1 Project Description

1.1 Introduction

The people of Hawaii are focusing new effort and emphasis on support for small business. The initial development of a small business depends upon many factors, but one of the most important is a high quality business plan: a roadmap that describes what the business is, why it can be successful, and how it will be organized and operate over time. The best business plans are living documents that evolve and change to reflect the growth and maturation of the organization.

1.2 The Problem With Current Business Plan Development

Many entrepreneurs do not develop business plans before they start their business or the business plan they develop is not a good one. There are many barriers to developing a good business plan; there is little or no feedback on the business plan, there are few, if any, sources of checklists for developing good business plans, and there are very few repositories where entrepreneurs can learn from examples of a variety of business plans.

Entrepreneurs rarely get their business plans reviewed before they start to shop it around for venture capital. This is too late in the development cycle. First impressions are very difficult to overcome. An entrepreneur with a poor business plan has a low chance of getting their business funded.

There are very few places for entrepreneurs to find localized advice on developing business plans. The many books and web sites on business plan writing are intended for a global or national audience. The solutions are not tailored to Hawaii's unique business environment.

1.3 Applying Software Engineering Principles to Business Plan Development

I propose that many of these problems in the development of high quality business plans can be solved by applying principles from software engineering. The three software engineering principles I propose to apply are distributed review, defect collection and management, and patterns. By conducting reviews of early drafts of a business plan we can ensure that the final version shown to the venture capitalists is of high quality and provides a positive first impression. If we collect the defects found in the early drafts of the business plan we can develop checklists of common problems encountered in business plan development. Entrepreneurs can use these checklists to avoid common problems. By analyzing the defects collected and the actual business plans we can develop patterns for successful business plans.

Project LEAP and the Leap Toolkit support distributed review, defect collection and management and patterns. You can find more information about project LEAP and the Leap Toolkit at the following web site. `<http://csdl.ics.hawaii.edu/Research/LEAP/LEAP.html>` The Leap Toolkit is a general purpose mechanism for technical skill acquisition and improvement. Currently, it is in use to support software development and technical writing. With this grant, I will adapt the Leap Toolkit to support the development and improvement of business plans in the State of Hawaii. Entrepreneurs will use Leap to obtain useful reviews of their business plans, to access and contribute helpful checklists that detect common problems in local business plans, and to learn from and generate new patterns that represent common features of and approaches to successful Hawaii business plans.

1.3.1 Usage Scenario

Entrepreneur Cam wants to start a new business in Hawaii. He needs to write his business plan so he checks the Leap Business Plan Web Site to get some good patterns for successful business plans. Cam finds three patterns that he wants to use. Before he starts writing his plan he down-loads a couple of checklists describing the most common errors made by new entrepreneurs (see figure 1). By studying these checklists Cam successfully avoids these pit-falls and saves many frustrating hours in development. After writing his draft plan Cam submits the plan to the Leap Web site for review. Volunteer reviewers review Cam's plan and note several defects with the plan. These defects are recorded in Leap so Cam can easily track them and the defects are added to the Leap Business Plan Web Site defect repository for later analysis. Cam fixes the few defects with his plan, gets his venture capital and starts a very successful small business. After setting up his successful business, Cam contributes new checklists and patterns to the Leap Business Plan Web Site.

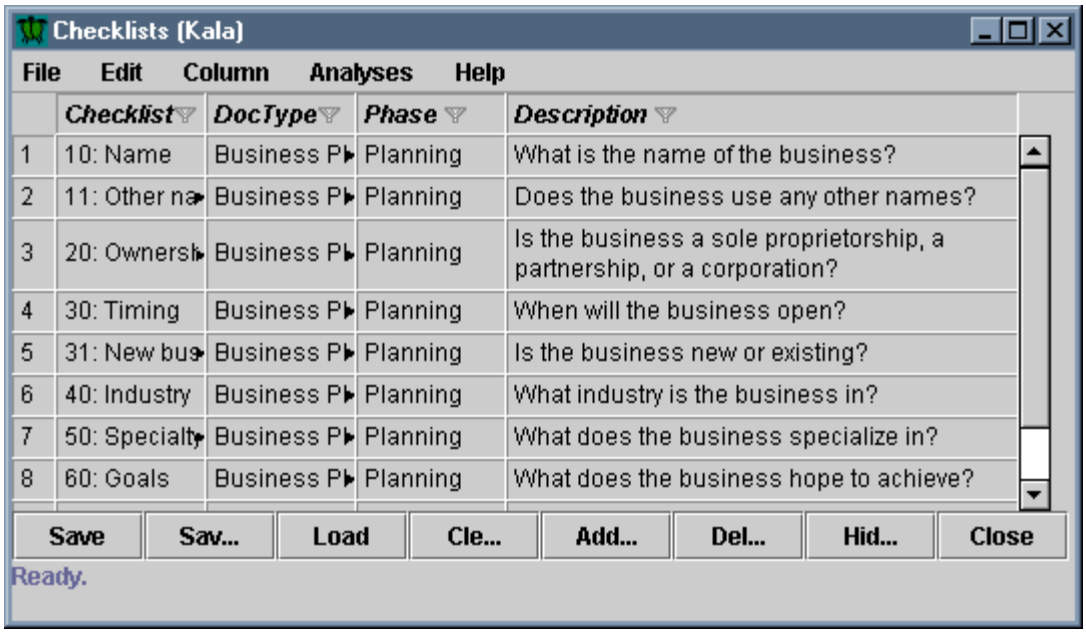

Figure 1: Mockup of Business Plan checklist in LEAP

1.4 Competing Technologies

Searching the web on Yahoo! I found many sites devoted to small business development and business plan development. Here is a sample:

- Yahoo! Small Business `http://smallbusiness.yahoo.com` provides links to resources for small businesses. There are some links to books and suggestions for writing business plans, but no checklists or review services.
- American Express Small Business Services `http://www6.americanexpress.com/smallbusiness/resources/starting/biz_plan` gives outlines for business plans and good reasons for having a plan. There are some very general patterns for good business plans. However, this site does not have any specific information on local Hawaii conditions.

