

>>FEMALE SPEAKER

Good morning. Welcome to the Federal Trade Commission. I'm Susan Michele, Assistant Director for Policy in the Bureau of Competition. Welcome to what I believe is our third in the series of FTC hearings on the evolving IP marketplace. Today we'll be looking at the way different companies; different firms and different industries participate in markets for intellectual property for patents and for technology. And the way that those markets promote the patent system incentives to innovate. We will be announcing today our next set of hearings on April 17th. There will be a press release going out. Stay tuned for that. That should also be a very interesting day. We will have the CEOs of Oceanomo and ThinkFire to talk about how patent markets operate. I should mention tomorrow we will be back here again talking about economic perspectives on patent market and how the notice function of patents affects patent markets and how it might be considered and proved, whether it's working, those kinds of things. Our first panel is entrepreneurs and universities. I will turn it over to ARMONDO to introduce our panelists.

>>MALE SPEAKER

I'm Counsel for Intellectual Property here at the Commission. Welcome to this hearings. We're going to give brief biographical information about the panelists and more complete information in the hearings website. FTC.gov. I'll begin with John Soderstrom, Managing Director of the Office of Cooperative Research at Yale University. This office is responsible for developing and executing commercialization strategies for inventions resulting from Yale's scientific research including patent license agreements and the formation of new business ventures. He has participated in the formation of more than 25 new ventures, which collectively have raised over \$400 million in professional venture capital. Dr. Soderstrom was founding board member and past President of the association of technology transfer executives and the 2008 President of the Association of University Technology Managers. Next panelist is Joe Kiani. Mr. Kiani is the CEO and Chairman of Masimo Corporation. Mr. Kiani founded Masimo in 1989 to improve the accuracy of non-innovative patent monitoring -- noninvasive. He's grown from a garage start up to a publicly traded medical technology company employing over 1700 people worldwide with annual sales growth nearly 25 fold in the last five years. Masimo has technology license and OEM agreements with leading patent monitoring manufacturers throughout the world and the leader in the measure through motion, a low profuse okay symmetry technology markets. Mr. Kiani is inventor on more than 50 patents. Currently he's Chairman of the Medical Devices Manufacturing Association. Our next panelist, Thomas Woolston, Mr. Woolston is an inventor and interpreter. A name inventor on nine U.S. patents. Founder and CEO of MercExchange LLC. He's on the technical advisory Board of the George Washington university school of electrical engineering and applied sciences. He has organized companies, hired engineering talent, developed software systems and raised venture capital and company financing. His companies have been plaintiff and defendant in disputes. He's been principal negotiated Intellectual Property and other types of business agreements. He was formerly with the United States central intelligence agency and the United States Air Force and he's an engineer and a lawyer. Finally in this panel we have Ron Katznelson. Dr. Katznelson is a founder and President of Bilevel Technologies in California. From 1990 to 2005 he was Chief Technology Officer, founder and Chairman of broadband innovations, where he led the company's entry into the RF cable TV industry. He also has been a university professor and is an author of a book and numerous technical publications. He's an inventor of more than 25 U.S. patents. Dr. Katznelson served as a member of cable working group and co-author of the downstream transmitter specifications. He's an advisor to high technology firms and member of the San Diego

Intellectual Property Law association. At this time we're going to have the panelists make introductory remarks for about ten minutes each where they will be able to speak about their experiences with the ability of patent innovation and support production of new products. We're going to begin with Dr. Soderstrom. They may sit or come to the podium.

>>JON SODERSTROM

I think I'm going to sit. Thank you for the invitation to be here today and participate in this panel. Just as a point of reference I'm here representing the association of university technology managers, which is a membership organization of over 3,000 members around the world that are technology transfer officers from over -- literally hundreds of universities around the world. As a research university we are major consumers of Intellectual Property as well as generators. Our research budgets tend to on average create one patentable invention for every \$2 million of research that we perform for the various agencies. To put that in perspective for you, that literally we filed hundreds -- thousands of patents last year we issued in the names of universities. My own university, we had over -- Yale University had over 200 new invention disclosures and we filed approximately 170 patent applications and we had issued something on the order of 75 last year. We're not even in the top ten among universities. So just to put it in perspective, we are a major player in this market. But why do we do it? In 1980 Congress passed the Bayh-Dole Act which is to encourage universities to patent and commercialize inventions growing out of their research. Prior to the passage of the act few universities were performing anything in this marketplace. My own university being no exception to that. With the passage of the act many of us have become much more active in our participation and this has grown every year for the past 30. What's accomplished? Just to be -- put this in perspective, in the past year, past year that we have data which is year 2007, over 500 new companies were formed based on Intellectual Property that was produced by universities. Many of those formed were supported by professional venture capital. Of those formed since the passage of the act over 3400 are still in operation here in the United States. Last -- in the year 2007 approximately 700 new products were introduced on the marketplace. And in the past decade over 5,000 new products have been introduced. For universities, obtaining patents is an important aspect of what we do but it's not the end all and be all. The most important thing that we can do with those pieces of Intellectual Property is to commercialize them. The only way that can be done is in partnership with companies. We like to say the question about for universities isn't whether we're going to license the Intellectual Property; the only question is to whom. Is it going to be an existing company like Masimo which we have done business with in the past or a new company that we start? And for any of those companies the most important thing is how strong is the Intellectual Property that we can provide because after all, the importance for the company is how safe is their investment going to be. Are they going to be able to assure a return on an investment because most of the products that we are -- most inventions we come up with are a long way from the marketplace and going to require substantial investment over a period of time and that requires protection for the stockholders and other investors. So we are clearly in favor of a very strong patent system that is both issues quality patents, i.e. high validity but also has assurances they are going to be with hell, sustained within the core system and will be -- withheld, sustained within the core system and we'll protect our investments over time W. that, I will stop.

>>FEMALE SPEAKER

Let's get Joe's slide up there. I'll just head down.

