

Mitigation against e-learning obsolescence

Overview of the e-learning development dilemma

The biggest problem with e-learning that most companies face at the moment is keeping it up to date. Curiously enough, not so long ago the problem was getting companies to even consider using it. Obviously a lot of the obstacles that prevented the move from the classroom to the Net have now been overcome. Interestingly though, and the reason for this paper is that the traditional “classroom solution” is still seen as the panacea of all training ills related to end-user performance for business systems. This is simply because companies do not currently possess the means or technology to easily maintain e-learning content. ELI has found, while working with dozens of blue chip companies that have world class e-learning systems developed using products like Oracle’s User Productivity Kit, that training departments still need to offer classroom events to users of their Enterprise Resource Planning (ERP) systems. These events are provided as a way to overcome the natural obsolescence that creeps into e-learning training content. In this paper we examine the reasons for the continuing trend of reverting back to classroom events, and propose cost-saving solutions as an alternative. It should be said that there is nothing wrong with classroom training and it is a very good way of teaching processes and process changes. E-learning is excellent for task-based-systems training and marries well with electronic performance-support systems. The tragedy is that companies have spent vast amounts of money on excellent e-learning content to support users, only to let it fall into disuse. It seems an enormous waste to let content become discarded due to maintenance difficulties. The good news is that ELI has developed and pilots a solution which avoids this waste and increases user adoption.

Reasons for growth in e-learning within the ERP and business applications market

The main reasons for the growth in adopting e-learning solutions today are: improvements in network speeds for delivery; lower storage and IT infrastructure costs to host content; ease of topic development and inter-operability with online help and LMS systems; and the availability of generic, off-the-shelf ERP training courses from companies like Oracle, who offer thousands of excellent pre-built topics to accompany their suite of products. Many system integrators provide complete e-learning solutions as part of the customers’ implementation package, as it is a quicker and easier way to manage the training. Added to this, Oracle is aggressively selling and bundling UPK with Application License sales. It is reasonable to expect that SAP will adopt the same aggressive sales policy as Oracle, now it has acquired Datango, a direct competitor to UPK.

The good thing is that Oracle and other companies are selling more and more e-learning licenses with the sales of their application products. Consulting firms are bundling in UPK content development or selling generic UPK content as part of their implementation deals. So users are getting exposed to quality solutions, but little thought is given to maintenance of the end-user content.

The problem of growth in e-learning and its impact on training departments

Companies only think “Develop and Deploy.” Once the consultants have gone or the pre-built content sale has been made, customers are on their own and don’t seem to have the means or focus to maintain their e-learning asset until its usability has devalued to the point that it should be written off. Similarly the popular fixed-price, fixed-time projects do not provide for sufficient knowledge transfer to enable the customer to develop and maintain their training content. Often the content is developed at the UAT stage and never updated. In as little as six months after go-live, users are already complaining that e-learning topics are out of date and they are no longer an accurate reflection of the business, but there is no budget to update them. There is no sign of a slowdown in growth of e-learning; studies indicate that there will be an increase together with an emerging trend towards

outsourcing with low-cost content development providers (Content Factories). In addition to content-development outsourcing, IT departments will seek to have content maintenance bundled as part of the overall cost cutting and head-count measures that IT directors are endeavoring to make. This is a perfectly logical move by companies seeking to reduce costs. Some companies are now starting to awaken to the fact that if they have expanding libraries of e-learning content, then they need to maintain them and look at outsourcing as a low cost alternative to using internal staff for this. The risk mitigation for content obsolescence is to outsource at a fixed price per topic to firms who specialize in this service. ELI has seen this approach at a number of clients who used offshore firms for this purpose but has seen that skilled content developers were still required on-site to complete the work. In most cases offshore development was a false economy since the companies' Super Users had to spend too much time on editing, revising and improving the delivered work. This issue is not the fault of the content providers but rather the immaturity of the off-shore, content-development market. The flaw is in the development process. One can compare the results to a builder constructing a house to specifications where he provides the foundations, walls, roof, doors and windows but none of the interior finishing work has been done. The house can be said to have been built, but there is still a lot of work to be done before you can enjoy living in it. ELI with its Europe-based development team offers a successful model to content development and support as it combines on-site analysis and final editing with off-site development. This approach works equally well where the on-site component is a partner company using ELI's Accelerator suite tools.

