Response to Request for Proposal issued by the Pennsylvania Department of First Responder Security

Security Awareness Training for Railroad, Airport Cargo, Ship Ports and Truck Terminals

April 2, 2007

Élan E-learning Corporation
575 Elan Place
Conshohocken, PA 19428
April 2, 2007

Mr. Karl Kapp  
Chief Information Officer  
2221 McCormick Center  
Harrisburg, PA 17104

Dear Mr. Kapp:

On behalf of the skilled team at Élan E-Learning Corporation, I am pleased to offer this response to the Pennsylvania Department of First Responder Security’s Request for Proposal titled *Creation of Security Awareness Training for Railroad, Airport Cargo, Ship Ports and Truck Terminals*. Our proposal meets the requirements set by the Request for Proposal and is effective from April 2, 2007 until June 29, 2007.

Upon review of the Request for Proposal, our team developed a plan for a comprehensive two-phased training program titled PA PATROLS. PA PATROLS includes the integration of online learning and a multi-learner online role play environment. The PA PATROLS project plan outlines the development of six web-based e-learning modules, as well as five instructor-led lessons in the virtual environment *Second Life™*.

Élan specializes in the creation of security-related training solutions. As implied in our name, which means “enthusiastic vigor and liveliness,” we are a dynamic company who believes that infusing energy and vitality into effective instructional strategy is the key to teaching and engaging learners. A recognized leader in the e-learning field, we have created effective solutions for organizations such as the Pennsylvania Department of Public Welfare, Maryland Department of Transportation, and Procter & Gamble. We also recently completed a training solution concerning the implementation of a Three-Dimensional business environment for IBM. I believe you will find Élan’s approach unique and effective for solving your training need.

The team at Élan is looking forward to meeting with you on April 19, 2007 to discuss our plan in further detail. If you have any questions or concerns, please do not hesitate to contact me by phone at (610) 834-1520 or by e-mail at nroska@elanelearning.com. We are looking forward to partnering with the PDFRS to make our state a safer place.

Sincerely,

Nancy L. Roska, President and CEO  
Élan E-Learning Corporation
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Executive Summary

Understanding of the Scope

Due to a high risk of terror-related incidents, the Pennsylvania Department of First Responder Security (PDFRS) has a need to train 2,000 statewide security personnel in and around major transportation areas regarding how to identify suspicious objects and individuals. The PDFRS requests a two phase solution utilizing an interactive e-learning environment for Phase 1 and a 3D virtual environment for Phase 2. The serious nature of the problem demands a skillfully woven solution integrating the online and 3D environments in an instructionally sound and motivating manner. The PDFRS seeks a vendor with proven expertise in security instruction, e-learning, and virtual environments to design and implement the solution.

Overview of the Solution

Élan proposes our two-phased solution titled Pennsylvania Personnel Awareness Training and Reality-based Online Learning Solution (PA PATROLS). Phase 1 training consists of six self-paced modules built in an interactive e-learning environment. The learners will be required to complete two “all-required” modules and one specialty module that corresponds with the individual’s line of work. Phase 2 will utilize the internet-based virtual environment Second Life™. Learners will be put into groups of ten and will be led virtually by an instructor through one “all-required” module and one specialty module. These modules will correspond with the modules in Phase 1. Training for the virtual instructors will be designed and implemented by Élan.

Instructional Solution

Élan will create PA PATROLS using sound organizational and instructional strategy to teach and motivate learners. For Phase 1, use of relevant media, such as audio, life-like graphics, animations, and video will facilitate transfer of knowledge to Phases 2 and 3 and work environments. Phase 2 will include a virtual environment with familiar characteristics to the learner’s work environment. Teaching the learner in small groups will allow role-play/scenario exercises for application of knowledge learned in Phase 1. A virtual instructor will provide feedback and learner accountability. Full assessments will take place in all modules for both phases. Two “Train the Trainer” modules will be created to train the virtual instructors.
Technical Solution

Phase 1 of PA PATROLS will be built using HTML pages with flash animations, life-like graphics, video, and audio embedded where appropriate. The HTML pages will be delivered through Plateau 4, our Learning Management System (LMS). For security purposes, our LMS can be accessed through a secure extranet network using a Virtual Private Network (VPN). Phase 2 will be built on a private island in the Second Life online virtual environment. Phase 2 will be password protected and only authorized users will have access to the training environment.

Project Management, Schedule, and Deliverables

Élan’s experienced team is made up of three departments and will be managed by Sr. Project Manager Kathryn Rebilas, M.S.I.T, P.M.P. The Instructional Design team will be lead by Sr. Instructional Design Director Asmahan Akam, M.S.I.T. The Development/Technical team will be lead by Sr. Technical Director Weitian An, M.S. The Multimedia /Virtual Reality Specialist team will be led by Sr. Multimedia Director Jacob Naylor, M.S. The PA PATROLS team leaders will meet weekly to discuss this project, both with each other and with their respective departments. Ms. Rebilas, Ms. Akam, Mr. An, and Mr. Naylor will meet with the PDFRS bi-weekly to discuss project progress.

The PA PATROLS project will begin on 5/10/07 with a kick-off meeting in Harrisburg. Élan will deliver a needs analysis, content outlines, design documents, storyboards and scripts, interface template, and each module and its content and multimedia components upon development. The beta version will be available for testing on 9/28/07. The final delivery date of PA PATROLS is estimated to be 10/18/07.

Budget

The total price for the creation and implementation of PA PATROLS is $514,770.
Kick-off meeting, Analysis, Design, Interface Development: $120,010
Phase 1 Training Development: $149,270
Phase 2 Training/“Train the Trainer” Developed: $188,650
Implementation and Evaluation: $42,900
Technology, Travel, and Train the Trainer Implementation: $13,940
Post-Implementation Monthly Costs: $1,000

Corporate Capabilities

Élan E-Learning Corporation, an e-learning leader with expertise in security instruction and experience utilizing 3D virtual environments, has developed security training for government organizations such as the Pennsylvania Department of Public Welfare, VEMA (Virginia Emergency Management Agency), and the Maryland Department of Transportation. We have created security personnel training for highway rest stops, airports, and harbors. Recently, we created training outlining security measures for IBM employees using Second Life.
II

Understanding of the Scope

The Pennsylvania Department of First Responder Security (PDFRS) is responsible for assisting statewide organizations in security measures and procedures in order to lower the threat of terrorist-related acts. It is the duty of the PDFRS to develop, train, and coordinate first-responders, including security guards in major transportation portals. Due to the serious risk of terror-related incidents in and around major United States transportation portals, the PDFRS has a need to issue large-scale training for approximately 2,000 security personnel in and around major Pennsylvania transportation areas, including airport cargo terminals and hangars, truck stops and terminals, railroad yards and cars, and shipping ports. The training should educate and empower the learners to identify potentially threatening people, objects, and situations, and should do so in a timely manner. The requested training requires a two phase solution using an interactive e-learning environment for Phase 1. Phase 2 should utilize a life-like 3D environment to enhance learner transfer of knowledge from the training environment into the workplace. Due to the serious nature of the training need, the PDFRS needs a skillfully woven solution combining vital security skills, concepts, and procedures with an interactive and motivating learning environment. To fulfill this responsibility, the PDFRS seeks a vendor with a history of proven expertise in the creation of security instruction, as well as demonstrated skill in the e-learning and 3D virtual environment field.
Overview of the Solution

In response to the PDFRS’s training need, Élan E-learning, an e-learning company with expertise in security instruction and experience utilizing virtual 3D environments, propose the design, development, and implementation of our two phased learning solution titled the Pennsylvania Personnel Awareness Training and Reality-based Online Learning Solution (PA PATROLS).