>>JOE KIANI

Thank you. Good morning. I'm very happy that the FTC is looking into Intellectual Property and its value. While I'm honored to be here today to speak about Masimo and how Intellectual Property impacted Masimo, I'm -- we're only one story. And at Masimo we have a saying, in God we trust, with everything else, we need data. So we hope that FTC will do just that. Get the real data. I know a lot of anecdotal data is thrown out but the real data so hopefully the right solutions are recommended. Our focus must be to foster innovation in our economy and further enhance the U.S. as the world leader in innovation. I am an electrical engineer; I have bachelors and masters in electrical engineering. I founded Masimo nearly 20 years ago. I'm also -- I have been CEO of the company. I'm now also Chairman of medical device manufacturers association representing over 200 medical technology companies from basically a few employees to a company like ours which has about 2000 employees. I speak on behalf of the MDMA today, not just Masimo. I started Masimo in my garage and we invented a disruptive technology. The reason I wanted the slide up but doesn't matter, I can show you here. I know sometime it is dialogue that's been had regarding Intellectual Property has been -- is it between Pharma and technology companies, it is. We are a technology company. You can see up there, we make circuit boards that we provide to the industry as an OEM company. We make our own end user product. In fact, it has rotational strength since 1989. The iPhones do too these days. General systems software and many sensors. So really this isn't about Pharma versus tech. We are a tech company serving patients and doctors and hospitals. Today we are a \$300 million a year revenue company. We're a public company traded on NASDAQ. But the hill we have to climb to get here was not an easy one. We had many obstacles. And despite the frustration we had with the patent system, without it we wouldn't be here today. And any changes are going to be made to a patent system should be considered cautiously. We should not forget the law of unintended consequences. In fact if I could divert for a minute. I know one of those unintended consequences quite well. In the mid '80s the government worried about rising healthcare costs, allowed purchasing organizations basically a path for anti-kick back statutes. Unfortunately what that did, the vendors became the people paying the checks were these group purchasing organizes an over time they became boldened. That has not only raised costs to the healthcare community, it's costing taxpayers millions of dollars. And it has stifled innovation. So I hope again, we're going to proceed cautiously and make sure that's no unintended consequences. When I started Masimo I was 24 years old and I saw a problem with symmetry. The problem with pulse symmetry is it measured oxygen on healthy non-moving people. As soon as there was low blood flow or patient motion, the products didn't work. Over 70% of alarms were reported to be false alarms. And the industry had given up, they thought it was just impossible to solve. They tried, they just had given up. There was an entrenched company with 80% market share, making 80% margins despite the fact that pulse okay symmetry didn't work when you needed them. And that company had commercial wire bud in our view they were no longer innovating. Ads I stated earlier, the industry thought it was impossible to solve the problem. Yet, we did not think so. We thought we could solve it. Our innovation was the only thing we had. At 24 I didn't have commercialization experience, we didn't have any manufacturing, we didn't have distribution. So the patent was very important. Significant investment was necessary. I initially got a second of my condominium but later we raised over \$90 million through venture capitalists. Whenever we got serious with them they wanted to understand if our patents had teeth. If we could really protect our innovation. And fortunately we did. Fortunately they felt good about it and our innovation today has been responsible for saving many people's lives, many eyes of babies -- many lives of babies. The rate of eye damage in a neonatal intensive care unit used to be 12% according to Vermont Oxford network group.

With our technology, that's been almost reduced to zero. Yet at the same time every year medical errors cause many people dying, every day a plane full of people get killed because of medical errors. A lot of times because of these monitoring are either not working or they're turned off or they weren't even being tried to be used because of the excessive false alarms. So by solving that problem, we now have created a patient safety net, not only for the patients before they were monitored but the new ones in the general ward. Our recent invention allows us to measure carbon monoxide non-invasively. Recently in North Carolina, a family was found by the side of the road, they were staying in a motel. They woke up vomiting nauseous. Tried to get themselves to the hospital. So disoriented they couldn't get there. They pull over an ambulance. They were lucky because it had a device to measure carbon monoxide. They had CO poisoning. They found there was a problem at the motel. And the head of emergency medical services, skip Kirkwood said over 50 people would have died has it not been for the technology and our invention. We recently developed a way to measure hemoglobin non-invasively. I'm not going to bore you with more stories but we have been able to save many lives. We cannot raise the money to accomplish what we have without our investors being confident, patents to protect our innovation. In addition we needed patents to protect investment from the entrenched company. After seeing demand for our product the entrenched company decided to make their own. It was never quite as good as ours but they did violate our patents and introduced a product that would get close to what we were doing. This company hoped that our patents wouldn't stand; they hoped we couldn't afford patent litigation. They counter sued us with ten patents. They sued our consumers to stop our distribution. They bought a company that had gone out of business 12 years which I worked auto when I was 23 years old and tried to say they owned all my inventions. They sent letters to our customers saying they were suing us and suggesting we would go out of business. Under damaging law they thought infringing was worth a try. We fought over six years through discovery, summary judgment motion, Markman hearing, jury trial, post jury motion business the judge -- by the attorneys on the -- and finally the Federal circuit court of appeals. We eventually prevailed, we won, we got an award for \$134 million and an injunction. And it all seems good now but it was the hard itself thing I had ever done. It was a lot of hurdles and problems that we had. But the results are that patients today are being saved, babies are getting blind far less and with the innovators feel more like they can succeed because of our technology and our victory in the courts. One -- victory in the courts. Our patent system had teeth for one significant reason. I certainly wouldn't have been here today if it didn't have teeth but I'm not sure Masimo would be here today. We have sued by the so-called trolls hoping to shake us down for some money. Although devaluing patents undoubtedly minimize or eliminate my cost of defending Masimo against unwarranted patent troll attacks, detrimental effects overwhelm any benefit. If the troll problem is addressed it shouldn't be addressed with a hatchet but a Dell kit carving knife to address specific problems. Why? Because I know that our innovation would have not seen the light of day and patients would have been harmed by any further erosion of the patent rights. Any further erosion of patent rights for innovative companies will make it more difficult for the next Masimo and it was already unbelievably difficult. As Hernando De Soto, a Nobel Prize nominee explained successful free enterprise requires effective system of property ownership rights. For decades the U.S. economy inn investigation has benefited in the face of worldwide competition to a well-defined property rights for innovation. The U.S. patent system has protected and there by encouraged an entire innovation economy and while regrettably factory jobs have moved out of the U.S., knowledge workers have thrived with improved standards of living. We should take the opportunity to strengthen our protection for innovation that drives our economy rather than weaken it. At a time when our economy has slowed

down and healthcare costs continue to rise, we must do what we can to spur innovation and strengthen Intellectual Property ownership which encourages entrepreneurs and investors to take chances in improving our world. Through this innovation based economy we can have other things create knowledge-based jobs and improve and expand healthcare to all who need it, making it more efficient and effective. Thank you very much. I look forward to hearing the other panel members and a Q&A session. Thank you.

>>FEMALE SPEAKER

Thank you, Joe. Tom.

