

# EPrints: a Hybrid CRIS/Repository

Leslie Carr, University of Southampton

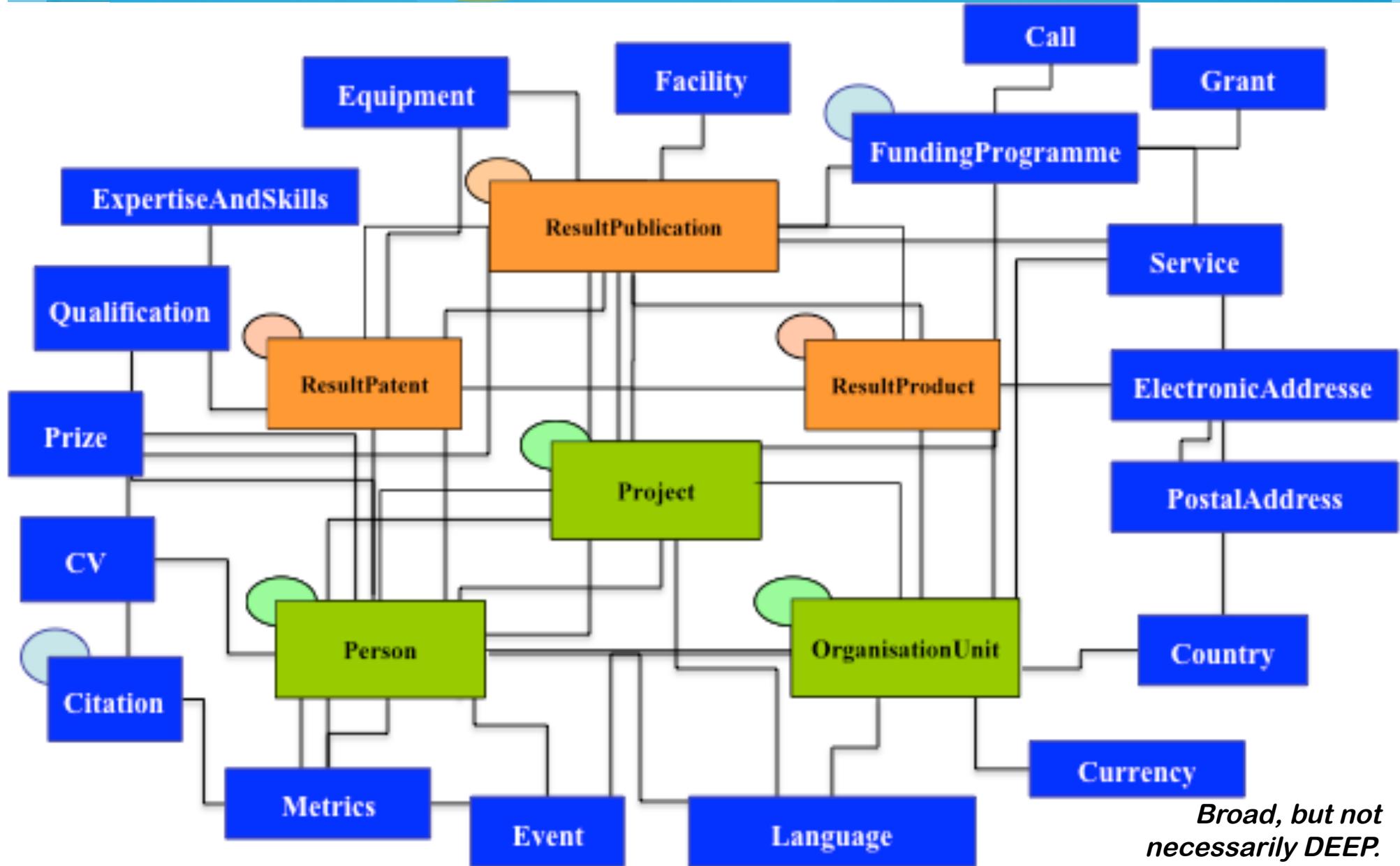
Funding Acknowledgements:  
JISC Readiness for REF  
JISC Open Impact

