

THE ASPEN INSTITUTE

ASPEN IDEAS FESTIVAL

IDEAS THAT ARE SHAPING THE FUTURE

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Participant:

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of Science and Technology)

1 PROCEEDINGS

2 MS. GAYLE: My name is Helene Gayle and I'm the
3 president and CEO of CARE. CARE is an international
4 humanitarian organization that --

5 (Applause)

6 MS. GAYLE: -- humanitarian and development
7 organization that actually tries to put in place some of
8 the very things that Professor Collier just spoke about.
9 But in order to do these things, it takes both increased
10 commitment, increased resources, and the kind of
11 enlightened policies that he mentioned. So I'm going to
12 talk about an idea that we have, and entitle it from
13 "divestment" to "investment."

14 Now it plays on an idea that occurred -- a
15 movement that occurred about 30 years ago. And many of
16 you remember that following the Soweto uprising of 1976,
17 students on campuses across the United States began a
18 world -- a wide range of protest activities with their aim
19 being the divestment of South African related investments
20 held by their school endowments.

21 Between 1977 and 1988 a 155 educational
22 institutions agreed to divest. And it made a huge impact

1 on the commitment and the understanding of what it would
2 take to make a difference in apartheid. One might
3 conclude that students in the divestment movement 30 years
4 ago provided everyone, classmates, teachers, parents, and
5 of course school administrative officials some very
6 valuable lessons in economics and in ethics.

7 My idea is to ask today's students to opt for a
8 refresher course in these subjects, but one with a broader
9 aim of ending global poverty. Instead of a divestment
10 movement, let's make it an investment movement.

11 University endowments are massive. Now while
12 the United States economy may be in the doldrums, college
13 and university endowments are doing great. According to
14 the source that collects this information, 76 institutions
15 of higher learning had endowments exceeding 1 billion in
16 the year 2007. The top university topped out at 34
17 billion in their total endowment. This entire group held
18 an endowment of funds of more than 41 billion, and that's
19 up by 18 percent over what it was in 2006.

20 So these endowments, while they obviously are
21 needed for educational purposes, are huge and growing and
22 could be deployed in ways that could make a difference in

1 ending global poverty. What if the colleges and
2 universities in our nations decided to take just a small
3 fraction of their endowment and devote those funds to help
4 in the nearly three billion people who are living on less
5 than \$2 a day?

6 We could choose an amount like the 0.7, seven-
7 tenths of a percent, of 1 percent, or 0.7 percent, that's
8 the percent of GDP that the richest nations around the
9 world have agreed to commit to overseas development. So
10 if universities are willing to give 0.7 percent, that's
11 less than one percent towards global -- ending global
12 poverty. That would be about \$3 billion a year.

13 So would \$3 billion a year make a difference?
14 You bet. For only \$60 million you can provide birthing
15 kids that will enable one million women to have safe and
16 clean deliveries. Investing \$50 million would send a
17 million Afghan children including girls to school for a
18 year. A mere \$20 million would provide basic vaccines and
19 supplies that could immunize one million children against
20 the six common childhood diseases.

21 What would we do with this tiny fraction of the
22 university endowment funds? One -- who would decide?

1 Should we simply turn the funds over to the United Nation
2 or the NGO community or local governments and poor
3 communities? Of course not. Our students would play the
4 decision-making role. They would be the core creators of
5 the change we want to see.

6 For example, imagine classes offered in which a
7 project included students who were required to make
8 investment decisions aimed at ending world poverty. And
9 they could be involved in actually overseeing these
10 investments and really getting involved in these. One
11 class might invest in a microfinance fund. One class
12 might take a grant to increase the capacity of a
13 community-based organization of a poor country. One class
14 might buy food from local farmers to help stimulate local
15 economies and reduce the food insecurity. They can help
16 start the kinds of small and medium enterprises that Paul
17 Collier spoke about.

18 My own experience with today's students suggests
19 that these kinds of millennium development classes would
20 be filled to capacities, because our students today do
21 care about these issues of global poverty. So I think we
22 can put together a talent plus treasure.