PA PATROLS is an instructional program consisting of 2 phases. Phase 1 training consists of six modules and will be created in an interactive e-learning environment. Each of the 2,000 learners will work in a self-paced manner through the two “all-required” modules and one specialty module that corresponds with the individual’s line of work. Learners will be assessed at the beginning and end of each module for the determination of change in learner behavior.

Phase 2 will allow learners to apply the knowledge gained from Phase 1 by utilizing the life-like 3D environment Second Life™. All modules of Phase 2 will be led by a virtual instructor and will include groups of approximately 10 learners in each session. Phase 2 will include a second-life orientation and an application exercise of the “all-required” from Phase 1, as well as a longer exercise corresponding with the individual’s line of work. Assessments in Phase 2 will include group-based scenarios. Each learner will have individual tasks that must be completed within the group context and will be graded by observation of the virtual instructor. A time for feedback and de-briefing will follow each assessment session.

Élan E-learning has extensive experience in the security e-learning field, developing and implementing several projects similar to the PDFRS’s training need. After reviewing the required modules and topics in the RFP, we believe that the requested content adequately encompasses Pennsylvania’s most important safety concerns. In order to enhance the learning outcome, we propose the following changes in content organization:
- Combining the modules titled Basics of Secure Site Inspection and Safe Motor Vehicle Guidelines due to their congruent topic matters.
- Including the content from the module titled Securing a Potentially Dangerous Area within the context of the specialty modules listed below, rather than in a separate learning module. Since each of the four specialty environments is unique, each specialty area’s potentially dangerous areas would also be unique according to the transportation type.
- Adding two specialty modules, one to cover shipping port safety and one to cover truck stop and port safety. Our reasoning behind this recommendation is that in the RFP, PDFRS mentions that they want transportation covered in four major areas of airport safety, railroad yard safety, shipping port safety, and truck stop and terminal safety. Of the modules listed in the RFP, only railroad yard and airport safety are specifically covered. We feel that the construction of these two additional modules would meet the need of PDFRS to train the employees in all four areas.

Given the above conditions, we propose the content in PA PATROLS be organized in the following manner:

**Phase 1 Training: Interactive E-learning Environment**

Required for All Learners

- Basics of Secure Site Inspection/Safe Motor Vehicle Guidelines
- Security Guidelines for the Transportation and Distribution of Meat, Poultry and Egg Products

Specialty Modules: learners will be assigned at least one according to their line of work.

- Railroad Terminal Safety
- Air Security for Transported Items
- Shipping Port Safety
- Truck Stop and Truck Port Safety

**Phase 2 Training: Group-Based Training using Second Life**

- Instructor-led Virtual Training including Orientation to Second Life, application exercise related to “all-required” modules, and exercise related to appropriate specialty module

Phases 1 and 2 of PA PATROLS will align to standards set by the PDFRS to effectively prepare learners for the Phase 3 training exercises given by the PDFRS.
Phase 1

Each of the six Phase 1 modules will include:

- Lesson Introduction and Objectives
- Navigation Diagram
- Pre-assessment
- Interactive Lesson Content
- Examples and/or Simulations
- Practice Exercises
- Summaries
- Assessments (Measuring Change in Learner Behavior)

Learners will have the chance to learn by reading, listening, and seeing. The content will be interactive in that learners will be required to respond to the information by clicking, typing, or other appropriate actions. They will see examples and/or simulations of the information being taught. Learners will also have the chance to practice the skill that they are taught through exercises. These exercises may start out simple, and grow increasingly complex to ensure understanding. A summary of the material will be given upon completion of practice exercises and an assessment of the knowledge gained will end each module. All assessments will provide feedback upon completion.

We believe that e-learning should not only teach, but also can empower the learners to take appropriate actions. Built into our e-learning materials are learner motivation features that will pique learner interest and create an enjoyable interactive experience. Some examples of motivational features are situationally-relevant explanations, examples, and exercises. Additionally we utilize life-like images and flash-based examples, simulations, and activities that require the learner to interact with the computer and the material. Video may also be used, not only to illustrate visually, but also to emotionally engage the learner with the material at hand. We feel the more closely we can relate the learner to the material, whether through context or interaction, the greater the change in learner behavior will be.

Élan recommends the occasional use of video embedded within the Phase 1 training modules to show life-like examples, scenarios, and procedures. We feel that video is an invaluable tool that can not only show realistic images, but emotionally connect the learner to the content for greater material relevance. Due to the relatively high cost of video production, we would like to make this feature optional. If the PFRS chooses not to utilize video, we will work with the PFRS to reduce the budget appropriately. Élan will use still images and flash animations to convey situations and will work to make them as realistic as possible.

Phase 1 will be taken by only the individual; no group activities will be included in Phase 1. It is important for learners to grasp the information being taught on an individual basis before applying it in a group setting in Phase 2.
Phase 1 will be offered as self-paced online instruction, as opposed to an online instructor-led environment. We feel self-paced instruction allows learners the chance to take as much time as they need to explore the ideas being taught. It also allows the PDFRS to save the time and money it would cost to hire and train instructors to conduct sessions for 2,000 learners. Due to the one hour time regulation per module, timing controls, such as timed video and audio clips, and disabling the move forward button until exercises are completed, will ensure a completion time of one hour per module.

See Figure 1 for a screen shot of the Phase 1 login screen.

For Phase 2 of PA PATROLS, Élan proposes the use of the Second Life 3D environment, which is an established, commercially available multi-user online role-play environment. Second Life has recently developed a popular standing in the corporate world. Highly successful companies such as General Motors, Toyota, Dell, Cisco Systems, Sun Microsystems, Reuters, Circuit City, and, IBM, who owns twenty-four Second Life islands, all have established a presence in Second Life. Several of these companies use Second Life to train consumers about their products in ways that real-life can’t allow. For example, Dell advertises their SP700 computer by allowing the
user to fly through an oversized version and view all of the components inside. More 
organizations are taking advantage of this relatively cost-effective platform with the prediction 
that Second Life may be the beginning of a 3D internet.

