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## A business model for incompetent "IT" products

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#### ABSTRACT

This paper proposes a business model – one that affects vendors of IT products that have officially been determined to be commercially unviable in the marketplace and are set to be permanently decommissioned. The paper proposes to channel the usage of these products for use by non-profit enterprises. The vendors of incompetent IT products, implying the products have been rendered commercially unviable, make exit decisions on these products thereby killing an otherwise usable product and making it extinct, instead of considering the use of the product by non-profit organizations. As a result, commercially unsustainable products cease to exist altogether instead of getting recycled for reuse by non-profit organizations.

#### Keywords

Technology recycling, corporate social responsibility, non-profit organizations

#### INTRODUCTION

This paper outlines a business model for organizations that are also vendors of IT products such as databases, ERPs and that are seeking to discontinue their IT product offering. The decision to discontinue an IT product by the vendor is often made because the product is in the saturation / decline stage of the product lifecycle (Espinosa et. al 2009). An IT product can be in the decline stage for several reasons - facing stiff competition from other products, decreasing demand, inability to evolve to a more sophisticated offering, incompatibility with the needs of the product consumer – any of which taken individually or in conjunction with each other can lead to the eventual demise of the product. Such a situation is also characterized by dwindling cash flows, associated with the product offering, which are no longer profitable and which will have to be turned off because further enhancements and upgrades to the product will not improve product viability. Pushing the kill switch on the product becomes an inevitable solution from a profitability standpoint. This paper is an investigation of the idea that can lead to continued sustenance of the product by architecting a new avatar for that product, which may not be as commercially viable as the original offering but seeks to capitalize on the usability of the product itself and leverage product functionality for meeting the goals of non-profit organizations. An IT product that is in the kill stage just described should be evaluated for reuse by non-profit organizations – this is the central proposition of the paper which aims to further the idea of recycling the software product by re-positioning it for future use by non-profit enterprises.

Vendors of IT products create them to meet *contemporary* business needs of the marketplace. IT products such as desktop applications, databases, IDEs, testing tools, CRMs, decision support systems, application software suites and so on can automate process workflows for businesses thereby increasing the efficiency with which the business executes and operates. The IT landscape by and large is considered mercurial, with new technologies and innovations emerging at a rapid rate. Some of the technologies find widespread use, adoption and diffusion in the industry while others disappear and the market barely registers their presence. The technologies that are embraced by the marketplace are usually adopted, assuming that they will be around to serve the business needs for the long term. There is much research done on socio-cognitive attitudes and behaviors of organizations (Wang 2009; Schwarz et. al 2009; Mansour et. al 1980; Claybaugh et. al 2009) that drives the adoption of a technologies organizations choose to invest in. As a result, technology vendors make decisions of whether they want to continue to offer a product, based on current and projected demand for that product in the existing marketplace. Vendors often architect replacements of their existing products in order to compete with an emerging product, upgrade and enhance existing offerings, or start offering an enhanced version of the product in parallel with the existing offering.

This paper focuses on vendors who discontinue one product and replace it with an entirely new product which is a significant improvement over the previous offering, because the new product is a commercially more viable opportunity. It specifically excludes version upgrades and incremental enhancements to existing products or variations offered in parallel with existing product lines. Decommissioning an existing product in favor of a new product also causes the customer base to either adapt to the new offering or switch to another offering. It is also possible that the new IT product or another novel offering is such a major improvement over the existing offering that the product simply dies in the marketplace as a consequence of little or no

demand. Another factor that motivates an organization to discontinue a product in its entirety is the emergence of pet ideas or pet projects that would result in the creation of an entirely new product the potential of which significantly eclipses and outdistances the existing offering. In addition such pet projects would be facilitated by the organization only if the associated cash flows greatly exceed those associated with existing offerings, thereby allowing the organization to make a commitment to invest in the new product offering. In some cases, IT/software products are discontinued in order to "reinvent a fancier wheel" and such strategic decisions are well within the jurisdiction of the vendor company. This type of discontinuation phenomena is outside the scope of this paper.

When a vendor organization decides to discontinue a software product, customers are forced to make product switch decisions. While keeping pace with technological advancement and product evolution is a sound business practice for technology companies, an otherwise usable product becomes extinct in the face of new product offerings because it is not commercially viable anymore. Before pulling the plug on a software product offering, organizations should consider recycling the product for use by non-profit organizations and such an evaluation, if undertaken by the vendor organization can also help meet the organization's goals of meting corporate social responsibility. Various organizational structures are hypothesized and discussed in this paper, all of which can support such a venture and a description of the business model that can facilitate technology recycling for the benefit of non-profit enterprises is discussed.

