

# Final Report on Project no. HEA RA0174

## ***PRS E-Learning Project 2006-8: Interactive mapping for teaching World Christianity***

**Principal Investigator:** Dr Sara Parvis, School of Divinity, University of Edinburgh

**Project team:** Dr Sara Parvis, Dr Jessie Paterson, Dr Kirsty Murray, Sonia Virdi, Aileen Robertson, University of Edinburgh

### ***Aims of the project:***

1. To design and create an original set of interactive animated scholarly map-diagrams illustrating Christian history from c. 1500 to the present in Africa, Asia, Oceania, Europe, North and South America.
2. To embed these maps in a first year religion course, History of Christianity as a World Religion 1B: 1453 to the Present, both physically in the course VLE, and conceptually in the course teaching.
3. To make the maps widely available for appropriate credited use in academic contexts.
4. To assess the pedagogical usefulness of these materials.

It should be noted that this project built on an internally-funded University of Edinburgh Principal's E-Learning Fund project, which had produced a more limited number of map-diagrams for the sister course History of Christianity as a World Religion 1A: 33 to 1453. These had been designed and produced by the same team. All the maps created for both projects can be viewed at [http://www2.div.ed.ac.uk/courses/Animated\\_Maps/](http://www2.div.ed.ac.uk/courses/Animated_Maps/).

### ***Progress of the project:***

#### **1. The designing of the maps.**

It was agreed by the project team that the 'maps' should be representational diagram-maps rather than true cartographic drawings: what we were aiming for was a representation that would allow the students to make sense of complex diachronic themes such as exploration and expansion, or the Great Awakenings of religious fervour. Student feedback from our previous internally-funded animated map project had indicated that students wanted markers noting key events in the history of World Christianity included, and this was done. The diagram-maps begin with an animated chart of world religions in 1453, and end with another showing world religions c. 2000, to set the story in context.

Three animated map-sequences were produced: 'Events 1453-1601', 'Events 1601-1803' and 'Events 1803 to the Present'. Each sequence had 3 'scenes' within the larger period. All events were charted on the same world projection to give a consistent feel across the three maps. However this did result in a loss of detail. The diagrams showed explorations and simultaneous events and included 20 major rivers. Having 'set the scene' with the World Religions map and a map of World Christianity in 1453, we concentrated on first showing the main lines of European exploration and expansion to 1803, followed in each scene by a sequence of markers showing events in Christian history across the world during that period. The final sequence, 1803 to the present, however, concentrated on events in Christian history rather than trying to track the complex ebb and flow of exploration and empire during that time. Text-only versions of the sequences, with still diagram-maps and explanations, were also produced to ensure accessibility.

From student feedback on the maps produced for the sister course, the aims of this series of maps was to use the diagram-maps to pull together the disparate events described in different weeks of the course. This would allow students to easily see the events happening simultaneously in different parts of the world.

## **2. The embedding of the maps.**

The first of the three map-sequences was available for the 2006-7 session, and was embedded within the course VLE WebCT and used in teaching within the relevant part of the course. Feedback for the sequence from the students (which was elicited via focus groups) was very positive; they were pleased that their criticisms of the earlier sister course maps (too tied to one aspect of the course; no integrated narrative information) had been addressed. For designing the follow-up maps, they asked us to take the sequences at slower speeds, and to include rollovers at the end of each sequence of any information that had appeared and disappeared during the course of the sequence, so that all the information could be consulted at the user's leisure once the sequence had been viewed in its entirety. They also asked us to include a facility for stopping the sequences at intermediate points, and for replaying a single section within the sequence. We did both of these in the new map-sequences (as well as adding the same facility to all the previous maps).

The full set of map-sequences was ready in time to be embedded within WebCT and used in teaching the course (which runs from January-March) in the 2007-8 session. Text alternative stills of the maps, together with some additional narrative, were embedded at the same time.

Embedding the sequences into the teaching of the course was more difficult. The course is a team-taught course, taught by 4 lecturers and four postgraduate tutors, with changes of personnel most years, on account of research and other staff leave. One rationale for creating the map sequences was to make it easier for new lecturers to fit into the overall course 'narrative'. However, there were difficulties with the IT equipment in the lecture salon, and not all lecturers felt that there was place for the maps in their teaching style, so that the students were mainly left to use them on their own, once they had been introduced in the initial sessions.

