# COLLECTING AND ORGANISING MULTIMEDIA<sup>1</sup> COMPONENTS FOR THE DEVELOPMENT OF EDUCATIONAL DVDs AND MULTIMEDIA CLIPS FOR GRADE 10 HISTORY: THE FRENCH REVOLUTION – SOME PRACTICAL GUIDELINES

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#### Abstract

Today's learners are born in a multimedia world and they feel quite comfortable in an electronic learning environment. Therefore South Africa, as the rest of the world, had to respond to the pressure and challenges posed by the information revolution.

Although research shows that there is an increase in the availability of computers for teaching and learning, it does not necessary mean a growth in the use and integration of Information and Communication Technologies (ICTs) in the learning and teaching of subjects in South African schools. For Social Sciences it was an unacceptable low 22% in 2000. A lack of resources for use by teachers and learners is indicated as one of the main factors, preventing teachers from using computers in teaching and learning.

The educational DVD and multimedia clips can be used as an exciting interactive resource in the integration of multimedia in the Social Sciences classroom when teaching and learning the French Revolution in History, Grade 10. This article gives an overview with some practical guidelines on the process followed in the development and construction of the concept text and also the collecting and organisation of the multimedia components for the DVD and multimedia clips

**Keywords:** History teaching and learning; Information and Communication Technology (ICT); Multimedia; Multimedia elements.

Multimedia is the use of different forms of communication like visual images (photos, graphics, maps and animations), sounds (songs of the time and speeches) and written text to communicate information in multiple ways. D Buckingnam, 2003, *Media education, literacy, learning and contemporary culture* (Cambridge, Polity Press), p. 4; RE Mayer, 2001, *Multimedia learning* (Cambridge, University Press 2); MD Roblyer, 2005, *Intergrating educational technology into teaching* (Columbus; Pearson), p. 186.

#### Introduction

Currently a worldwide Information and Communication Technology (ICT)<sup>2</sup> revolution is taken place and the growth of ICTs in education is part of this global phenomenon. This is more in line with the way learners learn today because they have been born in the multimedia world and feel comfortable in an electronic learning environment.<sup>3</sup> It is therefore not surprising that these learners have difficulty to sit in classrooms that rely on low technology such as overhead projectors, whiteboards and lectures as the main sources of information.<sup>4</sup> Thus, South Africa, as the rest of the world, had to respond to the pressures and challenges posed by the information evolution.

To help the South African National Department of Education (DoE), established a basis for pursuing a planning strategy to confront these challenges, the School Register of Needs (SRN) survey was conducted by the Human Sciences Research Council during 1995/1996. It was the first of its kind in the history of education in South Africa and the first database of every school in the country – including among others, their geographical location and the availability of technology equipment, such as computers for teaching and learning. In the case of the latter, it shows that only 8.7% of South African schools have computers for learning and teaching.<sup>5</sup>

During 2000/2001 a follow up survey was conducted, showing that in the four years between the two surveys, the number of South African schools with computers for learning and teaching increased to 12.3%. This situation has improved further and by 2002, 26.5% of South African Schools have computers for teaching and learning and in 2006, SITES (Second Information

<sup>2</sup> Information and Communication Technologies (ICTs) is the combination of hardware, software and means of communication that enable the processing, management and exchange of data, information and knowledge.

<sup>3</sup> M van Lieshaut, M (e.a), 2002, Social learning technologies; The interdiction of the multimedia in education (Hampshire, Ashgate), pp. 57-60.

<sup>4</sup> DW Tileston, 2003, What every teacher should know about using media and technology (California, Corwin Press), pp. 1, 5, 60.

M Visser, 1996, School Register of Needs Survey 1996 (Pretoria, Human Science Research Council).

<sup>6</sup> Department of Education (DoE), 2001, *Brochure for the 2000 School Register of Needs Report* (Pretoria, Department of Education), p. 12 (available at: www.datafirst.uct.ac.za/catalogue3/index.php/catalog/165/.../2670), as accessed on 12 March 2012.

