

A Dynamic Web Business Creation and Patenting Model for Collaborative Internet Business

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Abstract

Web process creation and patenting model for collaborative internet business has been designed in this paper. This is a collaborative quest for new and better web businesses that begins with a data capture about past and present web-based businesses in an enterprise. The outcome of this is stored in a repository of web-based businesses. The Peers review the new web-based businesses in the repository for patentability. A quarterly loop back, a brainstorming session and an idea walk through session is used to make the process of web business creation dynamic. A clear, cheap and effective method of in-house IP creation, IP repository management and proper use of incentives to drive innovation in a collaborative web enterprise has been set forth in this paper. This should also boost the level of patenting pursued by web-based Small and Medium-sized Enterprises (SMEs) and thus enable them to earn adequate rewards for their business efforts.

Keywords: Dynamic, Web, Business, Creation, Patenting, Model, Collaborative, Internet, Business

1. Introduction

Collaboration is a recursive process where two or more people or businesses work together towards an intersection of common goals by sharing knowledge, learning, and building consensus, Ann.M.T (2007). Structured methods of collaboration encourage introspection of behavior and communication. A web business is a series of steps or processes designed to produce a product or

service. New processes evolve through the enterprise in-house collaboration efforts. New Patentable web businesses may be found, these are validated and verified further by the peers, codified and stored in the knowledge repository by the knowledge engineer. Inventors of the new web businesses are remunerated. The business strategy is aligned to match the new web-based businesses, if one is found. The internet is replete with a lot of small and medium scale enterprises (SMEs) engaged in web-based business. A lot of good (patentable) web-based businesses emanate from these SMEs, but it is on record (Christina W, 2015) that the SMEs often do not bother to pursue a patent right over any of their original creations. Only the big companies on the web go for patent rights as they have opportunity.

2. Literature Review

Luis.M. C (2011) wrote on Adaptation and value creating collaborative network, he concentrated on business collaboration among virtual enterprise. Particularly, it proposes a lightweight process modeling language and corresponding metamodel to create the internet scale virtual enterprise collaborations and introduces goals to help business users define abstract processes and finally map them into concrete services available on the internet. Multiple service providers are generally involved and their services are outside the control of the process owner, services can suddenly change because of new versions. Networking issues can make services unavailable or have unacceptable latencies. Ned Kock(2005) wrote on business process improvement through E-Collaboration, he

explained the history of business process improvement and its importance in the current business landscape. His aim is not to just look at the implication of collaborative technologies but also to examine how they can be employed for organizational productive improvement. Liang-Jie Zhang (2006) wrote on modern technologies in web services research, he addressed the research challenges

and opportunities in the areas of web services interoperability and mathematical foundations for enabling federated web services discovery, dynamic web services composition and business semantic computing. He also presented some ideas on how information should be covered in a web service model, a multidimensional model was created.