#### THE BUSINESS MODEL: RECYCLYING IT PRODUCTS FOR REUSE BY NON-PROFIT ENTERPRISES

Non-profit enterprises are constantly seeking opportunities that can reduce their operating expenses while continuing to channel capital in causes that create better communities (Allison 2005). If software/IT products were to be made available to non-profit organizations at reduced costs or even as freeware, these organizations could potentially leverage the software product to better meet their goals. For example, Microsoft recently discontinued its Encarta offering in 2009. Microsoft Encarta was a digital multimedia encyclopedia that operated between 1993 to 2008 and was officially discontinued in 2009. The encyclopedia was available via DVDs or CDs or could be accessed online via yearly subscriptions. Apart from the revenue streams generated through the sale of the encyclopedia via the various distribution channels mentioned, the company also relied on purchase of online advertising space by other companies to keep the encyclopedia a commercially viable product. The product was ultimately deemed unprofitable and was discontinued by the company. One of the reasons cited for discontinuing the product was competition from traditional encyclopedia offerings in the market which were more aligned to the behavioral habits of encyclopedia users than the digital offerings. However instead of discontinuing the product if Microsoft, had opted to recycle the product and make it available as freeware to non-profit organizations, whose mission is to provide education to under-privileged children or those that work for provisioning children's right to education, the product itself would have found sustenance based on both its usability and its ability to effectively meet the goals of non-profit organizations. Microsoft has stated that although they have discontinued Encarta they will continue to provide support for Encarta for a period of three years following the discontinuation in 2009, which would be until 2012, following which all product support will cease. If Microsoft could completely discontinue the product as a commercial offering, then re-package it and re-position it for continued use by non-profit organizations, extending the three year support to non-profit organizations then this would be a proposition that could further Microsoft's agenda for corporate social responsibility and also meet the goals of non-profit organizations such as UNESCO, CareForChildren. Non-profit organizations that seek to further the cause of meeting education needs could potentially leverage Encarta for the remainder of the three years to facilitate the meeting of their objectives.

Instead of the pull-the-plug approach, which is how vendors divest and how customers divest an existing product, this paper focuses on an alternative to product divestiture that is to the advantage of non-profit organizations. Discontinuing a product, in a bid to replace it with a new product or in order to remain competitive in the marketplace is a best practice for vendor organizations. However instead of discontinuing support for an existing product, thereby making it extinct in the marketplace, the vendor should consider transferring the patent / copyright of the product to a subsidiary or a third party who can continue to offer the same product with very limited support to a class of organizations or businesses that are not in the same value chain as the existing customers of the original vendor organization but are organizations that exist to support non-profit causes. There exists the chance that non-profit organizations would greatly benefit with the application of the technology (Zmud et. al 2004), an opportunity that should be evaluated as a best practice by vendor organizations seeking to discontinue the software product. For example, consider a vendor whose target customer for an existing software product offering is a large business - when the vendor makes a commitment to replace the existing product with a new product offering, or if another vendor comes out with a product that has the power to obliterate the current offering, the vendor of the existing product should consider transferring ownership of the product to a subsidiary, whose sole business mission is to identify opportunities for the application of technology for not-for-profit purposes. The rates for the product can be

discounted and the support limited, but affordable so that non-profit organizations can use the product while other businesses embrace the more sophisticated offerings. Or the vendor can effect exit decisions for its existing customer base for existing offerings and instead of pulling the plug on the product itself, sell the copyright / license for the product to a third party with the condition that the third-party firm will find social causes that can be meted by the use of the product. In both cases the vendor would be satisfying its agenda of realizing goals tied to meting corporate social responsibility. Guttierez's research (Gutierrez et. al 2009) indicates that non-profit organizations typically are late adopters of IT and software products; and tend to incorporate and work with a heterogeneous product base, characteristics that further make the business model outlined in this paper apt for meeting the needs of non-profits.

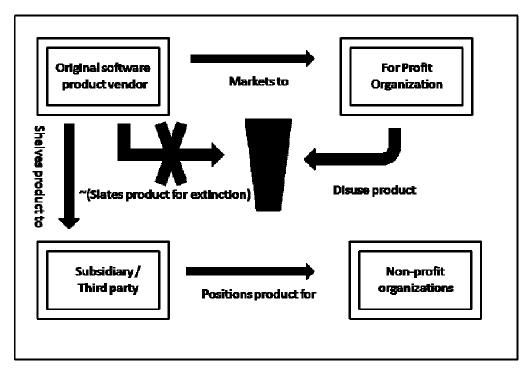


Fig 1: Recycling of commercially unviable software product

The core of the business model, as seen in Fig 1, is to reuse IT products that are discontinued or about to be discontinued, and that can cater to the needs of non-profit organizations. The vendor makes an assessment and determines that the product is not commercially viable based on decreasing demand for the product or negative cash flows and schedules it for extinction from the marketplace. The vendor of the product however does have two options – one is to throw the product over the wall to a subsidiary organization that can assess and evaluate the product for non-profit applications and accordingly sketch a marketing strategy that demonstrates how the product can be repositioned and potentially re-priced to serve the needs of non-profit organizations. The other choice the vendor has is to sell the copyright / patent of the IT product /software to a third party that can assume full ownership of the technology as well as providing product support needed to deploy and maintain the product, with the vendor mandated restriction that the technology be deployed solely for the benefit of non-profit organizations. Both strategies implement the business model with the intent to downgrade to disseminate to non-profits as opposed to discontinue and kill.

