

Emerging Knowledge, LLC
Project Proposal

San Diego State Zoo
Saving the Planet One Animal at a Time



Executive Summary

Services and Solutions

By relying on its expertise in learning and training solutions design, Emerging Knowledge, LLC (EK) delivers dynamic solutions to your customers, specifically the guests of SDSZoo. EK solutions are created from the core of your vision: our vision is to see our client's vision realized. To accomplish this, we have in-house expert instructional designers, graphic and multimedia artists, world-class software engineers, and business-smart project management and leadership. When our clients require unique solutions, EK collaborates with trusted partners who have the ability to solve problems and incorporate the answers needed into the solution EK provides. EK prides itself on successfully delivering total solutions for any business.

Your Customers

EK understands that each customer of SDSZoo is a special guest who is looking for a dynamic experience when visiting your zoo. We know they deserve the same richness when they visit your CyberZoo.

Your guests are unique. They come in all shapes and sizes, from all ages, from cultures all over the world, and from varying experiences using technology. Because your guests are as diverse as the animals you care for, we will create an experience using a common visual language that will unify the various aspects of the zoo into one unified experience that transcends all age, language, gender, cultural, and technological differences. You can trust that the learning experience we create for the CyberZoo will inspire them to love animals and care about conservation and preservation issues.

We know the heartbeat of your intended audience. We plan to tailor the project according to their characteristics as follows:

1. Being an English literate child, adolescent or adult in the world.
2. Having an interest in animals, the environmental consequences on animals, or conservation.
3. Having access to a modem speed connection to the Internet on a computer running Internet Explorer, Firefox or Safari browsers.
4. Possibly having physical disabilities.
(All products produced will comply with Section 508 of the Rehabilitation Act, §1194.22.)
5. Possibly not having an interest in the zoo. (We will help you win these folks over.)

Management

Emerging Knowledge has assembled a strong management team. Richard Clark will be the Chief Learning Officer, responsible for the overall project. He brings over 20 years experience in forward-thinking design of learning solutions. Preston Gales will be responsible for all the financial, accounting, and administrative needs of the project as the Program Director. He brings over a decade of successfully completing projects on time and within budget. Gerry De Ocampo will be the Project Manager for Design and Production, responsible for the day-to-way workflow of the instructional design and development teams. He has extensive experience leading small and large teams. Finally, EK has M.E. Burke who, as the Project Manager for Training, will be responsible for developing and delivering the face-to-face training and creating the technical support system for the project. She brings years of corporate training experience to the table. She will lead the way for integrating your special learning theory of Learnimaltics into our solution.

Project Goals

Today's zoos have become far more than a place to exhibit animals – they are places where conservation and education pump through the heart of their mission. This mission shapes our goals and practices for the CyberZoo.

Our overarching goal is to create the CyberZoo as an engaging, enjoyable and educational experience.

- Engaging: Each interaction's cutting-edge knowledge in interactivity, modern game design and

learner motivation are the life source of our creative solutions that entice learners in again and again.

- Enjoyable: Our work follows high production standards employing a storytelling approach that breathes life into every element.
- Educational: We partner our experienced instructional designers with your educators to ensure high-quality educational experiences.

We also understand that today's zoos have constrained budgets, existing infrastructure, and a constant need to plan for the future.

- Budget: We will design a set of core templates that you can use in the future, conserving your budget.
- Infrastructure: We understand your current web hosting environment and will ensure all solutions work on your current systems without costly upgrades.
- Planning for the future: We will document our designs in a way that future designers can expand upon our work. As your needs grow and change, you will be able to adapt our solution to match.

Based on our extensive experience with similar organizations, including animal rescue groups, the California Native Plant Society, and the San Francisco Zoo, we bring our three core competencies to attain each outcome of this project.

- Communication: We will provide you with status updates at least weekly and promptly identify any concerns or risks that could adversely affect the project.
- Collaboration: We understand that a project's needs and visions can evolve. We will remain flexible and responsive as needs change, and be willing to make trade-offs to adapt the project within the agreed schedule and budget.
- Commitment: We will include support and training when the project is delivered and while the SDSZoo staff becomes self-sustaining.

Finally, we will provide project management services to ensure the project's goals are satisfied to the highest quality of workmanship, within budget, and on time.

