

Availability and organisation of creationist literature in UK public libraries

Archie MacDonald and David McMenemy*

Department of Computer and Information Sciences,

University of Strathclyde,

Glasgow, UK

*Corresponding author (d.mcmenemy@strath.ac.uk)

Abstract

Purpose: This study sought to investigate the availability of creationist and intelligent design (ID) books in UK public libraries, whether any materials held were obtained as a result of donation or purchase, and whether such materials, if available, were classified as religion or science.

Design/methodology/approach: A Freedom of Information Request (FOI) was sent to a subset of all the public library authorities in the UK. The FOI requests took the form of three queries/questions asked of the library service of each local authority. From a list of 218 library authorities, 68 were contacted either by email or by online contact form.

Findings: There was a relatively low level of reported donations of creationist and ID materials in UK public libraries. However, a high number of library authorities did have creationist and intelligent design materials on their catalogues via their own procurement mechanisms. There was no consistent nationwide pattern with regards to how these materials were classified and there was a wide geographic variation reported, with difficulties evidenced in whether to present creationist and intelligent design texts to the public as religious texts or science texts.

Research limitations/implications: The paper presents results from a subset of local authorities in the UK, thus cannot claim to be anything more than indicative of the sample.

Practical implications: The paper suggests that library authorities may need to be more consistent in how they present controversial materials to users.

Originality/value: The paper is the first to examine the issue of creationist materials in UK public libraries and how they are processed.

Paper type: Research paper

Keywords: library acquisitions; stock management; classification; controversial materials

Introduction

In the USA there is an ongoing public debate between creationists and those advocating rational scientific theories, such as natural selection. This has taken many forms including attempts, sometimes successful, to place creationist and intelligent design books in public and school libraries via donation, and also to influence what can be taught in the school curricula (Biever, 2005; O’Sullivan and O’Sullivan, 2007). There is also evidence of attempts by the Christian fundamentalist and creationist lobbies in the USA to get their books into libraries by gifting books and influencing or subverting selection policy (O’Sullivan and O’Sullivan, 2007). There is currently little or no research into the existence of such similar activity in the UK.

This study sought to investigate whether the creationist community has similarly been attempting to influence public library collections in the UK, specifically seeking to find out.

1. To what extent are were donated materials by creationist groups making their way into public library collections
2. Whether creationist and intelligent design (ID) books in public libraries are classified as religion or science:

Utilising recent legislation related to Freedom of Information to request information from local authorities, the study will seek to ascertain how public libraries across the UK are managing creationist materials.

Research context

What is creationism and Intelligent Design (ID)?

The creationist community has evolved and diversified over the years, and now varies considerably in what they accept from science and what they believe from the Bible. The different camps, or factions, have very different and often conflicting views (Pennock, 1999, p. xi). At one end of the spectrum are those in the “Flat earth” and “Geocentric” camp, who are in the minority. The next identifiable grouping is the “young Earth creationists” who,

according to Pigliucci, represent the majority of creationists (2002, p. 38). The young Earth creationists take the book of Genesis in the Bible literally, believing God created the earth approximately 6000 years ago and in 6 days.

The next group marks a significant theological and scientific divide from the previous groups. The “old-Earth creationist” camp agrees with most of modern geology, but variants identified by Pigliucci include those believing in “gap theory”, “day-age theory” and “progressive creationists” (2002, p. 38-39). These various groups accept much of modern science, but put limitations on evolution. The primary divide from the previous named groups is, as the names suggest, on the age of the earth (Pennock, 1999, p. 14).

The “intelligent design (ID) theory” is the next form in the spectrum of creationists. Proponents believe “that the universe is the result of some kind of supernatural plan evidently constrained by forces that even the gods cannot entirely control” (Pigliucci, 2002, p. 40]. The last of the “old-Earth creationist” ideologies has been referred to as “theistic evolution”, which teaches that god works through the natural laws and processes he created. Pigliucci points out that this is the position accepted by the majority of Christians and is the official position of the Catholic Church (2002, p. 42). There are also yet more forms of creationism, for example, Muslim creationists base their arguments on the Qur’an (BBC Religion and Ethics, 2006).

Origins of the creationism vs. evolution debate.

Pigliucci comments that in the 19th century, after the publication of *On the origin of species*, there was generally an acceptance of evolution both in the UK and USA (2002, p. 8). He also notes that Darwin, along with Thomas Huxley and Joseph Dalton Hooker, were very active in promoting the theory of evolution and this may help explain its acceptance (p. 8-9). There were, however, critics from within the naturalist community and from the clergy in the UK, for example, Richard Owen, Bishop Samuel Wilberforce (p. 8, p. 10-12).

