

Education & Public Outreach

Lars Perkins

Chairman

Education and Public Outreach Committee

NASA Advisory Council

29 November 2012



Topics

- Who we are
- E/PO activities since July
- Recommendation Status[es]
- Recent Activity
 - 27 November Meeting
 - New Recommendations
- Moving Forward





Richard Garriott



Dwayne McCay



Michael Bostick



Peter Shankman



Iannis Miaoulis



Pilar Montoya



Scott Parazynski



Doug King



Matthew Chamberlin



Lars Perkins

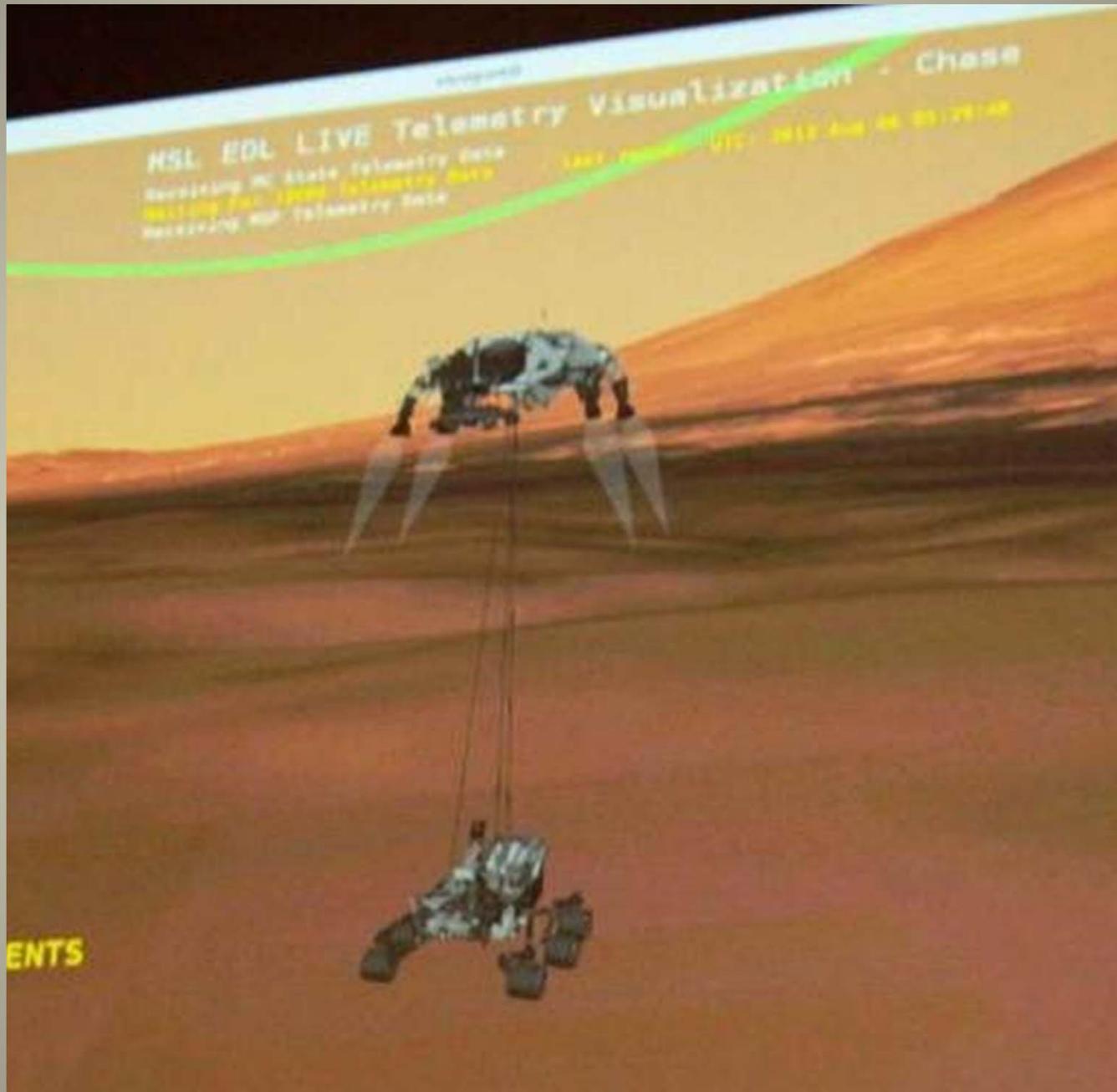