1 We know that our colleges and universities are
2 filled with talented students and talented professors like
3 Professor Collier. And they are also filled with treasure
4 in the form of massive endowments. Let's combine the two,
5 the talent and the treasure. And let the next generation
6 learn about economics and ethics in the course of that and
7 literally work towards ending extreme poverty around the
8 world.

9 Thank you.

10 (Applause)

11 MR. KAMEN: I realize I'm the only guy between
12 you and the break. So it's got to be more uplifting than
13 some of the things we've heard. I was told to be
14 uplifting. They've set the bar pretty low.

15 (Laughter)

16 MR. KAMEN: I would tell you I'm supposed to do
17 a little introduction of myself and then tell you some
18 uplifting things. I've decided I have four of those
19 things that might be uplifting which will give us about 5
20 minutes of peace if I spend the next 3 minutes telling you
21 who I am.

22 In my day job, I've been designing primarily

1 medical equipment for about 30 years. We put the first
2 insulin pumps on diabetics. We got patients home on home
3 dialysis equipment. We shipped a 140 million therapy for
4 that this year. And I have about -- yeah, we have --

5 (Applause)

6 MR. KAMEN: I have about 350 really passionate,
7 really hardworking engineers. We all have a day job, we
8 work on what we think are critical issues to help the
9 quality of life for a lot of people, mostly in the
10 developed world that can pay for medical care.

11 For the last 15 years or so, about half of that
12 time, we've done well enough that I've been putting an
13 ever larger percentage of our resources over and above
14 what it takes to run that business into projects that most
15 people think are nuts. And I don't have investors, so I'm
16 allowed to do things that are nuts. And I will tell you
17 about a few of those projects now.

18 Actually one of them falls on the transition
19 between nuts and just a good idea we had to do something.
20 It'll transition out of my day job, medical products into
21 I'll call the remaining three, water, power, and FIRST.

22 The transition project I'll tell you about, we

1 were approached by the Department of Defense and DARPA a
2 couple of years ago, who came to visit us and said,
3 already 1,600 kids have come back from Iraq missing a
4 complete upper extremity. A couple of billion, couple of
5 billion -- a couple of dozen are bilateral.

6 If you think about losing an arm, imagine losing
7 both. Losing one then seems like an inconvenience. We
8 were told that what the current state-of-the-art is
9 basically, they put hooks on these kids and they send them
10 to rehab. That's what they did at the end of the Civil
11 War.

12 There's not a big market for this stuff. The
13 big medical companies don't do this stuff. I went home
14 after listening to these guys and I couldn't sleep
15 thinking about bilateral. So I put a bunch of people
16 together and I wish I could tell you more about it, and
17 I'm really frustrated that I can't turn and show you a 2-
18 minute video. You could go to our websites and see this.

19 But in one year, we built a 14-degree-of-freedom
20 fully articulated arm, weighs 8.9 pounds, the same weight
21 as the original equipment, 32 inches long, would fit on a
22 50th percentile female frame. We put it on some of these

1 guys. We have various methods of interfacing the control.

2 The neural stuff is pretty amazing.

3 And the bottom line is, within the next 6 months
4 after that, we had people that could pick up a glass,
5 rotate at the wrist, the elbow, the shoulder, and drink
6 from it. A few months ago --

7 (Applause)

8 MR. KAMEN: A few months ago, we had a kid that
9 came in and was getting out of a tube transport,
10 transradial on one arm, transhumeral on the other. We put
11 it on him. Within a couple of days he and a couple of
12 guys were sitting up in New Hampshire; one who hadn't fed
13 himself in many years, was there with his wife, doing
14 something I can't do. He was eating cereal with milk with
15 the spoon and he didn't drop any of the milk. And his
16 wife turned to me and said she hasn't seen him feed
17 himself in years. So I had a choice, they keep the arm or
18 I keep Chuck.