Project Objectives

Our learning solution will create a learning experience for SDSZoo's guests that is engaging, enjoyable, and educational. We will accomplish these objectives by completing the CyberZoo project on time and without exceeding the approved budget.

The solution will be scalable and affordable. We'll give SDSZoo the tools to adapt our solution for new material in the future through the use of reusable learning templates. By leveraging today's design, SDSZoo will be able to create new experiences for guests for years to come.

Below are just some of the specific objectives we will be working towards:

- Given a list of conservation facts and distracters on a CyberZoo post-visit survey, each respondent will be able to select one correct fact about conservation after visiting the CyberZoo web site.
- Within one year of launch, at least one individual from every state in the United States, as measured by website analytics, will visit the CyberZoo site.
- Within the first year of the CyberZoo launch, one out of every 20 visitors to the CyberZoo web site will re-visit the CyberZoo at least three times.
- During the CyberZoo Pilot Test Phase, 85% of the individuals who test the CyberZoo web site will rate its ease of use as acceptable or better after their initial visit.
- The Keepers of Education will be able to create three new content pages using Reusable Learning Templates (RLTs) within three weeks after their initial training.
- The results of a Google search for the keyword "CyberZoo" will result in SDSZoo ranking first on the list within the first 2 months of the CyberZoo web site launch.

Keys to Success

- Expertise and experience in dynamic learning, training, and performance solutions design
- Strong leadership and management
- Detailed front-end analysis saving time and reducing costs
- Successful risk management and mitigation
- Technical knowledge and leadership

We know there are several vendors you can select. But we are confident that only Emerging Knowledge, LLC can deliver the most-advanced, powerful, and life-changing CyberZoo experience that will bring the animal kingdom to life for your guests. It will be a mind-blowing experience. We look forward to our partnership with SDSZoo.

Project Vision

"Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime." - Chinese Proverb

The online SDSZoo is an exciting new project and we're honored to have the opportunity to respond. We believe in approaching projects like this as a set of building blocks assembled into something that is useful today and that will remain useful in its future evolutions. To do this, we focus on the core audience's needs and create content to meet those needs. At the same time, we document the thinking behind our decisions so you can build on this work in the future.

We also know that a team effort produces far better work than an individual working alone. We take our expertise in instructional design and production and partner with world-class multimedia developers, software developers, and vendors to create the whole solution. For the SDSZoo project, we will look at the best-in-breed content management systems (CMSs) to see which one will meet your needs. While producing your core templates and managing the overall program, we will also manage external contractors to produce interactive multimedia and integrate everything into a coherent system.

Proposed Solution: The learner's experience

Imagine your visitors' rich first experience of the CyberZoo:

They are welcomed with a breathtaking panorama that transforms into a map of the zoo where each area opens into a beautiful montage of images and sound. The children's area features bright, bold graphics. Other areas showcase animals in their habitats, man's impact on the world, and modern efforts at species conservation.



As visitors enter any area, they receive a set of tools:

- An "Explorer's Scrapbook" where they can save images, add notes, and bookmark areas to revisit.

- A copy of the “CyberZooNooz”, a regularly published “blogzine” (maintained by the SDSZoo staff).
- A “key” to the discussion boards and chat room where they can share stories and communicate with the staff, and
- A letter from a “Cyber Advisor” with some initial suggestions for exploration.

As your visitors navigate, a common visual language links all the areas. Each area has a distinctive icon and color scheme as well as common navigation icons. Visually impaired guests can select a simplified high-contrast scheme as well as use screen reading software – all of the artwork and links will be tagged appropriate for screen readers, ensuring Section 508 compliance.

What will bring your visitors back? First, your guests can register their email addresses to receive regular updates from the CyberZoo. Also, the Cyber Advisor will suggest future explorations based on what they have seen already, encouraging deeper exploration.

Proposed Solution: The SDSZoo experience

The best solution is of no use if you can’t work with it. Our solution includes multiple elements to ensure its success:

- Research: We will work with your staff to understand the concept of Learnimaltics and weave it through all of the materials. Conducting focus groups with typical visitors will allow us to present multiple concepts, including animated walk-throughs, ensuring the result is usable and engaging. We will also work closely with your IT staff to verify the technical requirements and gauge the impact of any proposed solution. We also maintain a testing system of our own and will give your staff access to verify the system in all phases of the project.
- Testing: We believe in extensively testing solutions. We will test with different groups of visitors, with the SDSZoo staff, and our own professional testers to confirm the system’s integrity.
- Training: We will deliver training on all aspects of using and maintaining the system, deliver on-line documentation, and assist you in training your own trainers if desired.
- Support: We will continue to support the system after installation, both with on-site support and on-call phone/online support.
- Documentation: We will deliver our design documents to you for your own staff’s future use.
- Evaluation: We will continuously evaluate the solution throughout the development of the project as well as after the site has been launched to ensure continued success.

