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Business Method Patents
by John J. Love(*)


1} Good morning, it's a pleasure to be here alive. We just participated in the daily road race from Washington to Richmond that many of you do every day. The first question I've been asked to deal with is why do we have patents? Of course we're very proud of fact that the PTO's origins date back the Constitution itself. In Article I Section 8 of the Constitution, the framers specifically gave Congress the power to grant inventors, for a limited time, the exclusive right to their inventions. So this is not a product of the industrial revolution but dates back to the Constitution.

2} There are laws that have been passed since then, and obviously everything at least at that point, is part of the system that gives inventors the right to protect their inventions financially and to give full disclosure of their discovery to the public. So, you have a limited grant of a monopoly to an inventor in exchange for disclosing their invention and technology to the public. The idea is that this will encourage additional inventions, additional research, and will be better for everybody even though from time to time you have to pay what amounts to a royalty for the product or service or prescription drug which is one of the most controversial products we will read about in the papers. So, the system has been here for over two hundred years, we've granted over 6,000,000 patents and it would be safe to say that the patents are here to stay. It is fairly well accepted that it is serving its purpose; that most, probably all, major industrial companies have similar patent systems and it seems to be well in place.

3} So, what is a Business Method Patent? What types of things are patentable? This has been the topic of much discussion and controversy since this topic was opened up. We have been forced to create a new class in the Patent and Trademark Office numbered section 705. The definition of the new class is machines, that is basically computers, and methods for performing data processes, for calculation operations and the practice, administration, or management of an enterprise, for processing of financial data, and of determination of the charge of goods and services. That the generic definition within the class with a collection of roughly twenty plus financial and business data processing areas; and we can group them into four major areas.
These are usually what you see, or what they correspond to what you would see, on a business plan for a new company starting to get into the area. The first heading for patents are applications that deal with determining who your customers are, and this includes operations research and market analysis. It also raises some privacy issues that go along with the Internet. In their companies' software, companies have all sorts of clever ways of gathering information about the users of the Internet and targeting these particular people based on how they use the Internet.

The second grouping has to do with inventions that are related to informing customers that you exist, and showing them your products and services, and getting them to purchase your product. This includes advertising management, catalog systems, incentive programs and, of course, redemption of coupons. It's nice to see that coupons will survive the electronic age. I'm sure you're all familiar with the Internet. The first thing you see is a bunch of pop up screens and advertisements, "Click here for this, that, and any other thing." Well that's all based on what you've done before and what they're trying to sell you.

The third grouping is the consumer's major concern in conducting commerce over the Internet, and that involves exchanging money and credit before, during, and after the business transaction. This involves credit and loan processing, point of sale systems, billing, fund transfers, clearing houses, tax processing, and investment planning. [This portion of speech lost due to technical difficulties].

The fourth grouping has to do with tracking resources, money, and products. This includes now the internal operations of the company; how they manage their people, their space, their time, their parts, and their inventory. And these types of activities are in fact patentable, as long as they are related to a computer system, or executed by a computer system, that's appropriately programmed with software. Adjusted time inventory systems, for example, ... patent issues on the method of evaluating the qualifications of an executive. That issue arose a few months ago too.

The real e-commerce and business method patents began to come into play 1995. To give you an idea of who the players were before then ... if you look at the patent owners, the assignees, for the time period 1977 to 1989, you can see that in this class and its predecessors most of the activity was in hardware - traditional patenting material; cash registers, postage metering machines, and utility metering. You can see the company's there [referring to slide]; very few patents were issued in what is now the business method area. Though you will see Merrill Lynch did have, during that time period, five patents dealing with cash management programs, which is close to what we have now ... closer to what we consider being a business method.

The next few years, cash registers are still there but you see new people [referring to slide]. You have AT&T, Unisys, and Alcatel Business Systems making this transition into computer systems rather than just cash registers and hardware. The next five years you will see additional companies. Now, the e-commerce aspect of this business method is clearly coming forth. Even NCR now, not only has cash registers, but also business method type patents. Citibank, EDS, and Microsoft are dealing with e-commerce. Now, just to give you an idea of how new all this is in 1999 we 2,758 patent applications under 705. That's probably three or four times the number that had been filed from the period 1995 to 1998. This year alone in 2000 we have received well over 6,000 and we expect by the end of the year after we get around accounting that will have over 8,000. So from '99 to 2000 that's going to triple, and if that triples again were going to be in big trouble and the patent attorneys are going to be very busy. But that's good news for them I'm sure.

