Online Publishing as a Support for Scholarly Communication in Dynamic Knowledge Communities

Ana Alice Baptista
Eloy Rodrigues
Altamiro Barbosa Machado

Universidade do Minho
Portugal
Goals of an Online Journal

- Promote the rising of Knowledge Communities and interdisciplinarity
- Promote, develop and maintain the communication between elements of a knowledge community
- Narrow the gaps, and integrate as much as possible, formal and informal communication
Knowledge communities and interdisciplinarity

• Large scope
• Large base of documents from several fields or even areas
• Personalization through dynamic profile construction
Communication

- Up to date contents - publishing as soon as acceptance
- Updated hyperlinks
- No space limitations - publish full study
- Not necessarily periodic
- Submission made easy
- Peer Review Process fast and coherent
Communication (cont.)

• Several genres of documents (including informal ones)
• Metadata for these document genres
• Multiple versions
• Forward references
• Multilanguage support
Communication (cont.)

- Individual work support
- Share of individual work
- Group and cooperative work support
- Personalized and standard search
- Shared and group search
- Annotations and Comments
- Statistics utilities
Formal and Informal Communication

- Formal communication data, metadata and processes
- Informal communication data, metadata and processes
- Relationships between:
  - Formal documents
  - Informal documents
  - Informal and formal documents
Informal Document Layer
Informal Communication
(Knowledge Share - between elements of the community)

Knowledge Community Layer

Formal Document Layer
Formal Communication
(Knowledge Share - from authors to readers)

GENERATE ARE TIGHTLY COUPLED TO
Informatatica Online

- Submission and Peer Review
- Editing and Publishing
- Reading and Commenting
- Collaboration
- Research
• Non Periodical
• Personalized in Form and Content

Peer reviewed documents through fully electronic peer review system

• Dynamic Profile construction
• Each user sees a different journal
• Users see documents in common
• Overlapping document based knowledge Communities are built

Individual work and collaboration
• Commentaries / annotations
• Discussion forums
• Individual work sharing
User Profile

• Several Kinds of Roles for Users:
  – Author
  – Reader
  – Commenter
  – Reviewer
  – Editor
  – Editor in Chief
  – Publisher
  – Editor Assistant
User Profile

- Contents of interest
- Form those contents are accessed or retrieved
- Common part of general information
- Specific parts defined accordingly to the roles the user plays
Future Work

• Already done: System requirements using UML Use Case view
• Next: System analysis and Design processes
• Components that can be used:
  – automatic classification system
  – multilanguage system
  – search engines
Future Work (cont.)

• Other:
  – Metadata for new document genres
  – Multiple versions handling of dynamic documents
  – Relationships between formal and informal documents
  – Citation issues
  – Dynamic profile construction and personalization
Future Work (cont)

• Information behaviour of Portuguese Informatics Community *prior* to the use of this system

• Information behaviour *after* the system is implemented
Conclusion

• Hope: Richer communication between scholars
• Hope: Knowledge share between different fields of knowledge
• Try: To take advantages from technology
• Try: Not to forget what a journal in fact is and might be