19 (Laughter)

20 MR. KAMEN: So that has reenergized us to work
21 faster, and we hope to put those machines on people for
22 real, soon. So then I'll --

1 (Applause)

2 MR. KAMEN: So now in 22 minutes, three projects
3 that we're working on. I'll start with two that don't yet
4 have the punch line, I don't know how they'll come out.
5 I'm a technology guy. I see the world the same way all of
6 you do. I see the same news. The news is pretty crummy
7 most of the time, in part because that's what they like to
8 report, but it's pretty hard to deny. There's a lot of
9 crummy stuff in this world.

10 And I always think of technology as a potential
11 solution. It's the tool I work with best. And while I do
12 mostly medical stuff, give you a piece of news on
13 healthcare, if everybody in this room could think of every
14 disease you could name, cancer, diabetes, Alzheimer's, MS,
15 end stage renal, if I just add them all up, they
16 constitute 50 percent of all of human chronic illness.

17 And they'll be solved one by one. We pour lots
18 of money into them, we're solving them. All by itself
19 the other 50 percent of chronic human disease, is bad
20 water. You just heard somebody talk about the bottom
21 billion, but it's almost two billion people now and rising
22 that make a choice everyday between no water or bad water.

1 You heard what it does with food. Well, 20
2 percent of the GDP of the poorest 20 countries in the
3 world pays for water that gets hauled around by women for
4 4 hours a day. Then they drink it, and two million people
5 die a year, most of them kids.

6 You look -- also as you heard that we've had
7 major institutions since 1948 trying to solve these
8 problems. They'd spent literally a trillion dollars.
9 You've heard somebody else say it might now be a 19th
10 century mind trying to solve a 21st century problem. I
11 don't know about the politics and the economics. I can
12 tell you it's certainly trying to apply a 19th century set
13 of technologies.

14 It seemed to me that with the right technologies
15 we ought to be able to get machines out to people to make
16 any source of water pure. We ought to be able to run
17 those machines in any local environment. So I started
18 looking at different ways to do that and while anybody can
19 tell you, all the water experts in the world, if it's got
20 salt use osmosis membranes. If it's got cryptosporidium
21 and Giardia from surface water and bioburden, use
22 chlorine. You put the chlorine in it, you'll kill all that

1 stuff.

2 It'll still have fecal matter floating around,
3 it'll still be turbid, it'll still stink, it'll still
4 smell, you wouldn't give it your dog, but you might be
5 able to drink it if you were smart enough and had the
6 infrastructure to know where to get the chlorine everyday
7 and know how to titrate the right amount in.

8 If you went to one of the one-and-a-half million
9 deep wells for instance in Bangladesh, that were dug so
10 that you don't have to take surface water, you get below
11 the bioburden. Unfortunately you get into minerals.
12 Around here the mineral you get into is iron. It's that
13 terrible stuff in our water that leave spots on the
14 glasses. The iron isn't in the minerals in most of Asia.
15 The metal there is arsenic. It kills you.

16 So you got to be able to take arsenic and
17 inorganics and hexvalent chromium, you've got to be able
18 to take salt out if you're near the ocean, you've got to
19 take bioburden out. I wish I had time to tell you how we
20 do it because the technology is really cool.

21 But we said, we've got to build a box small
22 enough that it can be carried into any village because

1 about 900 million of the people that need this stuff are
2 in small villages or peri-urban slums as you heard.

3 We set ourselves a goal of develop a technology
4 that requires no membranes for salt water, no chemicals if
5 it's bioburden, no activated charcoal or ion collection if
6 it's heavy metals because most of the places don't have
7 Wal-Mart at the corner to buy this stuff. And they don't
8 have in the village the epidemiologist, the
9 microbiologist, the organic chemist, the physiologist;
10 they got to have something simple that's robust that
11 works.

12 So we set ourselves the goal of build a machine
13 about the size of this podium that has two hoses on it.
14 One you stick into anything that looks wet -- a latrine,
15 the ocean, a chemical waste site. Out of the other end
16 comes water that would meet the U.S. Pharmacopoeia
17 standard for water for injection. And we built it.

18 (Applause)

19 MR. KAMEN: The goal was to make a machine that
20 would last 5 years without a lot of maintenance and
21 require no disposables. We didn't get a lot of support
22 for trying the theory out. So I took some of my

1 engineers, we put them in Honduras for a month.