Proposed Solution: Content

Our initial analysis supports your request for a dozen reusable learning templates (RLTs). We recommend that three templates be used for a children’s zoo within the zoo (preschoolers, K-4, and grades 5-7) and the remaining nine templates distributed evenly between three themed areas.

Based on your Request for Proposal and our initial discussions, we also recommend:

- Designing each module in multiple clusters of small learning objects [Beck 2007].

Learning objects promote reusability of content between sections and will enable the SDSZoo to update content quickly. This *Constructivist* approach allows learners to collect multiple viewpoints on a topic and construct their own deep knowledge [Kearsley 2007]. The Cyber Advisor contains lists of tasks that help the learner either construct a model of some environment or of some cause-effect system; these models lie at the heart of Gibbons’ Model-Centered Instruction (a flexible and powerful development in instructional design) [Gibbons 2007].

- Employing a common visual language.

Today’s learners are raised in a media-rich world. Plain text doesn’t cut it. A well-designed visual language draws in visitor’s attention and motivation [Keller 2006]). It also communicates clearly across cultures and languages [Horn 1998].

- Encouraging learners to create their own hypotheses and search for evidence.

Recent research suggests that we learn by constantly making predictions and testing them [Hawkins and Blakeslee, 2004]. This scientific approach is also a key reason why simulations are such effective learning tools [Aldrich 2005], and we know it can also be applied to static web pages.

Deployment Recommendations

- Construct the CyberZoo on the Drupal Content Management System (CMS).

Drupal is an open-source PHP solution that is actively maintained, has a large user community and is used on many high-profile sites. Drupal supports extensive “skinning” to customize its appearance and has many built-in modules for content, blogging, bulletin board, etc. We have extensive experience with Drupal and are confident it is not only the strongest platform out there but also the best match for SDSZoo’s LAMP¹-based system.

- Plan for a staged deployment.

We recommend a pilot test with a scaled-down CyberZoo before expanding into the complete design and deployment. Early testing and evaluation minimizes cost and maximizes the quality of the final product.