The next question is, under what conditions can this business model be adopted and deployed? This strategy of disseminating products that are having a near death experience, in their existing position in the marketplace, should be applied only if all of the following conditions are true:

- The existing product has proven to be incompetent in the marketplace
- The product in its current form has little or non-existent demand; i.e. it is not in sync with consumer needs and is no longer a profitable proposition for the vendor company.
- The new product offering if in the works to be introduced in the marketplace would completely replace the existing product offering and is a significant improvement over the existing offering for the current customer base, such that the business case for the new product offering completely eclipses that of the existing product offering.

- The new product offering is not a version upgrade.
- The service and support offered to the existing customers for the existing product will be completely discontinued by the vendor, thereby transferring the risk of product support and maintenance on the customer, if there is a customer who wishes to continue to use the existing product.
- A business case can be created for the existing product for non-profit organizations that will greatly benefit if the product were to be made available to them, particularly if the organization is a non-profit.

For example Computer Associates marketed a product called CA-Cricket Presents back in the early 1990s. This was a presentation software package that could create output for overheads, handouts and speaker notes. It could create presentation charts and included freehand drawing capabilities. It competed unsuccessfully with Microsoft's Power Point package and ultimately Computer Associates made an exit decision on the product and discontinued it. The software was priced at a premium and marketed as a high end product. When Computer Associates failed to capture the projected market share for its product, instead of discontinuing the software completely, CA could have offloaded it to a subsidiary that could re-package the product and target a different class of customers. The subsidiary for example could make the presentation software package available at rates that are attractive to non-profit organizations and continue to provide support for it.

The technology may have originally been positioned as B2C or B2B based on the technology capability and the customer segment that the technology catered to. However the business model discussed in this paper is primarily B2B, where the IT/software product is now being re-positioned for reuse by non-profit organizations. In the technology adoption lifecycle, the non-profit organizations are seen as emerging as a new customer group and can potentially be early adopter of discontinued IT/software products. The subsidiary or the third party organization that assumes ownership of the product will create the marketing strategy that will leverage the technology for the benefit of non-profit organizations. At the very least, the business case for the re-packaged IT/software product for non-profit organizations is based on:

- Failure to maintain profitable position of the product in its original form
- Can serve the needs of non-profit organizations and its causes
- Leverages proven functional capabilities of the commercially developed product
- Attractive prices for non-profits
- Would be discontinued otherwise

Examples of discontinued products (all of which were software application products, backed by commercially viable propositions, when originally introduced in the market) are –Headline Studio by MetaCreations, MicroShop, Creative Writer, Bounceback Ultimate and more recently Intel's SuiteTwo. Intel's SuiteTwo product was designed to be an enterprise suite of tools that could be used by all employees within an organization and included the ability for employees to collaborate via blogging, texting, posting wikis, and facilitated the provisioning of continuous news feed. In 2009, Intel decided to pull the plug on SuiteTwo. At the time of Intel's decision to pull the product from the market, SuiteTwo had already been on the shelf for two years and had 80 clients. SuiteTwo or a more trimmed version of it could have been evaluated for disposition to non-profit enterprises because of the capabilities it provided. At the time of product discontinuation, Clinical Trial Systems was using the product as a component of another web-based system that was in use by doctors for advising cancer patients on their participation in drug related clinical trials. Intel on its part did all it could to help its customers adjust to its decision for taking SuiteTwo out of the market with special assistance to non-profit organizations like Clinical Trial Systems. However, being an organization that creates commercially viable products, it did not evaluate the alternative to position the product, SuiteTwo, or as mentioned earlier, a trimmed version of it for continued use by non-profit organizations.

