THE BUSINESS OF INNOVATION
Episode 4
People & Technology
Transcript

====MARIA O/C====
HELLO EVERYONE I'M MARIA BARTIROMO AND THIS IS THE BUSINESS OF INNOVATION.

VOICES: Motorola up big time today almost 7%…
Nintendo Wii… I think that outsells the X Box 360 and the PS3 combined
I can't pick up a piece of paper without finding out how great Research in Motion is…

ROGER SCHANK: If you're going to design something new… you better understand the problem first. I think technology is our means of innovation this era.// But innovation is much more of an idea of// // what people are unhappy about and trying to find a solution.

ANNOUNCER VO: Sounds easy enough… so what's the problem…

ROGER SCHANK: You have to get the business people and the scientists on the same page… "Interesting" is considered a wonderful word in the science world.// And it is the worst thing that a business person ever wants to hear. So, when you have a scientist talking to a business person and saying// "That's a really interesting problem." //the business person goes, "oh my God." And //they're both right.// Because "interesting problems" may be not solvable.

ANNOUNCE VO: Ok… so how do you get these two guys together?

ROGER SCHANK: Do you like being confused? See a scientist likes to be confused, 'cause confusing makes the head go. If you're confused, you think about stuff. Businesses have to appreciate confusion. Being confused is actually a good thing// It leads to new ideas.

ANNOUNCE VO: Alright… so let's say this process leads to the next big thing…how do you get people to embrace this new technology…

ROGER SCHANK: Simplicity is the key. People //hate complexity. They really don't want to get on a computer and see 16 buttons on your website. They wanna see one.// So you see a clicker, you know, a remote clicker that has 100 buttons on it. (laughs) All I want to do is throw it at somebody. Right? I want… one button. People will accept change if you can enhance their experience.

ROGER SCHANK: when you have a really cool experience, you must tell somebody about it. // "Why do people do that?" It turns out in order to solidify a memory, one you have an experience, you actually have to recodify… you can't just have it. And the only way you can keep it in your head is by telling somebody about it.

ANNOUNCE VO: Wow… that's pretty cool. But to achieve that… you really have to get those left and right brains working together.

ROGER SCHANK: When everyone agrees on the question… innovation is possible. The key question that a // businessman and a scientist can ask together is, "What problem is there in the world that putting our heads together, we could figure out something really cool?

MARIA BARTIROMO: And the bottom line here ROGER SCHANK is that it's just not the technology, but it's what you do with the technology that really allows innovation.

ROGER SCHANK: Well, you know you have to understand something about why the technology should be there in the first place. Like hate is a good motivator. I met this guy today who was trying to do something new that would knock out the telephone companies. Everybody hates the telephone companies.

MARIA BARTIROMO: Ha! That's true.

ROGER SCHANK: So if his thing works, all we'll want to do is talk about how this thing is so cool and you don't have to deal with the telephone people anymore.

MARIA BARTIROMO: Right, right, and we should point out that it's not just telecommerce, it's not just computer technology, it could be technology everywhere. In the pharmaceutical business, mechanical, almost anything.

ROGER SCHANK: It could be absolutely anything. Also you know you have to get excited about it. I have a little thing I've been playing with so I can communicate with my grandson who's a thousand miles away and only 1 years old. And it didn't work for the first couple of - very interestingly because he was a little kid - and just yesterday he got excited cause he learned that if he said 'duck', a picture of a duck would fly across the screen because I was sending it right and the excitement in his eyes lit me up, so all you have to do is understand that excitement causes people to want to invent more stuff.

MARIA BARTIROMO: But how hard is it for the business guys to talk to the scientists?

ROGER SCHANK: You know business guys don't normally come at the world saying I really want to solve an interesting problem. They want to make money. They have to start thinking with the scientists about why the world is screwed up and together they can come up with some answers.

MARIA BARTIROMO: But do you think that they talk easily? I mean does the scientist working on the latest innovation sort of relate to the business guy who wants bottom-line results?

ROGER SCHANK: No, I don't think they talk at all. (MARIA BARTIROMO laughs) In fact, I think every time business people show up at places like MIT looking for science ideas, they come away very frustrated because the smart people are not talking the same language as the business people, and the business people are wanting to know what will make money next week, and the scientists never ask that question.

MARIA BARTIROMO: Right, or next quarter or next month, very short term. Those are some of the issues we'll be putting to our panel of distinguished CEOs tonight . . .

CEO PROFILE PIECE

MARIA BARTIROMO VOICE OVER:

ANDREA ILLY HAS COFFEE RUNNING THROUGH HIS VEINS. ILLY COFFEE WAS FOUNDED BY HIS GRANDFATHER FRANCESCO WHO DEVISED THE FIRST MODERN ESPRESSO MACHINE.

FOR MORE THAN 70 YEARS THE COMPANY HAS BEEN ON THE FOREFRONT OF INNOVATION IN THE COFFEE BUSINESS HOLDING 17 PATENTS AT ONE TIME.

A CHEMIST LIKE HIS FATHER BEFORE HIM, ANDREA ILLY CONTINUES THE COMPANY'S FOCUS ON ESPRESSO -- A BEVERAGE CONTAINING OVER 1500 KNOWN CHEMICAL SUBSTANCES.

===EFFECT TO DAN NELLER====

IF ILLY BROUGHT COFFEE TO THE MASSES THEN DANE NELLER, THE FORMER CEO OF DEAN & DELUCA, IS NOW TRYING TO DO THE SAME THING WITH BOOK PRINTING.

HIS ESPRESSO BOOK MACHINE CAN PRINT, TRIM AND BIND PAPERBACK BOOKS FOR ABOUT A PENNY A PAGE MAKING IT POSSIBLE TO PRINT INDIVIDUAL COPIES OF A BOOK ON DEMAND.

NELLER'S PLANS CALL FOR A VAST NETWORK OF WRITTEN CONTENT WHICH COULD BE PRINTED ANYWHERE IN THE WORLD.

====EFFECT TO BOB GREIFELD====

USING TECHNOLOGY TO INNOVATE THE STOCK MARKETS IS THE JOB OF ROBERT GREIFELD AS PRESIDENT AND CEO OF THE NASDAQ.

SINCE JOINING THE ELECTRONIC MARKET IN 2003, GREIFELD HAS MOVED TO SHARPEN ITS FOCUS AS THE MOST EFFICIENT, TRANSPARENT STOCK TRADING PLATFORM.

TODAY MORE THAN 3-THOUSAND 2-HUNDRED COMPANIES ARE LISTED ON THE EXCHANGE.

MARIA BARTIROMO:

Andrea Illy, Dane Miller and Bob Greifeld, welcome. Nice to have you all here.

BOB GREIFELD:

Good to be here.

MARIA BARTIROMO:

Bob, we've heard that technology itself doesn't necessarily innovate. It's how you use the technology. Tell us how the technology that you've implemented-- implemented, rather at the NASDAQ helps customers.

BOB GREIFELD: **CEO NASDAQ**

Sure, let me start back 35 years ago. When NASDAQ was formed, every single market on the planet had a physical trading floor. The reason they-- they did that was so everybody could share information in one place. NASDAQ said we have enough computing power, enough networking power, we don't need a physical floor. Today what we're doing for innovation is to extend that out to actually the retail investor. 'Cause the retail investor is sitting with his cable modem at home, has enough computing power and enough networking power to be as engaged in the marketplace as somebody who used to physically have to be there.

