



Akoma Ntoso

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Electronic Documents

- From documents generated electronically and used on paper...
- ... to document generated electronically and used electronically
 - Not quite the paperless office
 - But the paper version is an expendable, additional out-product of the main copy (which is electronic)



Time is the constraint

- Short term: drafting and publishing
 - Documents have to be ready as soon as possible, ideally by tomorrow morning, nicely
- Long term: archival, memory, accountability
 - Documents have to be readable for as long as possible, ideally 100 years, completely



Issues

- Short term: Drafting and publication
 - Reliability of content
 - Speed of process
 - Appearance of presentation
- Long term: Archival and memory
 - Tampering and accountability
 - Preservation and readability
 - Survival from computer tools
 - Openness to new uses

Next: Parliamentary documents4/23





Parliamentary documents

- The most sensitive type of document
- Extremely delicate time-constrained document drafting and publication lifecycle
- Extremely important long-term preservation requirements



Solutions

- Document-centered applications
- Open formats
- Standards
- Self-description
- Self-containment





Document-centered applications

Documents are not data

- Data is simple, machine-like, normalized, distilled
- Documents are complex, human-like, non homogeneous, natural
- Documents have authors, creation date, lifecycle
- Documents have content, rhetoric, incidentals
- Documents have purposes, meaning, interpretation

Document-centered applications handle documents as documents, not as arbitrary containers of data

Next: Open formats7/23



Open formats

Document content is generated by tools in a format that strictly depends on the internals of the computer

- Closed formats bind content to the tool, and require the same tool to be used to access the content
- Open formats are independent of the tool you use, and make content accessible with different tools, and after the tool has become obsolete.



Standards

Among the open formats, standards are the best solution

- They have long term commitment from official bodies
- They are independent of commercial strategies of tool creators
- They allow (indeed, suggest) multiple vendors to produce independent, yet interoperable, tools

For documents, XML is the standard of choice.

For parliamentary documents, Akoma Ntoso is an important proposal based on XML



Self-description

Being able to tell the role of each part of a document just by looking at it, without external help

Manuals, record structures, decoders and encoders become optional, and are no longer fundamental for accessing content

Long term document management need to ensure that we still understand the content even 50 years from now, even without the proper tools

Just look at the document and understand

Next: Self-containment10/23



Self-containment

- A document is important not just for its content, but for all information we have about the content as well.
 - Metadata: author, relevant dates, keywords, publication details, versions and variants, etc.
- Long term requirements imply that these information need to be as close as possible to the document, and evolve and undergo the same events together.
- Otherwise, I might find documents that are impenetrable because we have no metadata for them





The Akoma Ntoso proposal

Next: Strengthening...12/23





Strengthening...

“Strengthening Parliamentary Information System in Africa”

In 2004 the United Nation Department for Economic and Social Affairs (UN/DESA) started a project

- To allow Parliaments in Africa to use current technologies in their daily workflows
- To improve citizens’ access to legislation and dialogue between electors and elected
- To provide a positive feedback mechanism that allow positive experience in one Parliament to be reflected back in initiatives in other Parliaments across Africa

Next: AKOMA NTOSO13/23



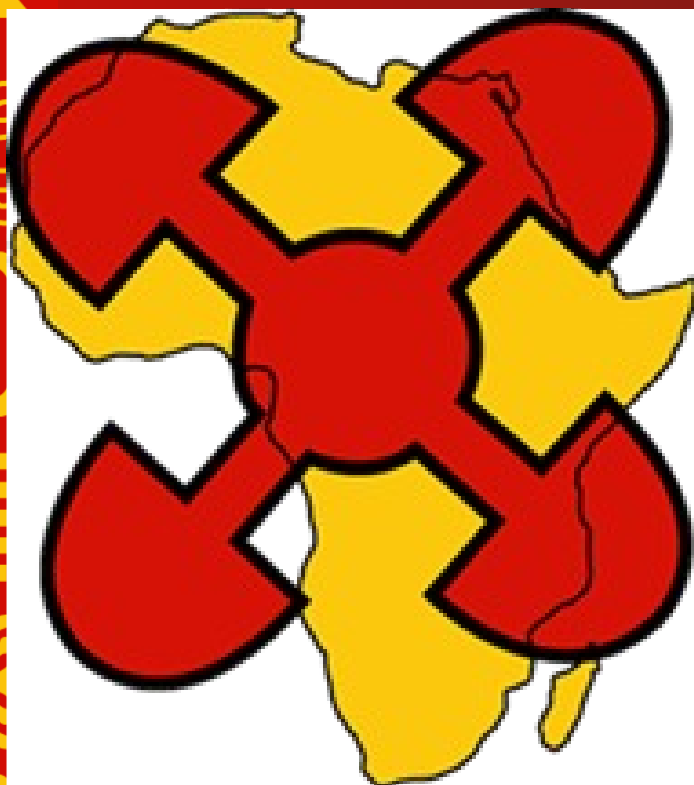


AKOMA NTOSO

- **Architecture for Knowledge-Oriented Management of African Normative Texts using Open Standards and Ontologies.**
 - A disciplined approach to designing document classes in XML
 - A systematic mechanism for referencing documents within and across country borders
 - A ontologically sound approach to designing metadata and relationships between different documents and different versions of documents.