2 Machine this size makes a thousand liters a day;
3 it serves easily a hundred people. Manufactured in a high
4 volume like a typical appliance, it would be a couple of
5 thousand bucks or less. For 300 million people in Africa,
6 you need 3 million machines; you can do the math, pretty
7 cheap.

8 Even if you'd looked at all the power it
9 consumes, it cost about \$1.9 to make a liter of water. It
10 costs \$0.25 to move that around in bottles here. We
11 thought that would be a good idea. The problem is
12 although it has all the magic I just told you, it doesn't
13 care what's wrong with the water, it does need something
14 to run it: electricity. But the poorest people in the
15 world need the electricity anyway, not just around this
16 but the two most basic human needs to get people out of
17 poverty, give them water and a little bit of energy. Not
18 the kind of electricity we use, no jaccuzis, hair dryers.

19 But in a small village if there was just enough
20 electricity, especially with LEDs these days, to give the
21 same hundred people that would live off one machine enough
22 power, that everybody could have a phone, a computer,

1 enough light at night to be safe to read, to learn, to be
2 on the Internet, to get the truth, it would take a couple
3 of kilowatts.

4 So we took another neat old technology -- and
5 based on the time I will not be able to explain how it
6 works, but it's a closed cycle hermetically sealed can
7 that uses any external source of heat -- any external
8 source of heat -- solar photovoltaics, to make
9 electricity.

10 Well, we don't need the photovoltaics; we can
11 just take the sunlight. We can take cow dung. We built
12 these machines. We made one, again about the size of
13 this, carried into the same village, makes a couple of
14 kilowatts, running on any source of heat. We moved two
15 machines to Bangladesh, one 75 kilometers north of their
16 capital in Dhaka, one about 75 kilometers west, a 20-
17 family village and a 30-family village, and for 24 weeks
18 around the clock these boxes produced enough power for
19 these families -- for the first time ever to use
20 electricity.

21 Everybody had a little light at night. And the
22 only thing that fed these machines was cow dung and no

1 sophisticated bio-digesters. There was a pit next to the
2 machine in a village with a plastic top over it. The
3 natural biological decay of the cow dung was producing
4 methane gas. It also produces carbon dioxide that goes
5 away. You can't stop that, it will end up there in anyway
6 and a lot of carbon monoxide. Poison. It turns out that
7 the way our combustors work, the methane and the carbon
8 monoxide mix just fine along with moisture, go through the
9 engine, work just fine.

10 It turns out by the way methane gas by itself is
11 21 times as bad for the environment as CO2. Then it
12 becomes CO2 anyway. If you collect it locally and feed
13 the engines, you're protecting the global environment,
14 you're getting rid of a source of disease in these places
15 and you're giving people electricity without taking any
16 new source of carbon into the atmosphere.

17 We believe you could probably build these
18 machines at high volume at reasonable cost as well. We
19 are working on the next generation of it right now. As I
20 said neither the water machine nor the electric generation
21 system have a punch line yet. I'm one crazy lunatic,
22 remember, doing this by myself in New Hampshire, and now

1 are even putting these around by myself.

2 But we heard that you don't like the solution
3 from the right, and you don't like the solution from the
4 left so take the solution from the nut. Anyway so --

5 (Laughter)

6 (Applause)

7 MR. KAMEN: I'm going to tell you about one more
8 of my crazy ideas because otherwise they'll -- this one
9 has gone a little longer than water and power as one of my
10 affectionately known by all my engineers, "Dean's crazy
11 ideas," but this has gone so long enough that I'll get
12 some of you doubters.

13 But it's the only reason I really came here
14 because this one's gone far enough that there is now a
15 place for people, a focused directed way for people to get
16 it out there. And so whether I shamelessly grovel and beg
17 for you to look into it or by any other means, I'm not
18 bashful or proud, I'll ask you to look at what FIRST is.
19 Well, how many people know what FIRST is?

20 (Applause)

21 MR. KAMEN: Not enough, not enough. As I said,
22 I believe in technology. In fact by the way, a little

1 water project, every internal project we have for all of
2 my big clients which I can't talk about has an internal
3 name. The internal name for our water project is
4 "slingshot."