>>THOMAS WOOLSTON

Good morning, thanks to the panel and FTC for having me. It's a tough act to follow, Joe is very successful. I have been an entrepreneur for ten years. The difference in our story is we have had patent trial, patent appeal in the decision. We went had a panel rehearing denial. We were subject to post trial re-examination, which is an interesting development. We went to the Supreme Court and our company didn't get an injunction. We ended up selling our patents and deciding we had to do something else because you couldn't protect market share without patent protection without injunction protection. We had a final determination by the highest court of validity. That didn't deter the PTO from continuing its re-examination which has been going on for six years. I don't know if we were the first, probably the second party to post eBay work exchange injunction hearing but we lost that. We were party to second appeal of the CAFC. Party to a 35, 145 action. We have been a party to three board patent appeals appearances. So just to keep it short, I think patent law has dramatically changed already. And I'm here to tell you where some of these policy changes really hit the road and hit us as a business which is you can make certain kinds of business decisions with the expectation of market share with patent protection. But you are forced into different business decisions if that protection is not there and you have a compulsory license instead of permanent injunctions. Four major decisions we're talking about too is the packaging, the 99 amendments of the patent statutes. The eBay MercExchange case. It has hit existing statutes. Unintended ways they have already hit it. For example 28 USC, 1292 C-2 allows the district court the enter a final judge but not final accounting. So you can go to the court of appeals without final accounting. In light of the eBay decision there's no relief at all. If a court denies the permanent injunction and doesn't do a final accounting there's no information to make business decisions whether or not to exit the market or double down and try to enter the market. These are things we would like to add to the panel today.

>>FEMALE SPEAKER

Thank you. Ron. Feel free, would you like to go to the podium with your slides? Or we can do it for you.

>>RON KATZNELSON

I'll do it at the podium.

>>FEMALE SPEAKER

Hit the down arrow.

>>RON KATZNELSON

This is going to be more data than the other speakers have put together.

>>RON KATZNELSON

Partly because of the nature of the set of questions we received initially as advanced questions. I'll make comments on one aspect of the topic today, that is patenting strategies. One of the questions was pursuing patents during the invention and development stages what considerations does one take into account and how does that affect us. We at my company relies a lot on patents. Intellectual Property based type of technology. We have been in two types of business. A company was acquired in December 2005. I'll give an example of the landscape we've had to deal with. And how those elements came about. In doing so I'm mindful of the fact that the patent strategy question we're addressing today is going to be overshadowed by potentially a statutory change in some major elements that affect patenting strategies. By the time the FTC report coming out of this session will come out we might have a different law in terms of patent law. So I took the liberty of analyzing our the history of analyzing the history. I hone in on first to file specifically because it's an area that hasn't been discussed too much. It was mostly people mostly busy with the damages issue. So there are important factors to consider and so in a way forgive me for delving into the first to file issue but that's the context under which I'm going to show has happened to us and what would have happened had first to file been in place. Broadband innovations started technology development back in the early '90s in a very promising technology; core product was a broadband decoder device on the side of the house. We've developed this over the years. Secured investments from the baby bell. And later in '96 by Motorola. Field trials and activities occurred in this time frame and we obviously needed to develop other supporting technologies and so on. Each of those dots represents a patent application. We had numbers and some of them are shown with C-1, which means continuation 1. Some shown CIPs and so on. The point is that during the course of this development we found that the area that we got into, the consumer customer premise equipment wasn't really working for us and we moved to a head in type technology. But again using the same core Intellectual Property through continuations. So the transition from that market was really accomplished through the process of continuation. The same disclosures that were used we relied on back in 1992 we were filing continuations in the late '90s. We were able to secure strategic investors Motorola and scientific Atlanta, both of whom would have been our, were customers. And strategic partners. Now, what would have happened if first to file was in place? We probably would have filed a whole bunch more applications as this shows. And the reason for that is because as you develop some of this work you're not sure which one is going to succeed. You're actually having to establish priority, you go race to the patent office, you file it, and this would have been the result. These are specific inventions that we had or some improvements that we had that we tested, had there been a first to file those that were filed would have been filed at that time patent office. They're shown in different color here. Now, Steve a friend of mine, the inventor of web TV likened this process and showed his process of going through five years of development. You had 24 different ideas, tested them all, did refinements, got see insights, did rethinking, all of these boxes represented patent application. At the patent office had first to file been in place. As a result you could see that in the first to invent only six or seven were actually filed. But only the good ones, the successful ones. So that is the promise of first to file. It would be a process where a lot of applications would in fact be useless to their filers. How do we know that? We see data. This is a result of an EPO analysis of the two types of applications filed in the European patent office. Applications that were filed with first priority. In other words, the first time they were ever filed in EPO. They're called EPO first filings had basically been abandoned a lot more frequently than those that were filed without reliance of the filing data as a priority date because they had prior priority. You can see that first to file causes people to run to the patent

office, file something, see if it sticks. The result is that over 58% were never even reaching the examination phase. A lot of people just gave up or they just didn't see the value of these patents for them because they actually saw the different way. Perhaps a lot of them would have gotten some claims. The determination of patent ability doesn't depend on whether the person using it actually used the solution or not. Is it different than the priority, sufficiently so. So the point is that this is an indication of value to the user perhaps more than patent ability. But there are some elements of patent ability involved. So this is proof that a lot of these things would essentially not be useful. Also applications filed in first to file countries seem to be skimpier, smaller disclosures; the U.S. is leading in terms of the breadth of disclosure. This is just the specification. You can see there's an element here of a first to file and to the patent office, rushed to generate a disclosure as quickly as possible. What is happening with that process? Well, inventors in America take time after they conceive and disclose their invention it will they actually file the priority application. This chart shows the distribution of time delay between the time that a technology transfer office and university receives the disclosure and the time it actually files a priority application. You can see that some applications don't get filed until later than one or two years after the disclosure. A first to file means all of this delay is going to generate a huge loss in priority value to U.S. inventors. This is a study from six different universities. I believe that much of what's happening here, the dynamics of looking at inventions, looking to see the experimentation of it, the funding of it, these factors affect the way we do business in America in terms of invention and development. First to file will upset this whole process. Perhaps all the invention disclosures that don't get filed today will get filed. This is an example of the data showing that about 60% of disclosure reaching university transfer technology transfer actually get filed ultimately with priority application. Chances are with no time to decide, all of them will be filed or a great many of them would be. So the first to file would change how we do or not do business in this country, a concern that it established strategic partner may miss appropriate ideas disclosed under NDA and generated parallel first to file priority process in competition would discourage companies like mine from disclosing and dealing with it. It's in the most crucial stage of our development. There will be chilling effects on joint developments; responses to RFPs may not be substantially informative. Substantive investors or perspective license due diligence would not take place. Marketing communications would be different. When I put myself in a position of thinking am I first to file, came to the conclusion that the history that happened at BI, broadband innovations would not have been possible. This is probably what would have likely to have happened. You can see a lot of first to file applications all right but you can see the conspicuous fact that Motorola is not here as an investor probably because we wouldn't have been able to surpass the obstacles of communication about the technology, our concern from there, potentially moving forward with some other solutions. And the likely company failure. Well, we have a lot of patents. Who would like it? Maybe a troll. Point is that this is fodder for trolls. In other words, the extra applications they would have had probably no value for us. But quite a bit for somebody who wants to use the disclosure, maybe I made some claims or find ways to match it to something else. So the conclusion is that first to file would be very harmful and what you have seen in my company's development wouldn't have happened, I believe, will result in a flood of shallow and race to the patent office type patents would encourage inventions that are untested, generate more work for the PTO and more fodder for trolls. Under first to file innovators have to invest R&D in non-infringing solutions -- infringing solutions. Designing around patents that would have never issued under the current system. That's not an insignificant burden on innovation. One that probably hasn't been