3. Model Design

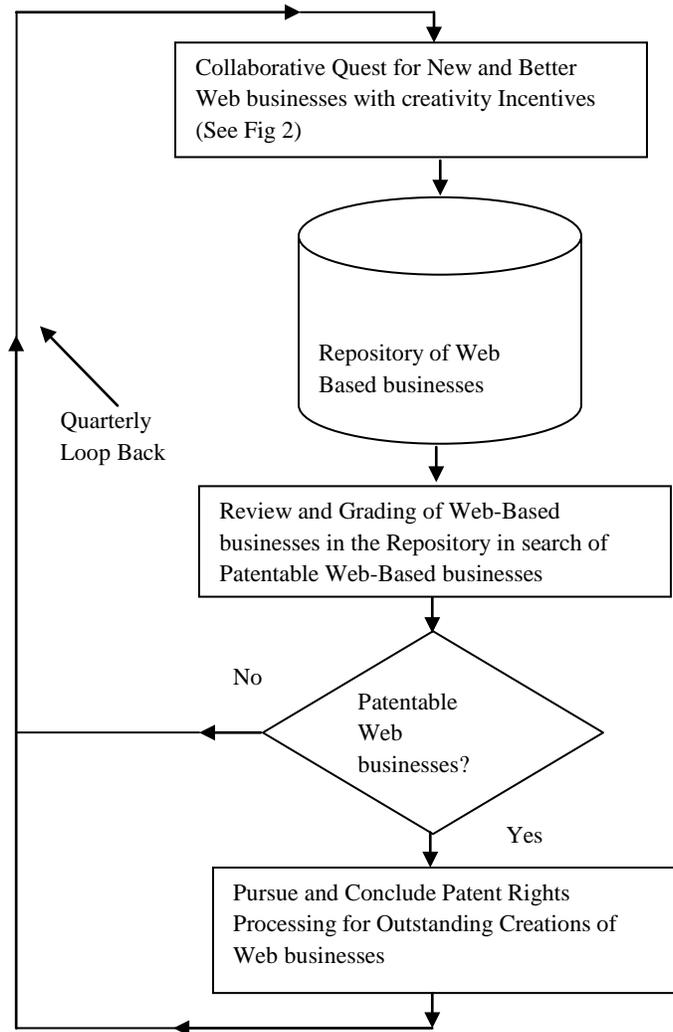


Fig 1: Web Business Creation and Patenting Model for Collaborative Internet Business.

The Web Business and Patenting Model described in this paper (Fig 1) is aimed at the web based collaborative SMEs and provides them with an easy way to accumulate and pursue patent rights for patentable inventions. To be

collaborative in the context used here means to pose this question to the entire workforce of a web-based business: ‘Are we doing the best (and most lucrative) web business we can do? “Is there perhaps any better (and more profitable)

web-based business we could be doing instead of the present one that we are doing? This question is thrown open to the entire web-based SMEs. Workforce comprised of junior knowledge workers, senior knowledge workers, junior administrative staff, senior administrative staff and top management staff of the web-based SME. The idea is not to exclude anyone from participating in the search for a better web business as no one knows from whom the winning intuition might come.

First, the web-based SME captures data on all past and present web-based businesses the enterprise has ever involved in and stores them in a web business repository. The repository contents are made to be readily accessible to all in their workforce on read only basis. The enterprise then pursues an enterprise-wide in-house collaborative effort towards evolving better web-based businesses (Fig 2). Carefully selected Senior knowledge workers and Top management staff constitute the Peers who would verify and validate any web business suggestion from the work force to see if it is better than what they have been doing or if it is original enough, or if someone else might need it at a fee even if the enterprise does not wish to go that way. The peer reviewed good web business creations are then stored in the web-business repository. During the search for better web-business alternatives, the enterprise might use brainstorming sessions among its workforce or they might ask whoever has a good web-business idea to present its details before a peer review panel and defend every aspect of the web business, answering such queries as might be posed to him or her by members of the review panel. This process is what is referred to as “Ideas Walk Through” in Fig 2.

It is possible that in a quarter (3 months), either 0 or 1 or 2 or 3 or even 4 good web business ideas might be found. If none is found, the web-based enterprise continues with its old web-based business in the next quarter. If one better than the present web business is found, the top

management might approve that the enterprise move over to the new web business. Where more than one outstanding web businesses are found, the Top Management decides on how many the enterprise can handle. Any new discovered web business is recorded in the web business directory whether the web based SME is working with it or not. However, there is a field or column of information containing 1 or 0 to indicate whether the enterprise is running that web business (1) or not (0).

4. Web Business Creation Incentives

It is hereby recommended that a percentage of the extra profit accruing to the web-enterprise as a result of their shift to a new and better web business idea should be paid as an incentive to the staff that originated the idea. 10% of extra profit earned seems adequate for this purpose, but a given enterprise may elect to scale it up or down. The incentive is in addition to the income normally paid to the originator of a new web business.