During the 20th century, much of the creationist-evolution debate took place in the USA. The first major confrontation was in Dayton, Tennessee in 1925 at the Scopes “Monkey” Trial. A teacher, John Scopes, made a stand against a law prohibiting the teaching of evolution. Scopes was convicted of teaching evolution, which, according to Pigliucci, is what the defence wanted, so that the fight could then be taken to a higher court. The ruling was then

overturned on a technicality and the anti-evolution law was not repealed until 1967 (Linder, 2006; Pennock, 1999, p.3; Pigliucci, p.16-19). This was not the outcome desired by supporters of science but, according to Linder, “Of the fifteen states with anti-evolution legislation pending in 1925, only two states (Arkansas and Mississippi) enacted laws restricting teaching of Darwin's theory” (Linder, 2006), so the effect of the trial was not insignificant. There were a number of other trials (all in the USA) in the 1960s, 1980s and 1990s, most of which resulted in defeats for the creationists on constitutional grounds that keep church and state separate in the USA.

The next evolution of the creationist argument was into what has become known as “intelligent design” (ID). One of the first books in the ID movement was *Of pandas and people* by Davis and Kenyon (1989). This book was at the centre of the most recent and high profile evolution vs. creationist court cases in 2005 [O’Sullivan and O’Sullivan, 2007, p. 201; O’Sullivan and O’Sullivan, 2005, p. 42]. In this instance, the selection criteria of an American high school library was undermined by a school district superintendent, who accepted a gift of books without going through the normal channels [O’Sullivan and O’Sullivan, 2007, p. 203].

Some in the intelligent design world have tried to deny that ID is creationism under another guise. In an interview in 2007, leading creationist William Dembski seemed to confirm ID is creationism:

I believe God created the world for a purpose. The Designer of intelligent design is, ultimately, the Christian God” (Forrest, 2008, p. 189).

Barbara Forrest suggests that this viewpoint is divisive, portraying a very Christian oriented view: “ID is not only creationism but an overtly sectarian religious belief” (2008, p. 189). Forrest indicates that ID is and always has been “a rebellion against modern science and a secular society” (2008, p. 190).

A poll conducted by ComRes on behalf of Theos (a UK theology think-tank) and published in early 2009 asked a small number of questions regarding creationism, intelligent design and evolution. The poll did not go unnoticed and the religious affairs correspondents in several of the UK national broadsheets picked up on it (Butt, 2009, p. 4; Wynne-Jones, 2009, p. 15). The *Sunday Telegraph* and the *Guardian* put a slightly different spin on their articles, but

both observed the findings of the study that a significant percentage of people in the UK do not believe the theory of evolution (Butt, 2009 p. 4; Wynne-Jones, 2009, p. 15).

Even if one could argue that there may be some bias in the above poll results from the way the questions were phrased, there is strong support for the involvement of God in the evolution of life. At the very least, there is also support for evolution, even if many believe in a divine hand guiding it. Many believe that the work of creationists has clouded the issue and undermined the public's understanding of science. A university lecturer (James Williams) is quoted in the Guardian as saying:

"Creationists ask if people believe in evolution. Evolution is a theory and a fact. You accept it because of the evidence. What the creationists have done is put a cloak of pseudo-science to wrap up their religious belief" (Butt, 2009, p. 4]

Creationism, ID and Classification (DDC)

The Dewey Decimal Classification system (DDC) used by many UK libraries has difficulties that must be overcome when classifying creationist or intelligent design books. The manual entry on the Web Dewey site has guidance to the classification of texts by scientists and by religious authors:

However, when a religious author is trying to enlighten scientists on a specific scientific matter, class the work with science, while if a scientist is trying to enlighten the religious on a specific religious matter, class the work with religion (OCLC, 2009).

So the guidelines specifically identify the "subject", what the work is about, as the main criterion. This is confirmed by the next paragraph:

"The correct classification is determined by the intent of the author, and the interest of the readers that the author is seeking to reach, not by the truth, falsity, or validity of interpretations and premises" (OCLC, 2009).

