



## A trans-application from allegory domains as a tool for Technology management in organizations --A beginning

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### INTRODUCTION

The concept of Trans-application is not new: in the past numerous scholars from varied scientific/technology domains have performed trans-application effectively. Yet today it

*continued on page 2*

### Inside This Issue

1	<i>A trans-application from allegory domains as a tool for Technology Management in organizations---A beginning</i>
1	<i>What's New</i>
5	<i>Letter from the chair</i>
7	<i>Business Method Patents- An Overview and Implications</i>
9	<i>Innovations in E-business Strategies</i>
13	<i>From Vice Chair Tech Talks</i>
13	<i>Tech Talk Abstracts</i>

### What's New ?

Dear Members,

On behalf of the IEEE Technology Management Council Bangalore Chapter, it's my pleasure to share E-Zone Septemebr 2009 the third issue of Quarterly Newsletter of our Chapter.

The focus of most IEEE Societies and Councils Newsletters mainly technical stuff but TMC newsletter covers mainly management aspects which are so necessary to the success of technical operations. This newsletter seeks to connect up all the members of the IEEE community who are associated with the Bangalore Chapter. It aims to provide a forum to share ideas, developments in this space, new events, thought leadership articles and much more.

The newsletter would also foster us to be better connected and extend the benefits of technology & management expertise for the ecosystem that we live in. This includes Business, Industry, Academia, Government and Society.

In this News letter, we have also included, abstract of Tech Talks being organized by TMC Bangalore Chapter in the past and present quarter

I take this opportunity to extend a warm invitation to contribute, participate and volunteer in making a difference that we can all take pride in.

Thanks & Regards,

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assumes much more relevance, primarily in view of the complex multi-disciplinary domain expertise requirements that are not fully met. Many scientists/ technologists are achieving a super-specialty status, and while doing so -- at times -- they arrive at complex and/or unreasonable, but highly expensive solutions to common day-to-day issues/problems: where a simple common sense approach would possibly suffice. In this paper, I try to recommend a prescription: to apply an appropriate integrated remedial action, after studying the situation – technical/managerial/administrative/human – in toto taking into consideration all the factors. Thus, in this paper, a few examples of trans-application in technology/science are presented to show how knowledge in one domain has found its application and/or triggered another new line of knowledge. A similar trans-application from allegory domain as a tool for technology/R&D management in organizations is presented.

**A few examples of trans-application in technology/science:**

Perishables Export:

Many years back I read in newspapers about how the knowledge of export of flowers from Bangalore Airport meant for sale in other countries had given certain ideas as to how to improve the transportation of short shelf life medicines. This was the beginning of the rummage around for such trans-application examples.

The Case of Bathtub Curve 1:

I was introduced to the famous Bathtub Curve when I started my career as a Reliability Engineer at ISRO Satellite Centre, Bangalore. This three-part curve represents the life cycle of humans (infant mortality -- useful life -- wear out/oldage periods). It was/is quite logical that a similar bathtub curve concept applies widely in Reliability Engineering also. (Please see Fig 1 below). It meant that, in the early life of a product (or device) adhering to the bathtub curve (hazard function), the failure rate is high but quickly decreasing as defective items are identified and discarded, and early sources of potential failure such as handling and installation errors are surmounted. In the mid-life -- generally, once it reaches consumers -- the failure rate is low and constant. In the late life, the failure rate increases, as age and wear&tare take their toll. Many consumer products or electronic devices strongly reflect the bathtub curve. [1]

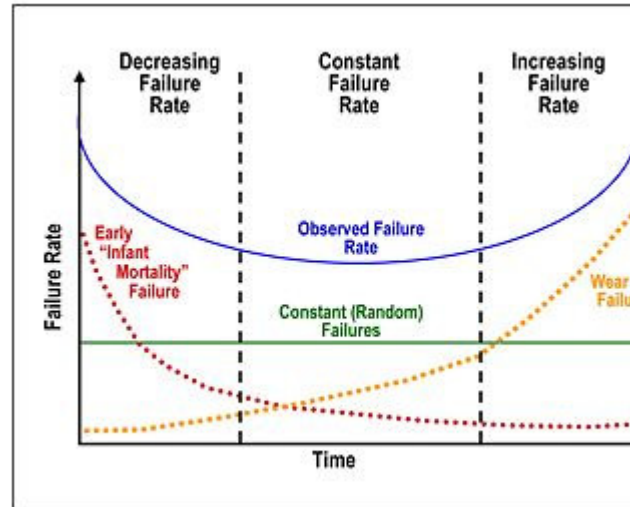


Fig. 1 The "bathtub" curve hazard function ([http://en.wikipedia.org/wiki/Bathtub\\_curve](http://en.wikipedia.org/wiki/Bathtub_curve))

