

PR Portfolio

Created on behalf of Regina Dugan, Director *DARPA*

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Portfolio Background

The Defense Advanced Research Projects Agency (DARPA) is different from other federal agencies. For one thing, the agency, created the Internet (really). For another, it is probably the only government agency ever to offer a cash prize for a balloon hunt, a contest that was inspired by Regina Dugan, a 47-year-old expert in mine detection, who took over last summer as DARPA's director.

Dr. Dugan, who has a Ph.D. in mechanical engineering from the California Institute of Technology, is the first woman director of DARPA, and those who know her say she has a knack for inspiring, and indeed insisting on, creative thinking. The December 2009 "balloon hunt" - otherwise known as the *DARPA Network Challenge* - is a good example of Dugan's thought-leadership.

In marking the 40th anniversary of connecting the first four nodes of the Internet in 1969, DARPA offered a \$40,000 prize for locating 10 large red balloons hidden around the country. The task only sounds frivolous. It was actually something that many experts agreed was impossible using traditional intelligence techniques. The challenge was designed to test new methods, involving the use of social networks.

This portfolio includes documents created on behalf of Regina Dugan for various opportunities, post-Red Balloon Challenge.



For Immediate Release

Contact: Gloria Meehan
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MEDIA ADVISORY

10 RED BALLOONS, INNOVATION & the POWER of SOCIAL MEDIA

DARPA's first woman Director talks about Innovation & the 40th Anniversary of the Internet

DATE: June 1, 2010
TIME: 1:30PM
LOCATION: American Museum of Natural History - LeFrak Theater (first floor)
Central Park West at 79th Street, New York, NY

DARPA'S Network Challenge celebrated the 40th anniversary of the Internet by awarding a \$40,000 cash prize in December, 2009 for locating 10 large red balloons hidden around the country. Dr. Regina Dugan, director of The Defense Advanced Research Projects Agency (DARPA) and inspiration behind the DARPA Network Challenge, will talk about innovation and the unprecedented ability of the Internet to bring people together to solve tough problems.

SPEAKERS:

Stephen Hawking, Theoretical Physicist, Author and Academic Celebrity

Mark Zuckerberg, Co-founder, CEO & President of Facebook

Seth Godin , Author, Marketing Entrepreneur and Agent of Change

DARPA is the research and development office for the U.S. Department of Defense. DARPA's mission is to maintain technological superiority of the U.S. military and prevent technological surprise from harming our national security. We also create technological surprise for our adversaries.

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For Immediate Release

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DARPA: WHERE ARE THE TECHNO-GEEKS?

“Red Balloon” Challenge Thought-Leader, Dugan, Says, “We Need More Techno-Savvy Innovators.”

06/01/10 (New York, NY) – What do Red Balloons, Social Media and \$40,000 in Government prize money have in common? Regina Dugan. Dr. Dugan, director of The Defense Advanced Research Projects Agency (DARPA) and inspiration behind the “DARPA Network Challenge”, will talk about “The Challenge”, the importance of cutting edge innovation and the unprecedented ability of the Internet to bring people together to solve tough problems.

"The Challenge has captured the imagination of people around the world, is rich with scientific intrigue, and, we hope, is part of a growing 'renaissance of wonder' throughout the nation," says Dr. Dugan.

A group of researchers at the Massachusetts Institute of Technology won the \$40,000 and edged out about 4,300 other teams in the Pentagon-sponsored contest to correctly identify the location of 10 red balloons distributed around the United States. The winning team specializes in studying human interactions that emerge from computer networks and took just eight hours and 56 minutes to complete the challenge.

“The idea is captivating, engaging, wide-ranging and blissfully simple” said noted author and theoretical physicist, Stephen Hawking on a recent phone conversation from London. “Incentivizing innovation is a phenomenally powerful tool. It circumvents bureaucracy, investment anxiety and makes things happen.”

Reigning “Agent of Change”, Seth Godin weighed in on the DARPA Network Challenge, “In a world of too many options and too little time, our obvious choice is to just ignore the ordinary stuff. More than merely proving ROI on social media, DARPA brings the future, present.”

For more information about DARPA and its cutting-edge projects, please visit
<http://www.darpa.mil/index.html>

DARPA is the research and development office for the U.S. Department of Defense. DARPA's mission is to maintain technological superiority of the U.S. military and prevent technological surprise from harming our national security. We also create technological surprise for our adversaries.

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Talking Points – REGINA DUGAN

TALKING POINTS

INTERVIEW WITH KATIE COURIC

JUNE 6, 2010

Q. Experienced in counterterrorism and defense against explosive threats; appointed by Secretary of Defense, Gates as the 19th director of DARPA; I have to ask, where do you get your inspiration; how did you come into this role?

A. My father is my inspiration. When I was a kid, he was always in the basement tinkering - “experimenting” - on something or another. He was the consummate do-it-yourself-er and inspired an early curiosity in me about how things worked. It’s all about the Physics. The theory of everything or, well, nearly everything has always piqued my interest.

Q. I’ve heard that your management style runs the gambit from mesmerizing to scary. As the first woman Director of DARPA how do you view the organization and what are your expectations?

