

# The E-Learning Framework

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The E-Learning Framework (ELF) is an initiative by the U.K's Joint Information Services Committee (JISC), Australia's Department of Education, Science and Training (DEST), and the Carnegie Mellon Learning Systems Architecture Lab (LSAL) as well as others to build a common approach to Service Oriented Architectures for education. The ELF is the result of a shared conviction that exposing networked functions such as user and group data or learning content as simple services rather than as features locked up inside monolithic systems offers institutions more flexibility, more scope for pedagogic innovation and better return on present and future investment.

ELF is not a static blueprint of any kind. Rather, it is a planning and documentation tool that tracks developments in a particular functional area or 'component'. The whole framework captures a common way of factoring functionality across different components at a particular point in time, and in terms of their scope and definition.

Institutions or communities of practice can make use of the ELF in a number of ways:

- as a means of selecting and prioritising the functionality they need
- as a means of selecting or developing the standards, designs and implementations that will fulfill the required functionality
- as a common vocabulary to discuss components with vendors and other communities of practice

Since the ELF takes a service oriented approach, the emphasis within the components is on technologies that allow the exchange of data or functionality over a network in an interoperable way. Not all of the standards that would make this possible exist yet, not are all relevant applications service enabled.

Nonetheless, as the initiative progresses, more and more of the components will have complete service definitions contained within them, and software that implements these agreements. Some components already contain the outputs of the first, JISC sponsored projects that have developed software development kits that implement existing service definitions, or prototype new ones. These kits are designed to allow institutions to integrate services with existing systems, or software vendors to integrate them with new systems.

Within those ELF components that concern repositories and metadata, the work of a number of initiatives such as IMS and CORDRA have been used to inform service definitions. For example, development work within a component such as Federated Search references service oriented specifications like those set by the Z39.50 NG community. Yet more work is needed to assess what impact the CORDRA initiative might have on components such as Identifier and Service Registry, and how its specifications might relate to other components within the framework.

Because the ELF aims to track research & development, specification work and software development in the broad area of education and learning technologies, participation by all communities that have a stake in the area is actively sought.

More information about ELF can be found at <http://www.elframework.org/>