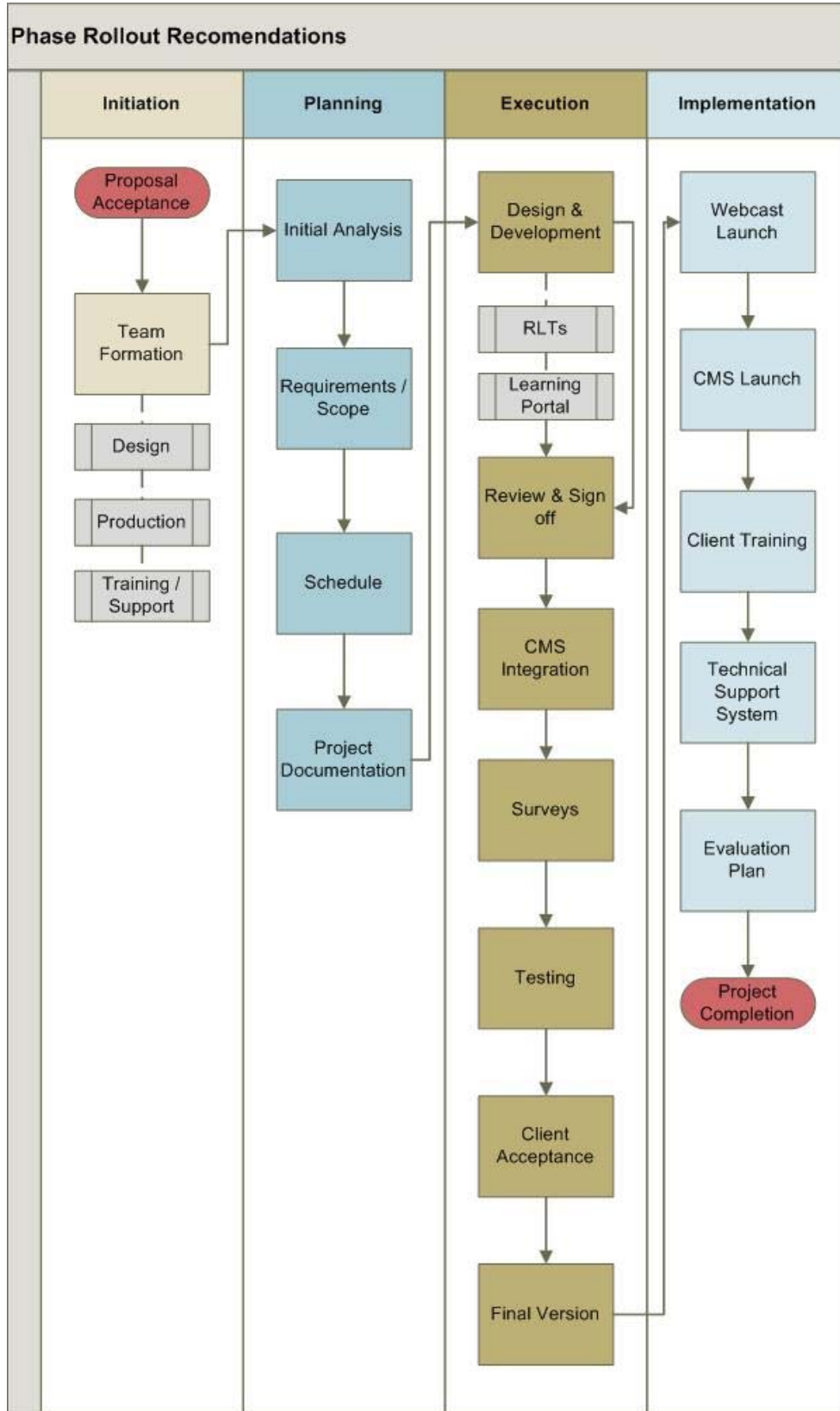
Evaluation and Testing Recommendations

We recommend a five-phase testing process:

1. Conduct an initial focus group with potential users. The three-fold purpose of the focus group is to:
 - a. Engage users in a discussion of past zoo experiences and past online educational experiences.
 - b. Present multiple design concepts for the CyberZoo. Explain the rationale behind our proposed design.
 - c. Poll the participants to see how attracted they would be to this concept.
2. Quick-test “paper prototypes” and a simplified web site with SDSZoo staff to ensure the design is on-track.
3. Develop the required CMS customizations using an automated “unit testing” methodology that reduces development costs while ensuring that the software consistently performs as specified.
4. Construct four (4) content modules (RLTs populated with sample content) and pilot test the modules with a group of 30-40 typical visitors. The three goals of the pilot test are to:
 - a. Ensure visitors can complete the recommended tasks on their own.
 - b. Conduct interviews to determine their level of interest in seeing more after this experience.
 - c. Verify the modules meet or exceed Section 508 accessibility requirements.
5. Develop integrated evaluation mechanisms for the web-site including pop-up questionnaires, “quick polls” in the discussion area, and tracking of the visitors’ usage patterns (especially return visits.)

¹ Linux, Apache, MySQL, PHP

Phase Rollout Recommendations



Scope

The deliverables of the project are:

1. Project Proposal
2. Project Kick-Off
3. Analysis (40 hours)
4. Statement of Work
5. Site Design, Development and Evaluation (up to 120 design hours, site not to exceed 15 pages)
 - a. CMS Integration, Testing, and Training
 - b. Initial CMS Administration (Not to exceed 40 hours)
6. Design, Development, Training for 12 RLTs – includes initial template content population
7. Internal Evaluation and Pilot Testing
8. Setting up surveys
9. Initial Training Plan
10. Webcast Launch
11. Site Evaluation Plan including Analytics

Any items or efforts NOT outlined above, and not in the signed Statement of Work, will be considered outside of the scope of this project and will be addressed via a Project Change Order outlining time and/or cost impact of said change.

Risks and Challenges

We manage project risk through identifying risks in advance, assessing the potential magnitude of the impact of each risk, determining the likelihood that the risk will occur, and then developing plans to avoid or mitigate these and other unknown risks. Depending on the potential impact of the risks and the likelihood they will occur, we will perform an analysis during the initial phase of the project to determine the best course of action.