Phase 2 of PA PATROLS will utilize Second Life in order to relate the instructional content 
learned in Phase 1 to a 3D virtual replication of their everyday real-life situations and 
experiences. Environments will be built to replicate the learners’ everyday environments as 
closely as possible in order to promote the transference of executing virtual tasks to executing 
those same tasks in the real world.

Phase 2 training will take place in a virtual instructor-led setting. The term avatar is used to 
declare a moveable 3D character-representation of a user, similar to a character in a video 
game. A virtual instructor is an actual person who is using an avatar to instruct the learners in 
the virtual environment in real-time. The use of a virtual instructor is valuable for several 
reasons. The serious nature of the content demands that learners understand the exercise at hand, 
as well as complete the training entirely with minimal distraction. Use of a virtual instructor will 
provide learners with constant guidance and immediate feedback as they work through group 
exercises. Having a virtual instructor present will also hold learners accountable for their actions 
within Second Life. Second Life allows users certain freedoms, such as the ability to fly, which 
may be distractions to the learners. The presence of a virtual instructor will help to focus 
learners on the exercise and will provide confirmation that the learners did indeed participate in 
the virtual training exercises.

Phase 2 training will take place within a group context of 10 learners. The learners will benefit 
from a virtual group setting for several reasons. Because many of the security guards work in 
and around other people, a group setting will allow for a more life-like exercise. Group training 
will allow the use of valuable exercises such as role-playing and scenarios. This will engage 
learners in the training and allow Élan to tailor the training to their work environment. Groups of 
ten were chosen so that the groups are small enough for individualized attention from the virtual 
instructor, but also large enough for functional group exercises to be performed. From a 
business perspective, training the learners in groups significantly cuts down on the amount of 
hours spent by the virtual trainers actually implementing the training.

The flow of Phase 2 of PA PATROLS will be as follows:

**Preparation**

Élan will establish a number of unique, re-usable Second Life avatars. Again, an avatar is a 
graphical representation of the user that can be moved and manipulated to interact with the 
environment around it. Because these avatars will be exclusively used and re-used for PA 
PATROLS, the graphical representation may not be true to the physical description of each 
specific user. The avatars will be generic, and will be distinguished from one another by 
characteristics such as gender, ethnicity, hair color, and clothing. Each avatar’s clothing will be 
the most distinguishable feature; each avatar will wear a shirt that has a unique color and number 
on the front and back. The avatars will also have unique names.
Before beginning Phase 2, learners will be informed:

- They will be required to perform Phase 2 training in *Second Life*.
- They have been scheduled by PDFRS for group training and assessment sessions. When completed successfully, their PA PATROLS training requirement for Phase 2 will be satisfied.
- All of this must take place during work hours on a company computer.
- Of their avatar name and a password.
- An e-mail will follow giving a description and short tutorial of *Second Life*.

**Learner Sign-In**

The learner signs in to the *Second Life* client application using the pre-established avatar name and password.

**Choosing the Session**

After signing in, the learner’s assigned avatar appears on their screen. The avatar is located at its “home,” which is the entrance to the Phase 2 training environment. The learner finds his or her avatar is standing in front of five doors, labeled:

- Orientation and All-Learner Training
- Railroad Terminal Safety
- Air Security for Transported Items
- Shipping Port Safety
- Truck Stop and Terminal Safety

See Figure 2 for a screen capture of an avatar standing in front of five doors in *Second Life*. 
Before completing any other modules, the learner will first complete the Orientation and All-Learner Training Module. The avatar will open this door and walk through. The one-hour long Orientation and All-Learner Training module will be required of all the learners. Learners will be scheduled in groups of 10 according to their specialty areas. As a group, they will progress through all Second Life training together. The session will begin with an orientation to Second Life led by the virtual instructor. Following the orientation, the learners will participate in an instructor-led group exercise that applies the content learned from the two “all-learner” modules in Phase 1 training.

Upon completion of the Orientation and All-Learner Training, the ten learners will return to the five doors. The learners will choose the door assigned to their group, corresponding with their specialty module from Phase 1 of PA PATROLS. The four specialty modules will be designed to apply the knowledge learned in its corresponding Phase 1 module using scenario-based exercises. All exercises will be completed in a group environment and led by a virtual instructor.

Training Environment

As learners work through the 3D training exercises, they will find the environment to be a series of variously-sized rooms. They must complete the tasks within each room before they can enter the next room. Comparative to a maze, the learners will be guided using the walls of the rooms and the doors for entry into a new environment.
Testing

Upon completion of each Phase 2 module, there will be a full assessment of the learners’ knowledge and preparedness to move on to Phase 3. For more details concerning the assessments, see the Instructional Solution.

Training the Virtual Instructors: “Train the Trainer”

A necessary part of preparation for Phase 2 instruction is the training of the virtual instructors. We refer to this as “train the trainer”. The instructors will be 60 management-level security personnel chosen by the PDFRS. The appropriate balance of instructors from each of the specialty areas will be determined and factored into the selection process. The chosen instructors should have sufficient knowledge in the security area so as to already understand the concepts being taught in the modules. The chosen instructors will complete two training modules created by Élan to prepare them to become virtual instructors in Second Life. The training will take place in Second Life. These two modules are:

1. Instructor Second Life Orientation
2. PA PATROLS Instructor Training

The first module, Instructor Second Life Orientation (ISLO), will be an enhanced version of the learner Second Life Orientation. ISLO will teach functions of Second Life and specifics as to how instructors should manage Second Life tools in their training sessions.

The second unit, PA PATROLS Instructor Training, will briefly the instructors as to:

- How to perform training-specific tasks
- How the modules are structured
- How to manage an entire training and assessment session
- How to properly record training results

PA PATROLS Instructor Training will include group assessment at the end of training, immediately preceding the debriefing. These two training units will be completed in one 135 minute period: 1 hour designated for ISLO, followed by a 15 minute break, followed by 1 hour designated for PA PATROLS Instructor Training.

Upon receiving the names and contact information of the 60 chosen instructors, Élan will schedule and implement four sessions, one for each specialty area, to train the virtual instructors. With these 60 instructors, PDFRS will have adequate human resources to facilitate the state-wide implementation of PA PATROLS.
IV

Description of Instructional Solution

We utilize a five step instructional model called ADDIE as a framework for instructional design and development. The five steps of the ADDIE model include 1) Analyze, 2) Design, 3) Development, 4) Implement, 5) Evaluation. The integration of these five steps offers a dynamic, flexible guide for our teams to develop effective and efficient instruction. This model also provides quality control checkpoints at each step. A formative evaluation is completed at the end of each step, ensuring that only the highest-quality product is provided to our customers. Please see Figure 3 for a visual representation of the ADDIE model.

![ADDIE Model Diagram]

Figure 3

The following is the PA PATROLS instructional solution using ADDIE as a framework.