All new good web business ideas captured and held in the web business repository are reviewed at the end of each quarter in search of ideas that are patentable. If any is found, the legal department is given the task of working out and concluding a patent right for the invention (Fig 1). This cycle of in-house quest of new web business creations, storage of new creation in the repository, reviewing the repository to locate patentable ideas and pursuing the procurement of patent rights where necessary is repeated every quarter. This makes the system dynamic and always improving (Fig 1). Every good web business idea stored in the repository after peer review commands a price. If it is not used within the enterprise, it could be sold as a patent right or to those looking for good web-businesses to do or such ideas can be marketed as e-books on web businesses process design. 10% of all profits earned from such effort still go to the originator of each web business idea involved in a sale or in an e-book. This should go a long

way to encourage strong participation within the enterprise in this collaborative internet business scheme.

5. Stages in the Model Design

The rest of this paper reveals the details of each of the stages involved in the development of this web-business creation and patenting model.

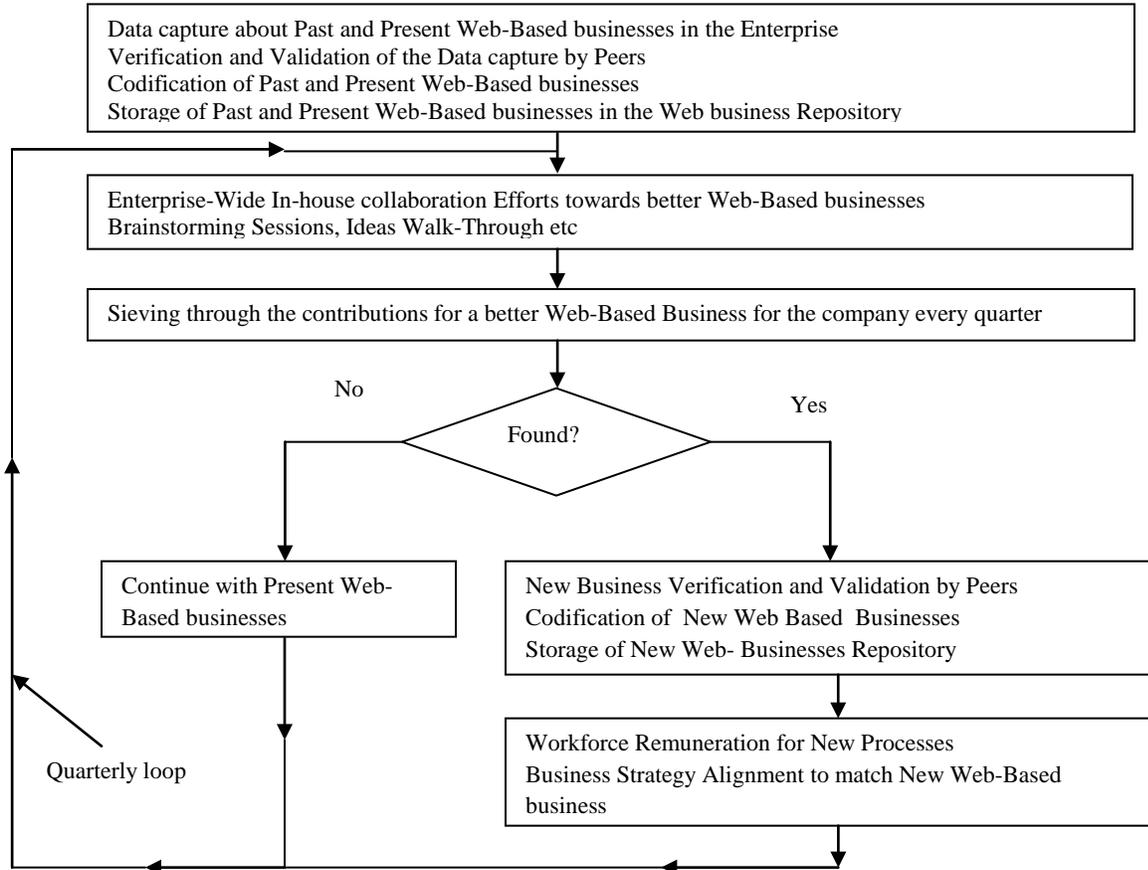


Fig 2: Quarterly data capture of new web business contributions with a remuneration package to catalyze new web-based business creation.