MARIA BARTIROMO:

So it-- it also in that regard needs to be simple, right, Dane? It needs to be accessible for the average person in order to (LAUGHTER) for it to be useful.

DANE MILLER: **CEO ON DEMAND BOOKS**

Yes. I mean I think in-- in our case, we're creating this point of sale book machine. I think you have to have something that's simple, but I think to-- to carry on this theme with digitization-- I think what's happened is there's been a radical de-centralization of the marketplace.

And in our case, we're taking this digital information and making it available at point of sale for the consumer right where they shop.

MARIA BARTIROMO:

Uh-huh (AFFIRM). And speaking of espresso, you of course were so innovative when you first came out with the first espresso machine, but you have to constantly keep coming up with new innovations. Tell me where technology is playing a role in your business, Andrea.

ANDREA ILLY: **CHAIRMAN & CEO ILLYCAFE**

Well basically preparation technology because-- coffee needs to be turning to the cup, and the cup is quite complex because from the chemical-- physical standpoint, the-- solution and emotion, many things. So to-- be able to-- standardize the preparation is very important.

MARIA BARTIROMO:

all of your businesses in difficult ways have their own unique innovative technique. And Roger, I-- I wonder what you feel about using the implementation of this technology. I mean you really have to worry about having this blind-- blind faith in-- in technology that it's always going to work, right?

ROGER SCHANK:

Well it depends on the business, doesn't it? I mean who you're dealing with, the espresso business, it's all about technology because the issue is, you know, how do I get a cup of coffee that's as good as the one I'm going to have in Italy in my house.

MARIA BARTIROMO:

(LAUGHTER) Right, right.

ROGER SCHANK:

That's the question, right? So the answer is the better they make those machines, the more likely that is. And believe me, I'm a big espresso fan. So I want that one solved. And it has to be technological solution because we know the big machines do good, how about the little machines? That's an issue.

DANE MILLER:

The consumer wants-- in our case the consumer wants a product-- cheaply and they want a product immediately. Impulse and price, and that's in many ways what we're delivering with our espresso book machine is you can get any book now in any language at any time for a fraction of the cost of-- of currently. So in a way-- in the end, the consumer is king. And that's who determines what your technology is going to do.

MARIA BARTIROMO:

I imagine that's determining your technology as well.

ANDREA ILLY:

Yeah, now we see area of pre-portionate system. So we are bringing in-- coffee industry more value to the consumer so that they can with a pre-propionate system prefer the coffee directly at home. And the problem there-- is very critical in terms of technology is about standardization. 'Cause you can launch a product as a proprietary system and force-- try to force the consumer to use-- one-- corporate specific technology, which bounds you.

MARIA BARTIROMO:

It's really interesting because in today's dynamic world, new technologies pop up daily. But what gets you from the coolest, that latest and greatest, to a market- changing product. Remember that VHS and Beta Cam debate? Microsoft and Apple? Now another royal battle is waging in the land of technology. CNBC's Julia Boorstin has the lowdown.

BOORSTIN PKG

JULIA BOORSTIN VOICE OVER: NEW TECHNOLOGIES BRING HIGH DEFINITION TO THE LIVING ROOM, BUT THE INDUSTRY IS LOCKED IN A VHS- VS. BETA-MAX BATTLE --
BLU-RAY, BACKED BY SONY AND MANY STUDIOS -- VERSUS HD-DVD, BACKED BY MICROSOFT AND UNIVERSAL.
HIGHER MEMORY BLU-RAY SEEMED TO BE TAKING THE LEAD, BUT WITH NEW LOWER PRICED HD-DVD PLAYERS -- NEITHER IS BUDGING.

NOW THE REAL INNOVATIORS ARE THE COMPANIES LOOKING FOR REVENUES EVEN WHILE THE FORMAT BATTLE CONTINUES.

KEVIN TSUJIHARA- WARNER BROTHERS- CREATOR OF 'TOTAL HD'
WE DON'T SEE A SITUATION WHERE ONE OF THESE TWO FORMATS IS GOING TO JUST KIND OF ROLL AWAY.

JULIA BOORSTIN VOICE OVER: WARNER BROTHERS UNVEILING TOTAL HD -- THE FIRST DISC THAT PLAYS BOTH FORMATS-- A SOLUTION FOR CONFUSED CONSUMERS, LAUNCHING LATER THIS YEAR.

KEVIN TSUJIHARA- WARNER BROTHERS-
THEY VIEW THIS AS A HUGE INSURANCE POLICY, THEY VIEW THIS WITH A LOT OF VALUE, AND WE THINK IT'S GOING TO DRIVE ADOPTION OF HIGH DEFINITION MEDIA DEVICES, WHICH IS A WIN FOR ALL OF US.

JULIA BOORSTIN VOICE OVER: BY SELLING BOTH TYPES OF HIGH DEF DISCS, WARNER BROS. HAS EARNED THE HIGHEST MARKETSHARE, 37% ACCORDING TO ADAMS MEDIA RESEARCH.--

THE STUDIO EXPECTING THE NEW COMBINED FORMAT TO HELP RETAILERS -- AND CUT BACK ON INVENTORY.

(NAT POP- SUPERMAN DVD)

JULIA BOORSTIN VOICE OVER: LG ELECTRONICS UNVEILING A SINGLE PLAYER FOR BOTH HIGH-DEF DISCS; HEWLETT PACKARD SAYS ONE IS IN THE WORKS.

MAUREEN WEBER, GEN MGR. HP PERSONAL STORAGE BUSINESS

HEWLETT PACKARD
WE WOULD WORK AGGRESSIVELY WITH THE MARKET TO DRIVE THE PRICE POINT OF DUAL FORMAT TO A COMPETITIVE PRICE POINT. AND WE ACTUALLY SEE IT AS A POTENTIAL WIN FOR CONSUMERS,

JULIA BOORSTIN VOICE OVER: EVEN BEFORE DUAL FORMAT OPTIONS HIT- CONSUMERS ARE BUYING-- LAST YEAR ROUGHLY ONE MILLION MOVIES SOLD ON BOTH FORMATS. ADAMS MEDIA RESEARCH ESTIMATING THAT 60,000 HD-DVD PLAYERS SOLD AND BETWEEN 25,000 AND 50,000 BLU-RAY PLAYERS.

WHILE HD HAS THE LEAD AMONG DEDICATED PLAYERS-- IT'S COMPLICATED

INCLUDING THE PLAYERS IN SONY PLAYSTATION THREES, THERE ARE MORE BLU-RAY DRIVES... BUT NOW MICROSOF'TS XBOX 360 IS SHIPPING MORE EXTERNAL HD-DVD DRIVES.

THEY EACH HAVE ADVANTAGES

SONY'S BLU-RAY - SEVEN OF THE EIGHT STUDIOS DISTRIBUTE IN ITS FORMAT

RANDALL (RANDY) WAYNICK, SENIOR VP OF SONY ELECTRONICS HOME PRODUCTS DIV.
IF YOU WANT THE CRITICAL MASS OF CONTENT, IF YOU WANNA-WANT TO MAKE SURE THAT THAT YOU YOU HAVE A CRITICAL MASS OF MANUFACTURERS WHO ARE SUPPORTING THE FORMAT, THERE'S NO OTHER CHOICE.