Department of Education & Department of Communication (DoE & DoC), 2001, Strategy for information and communication in education (Pretoria, Department of Education), p. 13 (available at: www.info.gov. za/otherdocs/2001/ict\_doe.pdf), as accessed on 14 March 2012; SJ Howie, A Muller & A Paterson, 2005, Information and communication technologies in South African Secondary schools (Cape Town, HRC Press), p. 34; DoE (204), White paper on e-Education: Transforming learning and teaching through Information and Communication Technologies, p. 10-12 (available at: http://www.education.gov.za/LinkClick.aspx?fileticket=Keu0%2FBkee%2BM%3D&), as accessed on 16 March 2012.

Technology in Education Study) indicated that the percentage was 38%.8

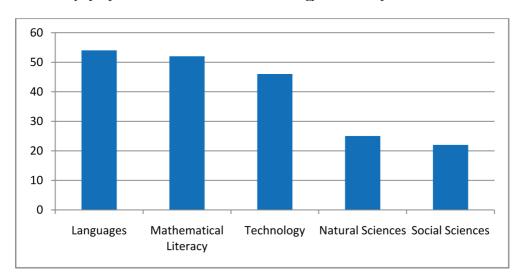
# Problem statement and research question

This ongoing growth is in line with the DoE's key goal in the e-Education policy document of 2004:

All South African learners from Grades 1-12 will be ICT-capable by 2013. This means that South African learners will be able to use ICT confidently and creatively to develop the skills and knowledge they need both to achieve personal and economic goals and also to participate effectively as a member of the global community.<sup>9</sup>

However, the National Survey of Information Communication in 2000, has indicated that the increase in the availability of computers for teaching and learning does not necessary mean a growth in the use and integration of ITCs in subjects in South African schools. The following graph (Image 1) show the percentage of the use of computers in Languages, Mathematical Literacy, Technology, Natural Sciences and Social Sciences in 2000:

Image 1: National Department of Education, South Africa (2000), Computers in schools: A National survey of information communication technology in South African schools



Source: Bellville, Education Policy Unit (EPU), University of Western Cape, p. 88 (also available at: http://www.education.gov.za/LinkClick.aspx?fileticket=nX6%2F4yb8GmE%3D&tabid=106&m id=406).

<sup>8</sup> AS Blignau, JE Hinostroza, CJ Els, CJ & M Brum, 2010, ICT in education policy in developing countries; South Africa and Chile compared through SITES, 2006, *Computers & Education*, 55(4), December 2010, pp. 1552-1563

<sup>9</sup> DoE, 2004, White paper on e-education; Transforming learning and teaching through information and communication technologies, p. 15 (available at: http://www.education.gov.za/LinkClick.aspx?fileticket=Keu 0%2FBkee%2BM%3D&), as accessed on 19 March 2012.

The survey showed an unacceptable low 22% in the use of computers in Social Sciences and pointed out some of the main factors, preventing schools from using computers in teaching and learning:

- Inefficient number of computers.
- Lack of computer literacy among teachers.
- Lack of subject teachers with training how to integrate computers in specific Learning Areas.
- Lack of resources for use by teachers and learners.<sup>10</sup>

Thus, the education DVD and multimedia clips for Grade 10 History can help to fill the gap as resource and help with the integration of multimedia in the Social Sciences classroom when teaching and learning History. Integration of multimedia in teaching and learning History is very important because it will promote a comprehensive understanding of the past, empathy for decision making, and a reinforcement of intellectual cognitive skills. With multimedia the learners are exposed to different points of view so that they can construct their own knowledge. It also contribute towards ensuring that History will no longer be the boring subject as it is thought to be and make history "alive" and exciting – fostering a love and passion for the subject.<sup>11</sup>

From the perspective of the development of a DVD and multimedia clips the following research questions arises:

- What is the process to be followed in the development and construction of the concept text for the educational DVD and multimedia clips for Grade 10 History: The French Revolution?
- What is the process to be followed in the finding, collection and organisation of ultimedia components like visual images (photos, graphics, maps and animations), sounds (songs of the time and speeches) and written text, for the development of the educational DVD and multimedia clips?

<sup>10</sup> EoE, 2000, Computers in schools: A National survey of information communication technology in South African schools. Bellville: Education Policy Unit (EPU), University of Western Cape, p. 88, 90-91, 129. (available at: http://www.education.gov.za/LinkClick.aspx?fileticket=nX6%2F4yb8GmE%3D&tabid=106&m id=406), as accessed on 12 April 2012.

