Sedna and its Applications

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Developed at

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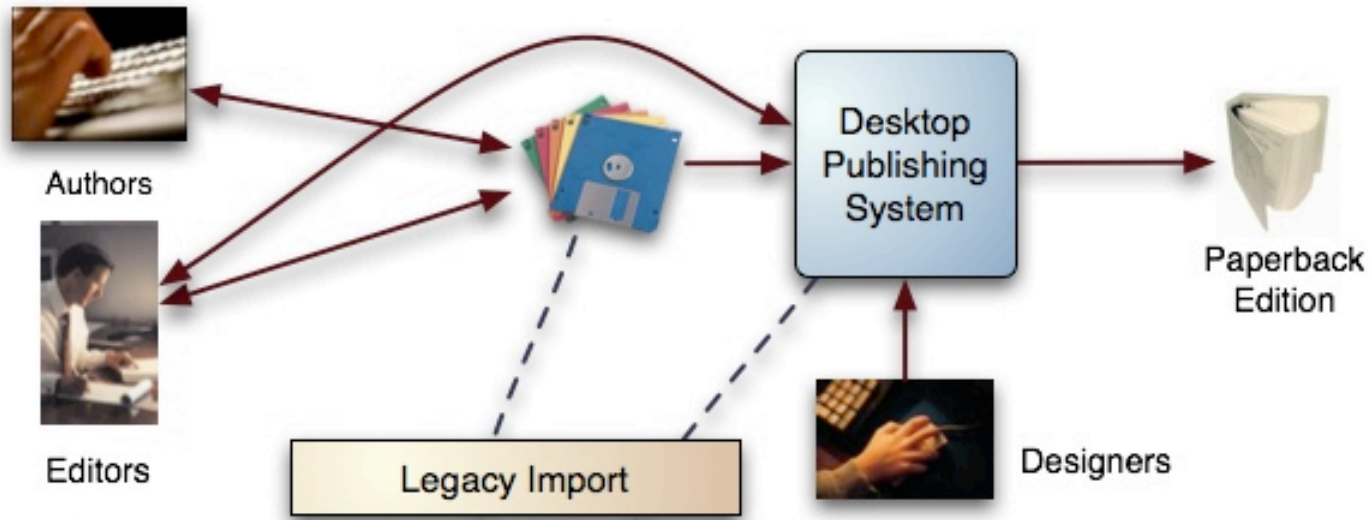# Sedna Introduction