JULIA BOORSTIN VOICE OVER: BUT HD-DVD PLAYERS ARE LESS EXPENSIVE

TOM ADAMS, ADAMS MEDIA RESEARCH
THE ONE WITH THE LOWER PRICE IS GOING TO HAVE A SUBSTANTIAL ADVANTAGE WITH THE CONSUMER.

JULIA BOORSTIN VOICE OVER: AND MICROSOFT SAYS ITS PRICE ADVANTAGE WILL WIN OVER STUDIOS.

AMIR MAJIDIMEHR, MICROSOFT, CORPORATE VP - CONSUMER MEDIA TECHNOLOGY
STUDIOS ARE GOING TO GO WHERE CONSUMERS GO AND CONSUMERS WANT GREAT VALUE AND HD DVD PROVIDES THAT IN LOWER COST PLAYERS AND DISCS THAT ARE MUCH CHEAPER TO MANUFACTURE

JULIA BOORSTIN VOICE OVER: BUT WITH SO MANY OPTIONS, IT'S POSSIBLE THAT UNLIKE VHS VS. BETA-- NEITHER WILL WIN.

AMIR MAJIDIMEHR, MICROSOFT, CORPORATE VP - CONSUMER MEDIA TECHNOLOGY
I THINK THEY'RE BOTH HERE TO STAY MUCH LIKE WE HAVE TWO GAME CONSOLES OR TWO CARRIERS WHO OPERATE CELL PHONES

JULIA BOORSTIN VOICE OVER: AND WHILE SONY AND MICROSOFT DUKE IT OUT, STICKING WITH THEIR SHARE OF THE MARKET --- THE LATEST INNOVATORS, WARNER BROS. AND LG, WIN ON ALL FRONTS.

JULIA BOORSTIN, CNBC, FOR THE BUSINESS OF INNOVATION.

MARIA BARTIROMO:

So ROGER SCHANK, we all know what happened to Beta. And-- and as you said earlier, it doesn't matter about the technology. The more brilliant a technology is, the more simplified it has to be for the consumer, right?

ROGER SCHANK:

Well I just want to know what it does for me. I mean-- a lovely example of this is TiVo. TiVo kind of didn't understand what product it was even in. It used to say things like stop live television. I don't want to stop live television. I don't want to stop live television. I ignored it. If they only had said to me, you could actually record television any time you want much more easily than the VHAs and Beta, well gone with that! It's less work, good for me.

MARIA BARTIROMO:

That sounds like a marketing issue. I mean they just market the product wrong!

ROGER SCHANK:

Well you might want to actually understand your customer. Your customer doesn't care about technology. Not even a little bit! They care am I going to make espresso faster? Don't tell me how you made it. (LAUGHTER) Faster, better, good, I'm done.

MARIA BARTIROMO:

Bob, you've had to navigate similar-- discussions between the electronic trading platform, which is NASDAQ and the traditional market like the New York Stock Exchange and all those floor based.

BOB GREIFELD:

Well I think that brings up a great point. Because you have a better mouse trap doesn't necessarily mean the consumer exactly wants to go there when you want the person to go. Some of it is inertia that will hold people back. There's a nostalgia for the old way of doing things. But at the end of the day, there is a shift, there is a paradigm shift, and the world will move forward. It just doesn't happen as quickly as sometimes the pundits believe it will.

MARIA BARTIROMO:

But you have to know your customer in order to know what they need.

BOB GREIFELD:

Right.

MARIA BARTIROMO:

And it's also filling the void, right Dane? I mean your product you're hoping will fill a void.

DANE MILLER:

It's-- it's-- I think getting back to the customer, it's demand based, not supply based. I mean the-- the publishing business historically was-- you know, I mean since Guttenberg, has been based on a production-oriented method. What the printers can provide is what they'll-- they'll deliver.

MARIA BARTIROMO:

You said the book business is dead.

ROGER SCHANK:

How come books are never four pages and they're never 50,000 pages.

DANE MILLER:

Well I mean--

ROGER SCHANK:
Because books are a consumer item, which-- and that item is going to change.

DANE MILLER:
The whole-- the whole basis of hand held devices is to make them look like a book. Well why not just--
MARIA BARTIROMO:
Have a book? (LAUGHTER)
ROGER SCHANK:
Because a book stays the same. And a book doesn't have animation or-- you can't talk to--
ROGER SCHANK:
Socrates said-- made this point. He said the trouble with books is when you ask them a question, they don't answer. And they say the same things to the same people no matter what's going on. Different people need to hear different messages. The future is book are not immutable objects. They change in response to you.
DANE MILLER:
Absolutely. And that's the whole point with technology that we have. You can produce a book, you can produce one book, and the next day the same-- a different book, an author can make it iterative.
MARIA BARTIROMO:
Well you're saying-- and you've spoken about this in the past, that you really want to create a memorable experience for the user, for the customer. And that's exactly what you're trying to do as well, Andrea with the espresso business.
ANDREA ILLY:
Exactly. Remember an experience is not only about technology in this case because particularly for the product that which-- is experiential like a coffee, technology is a no-buy sign. So you have to hide the technology and deliver something which is much more important than technology itself, which is to pour it in the cup and also the experi-- experiential aspect, which surrounds it.

MARIA BARTIROMO:
(LAUGHTER) Using technology in interesting ways is the hallmark of successful innovation. Here is CNBC's Scott Cohen with one company that's giving the idea of window shopping a whole new meaning.

RALPH LAUREN PKG

SCOTT COHN VOICE OVER: HIS DESIGNS SYMBOLIZE ALL-AMERICAN CLASSIC ELEGANCE…BUT FOR FASHION ICON RALPH LAUREN, THERE'S NOTHING TRADITIONAL ABOUT HOW HE MARKETS HIS STYLISH WARES TO THE MASSES…INCLUDING THESE ONE-OF-A KIND TOUCH-SCREEN WINDOWS WHERE SHOPPERS PASSING BY CAN PURCHASE MERCHANDISE.

David Lauren Senior Vice President Polo Ralph Lauren: It's really about creating an experience that's smart. And that's special. And makes people connect with our brand in a new fresh way.

SCOTT COHN VOICE OVER: DAVID LAUREN HAS THE JOB OF CARRYING OUT THE LEGACY OF HIS FAMOUS FATHER WHO FOUNDED THE POLO LABEL 40 YEARS AGO…

David Lauren: Technology is really a new front. Taking something that's classic. And reinventing it into a new medium has always been our challenge. What is it about our product that would be innovative?

SCOTT COHN VOICE OVER: THE WINDOWS WERE LAUNCHED AT RALPH LAUREN'S MANHATTAN FLAGSHIP STORE DURING THE SUMMER OF 2006, AS PART OF THE COMPANY'S OFFICIAL SPONSORSHIP OF THE U-S OPEN.... THE RETAILER USED THE MILLION DOLLAR TECHNOLOGY TO SERVE POLO CUSTOMERS U.S. OPEN BRANDED TENNIS APPAREL… & EVEN DOLE OUT SOME TENNIS TIPS… SOON OUTDOOOR PERFORMANCE GEAR POPPED UP AT THEIR WINDOWS IN CHICAGO, JUST IN TIME FOR THE HOLIDAY SHOPPING SEASON.

David Lauren: And we kept it really simple. You can just walk up to the window, take your fingers. And just press on the glass.