A: Just prior to my starting as the director, one of the previous DARPA directors counseled me. He said, “DARPA is one of the gems of the Nation. Take care of her.” Which is really an elegant way of saying, Regina, this is important, don’t screw it up. Truthfully, I don’t ask anyone to do anything more than think and to consider past the obvious. What I mean by that is I insist that my team think in new, non-traditional ways. The Network Challenge, a contest that we recently held where teams were tasked to locate 10 red balloons scattered around the country, tested the power of social networking, a recent development and non-traditional communication channel.

I’ve heard that there are those who say that I elicit “four stages” in others when referring to the effects of my inspirational techniques - being a little scared, really scared, frustrated and then enlightened. <chuckle> I’m not an armchair director, I’ll roll up my sleeves and get directly involved in problems. I expect the same from those on the DARPA team.

Q: Now that you've wowed the social media world with the innovative success of the DARPA Network Challenge, what do you see as the next big steps for DARPA to continue in this process of innovation?

A: Last year, and not long after I took the position as DARPA's director, my team and I toured five of our nation's leading universities in an effort to address a chill that had set in between DARPA and the universities during the eight years my predecessor headed the agency.

We did a deep dive and we tried to understand what the universities were experiencing and what they were expressing. What we found was that not only had financing declined but that there were also a variety of indirect effects crucial to the basic research community, like the ability to include foreign nationals in research, the freedom to publish and the limits placed by export control regulations.

We came to a better understanding of what DARPA needs to do, and then we went to the university community with a challenge for their side as well, which is to bring their best and brightest to the table to work on defense problems.

Q. I understand you were awarded the Engineer Regiment's Bronze deFleury medal for meritorious service as a program manager charged with developing sensor technologies used to detect land mines. This sounds extraordinarily difficult, critical and I hear, life-threatening; weren't you once missing in the field and presumed dead?

A: Yes, actually, well as I've said, I'm very hands-on and I enjoy field experience too. In 1998, I lead a team in mine detection. Naturally, I needed some field experience so I could explain to the team what was going on. So, I got clearance to go on a "discovery" trip to Mozambique and during a mine-clearing expedition the State Department wrongly declared me missing in action. No kidding!

Now, when we were clearing mines in Mozambique, this was done by a giant vehicle with huge metal wheels and this big, V-shaped hull. We would drive these vehicles through the live mine fields and purposefully blow up the mines – and I have to admit, I usually drove the lead vehicle where it seemed every fifth mine was a “jumper” - those are explosives that pop into the air and detonate at waist-level. You never quite get used to the jumpers. Because when they go, there is an explosion right in front of the vehicle and then the rat-tat-tat of the shrapnel on the windshield.

So, during one of these field exercises, there was a communications mix-up that led to the concern that I was missing. Even though I was soon found and I returned to the United States, Larry Lynn, the DARPA director at the time, told me that if he’d known what I was doing, he would never have approved the trip. Well, “Exactly!”, I told him. He just shook his head because he knows the kind of person I am and that I needed to be in the middle of the action to see for myself.

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Speech – REGINA DUGAN

Good morning, ladies and gentlemen, distinguished speakers and members of the press. And thank you to **President, Ellen Futter and the Board of the American Museum of Natural History** for providing this exceptional space and inviting me here to speak. My name is Regina Dugan. I am the Director at the Defense Advanced Research Projects Agency otherwise known as DARPA. I feel honored to be here today, yet I have to say there's some irony in this *<slight pause>* I just walked through the museum's exhibit of primitive man to get to the theater so I could speak with you about DARPA, and how our focus ties into the recent event we sponsored to celebrate the Internet's 40th anniversary. Travelling through more than a millennium of time in a matter of seconds is some kind of trip! *<pause for laughter>* But at DARPA, we essentially thrive on the unusual.

A day before something is truly a breakthrough, it's a crazy idea. The difficulty is that large corporations and most government agencies have a hard time trying crazy ideas that could be breakthroughs, because they could also be dismal failures. At DARPA, we embrace a "we'll find a way" work ethic. Yet, I am clear

about what the weight of this responsibility means and I share this responsibility with a comparable number of people on my team who believe in what we're doing.

DARPA's responsibility is to our Nation, to innovate and to the technological superiority of the Nation's defense. Frequently, the resulting innovations also contribute significantly to the Nation's economic vitality. We challenge existing perspectives, break china, and make people excited and uncomfortable, sometimes with the same sentence. You might say that DARPA is the Nation's elite army of futuristic techno-geeks. For example, our recent Network Challenge explored basic research issues such as mobilization, collaboration, and trust in diverse social networking constructs, which could serve to fuel innovation across a wide spectrum of applications.

I am also clear that there is a fine line between pride and self-congratulation. Over the 50 years of its existence, DARPA has achievements ranging from the Internet to rockets to the M-16 rifle. We like to refer to these accomplishments. Often. We all feel proud of that rich history. Indeed, this spectrum of accomplishments is so impressive that many have sought to emulate the DARPA brand. And we have, ourselves, sought to understand the underlying elements responsible for this long string of successes.