UPK Market Observations

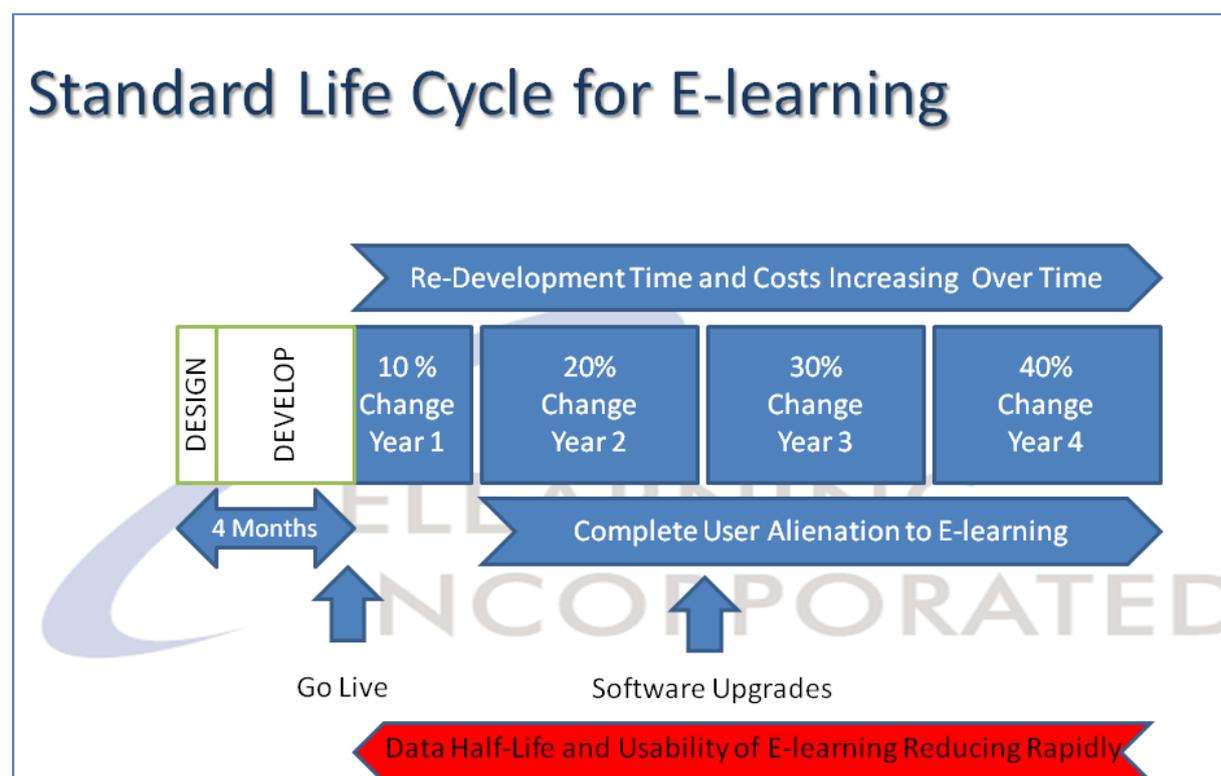
During 2011 ELI observed and participated in a number of UPK implementations to support the rollout of companies' business systems. What became apparent, while selling ELI Accelerator products to Oracle ERP customers, was that a number of companies that had previously deployed e-learning as part of their original System Integrator's rollout were now concerned about its effectiveness to support their end users. In all cases this was due to the fact that users were not happy that the content had gone out of date. Additionally, training managers did not have the budget or resources for maintenance and thus sought low-cost, easy-to-maintain, content-development tools as replacements.