SCOTT COHN VOICE OVER: THE 5-AND-A-HALF FOOT WINDOW IS POWERED BY A TRANSPARENT FOIL APPLIED DIRECTLY TO THE GLASS WHILE A REAR PROJECTION SCREEN SENDS OUT IMAGES TO THE WINDOW, ALLOWING CUSTOMERS TO SHOP TILL THEY DROP OUTSIDE THE STORE... 24-7... USING A CREDIT CARD READER INSTALLED ON THE WINDOW….PLUS, SHOPPERS CAN EITHER PICK UP THEIR PURCHASES OR HAVE THEM SHIPPED…

SHOPPER: Punch through and go down and pick it up... go down to the coffee shop and pick it up later.

David Lauren: We started the windows as really a test. To see if it would work. And now that we know that it works. And people are interested. We're going to keep developing it.

SCOTT COHN VOICE OVER: POLO HOPES TO SOON ROLL OUT MORE INTERACTIVE WINDOWS, BOTH DOMESTICALLY AND OVERSEAS, ESPECIALLY IN EUROPE AND JAPAN…WHERE HIGH TECH HAS ALWAYS BEEN IN HIGH DEMAND…

David Lauren: I think the goal is to constantly reinvent yourself. To try new things all the time. And that's what Ralph Lauren has always been about.

SCOTT COHN VOICE OVER: SCOTT COHN, CNBC, FOR THE BUSINESS OF INNOVATION

MARIA BARTIROMO:

Now that looks like a great simplistic use of technology. Bob, what do you think of this approach? Right on the windows. Tell me.

BOB GREIFELD:

I like it. I'd like them to buy NASDAQ stocks right on the window. That'd be a great thing, right?

MARIA BARTIROMO:

(LAUGHTER). That would.

BOB GREIFELD:

But you know, our use of technology is not so much about the user experience with pleasure, but it's truly about-- the sense of security, the sense that the transaction is fair, that you're getting the price that you see. So technology obviously is-- a weapon that can be deployed in multiple ways. So we have to focus on it, really doing the right thing for investors.

MARIA BARTIROMO:

Well I think what Roger's point is-- Roger, I know you'll correct me if I'm wrong.

ROGER SCHANK:

Correct.

MARIA BARTIROMO:

--is that it's really not necessarily the user knowing what makes good coffee, not necessarily the user knowing that it took you one second to-- to do this trade or, you know-- a less expensive alternative to making a book. But that it's just easy for them.

ROGER SCHANK:

It's really a very simple question for all three of you guys. Is the coffee good? Did I make money? Did I get a good story?

MARIA BARTIROMO:

Right.

ROGER SCHANK:

Okay, the answer is not the technology. The answer is did I get what I wanted? Am I happy?

DANE MILLER:

That's right. It's demand based. It's-- technology's an enabling tool, it's not an end in itself. But the book is still here to stay.

BOB GREIFELD:

The key point is that technology enables.

MARIA BARTIROMO:

And Bob, we know that your business has disrupted an old way of doing things.

BOB GREIFELD:

No doubt. When we started you had a very small group of middle men in one confined space. Our technology allowed that middle man group to expand dramatically in terms of geography and the numbers involved. But as technology evolves even further, the role of the middle man at all in the process will be questioned. So the traditional brokerage market making function with the advent of the computers that are coming and the networks that will develop will be truly un-- under question.

MARIA BARTIROMO:

How do you know what's happening next and filling that-- void?

BOB GREIFELD:

Well it's interesting you have to really go with your own-- intuition, your own gut based upon-- you know, your own research.

ANDREA ILLY:

the way to understand what's coming next is to clearly identify what the customer wants. And I completely agree with what has been said before. If you have a clear idea of what you must deliver, then you will innovate by-- by trying.

There are two kinds of innovation. You have the-- the radical, disruptive innovation. In this case you introduce a new process technology, a new product technology. It is much longer. It's much more difficult.

And another way, much simple, typical to the Italians is to make incremental innovations. Incremental innovation is simply-- making technology which has already been used in other sectors into yours for the first time which is still good. So-- but in any case, what really drives this next step is what is good for the customer.

MARIA BARTIROMO:

Yeah, we talked about this actually in the last program. And it was revolutionary technology versus evolutionary technology.

DANE NELLER:

Well, it's-- it's interesting. When Gutenberg invented the printing press, all the elements for the printing press were there. He just somehow put them together. His idea was to create a universal missive and he created the Protect Reformation. That wasn't his intention. But that's what actually happened.

And in a way you don't really know what's incremental and what's revolutionary. Often times revolutionary technology makes one little more step and all of a sudden there's an explosion.

MARIA BARTIROMO:

Gentlemen, thank you. This is really fascinating, Andrea, Bob and Dane. Thank you so much for being with us. And we'll be right back.

====ANNOUNCE====

NEXT... CAN INNOVATION HAPPEN EVEN IN THE VIRTUAL WORLD?

====SOT ROSEDALE====

PHILLIP ROSEDALE:

What Second Life does is with technology it enables you to be creative and to communicate with people in a way that's actually better in a lot of ways than the real world.

=====ANNOUNCE====

THAT'S THE BUSINESS OF INNOVATION.

END OF SEGMENT 1

BEGIN SEGMENT 2

====ANNOUNCE VO====

THE BUSINESS OF INNOVATION CONTINUES NOW WITH MARIA BARTIROMO.

MARIA BARTIROMO:

Well, if it's not the technology but what you do with the technology that's the key, then Phillip Rosedale is an innovator using the internet in a unique way. Rosedale's company, Lyndon Labs, is behind Second Life, the virtual world where people can recreate themselves. Using its downloadable program, users can meet other residents, socialize, participate in activities and buy things online just in the real world. Second Life's economy runs on Lyndon dollars which can be exchanged for real dollars leading some users to make real money selling

things in the virtual world. Rosedale says his goal in creating Second Life wasn't to build a game but rather a new country.

So, if I'm completely fascinated by what's happening with Second Life. Welcome to the show. Good to have you.

PHILLIP ROSEDALE: **LINDEN LAB FOUNDER & CEO**

Thank you. It's--

MARIA BARTIROMO:

Second--

PHILLIP ROSEDALE:

--good to be here.

MARIA BARTIROMO:

--Second Life is so unique. And for the uninitiated, maybe a bit foreign. Tell us a little about how Second Life works.

PHILLIP ROSEDALE:

Most people have seen video games. This is a little bit like sitting down at your computer and starting up a little piece of software and finding yourself immersed in a three dimensional world where, you know, you have a digital body. Looks like being in a movie except the amazing thing about it that you quickly discover is that everything there is built by the people who are there. So, like the web, it is an enormous, connected place that is entirely built by the people who are there in it with you.

MARIA BARTIROMO:

Tell us the genesis of Second Life. How did the idea come about?

PHILLIP ROSEDALE:

Well, you know, Second Life was really based on the idea or the question, hey what if we can use computers to simulate the whole world. What if we can kind of start from-- the ground up if you will and build a new world using digital-- technology instead of atoms. You know, could we do that with computers?

MARIA BARTIROMO:

And I know you've been approached by-- by companies wishing to create a presence in the Second Life community. How do those relationships actually work?

PHILLIP ROSEDALE:

You know, what's great, Second Life is a big platform. So, as a company we basically just sell everybody land. So, having space in Second Life, owning land is the only relationship that we have with anyone or need to. So, everyone's kind of on the same playing field when they come into Second Life, big companies, small people that are, you know, creating innovative new products. It's a lot like moving into the Wild West.