You can see that we're really in the infant stage of growth and that is due in part to the realization of the public and businesses that, "Hey this is a new area of patent protection and we better get on the ball, or we will be facing some dire consequences; we need to get in the game and get our own patents and play ball." To keep this in perspective, last year we received at the patent office roughly 270,000 applications for patents. So it's still just 1% of the total number we get. Just generically, the whole area of intellectual property and
particularly patent protections continues to skyrocket. For those law students that are here that's a very good area to get into, believe me. And we're hiring people at the PTO so if you need a job, but I'm sure you won't [laughing]. That's one of our challenges, to hire as many people as we can. Let me just show you a graphic of the filings [referring to slide]. As you can see, in 2000 that only represents 3/4 of the filings that were applied for. But based on the amount of attention we've been getting that number looks like it will keep going up.

I was also going to talk about the State Street Bank decision. I doubt we have the same view of it [referring to Christopher Mugel] but I guess I will find out. This whole area of software and the patentability of whether or not they should be patented under Section 101 has been evolving over the past 20 years.

Initially there was a very conservative approach by the Patent and Trademark Office, and also by the courts, that we basically didn't feel programming software should be the subject of patents. I can now, at least from my perspective, through a series of court decisions interpreting what 101 means, see that it's clear that we are going the other way. Software, as long as it's claimed as a combination of some sort of storage medium and provides a useful, concrete, tangible result, is in fact patentable subject matter. Section 101, as patent people know, the current version was drafted in 1952, and of course nobody knew of the biotechnology and business method patents in 1952. So what's happened is we've had to interpret the statute to adapt to new technology that really wasn't available in 1952. Which raises an interesting point because rather than the legislature or Congress responding, they have to date left it up to the courts to define the limits of patentability. And that's one way of making law, the other way is for Congress to actually step up to the plate and deal with the issue; but to this day, at least until now, they let the courts decide what is patentable and what isn't. Particularly in the area of biotechnology, that's probably going to be even more controversial than the business methods. I'll hear about the human gene project and the gene sequences affecting the subject of patentable material. But coming from Washington, I wouldn't hold your breath with respect to those issues being subject to patentability under 101.

Question from the panel: How are patent examiners prepared technically, what are you looking for in hiring?

Answer: The main background of examiners to this point has been engineers, physicists, biologists, and chemists. Because we've been dealing mostly with technology as we all know it. This shift in the caselaw, particularly State Street Bank, that makes it clear that this is in fact patentable subject matter, and what we are dealing with is concepts, not really technology. The technology behind it is the computer and software to give you the business result. So now what we're forced to do is to look for engineers with some sort of, either additional experience in industry, or dual degrees.

You'll see that many of our examiners have MBAs or advanced degrees in accounting, that sort of thing. We are now also looking to government regulations that require the chance some sort of scientific or engineering degree. We are now working with our personnel office to take another look in view of the type of inventions that we are seeing and it may be that we don't need someone with that level of technology background but we need to look more towards people that have backgrounds in banking and securities and credit collection. We are also partnering with several other industries, there's a national clearinghouse association that we're working very closely with, for them to give us their experience and knowledge and come and talk to our examiners and update them on their particular business practices and methods. We're also working with securities institutes and associations so that they can help us. But the problem is that we have emerging technologies, and we have to examine the applications. Most of the people we had to do this simply didn't have the background, so we had to get them up to speed, we had to give them in house training classes and we had to do quite a bit of electronic searching. Every examiner has a computer on his desk and can access the Internet and can also access a database of over 900 commercial databases and using dialog and STN they can do word searches. They can also do word searches using our patent file of over 6,000,000 patents. So it's quite a challenge but we're trying to do the best we can. Thank you.
John J. Love is a Group Director in Technology Center 2700 at the Patent and Trademark Office. As a Director, he is responsible for managing the work of over several hundred examiners who review patent applications for compliance with the statutory requirements in the area of data processing, electronic commerce, and cryptography.

Mr. Love joined the Patent and Trademark Office in 1969, immediately after receiving his undergraduate degree in Mechanical Engineering from the University of Detroit. He attended law school, earning a Juris Doctor degree in 1974 from Georgetown University Law Center. He was appointed to the Senior Executive Service in 1988 and was assigned to Technology Center 2700 in July of 2000. Mr. Love was a participant in the 1984-85 Department of Commerce Science and Technology Fellowship Program, during which he served on detail to the Office of Import Administration in the International Trade Administration. Mr. Love was selected to attend the Federal Executive Institute program entitled "Leadership for a Democratic Society" in 1996.

Mr. Love was chairman of the Supervisory Patent Examiners and Classifiers Organization (SPECO), is a member of Pi Tau Sigma, the Honorary Mechanical Engineering Fraternity; and is a member of the Virginia State Bar. Mr. Love was awarded the Department of Commerce Bronze Medal Award in 1980 for Meritorious Service, and the Silver Medal Award in 1984 for his work as a Supervisory Patent Examiner. Mr. Love has been closely associated with the reorganization of the Patent Examining Corps since 1986. He served on the planning committee which oversaw the creation and deployment of Restructured Groups from 1988 to 1994.