In these cases the training managers had to put a "band-aid plaster" over the sore of out-of-date content by scheduling classroom training events. ELI found that there were a number of factors that accelerated the obsolescence of e-learning content and caused managers to give up on maintaining e-learning topics. Some of these factors are:

- The half life of data is becoming shorter and shorter; therefore content is going out of date more quickly.
- The amount of new information and data used in businesses is growing so fast that it is becoming unrealistic to try to train people to remember information anymore. Users want accurate help at the point when and where they are using the application.
- E-learning development budgets only provide for the creation of content, not keeping it up to date. WHY? Because management currently believes maintaining means re-developing. There has been no easy cost-effective tool or way to simply change and maintain electronic content
- The trend is for systems integrators to offer fixed-price, fixed-scope projects that provide Oracle User Productivity Kit (UPK) or e-learning content but leave the customer without the skills or budget to update it.

- The software that has been used to update and maintain screen shots in e-learning is extremely user unfriendly.
- E-learning development software is designed to produce disposable training courses. You create a topic and if it gets out of date then you simply have to replace it with a new one created from scratch.
- External content developers would rather develop a new course than try to update an existing one owing to the problems that updating has entailed. This therefore perpetuates the problem of throw-away content.

If we examine current beliefs about the longevity of e-learning content then we can see that it will take two years or more before the effective use of the content becomes questionable. After the hiatus of an ERP implementation two years seems a long way out on the horizon. However the reality is that this obsolescence period is beginning considerably earlier than we imagine.