Analysis

We will conduct an analysis of the content, environments, and learner characteristics. Our experienced design team will:

- Discuss and confirm module content with the experts at PDFRS
- Conduct an environmental analysis that includes site visits to a sampling of Pennsylvania’s railroad yards, airport cargo terminals, shipping ports, and truck stops and terminals. This analysis will allow us to provide learners with visually realistic examples, scenarios, and situations in each phase of PA PATROLS.
• Analyze learners through information gathering techniques, such as survey distribution to a random sample and focus group discussions involving learners present at the site visits. The study of the learners will allow us to determine the base level of knowledge and skills contained among the learners, giving us the tools to effectively design training that will educate all learners.

Analysis Phase Deliverable: *Needs Analysis Report*

**Design**

Our design team will design and outline the content for the instruction in this phase. Tasks in this phase will include determining learner objectives, content outline, design documents, storyboards/scripts, and learning assessments. The PA PATROLS Phase 1 modules will follow the following organizational strategy:

**Introduction**

Learners will be introduced to the content and skills to be covered in the lesson. Information will be presented in a way that will gain the learners’ attention and motivate them to continue through the lesson.

**Lesson Objectives**

Learners will be presented with the measurable skills that they should be able to perform at the end of the lesson. The stating of these objectives will give learners an organized guide as to what they will be expected to do throughout the lesson.

**Pre-assessment**

Learners will perform a pre-test at the beginning of each module. This way, change-of-behavior can be demonstrated at the end of the module.

**Interactive Lesson Content**

The interactive lesson content will be analyzed by our experienced instructional designers and grouped into specific types of knowledge. Each type will be taught using sound instructional strategies. See Figure 4 for examples of instructional strategies.
Lesson content will be presented to the learner in a way that requires constant learner interaction with the information. Therefore, we propose the use of relevant media such as audio narration, lifelike graphics, video, and flash interactives in order to present the material in ways that keep the learner engaged, and enhance learning. See Figure 5 for an explanation of relevant media that may be utilized.
USE OF RELEVANT MEDIA ELEMENTS

<table>
<thead>
<tr>
<th>Media</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animations</td>
<td>Shows procedures, relationships, and can enhance visual aids for declarative knowledge, concepts, and principles. Can provide an interactive environment for problem solving, exercises, and assessments.</td>
</tr>
<tr>
<td>Video</td>
<td>Shows procedures, simulations, scenarios, and examples. Illustrates psychomotor skills. Engages learners into the content by triggering emotion.</td>
</tr>
<tr>
<td>Life-like Graphics</td>
<td>Shows examples of all areas of knowledge. Can provide familiarity to enhance motivation and comfort-levels of learners. Can illustrate life-like examples to enhance transfer of knowledge.</td>
</tr>
<tr>
<td>Audio Clips and Narration</td>
<td>Provides a personal, conversational feel to a self-paced e-learning environment. Stimulates learning through sense of hearing. Allows learner to gain more information from speaker’s tone, pacing, and pitch.</td>
</tr>
</tbody>
</table>

Figure 5

Practice Exercises

Because Phases 1 and 2 of PA PATROLS are meant to prepare the learners for the third phase of learning, which is an application of skills through a real-life exercise, the practice exercises will focus on learner application of skills through the use of scenarios. The learner will be required to choose an appropriate course of action based on the content and examples that they just learned. Scenarios may utilize lifelike graphics, audio, and video.

Summary

A brief summary will be provided near the end of each lesson to sum up what the learners have learned and how they can apply it to their jobs. This summary will allow for the learner to better mentally organize the content.

Assessment

Learners will be given assessments at the end of each lesson. Assessments will be application-based, including recognition exercises as well as scenarios and interactive activities that require
learner decisions based on lesson content. All assessment questions will measure the objectives stated at the beginning of the lesson. Assessment scores will be stored in our LMS.

The following organizational strategies will be used for **Phase 2 of PA PATROLS**:

**Objectives**

Objectives will be visible to learners upon entry to the room via a sign hanging in the virtual room.

**Briefing**

The virtual instructor will greet each learner as their avatar enters through the door. When all learners are present, the instructor will give a brief introduction to the exercises that will take place. The instructor will also cover group rules for the sessions.

**Map of the Module**

A navigational map will be visible to the learners upon entry to the room via a sign hanging in the virtual room.

**Interactive Exercises**

Each Phase 2 module will include exercises completed in the virtual environment. The exercises will allow learners to apply the knowledge learned in Phase 1. The exercises will be life-like scenarios according to the module topic.

**Assessment**

Upon completion of every Phase 2 module, there will be a full assessment of the learners’ knowledge and preparedness to move on to Phase 3. Assessments, much like the practice exercises, will be scenario-based and will be held in a group environment. Although the assessment will take place in a group environment, each learner will be given specific tasks and will be graded individually based on pre-determined criteria. The role of the virtual instructor in the assessments is to observe and issue appropriate grades to each of the ten learners. The instructor will not offer feedback to learners during the assessment.

**Debriefing**

Upon completion of the assessment, the virtual instructor will offer a de-briefing period where the learners’ actions will be critiqued. Feedback of the assessment and explanation of learner grades will be given at this time.
Transfer of knowledge and skills from the training setting to a real-life setting is crucial for the effectiveness of a training program. To enhance the transfer of knowledge, PDFRS suggested a three-phase approach that gives the learners a chance to use material not only in e-learning and virtual settings, but also in a real-life training exercise.

There are several more measures that Élan will take to ensure that the knowledge learned in Phase 1 and Phase 2 will carry through Phase 3 and into the learners’ workplaces. Life-like scenarios and examples will be used in both phases of the training. Our design team will create reality-based exercises based on the learner and environmental analyses. Another tactic to enhance transfer of knowledge will be the use of life-like video and graphics throughout Phase 1. The graphics will provide a familiar context for the learners and help them to apply the material to work environment. Phase 2 will also be structured to reflect a life-like virtual environment that will be familiar to learners. Finally, a review activity will be implemented at the end of each lesson in Phase 1 and Phase 2. The learners will be asked how the material will apply to their specific workplace. In Phase 1, they will be asked to type the answers in, and the answers will be stored in the LMS for review. In Phase 2, the virtual instructor will ask the question and will monitor answers.

Our design team’s quality assurance specialist will conduct an analysis and evaluation concerning instructional effectives and processes for all deliverables. A final sign-off on the design phase will be coordinated with the PDFRS Project Manager.

Design Phase Deliverables: Content Outlines, Design Documents, Storyboards and Scripts, Quality Assurance Sign-off.