MARIA BARTIROMO:

And-- and we've been emphasizing tonight it's not the technology. But it's what you do with the technology. What is Second Life going to do for us in the future? Are there--

PHILLIP ROSEDALE:

Well--

MARIA BARTIROMO:

--unintended uses?

PHILLIP ROSEDALE:

Absolutely and I think almost everything that's happened in Second Life is in some ways unplanned. We certainly as a company never planned anything. The magic was that it would be this user created thing. What Second Life does is with technology it enables you to be creative and to communicate with people in a way that's actually better in a lot of ways than the real world. And that's this sort of need if you will that we were trying to fill for people.

MARIA BARTIROMO:

Uh-huh (AFFIRM), whether it's in an artificial world or the-- or the here and now, problems exist that need innovative minds to help find solutions. Microsoft founder, Bill Gates, is attempting to find some of those solutions. I recently caught up with him in Davos, Switzerland and asked him about his involvement with GAVI, an alliance that combines public and private sector resources to bring immunizations to children in need.

BILL GATES PROFILE:

BILL GATES:

Well, GAVI's the organization that's taken the vaccination rates that were going down in the developing world and injected lots of money in to get those rates to go back up and to add new vaccines. So, it was actually the first major commitment that our foundation made with a $750 commitment that got GAVI started.

MARIA BARTIROMO:

Tell me about the most important vaccines-- right now and what's in the pipeline that you are very excited about.

BILL GATES:

The diarrheal diseases and the respiratory diseases are actually the biggest young killers of children killing millions a year. And so if we can have about four or five new vaccines, we'll be able to take those millions of deaths every single year and eliminate those as well. And so GAVI works with the manufacturers, shows that the money is there so that if they have the breakthrough, it's worth it for them to build the factories. The demand will be there.

MARIA BARTIROMO:

It sounds like technology has also been an incredible part of this.

BILL GATES:

Absolutely, I mean, vaccination itself is a-- wonderful, wonderful technology that we're trying to apply to a broad range of diseases. And that goes all the way back, you know, hundreds of years ago when people realized you could vaccinate against small pox. That's one disease that vaccination actually completely eliminated. We're on our way to do that with polio. We're very close, hopefully, just a few years away from that having be the second disease that vaccination completely eradicates.

MARIA BARTIROMO:

So, where can we see more innovation in terms of that kind of technology?

BILL GATES:

A number of the big pharmaceutical companies and biotech companies developed these vaccines. And fortunately, there is a market for vaccines in the richer countries. So, that lets them do the basic science.

And then they need to do some extra work to make sure that these are appropriate for the developing countries. Their work allows us the make is easier to delivery so-- deliver so that you just give one shot and it's many vaccines so you make less visits to the doctor. They bring the price down.

But the most important thing is adding vaccines for new diseases. You know, malaria kills over a million-- children a year. And we're working on new drugs to treat that. But the ideal, which is hard but there's some hope because we've seen some progress, would be a vac-- have a vaccine that if you took it as a child you would never get malaria. We don't have that yet. But we're optimistic enough that with partners including Glaxo Smith Kline a pharmaceutical company and a number of others, we believe that there's a good chance we could have that in-- in the next decade.

MARIA BARTIROMO:
So, Bill Gates, innovator?
ROGER SCHANK:
Are we talking business or technology? (LAUGHTER)
MARIA BARTIROMO:
We're talking innovator.
ROGER SCHANK:
Then he's got to be the most innovative businessman in history. Because he's created a phenomenal new way of selling things, and-- and dominating the industry. Technologically? What did they ever innovate?

MARIA BARTIROMO:
For all your contrarian's ways you're actually a softy when it comes to creating innovation that actually helps people. This story that Bill Gates just told us was fascinating. Because immunization needs to be-- refrigerated. You can't refrigerate it if it's traveling all around the world so it gets to the people in need. But there's a technology that actually keeps the vaccines cold.
ROGER SCHANK:
Well, they're asking the right question aren't they?
MARIA BARTIROMO:
Yeah.
ROGER SCHANK:
I mean, with-- it all start with a very simple question. How do I keep it cold? And that's when I need to come up with answers can't you.

MARIA BARTIROMO:
Compare Bill Gates versus Phil-- Phillip Rosedale.
ROGER SCHANK:
Well, I don't know if Phillip Rosedale ever asked an education question. But in the end he gave a canvas to-- to allow the creation of the education question. When I convened-- a meeting to-- to discuss the

new entrepreneurship curriculum, the first thing everybody in the room said, "We'll use Second Life." That's what he did.

MARIA BARTIROMO:

Phillip, I've heard you say with respect to Second Life that, "I'm not building a game. I'm building a country." What do you mean by that?

PHILLIP ROSEDALE:

Well, what I mean is that in so many ways what we're doing with Second Life is creating a new world. And you would expect that if the rules are different in that world, the sort of society that will emerge, the laws, the governance that we'll need, those things all going to be different too. And that's exactly what we're seeing. And so when I say that I mean that it's-- it's fascinating exploration in-- perhaps into how we as people will live together and govern ourselves and relate to each other in the future.

MARIA BARTIROMO:

Yeah and-- and as with what Gates is doing, Second Life has really a unique power to help in a positive way. Tell us about that when it comes to education.

PHILLIP ROSEDALE:

Well, as you can imagine, if you've got the ability to create a world just like ours where when you're sitting next to someone explaining something to them, for example, you can do it in the same way that we do it sitting next to each other in the real world. But the two of you can be thousands of miles apart. And you can build, you know, a molecule and spin it on your fingertip in this virtual world and show it to someone.

That is a very powerful change in the way people can communicate.

MARIA BARTIROMO:

You've got to love that, innovation in education.

ROGER SCHANK:

Well, I'm not sure that it is yet innovation in education. But I do love the idea of Second Life. And I love it for two reasons. First off, there's a real problem that people don't address in this country which is-- in this world, loneliness. People used to go hang out on the stoop. Now, they stay all at home.

So, at least they're starting to communicate. And I think a lot of what drives this is people want to interact with each other. And that's really important in what's becoming a more isolated society.

The second thing that's important and it is education-- I don't think they're there yet. But

What you'd like to see is for them to thrown out the whole school year and replace it by a year in Second Life. For example, could you teach entrepreneurship in the Second Life world? You sure could. And that's a very important potential use for it.

MARIA BARTIROMO:

Phillip?

PHILLIP ROSEDALE:

Absolutely-- you know, Second Life is like the biggest sort of lemonade stand that you ever had as a kid. You can just go in there and try to make money. Or if you're a lawyer, you can go in there and practice law--

ROGER SCHANK:

That's exactly right--

PHILLIP ROSEDALE:
--and then see how it works.
ROGER SCHANK:
--and the key-- the problem with the schools is they'll never employ it because it's too radical. So, the issue is to use that as an alternative to schools. That's going to be the tricky part. But what he is saying is absolutely right. And I love the idea of Second Life. I think it-- I wish you tremendous success.

MARIA BARTIROMO:
Phillip Rosedale, thanks so much. Good to have you.
PHILLIP ROSEDALE:
Thank you very much.

====ANNOUNCE VO====
NEXT... IS INNOVATION ALL IN YOUR PERSPECTIVE?