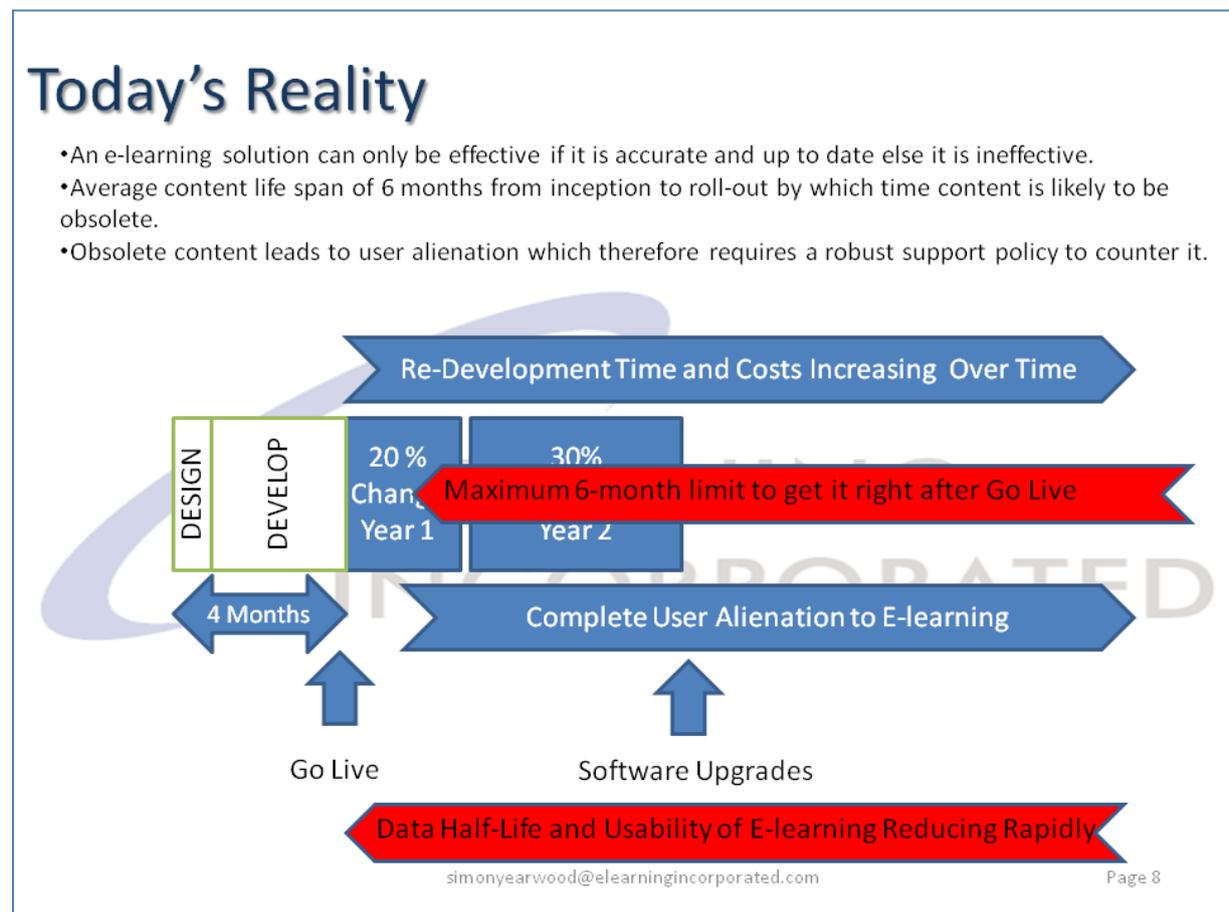


Evidence of this appears when interviewing end users as part of training-content evaluation or software upgrades. ELI has frequently found that users do not trust and rely on the training content provided as their first point of help when they have a moment-of-support need. Currently there is a serious trust issue between users and training departments within organizations where content is out of date. ELI has seen many organizations face a crisis in the whole area of user adoption of e-learning, due to staff suffering from progressive alienation caused by the prolonged exposure to obsolescent content.

Software vendors and implementation companies exacerbate the situation by not addressing this issue either. Traditionally, they have identified challenges and sought to provide solutions, which in the case of e-learning is in some ways surprising since maintenance of content is one of the great consulting opportunities around at the moment. The reality is that they have not yet found a solution that they can provide to customers.

One requirement is to be able to rapidly transform images used in training content into images that can store and publish multiple data sets. Another requirement is to make simple screenshot edits just that – SIMPLE. Screenshot editing must be intuitive, easy to do, flexible and repeatable. ELI has developed such tools in response to the need. They provide the only way to make the job easier for the developer and a practical and cost-efficient solution for the customer. ELI tools make the perfect companion to UPK, expanding its language support, speeding up development and simplifying editing, thereby making a difficult job easy. The issue faced by content developers is that development tools are focused on the end-user experience and completely ignore the importance of developer-tool usability.

The Accelerator suite of products is aimed at making the developer’s job easier, the training manager’s budget stretch much farther and e-learning accepted or even preferred by the end user.



Today’s reality is that it takes less time for end-user alienation to emerge. In practice if the content has not been maintained by the end of the first year after go-live, then it is going to be ineffective. The reason content shelf- life is becoming shorter and shorter is the diminishing half-life and the growing volume of data. Another factor to remember is that the count-down to obsolescence starts when development is completed, which is frequently some months before go-live. Add to this the phased releases of software functionality and we find that there are changes to the system for 6 months or more after go-live.



This whole area of content obsolescence is the biggest stumbling block companies face at the moment in being able to move from on-line learning and support to a true blended approach of performance support integrated with well maintained e-learning topics. As education specialists, this is the summit we have in our sights. Elearning Incorporated with our Accelerator Suite of products provides the vital base camp from which the final ascent to reach the summit can be launched.

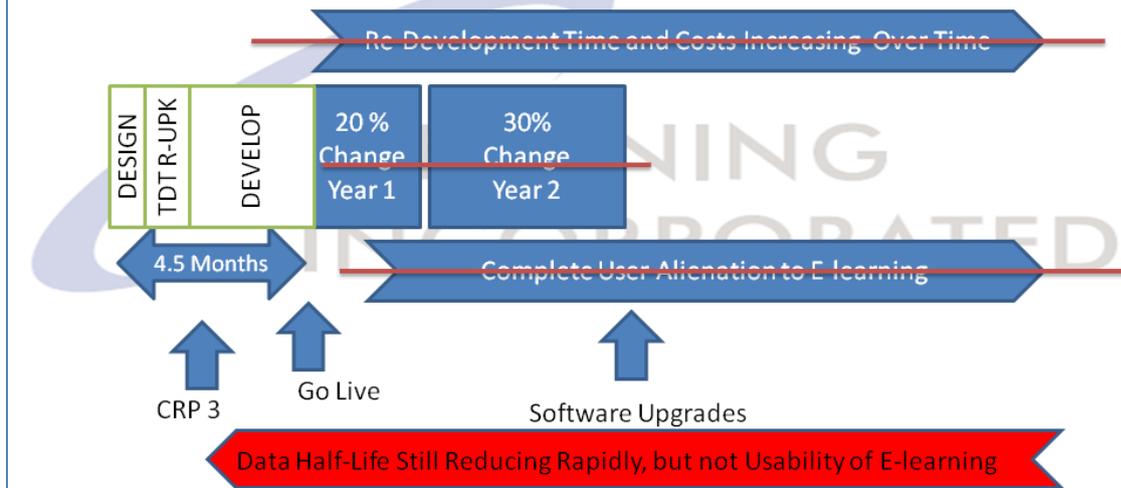
UPK and the Accelerator Suite a perfect product combination