► Built from scratch with a XML-native design in C++

► Native "column-oriented-like" XML storage

► Path, value, full-text indexes

► Support for XQuery and a node-level update

► ACID transactions based on versioning mechanism

► Node-level XQuery triggers

► APIs: C, .Net, Java, PHP, Python, Scheme, Omnimark

► Portable: Linux, Windows, Mac OS, FreeBSD, Solaris
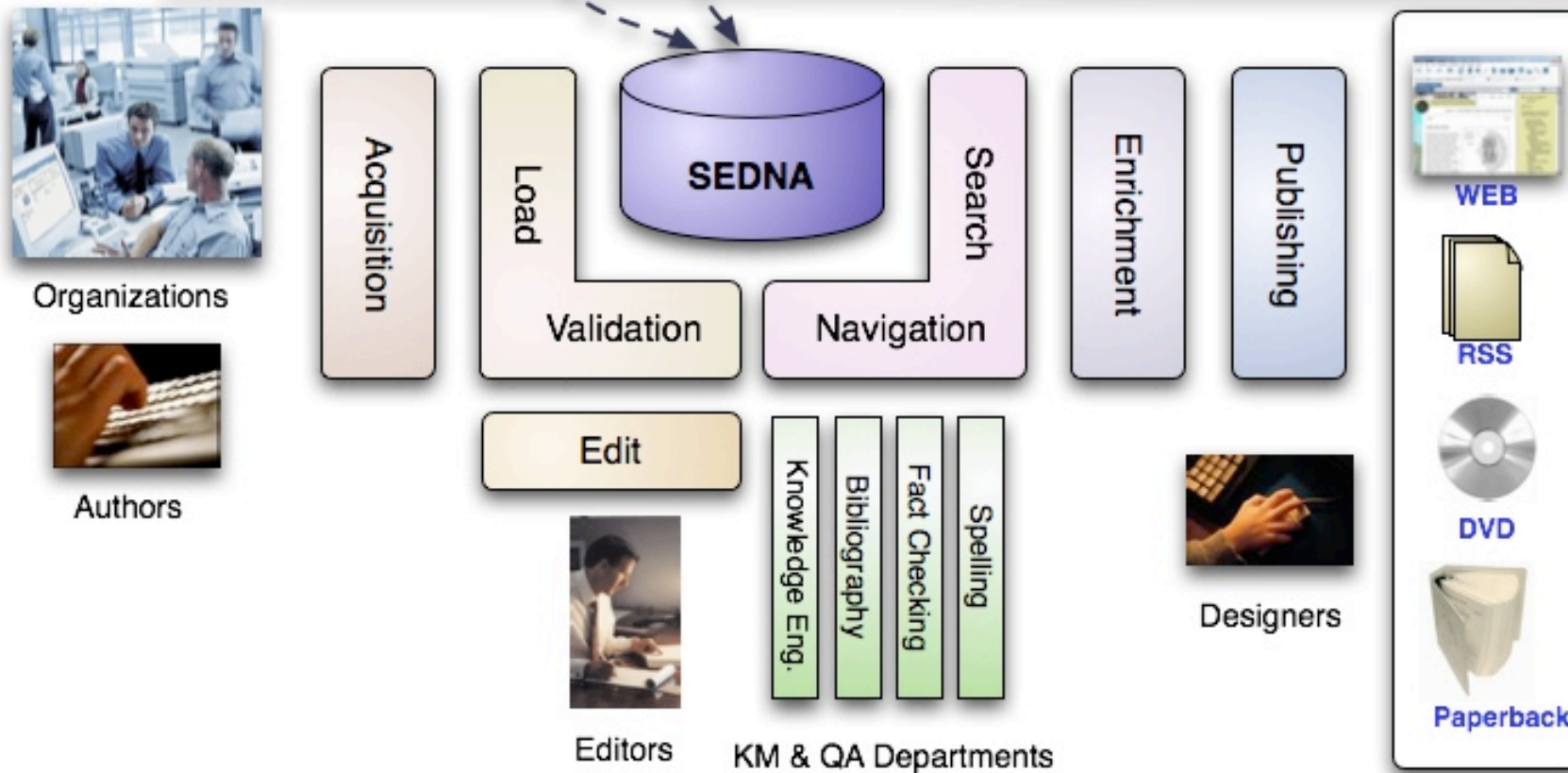
Sedna Applications

► XML-based Content Management for Great Russian Encyclopedia

► Harnessing live news streams for decision support (joint HP Labs project)

BEFORE

Authors

Editors

Legacy Import

Desktop Publishing System

Designers

Paperback Edition

NOW

Organizations

Authors

Acquisition

Load

SEDNA

Search

Enrichment

Publishing

Validation

Navigation

Edit

Knowledge Eng.