5 The reason -- somebody once asked me recently
6 after we had (inaudible) why do you call it slingshot?
7 Because I have my whole life believed that technology
8 properly applied is the leverage that gives people wealth,
9 stability, happiness, raises the bar in every generation.
10 And I guess I got that as a little kid by hearing the same
11 fables as all of you.

12 I guess I came right away with a different --
13 what was the moral of the story, I must have been a geek
14 even as a little kid, because I remember, you know, the
15 old story of the slingshot that killed the giant, and all
16 I could think of as the moral of that story was,
17 technology is cool.

18 (Laughter)

19 MR. KAMEN: I mean, there was David, was this
20 little guy -- besides I was a little guy, my Hebrew name
21 is David -- but anyway, I was told that story, and I was
22 sort of, wow, so this little guy took out this really big

1 problem Goliath, with this little piece of technology. I
2 think our little machine, the Goliath problem for a two
3 billion people is water. Maybe it will help.

4 But about 15 years ago, it started to really,
5 really concern me that here in the richest, most
6 sophisticated, most technically-advanced independent
7 society on the planet, we have a dramatically -- and to
8 this day, even since then -- a very dramatically declining
9 interest, particularly by women and minorities in science
10 and technology.

11 And while I looked at what everybody is doing
12 about -- because this is not like a subtlety; governments
13 worry about it, teachers worry about it, parents worry
14 about, giant corporations are worried about their next
15 generation, everybody worries about it.

16 But they all assume it's an educational problem.
17 Let's fix the schools where we spent \$700 billion a year.
18 Let's change this. Let's -- it's more supply, you know,
19 it's more standards, more tests, more this, more that,
20 more that. In this land of plenty, I don't think so.

21 Remember, I'm an inventor. That means I look at
22 the same problem everybody else looks at and see it

1 differently. I said let's take the bold assumption -- and
2 we don't have an education problem in this country, we
3 have a culture problem. It's not that -- and we don't
4 have a supply problem, we have a demand problem or a lack
5 of it. The issue to me seemed like the reason this
6 country is dramatically declining in the ability to create
7 world-class scientists, engineers, and inventors, and
8 almost no women and minorities participate in those,
9 strive to even be part of that career base, it has to be
10 because what our culture tells them. It's not what we
11 don't have enough of, money, tests, standard. It's what
12 we have too much of, a culture where every role model
13 comes from the world of Hollywood or the NBA or the NFL.

14 You can ask any kid particularly in the inner
15 city schools in this country, they can't tell you the name
16 of our famous living scientist or engineer or inventor.
17 How could they? They don't see them on the news, they
18 don't see them on the billboards.

19 So I thought, while everybody else is worried
20 about it's an education problem and it's about supply, we
21 should form an organization that changes kids' attitudes
22 about science and technology and engineering. We should

1 form a not-for-profit that will so compellingly show kids
2 how exciting it is and how accessible it is and how
3 rewarding it is to be able to think about problems and
4 reduce the solutions to reality to make the world a better
5 place and to enrich themselves.

6 I mean, that's a much more realistic way to go
7 forward than imagine you're going to bounce your way into
8 the NBA. I go into these inner city schools and point out
9 to these kids that there are more people winning state
10 lotteries every year than the number of people that will
11 never make a nickel playing sports.

12 The great American lie is not just that we have
13 this obsession with our past times, it is depriving huge
14 sectors of our kids from even having a shot at real
15 careers. It's unsustainable. Last year in the United
16 States, in the 20 largest cities, the 20 largest school
17 districts in the United States last year graduated less
18 than 50 percent of the kids due to graduate.

19 This country is unwinding itself in a globally,
20 intensively competitive environment that is in desperate
21 need of great new solutions to energy issues and food
22 issues and health issues. We sit around, we're not

1 fiddling while our room is burning, we're bouncing and
2 dancing.