Development

During the development phase, our experienced development team will provide the following functions in the development of PA PATROLS:

- Use the products of the design phase to create training layout and interface
- Build Phase 1 training delivery product using Adobe Professional Products
- Build Phase 2 environment in Second Life
- Build content for Phase 2 Second Life Train the Trainer
- Finalize PA PATROLS prototype
- Preparation of the secure Intranet (see below)
- Navigational quality assurance check with our development team QA specialist

Development Phase Deliverables: Interface Template, Phase 1 and Phase 2 Modules, Train the Trainer Modules
Implementation

The implementation phase will begin by placing the Phase 1 content into Plateau, our SCORM 2004 compliant learning management system (LMS). An LMS is a software package that manages and delivers online course content. Phase 1 will be hosted by Élan on our secure dedicated server hosted by Network Solutions. A secure intranet/extranet network will be set up and Virtual Private Network (VPN) access will be sent to the participating companies. Our team will send directions to the companies explaining how to install the VPN, which will allow them access to the secure extranet. Our technical team will guide the companies through the installation process as needed. Finally, our development team quality assurance specialist will generate a report to ensure proper function of PA PATROLS beta version.

Implementation Phase Deliverable: Report to ensure proper function

Evaluation

The last step in the ADDIE process is the evaluation and revision process. Our team’s quality assurance specialists will conduct an evaluation to ensure that PA PATROLS is of highest quality by technical testing of the sites, product access, and functionality.

Also during this phase, a sample of PDFRS staff and learners will be involved in the PA PATROLS testing process in order to attain a variety of perspectives concerning the overall quality and effectiveness of the product. As testers move through both Phase 1 and Phase 2 of PA PATROLS, they will be asked to keep a log of comments regarding PA PATROLS. Learner comments and questions will be collated and analyzed by the instructional designers, project manager, and PDFRS to determine validity and whether or not changes are required. An evaluation report will be delivered to the PDFRS, which will describe the outcomes of testing and the changes made as a result. Following the final sign-off by the PDFRS, PA PATROLS will be ready for learner use.

Evaluation Phase Deliverables: Evaluation Report, PA PATROLS sign-off
Description of Technical Solution

Phase 1 of PA PATROLS will be constructed in an HTML interface using embedded Adobe Flash applications for interactive scenarios and exercises. Appropriate media use will be incorporated into the Phase 1 lessons (see Figure 5). Phase 2 of PA PATROLS will be implemented using the internet-based virtual environment Second Life.

PA PATROLS will be hosted on a secure intranet/extranet network, accessed through a VPN on Internet Explorer version 7.0. Second Life will be accessed using Second Life’s client-side application. This will be downloaded from the Second Life website and installed. Our team will send directions to the companies explaining how to install the application.

Learning Management System

Élan utilizes the Plateau Learning Management System; a superior LMS that is used by several federal government agencies, such as Homeland Security, Department of Transportation, and the Environmental Protection Agency. Plateau provides organization of the online courses, an updated repository of employee skills and competencies according to tracked training participation. Plateau is SCORM 2004 compliant. Plateau will be used to implement Phase 1 of PA PATROLS. Additionally, Élan will enter each learner’s grade for Phase 2 as they are sent to us, so that all learner information will be in one, easily accessible place. The PDFRS will be given administrative rights in order to have full access to materials and learner grades. The use of our LMS is figured into the monthly technology fee listed in the budget section.

Security

Because of the sensitive nature of the content, we place a strong emphasis on security for PA PATROLS. Phase 1 will be hosted on our secure dedicated server hosted by Network Solutions. Our web host has a secure socket layer certificate, as well as a firewall. Phase 1 will be placed on a secure intranet/extranet network and will be available through VPN access to the learners’ company computers. Learners will not be permitted to complete the training on their personal home computers. Learners will be issued a login name and password to gain entry into PA PATROLS. In the case of lost passwords, learners may have a new password sent to their secure employee e-mail by answering a series of sensitive questions managed by Plateau, our LMS. Help desk support will also be available.
Although *Second Life* is available to the public, we will take great measures to ensure all PA PATROLS information is kept in a contained and private area. We will purchase a *Second Life* island and we will utilize *Second Life*’s option to allow only chosen avatars on our private island. Further, we will only allow certain avatars to have access to certain parts of the island, ensuring no one will go into an area in which they are not assigned. In addition, the client-side *Second Life* application requires a password to gain access to every specific avatar. It will be the responsibility of the virtual instructors to prepare for instruction by changing the passwords of the ten learner avatars for that particular session to the passwords that were provided to the learners at the time that they were scheduled for the training. This must be done immediately before training begins, so that learners are only granted access to the training modules during scheduled training times. Furthermore, the instructors are then responsible for re-changing those learner passwords after the session is completed.

**Administration and Maintenance**

The PA PATROLS secure intranet/extranet network with VPN and Phase 1 content will be hosted on Élan’s Network Solutions dedicated secure server. Our experienced technical staff will promptly provide any needed maintenance and updates. To ensure compatibility, all software will be developed using PCs with Intel Pentium 4 processors with HT running a Windows XP Professional Operation System. On a PC, *Second Life* requires at least 256 MB of RAM and an 800MHz Pentium III or Athlon (or better) processor. The computer must have either a Windows 2000 Service Pack 4 or Windows XP Service Pack 2 Operating System. Please note that *Second Life* does not currently support Windows Vista. One of these two video cards should be used to ensure compatibility: nVidia GeForce 2, GeForce 4mx, or better or ATI Radeon 8500, 9250, or better. *Second Life* requires a high-speed bandwidth; either cable or DSL.

If the need should arise, PDFRS will have the ability to maintain all instructional materials. The software language used is not proprietary. Élan will not license the created materials.

Our help desk is available on Monday-Friday from 8 am until 5 pm for maintenance questions.

**Bandwidth Considerations**

Due to the sophisticated media elements and 3D simulation environment, high-speed broadband internet access will be required to access the site. According to the RFP, the computers at the learning sites will already contain this bandwidth, so no additional price should be incurred.
Server Specifications

Élan uses a dedicated server hosted by Network Solutions. Network Solutions is the original internet domain name registrar and is a leading provider of server hosting. Their customer service is expertly trained and assists customers through any maintenance issues as needed.

Backup

We utilize the free software Backup Serve 6.2 to back up all selected information within a schedule period of time. The information will be compressed and filed onto our company drivers.

Language/Diversity Considerations

Pennsylvania is a diverse environment containing many cultures and heritages. To represent this, we will use images that include a variety of populations and heritages. Because it’s the official language of the United States and Pennsylvania, we will build PA PATROLS in English. However, because of Pennsylvania’s rapidly growing Spanish-speaking population, we are open to either updating or creating PA PATROLS for a Spanish edition for an additional cost.
VI

Project Management, Schedule, and Budget

At Élan, we understand that the success of a project depends on detailed planning and regular communication between all team members. In this section, we will provide our plans concerning project management processes, including our staffing plans, project assumptions, proposed communication schedule, deliverables schedule, detailed timeline, and risk mitigation plans.