The Electronics Industry, and Automobile Industry applied this concept for continuously improving reliability in their respective domains – though it must be admitted that US Military (RAC or NASA) is the real pioneer, which aided a lot of research in this area.

The Case of Bathtub Curve 2:

Many years later, I came across a paper, which caught my attention, because it was applying the concept of bathtub curve in a 180 degrees turnaround![2]

Authors, Leonid A. Gavrilo and Natalia S. Gavrilo, in their paper, “Why we fall apart?” declared that ‘Engineering’s Reliability Theory explains human aging’ It is worth noting that Gavrilo and Gavrilo were from the Center on Aging, NORC, University of Chicago, and have done elaborate work on longevity in humans and successfully applied the reliability theory to study of aging and longevity. The authors have detailed the mathematics behind the reliability theory of aging in “The Biology of Life Span: A Quantitative Approach” [3] and later in “The Reliability Theory of Aging and Longevity” [4]. For full appreciation of the subject, you may pls visit: <http://longevity-science.org>

A case from Biology:

The best-remembered work from the domain of biology, even for a hard-core engineer happens to be the path breaking work of Charles Darwin, ‘The origin of species by means of natural selection’ [5]. It is claimed that a plausible proof for Charles Darwin’s path breaking

# IEEE TECHNOLOGY MANAGEMENT COUNCIL (TMC)

The Technology Management Council (TMC) of IEEE has several goals:

- Provide information for advancing the careers of technology and innovation managers,
- Reach out to technology professionals who consider transitioning to management, and
- Provide technology professionals with an understanding of management issues.

The field of interest of the Council encompasses the management sciences and practices applicable to individuals engaged in or overseeing the management of engineering, technology, innovation, and strategy in a global environment.

The TMC provides access to management theory and practice for managers and technology professionals to advance their careers. Our publications, the *Engineering Management Review* and the *Transactions on Engineering Management* provide sources of information to bring you up to date on management issues. Our conferences, website, and virtual community offer timely information related to achieving a successful career as a manager or technology professional.

work of 1859 did not come for more than 100 years!

Now let me tell you about Richard Charles Lewontin, an [American evolutionary biologist](#) and geneticist who was instrumental in developing the mathematical basis of population genetics and evolutionary theory, and he pioneered the notion of using techniques from molecular biology such as gel electrophoresis to apply to questions of genetic variation and evolution. In a pair of 1966 papers co-authored with J.L.Hubby in the Journal 'Genetics', Lewontin helped set the stage for the modern field of molecular evolution. [6] Through this, he gave a mathematical basis for explaining the Heritable Genetic Variability and thence became the first one to bring a plausible proof for Darwin's work of 1859, after some 105 years!

It may surprise you: Lewontin used Shannon's Mathematical Theory of Communication [7] very admirably, even before Communication Engineers did. Claude Elwood Shannon is a well known name for IEEE members. Shannon focused on the problem of how best to encode the information a sender wants to transmit. In this, Shannon used tools from probability theory, developed by Norbert Wiener. The Shannon Index, also known as the Shannon-Wiener Index, has been successfully applied in Biology/Ecology/Genetics! This index  $H'$ , is one of the diversity indices used to measure diversity in categorical data. It is the Information entropy of the distribution, treating species as symbols and their relative population sizes as the probability. These indices incorporate habitat parameters and are termed, appropriately enough, Habitat Suitability Indices, combining two quantifiable measures the species richness (the number of species in the community) and Abundance (the total number of individuals in the sample). [6]

## A case of Robotics:

A different kind of trans-application is portrayed in the IEEE Spectrum 04.09 issue.[8]. The observations of the lizards, crabs and scorpions have helped researchers in understanding and shaping the theory of sand locomotion and also on how to build the robots that will someday scurry on the sands of Mars! A new generation of legged robots will navigate the world's trickiest terrain!