So it does not matter how valid a work is, it could be questionable, but according to the above information, creationist work can be classified as science. Specific guidelines are given including the following:

- To use 213 for works that considers the relation between divine creation and evolution as a philosophical problem, without appealing to a particular religion or scripture.
- To use 231.7652 for creationism, creation science and also works attempt to refute creation science. The guidance specifically talks about texts written from a Christian viewpoint.
- Use 231.7652 for comprehensive works including both religion and science.
- Use 500 for works by creationist authors that attempt to refute evolution theory by examining the writings, hypotheses, and findings of scientists.
- Use 576.8 for these works on biological evolution.

The above guidance makes use of main classes 200 (Religion) and, within that, 213 (Creation). The 231.7652 is a deeply embedded (down 10 levels) subdivision of the religion main class entitled: “Relation of scientific and Christian viewpoints of origin of universe”. The specific guidance given above does seem to contradict the earlier note “*when a religious author is trying to enlighten scientists on a specific scientific matter, class the work with science*” (OCLC, 2009). If one follows the guidance on the 500 and 576.8 classes only materials looking at scientific works using scientific methods should be classed here. This would seem to rule out classifying creationist and ID works in these classes.

Given the lack of clarity in the above guidance, the difficulties in classifying works are compounded by many creationist and ID authors intentionally trying to cloak religion as science. There is some evidence for a lack of consistency in how works are classified. In a blog that is a critique of the creationist/ID movement, creationist books are shown to be classified in the 200s and 500s, sometimes as religion, sometimes as science (The Sensuous Curmudgeon, 2009)

When works of science are shelved with those from non-scientists, for example intelligent design books, readers are equally likely to select the ID books as real science texts when looking for evidence on evolution/science. One has to ask if this is acceptable, giving equal authority to information based on evidence, as that based on faith and religion.

Freedom of Information requests

A Freedom of Information Request (FOI) was sent to a subset of all the public library authorities in the UK. As public libraries are managed by local authorities the Information

Commissioners office states:

“The Freedom of Information Act gives you the right to request information held by public authorities, companies wholly owned by public authorities in England, Wales and Northern Ireland and non-devolved public bodies in Scotland” (ICO, N.D.).

The FOI requests took the form of three queries/questions asked of the library service of each local authority. An A-Z list of all the public library authorities in the UK was used as a sampling frame for the FOI requests (Harden and Harden, 2008). The FOI requests were targeted at a geographically representative selection of library services. This was achieved by selecting every third local authority in each of the following areas (a form of systematic sampling): Scotland, Northern Ireland, North East England, North West England, Yorkshire & Humber, West Midlands, East Midlands, East of England, London, South East England, South West England and Wales. The Isle of Man and the Channel Islands were omitted due to the different laws and legislation in those territories.

From a list of 218 library authorities, 68 were contacted either by email or by online contact form. The replies, which included answers to the questions and supporting documentation, were all stored on a PC and the information collated in a Microsoft Excel spreadsheet for analysis.

The questions posed in the FOI requests were:

1. Does your library authority have a stock selection policy? If so please can you supply a copy, by email if possible?
2. Has your library authority received gifts/donations of creationist/intelligent design books?
3. Are materials (books, DVDs etc) identified as creationist or intelligent design classified as science or religion?

The following categories of information were collated in the spread sheet:

- Geographical area – library authority.
- Stock selection policy – does the library authority have one?
- Donations – any donations of creationist/ID books/materials?
- Are donations in line with policy (from examining policy)?

- Has the library purchased creationist/ID books?
- Are purchased books pre-classified by suppliers?
- What is the creationism classification?
- What is the ID classification?
- Any general comments?

Although only three questions were asked, information stating that books are all pre-classified by supplier or that MARC catalogue records are bought from a supplier was sometimes offered. Any information supplied in response to the FOI request was saved and collated in the Excel spread sheet mentioned.

Analysis of Results

In total 65 out of 68 library authorities responded (96%), with a wide variation in the verbosity of the response. There was a degree of uncertainty in some answers; for example 6 authorities did not know if there had been any donations of creationist or ID materials. Others did not know how creationist or ID materials would be classified. The area least well represented was Wales with only 4 out of 7 of library authorities contacted responding to the request within the time allowed.

Responses to the three FOI questions are presented below, with additional information that was sometimes included.

Stock Selection Policy

The question posed was: *Does your library authority have a stock selection policy? If so please can you supply a copy, by email if possible?* Of the library authorities that responded, 53 indicated they had a selection policy and 12 did not. Almost half of those with no policy stated that one was currently under development. On examination of the stock selection policies, over 6 did not contain anything about donations (see Table 1). The stock selection policies varied from small 3-4 page documents to more comprehensive documents of 40-50 pages in length.