Stephen Pearse



The Taxi Driver Problem

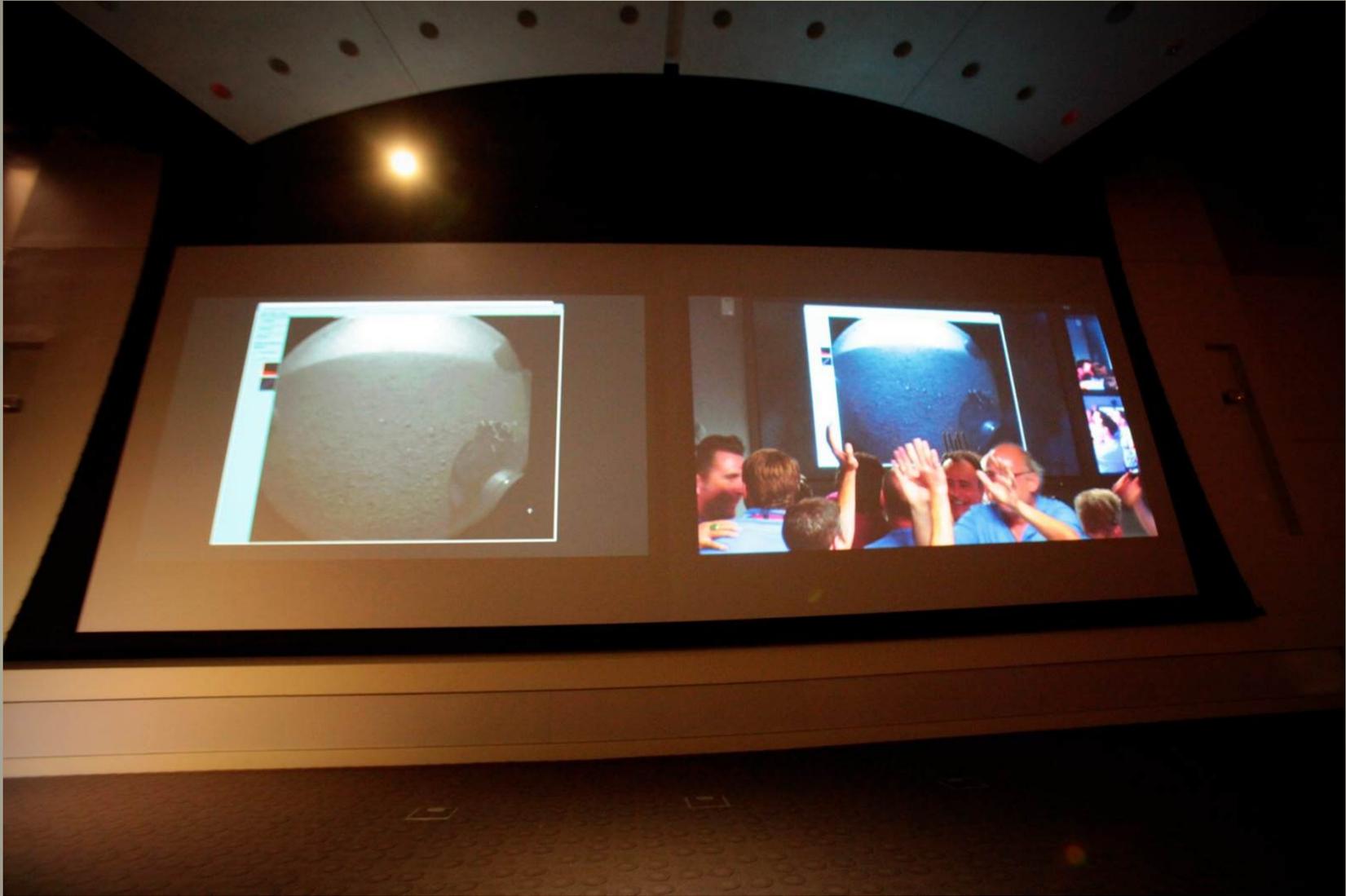
















An aerial photograph of a Mars rover being lifted by a crane on the red planet's surface. The crane is suspended from a larger structure and is holding the rover by cables. The rover is positioned in the center of the frame, and the crane is positioned above it. The ground is a reddish-brown color with some rocks and dust. The scene is illuminated by bright sunlight, creating strong shadows.