I think it suffices to quote the above examples for technical/scientific trans-application.

## R & D and R&D Management

Research and Development are closely associated with each other. Development is more relevant for

industries, which rely heavily on technological innovation for their survival; since development is concerned with taking ideas to be commercial product innovations. And in recent decades, Research, signifying an increase in our level of understanding, has become a part of the Development – hence the word Research and Development. It is also observed that formalized R&D is of more recent origin and rapid growth of certain industries was stimulated by technological innovations facilitating growth of in-house industrial R&D. [9, 10]. This is ably supported by the close relationship between industry and universities. The role of R&D in the growth of Electronics/Telecom/IT Industry is a good example. The industrial/organized R&D is of interest for us, more so because these High technology R&D organizations are prone to rapid unprecedented changes due to evolving technologies, competitors actions, shifting economic policies, social and political upheaval, legislation, etc.. [11]

At this juncture, it is vital to note that, it is not easy to comprehend and grasp the true character of the R&D nature and real meaning of Innovation – one could only envision a host of dynamics that are changing at every instant in response to every other stimulus. The system of R&D environment is so complicated that one cannot know in advance the consequences of anything what one does. That is why even the most enlightened efforts may have had undesirable outcomes – either because one did not understand enough or the ever-changing world responded to one's actions in unexpected ways. [12]

Another point of view is that, any organization, would eventually settle down to its average state characteristic of its average behaviour and/or performance irrespective of any internal/external stimulus – there by making any change to have only a short term effect, that could be quite insignificant when compared to the effort involved: thus being cautious is the watchword. [11, 12] Further, it is obvious that R&D Organizations are social systems and compose of People - the knowledge workers – whose performance and productivity influence and impact the success of the organizations. If the current scenario has any aberrations, identifying root causes and applying permanent remedies rather than employing quick fix solutions, becomes paramount. [10, 12].

Thence, an attempt is made to offer a prescription: a strategy for turbulent times. This is done by means of a trans-application from an allegory domain from the distant realm of Biology. This is no panacea, yet has its merit in that suggestions are portable across primary reference still

being R&D organizations.

### **A Strategy for Continued Existence and Endurance:**

The famous bell (normal) curve is applicable everywhere, and that includes an R&D organization also: This means that there would be very high order performers as well as very low end performers could be present in addition to many good performers. The two opposite and distinct extremes have to be well balanced, while taking care of the middle majority. Thus the contrasting requirements of preserving performers and containing mediocrity in organizations, becomes a challenge for R&D managers.

In an R&D set-up, Performers and Mediocre co-exist, especially when environment is hostile and challenging. The characteristics of Mediocrity include myopic/narrow-mindedness, self-supremacy, self-centeredness, reverse delegation, inefficiency, political action for self-interest and irrationality (stemming from emotion - greed, jealousy, fear, revenge, and ego). It is akin to cancer. The success of the mediocre in modern R&D organizations is highly distressing for the R&D Leaders. Though paradoxical, mediocre thrive and grow, not, despite mediocrity, but in fact, because of it. The real performer is left out, high and dry. Mercifully, it is rare for actions to be purely political in nature and fully controlled by mediocrity: very survival of the organization is usually a constraint limiting action, which is entirely for self-interest of mediocre. [11, 12, 13]

Standard Management Literature *per se* does not cater to this kind of chaotic scenario. Therefore, I am suggesting that an analogous knowledge domain from a distant realm of Biology be sought-after to rally round when such a study of a close allegory offers better understanding. Thus, Cockroach family was explored, as the triumph of cockroaches happens to be a close allegory. I will try describing and presenting some of the ideas I borrowed towards a viable strategy in handling some organizational aspects.

### **A record of Cockroaches:**

I learnt that Cockroaches are the most ancient winged insects, the earliest fossils dating back to about 400 Million years. [14] According to University of Massachusetts Biology Prof. [Joseph G. Kunkel](#), there are more than 4000 species of verified cockroaches of which some 30 species are associated with human habitations and of this about 10 species are on the WHO list of human pests. Cockroaches are omnivore scavengers, which clean up our environment and help recycle the organic litter. Cockroaches are known to be pre-social/asocial animals. Cockroaches are found in every conceivable habitat. Because of their long, persistent association with humans, cockroaches are frequently referred to and are often depicted as, vile and dirty pests. [15]

# Letter from the Chair

Dear Friends,

It's been little over a year since TMC Bangalore Chapter team came together and started working to kickstart Bangalore activities. In this past year, I am proud to have got introduced to several distinguished technology professionals as IEEE / TMC volunteers, and it has been a great learning, as well as fun, working with the team. As you all know, the quality of any volunteer effort heavily depends on the passion among its volunteer, and this team has shown that completely. So, at the outset, let me thank my co-volunteers for taking time out of their busy personal and professional lives for the cause of IEEE TMC – we would not be here without your unselfish efforts.

