

**SOFTWARE PRODUCTIZATION CENTER
RUNOFF STUDIOS – A CASE STUDY**

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ABSTRACT:

This paper chronicles the establishment and early experiences of the Millersville University Software Productization Center (SPC), through a case consideration of the Center's fourth client, RunOff Studios, and their efforts to develop and bring to market an environmentally themed educational game. The initial successes and struggles of the SPC are described. A review of the Center's development and approach are presented to offer a blueprint for possible replication elsewhere in academe. As a "case study" the paper is purely descriptive and without a related literature review.

INTRODUCTION:

In the summer of 2007 an interdisciplinary group of faculty joined together to prepare and submit a funding proposal to the Pennsylvania State System of Higher Education (PASSHE). This proposal was accepted and resulted in the awarding of a "PASSHE Planning Feasibility Study for University/Business Infrastructure Grant" in the amount of \$182,541. This three-year grant was to establish the Millersville University Software Productization Center (SPC). The initial interdisciplinary faculty coordinating team included: Dr. Stephanie Elzer, Computer Science, Dr. Patrick McCaskey, Director of the Millersville University Small Business Institute (SBI), and Dr. Theresa Russell-Loretz, Communication and Public Relations. In the fall of 2008, Dr. Nancy Mata, Art and Design, joined the faculty coordinating team, and Dr. Theresa Russell-Loretz exited to pursue additional responsibilities at the University.

This article describes the establishment of the SPC, and the unique coordination that crosses not only departmental boundaries (Computer Science, Communications and Public Relations, Business Administration and Art and Design), but also spans two separate schools (The School of Humanities and Social Sciences, and The School of Science and Mathematics). Finally, in addition, the Office of the Vice-President for University Advancement was actively involved throughout the development of the grant application and the initial establishment of the Center's Advisory Board.

THE SOFTWARE PRODUCTIZATION CENTER:

The term “software productization” refers to the process of turning a rudimentary software concept or early prototype into a marketable product. Thus the efforts of the SPC are primarily focused on assisting local entrepreneurs with market research, the technical implementation of a working prototype of the software concept, the development of business and marketing plans for the launching of the product, and the branding and physical packaging of the product. Once the collaboration with the SPC is complete, the entrepreneur should be prepared to sell their product, either by attempting to raise additional funds (through business loans, angel investors, venture capitalists, etc.) or by directly selling to a customer base.

The model upon which the SPC leverages faculty expertise to guide and mentor students working with the participating entrepreneurs. The students play key roles in the consulting relationship with the SPC clients. In fact, slightly over 40% of the grant amount is comprised of student salaries. The structure and focus of the SPC allows it to achieve several important benefits simultaneously: 1) strengthening the regional economy by assisting fledgling businesses (and hopefully thereby creating local jobs), 2) providing valuable practical learning

opportunities for Millersville students in multiple disciplines, and 3) increasing faculty awareness of the current issues facing regional businesses, thus facilitating the development of compelling and practical curriculum content.

Established in 2007, the mission of the Software Productization Center (SPC) at Millersville University is “to provide emerging technology-focused entrepreneurs within the Central Pennsylvania region with assistance in advancing software products from concept to marketable product”. The Center accomplishes this mission utilizing faculty expertise, the assistance of student interns from various disciplines, and support from community business leaders and technology experts. The Center:

- Serves regional economic and community development needs
- Enhances the quality of instruction and learning resources available to students
- Links the University community to regional business, government, and nonprofit resources

The SPC collaborates with selected applicants to (1) implement a working prototype of the software product, (2) develop business and marketing plans for the launching of the product, and (3) design branding and physical packaging of the product. Eligible projects are restricted to software products that are intended to generate revenue and are still in the conceptual or very early development stages. Projects that are intended to support the business, but that would not be a source of revenue for the business, are not eligible and are not considered. The assistance provided by the SPC is in the form of guidance, expertise, and labor. No funds are directly provided to the selected clients, and no payment is solicited for these services. Once the collaboration with the SPC is complete, the client should be prepared to market the software product, either by attempting to raise additional funds through existing companies or venture

capitalists, or by directly selling to a customer base. Eligible clients are entrepreneurs or businesses with revenue that comes (or will come) from selling software products. Clients are located in one of the several Central Pennsylvania counties. They fall into one of three categories:

- Individuals
- Startups (businesses with five or fewer employees which have existed for less than two years)
- Small businesses seeking to develop a new software product

An Advisory Board was recruited to assist and direct the activities of the SPC. Board members were sought who brought to the table certain experiences, knowledge and skills. These included:

- Software industry experience
- Knowledge of regional small business resources
- Small business experience
- Entrepreneurship experience
- Business startup experience
- Experience with small business legal issues
- Knowledge of venture capital and other forms of funding

The University's Alumni and Development Offices were consulted in the selection of the Advisory Board. However, it was held to be important, that this Board would serve no fund raising purpose. As a part of this consultation the Development Office also provided meeting

space and food for the first two Advisory Board meetings. The SPC Advisory Board meets quarterly plays a vital role in the success of the center, including voting on the final selection of clients. The Board consists of seven regional business executives: (* = MU alum)

- 0. *Mr. Daniel Betancourt, President and CEO. Community First Fund, a lending and support organization for startup businesses
- . Mr. Charles Crystle, Founder, Mission Research, a highly successful software entrepreneur
- . Mr. G. Yale Eastman, General Partner, Eastman Family Partnership, a scientist and retired founder of a successful high technology company, an angel investor and the only member of the Board whose picture has appeared on the cover of *Scientific American*
- . *Ms. Jennifer Hammaker, Director of Business Development for the Innovation Transfer Network, a regional organization that supports cooperation between colleges and universities and business partners in technology commercialization
- . *Ms. Cheryl Irwin, Vice President, Lancaster Chamber of Commerce and Industry
- . *Mr. Scott Landis, Barley Snyder, LLC, an attorney specializing in corporate and small business law
- . Mr. Jesse Stauffer III, CTO, GeographIT, a group leader at a high technology firm

As can be gleaned from the description offered above the goals and potential benefits are essentially the same or, at least, quite similar, for each SPC client. The program is offered at no charge to the client. It is designed to focus on the learning experience, and as such is easily classified as educational in nature. Students are paid for their participation, and can also earn

academic credit for their participation. A conscious effort is made to complete projects within the time frame of either one or two academic terms.

Supervision requires careful cooperation among the participating faculty. Specific assignments have required that the students have had to report, from time to time, to faculty outside of their discipline. Extensive teambuilding is necessary not only among the students but also the faculty. As much as possible, an ego free approach has to be maintained. Each of the participating disciplines speaks a separate language and exhibits different work ethics. Thus there has been a significant learning process, not only among the students, but also the faculty, as we have developed the ability to cooperate.

The University has been highly supportive of this interdepartmental effort. Both Deans involved have actively participated in the process. On several occasions one or both have been present to introduce the faculty team at public announcements or public programs associated with SPC. In addition, the Alumni and Development offices have been helpful. At the outset of the planning for the program, due to the organizational structure of the University, the team felt it was essential to involve their offices in the process. One reason for the support of the administration has been the use of external funding resulting from a successful grant application. The SPC program has also had a good deal of positive local press coverage. The careful use of press releases with the grant award, the naming of the Advisory Board, the various calls for client applications, and most recently, a planned rollout party for one client's product has led to high visibility for the SPC in both print and television coverage.



Company:

Runoff Studios is an eco-friendly game studio that provides innovative ways of educating people about earth's environmental issues. Their product(s) expand awareness and spark interest in others, especially children, to become passionate about the world's eco-system. Runoff Studios will regularly be making donations to non-profit organizations dedicated to protecting the environment for future generations.

Product:

Face the Waste is an educational game application for the iPhone, iPod touch and iPad. This game was programmed using graphics and animations developed by SPC students. In the game, as different types of items move across a conveyor belt, gamers must move the item into the appropriate recycling bin. The gamer loses a 'recycle life' for each item not recycled properly. The gamer has three lives. As the gamer successfully completes each level, they will receive an acknowledgement in the form of an environmental factoid.

Thus, while this fun, interactive, game teaches children and young teens what and how to recycle, it also gives additional information on recycling with each level attained. This characteristic of the game creates benefits for both the purchaser and the user. Although the purchaser may also be the user in this case, a game geared toward younger target market may also have a purchaser uninvolved with the product use. Parents will encourage/assist their children in downloading the game due to the educational aspect, while children will want to download *Face the Waste* to play a simple, enjoyable game. While gamers continue to attain

higher levels, objects and backgrounds are added or changed making game play more stimulating and challenging.

Price: \$0.99

Why was this price considered to be the best? This price allows *Face the Waste* to be relatively inexpensive while still maintaining high quality for the game. Because this is the first application created by Runoff Studios, the low price may also minimize purchase risk for users. As more users purchase the game, they will increase their familiarity with the company allowing Runoff Studios to raise the funds to develop the next application. This will give *Face the Waste* a competitive edge over more expensive games with the same or lower quality. The \$0.99 price is also consistent with the mode for the top 25 paid game applications.