3 So make an organization that will leverage the
4 obsession we have for sports. Turn science and
5 engineering into a sport. Well, the only way that works,
6 that'll ever get kids' attention, if they could see young
7 enthusiastic world-class people doing it. You don't see
8 kids playing cricket in the United States because there is
9 no NFL or NBA of cricket. So there's no college cricket,
10 there's no high school cricket; there's no junior varsity
11 cricket.

12 Well, if you try to show them sciences school
13 without world-class young people that do it for a living,
14 it's called a science fair. You look at my parasitic
15 paramecium on the folding bridge table in the basement of
16 the middle school and I'll look at yours, then we'll both
17 go home and watch the Super Bowl, this million dollar-
18 minute production.

19 And we'll bounce away for hours a day and
20 thinking I'll be the next Shaquille O'Neal. Where do
21 women, where do young kids that don't happen to have
22 professional parents ever get a clue of what their real

1 options are? So I needed to instantly find young
2 enthusiastic scientists and engineers to put in front of
3 kids.

4 The teachers can't be the ones that inspire
5 them. It's not the gym teacher that makes these kids
6 workout all summer. The schools are for supply. Demand
7 comes from our culture. We get what we celebrate and
8 we're celebrating the wrong things. So --

9 (Applause)

10 MR. KAMEN: So I'll now give you the quickest
11 history of the development of FIRST. In 1992, I convinced
12 23 companies that get it, that have the big picture in
13 mind that they should find among them 23 sets of young
14 enthusiastic engineers, hopefully some would be women and
15 Hispanic and African-American to break the stereotype that
16 all scientists and engineers are middle aged, white, male,
17 frizzy haired, German-accented sociopaths --

18 (Laughter)

19 MR. KAMEN: And they should get these people to
20 go to local high schools and I would make a sport and in
21 every way it's a sport. Its not like a sport, boys and
22 girls, it's a sport. I gave them kit supports, they only

1 weighed about ten pounds that year, gave them 6 weeks like
2 every other high school sport, gave them a kit in January,
3 said come back for our event at the end of the build
4 season, and we're going to have a double elimination
5 tournament.

6 Bring the cheerleaders, bring the school bands,
7 your kids are going to run these robots and you are
8 Michael Jordan and Shaquille O'Neal, you people are going
9 to inspire these kids and prove to them that if they're
10 willing to exercise the muscle hanging between their ears,
11 the world could be a different place for them.

12 So 6 weeks after I gave out those kids, these 23
13 sets of teams from all over -- Boeing -- flew in from
14 Seattle, TI, General Electric, General Motors, United
15 Technologies, they flew in from all over with their kids,
16 with the parents, with the teachers. And in one high
17 school gym in Manchester, New Hampshire, we had 2 days of
18 celebration of technology.

19 At the end of it, I asked all 23 companies, what
20 did you think? Every one of those set of mentors, the
21 engineers, and some of them, their CEOs, came, told me
22 they thought it was the greatest experience they'd ever

1 had. It was a win-win-win for everybody. The engineers
2 were proud of what they were able to do and they were
3 community heroes. The teachers loved it because it wasn't
4 yet another example of people coming in to beat on and
5 complain about and blame the schools.

6 The parents saw their kids change. It wasn't
7 about building a robot, it was about relationships between
8 serious adults and kids and getting self-confidence into
9 these kids and giving them the direction in a culture
10 that's got so much noise in it, it's almost impossible.

11 So I asked them, will you come back next year.
12 Every one of those giant companies said they'd come back
13 and I said, well, look, you're on the boards of other big
14 companies, bring your friends. The next year, we had
15 about 60 companies, the next year 120, the next 250. In
16 the fifth year, still to this date, by the way in our 15th
17 year, we give out the kits first week in January; the kits
18 got bigger each year. Now they're up to a 130 pounds.

19 Now they don't play on the 12-foot-square, they
20 play on something of the size of a basketball court. By
21 the fifth year, we pretty much had every Fortune 500
22 technology giant, and I realized that with the sports

1 model it's going to work, we got to make this simpler and
2 easier, more scalable, cheaper.