## **3. The making publicly available of the maps.**

We had originally intended to make the map sequences only available through the JORUM initiative (<http://www.jorum.ac.uk/>) and the local Edinburgh University initiative LORE (<http://www.lore.ed.ac.uk/>). However, as these were proving difficult to access for some interested parties, and after taking advice on intellectual copyright, it was felt to be most suitable to make them generally available via the School of Divinity website.

The maps may now be accessed via [http://www2.div.ed.ac.uk/courses/Animated\\_Maps/](http://www2.div.ed.ac.uk/courses/Animated_Maps/) as well as from JORUM.

We are seeking to continue our development of the use of animated map sequences in religion and history teaching, by applying for follow-up funding from the Higher Education Academy. This will enable us to make further materials available for religion and history teaching, and to continue developing a longitudinal study of their appropriate use in team-taught history and religion courses. We are also part of a wider University of Edinburgh JISC bid to develop a user-friendly map-annotating tool. We hope that this would eventually allow students and members of staff to use the maps more interactively by annotating them with some of their own content.

We are planning to offer a paper to the Alt-C conference in 2009 on our ongoing work with animated maps, and to include some of the results of the current project in a forthcoming conference paper to be presented at the forthcoming HEA conference 'E-Learning in Dialogue' at York.

## 4. Evaluation of the pedagogical usefulness of the maps.

As has been noted in other e-learning contexts, the students were on the whole more enthusiastic about the maps than either the postgraduate tutors or the lecturing staff, echoing other recent findings of a teaching and learning 'digital divide' that appears to exist between students and teachers.<sup>1</sup>

### a. Lecturers

Of the four lecturers, one (who was part of the team which created the maps) used the maps extensively. She used the stills (presented as the 'text only' versions of the sequence) rather than the animated sequence for technological reasons: the animated sequences took too long to set up in the five minutes allowed for the handover from one lecture in the salon to the next, and risked delaying the start of the lecture. She felt the animated sequences were more important for the later sections of the course (which deal with the spread of Christianity outside Europe- she was teaching the Reformation, which is not covered in detail on the map because of the relatively small size of area involved, in world terms).

She said that she would use the maps again, and would make more use of them if there was more time to set them up, and if she took more time to think through the best way to incorporate them in the lectures.

A second lecturer did not use the maps, not because of their quality- which he described as excellent- but because he had an exceptionally busy semester this year, covering for other colleagues on leave, and did not have time to revise his lectures to incorporate them. He did, however, point the students towards the maps. He would hope to use the maps in the future, particularly in the light of the very positive student feedback expressed at the staff-student liaison meeting for the use of the maps by other lecturers. More time would allow him to make better use of them.

A third lecturer referred to the maps in lectures and recommended them to the students as giving a vivid picture of trade and colonial expansion. He said he would have been very happy to use them as a basic reference point throughout the lecture, and would hope to be able to do so next year, but the projection technology took too long to start up, and he ended up using old OHPs (which he recognised to be very much inferior to the maps) instead, as they were so much easier to handle. He said what would make him use them was being able to log on in time.

The fourth lecturer (who is retiring at Christmas) said that he did not use the maps as he was not convinced of their usefulness. He does not expect to teach the course again.

### Summary and analysis of lecturers' responses:

Unreliable technology and the short set-up time available in the lecture salon was the major bar to using the maps by lecturers who actively wanted to use them. It was felt that the stills were perhaps more useful for a lecture anyway (as was also reported in the case of the first semester maps created with internal funding), with the animated maps more suitable for students to explore in their own time. The time that would have been necessary to re-think already well-honed lectures in a pressured context was a deterrent to a lecturer who admired the maps in the abstract. The lecturer who was not convinced of their usefulness did not elaborate on why (he had been consulted as to the events to be included in the sequences).