**SORRY, WHAT WAS THAT
ABOUT A GOLD MEDAL?**

**I COULDN'T HEAR YOU
OVER OUR ROCKET-POWERED HOVER CRANE!**



Mars fans make viral video



"We're NASA and We Know It" celebrates NASA's latest Mars mission.



NASA's Mars Rover Team: Spacemen of the Year 2012

NASA's Mars Rover Team: Spacemen of the Year 2012

BY PAUL KVINTA | PHOTOGRAPHS BY DAN WINTERS

November 2012





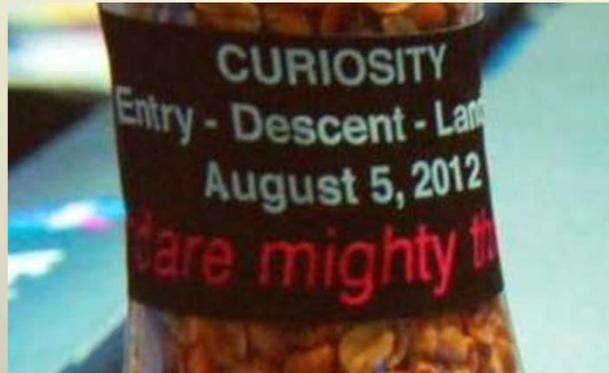


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“NASA reaches for new heights and reveals the unknown, so that what we do and learn will benefit all humankind”



=



Who is NASA's mohawk guy?



by Amora McDaniel, Assistant editor

August 6, 2012 | 3:48pm EDT

Last Modified: August 6, 2012 | 3:55pm EDT

So we all know about NASA's Mars Curiosity rover landing safely on the surface of Mars last night, but who we are really curious about is the Internet sensation the Mars landing created—Mohawk Guy.

Bobak Ferdowski—the astronaut with red and black mohawk with yellow stars dyed into the sides sitting behind the control desk—became an instant Internet celebrity. His hairstyle now has a dedicated Tumblr page, and, according to the *Atlantic*, Ferdowski's own Twitter page went from nearly 200 followers to over 8,000 in the span of a few hours.

[Enlarge Image »](#)



Mohawk Guy—also known as Bobak Ferdowski—celebrates the Mars landing while the Internet celebrated his unique hairstyle.

RATE THIS STORY



MORE FROM VIDEOS



Explore trends

Hot searches

Search terms ?

× curiosity

× nasa

× mars

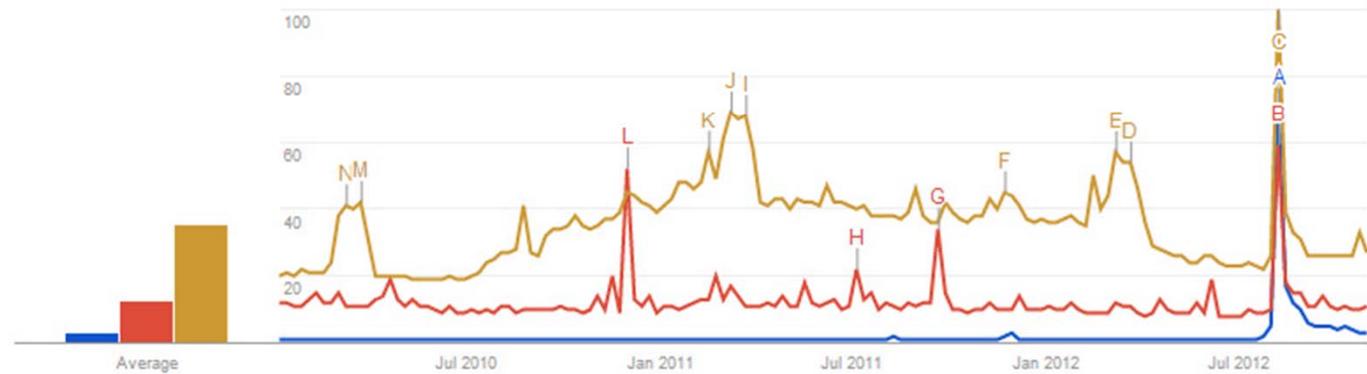
+ Add term

▶ Other comparisons

Interest over time ?