# Current Research Information Systems

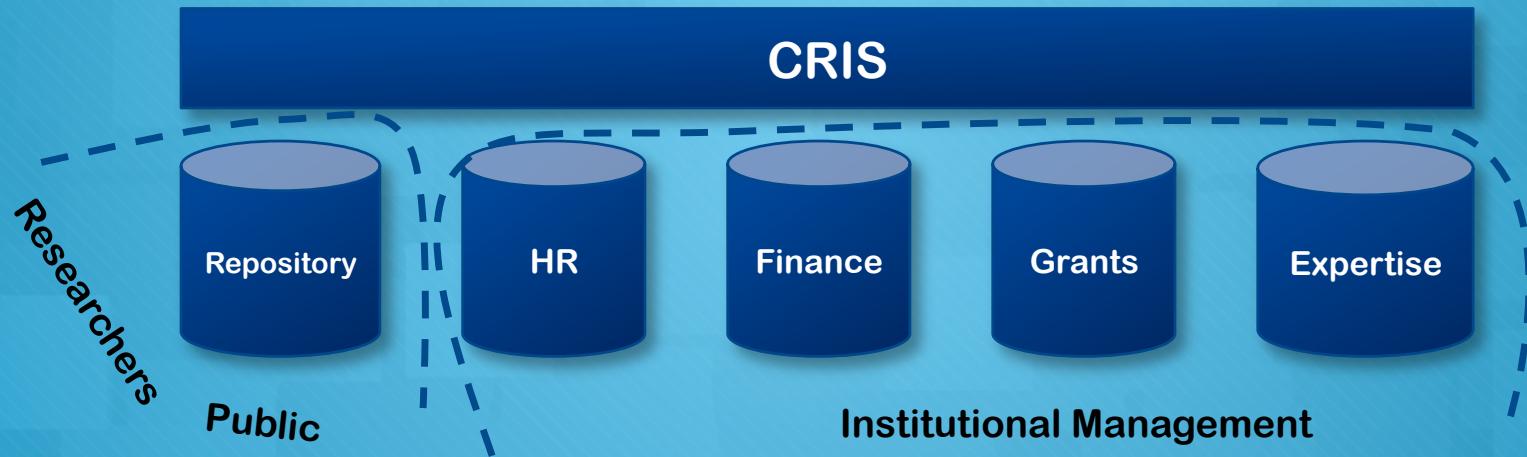
- A CRIS pulls together information from all the research-relevant databases
- Repositories should support the CERIF standard to co-operate as components of a CRIS environment



# CERIF Information



# CRIS Revisited



**CRIS components attempt to provide service to management and researchers**

**Repository attempts to reach researchers and public, and provide a service to management**

# Admin View of A Project

- Grant ID / Funder / Amount
  - Start date, End Date
  - Investigators
  - Budget breakdown

# “To support Business Analytics”

*K Jeffry, Workshop on CRIS, CERIF & Institutional Repositories, June 2010*



# Researchers' View of A Project

- Project name
  - Project aims / objectives
  - Project Logo / Website / Blog
  - Press releases, news clippings
  - Funder

**KeepIt: Kultur, eCrystals, EdShare (and NECTAR) - Preserve It!**

[Home](#) [News](#) [KeepIt Project](#) [Papers & Presentations](#) [People](#) [Blogs](#)

**KeepIt: Diary of a Repository Preservation Project**

**URL:** <http://www.eprints.org/keepit/> (Includes developer support, hearing resources, bibliography, etc.)

**SiteOwner:** [mls@eprints.org](mailto:mls@eprints.org) (mls@eprints.org)

**KeepIt: A Repository Preservation Project** - [Digital objects](#) - [Digitally preserved objects](#) - [Institutional repositories](#) - [research papers](#), [science data](#), [arts](#), [teaching materials](#) and [theses](#) - to be managed effectively, tomorrow and beyond.

KeepIt (short for 'Keep it') is a project to close the gap between the digital preservation community and the preservation of institutional repositories.

Digit preservation is a discipline that requires management requirements for today, tomorrow and the longer term.

Requirements are elicited via the methods to manage their digital outputs, as data management is clearly a core activity, but management of data is not a discipline in its own right. Requirements are elicited from the digital preservation community and from institutions that might be managed in an institutional repository (IR) include research papers, science data, arts, teaching materials and theses.

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There are various preservation levels and a few services will be available to repositories, because these are complex and potentially costly. These services have typically been presented as additional tasks rather than as a core activity.

KeepIt will work with a series of distinctive user requirements to demonstrate the effective management of data and the preservation of data. The user requirements are:

• [Digital preservation](#) - to be able to manage the data and the preservation of the data

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and project within the Institutional Exemplars Programme. It is managed from within the

Computer Science in the Library, Student Services and the Learning and Teaching

Formerly (i)S, the Library, Student Services and the Learning and Teaching

U).

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[Repository partners](#)

UCL Research Centre, and the Royal Holloway, University of London, and the University of London, focused on the creative and cultural arts.

[eCrystals](#)

Advanced Crystallographic Crystal Structures generated by the Crystallographic ESRF

UK Research Centre for the Synthesis and Characterisation of Inorganic Materials

[EdShare](#)

A research collaboration and sharing of materials used in teaching and learning.

[NECTAR](#)

NECTAR is a Norwegian Research Collection of Themes and Research, the University of Tromsø, Norway, that stores research data in an institutional repository.

