## **Beyond OAIS**

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## Abstract

As more and more organizations are paying serious attention to designing and building digital repositories, it is becoming increasingly apparent that while OAIS represents a valuable reference model, there are a large number of issues both buried inside it and sitting on the fringes of it that need careful attention and expansion as we move forward in implementing digital repositories. If these repositories are to be more than simply locked digital closets that house the output of organizations and communities then there will need to be closer attention paid to the fact that these repositories operate not in isolation, but rather as features of a much broader digital landscape. These practicalities affect implementations in all sectors; including government, academic and commercial organizations.

At the government level, while major national libraries and archives are eager to embrace digital repositories with all their promised benefits, they yet face enormous challenges of operating in a new digital world of legal e-deposit with vast amounts of data in what could be innumerably different formats arriving at ingest with alarming speed. The potential multiplicity of publishers that they will have to deal with, along with the legal accountability issues of such deposits, demands that they build not just an archive to hold the content received, but also build, or interface with existing, supporting systems that will deal with such issues as workflow control, calendaring, reporting and communications support.

Using the OAIS model to implement institutional repositories in the academic world brings with it a different, but equally challenging set of issues that must be addressed. Experience to date, indicates significant resistance from faculty members towards the deposit of materials in these institutional repositories and it has been shown that an essential ingredient to building successful repositories is the provision of adequate authoring support tools and services. Additionally, implementing in the academic world there are not just technical questions around the longer term sustainability of open source models but also more practical challenges such as how to make the assets deposited in these repositories usefully available to eLearning systems. In the commercial world, there is no shortage of challenges either. Stored assets held by media industry organizations represent major sources of potential revenue through reuse, reversioning and re-purposing. A major focus for these companies will be protection of the assets and the need to tightly interface with corporate financial and other operations such as customer service systems. For these organizations control of rights will be a major concern. . . and the DRM monster still lurks in the closet!

It will be too late to fully realize the benefits of repository investments if we only take these factors into account when we get to the implementation stage of OAIS based repository models. The issues involved range from the micro to the macro in nature.

At one end of the spectrum are straight forward technical issues that individual organizations can deal with internally at the earliest stages of design by carefully looking at how to fully exploit the capabilities of such technology elements as web based architectures and XML capabilities. At the other end of the spectrum though are issues such as digital rights management, where interested parties must come together to drive the development of new standards at an international level. This will not always be easy though as these parties can have widely diverging views of what they hope to achieve from future standards.

This session will explore the issues in more detail and take a look at some of the steps that must be taken to ensure that we can realize the benefits of these repositories without falling into a mire of problems. These steps will involve both design and implementation actions at the organizational level and new standards work at a global level.

## Biography

As director of Elsevier's Strategic Partners Program, he has worked with an international group of highly innovative institutions exploring the future uses of technology in the library and education environments. Prior to joining Elsevier, he was with Digital Equipment Corporation managing a team of senior business and technical consultants serving major media industry clients