Table – 1 - Information on library stock selection policies

Number of libraries	Percentages
---------------------	-------------

Has stock selection policy	53 out of 65	82%
No stock selection policy	12 out of 65	18%
Policies with no rules on donations	6 out of 53	11%

There are regional variations in the number of library authorities using stock selection policies. Five areas confirmed all their library authorities had stock selection policies - Northern Ireland, West Midlands, East of England, South West and Wales (Table 2). Regional variations are of interest because they may indicate that regional policies related to stock development can ensure a consistent approach to the issue across a geographical area, potentially avoiding controversies.

Table 2 – Regional variation in % of libraries using a stock selection policy

Region	Stock Selection Policy	Percentage
N Ireland	1 out of 1	100%
West Midlands	5 out of 5	100%
East of England	3 out of 3	100%
South West	5 out of 5	100%
Wales	4 out of 4	100%
North West	6 out of 7	86%
Scotland	9 out of 11	82%
Yorkshire & Humberside	4 out of 5	80%
North East	3 out of 4	75%
East Midlands	2 out of 3	67%
South East	4 out of 6	67%
London	6 out of 11	55%

Donations of creationist/intelligent design books

The second FOI question asked was: *Has your library authority received gifts/donations of creationist/intelligent design books?* A majority of library authorities (48 out of 65 – 75%) reported no donations of creationist books/materials. Nearly one in six library authorities reported donations of creationist or ID books. 6 (9%) authorities were uncertain whether donations of creationist or ID books had been made. Of the 17 authorities that reported donations of creationist or ID books, 13 (76% of total) had no stock selection policy. Responses also showed that of those authorities that reported donations, 3 received them without having anything in their selection policy regarding donations.

Some libraries reported donations of materials from the Church of Scientology and the Church of Jesus Christ of Latter day Saints (LDS). Though not necessarily creationist or ID in nature, these might be considered “controversial materials” and an attempt by the organisations concerned to spread their message.

Creationist materials are often thought of as originating from a Christian viewpoint and this is predominantly the case in the USA and UK. Islamic creationist materials have been reported in donations to UK libraries from the FOI requests. A number of libraries reported in their FoI responses of the donation of *The Atlas of Creation Volume 2* by Adnan Oktar (Harun Yahya). In one library this book was reported as being classified in 576 (Genetics and Evolution) and in another under 297.242 (Islamic Theology) using the Dewey system. This demonstrates clearly the perils in classification of ID texts; the item in question has courted controversy due to unsolicited donations of it being sent to schools and libraries throughout North America and Europe (Dean, 2007).

As mentioned above, information was sometimes included in the FOI response that indicated library authorities had purchased creationist or intelligent design books. All the library authorities in the following 4 regions reported purchasing creationist or ID books: Northern Ireland (1), Yorkshire & Humber (5), East Midlands (3) and Wales (4). At least 50% of the library authorities in the other regions purchased creationist or ID books.

Classification of stock

The last of the three FOI questions was: *Are materials (books, DVDs etc) identified as*

creationist or intelligent design classified as science or religion? Creationist materials were classified as religion in 33 (51%) of the library authorities, and as either science or religion, depending on the individual item, in 27 (42%) of the library authorities. Only one authority classified creationist books as science and a small number (6%) had no information (or gave no information) on the classification of creationist materials.

For intelligent design materials 28 (43%) of the library authorities classify as either science or religion depending on the individual item. A further 22 (34%) classify as religion and 12 (18%) as science. One library authority stated that it classifies intelligent design materials under social sciences at Dewey number 363.1. A small number (2) of library authorities had no information on the classification of ID materials.

Some library authorities indicated in their FOI responses that they did not classify their own materials, but used the services of suppliers. In total, 9 (14%) library authorities mentioned this, though it is likely more use suppliers. The most widely mentioned supplier is Bibliographic Data Services (BDS). Some library authorities claimed to use British Library (BL) or Library of Congress (LOC) classifications.

In classifying creationist materials, only Scotland had a library authority that reported it classified creationism under science (at Dewey number 576). Three regions contained library authorities that did not know, or gave no information on how creationist materials are classified: North East England, London and Wales.

The regional variation of the classification of intelligent design materials revealed that two regions (North East England & London) contain library authorities that did not know, or gave no information, on how intelligent design materials are classified. The regional picture is quite variable, and most regions have a low percentage of library authorities that classify ID as science. All are less than 30%, except the East of England, which has 2 of the 3 library authorities classifying ID as science. Three regions have no library authorities that classify ID as science (Northern Ireland, North East England, East Midlands).