====SOT saffo====
it's evolutionary if it happens in another business near yours. It's-- revolutionary if it drives you out of business.

===ANNOUNCE VO=====

THAT'S NEXT ON THE BUSINESS OF INNOVATION.

END SEGMENT 2

BEGIN SEGMENT 3

====ANNOUNCE VO====
THE BUSINESS OF INNOVATION CONTINUES...
HERE IS MARIA BARTIROMO.

MARIA BARTIROMO:
In the past, the new technology alone might have been enough to differentiate you, but not anymore. To help us see what else it takes, we've again, brought together some preeminent experts to help you find ways to disrupt, deposition, and make a difference.

Ray Kurzweil has been described as a "restless genius" by the Wall Street Journal, and "the ultimate thinking machine" by Forbes. As one of the leading inventors of our time, Ray was the principal developer of the first flatbed scanner, and the first print to speech reading machine for the blind. Paul Saffo is one of the leading authors and thinkers on long-term technological change, also referred to as a futurist or technology forecaster. Paul is a consulting associate professor at Stanford University, and has written for the Harvard Business Revue, Fortune, Wired and the New York Times.

Bill Taylor is co-founder and founding editor of Fast Company Magazine, and an adjunct professor at Babson College. Bill is a provocative and inspiring voice in the future of business, and an entrepreneur who has shaped the global conversation on innovation. Gentleman, nice to have you with us. Welcome to the program.

MARIA BARTIROMO:

Ray, let me begin with you. As an inventor, you are well aware that invention is not necessarily innovation. Tell me, how do you take an invention and move into the realm of innovation?

RAY KURZWEIL:

Of course, it's important to understand the market. But a key point that I try to make is that timing is really key to being an inventor. And I realized 30 years ago that to be successful-- you have to get the timing right.

So, I began to actually study technology trends. Well, the common wisdom is you can't predict the future. But like which format of high definition DVD will succeed; that's hard to predict. But if you try-- try to predict the overall impact of the information technology, of all the cost of MIPS computing being 2010, of the cost of sequencing DNA in 2012. Those follow very predictable, actually exponential curves.

MARIA BARTIROMO:

Paul, one of the technologies we've been thinking about here on the show is, RFID. Talk to us a bit-- a bit about RFID.

PAUL SAFFO:

Well, RFID at its simplest is a successor to barcodes. And instead of, it's a little-- little chip-- it has no screen, no keyboard, no battery when it has-- hears a radio signal it lights up and sends out a serial number. So, at its very simplest, it allows you to get rid of those scanners for barcode and packages, objects can say who they are and where they are. And that very simple change is going to lead to all sort of innovations in the supply chain, that will ultimately I think in supermarkets and like, lead to new kinds of food products for people, and that'll be a big deal.

MARIA BARTIROMO:

That's called evolutionary-- innovation.

ROGER SCHANK:

It only looks evolutionary cuz-- the way you're thinking about it. Think about it a differ way. All right, he's gonna get stuff to talk to you. If stuff talks to you, then-- suddenly you have a lot more knowledge, and the world changes in front of you. So, it is revolutionary.

PAUL SAFFO:

One person's evolution is somebody else's radical change. You know, it's-- it's evolutionary if it happens in another business near yours. It's-- revolutionary if it drives you out of business, cuz a competitor does it first. And Wal-Mart thinks that RFID-- tags are revolutionary.

MARIA BARTIROMO:

Okay.

RAY KURZWEIL:

RFID is just really the first generation. We're gonna have-- nodes emerging in the-- in the real world, which a gonna be self-organizing. I mean, right now you have your cell phone and your PC, and they're kind of talking to the internet. But we're gonna have every device actually be a node on the worldwide web interacting with each other, and they're gonna intelligence, depending on what their function is.

And we're gonna be sort of immersed in the full emersion-- mesh of interacting devices. So, something like Second Life for example, which right now is virtual world that lives on a two dimensional screen, will become full immersion. And it'll overlay the real world. You look at somebody and-- there'll be a pop-up display reminding you about-- about who they are. Or you look at an object and it'll communicate back to you, and tell you about-- about what it is. You'll be able to visit with people in full immersion virtual reality--

MARIA BARTIROMO:

But-- yeah-- we-- we just spoke with the founder. It was pretty fascinating.

ROGER SCHANK:

I want to make a point here, okay. I've always been a big fan of Ray. But you see what, Ray is talking about? It's what-- that's what innovators sound like. They start imagining what thing's gonna happen next. And when it-- hap-- and then the questions follow from that. So, that's really what's interesting.

MARIA BARTIROMO:

And Bill you've written so much in-- in-- about many-- many companies in Fast Company Magazine. Why do you think that so many companies ask how they can fill the voids and use technology, and others are afraid to ask those s-- simple questions?

BILL TAYLOR:

Well, so many of the really great innovators I've gotten to know, really begin thinking not about the technology, and not even about niche market opportunities per say, but something bigger. What kind of impact do I wanna have on the world? What am I seeing that no one else in this marketplace is thinking? Great example right now.

I spent a bunch of time in the course of-- of Fast Company, then writing this new book, "Mavericks at Work", is Reed Hastings and all the innovators at Netflix. Now from a Silicon Valley point of view, people think, oh Netflix is about is about this cool cinematch software that matches people to the-- movies people rented before with those they may want to see in the future.

And that's absolutely right. But what gets the folks at Netflix jazzed is not the software, but the sense that because of the software they are changing the movies that people are seeing. They are helping people discover movies they love. And in the course of that, they're even changing the movies that get made, and they're leveling the playing field. They're not just competing with Blockbuster, they're trying to end the Blockbuster complex, where you've got to have $100 million to get your movie made.

MARIA BARTIROMO:

It's the same idea, Roger, of-- of going to the customer and figuring out where the void is, what that customer wants, and then-- teaching actually the user about things they didn't even know they wanted.

ROGER SCHANK:

Well, I'm not used to agreeing with everybody. But in this particular case, I agree with all (LAUGHTER) these guys. Because I think what's going on is, inventors have something they care about. And it isn't-- the first thing they're not doing is waking up and saying, "Gee, I'd like to make some money. What can I invent?"

They don't (LAUGHTER) look at the world that way. They have a passion about something that needs to be done, and they often start with something they don't like. In this case, you mentioned Blockbuster. Yeah, no one likes Blockbuster. And also, we don't like the fact that big movie industry controls it, and so you all see the same movies all the time. People have a lot of things they don't like, and that causes them to invent.

MARIA BARTIROMO:

It's almost like Paul, you don't want to be inventing something because you think it's gonna make you a lot of money. You've got to be inventing something that you care about and you love, you have this passion about it, and you know others will as well.

PAUL SAFFO:

Absolutely. Keep in mind, innovation is an irrational act. Most innovations fail. In the biological world, innovation's called mutation. And mostly, it's a disaster. So, you have to have that fire in your belly, as Bill put it, because you are fighting against entropy here. You are-- you're fighting against the odds and only a few succeed. So, you better believe it.

ROGER SCHANK:

Let me interject, cuz we have had this conversation about failure before.

MARIA BARTIROMO:

Yes we have.

MALE VOICE:

And it wasn't well received when we were talking to CEOs.

MARIA BARTIROMO:

No.

MALE VOICE:

And you notice how all of a sudden it seems very normal to these guys?

MARIA BARTIROMO:

Right.