Our Nation's pioneering spirit has, in its relatively short history, led the world in astonishing discoveries. For the better part of the last century, we were leaders in the technological revolution. However, resting on the laurels of past accomplishments is quickly eroding our lead while countries like China and India are gaining momentum and have the potential to surpass us in innovation.

Recently, my team and I toured some of our nation's leading universities in an effort to take a look at some disconnects that might exist between DARPA and those universities. The fact is recent polls found that 15 year-old American students were ranked 29th and 35th worldwide in Science and Mathⁱ. So, we wanted to try to understand what was happening in an attempt to encourage studies in the hard sciences. When we talked to the universities we found that not only had financing declined but there were a variety of indirect effects crucial to the basic research community, like the freedom to publish and the limits placed by export control regulations. We came to a better understanding of what DARPA needs to do, and then we went back to the university community with a challenge for their side as well, which is to bring their best and brightest to the table to work on defense problems.

In order to continue this drive to innovate and to advance education in Math and Science, I'm urging you to support this effort by reaching out to your congress people and by contacting your alumnae associations to ask what is being done to encourage studies in these areas. We owe it to our future to celebrate our authenticity. We have the knowledge, freedom to dream and aspirations to resume our place in history. Our Nation has an obligation to live up to its legendary profile. At DARPA, we have a commitment to continue working at the intersection of basic science and application. These essential elements call for boldness. They focus the mind. They give rise to DARPA.

It was my pleasure speaking with you today. Thanks again to **Ellen Futter** and everyone at **The American Museum of Natural History** for inviting me.

Stephen Hawking, Seth Godin and Mark Zuckerberg are here, and I'm looking forward to listening to what they have to say. Thank you for your time and enjoy the afternoon.

OpEd – REGINA DUGAN - A response to “With Lure of Cash, M.I.T. Group Builds a Balloon-Finding Team to Take Pentagon Prize” By JOHN MARKOFF, Published: December 6, 2009 <http://www.nytimes.com/2009/12/07/technology/internet/07contest.html>)

DARPA & INNOVATION: INCENTIVES, YES, BUT NOT ALL ABOUT THE MONEY

My name is Regina Dugan and I am the Director at the Defense Advanced Research Projects Agency otherwise known as DARPA.

I read in your article ("With Lure of Cash, M.I.T. Group Builds a Balloon-Finding Team", New York Times, Dec 6) that the “relative effectiveness of different motives ranging from profit to working for the common good” apparently drove the success of the DARPA Network Challenge. While we did incentivize “The Challenge”, it’s not only about cash, but the need for innovation... where are all the techno-geeks in the U.S.? If anything, this was a wake-up call to our Nation to take action and a shout out to the scientific-minded and techno-savvy.

The Challenge has captured the imagination of people around the world, is rich with scientific intrigue, and, we hope, is part of a growing 'renaissance of wonder' throughout the nation. DARPA salutes the MIT team for successfully completing this complex task less than 9 hours after balloon launch.

The reality today is that the Internet is like a new life; it is organic. Forty years ago, it was an Internet challenge; today it is a network challenge. It is inherently beautiful how individuals can make information go viral. It challenges us all to think about ourselves, about others, about ethics, and about the future.

A powerful “refresh” cycle is coming. We’re moving beyond Web 2.0 and our Nation is poised to lead the next phase of innovation through social media and the ideas generated from crowd-sourcing. Even while you read this sentence, this area will have rapidly changed due to successes with the “democratization” of information, which is not only redefining how, when and where we get information but is also restructuring the meaning of work. The future of work will evolve around open innovation and collaboration. Social, Political and Economic systems change incrementally, but technology changes exponentially. At DARPA, we’re looking for those game-changers.

CLIPS AND RESOURCES –

http://query.nytimes.com/search/sitesearch?date_select=full&query=Regina+Dugan&type=nyt&x=0&y=0

<http://www.darpa.mil/Docs/DARPA2010CongressionalTestimonyHASC.PDF>

<http://www.nytimes.com/2009/12/07/technology/internet/07contest.html>

<http://www.geek.com/articles/news/darpa-announce-40000-red-balloon-network-challenge-20091030/#ixzz0nevcblh8>

<http://www.darpa.mil/directorbio.html>

<http://techcrunch.com/2010/05/11/red-darpa-balloons/>

<http://www.darpa.mil/Docs/DARPA2010CongressionalTestimonyHASC.PDF>

<http://www.duganventures.com/team.html>

http://www.redxdefense.com/RedX_site/RedX_Regina.htm

<http://www.washingtonpost.com/wp-dyn/content/article/2010/04/29/AR2010042902880.html>

<http://www.physorg.com/news176059520.html>

<http://www.pcmag.com/article2/0,2817,2356758,00.asp>

<http://www.smartplanet.com/business/blog/smart-takes/darpa-chief-us-faces-critical-geek-shortage/5700/>

<http://en.wikipedia.org/wiki/DARPA>

ⁱ Hodges, Michael. Grandfather Economic Report Series – Grandfather Education Report: International Math & Science Test 7 Dec. 2007. <http://mwhodges.home.att.net/new_96_report.htm>

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