These findings would suggest that, as is so often the case with e-learning, technology which is inadequately robust can be a serious threat to its successful use. It would also be valuable

---

<sup>1</sup> Cf. Athanasopoulos, C., "Academics sailing on the Ship of e-learning: The Scylla and Charybdis of our times", JISC RSC for Yorkshire and Humber, 'e-Learning in HE: A Symposium for FE/HE Strategists and Practitioners', Tuesday 26th February 2008, accessed from [http://wiki.prs.heacademy.ac.uk/doku.php?id=e-learning\\_workshops\\_resources](http://wiki.prs.heacademy.ac.uk/doku.php?id=e-learning_workshops_resources).

to support and train the lecturers better in the use of the technology (though that in itself takes time which pressured academics may be reluctant to give). Student enthusiasm, however, is key in persuading lecturers to persist with e-learning in the face of difficulties, and a conviction that the maps were attractive, engaging and helpful also appeared likely to persuade lecturers to persist in referring to and if possible using them.

#### **b. Postgraduate tutors.**

Of the four postgraduate tutors, the first said he knew of the maps, both animated and still, but didn't use or refer to them in the tutorials. He felt they were not required in the tutorial setting. He felt the students would only use them if they were assessed, or if the tutor incorporated them in the class electronically, which was impossible as there was no projection equipment available in the tutorial rooms [though it could have been booked from the computing officer]. He did, however, find the maps useful for his own preparation, as a kind of 'leader's guide'.

The second tutor thought the students probably were using the maps in their own time, but felt there was no way they could be used in the tutorials because of lack of equipment. In the future he would mention the maps more regularly, and point the students towards them, especially as an aid for those with a poor knowledge of modern history or historical geography. He thought some paper copies to hand out in tutorials would be useful.

The third tutor said she did not use the maps as there was plenty of material to discuss in the seminars already. She would use the maps in the future if they were more specific to the seminar texts.

The fourth tutor (not a postgraduate) was identical with the first lecturer, and said she did not use the maps in the seminar, but though she probably could if she set out to do so.

#### **Summary and analysis of tutors' responses:**

The tutors felt that the maps were not specifically geared towards the tutorial material, that there was no easily available projection equipment in the tutorial rooms to show them, and that there was enough to talk about in the seminars as it was. They tended simply to refer to the maps rather than use them directly. However, they did like the maps, and some used them for their own seminar preparation.

The tutors felt the maps were a useful back-up resource, but there was no point in incorporating them directly in the tutorials unless they were more immediately geared to the tutorial content. The lack of projection equipment or of a suitable space on which to project images in the tutorial rooms was also an important factor. However, there is a good positive case for seeing the maps as a personal study aid, and not 'doing them to death' by using them in both lectures and tutorials.

#### **c. The students**

The student cohort who had seen all the maps were surveyed in three ways: in focus groups, by evaluation form, and in the end of semester staff-student liaison meeting. (The comments of the earlier cohort who only saw the first sequence have been incorporated in the section on the embedding of the maps, above.)

In the staff-student meeting, the 4 student reps all praised the maps and use of them by the one lecturer who really had used them. They wanted to see them used more in the other lectures.

In the focus groups, the following points were made:

The maps were simple to use on one's own desktop, but took a very long time to load on the console in the lecture room. They were attractive, with good use of colours, arrows and the time line. It was good to be able to scroll through different periods of time.

People liked the visual picture the map-sequences provided of what was happening in the periods in view; they very much liked the provision of a still text alternative alongside the animated maps. They disliked the fact that they were not used much by the course lecturers and tutors. Everyone agreed that maps helped students to fit the different parts of the course together. They gave an overview of the course, and showed the general patterns of World Christianity. The text versions were also helpful in providing additional detail- everyone liked having both varieties available. Several people felt the maps would be very useful for revision. Changes recommended were slowing down the pace of some of the maps (still further!); adding explanations to the animated as well as the still maps; making the maps available on the internet and not just WebCT; and above all using the maps more in lectures and tutorials. (One "wag" suggested creating animated maps of everyone's holiday flight-paths.)