The number 100 represents the peak search volume

News headlines Forecast ?



curiosity nasa mars

Regional interest ?



0 100

Region | City

▶ View change over time ?

Embed

Related terms ?

Top Rising

Term	Volume
mars	100
curiosity mars	100
rover curiosity	75
nasa	55
curiosity nasa	55
curiosity landing	35
mars rover	30
mars curiosity rover	30
curiosity video	15
mars landing	15

Embed



Capitalism ended life on Mars: Chavez



Author: REUTERS
Thursday 24 March 2011

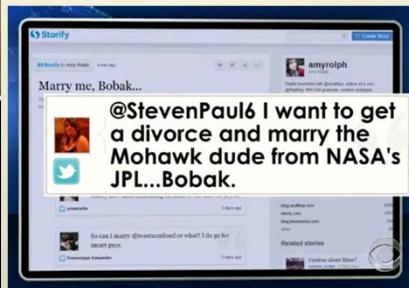
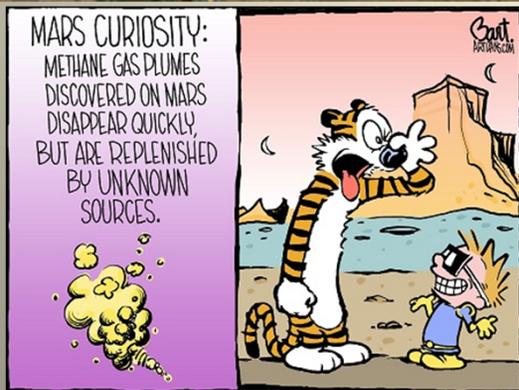
CARACAS: Capitalism may be to blame for the lack of life on the planet Mars, Venezuela's socialist President Hugo Chavez said on Tuesday.



Office of Communications

Mars Curiosity Coverage

- Continues to enjoy unprecedented popularity
 - More than 300+ stories daily average
 - CBS News says the mission makes NASA “cool” again
 - GQ selected team as “Best Wingmen” in its 2012 Men of the Year
 - Mainstream media and advertisers work to link their product with Mars Curiosity



WARRANTY RAPTOR: 60,000 miles/5 years ROVER: 20 kilometers/2 years	
80 in.	
40 in.	
ROVER FLIGHT TIME TO MARS	RAPTOR DRIVE TIME TO MARS
263 days or 354 million miles at 56,000 mph	375 years or 100 mph x 263 days = 631,000 miles or 0.18% of the distance to Mars