Elearning Incorporated developed its Accelerator Suite (R-UPK, Edit UP and TDT) to provide the missing SOLUTION to content obsolescence and low-cost maintenance. In this white paper we explain how to use a simple methodology to combat constant changes in information. We will also show how R-UPK can be used as a perfect extension to UPK to help provide the initial technical solution. By starting the content development stage earlier -- at the CRP stage rather than at User Acceptance Testing (UAT) -- and using UPK to prototype the system, enormous time-savings can be enjoyed. UPK provides a comprehensive set of testing functionality that is perfect for the testing process. ELI recommends that companies start using UPK as early as possible, even before data and configurations are setup. The key point to remember is that if UPK is used to demonstrate and prototype the system requirements, then the content should be developed in a format that will be used moving forward through the different phases of the project. R-UPK makes it easy for this to be accomplished.

Until the introduction of R-UPK, the use of mock-up screens involved having to use Power Points and picture editors to try to reproduce the screens that would be used in the system, once it had been populated with data. R-UPK can take UPK recordings and populate blank screens with data (even when there is no data yet in the system). The advantage of using the Accelerator Suite at the early prototyping stage is that the work done during the design stage can then be used in the pre- and post-go-live training phases of the project. The time and cost of maintenance is dramatically reduced. As data changes, it can be simply updated from a spreadsheet and no technical resources will be required. Prototyping can be done with real screens and these can then be used to create a foundation of reusable content. Recorded transactions can be republished to support other lifecycle phases of the project, such as training and performance support so that customers gain an immediate advantage.

The Accelerator Suite Effect

- User satisfaction from Day 1
- Cost savings of up to 30% or even more per year
- Minimizes the risk of user rejection due to out-of-date content - Puts you back in control
- ELI products enable the development phase to start earlier allowing ample time to develop high quality support materials ready for go live.



By changing the development approach and combining the Accelerator-suite products with UPK, redevelopment time is reduced, user adoption increases, and/or alienation is not experienced. The impact of data changes are not felt and training management has more flexibility to customize the data for different groups of users.

Scenarios for the use of the Accelerator Suite.

The current methods of updating the screen shots used in UPK is a painful experience. Although some developers adapt to using Paint or other tools, none is designed specifically with topic-editing in mind. It is time consuming to keep on taking screenshots and then paste them back into instructor guides; even more so with e-learning background screenshots. One of the great benefits of using R-UPK at the design and conception point is that you can recognize in advance which fields are at risk of becoming out of date and plan accordingly. For example: Customers, Suppliers, Currency, Look Up data, Staff Names, Codes, Banks, Locations, Items, Document Reference Numbers, Accounting segments, etc. will all change. Training materials based on US systems don't transfer easily to the UK or Europe and this reduces the benefit to end users. Some time ago, ELI worked on a project where we had to replace all the GL screens in UK-developed materials for a US rollout, since the first segment of the account code differed from the UK to the US. Every screen shot had to be changed. Had the client been using UPK, we could have used R-UPK and simply added some re-editing time to "accelerate" the images. The GL account information could then be easily changed on all screen shots to match the training location and scenario. With R-UPK, the training materials could then be updated with the account codes for any other country in a matter of minutes.

Companies can protect themselves against the content obsolescence if they recognize in advance that within 4 years the original content data will be mostly out of date. This will result in training departments no longer using the UPK topics, as end-users will complain that it is not accurate. The investment will be a total loss. A major UN organization has over a 1,000 UPK topics in a central repository that are not being maintained, as they do not have the budget to do so. The System



Integrator did a great job at the outset but has long-ago left the site. The budget has also disappeared, with the result that the materials are now been replaced by NEW Captivate or Camtasia content developed in local offices.