In the evaluation forms, the following questions were asked, with the following distribution of replies:

Question	Not at all	A little	A fair amount	A great deal	Did not comment
Have you used the HCWR1b maps in your own time?	7	11	2	0	1
Do the maps help you understand the lectures?	0	9	6	4	2
Do the maps help you understand the seminars?	2	7	8	3	1
Do the maps help you to fit the different parts of the course together?	0	6	8	5	2
Did the lecturers make good use of the maps?	4	11	4	1	1
Did the seminar tutors make good use of the maps?	15	5	0	0	1
Are the maps an added extra but not important to understand the course?	4	8	7	0	2
Did you use the text alternative (still) versions of the maps?	7	8	3	1	2

To the question 'Do you feel the maps contributed to or changed the way you study and learn?', the following replies were given:

*'Yes, the maps are helpful in providing a visual overview.'*

*'They were some practical use, but I can't say they really helped to give a great deal more depth, but will use for revision.'*

*'Very helpful for revision.'*

*'Didn't realise they were there, but using for revision will help piece things together.'*

*'V. useful to see it visually- even showed my non-HCWR friends! Who thought they were great and insisted on seeing them all.'*

*'No.'*

*'Not at the moment, I think I may use them for revision, though.'*

*'I don't think they were explained very well in lectures but they will probably come in handy for revision.'*

*'Yes, it made the global scheme more obvious and so tied all the course together and so makes it easier to revise.'*

*'The maps were positive in linking sections of the course. Hard to link it with the seminars. Used the text version.'*

*'Not used maps in own time, only in lectures. Will use for revision. In lectures placed events in time context. [They] don't connect events in different countries but same time in textbooks- maps can help to do this.'*

*'I have not consulted the maps in detail yet, but will do so as part of exam revision.'*

*'I think they are a useful tool but to be honest I just haven't utilised them yet- I do intend to for revision.'*

*'They contributed to the way I studied and learned.'*

*'No. A good idea, but we haven't studied a linear history this semester. Found them more useful last semester.'*

*'I did not have a look at the maps this term. Useful when the lecturer makes use of them to explain points etc.'*

*'No, but it helped with the overall picture and patterns of Christianity.'*

*'I felt the maps were very useful, but as I only joined this course for 2<sup>nd</sup> semester I wasn't made aware of the uses of the maps.'*

### **Summary and analysis of students' responses:**

The students seemed on the whole to need to be pushed to use the maps; few had used them more than a little on their own, although a number expected to do so for revision. However, surprisingly, perhaps, given that 75 percent of respondents felt the lectures made a little or no use of the maps, everyone thought the maps helped them to understand the lectures at least to some extent, and more than half thought they helped them a fair amount or a great deal. Even more surprisingly, given that no-one at all thought the tutors had made more than minimal use of the maps, and 75 per cent thought they made none, more than half still thought that they helped their understanding of the seminars at least a fair amount. Everyone felt that the maps helped them fit the course together at least to some extent, and a quarter said it helped them a great deal.

The 'added extra' question was perhaps confusing, with its implicit double negative, but the replies may suggest that people did find that the maps were important to understand the course. More people used the text alternative maps 'a fair amount' or 'a great deal' than the animated ones, but there was still relatively low use of them. However, the 'free' comments suggested a number of people intended to use them for revision.

The clear finding of all the student feedback is that the students would like the lecturers to use the maps, and that they think the maps help them understand lectures and tutorials better, and help them fit the course together. The maps seem to work well in providing a 'path' for students through lectures and tutorials, towards revision when the time comes. A number of students particularly commented on and liked the visual nature of the maps, and found the colourful graphics attractive.

### **Summary of the evaluation findings:**

The maps are clearly pedagogically useful, particularly for those whose learning style is visual, but the students value them most highly when used by the lecturers to illustrate their lectures. The students on the whole were less ready to use the maps as a personal resource, at least until revision time, though some tutors valued them from this perspective.

The technological obstacles to use of the maps by the lecturers need to be overcome, perhaps by switching to the use of personal laptops with small data projectors which the lecturers can prime beforehand. Other obstacles (of time, and even good will) seem liable to be overcome by exposure to the strong desire of the students for further use of the maps by the lecturers.