

Data accreditation

By Daisy Abbott, University of Glasgow

- [Introduction](#)
- [Short-term Benefits and Long-term Value](#)
- [HE/FE Perspective](#)
- [e-Science Perspective](#)
- [Data Accreditation in Practice](#)
- [Issues to be Considered](#)
- [Additional Resources](#)

1. Introduction

The purpose of checking data quality and accreditation processes is to audit data outputs against clear, pre-defined criteria. It allows organisations to demonstrate that they are meeting and maintaining quality standards and allows data to be shared between different institutions with the assurance of consistency.

The data accreditation process is a systematic methodology incorporating standards and good practice appropriate to the field. Data quality can be reviewed internally with the achievement of standards then tested by an external audit.

Data accreditation can be thought of as a means to set a quality baseline for information systems, laying a firm foundation for further development.

2. Short-term Benefits and Long-term Value

- Quality testing improves the quality of individual data items as well as the whole information system.
- Data accreditation processes support standardisation and provides assurance that data complies with internally or externally imposed quality or legal standards (for example, Data Protection).
- Data can be efficiently and confidently shared between different partners or organisations. This facilitates collaboration.
- Accredited data can make commerce more efficient through enforcing standard practice (for example, the Book Industry Commission accreditation of publishers' data).
- The data accreditation process allows procedures to be systematically documented which aids future understanding of actions taken on data.
- Data accreditation improves the education of staff members within institutions as it helps to make explicit why things are done in a certain way, how terminology should be used, and how data fits together.
- Accreditation also improves awareness of how data will be used and can assist in swift and accurate information retrieval. It improves the confidence of users in the quality of the data and consequently adds to the reputation of the data owners.

3. HE/FE Perspective

"Today's accrediting bodies are contributing to institutional improvement by helping establish learning goals and assessing institutional performance and capacity against established standards. As a result, improvement in higher education will come as the result of rigorous measurement of student progress and achievement."

– [The Chronicle of Higher Education](#) (US based)

4. e-Science Perspective

"E-research means we need to think about linking between datasets and between concepts. There's nothing new about referencing, but E-research requires a new language of citation. That's harder than it sounds because it involves heterogeneous digital repositories with diverse data in different parts of the world ... Data sets need both technical and intellectual accreditation if the links are to be worthwhile."

– William Kilbride, "[E-everything](#)" in *ADS ONLINE*, Issue 18, ISSN 1368-0552

5. Data Accreditation in Practice

"Guidance to help general practices start a massive clean-up of data in their IT systems has been launched by Connecting for Health, NHS Employers and the British Medical Association. [...] Data fit for sharing is the biggest challenge for joining up the digital islands of care."

– "[Data fit for sharing' is goal of new guidance](#)" in *E-Health Insider Primary Care*, 26 April 2006

6. Issues to be Considered

- Data quality criteria could include: data coverage; completeness, accuracy, and validity (checked through validation and quality assurance); security and confidentiality; accountability; timeliness; and compliance with statutes.
- In addition to the data itself, data management practices also form part of data accreditation.
- Accountability and communication are part of the accreditation procedures.
- Data standards are intrinsic to accreditation as they form the consistent criteria against which data quality can be assessed.
- It may be necessary to arrange an external data audit or validation, if it is necessary to comply with a national or legal standard.
- It is important to put comprehensive and relevant training programs in place to assist staff in undertaking quality checks and the accreditation process.
- Time will be needed to identify any remedial actions required to bring the data up to quality standards. This may also require additional training.
- Usually, full data accreditation will require both processes and outputs to be validated and certified. Documentation of actions taken forms an important part of the process.

7. Additional Resources

- [Digital Repository Audit and Certification Wiki](#)
- [DCC DIFFUSE Standards Frameworks](#)
- Fenton, C. "[Background information on standards, certification and accreditation](#)"
- Examples of data accreditation in practice:
 - [PRIMIS+](#) (see [additional resources for a clinical perspective](#))
 - [Society for Cardiothoracic Surgery](#)
 - [Payroll Standard Accreditation Scheme](#) [external]

Digital Curation Centre

Appleton Tower, 11 Crichton Street, Edinburgh, EH8 9LE | t. +44 (0)131 651 1239
DCC | Copyright 2010 | [Some Rights Reserved](#) | [Terms & Conditions](#) | [Privacy Policy](#) | [FOI](#)

The DCC is funded by the Joint Information Systems Committee