aggregately addressed or thought about, in Europe or Japan when there's first to file there's a process of publication of an exam report. People can decide whether to pursue something later on. What we have done in this country and the statute is to change one thing without thinking about the consequence of having so many of those applications without a vetting of the process. The PTO will examine all of them, get something out of it, probably have 30 to 40% more applications. Over more than a century the American first invent system struck a systematic legal balance between the written disclosure and the requirements of patent -- a very elaborate one which you all know from the case law. We are experts in how to deal with these issues today. Over the years we developed expertise in managing R&D projects, disclosure, engineering notebooks, a process that will go out the window. We will take years to learn how to operate and how to innovate and how to collaborate under the first to file. Also R&D that has some incentives being internally in the U.S. because you have priority, if you can demonstrate due diligence and reduction to practice in the U.S. you get entitlement. If you do it abroad you don't. Well, the first to file would basically take away these incentives from multi-national companies. R&D will move more away from the point of view of priority, you would lose that. Remember, priority is required for a lot of companies and remember there's about 10% of the applications that probably would have lost more than a year or two years of priority. So first to file is touted as the next big thing but is it worth it? Thank you.

>>FEMALE SPEAKER

Okay. Thank you, Ron. Those are excellent presentations. We very much appreciate, I think you can see we have a top-notch group of panelists here and appreciate their time coming and sharing their stories with us. You all spoke about the importance of patents in raising venture capital. Talk about the difficulty that you face before you have that patent and your thinking -- and you're working on the technology and developing it and trying to pursue that patent. No venture capital at that point, what do you do, Joe?

>>JOE KIANI

That's a really good question. Before we filed our first patent on our technology we did not even go to venture capitalists so we raised our money from friends and family. Because we knew the investors wanted to see something tangible and they wanted to analyze it.

>>FEMALE SPEAKER

As panelists like to address the question just turn up your table tent and we will call on you and keep the conversation going. Feel free to comment on anything that comes up that you would like to share. Did you -- how did you approach the patent system or the patent application process at that point? This must have been a new experience for you to be thinking about patents, it's a fairly expensive process. What kind of difficulties did you face in thinking about pursuing a patent?

>>JOE KIANI

I guess I'll turn my card up.

>>FEMALE SPEAKER

I know Joe had direct experience on this.

>>JOE KIANI

One of the negatives of filing patents, the time it takes for the inventors to try to disclose their ideas to a patent attorney and file it. Another one is the expense of filing patents. I can't even imagine under a post grant

opposition world that's been talked about today what we would have done because at the time we filed our first two patents we literally are burned red with \$5,000 a month. Filing the two patents cost us about 20, \$25,000. And we didn't have to then worry about expenses for a while. The post grant opposition world, think my costs would have been another 100 to \$200,000 to potentially try to just defend my patents before they get issued which meant I wouldn't have been able to talk to investors about raising money even more, even longer before doing that.

>>FEMALE SPEAKER

I see. John.

>>JON SODERSTROM

Two observations that build on comments Joe was making. You asked the question about talking to investors without Intellectual Property. That's actually fair fairly straight forward and simple. There is no conversation. Because without Intellectual Property there really is no basis to have a conversation because they're all about how high the fences can be built and how much freedom to operate do you have within that space. Those two questions if they're not the first two questions they ask, they're certainly the third and fourth questions they ask. Because that's all about protecting their investors. So it's a prerequisite. The second question -- the second part of that that you asked is what do you do before that? And I think Joe's comment in terms of companies is straightforward. You beg, borrow and steal from anybody you can. One of the observations I'll make is in the current research and development environment, it used to be that there were ways that you could actually finance the maturation of an idea into something that would ultimately result in a useful product. And that money particularly right now in the current economic crisis we're facing is becoming extraordinarily scarce. What is available is extraordinarily expensive. It's a problem that we're all going to have to face somewhere downstream. Because the current models that we have all followed particularly in the life sciences and biotech for investing in the development of these inventions and new products is pretty broken at this moment. And everybody I talk to would concur in that. So I think that we're going to have to come up with innovative new strategies for how we're going to get this done because friends and families might have been the place you went but last time I looked their bank account shrunk.

>>FEMALE SPEAKER

Once you have that first patent application on file, how do the uncertainties surrounding the outcome of the application process affect your ability to raise capital? Can you raise capital with just an application on file, Tom?

>>THOMAS WOOLSTON

We weren't but the world definitely changes when the patent issues because rights are defined, there's claim scope. It took me from 1995 to '98 to have the first patent issue. I had a licensed and was off and running within four weeks of issuance so it was like magic for us. The difference between a pending patent has really meant very little. Other than you had something on file that protected it and you had a little liberty to go out and discuss things without NDAs because you had a placeholder.

>>FEMALE SPEAKER

Ron.

>>RON KATZENLSON

I think there was a balance between the process of getting NDAs in place with various players on one hand and having something on file that was done. The major value of having something on file was obviously that the N DA covered it but we were still concerned about improvements, changes. Once you disclose a concept and you are still in development, you haven't finished and you don't have as many resources as the other guy, who you hope would be your partner. You're very apprehensive about the process and how fast will they come up with - - oh, well, we can do something slightly different and then race and go back and do the work. But there's an element of deterrence if you have the breadth if you have these things in place and you have non-disclosure that shows a little more than the process is fine. One of the strategies we've always assumed and used is to never disclose the claims. We disclose the specification; we're also concerned about interference. One way to invoke interference is copy one's claim you automatically get interference at the patent office. So there's -- there was a challenge of how to do that. And not all claims were written or applied for initially too. In some respects the disclosure was the body that we were disclosing, not the claims.

>>FEMALE SPEAKER
John.

