

January 8, 2003



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Subject: Proposed OCDE development:
Statewide Institutional Repository/Knowledge Bank (IR-KB) Capabilities

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1. Background and Description

For simplicity in this proposal I will refer to the IR-KB as a single entity. In fact the Institutional Repository (IR) is a component of the larger concept of the Knowledge Bank (KB). As shown by the definitions IR-KB is a multi-faceted set of services. These services will have broad application on our campuses and if we can create a robust platform we will accelerate and maximize the use of these services and do so with minimal duplication of effort.

As described in the SPARC position paper on IR, it is defined as digital collections that preserve and provide access to the intellectual output of an institutional community. An IR allows for the capture, control, access and preservation of the intellectual output of the institution's faculty, students, and staff. Technological change, in the form of digital publishing technologies and universal networking, significant increases in the overall volume of research, especially in the sciences, and decreasing satisfaction, especially on the part of institutional libraries, with traditional print publication price and market models have combined to create new user expectations for the production, distribution, and interchange of scholarly communications and to force a rethinking of the relative roles of authors, librarians, and publishers. In such an environment, institutional repositories might well act to preserve an institution's intellectual product while contributing to a fundamental, albeit long-term, change in the structure of scholarly communication.

In contrast to discipline-specific repositories and subject-oriented or thematic digital libraries, institutional repositories capture the original research and other intellectual property generated by an institution's constituent population active in many fields. Defined in this way, institutional repositories represent an historical and tangible embodiment of the intellectual life and output of an institution. And, to the extent that institutional affiliation itself serves as the primary qualitative filter, this repository becomes a significant indicator of the institution's academic quality.

Most of the institutional repository initiatives currently being developed rely on user (including author) communities to control the input of content. These can include academic departments, research centers and labs, administrative groups, and other sub-groups. Faculty and others determine what content merits inclusion and act as arbiters for their own research communities. This helps ensure the relevance of the repository's content for the institution's authors and encourages faculty participation.

Ohio State University defines the Knowledge Bank more broadly to include the full array of digital assets and information services available to or being created by OSU faculty, staff, and students. As such it includes not only OSU produced digital assets but also the OhioLINK and library supplied digital information available. The listing below details the fullest extent of the concept as envisioned by OSU. IR is a subset of KB. It is important to note that through OhioLINK a number of the KB elements already exist. To a great degree implementing a fully defined KB is a process of filling in the gaps and adding dimensions to what is already built.

- | Digital Knowledge Bank at OSU | |
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| <ul style="list-style-type: none"> • Online Library Materials <ul style="list-style-type: none"> – Books – Journals – Government Documents • Online Reference tools <ul style="list-style-type: none"> – Catalogs – Indexes – Dictionaries/Encyclopedias – Directories • Scholarly Portal: Gateway to authoritative Internet sites • Digital Publishing <ul style="list-style-type: none"> – Pre-print services – E-journal, e-book support – Web site development and maintenance – Working papers • Administrative Data Warehouse • Faculty Research Directory | <ul style="list-style-type: none"> • Online Help Desk <ul style="list-style-type: none"> – Virtual Reference – Online technical help – Online tutorials • Digital Institutional Repository <ul style="list-style-type: none"> – Digital special collections – Rich media (multimedia) – Data sets and files – Theses/dissertations – Faculty Publications – E-portfolios – Educational materials <ul style="list-style-type: none"> o Learning objects o Course reserves/E-course Packs o Course Web sites • Research/Development in Digital Information Services <ul style="list-style-type: none"> – User needs studies – Applying best practices |

2. The OCDE Role

Institutions across Ohio will choose to pursue various parts of the KB array of services. Done individually, this will represent a great deal of “wheel reinvention” and duplicative technical costs, will result in systems that do not communicate with each other, and do not fully exploit access to and use of the assets created and maintained across our institutions. We will also have institutions with few resources for the development of these capabilities and will be left behind. Even with just a focus in the IR component, it is a fundamental building block to continued the evolution in the use of digitally based learning approaches. At the very least we need statewide, sharable utilities to create, store, and access digital assets in all forms

As the OCDE partners have done with their existing missions and services, there is an opportunity to advance with KB aggressively and efficiently across our entire community. The OCDE partners can build and maintain a KB set of services that each institution can take advantage of at its own discretion and pace. In so doing we must serve both the individual needs of each institution as we also create a richer shared resource for our community. We create must have a suitable institutional, or vertical, perspective. For example, Institutional logos and institutional administration and control must be supported. At the same time we must facilitate inter-institutional accessibility among Ohio institutions as well as the greater academic community (e.g. use of Open Archive standards).

The OCDE partners would take on the responsibility to plan and execute the development phases of the IR-KB and support its on going maintenance and evolution. The partners would provide the necessary liaison support to the Ohio community to enable implementation of IR-KB services as desired at each institution. Of course, all this would be done the ongoing advise and direction of the Ohio community. In the immediate timeframe Ohio State is actively pursuing implementation of the IR-KB concept.

OSU provides the partner to create the initial working version of the concept. OSU has already agreed to test MIT's D-space IR software and is close to committing library and other university staff and monetary resources to development of the IR. OSU is agreeable to pursuing its work under the umbrella of a statewide effort so that this initiative can have a larger and more leveraged statewide impact. As such we have discussed having an OhioLINK staff member act as project leader. In this way we can best meet the objective of creating a development approach that will serve specific institutional needs and create an enriched arena for inter-institution resource sharing in the start and with the academic community at-large.

3. Funding and Implementation Alternatives

Development of the IR-KB concept is not an incremental one. It is a major effort requiring new dedicated staff resources to develop and support. There may be software and hardware resources needed. One of the key tasks of the initial project is to determine on what software foundations we base the IR and other components of the IR-KB concept. Do we have existing platforms that can be extended? Is there a minor or major investment in software and hardware needed?

In approaching this initial project with OSU resources are needed at both the institutional level and OCDE level. OSU, through the library, has made a proposal to its provost for funding to support the local effort needed. Approval has not yet been received but some funding might be received. Regardless, OSU library and other units will carve out some staff and other resources to proceed. OhioLINK believes that initially a dedicated project manager, developer, half-time engineer, and institution liaison officer will be needed. These would need to be new FTE to existing staff. Of course, current and expected operating budgets will not support these.

What are the funding alternatives to get the initial effort going as quickly as possible?

1. It may be possible to use funds from the OhioLINK capital appropriation. Guidelines appear to allow this but it is unclear if these must be contract staff or if in-house staff can be used. Capital funds could not be used on an ongoing basis, eventually ongoing staff costs would need to be absorbed by operating costs.
2. Utilize funds from another OCDE partner. The opportunity mentioned has been use of OLN funds which can be committed for this purpose. The ongoing cost issues remain.
3. Utilize available staff FTE from OLN or OSC. This may not be a very likely option.
4. Use a combination of #2 and a federal grant. The FIPSE Comprehensive Program is an opportunity but the timing of the grant approval and receipt would prevent us from getting started as quickly as possible. We would need to have in mind contingencies if not approved. OSU has already drafted a preliminary proposal narrative that would allow us to meet the February deadline for preliminary proposals. Full proposals are not due until late May.
5. It may be possible to have some of these resources provided by OCLC. They have been a part of the advisory group for OSU's formation of the KB concept. OCLC has a vested interest in developing services that can be offered to the broad library and

academic community at large. If what we develop can be migrated into a commercially viable product or if what OCLC learns from our product leads to one, then they benefit. Initial discussions with OCLC indicate a willingness to provide staff resources. This could reduce our internal needs for initial funding or expand our developmental capabilities.