IV. XML for People

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The Social Dimension of XML

Beyond a narrow interpretation of XML

1. XML is not just about exchanging data between machines

   □ It's also about the establishment of agreements between humans

2. XML is not just about the web

   □ It's about information in many different media

3. XML is not just about technology

   □ It's also about the relationship between content creators and software vendors

The two agendas

XML has two very different agendas.

- Technical
- Social

Isn't XML about technology?

Yes, XML provides key features needed for a new generation of Web applications:

- Extensibility

- Structure

- Validation

- Media independence

But all of these could have been accomplished with a proprietary binary format. Why did we start a movement to establish an **open character-based** format instead?

XML is about freedom

Socially, XML is about two things:

1. Freedom of groups of users to define special languages that accommodate their agreed-upon needs

2. Freedom of individual users from the tyranny of proprietary software tools

   ☐ Vendor neutrality

   ☐ Platform neutrality

   ☐ Language neutrality

The political agenda of XML is similar to that of **Linux** and **Java**. Linux and Java are about ownership of **programs**; XML is about ownership of **data**.

The XML accomplishment

XML itself is a **big open-standards victory** for users.

- Freely extensible

  - No tag name limitations
  - No language limitations

- Human-readable

  - Can maintain data using basic text tools like sed, awk, perl, Word macros

- Open standard

  - In theory, XML users can't be held hostage to vendor control

- Easy to implement

  - There will be many powerful, cheap, off-the-shelf commercial XML tools

  - There is already an ever-growing set of free XML tools (almost all of them Java-based)

The Strategic Implications of XML

The implications of XML+XSL

Technical fact: the combination of XML and XSL can replace all existing word-processing and publishing formats.

- A single format for both print and online publishing
- A single format across different products
- A single format for all languages
- A single tools and training infrastructure

What does this mean?

- Users no longer tied to a proprietary format
- A change in the relationship between software vendors and customers
- An end to control of the market by a few big companies
- An end to control of the market by a few big countries

What can go wrong?

The complete implementation of XML standards would mean an end to control of users through proprietary formats.

Companies that have built their business models on proprietary formats can be expected to resist this. There are billions of dollars at stake here!

The most obvious ways to subvert the user-empowerment agenda of XML are:

- Vendor control of standard schemas and namespaces
- Incomplete Unicode support
- Incomplete XSL support
- Incomplete XLink support

Protecting against subversion

1. Watch out for nonstandard extensions and incomplete UTF-8/UTF-16 support

2. Beware of strategies that limit XML to the role of middleware; it's more than that

3. Beware of strategies that limit XSL to the role of transformation language; it must be able to render formatting objects, not just HTML tags

4. Beware of strategies that ignore or attempt to limit XLink/XPointer functionality -- linking is the next big architectural breakthrough for the web

5. Resist corruption of the XML family in the name of "backwards compatibility"

6. Support independent tools vendors

7. Foster vertical-industry development of standard schemas (DTDs) and namespaces

8. Support the only organization dedicated to interoperable document standards in general: OASIS(http://www.oasis-open.org)

XML as a Social Framework

The human function of XML

XML allows people sharing a common data exchange problem to work out an **open solution** to that problem.

- Without interference from third parties
- Without dependence on large software vendors
- Without bindings to specific tools
- Without artificial language restrictions
- In a way that lets anyone with a similar problem use the same solution

XML provides **a standard framework for making agreements about communication**.

Mechanisms for agreement

- Industry DTDs

- Industry schemas

- Industry namespaces

- Organizational stylesheets (formatting specifications)

- Individual public key certificates

- etc.

What's missing?

We're lacking a mechanism for finding this stuff when we need it.

1. Human search: what existing industry standard meets my needs?

2. Machine resolution: where is the DTD (schema, namespace, etc.) pointed to in this document?

What's needed is an **XML registry and repository.**

Requirements for an XML Registry

- Universally accessible

- Trusted and vendor-neutral

- Low cost of entry for individuals and small organizations

- Distributed model

Answer: **XML.org** (http://xml.org/).

Anything else?

Yes, we need a place for organizations building XML industry specifications to come together.

- Host meetings

- Share resources

- Share techniques

- Express common needs to providers of XML tools and services

- Foster interoperability among XML applications

- Give **individuals** a say in the creation of the XML infrastructure

Answer: **OASIS** (http://www.oasis-open.org/).

OASIS for individual developers

OASIS memberships for individuals and representatives of recognized industry groups are now just **$250/year.**

- Full participation in technical work

- Basic level of registry services at XML.org (TBD)

See http://www.oasis-open.org/for more information.

Coming events in the XML world

- **11-13 August 1999:** OASIS Summer Workshop (Montreal)

- **16-20 August 1999:** GCA Metastructures Conference and XML Developers' Conference (Montreal)

- **6-8 October 1999:** XML One Europe (London)

- **??-?? November 1999:** XML One Conference in U.S.

- **5-9 December 1999:** GCA XML and Markup Technologies Conferences (Philadelphia)

- **10 December 1999:** OASIS General Meeting (Philadelphia)

- **15-19 May 2000:** WWW9 (Amsterdam)