>>JON SODERSTROM
Couple of observations.
It varies by industry. In the area of life sciences in particular we find that most everything that we license is in the form of a patent application. And that's after a lot of vetting. The vetting is usually around the quality of the science. So there's a lot of looking at hiring people to do due diligence that are essentially doing what the patent office does for a job which is trying to see whether or not they in their best opinion the claims are likely to issue as filed. And what the supporting data is, that's in life sciences. Other Fields, information technology, et cetera; I find you don't even have a conversation without issue claims. That's just -- it's as simple as that. It mirrors exactly what two gentlemen Tom and Ron were saying in terms of the difficulty of having the conversation. Part of the difficulty is you can't get a non-disclosure agreement in place. Okay. Does the backlog at the PTO then raise a concern in life sciences if you're able to have these conversations based on application?

>>JON SODERSTROM
The backlog is a concern no matter what because you have to raise more money eventually and while that's okay for the first round of investment it's not acceptable when you get into the institution, the big institutional investors. So therefore they do want to see issue claim. They don't want to bet on it.

>>FEMALE SPEAKER
Big institutional investors?

>>JON SODERSTROM
Hedge funds, private equity funds, the large players managing billions of dollars as opposed to hundreds of millions.

>>MALE SPEAKER
Trying to stay away from risk.

>>JON SODERSTROM
Absolutely.

>>MALE SPEAKER

It doomed our company.

>>FEMALE SPEAKER

The backlog at the PTO?

>>MALE SPEAKER

Hindsight is 20/20. We look back now; our major competitors had momentum by the time our patent issued. It was filed in '95. -- '95. How compressed we were Internet technology, just how compressed the business cycle was. It was probably a hundred year business cycle compressed into four years. There's only four players left. And usually that takes a hundred years for industry to shake out like that. But we were late. It would have taken billions and billions of dollars worth of capital in hindsight to overcome their first mover advantage that the valley had over us. We did anyways because we didn't have 20/20 hindsight.

>>JON SODERSTROM

It's important to recognize the life cycles for different industries are vastly different. If you look at for life sciences even in something technology focused like Joe's, it's still fairly long. To get the thing into the marketplace. Versus 18 to 24 months which you see in electronics and IT industry. So I think you have to recognize that there's a different business model in play.

>>MALE SPEAKER

And technology has a shelf life too. It's a diminishing asset. People are on to the next big thing, innovating around it so there's a finite life span, period. Patents or no patents.

>>FEMALE SPEAKER

John mentioned in area of life sciences they get licenses and patent applications where you have to get the patent and within four weeks you have your first license or something like that. What was the vetting process, did you just show up and say they have a patent or was there also due diligence done? Who did that due diligence in the -- using electronic Internet --

>>JON SODERSTROM

We were in a pretty crazy time, take companies public like pets.com, that concept and raise billions of dollars. So we had an interference proceeding with price line.com which is actually one of your questions, what do you do with other people's inventions. And we filed an interference proceeding to basically say we want to be able to practice our own invention. You have basically told the patent office, narrow them up, get them off of us. We're superior in time, superior in rank. And that's when the dot com lightning struck us and we raised \$12 million and got the thing rolling. We were late and couldn't overcome the momentum but it was only the patent that did it for us. I have heard some of the Internet companies like oh, there's too many patents. There were only 12 patents that anybody cared about. Anybody -- we knew them all. It wasn't -- it was open markets, it was open markets, they're the only ones that had any teeth to them. Everybody else was very late filing dates and we're going to have very narrow enforceability. So it wasn't a patent as some people make it out to be.

>>FEMALE SPEAKER

Okay. What was your process? When you were in the very early stages and thinking about applying for a patent and then applying for the patent in assessing the patent landscape? And what you needed to design around? And were

you able to identify those patents design around them? How did you deal with the fact that perhaps their applications and not issue patents out there? Joe I know you thought about this.

>>JOE KIANI

When I first starting Masimo I spent -- those days Internet wasn't there so I spent a lot of time at Los Angeles public library.

>>FEMALE SPEAKER

You yourself.

>>JOE KIANI

Me, myself. Those days they had the microfiche to see all of the other related patents to what I was thinking of doing. The reason that was important to me wasn't just because of were we going to file a patent or not, I was trying to see if my invention was important enough the start my company or not. So I spent a lot of time doing that. Before we filed our initial patents we even had our patent attorneys to do a check for us to see, well, is there anything like this? If I missed it. So I did that early on. I don't do that any more but we throughout many years have watched and monitored companies as well as titles and interest subjects to make sure we understand what was getting issued. And what's out there.

>>FEMALE SPEAKER

Ron, then Tom.

>>RON KATZNELSON

To me the initial effort for the technology we developed was to try to find the different way to decode a whole bunch of signals simultaneously as opposed to a single channel at a time decoding that people have used. So it had to be backward compatible to existing encoding methods out there. So obviously there had to be a very careful analysis of the patents of these encoders and decoders. And to find a way that we do it totally differently in a way that does a whole bunch of channels instead of just one. But also in a way that doesn't read on the claims so the claim won't read on that. And that is the virtue of design around because it actually produces a potentially different solution for a similar problem. And encourages new inventions. And we were fortunate to be so different and so differently approaching the problem that we felt comfortable in that process. Going forward, beyond that there's a challenge of trying to look at the Intellectual Property of others and what do you do? Especially when the Internet days after every engineer in the company had Internet access and the PTO database out for free, people would just look at these patents and Google stuff out. You cannot avoid, you cannot prevent your engineers from looking at these things. And so I've all had a concern with trouble damages issues. Do I have a record of all my engineers having seen something and I don't know about it. So we had a policy that essentially engineers don't look at claims. They only look at disclosures. So they have to understand the difference between two. They're not attorneys. So once you have a written policy and that's something I recommend, it may not be a solution but it would be some ways to insulate engineers from having an institutional ability to look at claims. So with disclosures they learn what the patent teaches but they don't know what it claims.

>>THOMAS WOOLSTON

Our industry is different because herb was getting capitalized an grabbing as much space as they could quickly as they can. We were kind of looking forward to the day we were going to get sued because that would mean we were successful.

