Today with the widespread use of desktop computers, tablets, smart phones, and e-readers these electronic devices have become one method of learning. E-Learning or electronically-supported instruction and learning techniques includes CBT (Computer-Based Training), IBT (Internet-Based Training), WBT (Web-Based Training) and other media tools. Because the audience has embraced this style of learning, e-learning has become a modern alternative to traditional classroom instruction.

**Why Genealogical E-Learning Education Works?**

The design of an online course or module is most effective when driven by the content, the learning objectives and the type of learner experience intended. Since E-Learning has multiple formats, it is important to take the content and objectives into consideration. Information delivery through e-learning can be achieved by converting a PowerPoint presentation into an e-book, however since that format may be dull for the learner, it becomes difficult to evaluate and validate how much knowledge was absorbed by the learner.

- **High Interactivity** - Successful learning modules need appealing graphics/video, integrated narration, frequent user activity and course-end assessments.
- **Self-paced and time-flexible** – A 20-40 minutes online course is viewed positively by the user, especially if the course allows stop/starts for interruptions or movement to another unit (i.e. start on desktop, complete on tablet)
- **Repeatable and Reviewable** – A clear design enables repetition and easy review of concepts. We rarely absorb skills and concepts all at once. We need to see high-level concepts applied multiple times, reviewed through sound bites or exercised in a review.

**What tools are available to me?**

Before you begin, it might be useful to work with some of the free tools that are available. Authoring tools take time to learn how to use. If you are totally unfamiliar with authoring tools, you might find that the free tools work perfectly well for your needs.

Consider the tools listed by the British Centre for Learning & Performance Technologies: (There are many free tools indicated in this list.)

http://c4lpt.co.uk/directory-of-learning-performance-tools/
The Centre’s list of ‘Top 100 Tools for Learning 2011’ was recently published. The list was compiled from the Top 10 Tools lists of 531 learning professionals worldwide [http://c4lpt.co.uk/top-100-tools-for-learning-2011/](http://c4lpt.co.uk/top-100-tools-for-learning-2011/)

The following chart shows four types of learning environments and common tools used by e-learning teachers.

<table>
<thead>
<tr>
<th>Type of Content</th>
<th>Support</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PowerPoint-based</strong></td>
<td>Content built using PowerPoint slides, often with narration.</td>
<td>Adobe Presenter, Articulate Presenter</td>
</tr>
<tr>
<td><strong>Screencasting</strong></td>
<td>Digital recordings of what is happening on a computer screen, window, or application.</td>
<td>Captivate, Camtasia Studio, Jing, Screen-O-Matic, Screenr</td>
</tr>
<tr>
<td><strong>Full course authoring</strong></td>
<td>Full-featured authoring including tools needed for content, assessments, and media creation or editing.</td>
<td>Lectora, Flash, Moodle, Udutu, Blackboard</td>
</tr>
<tr>
<td><strong>Combining Resources</strong></td>
<td>Online 3-ring notebook</td>
<td>LiveBinders, Wallwisher</td>
</tr>
</tbody>
</table>

**How do I develop a successful module?**
Determine what you need to build. Consider the audience and keep your first learning modules simple. Figure out what tools can build it and which tools fit your ability. Keep in mind the basic concepts of good educational practice including:

- **Instructional Methods & Techniques** – examples, practice, simulations, analogies
- **Media** – the delivery, tools, computers
- **Media Elements** – text, graphics, audio, used to present content & instruction

<table>
<thead>
<tr>
<th>Type of Content</th>
<th>Support</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACTS</td>
<td>Realistic illustrations of specific records or forms</td>
<td>1930 U.S. Census</td>
</tr>
<tr>
<td>CONCEPTS</td>
<td>Realistic illustrations of multiple examples of the concepts</td>
<td>Highlight of John Q. Brown occupation on 1930 census; Arrow at column indicating military service of Brown</td>
</tr>
<tr>
<td>PROCESS</td>
<td>Diagrams showing stages or steps</td>
<td>Extraction form showing information added</td>
</tr>
<tr>
<td>PROCEDURE</td>
<td>Video or animated demonstration of task or skill being performed</td>
<td>Highlight of information on 1930 census moving to extraction form</td>
</tr>
<tr>
<td>PRINCIPLE</td>
<td>Video or animated demonstration of successful use of task or skill</td>
<td>Summary of building the character from the information contained on the record.</td>
</tr>
</tbody>
</table>
Adding Graphics to words can improve learning – The graphics must support the message. Images added for entertainment or dramatic value may prohibit or depress learning.

Placing text near Graphics improves learning
Learning occurs in humans the same way working memory allows computers to process information. When the working memory in humans becomes overloaded the system becomes bogged down and learning is depressed. When words and graphics are placed in a contiguous way, the learner benefits. When words and graphics compete or don’t relate the learner must expend extra cognitive resources to integrate the two media concepts.

Graphics with Audio improve learning.
Graphics with audio and redundant text can interfere with learning
Dr. Ruth Clark explained in a recent article that in an effort to spice up e-learning, some teachers use a ‘Las Vegas approach.’ This refers to the glitz, glam, games and animation to make the experience more engaging. Research has found these details presented that might be extraneous actually depress learning. Remember that simple and clear is more successful when learning is the primary goal.

To be successful at building a e-learning module, take time to review great examples of work that are available. See the example included on the website at the end for inspiration and ideas.

Example of great pedagogical agents and graphics/text mix. http://www.plimoth.org/media/olc/intro.html
Select Bibliography


Lowenthal, P. R., Wilson, B., & Parrish, P. Context matters: A Description And Typology of The Online Learning Landscape. In M. Simonson (Ed.), *32nd Annual proceedings: Selected research and development papers presented at the annual convention of the Association for Educational Communications and Technology*. Washington D. C.: Association for Educational Communications and Technology, 2009.


Visit www.kytnresearch.com/rt2012/ for more details and examples of developed e-learning modules.

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