According to research by Charles Jennings and others, the half-life of information is becoming shorter and shorter and the memorization of information becomes less and less feasible as a result. As a result it makes enormous sense to maintain training materials. Users cannot be expected to remember the vast volumes of data and transactions that they use, so they must depend more and more on the application's help function as a guide. Users prefer accurate electronic content rather than classroom teaching to help support them at their "moment of need" when doing their job. Electronic Performance Support (EPS) is designed to offer this; accurate, up-to-date UPK topics are a vital part of EPS.

Training content delivered as part of a cloud-computing solution requires more maintenance than intranet-based content. It has to be up to date and requires more diligence and effort to maintain. With the use of Accelerator Suite templates and other functionality, maintenance of cloud content is made easier.

The Accelerator-suite methodology allows time during the analysis phase to review and earmark which data fields or objects contained in any content are at risk of change. Topics containing these items will need to be maintained to prevent them from becoming redundant as training tools. ELI with R-UPK allows a one-time 30-minute to-60 minute increase in the estimate of Analysis and Development time per UPK topic. This represents an increase of less than 10% in the development time, but savings are well over 25% per year on maintenance and development costs thereafter. Accelerator-suite tools are used for development productivity as well as maintenance and support productivity. They are especially valuable where companies have large libraries of content and are facing problems keeping them up to date.

Specific Examples of Accelerator Suite work.

Upgrade of Oracle EBS 12.0: Extensive use of screen-shot replacements plus image editing where topics required updates but the data was no longer available in the system to re-record. Use of the Accelerator suite enabled this International UN Organization to retain all the developer annotations and bubble texts without having to record again. Changes in the display-field order in many screens had occurred but with ELI's simple editing tools we were able to upgrade the topics with minimal recording in UPK.

A major British publication company required a new set of training topics to be developed for the roll out of Oracle Financials to the United States. ELI was able to take the existing UPK training documents and with its Edge Technology (Accelerator Suite) update the UK-specific data items like Fixed Asset book and other accounting information to US data. This provided the customer with a huge time savings by avoiding the need to create new materials in UPK.



Principal Features of Accelerator Suite products

All Accelerator Suite products use ELI's proprietary Edge technology. The user clicks on any field or other defined area of the screenshot. The tool fits a mask over the field, picks up the background color and uses OCR to recognize any existing text and make it immediately editable.

Edit UP

Edit UP operates on one image or screenshot at a time. It is the preferred substitute for MS Paint as the in-line screenshot editor for UPK but it can also be used in stand-alone mode to edit any image.

Editing functions available in Edit UP include:

- Edge technology to mask fields and other areas
- Change the text, fonts, background, colors and borders of masks.
- Save masks for reuse on the next screenshot.
- Capture screenshots and import as images.
- Place a mask on a screen shot to OCR the text.
- Select an area of the screenshot as an image and copy it or drag it to another location.
- Save an image to the library.
- Paste an image from the library.
- Add shapes (objects) to the screenshot.

When edits are saved, they are rendered seamlessly into the screenshot.

R-UPK

R-UPK is 100% compatible with UPK and is a value added efficiency tool and not a replacement for UPK. It allows the user to edit complete topics and sections; then return them to UPK. In addition to all the Edit UP features listed above, the user may link the contents of masks (fields) to columns in external Excel files; then to substitute other datasets from Excel directly into the screenshots. This allows users to edit topics without the need to become an expert UPK developer. Masks can be copied and reused from one screen shot to another so that updating one copy will update them all. Additionally, mask files may be saved as templates for re-use on other topics. Topics may also be exported from R-UPK to TDT format (see below).

TDT

TDT provides all the features a developer of training or technical documentation may need except that it is not designed to work with UPK. Otherwise, it includes all of the features listed above for Edit UP and R-UPK. In addition, the user may import images from stand-alone files, from PowerPoint, from videos, from XML files, from other TDT projects and from exported R-UPK topics. Full audio and time-line functionality is included. TDT projects may be published to Flash, as Windows-executable files, or as Word documents. Individual slides may be exported as PNG images.



See how and find out more from Elearning Incorporated

For further information on how to boost productivity the Accelerator Suite or UPK contact Elearning Incorporated

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