And it was like paying your taxes, you know, it's like it would have been great to have income and pay corporate income taxes and been one of the survivors. That's the way the industry shook out. It was get big, get fast, dominate a category, and all of this Intellectual Property stuff is going to sort out. It's works for effectively for the dominant players but that doesn't mean coming to Washington and complaining the patent system is broken, it's part of the life cycle and it's something people need to deal with. I look at the example of Google with the books. The indexing all the books, like okay, through brute force they indexed the books and the IP copy rights were going to sort out. It's sorted out. Congratulations, Google, you did it but that doesn't mean the copyright system needs to be thrown out, doesn't mean authors done need to get paid. I feel the same about the patent system, it's okay, you survived. There is a lot of broken companies around. The irony of some of this debate is people complain about the trolls and aggregators and I'm not sure what some of these definitions are but isn't part of this result from the low value of Intellectual Property that creates the opportunity to aggregate? You would aggregate weak rights. So it's part of these unintended consequences you're having now, if patent rights are stronger there would be more ability to raise capital, more able for companies to start to get a product in the market. More M&A work. But less patent suits. You only bring a patent suit when you're losing in the marketplace. When you have a competitor enter the marketplace and you have price erosion or knock-off that's when you bring a patent suit. You don't bring a patent suit when you're Microsoft and dominating the marketplace, you have something much better than a patent. You have market power. That's a lot better than a patent. So it's almost by definition a patent is enforced when you're on the down slope of the market share.

>>JOE KIANI

One thing I have learned is a think a lot of people learn about patent -- think about patents as forever. We understand when you think about it obviously it's only 20 years so I think going back to the backlog of the patent office, it feeds into that life, you're supposed to enjoy your monopoly that's legally given to you. What's more important is that going back to understanding other companies patents and respecting other company's patents. We believe first of all that if you find a valid patent out there, either we don't practice it or we try to buy it or license it. And we don't think every bright idea has to be in our product. If we can do one of those two things. So one of I think the misnomers is that it's so hard to understand what's out there and then you get stopped. And sometimes maybe you do miss something. In fact, when we sued our main competitor, they counter sued us back with ten patents. And we were able to defeat nine out of ten patents. The one patent still standing we just said we're going the take it out of our product. And I think what's important about that, again talking about some of the things being talked about today at -- talking about apportionment of damages. And I hear the story that oh, there's some small innovation part of a much bigger thing like let's say the fonts. New fonts in Microsoft office and somehow they're held hostage for this one invention. A half a percent of a lot of money. First of all the current system allows you to take that out and under the Georgia Pacific factors potentially only have to pay the damages which is the amount of money it took you to get it out. Which is maybe \$10,000 or \$50,000. And the only reason I bring that up is because I think when we're looking at our current patent system, although it's not perfect, it is it's much bear than any place else. What we shouldn't do is to follow a practice done by other countries that we know didn't get good results. This whole -- you mention the first to file versus -- Europe has done that. This whole post grant opposition. Europe has done that. They're not better off than us in innovating.

>>FEMALE SPEAKER

I would like to talk about the next stage of the process after you've come off the initial invention and filed the first patent application and you continue development and how important it is to continue the development before you can sell, license or commercialize your technology, and the role of the IP in that stage of process. I know Ron, you were talking about the importance of continuations at that point. Could you spin that out for us a little bit.

>>RON KATZNELSON

Well, there are several aspects of the importance of that, one is evolving law of claim construct. For example, the doctrine of equivalence used to confer quite a bit of breadth claims at some point. And after Johnston there has been an erosion of that where if you didn't claim literally some of the variants that you may have disclosed you actually dedicated to the public. So a lot of times you can't really sit there and spend thousands of dollars putting together all the possible claims that are possible with disclosure where there's clearly a lot of inventive material but you focus on claims you know you will need the next two or three years and put aside the others. So there comes a time when you find other features that turn out to be important and worthy of protection. And at that point you want to file additional claims. So the continuation process has to do with the breadth of the claims, in my paper I show the breadth of claims over time erodes not just because of the judicial process but also because of life cycle of products. They're shorter in lifetime. And in many cases claims that might have been good ten years ago for some products of yours may not be good at all, even though the disclosure has elements that can survive with new claims. So that's part of the evaluation of -- value of the evaluation process. In some respect the misunderstanding of the term rework, if you come back to the patent office and you want to prosecute these claims again, that's a misunderstood process. If you study the claims people bring, not only request for continued examination, not an RCE but continuation, new claims. A lot of times they're different, broader, directed to different elements. So to characterize this thing as rework, does quite a bit of injustice to the process. So claims coverage is important and continues that step. CIP is an additional element. We have in this country an incentive to disclose improvements which don't exist in other countries. You cannot file a CIP in Europe for example in a way that is similar to this country your own priority might count against you where here it's not. The point is there's an element here that has worked for over a hundred years. We sure hope it's not going to change.

>>JOE KIANI

I want to add on the whole continuation, Ron said earlier he teaches people to look at claims and not specification. We do the opposite because of the continuation. When we look at our own patents as well as others we look at the specification because we think continuation is a very important practice. If you've specified it, you're able to eventually build the fences. And I liken it to if you've got hopefully a big land and you're going to build fences around your land, you can't do it over night. It takes years of investment to slowly build that fence. Without the continuation practice the value of filing patents is to me almost zero. Because there's no way this initial patent you file with the claim you file will end up protecting the invention you disclosed.

>>FEMALE SPEAKER

Do you experience the down side of that, though in the sense of if you want to avoid someone else's patents and you see a specification out there and you don't know what claims might emerge from that patent later?

>>JOE KIANI

The fact -- if I could just answer that. We don't think it was a down side. We actually think we have to do our homework. That's why I said initially we don't look at claims. We look at specification. Unless we can see that specification part in a prior art, whether there's a product, patent or some public disclosure we stay away from it.

>>MALE SPEAKER

We had 12 restriction requirements in our prosecution.

>>FEMALE SPEAKER

Wow. That's a lot.

>>THOMAS WOOLSTON

That forces you to file a continuation. I don't think you can address one without addressing the other. It would abolish the practice. Just take it out of PTOs practice if they can enforce -- you can't have one without the other. You can't let the PTO force divisional requirements and limit the number of continuations you can file. That's out of your hands.

>>FEMALE SPEAKER

Okay. Ron.

>>RON KATZNELSON

I think as said earlier here, it's the issue of notice whether claims are necessary to give proper notice or whether the specification should suffice, in a lot of cases as you said speck really tells you what could be claimed. In fact so much so that the patent office hasn't MBEP, a requirement in the search by examiner to not just look at what the claims are but to look at what claims maybe broad in view of the speck. So there's an understanding, a mechanical understanding of the relationship between possible claims and a spec apparently a CEO understands. When you file examination with the CPO the research report you have to submit has that requirement that you not only look at the claims that the search that you make is not solely for the claims you're making but also for -- to match your disclosure as to what may be claimed. If we know how to do that at the PTO and we know how to do it when we file accelerated examination, I don't understand why we wouldn't be able to do what you're saying, it's true, that should be viably possible, so I think there's quite a bit of notice in this spec itself when I said we don't look at the claims, the engineers look at the claims because of damages issue, willful issue they look at the spec only for purpose of design.