Bibliography

Fact Checking

Spelling

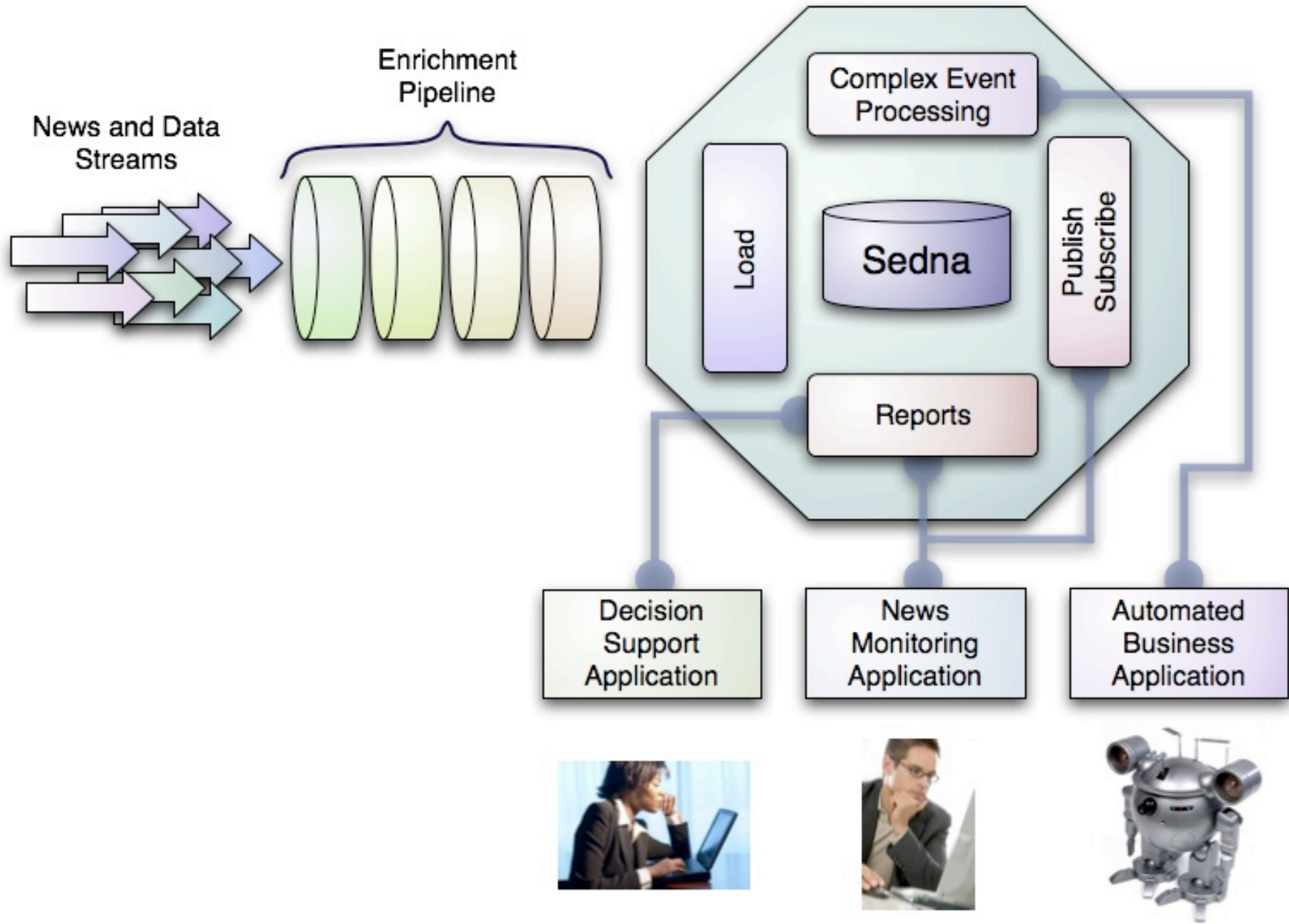Editors

KM & QA Departments

Designers

WEB

RSS

DVD

Paperback

XML Database Advantages

► Easy to develop and customize single source publishing pipelines in XQuery, XSLT and Omnimark

► Full-text and fielded search in XQuery for electronic version of encyclopedia

► Easy to implement wiki-style editing

News and Data Streams

Enrichment Pipeline

Complex Event Processing

Load

Sedna

Publish Subscribe

Reports

Decision Support Application

News Monitoring Application

Automated Business Application

XML Database Advantages

► Easy to query enriched data (mixed content) in XQuery

► Easy to extend enrichment process adding new types of extracted entities

Thank you!

http://modis.ispras.ru/sedna