Name and symbol



- “Akoma Ntoso” means Linked hearts
- It is the symbol used by the Akan people of West Africa to represent understanding and agreement.
- Likewise, AKOMA NTOSO represents the common standards that provide open access to parliamentary documentation and allow Parliaments to exchange information more efficiently



The objectives of Akoma Ntoso

- Define a common format for documents of African parliamentary activities
 - Primary Legislation – covering the lifecycle of a piece of legislation
 - Parliamentary Debates
 - Amendment lists
 - Committee briefs
 - Journals
- Define a model for tools
 - Generation of documents
 - Presentation of documents
 - Access to documents
 - Description of documents
- Easy to implement, easy to adopt and deploy, interoperable at all levels.

Next: Designing Akoma Ntoso 16/23



Designing Akoma Ntoso

- Building on successes and errors of NormInRete (the corresponding Italian project started in 1999 and still going on strongly)
 - Simpler, less prone to unimportant, small exceptions and more open to new changes and evolutions
 - Support for multilinguism without renouncing to understandability and interoperability
 - Support for simple implementations without renouncing to complexity and sophistication
- Allow easy implementations and long-term management of documents

Next: Design Issues (1)17/23



Design Issues (1)

- Simple data model to facilitate usage and understanding
- Long term feasibility and evolution (backward and forward)
 - To support documents being drafted now and already drafted and enacted a long time ago.
 - to support lifespan of the project and the documents in the tens and possibly hundreds of years
- Self-explanation and self-containment

Next: Design Issues (2) 18/23



Design Issues (2)

- Extensibility towards more countries, more document types, more vocabularies
- Document exchange and homogeneity
 - Documents produced by different tools and individuals need to be, as much as possible, identical
- Multiple uses
 - Display on PC Screen, display on cell phone, display on Braille terminal, print on paper, print on paper with a different paper size, cataloguing, searching, workflow management (during drafting and active lifecycle), automatic consolidation, textual analysis, semantic analysis, provision analysis, cross-country comparison, synchronized translation, etc.





The Document Architecture

- Akoma Ntoso describes two different but connected families of document formats
 - The General Schema: One vocabulary and minimal set of constraints that all documents must comply to.
 - Detailed Schemas: A set of stricter schemas. They provide more constraints over the same vocabulary to enforce the rules of specific national Parliaments.
- All documents satisfying one of the Detailed Schemas must also satisfy the General Schema.
- The General Schema is absolutely descriptive, and is meant to be applied consistently across all adopting countries.
- The Detailed schemas are country-specific, and can be more prescriptive, as long as the legal drafting office can impose forms and structures to the Parliament itself.

Next: Named resources in Akoma Ntoso20/23





Named resources in Akoma Ntoso

- Documents being managed within Akoma Ntoso include:
 - Original documents as created by the original authors (e.g., acts, bills, hansards, etc.)
 - Attachments to original documents
 - Derived documents (such as point-in-time consolidated documents created on the fly)
 - Navigation documents (such as the list of all acts emanated in 2005, or the home page of the publishing site, etc.)
- All resources have names that describe their nature, their status, and their relationship to other resources.





Metadata in Akoma Ntoso

- Metadata is all editorial content (i.e. content added by the editorial process out of Parliament rooms)
- Vice versa, all actual content of the document needs to have a place in the appropriate content sections.
 - Descriptors: i.e., a set of meta information providing info about the document and its publication and edition details, including its official promulgation date, its official network address, etc.
 - Lifecycle: the lifecycle element provides information about the events that the document has undergone, and references to the documents that have caused these events..
 - Notes: the text of the editorial notes that might be produced to comment and expand the actual text of the document. Note references inside the text point to notes contained here.

Next: Conclusions22/23



Conclusions

Document centered systems guarantee support for

Short term goals: produce and publish document fast,
correctly and reliably

Long term goals: store and give access to documents
across a long interval of time (tens to hundreds of years)

They separate concerns for

drafting applications

document management applications

document formats

Formats need to be immediately usable and yet age
gracefully

Akoma Ntoso tries to reach both goals

Fine presentazione23/23