I also want to place on record my sincerest thanks to our Vice Chair for Publications, Dr. Jayatheertha who has been painstakingly working behind the scene to get top-quality articles for us all. This is the third quarterly issue, and we are overwhelmed by your support. Please continue to let us know how we can serve you better.

As we get closer to end of 2009, the economy is indeed turning back and how! Closer home, almost all financial and industrial indices are on fire. We still continue to grow at 6%, and that's something. There have even been reports that even salary hikes are on the cards. Sounds like the party is on once again! Outside India, most major economies continue to struggle, but there are definite signs that the freefall is slowing down, or might be stopping anytime soon. Now we might not see a sharp upturn yet, even then, it looks like a good thing. Results of some of the hi-tech companies like Google, Microsoft, and Apple indicate that good times are here again (perhaps they never left those companies). I guess companies that have continued to invest in technology and innovation during the slowdown will continue to reap fruits of labor in the post-recession days.

Enjoy reading.

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Cockroaches are invertebrates, omnipresent, omnivorous, nocturnal animals, cling on to smooth vertical surfaces, fast runners & occasional fliers, capable of all the senses, self-organizing in to leader-less groups with over powering ability to alter behaviour of pre-programmed ones as well [16], and having greatest ability to acclimatize and surviving any devastating humiliating environments! Cockroaches are among the hardiest insects on the planet. It is popularly suggested that cockroaches will "inherit the earth" if humanity destroys itself in a nuclear war. Cockroaches do indeed have a much higher radiation resistance than vertebrates, with the lethal dose 6 to 15 times that for humans! [14, 15, 16].

## A Trans-application 1:

For the survival/endurance Performers, R&D managers could emulate cockroaches for long-term survival, especially during turbulent non-benign malignant times; so that the Performers survive and bide time till sanity returns – the wait may be onerous and an ultimate test of perseverance, just like a cockroach did, over millions of years. [11]

I am convinced about this appropriate positive connotation: the Cockroach endurance capabilities and evolution (learning) for survival are a reasonable endurance strategy aiding the Performers in today's hyperactive times. This is from where, the R&D Managers/Leaders have to think and act – at times like psychologists and at times as psychotherapists -- in order to minimize the potential damage from mediocrity's irrational thinking and also to establish inspired leaders, thereby be in a position to handle today's exponentially increased scientific/technological/design complexities. [11, 12, 17]

## A Trans-application 2:

Arresting or containing mediocrity in the organizations, is the other extreme that we need to understand more closely. Just as the bright light and no dampness appear to be the only way to minimize (if not eradicate) the Cockroaches, to minimize cockroaches of the organization and to preserve serenity and to maintain the effectiveness of an R&D organization, systems within an Organization need to be fully transparent and Managers / Leaders need to be relentlessly vigilant and take appropriate proactive remedial steps [11]

A radical approach is also feasible, if management perceives that things are affecting badly and it is difficult to retain good staff at the cost of mediocrity, viz., *Euthanasia* (mercy killing). This would minimise further germination of mediocrity and the energy of change managers could then be used for people who are of better use instead of continuing with the mediocre, ensuring that the organization is minimally affected. Some modalities: Golden hand shake, voluntary retirement scheme, keeping them on the bench, warning sternly, and finally retrenching/terminating, as a last step. Other intermediate stages like counselling, retraining, rehabilitating, transferring etc. could also be explored. Human touch is essential in countering any psychological untowardness. [11, 17]

### A concluding instance:

We have come across many scholars from western world bringing in the Christian wisdom to the Management domain in various forms. Similar efforts by Indian practitioners are afoot currently who are liberally propagating the old time insights and understandings to the modern world. They are now consulting Ramayana, Maha Bharata, Bhagavad Gita, Chanukya and so on for trans-application with a great degree of success!