Funded by

[JISC](#)

UNIVERSITY OF

Southampton

School of Electronics and Computer Science

Start date: 01/10/2007

End date: 30/04/2009

Funded by:

[JISC](#)

31/03/2009

EdSpace programme JISC funded period ended

[27/02/2009](#)

EdSpace programme re-designed

New preservation of a

range of features

[26/01/2009](#)

EdSpace programme to

v.1.3

Collections and

Booking

functionality

Rev. SNEP - Comments

and Notes

[More Updates](#)

# Repository / CRIS combo

- Bring new perspective to CRIS
  - Researcher-oriented
  - Publicity-oriented
  - Marketing-oriented
- Descriptive, narrative
- Complementary to administrative perspective

# Example

- Repository of High Impact Research
- Brings together staff, outputs, projects
- JISC Open Impact project



*Timeline of a group's key publications, projects and press releases, taken from three RSS feeds.*

The screenshot shows the DCS Academy of Computing website with a navigation bar including Home, About, and Web Science. The Web Science page features a timeline of research activity and a section on key publications. It also includes profiles of key researchers: Wendy Hall, Tim Berners-Lee, and Nigel Shadbolt, each with a photo and a link to further information.

**Web Science**

**Key publications**

**Timeline of Web Science research activity**

**Download (216Kb)**

**Key researchers**

Wendy Hall, DBE, FREng, FRS is Professor of Computer Science at the University of Southampton, UK. The influence of her work has been significant in many areas including digital libraries & web science. She is a Founding Director of the Web Science Trust. [\[Further information\]](#)

Tim Berners-Lee is a Director and Trustee of the Web Science Trust (WST). He is a Director of the World Wide Web Foundation, started in 2008 to fund and coordinate efforts to further the potential of the Web to benefit humanity. [\[Further information\]](#)

Nigel Shadbolt is Professor of Artificial Intelligence (AI) and Deputy Head (Research) of the School of Electronics and Computer Science at the University of Southampton. is a Director and Trustee of the Web Science Trust. [\[Further information\]](#)

**Political Description**

**Business Description**

**Journalism Description**

**Description**

Web Science is the study of the largest information construct on the planet (the Web), the engineering principles of the protocols and software that form it and the impact of universal information provision on society. The Web Science Research Initiative (WSRI) was set up in 2006 as the result of a Memorandum of Understanding between MIT CSAIL and University of Southampton, ECS. (The founding directors from ECS are Professors Wendy Hall, Nigel Shadbolt and Tim Berners-Lee.) The ambition was to coordinate and support the study of the decentralised information system that is the World Wide Web. Since the launch of this Initiative the concept of Web Science has been widely disseminated and is establishing itself as an important area of activity. WSRI 19s activities have focused on (i) articulating a research agenda for the broader scientific community, (ii) coordinating the development of Web Science educational material and curricula and (iii) engaging in thought leadership for this emerging field. In order to continue with these activities and in support of the global development of Web Science the Directors of WSRI have established a charitable body - the Web Science Trust (WST). Independent of the original founding institutions, the goal is to encourage the widest participation in the development of Web Science.

**Log in Create Account**

# EPrints / CRIS

- EPrints has attempted to internally accommodate the CERIF data scheme
  - CERIF data interchange
  - Not just *publications* but *projects* and *organisations*
- CERIFed repositories have many separate datasets, all linked together via explicit relationships
  - a paper doesn't have a *project property*, it is related to *project objects*

# EPrints Before (sans CERIF)

- Projects and funding organisations were just names typed into the paper's metadata record



The image shows a screenshot of the EPrints interface. At the top, there is a decorative header with a blue background, white clouds, and a yellow sun-like shape. Below this, the main content area has a blue background with a wavy pattern. The title 'EPrints Before (sans CERIF)' is displayed in a large, white, sans-serif font within a white rounded rectangle.

The interface consists of two main sections: 'Funders' and 'Projects'.

**Funders:** This section contains a single input row with the value 'EPSRC' in a white text box. Below the text box is a blue button labeled 'More input rows'.

**Projects:** This section contains a single input row with the value 'AgentLink III' in a white text box. Below the text box is a blue button labeled 'More input rows'.

Both sections have a question mark icon in the top right corner.