Fig 2 denotes the quarterly data capture of new web business contributions with a remuneration package which is used to catalyze new web based business creation. Data is captured about better businesses for the Enterprise. It is verified and validated by the Web Masters and Web-based operations manager, the successful knowledge is codified by the knowledge engineer and stored in a repository. Based on these, there is an enterprise wide in-house collaborative effort for a better web-based businesses, sieving through the collaborative outcome which will in no doubt lead to new

businesses. This new business is verified and validated by the peers and stored in a repository by the knowledge engineer. Those worker who contributed the new web processes are remunerated. Business strategy is aligned to match the new web-based business. When there is no new business, one continues with the present web based business (Fig 2).

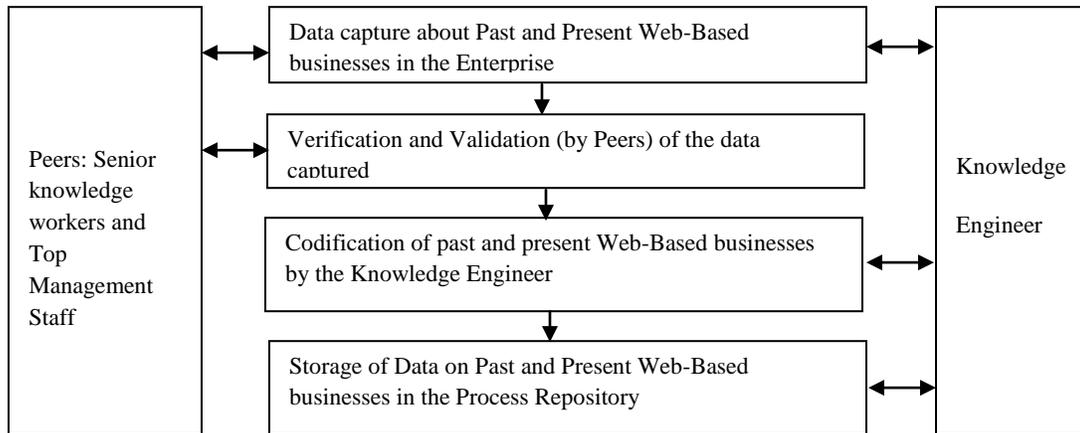


Fig 3: Creating the initial Web-Process Repository

Fig 3 shows the initial data capture on past and present web-businesses in the enterprise. The knowledge engineer, the managers/senior knowledge workers and Top management staff participate in this process. The knowledge engineers initiates the elicitation process by posing carefully worded out questions to each staff of the enterprise. The Peers comprised of the senior knowledge workers (managers of web businesses) and Top management staff listens as each staff is making his or her input in response

to the questions posed by the knowledge engineer. They now verify and validate the input by the staff concerning past and present web businesses in the enterprise. Thereafter the Knowledge Engineer codifies the inputs approved by the peers and stores them in the Knowledge Repository. The contents of the knowledge repository are made readily accessible to every staff in the enterprise so that anyone trying to evolve a new web business would not re-invent the wheel.