<sup>11</sup> ML Rice & EK Wilson, "How technology aids constructivism in the Social Studies classroom", *Social Studies*, 90(1), 1999, pp. 29-31; RE Mayer, 2001, *Multimedia learning* (Cambridge, Cambridge University press), pp. 69, 78, 100-101.

#### **Aims**

From the research done,<sup>12</sup> the article has two main aims. The development of the concept text is a important process in the production of the educational DVD. In a "hands on" approach the article strives to give a practical overview with some guidelines, on the development of the concept text.

Appropriate multimedia material is the building blocks in the production of the DVD. Multimedia material include elements like visual images (like photos, graphics, maps and animations) and sounds (like songs of the time and speeches). The article gives practical guidelines on the finding and collection of multimedia material that can be use in the production of the educational DVD.

# The multimedia components of the educational DVD

# Concept text

The writing of the main text is the first step in the developing of the educational DVD and multimedia for Grade 10. In the writing process of the text the following must be kept in mind:

- It must cover the theme as it is set out put in the Curriculum Assessment Policy Statement (CAPS): Social Sciences Grate 10.<sup>13</sup>
- It must be factual correct and from reliable sources.
- The structure must be fluent.
- The language must be on the level of the average Grade 10 learner.
- Because the text is for Grade 10, it has to be in Afrikaans as well as English and must be professionally translated and edited.
- Except for the translation and editing, the script must also be peer reviewed to develop the best text for the multimedia.

The main text is use for the recorded narration and it also form the basis and blueprint for the concept text of the DVD. As a working document the concept text has indications where the different media elements (photo's,

<sup>12</sup> ES Van Eeden, *Didactical guidelines for teaching history in a changing South Africa* (Potchefstroom, Keurkopie) 1999; LO De Sousa, The integration of digital video discs (DVDs) and multimedia in the Learning Area Social Sciences, (MEd. Dissertation, Potchefstroom, North-West University), 2008.

<sup>13</sup> EoE, 2010, Curriculum Assessment Policy Statement (CAPS): Social Sciences Grate 10 (available at: http://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements/tabid/419/Default.aspx),as accessed on 12 April 2012.

maps, paintings, dramatisations and videos) will feature. All this is saved in a separate "Insert folder".

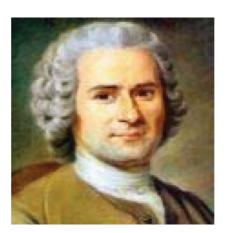
For example:

# Concept text:

In the meantime French writers and philosophers like Jean Jacques Rousseau (Image 2 in Insert folder) and Voltaire (Image 3 in Insert folder) attacked the privileges of the nobility and clergy, the unjust courts of law and the unfair taxation system in their writing. With their poems, stories and plays they criticized the government and encouraged the people to demand equality for all.

When the Insert 15 file and Insert 16 file in the Insert folder, are open, paintings of the two gentlemen are shown. (Image 2 and Image 3)

Image 2: Jean Jacques Rousseau



Source: Available at: http://en.wikipedia.org/wiki/File:Jean-Jacques\_Rousseau\_(painted\_portrait).jpg.

Image 3: Voltaire



Source: Available at: http://en.wikipedia.org/wiki/File:Voltaire.jpg.

After the recorded narration and "inserts" of the concept text are put in the required media sequences, gaps where fillers are needed, are shown. So, more multimedia elements must be included to fill these gaps.

All the extra information and media elements in the main text, which will be used interactively, is also indicated in the concept text and save in a separate folder (Interactive Folder) For example:

### Concept text:

His wife was queen Marie Antoinette (Folder: Marie Antoinette).

When Folder (Marie Antoinette) in the Interactive folder is open, you have the following text with extra information about the royal children and relevant paintings.

King Louis XVI and Queen Marie Antoinette had four children:

- Marie-Thérèse-Charlotte was born on 19 December 1778 and she died on 19
  October 1851. She married Louis Antoinne, the son of Comte d' Artois, the
  brother of King Louis XVI.
- Louis-Joseph was born on 22 October 1781 and died of tuberculosis on 4 June 1789 at the age of seven.
- Louis Charles was born on 27 March 1785 and died at the age of ten in prison on 8 June 1795.
- Sophie Hélèna-Beatrix was born on 9 July 1786 and died less than a year later on 19 June 1787.