Distribution Channel (Place):

The primary means of distribution to consumers will be from the iTunes apps store. Although iTunes will ultimately be the source of distribution, there are others ways to encourage consumers to purchase the application. Providing easy-to-click-on links on review websites will help consumers easily locate the game. Buttons such as “Get This App” will also be provided through Runoff Studio’s website and facebook page.

Positioning Strategy:

What differentiates *Face the Waste* from its competitors? While the applications market is saturated with several similar concepts and ideas, *Face the Waste* can be positioned into a smaller and unique niche. As an environmentally friendly and educational game, it provides users with more than just a way to mindlessly pass the time. The number of applications for

recycling games is still relatively small with only a handful of other recycling game available for consumers.

From amongst the competitors with other recycling games, *Face the Waste* provides users with a sly surprise for gamers entering the third level. A unique boy villain, Toxic Tim, will appear and appeal to this younger age group while adding a classic challenge: to beat the ‘bad guy’. This makes the game better than those expecting solely to dispose of properly recycle trash. Additionally, pop up factoids provide additional knowledge enabling users to learn useful information about recycling.

Target Marketing:

There are several aspects from the demographical data gathered that shaped the target market. While it targets those age 6-14, *Face the Waste* may also appeal to a wider age group, increasing the size of the target market while still allowing the game to differentiate itself against other game applications. Because recycling is important across all ethnic groups, *Face the Waste* intentionally did not segment the target market according to race or ethnicity. The graphic artists carefully designed neutral objects and backgrounds as wells as a green villain. Although *Face the Waste* is relatively gender neutral, this game may attract more boys due to the male villain and larger market (+4-8% more male users of iPhone and iPod touch). Due to limitations on memory size, English was the only language chosen. This may limit *Face the Waste* geographically, but still provides an opportunity to create updates for the game in different languages to expand the potential market.

Promotional Strategy:

Sponsorships: Applying for Sponsorships with companies will increase the positive impact of the game. The *Face the Waste* team has begun a digital and direct-mail campaign to

identify corporate sponsors for the game. Approximately 5 percent of the proceeds from sales of the game are to be donated to a non-profit foundation promoting environmental education. Each potential sponsor has been asked to match these donations up to a given (varied) amount. In addition, each sponsor is offered the opportunity for its packaging to be among the items moving along the conveyor belt in the game. Finally, the participation of sponsors will be widely acknowledged through various press releases, a link on the RunOff Studios web page, and through social media citations.

Media: The company, working with the Marketing and Communications Department of Millersville University and the Software Productization Center will engage in a press blitz followed by an extensive social media plan. Including at the Completion of the Game:

- A You-Tube Video
- Email Blasts
- Promotion through Facebook, and Twitter accounts, and blogs

Press Releases:

- P/C trade magazines
- Reviewer Guides
- 50 top reviewers receive a free copy of the game
- Talk Show Personalities
- News Stations
- Newspapers
- Environmental Groups
- Government Officials
- Dept. of Education

- Major Companies that focus on Environmental Issues
- Major TV & Radio networks

Corporate Identity: At the start of the relationship RunOff Studios had little or no corporate identity. To this end the student team developed the company logotype designed the company web page (runoffstudio.com), assisted with the launch of a Facebook page (www.facebook.com/pages/Runoff-Studios/145728465438718), and helped establish several blogs.

Launch Party: A major transition moment for the Millersville University Software Productization Center and our Clients has been the organization of a “launch party”. This is a media event that pulls together: the client, their list of select guests, the students who have worked on the project, the faculty, representatives of the University administration, and, of course, the local media. Refreshments are served, participants introduced, and the client’s business introduced (launched) to the public. This is a symbolic moment for separation of the Center and the client and marks the time of transition to independence. The Launch Party for RunOff Studios and the game, *Face the Waste*, is scheduled for October 26, 2010.

WHAT IS NEXT?

The SPC program was funded by a three year “PASSHE Planning Feasibility Study for University/Business Infrastructure Grant”. When the Advisory Board was put together one issue was to find a group who would not only offer excellent advice and guidance, but could through their contact and support also assist the team in locating continuing funding. The feasibility funding came from the PA State System of Higher Education. Now the SPC must determine if

there is sufficient reason to take the program further, and if there is, locate long-term funding support. The SPC team is now working with the Advisory Board and the University's Development Office to properly fund the operation beyond year three. A \$1,000,000 grant application has been submitted and is now under review. Even in these difficult financial times for public education, the University has recognized the value of the SPC program, and discussions have been held to assume at least minimal funding should the grant not be successful. In the meantime, the clock is ticking, with no clients scheduled after RunOff.