The four regions that have the highest percentages of library authorities classifying ID as religion are East Midlands, West Midlands, South East and Wales. The three regions that

have the highest percentage of library authorities that classify ID as science or religion, depending on the item, are Scotland, Northern Ireland and the North East.

Again, some library authorities give the responsibility to suppliers to classify new materials and others buy MARC records from suppliers. Those that do classify their own materials sometimes commented in the FOI response that they use BL or LOC classifications. Although many FOI respondents mentioned using the Dewey system (DDC) the picture seems to quite mixed, with no single classification route or consensus on how creationist or ID materials should be classified nationwide.

Conclusions and recommendations

The results the Freedom of Information requests indicate the majority of libraries surveyed (53 from 65 – 82%) have stock selection policies. In addition half those that do not currently have one claim that a policy is under development. This suggests that approximately one library in ten of those surveyed does not currently have or plan to develop a stock selection policy, and suggests that a more coordinated approach is necessary on expanding regional good practice is perhaps called for, to enable smaller authorities to benefit from such development work. It is surprising that some libraries would leave such important areas of their work as stock selection to informal arrangements, but this does seem to be the case.

The replies to the question on how the decision on the inclusion of donations was reached included the following:

- The decision taken by stock manager.
- Staff judgement is used.
- The management team decide on an ad-hoc basis.

If one assumes that it is experienced professional library staff that are making decisions regarding stock, then the above arrangements may be fine. Not having formal arrangements, however, can leave library staff vulnerable and without comeback if inappropriate decisions are made regarding donations or additions to stock. Adherence to new legislation or guidelines, for example, the Museums Libraries and Archives governed advisory body guidelines on “controversial materials” (MLA, 2009) may be ignored by staff; the worst case scenario would result in contraventions to current legislation. For instance, the MLA guidance was developed to avoid library authorities falling foul of the 2005 Terrorism Act

that could see them liable for “recklessness” if materials they supplied led to people committing terrorist atrocities.

Of the stock selection policies examined, there seemed to be a great variation in the detail and scope of coverage. Some policies were little more than short guides of four or five pages in length, indicating the proportions and levels of different stock types to maintain (adult fiction, non-fiction etc.). Other policies were 40-50 pages in length and detailed, with sections on criterion for stock selection, donations, conservation, stock disposal and current legislation covered by the policy.

Even when a library has a stock selection policy, it does not always contain recommendations about donations and/or may not always be used to decide the fate of donations.

Donations of Creationist and Intelligent Design Materials/Books

Seven out of the twelve regions in the UK to which FOI requests were made reported donations of creationist or Intelligent design books/materials. There was no discernable pattern, with the highest percentage of library authorities reporting donations coming from the East Midlands (2 out of 3). In general, the levels of donations of creationist and ID materials seem quite low; just 11 (17%) of the library authorities from the FOI requests.

However, the number of libraries that stock creationist and ID materials is quite high – 52 of the 65 from FOI requests (80%).

Classification of Creationist and Intelligent Design Materials/Books

The FOI requests show a mixed picture regarding how creationist and ID materials are classified. For creationist materials, a majority indicate religion with a significant number suggesting it could be science or religion, depending on the item. For ID materials, there is also a mixed picture with the highest percentage specifying science or religion, depending on the item. Interestingly, for ID materials, a significant minority indicate the classification should be religion.

These results demonstrate a certain amount of variation and uncertainty, but do suggest a default position tending towards religion and in some cases deciding on an individual basis only after close examination of different aspects (e.g. viewpoint) of the text. This is not surprising given the advice from WebDewey (OCLC, 2009) to specifically identify the “subject” and what the work is about, as the main criterion. However, reading all the advice from WebDewey leaves the situation far from clear. As noted previously, this is further compounded by many creationist and ID authors intentionally trying to cloak religion as science.

There is a certain amount of regional variation in the FOI results on how creationist or ID materials should be classified. In general more regions can be seen to be classifying both creationist and ID materials as religion, with a significant amount specifying science or religion, depending on the item. Only one library authority (in Scotland) classifies creationist materials as science, however, all but three regions have library authorities classifying ID as science. It may be that the regional variation in classification of creationist and ID materials is indicative of the uncertainty in the problem of deciding the classification

Overall the study suggests that creationist and ID materials are made freely available in UK public libraries, with the majority being selected by the library authority itself via its normal procurement mechanisms. Clearly since public libraries should be about presenting all viewpoints to the public, this is to be welcomed. However, that differences exist in terms of how material is classified, even on a small scale, is a cause for concern from a classification perspective. In issues of science especially, correct classification is vital if library users are not to be misled as to the efficacy of scientific materials.