Image 4: Queen Marie Antoinette and her three oldest children



Source: Available at: http://www.gutenberg.org/files/30314/30314-h/images/img-060.jpg.

Image 5: Marie-Thérèse-Charlotte and Louis-Joseph



Source: Available at: http://a2.twimg.com/profile\_images/1127267966/Marie-Th\_r\_se\_Charlotte\_\_\_ Louis\_Joseph\_Xavier\_Fran\_ois\_\_Marie\_Antoinettes\_first\_two\_children\_.jpg.

Image 6: Louis Charles



Source: Available at: http://s3.amazonaws.com/readers/2009/06/19/louischarlesoffrance6\_1.jpg.

Image 7: Sophie Hélèna-Beatrix



Source: Available at: http://www.lesmanantsduroi.com/Images10/Sophie\_Beatrice\_of\_France.jpg

# Visual images like photos, pictures, drawings, maps and paintings

It makes the contents of the script more understandable, unforgettable and enjoyable to the learners because the images will help them to visualise the script. In other words it adds value to the script. Visual images must be of high resolution to be of good quality.<sup>14</sup> The following picture of the royal flight to Varennes have a resolution of 1024 X 876 pixels. It can be used because it is of good quality.

Image 8: The royal flight to Varennes with a resolution of 1024 x 876 pixels



 $Source (Image 8): Available at: http://www.google.co.za/search?hl=en&sugexp=cfis&gs_nf=1&pq=french+revolution&cp=24&gs_id=4&xhr=t&q=royal+flight+to+varennes&bav=on.2,or.r_gc.r_pw.r_qf.,cf.osb&biw=1093&bih=416&wrapid=tljp133278989749900&um=1&ie=UTF-8&tbm=isch&source=og&sa=N&tab=wi&ei=jcJwT_3pE4m3hAeX0Km1Bw.$ 

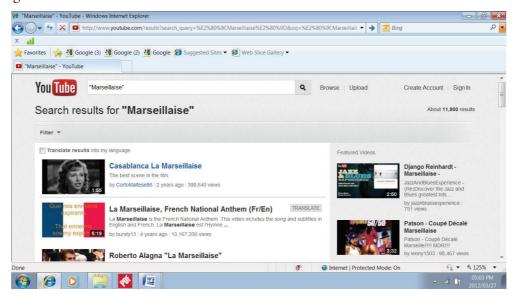
<sup>14</sup> FP Merrill, (e.a), 1995, Computers in education (Boston, Allyn and Bacon), pp. 174-175.

Except for high resolutions, it is important that, when visual and other multimedia elements are used, that the copyright conditions are taken into account. Copyright on paintings, pictures and photos expired when it is 70 years and more after the death of the artist or photographer. In such a case it is put in the public domain and can be used freely.

#### Audio elements

Audio elements include recorded narration, music, sounds effects and song. Music and sound effects help to create a suitable atmosphere and mood and is useful to get the learners' attention. It can also convey mental images so the teacher can make the learners feel that they are there, for example when the people stormed the Bastille.<sup>15</sup> The "*Marseillaise*" was an important song for the revolutionists during the French Revolution and became the national anthem of France. A soundtrack of the song can be downloaded from YouTube (see Finding appropriate multimedia material). Here are the results of the search "Marseillaise" on the YouTube home page (Image 9).<sup>16</sup>

Image 9: YouTube results of the search "Marseillaise"



 $Source: Available \ at: \ http://www.youtube.com/results?search\_query=\%E2\%80\%9CMarseillaise\%E2\%80\%9D\&oq=\%E2\%80\%9CMarseillaise\%E2\%80\%9D\&aq=f\&aqi=g4\&aql=\&gs\_l=youtube-reduced.12..0l4.28054l28054l0l32201l1l1l0l0l0l0l680l680l5-1l1l0.$ 

<sup>15</sup> A Clark, 2001, Designing computer-based learning materials (Hampshire, Gower), pp. 129-130.