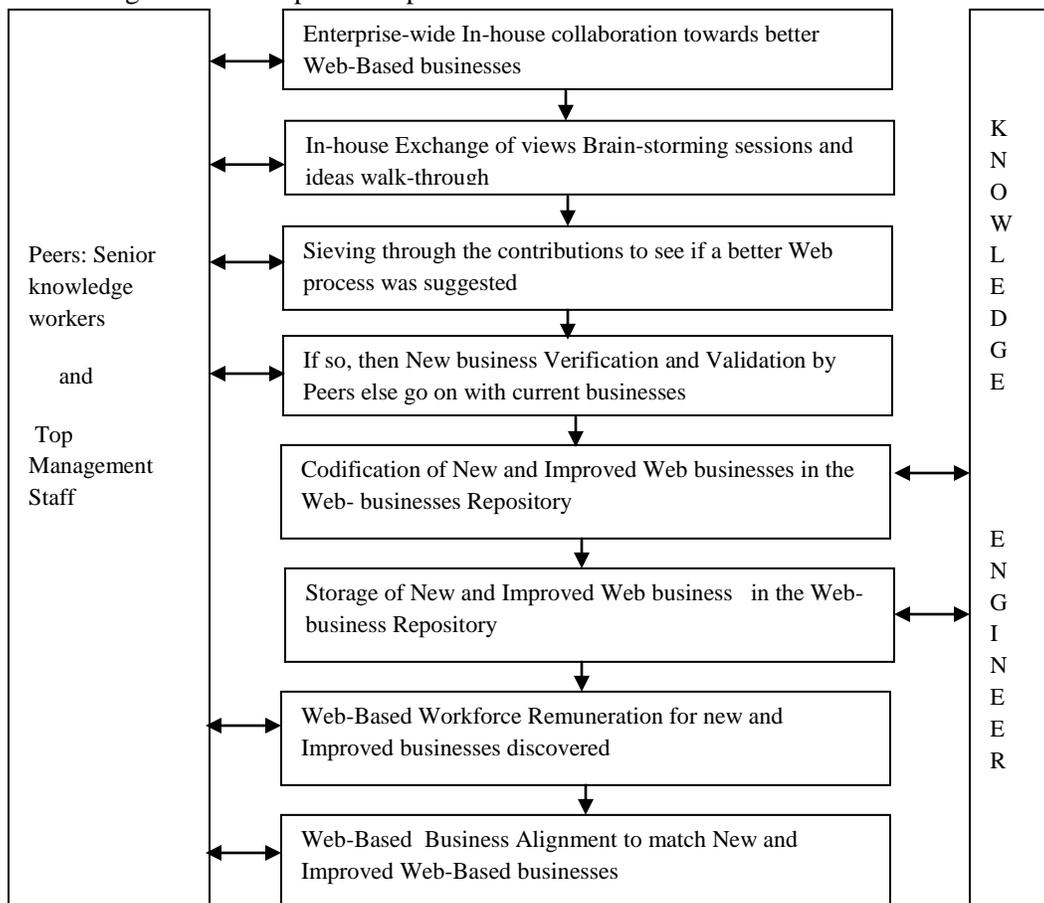


Fig 4: Quarterly Collaboration Effort towards Discovering New and Improved Web Businesses

Fig 4 shows more details of what happens in the subsequent quarterly collaborative effort towards discovering better web businesses. There is an in-house exchange of views, a brainstorming session and an Ideas Walk Through process. The peers sieve through the contributions by members of the workforce to see if any better web-businesses than what they had been doing had been suggested, or if a new idea is worth capturing in the web businesses

repository. After such verification and validation exercise by peers, the knowledge engineer codifies the approved web businesses and stores them in the Knowledge Repository. Records are kept in the web business repository that identifies the contributors of profitable ideas for future remuneration. They also can flag the USE Flag 1 or 0. When it is to be pursued as a web business by the enterprise 1 and 0 otherwise.