## Conclusion

In this paper an attempt is made to present some examples of how knowledge in one domain has found its application and/or triggered another new line of knowledge, and some cases where similar trans-application from allegory domains as a tool for Technology/R&D Management in Organizations is feasible are presented.

I would like to report here that the trans-application of the Cockroach metaphor is original and applied in a limited way in real life and more experimentation is feasible.

I hasten to add that this is only an initiation towards an unlimited number of such trans-applications; many of them may be around already, and some waiting to be explored.

Yes, it is evident that, the knowledge workers thrive only if the organization can provide three key elements viz., leadership, talent and culture. In a system where many vectors are active, the entropy may be high, but then, the net enthalpy is close to zero. If an EMF – the Electro Motive Force is imposed, then all the vectors would be aligned and become cohesive and unidirectional. This is the role of top management in an R&D Organization!

*My sincere thanks to Prof. Raghavendra Gadagkar, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, for his Lewontin reference.*

## References

1. Norman B Fuqua, "Reliability Engineering for Electronic Design", Marcell Dekker, USA, (pub), 1987
2. Leonid A. Gavrilov and Natalia S. Gavrilova, "Why we fall apart?", IEEE Spectrum, September 2004 (<http://longevity-science.org>)
3. Leonid A. Gavrilov and Natalia S. Gavrilova, "The Biology of Life Span: A Quantitative Approach", Taylor & Francis (pub), New York, 1991
4. Leonid A. Gavrilov and Natalia S. Gavrilova, "The Reliability Theory of Aging and Longevity", Journal of Theoretical Biology, Vol.

- 213, No.4, 2001
5. Charles Darwin, "The Origin of Species by Means of Natural Selection or The preservation of Favoured Races in the Struggle for Life", First Edition, 1859
6. Richard Charles Lewontin and J. L. Hubby, "A molecular approach to the study of genic heterozygosity in natural populations" and "Amount of variation and degree of heterozygosity in natural populations of *Drosophila pseudoobscur*". *Genetics* 54: 1966
7. Claude Elwood Shannon, "A Mathematical Theory of Communication", Bell System Technical Journal, July and October issues, 1948.
8. Daniel Goldman, Haldun Komsuoglu and Daniel Koditschek, "March of the SandBots", IEEE Spectrum, April 2009 (<http://www.spectrum.ieee.org/apr09/moresandbo>)
9. John H Dumbleton, "Management of High Technology Research & Development", Elsevier Science Publishers, B.V. Netherlands, 1986.
10. Sreenath Settur, "A Model to effectively meet the challenges of managing indigenous research and development in the current times", CSIR R&D Management Conference 2002, New Delhi, December 6&7, 2002
11. Sreenath Settur, "Managing R&D in a time of rapid change - A holistic alternate approach", CSIR R&D Management Conference 2008, New Delhi, December 6&7, 2008.
12. Sreenath Settur and A.Bhavani Shanker, "Applied R&D - Musings on Organisational HR Challenges", Personnel Today, The Journal of National Institute of Personnel Management, Kolkata January - March 2009.
13. Sony IM, "The Mediocrity Octopus", Alive, September 2004
14. Text Book of Biology, Part II, Sections Z.4 & Z.5 (Rajendra, Precilla, Anita) 2006
15. Joseph G. Kunkel, FAQs, Biological Research & Development, University of Massachusetts ([http://www.bio.umass.edu/biology/kunkel/cockroach\\_faq.html](http://www.bio.umass.edu/biology/kunkel/cockroach_faq.html))
16. Randolph E Schmid, Discovery News Channel on a Report in the Science (November 2007) on research of Jose Halloy.
17. Sreenath Settur, "Trans-application and its role as a tool for Technology/R&D Management in Organizations", 3rd Annual Conference of the ISDSI at ASCI, Hyderabad, India, from 28th to 30th December 2009. (Paper accepted)

# Business Method Patents - An Overview and Implications

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## Introduction

One of the most controversial Patent rights granted by United States Patent and Trademark Office (USPTO) in recent past has been the Business Method Patents. These patents rights belong to the US Classification class 705. It is defined in the USPTO schedule as part of data processing field [1, 2]