References

BBC Religion & Ethics. (2006) *Creationism and intelligent design*. Available from: http://www.bbc.co.uk/religion/religions/christianity/beliefs/creationism_1.shtml [Last accessed 08 February 2011]

Biever, C. (2005) “God goes to court in all but name; The insider's guide to the court battle over what US schoolchildren should be taught about the origin of life.” *New Scientist*, 2523, 29th October. p.6.

Butt, R. (2009) “Only 25% of Britons believe Darwin’s theory of evolution.” *The Guardian*. 2nd February. p.4.

- ComRes. (2009). *Rescuing Darwin Survey*. Available from:
http://www.comres.co.uk/systems/file_download.aspx?pg=404&ver=1 [Last accessed 10th July 2011]
- Davis, P. and Kenyon, D.H. (1989) *Of Pandas and People: The Central Question of Biological* Richardson, TX: Foundation for Thought and Ethics.
- Forrest, B. (2008) "Still creationism after all these years: understanding and counteracting intelligent design." *Integrative and Comparative Biology*, 48(2) pp.189-201.
- Dean, Cornelia (2007). "Islamic Creationist and a Book Sent Round the World". *New York Times*. 17th July.
http://www.nytimes.com/2007/07/17/science/17book.html?_r=1&ref=science&oref=slogin.
 [Last Accessed 30th November 2011.]
- Harden, S., R, Harden. (2008). *UK Public Libraries*. Available from:
<http://dspace.dial.pipex.com/town/square/ac940/ukpublib.html> [Last Accessed 10th July 2011.]
- Information Commissioners Office (ICO). (N.D.). *Freedom of Information Act 2000 - ICO*. Available from: http://www.ico.gov.uk/what_we_cover/freedom_of_information.aspx [Last accessed 14th April 2011]
- Linder, D. O. (2006) *An introduction to the John Scopes (Monkey) Trial*. Available from:
<http://www.law.umkc.edu/faculty/projects/ftrials/scopes/evolut.htm> [Last accessed 14th February 2011]
- MLA. (2009). *Guidance for the Management of Controversial Material in Public Libraries*. Available from:
http://www.mla.gov.uk/what/support/guidance/~/_media/B4414D2012F5437CAF13939D5C904BAE.ashx [Last accessed 11th June 2011].
- Online Computer Library Center (OCLC). (2009). Dewey Manual Page: Relation of scientific and Christian viewpoints of origin of universe vs. Creation in philosophy of religion vs. Natural sciences and mathematics vs. Evolution. *WebDewey*. Available: <http://connexion.oclc.org/> [Last accessed 17th July 2011]
- O'Sullivan, M.K. and O'Sullivan, C.J. (2005) "Monkey business: the intelligent design war has come to the school library." *School Library Journal*, 1st November. Available:
<http://www.schoollibraryjournal.com/article/CA6277831.html> [Last accessed 08 February 2011]

O'Sullivan, M.K., O'Sullivan, C.J. (2007) "Selection or censorship: libraries and the intelligent design debate." *Library Review* 56(3) pp.200-207.

Online Computer Library Center (OCLC). (2009). Dewey Manual Page: Relation of scientific and Christian viewpoints of origin of universe vs. Creation in philosophy of religion vs. Natural sciences and mathematics vs. Evolution. *WebDewey*. Available from: <http://connexion.oclc.org/> [Last accessed 17th July 2011.]

Pennock, R.T. (1999) *Tower of Babel: the evidence against the new creationism*. London: MIT Press.

Pigliucci, M. (2002) *Denying Evolution: Creationism, Scientism, and the Nature of Science*. Massachusetts: Sinauer Associates, Publishers.

The Sensuous Curmudgeon. (2009). *Creationism and the Dewey Decimal System*. Available FROM: <http://sensuouscurmudgeon.wordpress.com/2009/01/01/creationism-and-the-dewey-decimal-system/> [Last accessed 22nd July 2011.]

Wynne-Jones, J. (2009) "Half of UK population "believe in creationism". *The Sunday Telegraph*. 1st February. p.15.