- BizPlanIt.Com `http://www.bisplanit.com` looks like a company that write your business plan after talking to you. There are no public checklists or patterns. This might be a good model for a future commercialization of the Leap Business Plan Web Site.

None of these sites focus on any local issues or provide facilities for reviewing existing drafts of plans.

1.5 Risks Involved

There are several risks to this project. First, can we transfer the software engineering principles to business plan development? Second, there are privacy issues involved with business plans that must be addressed in the system.

This grant will provide an opportunity to address the first risk, by providing the ability to develop a small prototype version and evaluate its impact.

The second issue of privacy also exists in software development and we can apply technology we are developing there to this domain. One solution is to provide a tool to make the Leap data anonymous. The checklists and patterns will not refer to any developer. We will develop mechanisms for submitting the business plans for review that will ensure the developer's privacy.

1.6 Project Plan

Mile Stone	Date
Leap ToolKit Available	Now
Tool to make Leap data anonymous	Summer, 1999
Web Based Repository of Leap Data	Spring, 2000
Pilot Leap Business Plan development site	Summer, 2000

1.6.1 Deliverables

I plan on delivering the following: an Open Source distribution of Leap Toolkit, a Web based Leap data repository, a tool to make Leap data anonymous, a pilot Leap Business Plan development site, and a technical report on our lessons learned.

2 Project Budget

The project budget consists of: A computer to serve as the web server for the Leap Business Plan Developer's Web site, printing, graphics and postage costs for developing and distributing training manuals and advertising, and travel expenses for contacting business experts.

There may be small variations in the price of the equipment when the order is actually placed due to bundling offers from manufactures, etc. Microsoft Office 98 can be obtained from the UH Bookstore.

Item	Budget
Pentium II Computer	$ 3846.00
Intel 450MHz Pentium II Processor w/ 512K cache	
256MB 100MHz SDRAM	
VX1100 21inch color monitor	
16MB AGP Graphics Accelerator	
16.8GB 5400RPM Ultra ATA hard drive	
3.5inch 1.44MB diskette drive	
IOMEGA internal zip drive	
DVD III-ROM Drive	
Philips Recordable/ReWriteable CD-ROM	
Intel EtherExpress Pro/100+	
Telepath 56K Modem	
MS Office 97, Professional	
Windows NT Workstation	
104+ Keyboard	
Printing & Graphics	$ 500.00
Postage	$ 100.00
Travel & Parking	$ 500.00
Total	$ 4946.00

3 Essay Question

As an Aspect Technology Fund grant recipient, how would you contribute to the field of technology and promote the spirit of entrepreneurship?

As an Aspect Technology Fund grant recipient, I will contribute to the field of technology and promote the spirit of entrepreneurship in many ways.

This project will change the technology of process improvement. The basis for this project, Leap, is personal process improvement tool. We are expanding Leap to group process improvement by using the same analyses but looking at the data from many different users. By combining the data from many users we should find general or common trends that will teach us about the process of business plan development. The combined data will lead to checklists and patterns that developers can use to avoid or solve the problems with business plan development. The combining of data and producing solutions is a bottom up process that is very different from traditional top down process improvement. Most process improvement imposes process on developers, not develops the process from the developers.

This project will use current information technology to expand business plan review. We are going to expand business plan review to the Web. Reviewers will not have to be in the same place to conduct a review of a business plan. We want to focus on local Hawaii issues yet have access to outside points of view. Web based review will allow us to use the expertise of people from around the world to look at local issues.

Another information technology we are going leverage is web based data repositories. We will combine web based data repositories with process information. The data repository will allows to search for interesting process patterns and produce checklists to avoid process pit falls. By posting the data repository on the web we hope to share our insights with entrepreneurs.

To go along with the theme of sharing, we are going to use the Open Source licensing model to distribute the tools. Others can use and modify our technology to help improve their organizations. If successful our technology will enable experts, including ourselves, to consult with many different firms and organizations to help improve their processes.

By focusing on business plan development and improving business plans I hope to help entrepreneurs get their new businesses off the ground easier. We can easily share the hard learned lessons of other entrepreneurs. Also by focusing on local issues, we will help improve the entrepreneurial climate in Hawaii. We can learn a great deal about Hawaii's economic environment from the local repository of checklist and patterns for successful business plans. These lessons should help guide our leaders in improving our economic environment. Even if it does not, entrepreneurs will have valuable insight into the specific issues of doing business in Hawaii. Hawaii can become a paradise for of high quality business ideas and plans.

As more and more entrepreneurs learn how do develop high quality business plans in Hawaii they can expand their scope. They can start consulting with other businesses in Hawaii and around the world. An entrepreneur who is able to produce several successful business plans can teach others how to do the same. I hope to see many Leap Business Plan Web sites helping communities around the world.

If this project is successful we will develop a valuable database that will be a valuable resource for research into business development in Hawaii. The repository of successful patterns will help entrepreneurs develop good ideas for new businesses. More new and exciting businesses opportunities will be explored after this project is finished.

Not only will this repository help entrepreneurs, but it will help researchers. Researchers can learn about the common issues with developing a business plan in Hawaii. If we develop another database for another area of the country researcher could do some comparisons between the areas and gain valuable insights into the economic forces in Hawaii and the world.