CLASS 705: DATA PROCESSING;  
FINANCIAL, BUSINESS PRACTICE,  
MANAGEMENT, OR COST/PRICE  
DETERMINATION

The controversy is that no other country grants patent rights for the Business Methods that this class describes. The trend that started with granting of software patents [3] has continued with Business Method patents

A Patent right is an Intellectual Property right given to an inventor or his assignee, for an invention that is new or novel, has industrial application or is useful, and has an inventive step or is non-obvious to a person skilled in the field of invention. The right associated excludes any one else to exercise the invention for a limited period in the specific geography where the protection has been granted. The Patent rights have traditionally been given to industrial and technical fields such as chemical, mechanical and later on electronic fields. The software field has been a late entrant to the patent subject matter – started by the US federal courts and to some extent US PTO.

Two important arguments in favor of software related inventions propagated are –

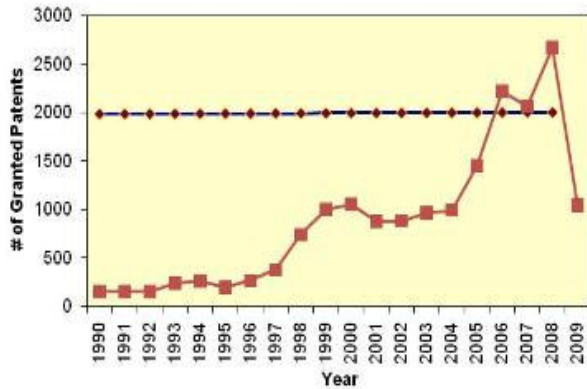
1. All technologies are equal and hence Patent System should treat all fields with same lens
2. Although software industry was innovative even without Patents, the patents improve Research and Development (R&D) incentives by increasing Return on Investment (ROI).

The method of doing business patents - classified as US PTO class 705, are not only much more complicated but are much more difficult to invalidate using the novelty and non-obviousness tests of the classical patent system. These so called Business Method Patents (BMP) use computers, electronic networks and Internet technologies to create different ways to transact, exchange information, create and display product catalogues, enable secure money exchanges, trading, etc for people across geographies. The geographical independence of these patents is a totally new dimension that the Patent Laws – which by definition are geography dependent, have to take care of. USPTO grants these patents, while rest of the world does not as yet. However, the methods of doing business over Internet, mobile data networks, satellite networks, etc, transcend multiple geographies. How and which laws will be relevant and applicable if the networks on which the BMP operate are based out of multiple geographies? These are not only serious challenges but require a thorough understanding, study, analysis and harmonization of multiple legal systems and Patent Laws to create a fair, just and innovation facilitation IP system in the world.

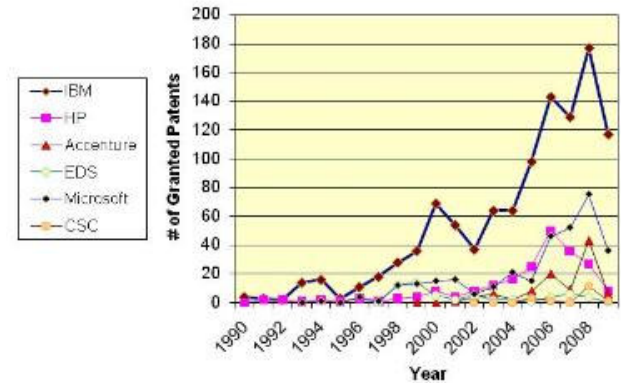
## Trends of Business Method Patents Granted by USPTO (1992-2009)

A first order search of USPTO (<http://www.uspto.gov/>) provides the two graphs shown below. All the major IT companies are moving in this area rapidly, led by IBM.

## US Class 705



Business Method Patents Granted Company Wise



US Class 705	
Period	Patents Granted
1990	161
1991	161
1992	157
1993	250
1994	268
1995	206
1996	274
1997	383
1998	745
1999	1005
2000	1062
2001	880
2002	887
2003	969
2004	997
2005	1453
2006	2224
2007	2065
2008	2673
2009	<b>1046</b>

## Outsourcing Method Patents

Digging deeper into this class reveals more such patents being filed in areas such as Outsourcing patents applications. Some examples below may help. IBM applications

### [Outsourcing of Services](#)

#### Abstract (US Patent application: 20070162321)

A method for identifying human-resource work content to outsource offshore of an organization. The method is provided on a computer readable medium and includes the steps of identifying at least one task being performed by an organization; associating each identified task with a functional group within a plurality of functional groups related to the organization; determining information about individual human resources spent on each task; determining task information about human resources spent on the plurality of tasks, the task information based on the determined information about individual human resources spent on each task; using the determined task information to determine a value of each task; and outsourcing tasks having a value lower than a predefined limit to at least one of offshore and to a low cost supplier.