# EPrints After

- Now they are objects in their own right

**Formate assay in body fluids: application in methanol poisoning.**

Makar, A B and McMartin, K E and Palese, M and Tephly, T R (1975) *Formate assay in body fluids: application in methanol poisoning*. *Biochemical medicine*, 13 (2). pp. 117-26. ISSN 0006-2944

 PDF - Published Version  
[Download \(1211Kb\)](#) | [Preview](#)

**Abstract**

A sensitive and specific assay for formic acid in body fluids has been developed. The assay is based on the reaction of formate with bacterial formate dehydrogenase coupled to a diaphorase-catalyzed reduction of the nonfluorescent dye resazurin to the fluorescent substance resorufin. Formate concentrations of 0.5 µg/ml of reaction mixture can be accurately measured. Small volumes of body fluids can be used for the analysis of both methanol and formate. The procedure described is simple and allows for the economical and rapid determination of formate. It can be used in studies concerned with the disposition of formate, as it relates to methanol metabolism. Also, it may be useful in studies where formate might exist as a metabolic intermediate of certain drugs or chemicals.

**Projects**

[\[118\] Performance of Nonlinear Controllers](#)  
[\[428\] High Performance and Robust Systems](#)

**Item Type:** Article

**Performance of Nonlinear Controllers**

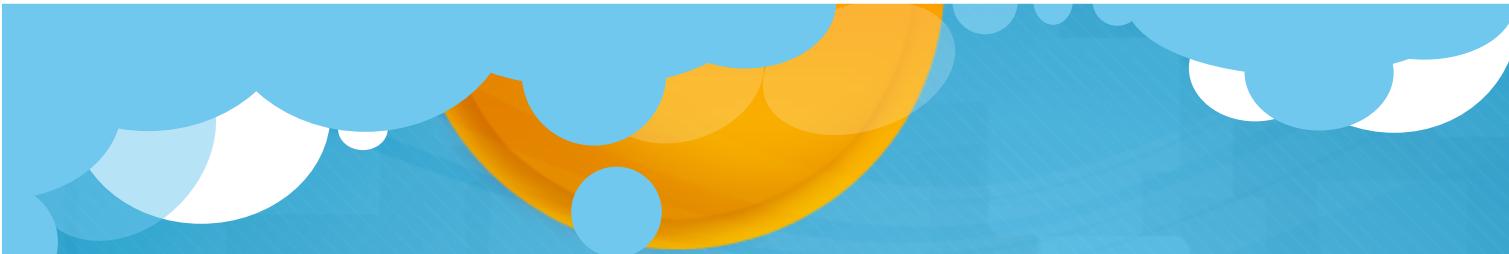
We are concerned with controlling uncertain nonlinear systems via adaptive techniques. We are particularly interested in evaluating the performance of adaptive controllers, and comparing them against eg. robust designs. This has involved developing techniques which allow lower and upper bound estimates to be made of eg. LQ performance. Uniquely in adaptive control theory, we are accounting for the control effort in the cost. Our original focus of attention is in controlling systems containing significant static functional uncertainties (as opposed to the more standard set-up where the uncertainties considered are parametric). The approach considered involves the introduction of function approximators for on-line modelling of the static uncertainties. We have developed a framework for describing the classes of uncertainties for which such controls are valid -- contrasting to the robust theory, uncertainties are measured by spatial L2 weighted norms contrasting to usual static uncertainty models which are formed by pointwise bounds. The interest in performance arose as we tried to quantify which function approximator structures are 'best'. This wonderfully ill-posed question is very rich. Currently we have been able to exhibit some structures whose associated LQ performance scales badly as the resolution of the approximator is increased, and also to construct controllers and approximator structures which scale well. Unfortunately, the class of approximator based controllers scale poorly includes some of the standard designs. Our focus of attention is now on using the framework developed for addressing the above question to compare the performances of more classical designs.

**Contributors**

Type	Name	ID
Principal Investigator	French, Mark	maf@ecs.soton.ac.uk
Co-Investigator	Harris, Chris	ch@ecs.soton.ac.uk
Co-Investigator	Rogers, E	ecr@ecs.soton.ac.uk

**Grant Reference** GR/R27594/01  
**Funders** [\[21\] Engineering and Physical Sciences Research Council](#)  
**Commencement Date** 01 April 2001  
**Completion Date** 31 May 2004  
**URI** <http://www.ecs.soton.ac.uk/control/projects/adaptive/adaptive.htm>

- A paper *links to* its affiliated projects, instead of just mentioning them



# Concluding Remarks

- Social, political & funding pressures are changing the roles of Research Information Systems
- Repositories have a history of engagement with grassroots / public
  - providing services (portfolios, collections, reports)
  - collecting/managing/preserving information and knowledge products
- These engagements can enrich CRIS products
- CRIS ontological breadth can enrich repositories
- Distinction between CRIS / repository starts to blur.



# PS What is a Repository?

- A repository is not just a piece of information management software
- It is a socially embedded technological phenomenon that promotes new relationship to research information
  - International programs of 'advocacy'
  - Institutionally embedded, with teams of librarians trained to use, and to train researchers to use, repositories
  - Personal engagement with end-users