Staffing Plan

Élan has an experienced sixteen-member team of design, development, and multimedia professionals who are excited to bring expertise and enthusiasm to the creation and implementation of PA PATROLS. Our Senior Project Manager has 13 years of security-related project management experience, specializing in state and national government security training implementation. She will oversee three teams to coordinate the implementation of PA PATROLS: the Instructional Design team, the Development and Technical team, and the Multimedia and Virtual Reality team. The Senior Instructional Design Director will oversee a team of three other instructional designers and a quality assurance specialist. The Senior Technical Director will manage a team of one other technical specialist, two developers, and one quality assurance specialist. The Senior Multimedia Specialist will head up a team of one other virtual reality specialist, one video production specialist, one graphic artist, and a quality assurance specialist. See Figure 6 for a visual representation of our staff.

Our entire team will meet weekly in order to coordinate tasks and allocate needed resources, ensuring project organization and timeliness. In addition, the project manager will meet with the team directors once a week in order to communicate progress and needs. Finally, each department team director will meet with their team at least once weekly in order to facilitate project organization and communication. The project manager will attend department team meetings on an as-needed basis.
Figure 6

Project Assumptions

Élan E-Learning assumes the following concerning the PA PATROLS solution:

- PDFRS will provide a project manager for this project as a point of contact.
- A team of PDFRS staff will be available to evaluate storyboards, templates, and other materials as needed within the timeframe listed in the timeline.
- Any changes in the project scope will be negotiated and may result in the altering of deadlines, deliverable specifications, and project cost.
- The PDFRS will provide at least one subject matter expert (SME) for each module’s content area.
- A team of PDFRS staff members and a sampling of learners statewide will be made available for the evaluation phase of the training.
- The PDFRS will choose and designate sixty upper-level management security personnel to be virtual instructors in *Second Life* for Phase 2 of PA PATROLS. The sixty chosen instructors will be representative of the amount of learners from the following specialty areas: Railyards, Airports, Truck Stops and Terminals, and Shipping Ports.
- Élan and the PDFRS will work to create a regular maintenance schedule. Under the stipulations of the maintenance schedule and agreement, Élan will maintain and provide all updates for PA PATROLS.
- The PDFRS will have final sign-off authority for all deliverables. The length of time for deliverable sign off is assumed to be two days; however, the time can be shortened or lengthened according to PDFRS’s desires.
- The PDFRS will facilitate the scheduling and contacting of the statewide learners.
- The PDFRS will obtain the necessary permission for Élan to make site visits in the analysis phase as needed.
Communication Schedule

After the kick-off meeting in Harrisburg, PA, regular monthly teleconferences will be scheduled throughout the development of PA PATROLS. These meetings will include the PDFRS project manager, any other essential PDFRS staff, as well as Élan’s Senior Project Manager, Senior Instructional Design Director, Senior Technical Director, and Senior Multimedia Director. Other personnel may be included in meetings as needed. Minutes will be taken at all meetings and will be distributed to all team members involved with the project.

Given Élan’s relative closeness in vicinity to the PDFRS headquarters in Harrisburg, PA, we would like to propose monthly face-to-face meetings, occurring bi-weekly from the teleconferences, in order to give presentations and provide examples of monthly progress. The Senior Project Manager, Instructional Design Director, Senior Technical Director, and Senior Multimedia will make a day trip to present at the PDFRS headquarters and will be available for presentations to state and national government officials as needed.

Project Management Tool

We utilize the popular tool Microsoft Project to manage our projects in an organized and efficient manner.

PA PATROLS Milestone Chart and Budget

Figure 7 shows the breakdown of all deliverables, including the name, description, hours, cost, and delivery date. Figure 8 outlines all other fees. A final bid price is given below Figure 8.

For a comprehensive graphical work plan, please see the appendix.
<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Description</th>
<th>Hours</th>
<th>Cost</th>
<th>Delivery Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kick-off Meeting</td>
<td>Meeting between Elan and PDFRS to formally begin project work</td>
<td>8</td>
<td>$3,660</td>
<td>5/10/07</td>
</tr>
<tr>
<td>Needs Assessment</td>
<td>Site travel, Media capture, Focus groups, surveys</td>
<td>220</td>
<td>$24,200</td>
<td>5/23/07</td>
</tr>
<tr>
<td>Content Outline</td>
<td>Determination of objectives and content to be covered and assessed</td>
<td>210</td>
<td>$23,100</td>
<td>5/31/07</td>
</tr>
<tr>
<td>Design Document</td>
<td>Organization of content into lessons and pages, Phase 2 exercises and infrastructure determined, determination of multimedia and graphics</td>
<td>255</td>
<td>$28,050</td>
<td>6/11/07</td>
</tr>
<tr>
<td>Storyboards/Scripts</td>
<td>Phase 1 pages and Phase 2 infrastructure visually designed with content and multimedia, scripts written</td>
<td>237</td>
<td>$26,000</td>
<td>6/19/07</td>
</tr>
<tr>
<td>Interface Template</td>
<td>Phase 1 screen interface designed, Phase 2 infrastructure samples and screen shots</td>
<td>137</td>
<td>$15,000</td>
<td>6/25/07</td>
</tr>
<tr>
<td>Phase 1: Basics of Secure Site Inspection/Safe Motor Vehicle Guidelines Module</td>
<td>Content and assessments put into interface, multimedia and graphics developed, audio recorded, QA</td>
<td>260</td>
<td>$28,600</td>
<td>7/6/07</td>
</tr>
<tr>
<td>Phase 1: Security Guidelines for the Transportation and Distribution of Meat, Poultry, and Egg Module</td>
<td>Content and assessments put into interface, multimedia and graphics developed, audio recorded, QA</td>
<td>250</td>
<td>$27,500</td>
<td>7/18/07</td>
</tr>
<tr>
<td>Phase 1: Railroad Terminal Safety Module</td>
<td>Content and assessments put into interface, multimedia and graphics developed, audio recorded, QA</td>
<td>232</td>
<td>$25,520</td>
<td>7/27/07</td>
</tr>
<tr>
<td>Phase 1: Air Security for Transported Items Module</td>
<td>Content and assessments put into interface, multimedia and graphics developed, audio recorded, QA</td>
<td>205</td>
<td>$22,550</td>
<td>8/7/07</td>
</tr>
</tbody>
</table>