[Electronic marketplace for identifying, assessing, reserving and engaging knowledge-workers for an assignment using trade-off analysis](#)

**Abstract (US patent application: 20070043603)**

A method and system for matching a knowledge worker to a selecting entity's needs according to a system of codes corresponding to pre-defined rules of engagement. The rules of engagement include, but are not limited to, experience levels, salary, geographic location, job starting date and duration, and industry sector. If a search of knowledge workers fails to match an available worker with a job need of the selecting entity, the selecting entity posts a job posting on a website maintained by a third party administrator who maintains webpages that are accessible only to screened job applicants.

[Efficient Frontier and Attainment Rate for Business Transformation Outsourcing](#)

**Abstract**

A method and system for establishing an Efficient Frontier (EF) and Attainment Rate (AR) for Business Transformation Outsourcing (BTO) is presented. EF is the maximum service level achievable at a point in time for a specific business process or business process area. AR is the pace at which the EF can be reached from an initial value. Clients, outsourcers, and third-parties determine whether proposals are infeasible (above EF) or inefficient (below AR). Fact-based discussions of the merits and limitations of various implementation initiatives are supported. A determination is made as to whether there are any business segments to which different EF and AR apply. Any underlying factors for the EF and AR of each business segment are determined, and any change (rise or fall) of EF over time is predicted to maintain an optimally accurate EF and/or AR for each business segment.

Now let us look at Microsoft

[Outsourcing of instant messaging hosting](#)

[services](#)

**Abstract (US patent Application: 20070067396)**

A system, a method and computer-readable media for initiating the hosting of instant messaging services for an Internet domain name. A request is received from an entity requesting initiation of instant message hosting services for a domain name, and a secure communication channel is established with this entity. After verifying that the requesting entity is authorized to control the domain name, information describing user accounts having the domain name is received, and instant messaging services are provided for the user accounts.

[Outsourcing of email hosting services](#)

**Abstract**

A system, a method and computer-readable media for initiating the hosting of email for an Internet domain name. A secure communication channel is established with an entity requesting email hosting services. After verifying that the requesting entity is authorized to control the domain name, information describing email accounts with the domain name is received, and email services are provided for the email accounts.

One can see that these applications don't conform to the regular established definitions of inventions. The reader can get more information at author's blog entry at <http://innovationcrafting.blogspot.com/2007/09/outsourcing-patents.html>

**What are the implications and possible future paths?**

The Software and Business Method patents are already in existence in the world. In the US, these are clearly defined and overtly explained which at least is much better than the European and Indian approach where the legislation regarding *software as such* has created an option of getting Patent Rights on software and business methods by reframing or redrafting the claims.

The Business method patents, although granted – either overtly in US or covertly in India/Europe, have been plagued with major controversies regarding prior art, non-obviousness and usefulness – the three main criterion of classical patent frameworks.

It has been proposed in this paper that software and business method inventions are radically different than the classical products in chemical, mechanical or hardware fields. These differences are clearly visible as software and business method inventions deals with concepts, data, information, knowledge, decision-making, calculations, computations and abstract models whereas the tangible traditional products are more about physical manifestations of the ideas.

Business methods and software needs a fresh approach for evaluating the Intellectual Property Rights as these inventions cover hitherto unknown and un-chartered waters in the IPR Legal frameworks across the world. The history of Patent system and its drivers over many years – which include philosophical aspects of propagating inventive capabilities, and creating a reward system for inventiveness, will be served much better by looking at the unique characteristics of Business methods.

The recent business method case – the very controversial Bilski case decision almost threaten the future of business method patents [4] and in fact the software patents. US PTO has for last 15 years or so has been giving one controversial ruling after another. The rest of the world doesn't consider business methods as patent subject matter.

To harmonize the system and looking at the specific nature of software systems and business method inventions, [5] proposed a new IP right for business methods. This is described below.