3 So I asked all the big companies that had played
4 for 5 years, that had seen the impact on kids and
5 graduation rates and every thing changing in the culture
6 of these schools, look, you guys have to do regional
7 events. So at the end of the 6 weeks you're not coming
8 back here, besides there's no venue left in New Hampshire
9 that can hold you. So we'll do regional events.

10 Two companies that had been there from the first
11 said, we'll do a J&J, said, we'll take over Rutgers
12 University field task, we'll do a regional and the mid-
13 sized and small companies they're going to adopt all the
14 schools in New Jersey. Motorola said we'll do the same
15 thing in Chicago. From the fifth to the tenth year we
16 went from two regionals to 4, to 8, to 13, to 17.

17 Our 11th year -- oh, by the way during that 5
18 years, we couldn't hold the finals anywhere as I said in
19 New Hampshire. We held them at a little place called
20 Disney. They built us, they built us -- I wish I had ways
21 to show pictures -- this Olympic village of technology to
22 celebrate at Epcot. And in the end of the 10th year

1 Disney said to us, we can't double the size of this place
2 again. We're seating 20,000 people for a 2-day event
3 here.

4 So in the following year, we finished 27 cities
5 of regionals with all these volunteers, all these
6 corporate sponsors, and we all went to celebrate at the
7 Georgia -- at the Houston Astrodome.

8 For the last 3 years, as I said, a culture gets
9 what we celebrate, this country built a monument to what
10 we value, we got to be the presenting sponsors of the 1996
11 Olympics and we build for them the Georgia Dome.

12 For the last 3 years, very fittingly, we
13 finished our seasons. Still we start in January, still we
14 finish a month 5 weekends this year in March, of regional
15 events and for the last 3 years we celebrate our finals at
16 the 72,000-seat Georgia Dome in Atlanta.

17 Our data for this year's event which ended April
18 15th, 41 cities held regional events throughout March.
19 Little cities like New York, Detroit, Chicago, Los
20 Angeles, San Jose, Cleveland, Seattle, Houston, Orlando,
21 Atlanta. Teams came from 38 countries. 71,000 engineers
22 donated their nights and weekends to work with these kids.

1 13,911 schools had teams, if you count our little Lego
2 League teams. It's all volunteer-driven. The good news
3 is we've got over 1,600 high schools in this program now.
4 The bad news is we've got 25,000 to go.

5 They need help. It takes people that give a
6 damn, to be mentors, to be supporters, to show what you
7 value and what you celebrate. I've been told to be kind
8 and gentle here, so I'm not going to tell you that every
9 school needs an opportunity to participate. Only the ones
10 you care about.

11 (Laughter)

12 MR. KAMEN: Only the kids that you think you
13 want to hand this country over to, that are competent,
14 then understand how to apply technology to the world's
15 problems. The world is going to need water and its going
16 to need power; it's going to need a lot of things. And as
17 you've heard, 3 billion people live on less than \$2 a day,
18 billion live on less than \$1 a day, they don't have the
19 resources that fix these problems. We do.

20 We can squander those resources, we can try to
21 hold ourselves apart and protect ourselves or we can leave
22 the world. We can make it a win-win. I know we're going

1 to hear Thomas Friedman who pointed out it's not round
2 we're not isolated around the world.

3 It's flat, we're all equal. It's not even flat,
4 it's concave. We're all slipping into this ball together.
5 We can step all over each other and make it hell, or we
6 can work together and create a world that we all want to
7 have. It's going to take competent, smart people, with
8 good values that have the tools, and the resources, and
9 the judgment, and the vision, and the courage to do
10 something.

11 You've got to give these kids the sense that
12 they can do that and that the world isn't about instant
13 gratification and bouncing a ball and entitlement and
14 everybody's a victim. This country's got to change its
15 culture. FIRST is the simple little organization whose
16 goal is to change the culture of the country, it's working
17 pretty well. Get involved, go to our first website, or
18 just hit the word FIRST at Google, and it will pop up as
19 the first thing you see.

20 It's really fun, it works really well, it
21 changes kids' lives, it will make this a world you'll be
22 happy to live in and proud to pass on. Thanks.

1 (Applause)

2 (Whereupon, the PROCEEDINGS were adjourned.)

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