**Figure 7a**
<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Description</th>
<th>Hours</th>
<th>Cost</th>
<th>Delivery Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1: Shipping Port Safety Module</td>
<td>Content and assessments put into interface, multimedia and graphics developed, audio recorded, QA</td>
<td>205</td>
<td>$22,550</td>
<td>8/16/07</td>
</tr>
<tr>
<td>Phase 1: Truck Stop and Truck Port Safety Module</td>
<td>Content and assessments put into interface, multimedia and graphics developed, audio recorded, QA</td>
<td>205</td>
<td>$22,550</td>
<td>8/24/07</td>
</tr>
<tr>
<td>Phase 2: Orientation and All-Learning Training Module</td>
<td>Infrastructure built, supplemental instructor lesson plans created, avatars created</td>
<td>320</td>
<td>$35,200</td>
<td>7/13/07</td>
</tr>
<tr>
<td>Phase 2: Railroad Terminal Safety Module</td>
<td>Infrastructure built, supplemental instructor lesson plans created, avatars created</td>
<td>300</td>
<td>$33,000</td>
<td>7/27/07</td>
</tr>
<tr>
<td>Phase 2: Air Security for Trans-ported Items Module</td>
<td>Infrastructure built, supplemental instructor lesson plans created, avatars created</td>
<td>275</td>
<td>$30,250</td>
<td>8/09/07</td>
</tr>
<tr>
<td>Phase 2: Shipping Port Safety Module</td>
<td>Infrastructure built, supplemental instructor lesson plans created, avatars created</td>
<td>275</td>
<td>$30,250</td>
<td>8/22/07</td>
</tr>
<tr>
<td>Phase 2: Truck Stop and Truck Port Safety Module</td>
<td>Infrastructure built, supplemental instructor lesson plans created, avatars created</td>
<td>275</td>
<td>$30,250</td>
<td>9/05/07</td>
</tr>
<tr>
<td>Phase 2: Train the Trainer: ISLO</td>
<td>Infrastructure built, supplemental instructor lesson plans created, avatars created</td>
<td>135</td>
<td>$14,850</td>
<td>9/12/07</td>
</tr>
<tr>
<td>Phase 2: Train the Trainer: PA PATROLS Instructor Training</td>
<td>Infrastructure built, supplemental instructor lesson plans created, avatars created</td>
<td>135</td>
<td>$14,850</td>
<td>9/18/07</td>
</tr>
<tr>
<td>Implementation</td>
<td>Load Beta Version onto Intranet, Work with Network Solutions to create extranet and send out VPN access and implement on all affected computers.</td>
<td>165</td>
<td>$18,150</td>
<td>9/28/07</td>
</tr>
<tr>
<td>Formal Evaluation Report, Sign-off</td>
<td>Beta Version testing, Revisions and Corrections, Report, Sign-off</td>
<td>225</td>
<td>$24,750</td>
<td>10/10/07</td>
</tr>
</tbody>
</table>

*Figure 7b*
**OTHER FEES**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel</td>
<td>Gas, Food, Meeting Hours</td>
<td>$3,000</td>
</tr>
<tr>
<td>Technology</td>
<td>Second Life Property and Building Costs, Video Production Costs</td>
<td>$8,500</td>
</tr>
<tr>
<td>Monthly Fees</td>
<td>Server, Networking, VPN Access, Maintenance, Second Life Fee</td>
<td>$1,000/mo</td>
</tr>
<tr>
<td>Train the Trainer</td>
<td>Élan employee training the trainers statewide in Second Life.</td>
<td>$180/hr</td>
</tr>
</tbody>
</table>

**Figure 8**

The total of all deliverables and other fees comes to total bid price of $514,770. A monthly fee of $1,000 will cover all hosting, maintenance, and technology costs.

**Return on Investment**

“The transportation choices we make today will have significant impacts upon our economy, environment and quality of life tomorrow.”

-Pennsylvania State Transportation Secretary Allen D. Biehler, P.E.

Besides the thousands of priceless lives lost from the 2001 terrorist attacks on the World Trade Center, the attacks also had devastating effects on the United States and New York economies. U.S. stocks lost $1.2 trillion in value, Lower Manhattan lost much of its workspace and tax base, and air travel has cut back by nearly 20%. Businesses fled from New York City and into surrounding states.

Significant advances in security have been made since the 2001 attacks. Our nation’s transportation systems have evolving security plans and have the need to train first-responders in large quantities to deal with suspicious objects and people.

Putting our PA PATROLS plan into place will meet the need to train large quantities of first-responders in order to prevent terrorist attacks in Pennsylvania. Implementing a quality program such as PA PATROLS will not only help to ensure Pennsylvania’s people are safe, but also that Pennsylvania’s economy, the 17th largest economy in the world, will stay strong. The safer Pennsylvania proves to be, the more businesses worldwide will continue to utilize the Pennsylvania transportation systems. This, in turn, will keep Pennsylvania’s economy stimulated, and continue to increase the quality of life for all Pennsylvanians.
Risk Mitigation Plans

Unplanned Employee Absence

In the case of unplanned team member absence due to illness or turnover, Élan will find a replacement for the team member within 48 hours. Élan has a pool of experienced contractors who are familiar with our team processes and are ready to fill in for absent team members as needed.

Unintentional Cost Overruns

In the case of unintentional changes, such as increase in software costs, Élan has a change-control system in place to determine the best course of action concerning the change at hand. Following our set analysis procedures, our project manager will issue a recommendation as to the most efficient course of action concerning the change.

Decisions

Training solutions, at times, contain difficult decisions due to the intricacies of the materials and process. During crucial decision times, Élan will build in consulting time between the PDFRS and the Élan project manager in order to assist the PDFRS in making the complex decisions regarding the training solution.

Communication

As noted previously in the communication section, Élan will work with the PDFRS to create a routine communication plan to make sure that the doors of communication are wide open between Élan and the PDFRS. Élan’s project manager will be the main point of contact for the PDFRS team, and she pledges to keep the doors of communication open by returning all PDFRS phone calls and emails within a four hour period during regular business hours. A communication plan will be devised and agreed upon by both teams during the kick-off meeting.

Second Life

Although Second Life has developed a superior reputation in the past four years it has been in the market, should it fail to accommodate our training needs, Élan will work out plans with other Virtual Environments, such as Active Worlds, in order to make sure that the PDFRS training will be implemented efficiently and effectively.
Élan Training and Development was founded in 1985 by Dr. James Relick, a highly respected professional in the security and regulatory training field. It was named Élan after the French word meaning “enthusiastic vigor and liveliness”, a quality that is infused into every piece of our training. We focused on paper-based security and FDA regulatory contracts, securing business from Philadelphia Defense Supply Center, Merck, and Wyeth Pharmaceuticals.

With the rise of e-learning in the 1990s, Élan began to channel its training and development expertise into computer based training solutions. By the year 2000, Élan was recognized as a leader in the regional e-learning field, having completed e-learning projects for prestigious organizations such as: Wyeth Pharmaceuticals, Vanguard, PEMA, Maryland Department of Transportation, and the American Red Cross.

The 2001 terrorist attacks on the United States had a drastic effect in our field. The demand for security-related training sky-rocketed. The focus of our contracts shifted to solely training personnel on newly-implemented security measures in many facets of many industries. Several of our more recent e-learning related security contracts can be seen in Figure 9.

In the past few years, the learning possibilities offered by 3D virtual environments have become recognized. After working with Élan as an independent contractor for several years, Jacob Naylor, a standout in the 3D design and development field, was hired in 2005. Mr. Naylor is currently our Senior Multimedia Specialist. He has ties to IBM and has worked with them in their endeavor to make a presence on Second Life. Recently, Élan earned the chance to create training for IBM employees regarding security measures for utilizing Second Life.