>>MALE SPEAKER

I think there is a statutory provision when 18 months from filing date you can relate it back to the publication date if the claim is substantially the same.

>>FEMALE SPEAKER

Okay.

>>MALE SPEAKER

What's the patent issues, your entrepreneur, all inventor, many times you enter into agreements with larger companies, your main competitors in the marketplace or others. What factors do you take into account under the -- make your own company or whether to license your technology to others or whether to sue or sell the patent to others?

>>THOMAS WOOLSTON

In our case because the business cycle is so compressed when you look at Greenfield all your motives are capitalize and build. You have a Greenfield. But as competitors rapidly move into your field, your business decisions concerning your Intellectual Property start changing which is, oh, gee, maybe license here and find a niche. So try to build in a niche. Or try to license here and build over here where there is Greenfield. Try to innovate something else. I think Joe can attest to the fact that you can't stand still in innovations. He's constantly innovating. So just the way the market shakes out, the market, that depends how you treat Intellectual Property rights at least in my view.

>>FEMALE SPEAKER
Ron.

>>RON KATZNELSON
after eBay though the ruling may not have expressly commands that one looks at practicing or non-practicing entity to decide whether they're entitled to enjoin the infringer or not but the reality is, we have seen it last type, that there's courts understand the eBay decision to actually mean that. If you're licensor and do not practice, your ability today to have a meaningful power negotiation is greatly diminished. So much so it actually change it is business model for some of the things I'm looking now at Bilevel Technologies. To the extent I ever thought to the efficiency, I would go out and license them under patents now it's clear to me that I ought to be practicing in a way that the licenses are not under the patent but under some OEM arrangement and some tangible element beyond the patent conveyed to the customer. It means I now have to look different structure of the business. It requires additional resources to put together a different model, not just a licensing and patents but actually development model with more people, more investments. So the eBay decision caused us to look at the way we do business in a longer path than we thought we would have been able to do primarily because we envision a low ability to interest license with the pa ten. It's hard to negotiate an arrangement when you know you can't enjoin them if they infringe.

>>FEMALE SPEAKER
John.

>>JON SODERSTROM
I want to build on something Tom talked about a few minutes ago. From a university standpoint we're not going to practice our patents. We have to license. The only question is does the company exist or not. From a risk standpoint you certainly would like to license to an existing company. To the extent they're willing to commit they're actually going to develop it. What that tells you, this gets back to the question of weak versus strong patents. From a university standpoint we have to go after strong patents. Weak patents have no basis. Nobody is going to license them approximate you're not going to raise venture capital if you're going to start a company. What we've done, this is essentially very Darwinian in the sense that you have to get creative. How strong a patent state do you think you're going to be able to develop. And then the question is, how long are you willing to develop it for. Before it's actually going to be licensed either to a new company for which you have raised money and by the way just before the crash it was taking 18 to 24 months to raise money to start a new company anyway. Now it's anybody's guess. But again, it all goes to what are we taking to the patent office in the first place? The strongest possible case we can make for products. So obviously from our standpoint you want to go for composition of matter if that's not possible go for the next best thing. But it's all about getting the highest quality

patent that will withstand challenge. We have to believe that over time because universities don't -- we don't have unlimited resources to file patents in the first place, that you're going to see a decrease but you're going to see increase in call of those patents. Call in terms of breadth of claims and in terms of who actually is practicing those.

>>FEMALE SPEAKER

Joe, could you speak to your experience in deciding to build your own company rather than sell the technology?

>>JOE KIANI

Yes, I would be happy to. I think Masimo's story is like many other companies where we actually we were not trying to build our own company but we were forced to. We -- as soon as we had the invention and demonstrated it worked we set up meetings with the four leading companies in our industry thinking to license it to them, get it to the market faster and take that money and do other things like chemicals and we finally did. But unfortunately at least three out of four companies -- all of them rejected us. Initially they want to do it, one went to the 11th hour with an agreement, was willing to pay us money but put our technology on the shelf. And then eventually all of them took the opportunity they met with us earlier to begin working on -- so unfortunately I don't have good advice for my friend here, it's tough world to go to the companies and try to work with them. You're better off to go with companies that probably aren't competing in the area you're trying to sell the patent to because they try to get around your patents, they all try to do it without you.

>>MALE SPEAKER

Do you find that in the last few years there have been more awareness and probably new business models dealing with marketing of feints where they aggregate or practicing entities. How do you see the role of those new business models affecting or improving or enhancing, detracting from the start-ups and small businesses in maximizing the value of your patents? Ron?

>>RON KATZNELSON

I'm looking at the university technology now to license and try to build and capitalize a business. If it's my own money and time, I'm a little more free but when I take other's money as an investor I feel committed to telling them what the company is going to and why we're going to do it. I feel if you're building a business around a patented technology and you're approaching people to capitalize it, you're almost false advertising. Because the fact is under 35 USC 134 in the 99 amendments, you have less rights to defend an issued patent than a pending patent. Under the decision which gave definite fact finding to the PTO dove tailed with the Amendments in 99 to 35-USC-134 section 141 and section 145, in a patent re-examination the office gets deference to fact-findings. There can be legitimate disagreements on the fact-findings. That deference is enough tip it the office's way to invalidate a patent. You can only go to the board -- you can only go to the court of appeals and make a deference in their fact-finding. So it has tipped validity toward the patent office that an inventor cannot fight for -- cannot fight for their invention. I have a problem with that because if you're out raising money on the strength of a patent saying we can commercialize this and there's an expectation if we get to market we have exclusive rights, market exclusivity, that's part of the recipe for making the commitment of time, money and resources into this, the reality is, well, if somebody else beats you to market, gets you reexamination you have limited rights to defend your patent at PTO. They get deference. The only reason you're in examination is because a patent has become commercially important. People aren't doing it for the heck of it. You have commercially

important invention, you're in the marketplace, you nine times out of ten have very sophisticated opposing parties and they can make very good fact-based arguments to the office. The office can just adopt them. The office has deference to those decisions and you have no as a patent owner you have no ability to rebut that with trial evidence or anything else. You're on administrative record. Chances are very likely the CAFC is going to affirm due to the deference that the office is giving on its fact-finding.

>>FEMALE SPEAKER

Are your concerns same for E party or inner party examinations? How do those play out differently from your perspective?

>>RON KATZNELSON

I was going to do a slide the constitutional anomaly, the black hole. The way we saw ex-parte, it swallows everything. Inner parties -- you can go to inner parties and go back ex-parte. Go through first window and do to an ex-parte, you can go to the Supreme Court and go into an ex-parte.