We have proven experience in our project preparations that enable us to anticipate the following risks and challenges:

Name	Risk	Challenge	Description of factors that could negatively impact project
Project timeline	X		Size and complexity of effort
Training needs assessment		X	Size of audience needs to be defined All other deliverables are dependent
Learnimaltics	X		New concept Dependent on Subject Matter Experts (SMEs) for guidance
Online survey tool		X	Output requirements unknown
Webcams	X		Children or people from other cultures may be offended by graphic acts Possible need for content filtering
Games		X	Impact to schedule if game development is not outsourced
Browser compatibility		X	Ensuring consistency across browsers will impact schedule
Tracking return visitors		X	Method of tracking chosen by client could impact schedule
CyberZoo rollout	X		Number of pilot users is needed at least two weeks prior to launch
Webcast		X	Participants will need to test their systems Need to have solutions in place
Flash 9 and QuickTime 7.2		X	Some users won't have latest versions Some users won't have ability to download
Section 508 compliance		X	Adds to complexity of web site development Ensuring compliance to future sites and non-English sites
Client-hosted solution	X		May add levels of complexity

Ensuring Satisfaction for Both You and Your Customer

In addition to the project deliverables, the following services and activities can be expected from us if honored by being awarded this project:

1. List of identified risks and challenges and our outlined plan to achieve success.
2. Weekly email progress updates.
3. Usability testing securing at least an 85% agreement on ease-of-use.
4. Onsite training for staff members on how to use CMS and RLTs for future content updating.
 - a. Ten 8-hour days of face-to-face training.
 - b. Comprehensive job aid.
 - c. Web-based video tutorial.
5. Technical support by telephone (from 9 AM – 9 PM PST 7 days a week) for two years after project completion.
6. Six onsite visits for hands-on assistance.
7. Quarterly evaluation of product via online surveys and use of data mining software for two years after project completion (used as justification for future modifications to be performed quarterly).
8. All customers completing the online survey receive a customized thank you email inviting them back to the CyberZoo.

Budget

See Appendix A attached

Budget Milestones

See Appendix B attached

Schedule

See Appendix C attached

Schedule with Resource Costs

See Appendix D attached

The Team

We hire best-in-class talent. Your core team consists of:

M.E. Burke, B.F.A.

M.E. brings to the team over 4 years experience as a Trainer and Technician for Apple, Inc within various US cities spanning six time zones. M.E.'s formal training in Graphic Design from Fordham University and School of Visual Arts, NY combined with over 5 years of professional Graphic Design experience serve to ensure the latest and stylish design solutions for each project. As she pursues her Masters Degree in Educational Technology from San Diego State University she continues to bring creative and sound instructional design solutions to each project. Her knowledge and background of computers remains evident through her certifications as an Apple Desktop and Portable Technician. In her spare time she remains an avid outdoor long distance swimmer.

Preston Gales, B.A.

After earning a B.A. in Secondary Education, Preston taught History and Social Studies for a number of years. In 1999 he joined the Peace Corps and served in Niger, West Africa. While overseas he managed numerous groundbreaking health, agriculture, and educational projects; some of which are being replicated throughout the Peace Corps today. Upon returning to the United States he entered the field of Post Secondary Education at Bentley College in Waltham, Massachusetts. Pursuing a M.A. In Educational Technology at San Diego State University, Preston relocated to San Diego, California where he now resides. He and his wife spend any spare time with their dogs.

Gerry De Ocampo, M.B.A.

Gerry has 11 years experience as a public educator to middle and high school learners in mathematics, science, and technology, as well as 3 years experience designing training and learning solutions in the government sector for the United States Marines and Navy. He has served as a Production Manager, managing the design and development workflow of an instructional design team. Gerry loves languages and is working on becoming trilingual, adding Spanish and modern Greek to his repertoire. He enjoys cycling, tennis, physical fitness, and photography.

Richard Clark, M.A.

Richard has a Master's degree in Instructional Technology and over 20 years experience developing cutting-edge instructional systems for clients such as Apple Computer, Inc., Hewlett-Packard, Autodesk, and Amgen. He has written for the American Society for Training & Development (ASTD) and Chief Learning Officer magazine and teaches simulation design and development for the e-Learning Guild. In his spare time, he is an active member of the California Native Plant Society and fosters German Shepherds for a local rescue organization. He and his wife have been members of the San Diego Zoological Society since 1986.

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