ROGER SCHANK:

Failure--

ROGER SCHANK:

--innovators actually understand failure in the deep way.

PAUL SAFFO:

Oh and-- well, Silicon Valley, you can go a step further. Silicon Valley is built on the rubble of earlier failures. This place continues to deliver amazing new innovations not because we know how to succeed, but because we know how to fail in the right way.

MARIA BARTIROMO:

Ray?

RAY KURZWEIL:

Innovation is not really just a one shot deal. You really need to be immersed in the marketplace and be getting lots of feedback from users. I mean, I've been involved for example-- with reading machines for the blind which you mentioned for 30 years. So, I go around and talk to users, and-- frequently they were saying, "Well, we really want it to be able to take it out of our pocket and be able to read anything in the real world."

So, that's where the timing comes in. To really see, when would that be feasible.

MARIA BARTIROMO:

Right, Bill?

BILL TAYLOR:

On thing, I-- one message I try to give to executives when I talk to them. Is, if you want to be guaranteed to fail, keep doing business the way everybody else is doing business. And keep trying to succeed by being a little cheaper, a little better, a little faster. With hyper competition in the world today, the only way to really win big is to stand for something really distinctive.

MARIA BARTIROMO:

Right, right.

RAY KURZWEIL:

There's an-- there's another change that's important, which is that-- that you used to have to be a big major Hollywood studio to make a movie, or a multi-million dollar recording studio to make a-- an album, or a big company to do computer innovations. But now you can have a couple of kids with their PCs in a Stanford dorm, create something that today's worth $150 billion that you use to search the web. Or-- (LAUGHTER)--a kid in their dorm room can create a Hollywood movie. So, we've really democratized the tools of creation. So, innovation is gonna pop up and is popping up in all kinds of unexpected places all around the world.

MARIA BARTIROMO:

Agreed, agreed. And-- and we've been talking about interesting uses of technology and targeting that technology to fill the voids. With a case in point, here's CNBC's Jane Wells.

UWINK PIECE

NATS

JANE WELLS: VO#1
NOLAN BUSHNELL HAS AN IDEA.

Nolan Bushnell|uWink CEO SOT: i really wanted to have a social gaming test lab.

JANE WELLS: VO#2
SO HE'S INTRODUCING A VIDEOGAME/RESTAUI RANT CONCEPT HE HOPES TO FRANCHISE CALLED U-WINK...

Nolan Bushnell|uWink CEOsot: our demographic is females 21-35.

Nolan Bushnell|uWink CEOsot: (me) why women?
women have been underserved by gameplay but yet they love games.

JANE WELLS: VO#3
SOCIAL GAMES HE SAYS... SO AT UWINK THERE ARE MATCHING GAMES, TRIVIA GAMES, YOU CAN GET YOUR HOROSCOPE. WHAT DOES BUSHNELL KNOW ABOUT GAMES?

NATS: pong

JANE WELLS: VO#4
HE CREATED ATARI... AND PONG... (blip) SIMPLE, BRILLIANT.

Nolan Bushnell|uWink CEOSOT: it was eay you turn the knobe the paddle went up and down, duh.

JANE WELLS: VO#5
BUT A RESTAURANT BUILT AROUND GAMES AT TABLES... WHERE YOU ORDER ALL YOUR FOOD and drinks ON A SCREEN? WHAT DOES THE HE KNOW ABOUT THE RESTAURANT BIZ?

NATS: CHUCK. E. CHEESE

JANE WELLS: VO#6
WELL BUSHNELL ALSO CREATED CHUCK. E. CHEESE...A CONCEPT INVESTORS INITIALLY CONSIDERED LOONY.

Nolan Bushnell|uWink CEOSOT: ok now you're gonna build a pizza parlor that's really really big, ti's got all these videogames, but wait there's more, we're gonna have talking mechanical rats!

JANE WELLS: VO#7
WELL WITH U-WINK, INVESTORS AND POTENTIAL FRANCHISEES ARE PAYING MORE ATTENTION. THE NIGHT WE WERE THERE THERE WERE A FEW FAMILIES AND COUPLES, BUT IT WAS STILL MOSTLY GUYS. SITLL, BUSHNELL IS BANKING ON THE GALS...FIGURING WHERE WOMEN GO, MEN WILL FOLO.

NATS: ah!

JANE WELLS: VO#8
HE'S EVEN BROUGHT BACK PONG, BUT AS A TEAM SPORT.
AS A TEAM SPORT.

nats: do you guys have this code?

JANE WELLS: VO#9
AND BUSHNELL GRILLS HIS YOUNG STAFF ABOUT MAKING THE NEW PONG BETTER.

nats: angle incidence equals angle reflection

Nolan Bushnell|uWink CEOsot: and if you get one of these, when it hits the wall it should come off at another obtuse angle.

JANE WELLS: VO#10
WORKING OUT THE KINKS IN A RISKY GAME OF BUSINESS. FOR A RISKY GAME-MAKER... WHO THINKS HE KNOWS WHAT WOMEN WANT.

Nolan Bushnell|uWink CEOsot: games about knowledge about perceptoin about opinon. these are things that you talk about.

Nolan Bushnell|uWink CEOsot: the social nature of the game is as important as anything else.

JANE WELLS: Jane Wells, CNBC, for the Business of Innovation.

MARIA BARTIROMO:
Now Roger, I think I know what you're gonna say. But are these innovations?
ROGER:
No. (LAUGHTER) You knew that I was gonna say that. Why do I think so? Because new and innovative ways to sell food doesn't get me real excited. A more interest question is, how I get the blind to be able (LAUGHTER) to read? It's not equivalent.

MARIA BARTIROMO:
Ray, you-- you talk a lot about singularity, right? Tell us about that.

RAY KURZWEIL:
Singularity refers to the acceleration of technology.

Technology is not proceeding linearly. It's exponential. We are doubling the power of information technology every year, not just electronics, with biological technology, brain scanning resolution. I mean, many different things you look at, if you can measure the information content, it's double every year.

So, it's a complicated subject to address in two minutes. But-- basically, we're gonna enhance our own technology-- our own intelligence by merging with the intelligence tools that we're creating. And-- and-- arguably-- we already do that by putting computers in our pockets, in our clothing, in our environment. We're enhancing human intelligence and this technology's gonna get closer and closer to us, ultimately making its way into our bodies and brains.
MARIA BARTIROMO:
Well, how scary is that? I mean, I remember reading a article by Nicolas Negroponte (PH) and he said that-- we're-- we're not gonna need humans anymore for jobs, because computers with do everything. That's-- (LAUGHTER) that's too much innovation for me, guys, I'm sorry.
RAY KURZWEIL:
On the contrary, this is not an alien invasion (LAUGHTER) of intelligent machines that compete with us. This is enhancing our own capability with our technologies. That's not a new story. I mean, that is what's unique about--
RAY KURZWEIL:
--the human species. We extend our physical and mental reach with our tools. Very little science today, for example, could be done without our intelligent machines. And we're get-- and these machines are getting more and more powerful exponentially every year.
ROGER SCHANK:
People misunderstand--

ROGER SCHANK:

--artificial intelligence. Artificial intelligence is not about trying to create new humans. We have plenty of humans, all right. (LAUGHTER) So, the issue is, what kind of intelligences you could create to be useful to humans?

MARIA BARTIROMO:

I like that. I like-- this is a fascinating subject. Gentleman, thank you. We appreciate it.