<sup>16</sup> Available at: http://www.youtube.com/results?search\_query=%E2%80%9CMarseillaise%E2%80%9D&oq=%E2%8.0%9CMarseillaise%E2%80%9D&aq=f&aqi=g4&aql=&gs\_l=youtube-reduced.12..0l4.28054l28054l0l32201l1l1l0l0l0l0l680l680l5-1l1l0, as accessed on 12 March 2012.

#### Video's

A short video can be used to replace long convoluted text and learners could learn more from a well selected video as from text. This is because the information presented by the video may be more understandable and memorable due to its visual detail and emotional impact.<sup>17</sup> Thus, videos appeal to the senses of the learners and transfer impressionistic information very quickly.

#### **Text**

Text as multimedia element is also used in the development of the DVD, for example the Declaration of the Rights of Man and of the Citizen. In doing so, there are several options to be considered like the appropriate front, style, effects and colour.<sup>18</sup>

#### Games

Games like "Guillotine-man" and "Drag and paste" are also developed and included in the interactive part of the DVD. In the "Guillotine-man" game, questions are asked and when a wrong answer is given the player is beheaded by the guillotine. When playing the "Drag and paste" game there is for example a map, and the player have to choose a name of one of France neighbouring countries from a list and drag the name to the correct country on the map. When it is incorrect the name cannot be pasted on the map.

Games can motivate and encourage learners to study material they might not otherwise choose to study. It makes learning more enjoyable and contribute to knowledge and skills that are a critical part of the content, such as competition and teamwork.<sup>19</sup>

# Graphics and animation

Graphics and animation are used in the development of the DVD, for example to show the foreign armies invading France with arrows and movement on the map. It is also used as organisers as in Image 10 below. Such graphic

<sup>17</sup> SM Alessi & SR Trollip, 2001, *Multimedia for learning: Methods and development, 3rd edition* (Boston, Allyn and Bacon), pp. 72-73.

<sup>18</sup> PF Merrill, 1995, Computers in education, 3rd Edition (Boston, Allyn and Bacon), p. 173.

<sup>19</sup> SM Alessi and SR Trollip, 2001, *Multimedia for learning: Methods and development* (Boston, Allyn and Bacon), p. 271.

organisers help learners to put information into manageable chunks and has enormous potential to improve learners' learning process.<sup>20</sup>

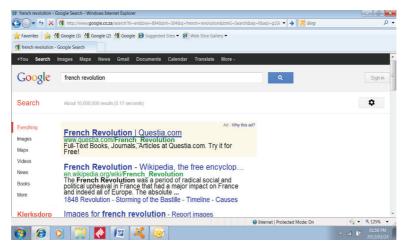
Image 10: Graphic organisers

# FIRST ESTATE Upper clergy Bishops Cardinals Lower clergy Priest Monks

# Finding appropriate multimedia material for the production of the DVD The World Wide Web $(WWW)^{21}$

The WWW is the largest and commonly used hypermedia application and is one of the main sources of multimedia material like text, images, videos and other media via hypertext.<sup>22</sup> In other words, it provides a structure of linked elements through which a user can navigate and interact. Here, for example, is the results of the search "French Revolution" on the WWW (Image 11).<sup>23</sup>

Image 11: Results of the search "French Revolution" on the WWW



Source: Available at: http://www.google.co.za/search?hl=en&biw=894&bih=304&q=french+revolution&btnG=Search&aq=f&aqi=g10&aql=&oq=

<sup>20</sup> DW Tileston, 2003, What every teacher should know about using media and technology (Carlifornia, Cormin Press), pp. 16, 27.

<sup>21</sup> Z Li & MS Drew, 2004, Fundamentals of multimedia (New Jersey, Peason Education), pp. 9-10.

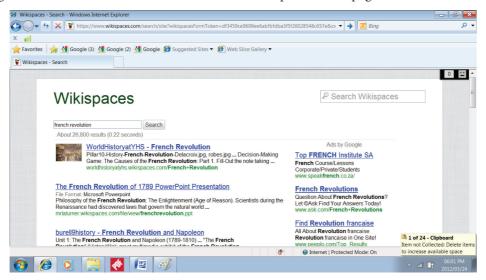
<sup>22</sup> T Vaughan, 2001, Multimedia; Making it work, 5th edition (California, Osborne/McGraw-hill), p. 190.