>>FEMALE SPEAKER

You mean a challenger to a patent -- a challenger to --

>>RON KATZNELSON

You can go to inner parties, lose, then say let's take all the arguments again, throw all the arguments again into ex-parte and let the patent office do it all over again.

>>FEMALE SPEAKER

So the challenger to the patent can loose in the inner party and put patent into through ex-parte proceeding

>>RON KATZNELSON

Absolutely. That's no finality. It just goes forever an ever. There's no time line on the office to do anything. So you see them taking six, seven years. That's -- it's -- I don't know how you go out and raise money with a straight face on a technology to say that's overread by U.S. patent. We put the time, money and energy into the commercializing this, that this -- that a faster, better capitalized competitor isn't going to move into your market and throw you into reexamine, then your whole premise for raising money that we had at U.S. patent that would give us some protection is -- I feel like I'm false advertising what a U.S. patent is to people if you're out trying to capitalize a company.

>>FEMALE SPEAKER

When you are out trying to capitalize and you have patent in re-exam how does that affect your ability to raise?

>>JOE KIANI

It shuts it down. There is no discussion at that point.

>>FEMALE SPEAKER

Ron.

>>RON KATZNELSON

I thought he was asking a question related to the packaging of patents and the market almost the secondary market for patents and how important that is. I want to address that. I think it's a very important function to be able to abrogate patents and get them. Part of the considerations investors make when

they make an investment in the company like mine, let's look at your patents. A lot of people fail. What are we left with? What are the assets looking like at the time. We're going to put all this money in here. This there's risk. They look at what's their ability to monetize patents so the evaluation of a company is often done in two tracks. One is your business model which you're pushing, saying you're going to do. The other is who is it good for? Who else might be interested in this patent, should he fail? How much could we get out of this. So the value of the assets not through your own activity, that means secondary market valuation, is incredibly important gate for investors to make an investment in your company. To me if that secondary market disappears or is made essentially ineffective, it shuts down potential investors and primary effort for patenting. Even in an operating company in my case the banks would look -- we'd like to have a secured assets. Sometimes even loans security by the assets are going to be chilled down by the fact these assets in fact will be known not to be worth a lot. So if you actually discourage the property transfer, if you discourage secondary market in patents you actually hurt primary markets of patents. To me, those are inseparable.

>>THOMAS WOOLSTON

My point was there wouldn't be aggregators but for the fact patents are weak right now.

>>MALE SPEAKER

Joe.

>>JOE KIANI

I will agree with Ron in certain areas that's true. In life sciences the decisions tend to be binary, either it works or it doesn't. There is no secondary market because the technology either is proven to work in human clinical trials or whatever the FDA requires or it doesn't. So I would not make a broad generalization that secondary markets are great everywhere. The reason universities have a little bit of a problem with this is I think we have to ask ourselves why are we patenting in the first place. Part of the reason we're patenting is to try to draw forth the investment capital to take the technology into the marketplace. If we're solely doing it so that it can be rolled up by some non-practicing patent aggregator, the question is why are we doing it? The only reason you could be doing it seems to me is you think you're going to generate revenue. At that point about with creating innovation tax? And I don't think universities should be in that business. That's why we have taken a fairly strong stand against doing that. I'm not saying there shouldn't be, just saying universities shouldn't participate.

>>JOE KIANI

The point I wanted to make is just because you have patents doesn't mean you're going to succeed. You have to succeed commercially and have patents. Patents are helpful for investors to invest because they know you can use it as a great equalizer. The patents help us get to commercialization mode where we could eventually start competing properly. I can tell you I know of numerous investors after raising \$90 million, they don't look at secondary value of patents. I have seen companies invest \$50 million into them, 100 million-dollar into them, when it doesn't work the patents are worthless about not looking at that. You take them up for 50 or 100 grand. What is wrong with aggregators of patents, they take a failed company's patents and start holding up companies are still trying to make it by well before it used to be threat of injunction, fortunately with eBay, I'm sorry, but the eBay thing that threat of injunction is gone and you can't be held up as bad as before but there could be big

damages. So I'm sorry, I disagree there's secondary value to our patents that investors look at. They don't.

>>FEMALE SPEAKER

We've been talking about strong patents and weak patents. I would like to understand better what you mean by that. In the sense of the desire to aggregate weak patents. Are those patents weak because they are questionable validity? Are they weak because ability to get injunction is lessened? What is driving that kind of aggregation? Tom, you have used that term and talked about aggregators. I want to unpack that a little bit.

>>THOMAS WOOLSTON

Well, small companies don't stifle innovation. Big company stifle innovation because they have market share and market power. They don't need to innovate to maintain profit margins so it's all the challenge to the market leader that's going to be the innovator because it has to be better, faster cheaper than existing product or why bother doing it, patent or no patent. I have never filed for a patent or been involved in any patent in any way that I didn't look at it to build. You have got to seek some space in the marketplace to build. And if there isn't space in the marketplace then you're not going to make the business decisions to commit the resources and the time and energy and effort to pursue it. I have a problem trying to put into the code this kind of my commercial motive are better than somebody else's commercial motives. I don't think you can do that by statute. It so what the if they buy them for \$50,000 for a failed enterprise? That's \$50,000 for some creditor of a company. This obviously buying them for economic reason, not for noneconomic reasons. They're buying an asset because they think they can better capitalize on the asset. I have a problem figuring how my commercial motives are better than your commercial motives into the code.

>>JOE KIANI

If the end goal is to make money you can't. If the end goal of patents is to foster innovation, foster economic growth, then I think that type of business model is hurting the patent system and innovation and what it was meant to do.

>>FEMALE SPEAKER

We have a wealth of talent and knowledge here and could continue this conversation for a long time. We're about out of time. If any panelists would like to make -- if you have anything to say.

>>THOMAS WOOLSTON

Maybe you can fix it with a tax code. Treat owners with difference provisions in the code.

>>JON SODERSTROM

I hate to mix motives. I don't want to see the patent -- I'm strong believer in the law of unintended consequences. I think messing around in the patent system which is with stood a lot of -- has proven itself over the years, I think we have to be extraordinarily cautious how we change this. And I would hate to see us jump into it simply because people don't like certain business models.

>>THOMAS WOOLSTON

It's already been changed. Where is our industrial because in this country? It's gone.

>>JON SODERSTROM

Being changed in lots of ways both by the judicial system and the congressional. But I still urge caution no matter what.

>>FEMALE SPEAKER

With that, we will close this panel. We -- the FTC will continue to take comments and accept comments through May 15th so if there is a point we didn't get to we would love to hear from you in writing. Also staff here is always willing to talk, if you have thoughts. So thanks very much and we'll come back in 15 minutes with a panel on the IT sector.