MALE VOICE:

Thank you.

=====ANNOUNCE====

NEXT THE TUG OF WAR OVER INNOVATION.

====SOT ROGER====

ROGER:

I think that the business person is asking a question of, how can I get people to like my product better.

And the scientist is thinking, what-- cool new things can I create?

====ANNOUNCE=====\
THAT'S THE BUSINESS OF INNOVATION.

END SEGMENT 3

BEGIN SEGMENT 4

====ANNOUNCE VO====

THIS IS THE BUSINESS OF INNOVATION WITH MARIA BARTIROMO.

MARIA:

Welcome back. And I'm back now with Roger. And Roger, you know, tonight's show is really interesting, because we focused and zeroed in on the idea that it's not just technology, but it's how technology is implemented. And we saw so many different businesses implementing technology and turning it into true innovation.

ROGER:

Well, because it's about problems. In the end, it's all about the question, the confusion, all about the ideas. It's not about technology. Technology is irrelevant. It just happens to be the means that we have at our disposal.

MARIA:

Well, a lot of times throughout this series you've been saying that you really do want to fill a void. And yet, when you look at what Philip-- Philip is doing-- in terms of the-- you know, the virtual-- business that he

has created. He's not necessarily even knowing the voids that he's filling. Or does he know, but the customer doesn't know?

ROGER:

Well, I'm thinking about the guy who invented the canvas, whoever he may have been, and-- and paints. You know, he did a marvelous thing for the world of (LAUGHTER) painting. And the artists ca-- have to come and paint. But in the meantime, without a canvas, they couldn't do it.

In some sense, he's creating the you know, canvas of 21st Century. And it's a lovely idea. Now the question is, what are people gonna do with it? They could nothing with it. But I think there are two things you could see coming with it. One is, communities, which is a big idea running all through the technology world right now. It's MySpace, doesn't matter. Communities, communities, communities. People are lonely. And the second thing is education, because we have a disastrous education system. And suddenly you could learn how to function a business, do functioning law, actual, practical things that-- in that little world. So, it's a lovely idea.

MARIA:

Yeah. Let me ask you about the chemist meeting with the business guy. Interesting that Andrea Illy is actually a chemist, and he's the guy running the business as well. But you don't often get chemists and you know, innovators-- talking together very often with the actual guy who's looking at bottom-line results. (LAUGHTER)

ROGER:

You kind of wonder if he fights with himself, right?

MARIA:

Yeah, right.

ROGER:

I mean, ultimately, the-- in-- in-- really in that case, it really is about the product and the quality of the product. And I think that the business person is asking a question of, how can I get people to like my product better.

And the scientist is thinking, what-- cool new things can I create? Well, if they talk to each other, and they look like (LAUGHTER) they do with him, cuz it's probably the same person. That's great. But you have the opposite problem. When you listen to Ray Kurzweil, he didn't have a business guy saying, "Gee, I think the blind market's pretty cool." He never looked at it that way. And that's what makes it that much more exciting.

MARIA:

Well, what about-- Dane Neller? I mean, he's got this business idea where he's printing books. And that's-- you know, gonna make the whole idea of having a book-- any book you want and you can get it cheaper. I know you're not a fan of books going forward. You don't think that this is an innovative idea. But he's coming up with a way to address-- the move to-- digital.

ROGER:

I mean, this is the conflict of questions. And it's exactly the conflict of questions between business and scientists. He's asking the business question which is, how can I make books cheaper? I'm asking the scientist question which is, I know people love stories. I wonder how we can in-- inform those-- stories in a brand new way that isn't books, cuz books is an old idea.

It's-- that's where the scientists conflict. And you saw us conflict. The scientist conflicts with the businessman every time when they ask these very different questions.

MARIA:

Well, how is that different than Bob Greifeld, though? I mean, Bob Greifeld they're-- they're running the NASDAQ and that was certainly a disruptive business when it started. Electronic trading completely disrupts the whole idea of having you know, traders running around on the floor of a-- of the Stock Exchange. But what's the next innovation? I mean, is there innovation there now?

ROGER:

One thing I see that's interesting is, you never could've sold that idea to the New York Stock Exchange. (LAUGHTER)

MARIA:

Right, that's--

(OVERTALK)

ROGER:

Right, you had to have the NASDAQ to be able to do a new idea.

MARIA:

Absolutely.

ROGER:

And one of the problems with new ideas is, so often the old guard will sit there and fight you to the death. Now, I don't know that NASDAQ hasn't become the old guard. Cuz maybe there'll be a-- there's a new method of thinking about this that really doesn't involve the exchanges as they are. That-- scientists again, asks questions of what the ultimate issue is, which is how do I get people hooked up with-- people making trades? Maybe you don't even need the intermediary.

MARIA:

Right, and they don't necessarily know why they like going to the NASDAQ, but they know that it's gonna be quick, and they can trade all over the world.

ROGER:

No, they would know that. They would know-- they would know that. Because they-- a question of, are they having a comfortable experience? Are they making money? Those are the questions. The bottom-line questions are very easy when it comes to finance. Am I making money? Do I understand what I'm doing? Is this easy? Answer those questions, you make-- you'll make the thing work.

MARIA:

But-- we should point out that the New York Stock Exchange has also electronic trading.

ROGER:

Now.

MARIA:

So this is sort of going throughout--

MARIA:

--the-- the industry. This is the trend.

ROGER:

in the beginning, you know, there was the issue of eliminating those specialists. And the NASDAQ never had the specialists in the first place. Typically, when you try to do new technology, you have some people whose jobs are being displaced who hate you. So, NASDAQ didn't have that problem.

MARIA:

This is a great conversation. Once again, Roger, great to talk with you.

ROGER:

Thank you.

MARIA:

Thank you, and thank you all for watching. That is the business of innovation for this week. I'm Maria Bartiromo. And here's a look at what's ahead on next week's program.

====ANNOUNCE VO====

NEXT WEEK ON THE BUSINESS OF INNOVATION... LONERS AND TEAMMATES...

====SOT SCHANKY====

ROGER SCHANK: Companies could learn a lot from an octopus. Imagine an octopus, okay. And this octopus has one arm that is looking for a sea urchin and another arm would like to go visit another octopus. // Why don't octopuses like that exist? They don't exist 'cause they have a central processor, a central mind that actually adjudicates disputes between arms // in the first place.// Corporate memory is the thing of the future...the idea of managing all that's going on there so you don't have companies working against each other like the octopus would.

====ANNOUNCE====

THAT'S NEXT WEEK ON THE BUSINESS OF INNOVATION.

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CREDIT SEQUENCE;

MARIA:

Do you see what's happening in the future disrupting what we do today?

DANE MILLER:

I-- it-- in the case of books, it is disruptive and empowering. and some of the losers will be the traditional print companies, transportation companies because you don't have to deliver books. And in the end the consumer's the winner because they'll get a book cheaper.

MARIA:

Uh-huh (AFFIRM). Andrea?

ANDREA ILLY:

One-- coffee machine is more and more becoming a relationship tool with the consumer. Not only the technology can help you to control the process but also it will become a tool to interface with the-- the company behind this machine.

MARIA:

And Bob, we know that your business has disrupted an old way of doing things.

BOB GREIFELD:

No Doubt. As technology evolves even further, the role of the middle man at all in the process will be questioned.