The “History Tree” Project

The issue
The teaching of history presents many challenges; one of them is addressing “large” topics – by which is meant topics that cannot be dealt with neatly and completely in a single class. The result of this is that what ought to be a single topic becomes, for many students, disjointed and much less meaningful. If students reviewed carefully before each class, the problem would be considerably lessened, but many students cannot do this, because of busy schedules, and some will not do this. The teacher can address the problem by taking time at the start of each class to review material previously covered, and such reviewing is very helpful, but it also takes up valuable class time that could usefully be spent teaching new material: an obvious downside, despite the benefit to students. The “History Tree” project grew out of musing on this problem, combined with a desire to appeal to the way many students nowadays learn and acquire information. Because of positive experiences working with the graphic designers at the Centre for Academic Technology (CAT) developing digital tools for use in teaching ancient history, it was decided to see if digital technology might offer a means to satisfy the identified needs: something that would help students understand large topics; something that could be made to reinforce the most important elements in topics; and something based on digital technology, that could be made to appeal in its operation to the extremely tech-savvy students of today.

The approach
Since my own knowledge of digital technologies is limited – and my ability to program much less so – I began by having a number of conversations with Instructional and Graphic Designers at CAT, to discover first, what characteristics they thought would be most useful to build into the tool, and second, whether such a thing could actually be built. (I quickly learned that anything can be built; the question I ought to have asked was whether it could be built given limited resources in terms of money and person-hours.) The result was a sense that a tool with a fairly broad range of characteristics was both desirable and possible. Those characteristics we agreed on included:
- the tool had to be able to function as a stand-alone thing; i.e. a student could use it to learn new material
- the tool had to be able to function as a complement to what is done in the classroom, or within a course more generally
- the tool had to be flexible with respect to the kind of material it could use: text, images, video, audio, or a combination
- using the tool had to mimic web searching
- the tool had to be robust; i.e. not break down all the time or need constant maintenance
- the “shell” had to be “infinitely” expandable; i.e. the tool could be as large as wanted, and there could be as many instances as wanted
- I had to be able to control who had access to specific topics (or to parts of topics); i.e. I can control who gets access to what, when, with my topics,
and any number of other people could also be doing this in their own courses, all at the same time

- I had to be able to monitor use of the tool if I wished; i.e. be able to check if students are using it
- the tool had to be easy to use, for both those building it and those using it
- the tool had to be flexible with respect to the way in which it was used; i.e. it could be used as a learning tool, as a testing tool and even as a game

(I owe a great debt of gratitude to Glenn Enright, at CAT, who patiently built the “shell” for what came to be called the “Trees” – the name reflects that fact that things branch out from a single starting point. He also attended to a range of problems I had not thought about at all: such things as user inter-faces, for example.)

The result

By the end of the project, after considerable time spent de-bugging, I have a workable Tree that is reliable and is easy to use. The prototype – what might be called the first Tree – was kept fairly simple, but has already proved popular with students. It relies entirely on text, and works very simply. The used is presented with a brief introduction that concludes with a prompt to push a “button” to move to the next screen. The user is then presented with a question, in this case relating to the end of the Roman Republic, and several possible answers. If the user chooses the wrong answer, a new screen appears, explaining why this was not the right (or best) answer and sending the user back to the original question. If the user chooses the right answer there is again a bit of feedback, and a prompt to move on to the next question. This simple Tree has ten levels (and several branches at each level), but it is possible to make Trees with as many levels as wanted, and since the answers change order randomly each time the Tree is used it is difficult to memorize the correct route to the top: you really do need to know the material … or learn it.

It is comparatively easy to make new Trees, or to add to an existing Tree, but it can be fairly time consuming if a large number or levels are used, if a large number of answers are provided, and if extensive feedback is provided. None the less, the result makes this seem worthwhile, and I intend to make Trees available to my students, and to offer the “shell” to others if they are interested in using it themselves.