Available at: http://www.google.co.za/search?hl=en&biw=894&bih=304&q=french+revolution&btnG=Search &aq=f&aqi=g10&aql=&oq=, as accessed on 13 March 2012.

# Wikispaces

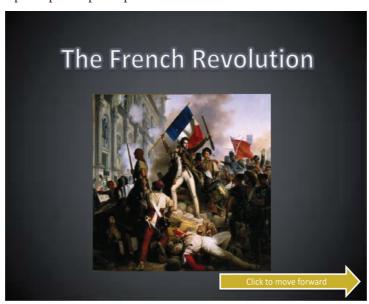
Other Web-based resources for example is that of Wikispaces (Image 12)<sup>24</sup> where for example power point presentations can be found with images and Web-links (Image 13)<sup>25</sup> which can be used for the educational DVD.

Image 12: Results for "French Revolution" on Wikispaces home page



Source: Available at: http://sklingam.wikispaces.com/

Image 13: Wikispaces power point presentation: The French Revolution



Source: Available at: http://sklingam.wikispaces.com/French+Revolution+Powerpoint

<sup>24</sup> Available at: http://sklingam.wikispaces.com/, as accessed on 13 March 2012.

<sup>25</sup> Available at: http://sklingam.wikispaces.com/French+Revolution+Powerpoint, as accessed on 14 March 2012.

# **CSL Vintage Cartoons**

The CSL Vintage Cartoons<sup>26</sup> is an online database of historical cartoons from the 19<sup>th</sup> century and earlier. The following graph (Image 14) shows the search results for "French Revolution".

Image 14: Results for "French Revolution" on the CSL Vintage Cartoons home page

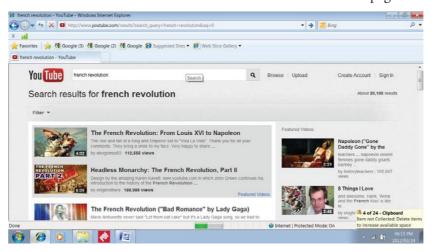


Source: Available at: http://www.cartoonstock.com/vintage/vintage\_cartoons.asp

#### You Tube

You Tube<sup>27</sup> (Image 15) is also a Web-based resource where videos, movie and TV clips can be view, upload, download and shared.

Image 15: Search results for "French Revolution" on the YouTube home page



Source: Available at: http://www.youtube.com/

<sup>26</sup> Available at: http://www.cartoonstock.com/vintage/vintage\_cartoons.asp, as accessed on 14 March 2012.

<sup>27</sup> Available at: http://www.youtube.com/, as accessed on 15 March 2012.

# Commercial films and encyclopaedias

Various DVDs related to history have been produced and are commercially available. Examples include: The History Channel's French Revolution (1 DVD) (Image 16)<sup>28</sup> and Maria Antoinette of Columbia Films<sup>29</sup> (Image 217). Although these DVDs are also intended as educational media, most are produced as entertainment television documentaries, without recognising the specific learning outcomes of history as a school subject:

Image 16: Search results for "French Revolution" on the History channel home page



Source: Available at: http://search.history.com/search?w=french+revolution&asug=&v=history&x=19 &y=13

Image 17: Search result for "Marie Antoinette" on the Columbia Films home page with the link to Wikipedia<sup>30</sup>



Source: Available at: http://en.wikipedia.org/wiki/Marie\_Antoinette\_(2006\_film)

<sup>28</sup> History Channel, French Revolution (New York, History Channel), 2005, 1 DVD.

<sup>29</sup> Columbia Films, Marie Antoinette (California, Los Angeles).

<sup>30</sup> Wikipedia is a free-content encyclopaedia based on a openly editable model. It grown into one of the largest referent web sides.

Encyclopaedias like Encyclopaedia Britannica (Image 18)<sup>31</sup> and New World Encyclopaedia (Image 19)<sup>32</sup> are available online while the Encarta Encyclopaedia (Image 20) can be used offline. These works consist of among other articles, images, music clips and newspaper clippings, like the report from *The Times* on 20 July 1789 about the rioting in Paris and the storming of the Bastille (Image 21).