#### ORGANIZATIONAL STRUCTURES THAT SUPPORT THE BUSINESS MODEL

If a product that a company offers is no longer aligned to the organization's core strategy (de Vaujany et al 2008) then the company should consider tapping into its agenda for achieving goals which are in alignment with what the organization considers to be its corporate social responsibility (Kotler, 2005). In this paper we refer to how the organization can downgrade and disseminate the product through a subsidiary, solely created for the purposes of repackaging IT/software products for non-profit enterprises. There are various organizational structures that can help facilitate the business model - the technology vendor can open a non-profit subsidiary that focuses on opportunities for under-served areas of social interest that can leverage technology solutions. With the IT landscape constantly changing, this business unit can serve as a backdoor for technologies which are at the decline stage of their product lifecycle and can be recycled for accomplishing social causes. Alternatively an independent organization can be created that acts as a dumping ground for companies whose technologies

did not fare well in the competitive marketplace – the license and the rights of the product software can be transferred to this organization – with the intent to find and disseminate non-profit and only non-profit applications of the technology. Based on how the IT product is re-packaged and disseminated to non-profit organizations, the government can create incentives to further the cause of re-positioning a dying IT/software product for non-profit organizations.

Another variation to the structure discussed above is to actually establish a non-profit organization that develops the IT infrastructure for non-profit organizations based on IT products and software that have been discontinued. This organization can serve as the substitute dumping ground for technologies that are no longer competent in the marketplace and the mission of this organization would be to meet the IT needs of other non-profit organizations. However, such an organization would not only assume the patent / copyrights associated with the original product but also commit to providing continued support for the infrastructure it architects for the non-profit organization. This organization would also attract IT workers who are seeking to continue to use their skills in IT products that have been deemed to be commercially unfit and hence have been discontinued. These IT workers can work part-time or full-time in the organization and architect IT solutions for other non-profit organizations thereby meting their own duty of observing social responsibility.

#### CHALLENGES FOR BUSINESS MODEL ADOPTION

The business proposition discussed in this paper has challenges associated with effective implementation. Firstly, the fact that a product originally priced at a premium and sold at a premium to businesses would have to be re-priced at lower rates in order to make them affordable to non-profits –the vendor organization doing so would have to make sure that discontinuing the original offering and packaging it for non-profit use performs product discounting in a way that truly reflects the shrinkage of existing customer base, inability on the part of the product to successfully compete in the marketplace, a commitment on the part of the original vendor to reduce support for the product and a commitment to discontinue future upgrades and enhancements to the existing product. The second reason is that the intent to disseminate and make the product available for social reasons should be strictly observed. The product once discontinued in its original form cannot be repriced and repackaged and sold again to publicly-traded or privately held capitalist enterprises once a decision has been made to make the product available for use by non-profit organizations.

Consider the case of FreeHand offered by Adobe. FreeHand is a tool that facilitates creative design, document creation and editing. In 2003, Adobe made the decision to cease from making any future product upgrades to FreeHand and instead launched Illustrator which was a significantly superior product over FreeHand in terms of features and usability. But instead of completely discontinuing FreeHand, Adobe continues to offer the product with limited support to the existing customer base. Eventually if and when Adobe makes a decision to completely discontinue the product offering, then Adobe should consider making a business case for a different class of customers who can benefit from the product offering. Adobe can open a non-profit subsidiary that can make FreeHand available for other non-profit organizations or it can open a subsidiary that can market the product to non-profits at deeply discounted rates.

This type of downgrade and disseminate strategy is a tough process for the organization as a whole to effect because it forces the organization to rethink its marketing strategy for a product it once thought was commercially viable and requires fundamental shifts in the way companies position their products. But if the decision has been made to kill a technically viable product which also happens to be commercially unprofitable – then at the kill point the decision to disseminate the product to non-profits can also be considered.

The business model, as discussed above, requires the company to rethink its marketing strategy for the product, scheduled for divestiture, in terms of its pricing and positioning. The decision to downgrade and disseminate should only be considered at the point of product retraction and not at the time of market entry or the time of product inception and conceptualization. The product can be phased from a period of retraction wherein the organization officially decides to stop making any future enhancements or upgrades to the product and pulls the plug on customer support and service for the product to a period of downgrading the product to a period of dissemination when the product is now re-packaged and offered for use by non-profit organizations. The point is that the two business cases for the product – one for profit and the other for non-profit - should be created by two different teams that have different goals at different times of the original product lifecycle.

#### CONCLUSION

The idea is, that instead of discontinuing an IT product / software which is no longer viable in the existing marketplace, consider the applications of the technology for non-profit organizations that can potentially benefit with the continued

deployment of technology. Such a strategy will also enable organizations satisfy their goals of meting corporate social responsibility. However adopting this strategy will preclude any debate related to bringing the technology back to the commercial marketplace, once a commitment has been made to use it for the benefit of non-profit organizations only. This strategy is, to some extent, observed by desktop companies, like HP and Dell, who sell older, discontinued models of their PCs, to economically disadvantaged people in third world countries. However the strategy still has to see more formalization and more observance in the arena of discontinued software and other IT products.

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