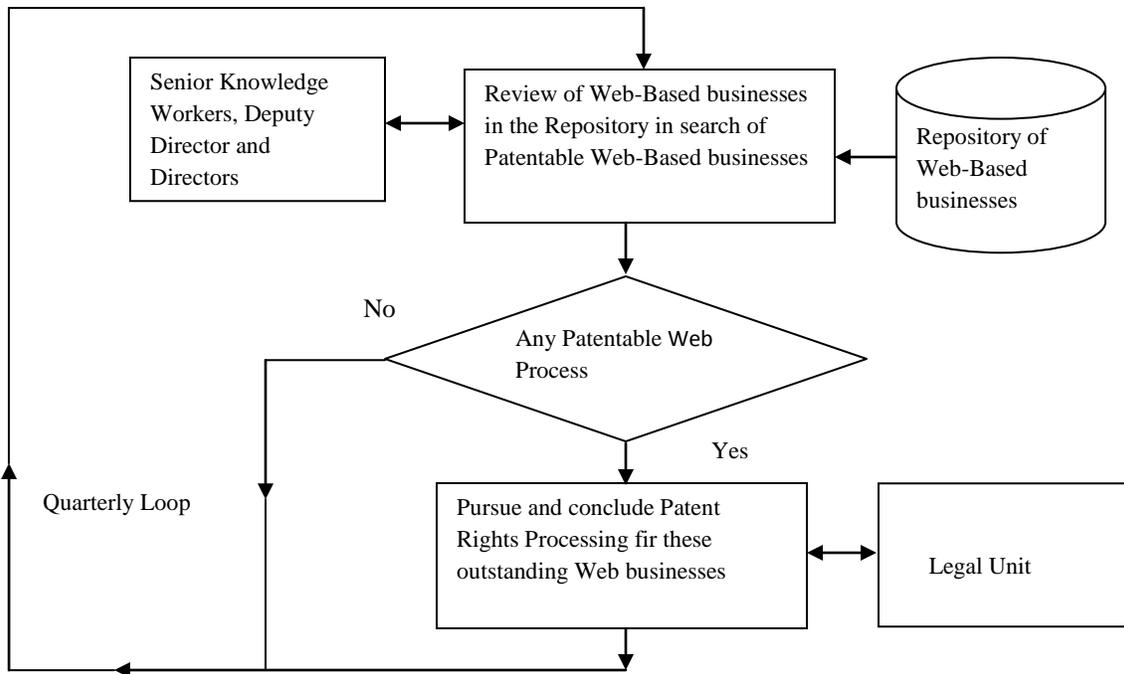


Fig 5: Patenting of Outstanding Web Process Creations

Fig 5 shows the scenario where the peer review panel plays back the Knowledge Repository in search of patentable web-based businesses. If none is found, they wait until the end of another quarter before repeating the process. If they find any patentable web businesses in the repository, they advise the legal unit accordingly who then pursues the necessary patent rights to its logical conclusions. Meanwhile the peers wait for the end of another quarter before they loop back to repeat the process (Fig 5).

6. Conclusion

This model makes for increased productivity among the workforce as a result of the incentives offered. One is clearly encouraged to give one’s best to the enhancement and growth of a business that rewards excellence so judiciously. A clear cheap and effective method of in-house IP creation, IP repository management and proper use of incentives to drive innovation in a collaborative web enterprise has been set forth in the foregoing.

This should also boost the level of patenting pursued by web-based SMEs and this enables them to earn adequate rewards for their business efforts.

7. References

Ann Marie Thomson (2007), Collaboration: “Meaning and Measurement” ProQuest LLC, 0493518592, 9780493518596.

Christina Wainikka (2015), “*Intellectual Assets and innovation The SME Dimension*”, Nordic version of the OECD Report, TemaNord, 2015.

Lang-Jie Zhang, “*Modern Technologies in Web Services Research*”, IBM T.J. Watson Research Center, USA., IGI Publishing (an imprint of IGI Global) 701 E. Chocolate Avenue. www.idea-group.com.

Luis M. Camarinha-Matos, Alexandra Pereira-Klen, Hamideh Afsarmanesh(Eds.) (2011), “*Adaptation and value creating collaborative networks*”, 12th IFIP WG 5.5 Working Conference on virtual Enterprises, PRO-VE 2011, Sa Paulo Brazil.

Ned Kock (2005), “*Business Process Improvement Through E-Collaboration: Knowledge Sharing Through the use of Virtual Groups*”, Texas A&M International University, USA.