Image 18: Search result for "French Revolution" on the Encyclopaedia Britannica home page



Source: Available at: http://www.britannica.com/EBchecked/topic/219315/French-Revolution

Image 19: Search results for "French Revolution" on the New World Encyclopaedia home page



Source: Available at: http://www.newworldencyclopedia.org/entry/Info:Main\_Page

<sup>31</sup> Available at: http://www.britannica.com/EBchecked/topic/219315/French-Revolution, as accessed on 15 March 2012.

<sup>32</sup> Available at: http://www.newworldencyclopedia.org/entry/Info:Main\_Page, as accessed on 15 March 2012.



Image 20: Search results for "French Revolution" on Encarta Encyclopaedia

Source: Search results for "French Revolution" on Encarta Encyclopaedia

Image 21: The report from The Time on 20 July 1789 about the rioting in Paris and the storming of the Bastille from Encarta Encyclopaedia

Part of the report from **The Times on July 20 1789**, that describes the outbreak of the French Revolution with rioting in Paris, including the storming of the Bastille.

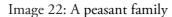
#### Rebellion and Civil War in France

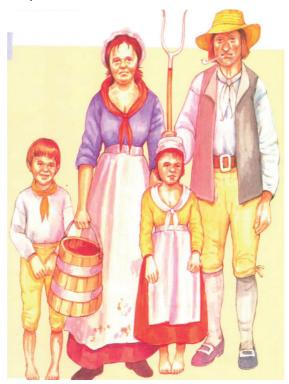
The regular troops held for the protection of Paris were persuaded to join the people. They marched to the Hotel of Invalids, a building in the out-skirts of the city. The residents of the Hotel of Invalids joined the rest, and brought with them the great guns, and other ammunition, stored in the building. With this reinforcement the people then attacked the Bastille prison and released all the State Prisoners from the Bastille.

During the storming of the Bastille they attacked the Governor of the Bastille, the Marquis de L'Auney, and the Commandant of the Garrison and took them to the Place de Grieve, the place of public execution. Here they beheaded them and stuck their heads on tent poles, and carried through the streets of Paris.

The Hotel de Ville, or Mansion-house was the place that was next attacked. M. de Flessil the Prevot de Marchand, or Lord Mayor, had made himself obnoxious by attempting to read publicly some instructions he had received from the King. In doing this he was stabbed and beheaded.

Except for the aforementioned resources, sources like photos, pictures and maps in books can also be used. The following picture of a peasant family (Image 22)<sup>33</sup> in G Hetherton's book *Revolutionary France: Liberty, tyranny and terror* is of high resolution and can be used as source for the DVD.





Source: G Hetherton (1992), *Revolutionary France: Liberty, tyranny and terror* (Cambridge, Cambridge University Press), p. 18.

#### Conclusion

In the technological world of the 21<sup>th</sup> century learners feel at home in an electronic learning environment in which the use of multimedia is essential. This fact is recognised by the DoE and therefore the Department encourage the integration of multimedia in the teaching and learning process. To assist with this, the development of DVDs and multimedia clips is indispensable.

In the development of such DVDs, the development of a concept text is the first step. The finding, collection and organisation of visual images (photos, graphics, maps and animations), sounds (songs of the time and speeches) and

<sup>33</sup> G Hetherton, 1992, *Revolutionary France: Liberty, tyranny and terror* (Cambridge, Cambridge University Press), p. 18.

written text is the next step in the development of the DVD. Here resources like the World Wide Web, You Tube, commercial films and encyclopaedias play a important role and it is clear that there are a large number of multimedia sources which can be creatively put together in the interactive educational DVD.

In the collecting of the different multimedia elements, it is important that copyright conditions are taken into account. Copyright on paintings, pictures and photos expired when it was created 70 years and more after the death of the artist or photographer. In such case it is put in the public domain and can be used freely. Otherwise, the necessary permission must be obtained before it can be used.

Although the different multimedia elements contributes to the interactivity of the DVD, appropriate games can also increase the interactivity level of the DVD. With games, material can be reviewed and learned without the feeling of a learning experience. In other words learning History is fun.

With all the multimedia elements put together in the DVD it is clear that the DVD will help with the integration of multimedia in the teaching and learning of History. So, History will no longer be the boring subject as it thought to be, but "alive" and exciting.