Developing Telecommunications eLearning modules: Flexible performance support

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Abstract:

This paper explores how the application of a user-centred design consultative process, together with innovative and effective use of the Telstra eLearn platform, has enabled the delivery of highly successful performance support solutions for Telstra field and technical support staff around Australia during 2007 and 2008.

1 Background

Development of meaningful eLearning materials has become critical for many organisations in the corporate space, particularly those whose workforce is spread over huge geographical areas. Perhaps even located in different countries, and/or different campuses.

The Next G™ network is providing rural and regional customers with their first-ever taste of broadband connectivity. The Next G™ network's coverage has been extended to offer mobile broadband access to 98.8 per cent of the Australian population.

Telstra’s Next G™ network offers the best breadth and depth of third generation mobile coverage in Australia covering two million square kilometres.

Day to day workplaces for Telstra Field and Communications technicians, for example, would have to be in some of the most isolated and inhospitable regions of the world.

They can be out of contact with civilisation, as we think of it, for weeks on end. (Perhaps a good thing…?)

Figure 1. Field staff

Figure 2. Local inspectors!
2 Audience

So, in terms of training, online modules, usually of a technical nature, can be a vital resource in training this far-flung workforce in the maintenance requirements of new telecommunications initiatives where they will be the critical first and second line of support. The main audience for online training are:

- Wireless engineering and operations staff - managers, field technicians, technology specialists, activation and assurance specialists, integration specialists.

Whilst Next G programme staff - programme and project managers, process and training primes, business analysts, instructional designers also need to be catered for.

These are the technical staff charged with undertaking 1st, 2nd and 3rd level support across Australia. They need to be constantly up skilled to be able to provide timely and effective support solutions if and when required.

This presentation will give an overview of how experienced contracted training and development instructional designers from the Wireless and Network Operations business unit within Telstra Corporation have managed the:

- Development and delivery of telecommunications work-related, interactive online modules, containing simulations, voice overs and on-line learning checks, to a highly technical target group around Australia, who provide 1st, 2nd and 3rd level support to hundreds of thousands of customers using 3G network and wireless devices around Australia.

So – what process has been followed?

Through intensive and ongoing consultation at all levels, we (instructional designers/training primes):

2.1 Identify

- eLearn module training requirements and gaps from Project documents and consultation
- Process changes that will require training from Project documents and consultation
- Stakeholders
- Target audience (Process documents contain a list of impacted workgroups) - demographics of their roles – as seen in Figure 1.
  - Survey/consult target audience to identify knowledge gaps – Training Needs Analysis process
  - Collate feedback and results
2.2 Determine

- ELearn modules that need to be designed and their curricula
- SMEs best placed to act as consultants
- Content to be included
- Determine availability of funding – who pays!
  - Line of Business
  - Project
  - Opex
Capex

- Amount and availability of funding and source/s – becomes extremely critical when projects don’t have funds allocated for training

### 2.3 Gather content

An important part of determining content is to gather as much information as possible that is relevant to the ELearn modules proposed for development.

This is accomplished through a variety of processes, including:

- Researching the organisation’s knowledge base/archive system
- Contacting the Operational Readiness prime designated as part of the project team

If an OR prime hasn’t been allocated, discuss with stakeholders and project leaders

### 2.4 Develop

- An LMO – Learning Module Outline

![Learning Module Outline](image)

Figure 5. Learning Module Outline

- Content and storyboard document, as seen in Fig. 6
2.5 A reality check

The landscape of the corporate workplace is often not a very friendly place to survive and work in. Generally the larger the corporation, the less user friendly it can be to work within, attempting to understand and survive internal politics, among other hurdles.

Reality is that there is often an unwillingness and wariness to work across business units. Sometimes there is an initial kick-off meeting, with the main internal sponsor, project manager and stakeholders present to commence to strategies and scope the project.

This may or may not be a successful beginning, depending on a vast array of internal business factors. In terms of eLearn development, it’s always an enormous positive to be able to secure funding. It seems there is always a greater willingness to participate, and give cooperation and knowledge more freely when funding is assured.

2.6 Communications

We have developed and implemented a very effective additional use of the eLearn delivery platform, where a vendor, in conjunction with a Telstra initiative, develops the communication content, and the materials are loaded as course content, and delivered as “learner self-enrol” sessions through Learn.Achieve, the Telstra eLearn delivery platform.

The sessions will be created as “learner self-enrol”, so that team leaders and managers can enrol their staff, or learners can enrol themselves.

The project team promotes the course code to the managers and team leaders of the target groups. The team can then monitor and manage the consumption of the project communication via the reporting available in Learn.Achieve, the eLearn delivery platform.

2.7 Signoff

- Signoff from key stakeholders
- Build
- Build the module
- Review
  - Final review and signoff prior to release, seen in Fig. 7

Figure 7. Meeting notification for review and signoff

### 2.8 Deploy/release

Training events on appropriate platforms, as seen in Fig. 8.

Figure 8. NGWL Fax Overview online module release notification

### 2.9 Manage

and administer training events, including:

- Online enrolment sessions for self & manager enrolment of participants.
2.10 Maintain

A regular update process to review & update content to match current firmware release.

2.11 Competency

A critical component of the development of technical online modules is the development of relevant learning checks. The business needs to know that staffs who complete these modules will be taking new skills and competencies back to their workplaces.

Competency learning checks are developed in conjunction and consultation with highly experienced technical Subject Matter Experts, ensuring that staff successfully completing these checks will be competent enough to apply their new knowledge and skills in their work environments.

Depending on the nature and technical complexity of the content, we have generally been able to design Learning checks are designed to be interactive, including voice overs, and to be completed online.

Where appropriate delivery platforms are unavailable, paper-based versions are made available through the document management system, email, and/or delivery on CD.

Field staff are increasingly being wirelessly connected via 3G modems, laptops and GPS units, to enable them to access the intranet and internet from even the remotest locations in outback Australia.

2.12 Recent eLearn module

Some examples from a recent eLearn module, NGWL for Fax Overview, an introductory package that provides learnings about product features, technical solutions, activation, billing and assurance processes.

Screen shots of the:
- Welcome screen,
- Interactive Learning Checks with rollovers and multiple choices.
Figure 10. NGWL Fax Overview – Introduction screen

Figure 11. NGWL Training Programme

Figure 12. NGWL Fax Overview – Learning Check with rollovers
3 Summary

A continuing consultative process to develop technical training solutions, incorporating simulation and interaction, together with innovative and effective use of the Telstra eLearn platform, will ensure that Telstra Corporation’s field work staff remain competent in all emerging and changing technologies as continual enhancements keep being deployed to Telstra 3G networks to benefit customers in all facets of Australian life across the vast expanses of the country.

References:


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