### **A Proposal for new form of business method right**

In [5], The Business Method Rights – a new form of Intellectual property has been proposed. This can help rectify some of the existing ills with respect to Patenting of Business Methods.

These Rights are based on the understanding that inventions are to be protected at the abstract level rather than mere implementations. The clear articulation in terms of operations (e.g. processing, communication, representation /storage), operands (e.g. data, information, knowledge) and quality attributes (e.g. reliability, performance, security, fault tolerance etc) is a unique proposition that will help clear identification of inventions in these fields.

Patent criterion of Novelty is the only criterion retained. The non-obviousness and usefulness criteria, we believe in software and Business methods fields are actually a hindrance to innovation rather than facilitators and they do not any way serve the main purpose of looking at obviousness as there do not exist “the person skilled in art” who knows all the knowledge of the art but is absolutely non-creative or has no thoughts of his own about the field.

This is a fresh attempt and approach to look at the issues related to IP laws with respect to business method patents. We believe that this paper will at least start a fresh debate and let the authorities approach these technologies with an open mind rather than limiting ourselves in the existin

### **Conclusions**

This paper gives an overview of the controversial business method patents that are granted by the US Patent and Trademark Office (USPTO). The recent Bilski case highlights the situation as thousands of business method patents granted by USPTO may stand nullified if Bilski case ruling is held by US Supreme Court. To eliminate the controversies related to business method patents – this paper proposes a new form of IP right called business method right. This right provides a much shorter and very specific exclusivity and is not as strong as a patent.

### **References**

1. <http://www.uspto.gov/web/menu/busmethp/whitepaper.doc>
2. <http://patft.uspto.gov/netahtml/search-bool.html>

(USPTO search engine)

3. <http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=fed&navby=case&no=961327> (*State Street Bank & Trust Co. v. Signature Financial Group*)
4. Frank S.J., The Death of Business-Method Patents, IEEE Spectrum, <http://www.spectrum.ieee.org/at-work/innovation/the-death-of-businessmethod-patents/1>
5. Bhushan N, *Business Method Patents in US, Europe and India - A Critical Appraisal*, project report, National Law School of India University, Bangalore, 2004.

### About the Author



Navneet Bhushan (Navneet) is a founder-director of Crafitti Consulting (<http://www.crafitti.com>), an innovation think tank providing strategy and intellectual property consulting focused on facilitating Lean, inventive and systems thinking. Navneet has close to two decades of experience in the fields of Defense Research, Information Technology, Intellectual Property and Management Research. He is a leading expert, researcher and consultant on Innovation Management and has built a variety of frameworks, methodologies and techniques to craft innovation in business and technology contexts. He has authored more than 40 technical research papers and is an invited speaker at various International and National Journals, Trade Magazines and Conferences. He is the principal author of *Strategic Decision Making- Applying the Analytic Hierarchy Process* published by Springer-Verlag, UK, as part of the Decision Engineering Series and featured at the Harvard Business School. Navneet blogs at <http://innovationcrafting.blogspot.com>

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*The best way to explain from the problem is to solve it*

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*Economics is the only field in which two people can get a noble prize for saying exactly the opposite thing*

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## Tech Talk Abstract

IEEE TMC Bangalore and PDMA, India co-hosted an expert talk on 19-Aug-09 on the topic “Managing Product development complexity with a Product Lifecycle Management Strategy” by Madhu Varadaraj, Director of Digital Lifecycle Management Asia Pacific, Siemens PLM Software.

Successful products are the key to market leadership and top-line financial growth. Two - thirds of today’s decision makers say that innovation is one of their top-three strategic priorities. Companies are faced with the challenge of turning more ideas into successful products; today’s environment means that they have to meet this challenge in a world that is increasingly more complex than ever before. The complexity comes from the fact that companies must achieve successful innovation but must do it while meeting the more demanding requirements. Best-in-class companies innovate more effectively and use innovation to drive business benefit throughout the product lifecycle. Best-in-class companies are six times better at getting new product ideas to market. Product lifecycle management (PLM) is the mission-critical system that every company needs to continuously facilitate product and process innovation. PLM provides immediate access to the knowledge that companies need to make the right business decisions – decisions that enable their innovation investments to deliver more business benefits.

The talk was well-attended with over 45+ of technology management professionals.

**75 percent of SEI CMM Level 5 companies in the world are India. In all, India has 50 CMM Level-5 software firms**

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