Élan stays current with cutting-edge technology in the training field. More importantly, we stay true to our proven training principles and methods based on sound instruction. With our cutting edge technology experience, sound instructional practices, and specialized security knowledge, we at Élan E-learning Corporation feel that we would be a perfect fit for meeting PDFRS’s training need.
<table>
<thead>
<tr>
<th>Organization</th>
<th>Project</th>
</tr>
</thead>
</table>
| Pennsylvania Department of Public Welfare              | - Facility Security Training  
|                                                        | - Emergency Community Planning                                           |
| Limerick Nuclear Power Plant                           | - Securing High-Risk Areas  
|                                                        | - Community Emergency Communication and Contingency Plan Training         |
| Baltimore’s Inner Harbor Mall: Harbortplace & The Gallery | - Security Personnel Training  
|                                                        | - Harbor Terrorism Prevention                                            |
| Procter & Gamble                                       | - New Security Enhancement Measure Training                               |
| Maryland Department of Transportation, State Highway Administration | - Terrorism Awareness Training for Public Rest Stops and Weigh Stations |
| Maryland Department of Transportation, Aviation Administration | - Terrorism Awareness Training for Maryland Airports                      |

**Figure 9**
Appendices

References

“Élan’s professional services and innovative design has improved the performance level of our security personnel, which resulted in increased revenue.”

Rich Hu, Security Personnel Lead, Procter & Gamble

“Élan is a superior training organization. They helped us improve our highway public rest stop security. Our personnel are more prepared than ever.”

Lynn Markley, Secretary of SHA, MDOT

“We are extremely pleased with the outcome of Élan E-Learning’s Homeland Security Exercise. Our employees found the exercise engaging and helpful.”

Regina Knox, Emergency Management PM, VEMA
Asmahan Akam
575 Élan Place, Conshohocken, PA 19428
aakam@elanelearning.com

Senior Instructional Design Director

Skilled instructional designer with ten years of quality project experience. Demonstrated ability to design, aid in development, and manage multiple projects. Specialty lies in e-learning design and development, with focus on security-related training.

- Worked with several government entities for security-related training
- Design experience in Second Life

Education:
Masters of Science
Instructional Technology
Bloomsburg University of PA, Bloomsburg, PA

Bachelor of Science
Business Management
University of Pennsylvania, Philadelphia, PA

Professional Experience

Élan E-learning Corporation, Senior Instructional Designer 2002–Present
Conshohocken, PA

- Head ID for Security Enhancement for all Factory Grounds for Procter & Gamble
- Managed the Design team and aided in design of MDOT Terrorism Awareness Training for Public Rest Stops and Weigh Stations Projects and Terrorism Awareness Training for Maryland Airports
- Designed and wrote scripts for IBM’s Security Measures using Second Life Training

Fort Worth, TX

- Responsible for design and aiding in development of technical training solutions
- Played the role of Project Manager on several large-scale projects
- Designed several War Craft Systems Technical E-learning Solutions
- Designed and project managed Aircraft Development Security Procedural Training
- Worked with several government entities, including Military, Department of Environmental Protection, and NASA
Weitian An
575 Élan Place, Conshohocken, PA 19428
wan@elanelearning.com

Senior Technical Director

Director of technology department, skilled in developing website, processing database and managing networks.

- Experience as network security developer and Flash Developer
- Experience in maintaining and updating database
- Won the Microsoft Imagine Cup

Education:
Master of Science
North Carolina State University, Raleigh, NC

Computer Science

Bachelor of Engineering
Beijing University, Beijing, China

Software Engineering

Professional Experience

Élan E-learning Corporation, Senior Technical Specialist 1999–Present
Conshohocken, PA

- Use Flash Software to develop highly interactive graphics and multimedia
- Create realistic online settings for security-related training
- Extensive knowledge in networking and technical testing

NC State University, Technology Specialist 1997-1999

- Revamped and Maintained University Web site
- Managed University Networks and Processing Databases
- Created specialty media for campus training and promotional projects

IBM Corporation in Beijing, Developer 1995-1997

- Developed Web sites with security features for banks and governments with Oracle database.
- Project Managed development team who worked in the financial sector and was in charge of making all web software W3C standards compliant.
Senior Multimedia Director

Experienced Multimedia Developer with skills in 3D design and development, graphic design, instructional design, and software development. Proven ability to develop quality products, with sound design and within time and cost constraints. Key qualifications:

- 16 years applied multimedia experience in instructional design
- Experienced user of various media creation software including: Macromedia Studio 8, Adobe CS2, Swift 3D

Education:
Master of Science  
Georgia Institute of Technology, Atlanta, GA  
Human-Computer Interaction

Bachelor of Science  
Pennsylvania State University, University Park, PA  
Computer Science

Professional Experience

Élan E-learning Corporation, Senior Multimedia Developer  
Conshohocken, PA  
2005–Present
- Security Enhancement for all Factory Grounds for Procter & Gamble
- Security Training and Harbor Terrorism Prevention - Harborplace & The Gallery (Baltimore’s Inner Harbor Mall)
- Developed environment for IBM’s Security Measures using Second Life

Independent Development Consultant  
2001-2005
- Designed and developed security-related 3D multimedia simulations as a consultant for Élan E-learning in Conshohocken, PA
- Worked with IBM to research cutting-edge 3D virtual technologies
- Helped pioneer cutting-edge 3D learning environment for University of North Texas, partnering with Creative Realities group in Denton, TX

JPL Productions, Designer, Developer, and Project Manager  
Harrisburg, PA  
1991-1995
- Security Procedural Training for PENNDOT
Kathryn Rebilas
575 Élan Place, Conshohocken, PA 19428
krebilas@elanelearning.com

Senior Project Manager

Over thirteen years of quality experience and proven expertise in project management and instructional design. Worked with government organizations including several branches of the FDA. Specialty in security-related e-learning project management.

- Strong track record for delivering projects of high quality, at cost, and on time.
- Eight years of security and awareness project work.
- Certified Project Management Professional

Education:
Project Management Professional Certification  
Project Management Institute

Masters of Science  
Bloomsburg University, Bloomsburg, PA

Instructional Technology

Bachelor of Arts  
Villanova University, Villanova, PA

Communication

Professional Experience

Élan E-learning Corporation, Senior Project Manager  1999–Present
Conshohocken, PA

- Project managed several government security e-learning projects, including projects for MDOT, VEMA, and Pennsylvania Department of Public Welfare
- Handled project management and organization for security-related projects for organizations such as Procter & Gamble, Wyeth, Baltimore Inner Harbor Mall, and IBM

FDA, Center for Drug Evaluation and Research, Project Manager  1994-1999
Rockville, MD

- Partnered with Regulatory Affairs to manage training for updated pharmaceutical regulatory guidelines
- Principal project manager for projects concerning department security
- Began as an instructional designer: Designed, aided in development, and evaluation of employee training for policies, procedures, and programs