening tag: **\<p\>**

- Closing tag: **\</p\>**

Elements, attributes, values and text nodes

Opening tag

Attribute name

< name type =" vessel ">
Titanic
</ name >

Attribute value

Text node

Closing tag

Tag name

Creating an XML file in Oxygen

- File / New / XML Document / Create.

- This gives a file consisting of:

  `<?xml version="1.0" encoding="UTF-8"?>`

- Now add this:

  ```
  <human period="stone-age">
      <name>Fred Flintstone</name>
  </human>
  ```

Check well-formedness

- **Document** / **Validate** / **Check Well-Formedness**

- What do you see at the bottom?

- Now add a second human, after Fred:

```
<human period="stone-age">
    <name>Barney Rubble</name>
</human>
```
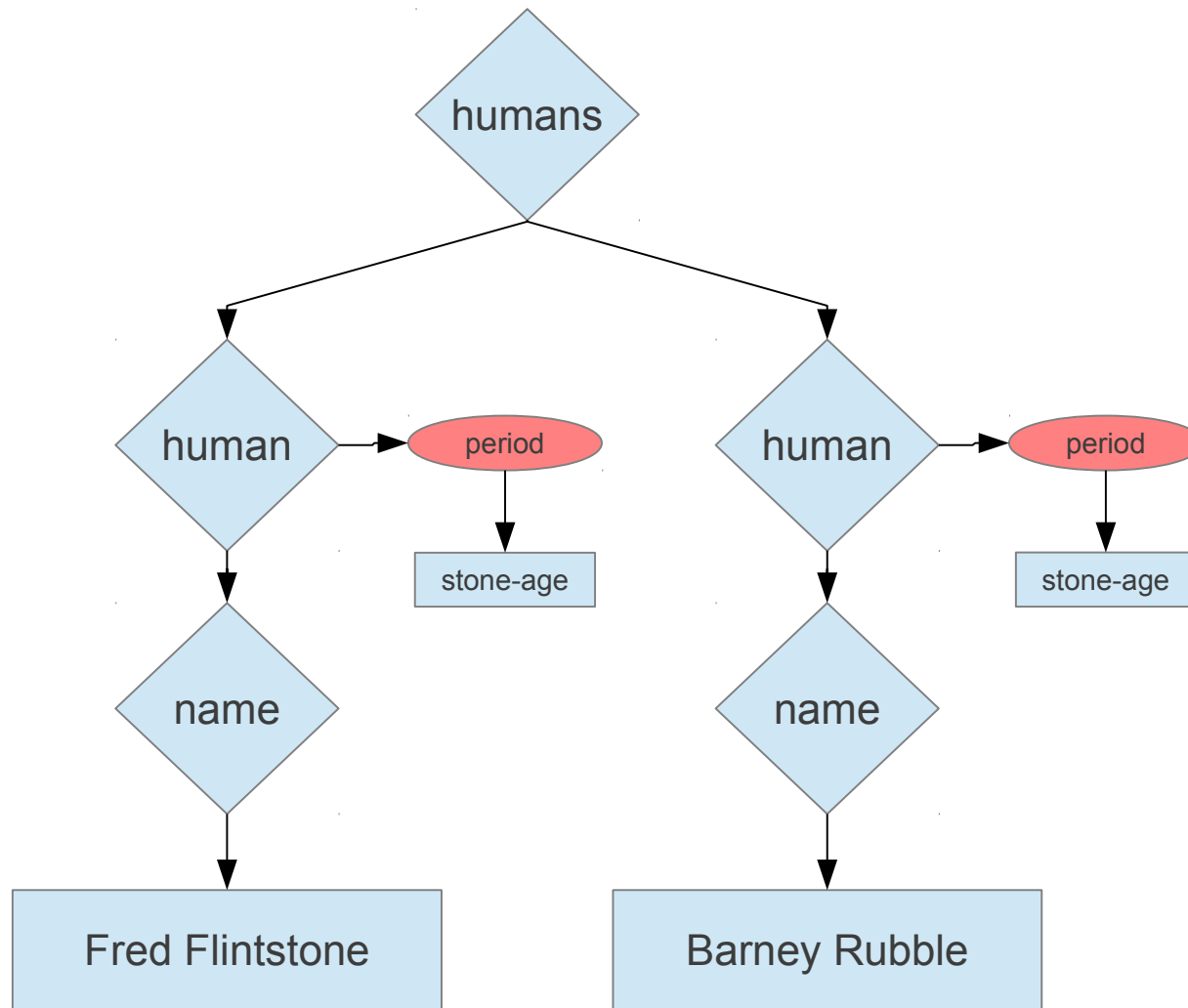
- Check well-formedness again. What happens? Why?

- How can we fix it?

Required: a single root element

- Select both your humans, and press Control+e.

- Type "humans" and press return.

- Check for **well-formedness**.

XML documents are trees

Anybody can make up XML tags

- In our document, we made up three XML elements and one attribute.

- We have the power.

- Everybody has the power.

- What might be the drawbacks of this?

XML Schemas to the rescue

- We need standardization.

- We need a way to enforce compliance and consistency.

- **XML schemas** allow us to do that.

- There are several different types of schema. Hahahaha.

- But we'll be using RelaxNG schemas.

How to use a schema

- http://hcmc.uvic.ca/workshops/ise/humans.rng

- In Oxygen:
  Document / **Schema** / **Associate Schema**.

- Type or paste in the URL above, and press OK.

```
<?xml-model
    href="http://hcmc.uvic.ca/workshops/ise/humans.rng"
    type="application/xml"
    schematypens="http://relaxng.org/ns/structure/1.0"
  ?>
```

An ISE project for Oxygen

- Download the package of materials here:
  http://hcmc.uvic.ca/workshops/ise/ise_tei.zip

- Unzip it somewhere convenient.

- In Oxygen, **Project / Open Project**, then
  navigate to the **ise_tei.xpr** file.

What will this do for you?

- Allow you to create a new ISE TEI file based on a template.

- Validate that file continuously while you work on it.

- Allow you to work in both a code view and a reader-friendly view.

- Create an HTML page from your document automatically.