Office of Communications

SpaceX Commercial ISS Flight

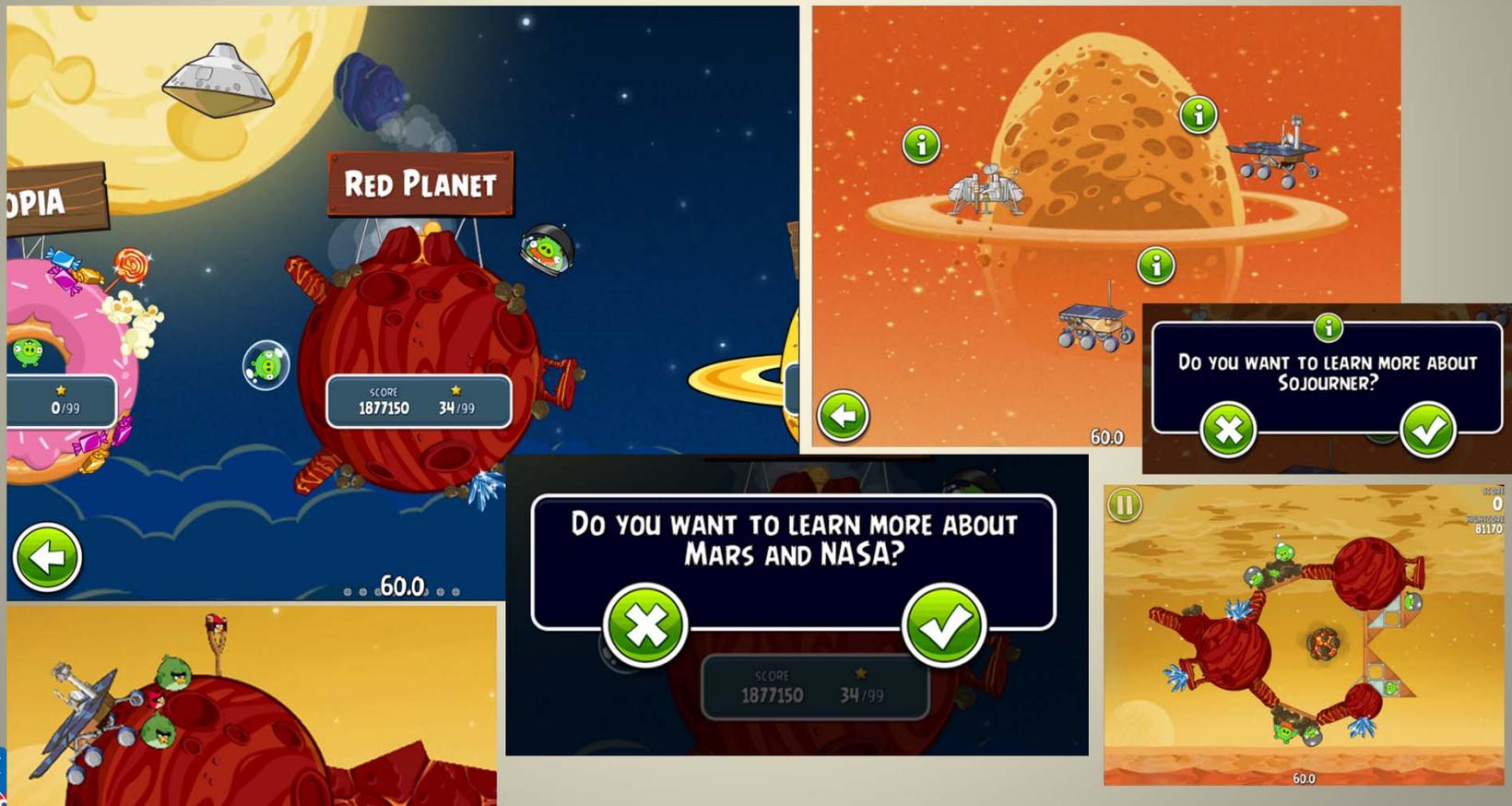
- Return of space station resupply missions to the U.S.
- The first true commercial flight to the International Space Station



Office of Communications

Angry Birds Space – Red Planet

- Major update to historically successful Angry Birds Space
- Downloaded more than 100 million times in less than three months.
- Bonus levels lead players to additional information about NASA's Red Planet exploration
 - First time Rovio directly linked to partner information from the game.



Office of Communications

Big Bang Theory

- Major NASA-related story line kicked off Season 6 premiere
 - Leads Thursday night programming with more than 17 million viewers
- NASA Astronaut Mike Massimino featured in two episodes
 - Buzz Aldrin was featured in one episode
- Communications staff worked closely with producers on scripts and sets



Office of Communications

NASA.gov

- Selected as among the 50 best websites in 2012 by Time Magazine
 - Ranks highest among user satisfaction than many commercial sites, such as Amazon.com and CNN.com
 - In 2012, honored Webby Award for best in government for the fourth consecutive year
- Launched an “idea scale” as a way to get the public involved in redesign effort

50 Best Websites 2012

TIME's annual salute to sites and services that keep you entertained and informed, save you time and money — and maybe even change your life

Like 9 Tweet 3 +1 271 Share

News and Information

NASA.gov

By Harry McCracken | Sept. 18, 2012 | 0

23 of 52
VIEW ALL

The screenshot shows the NASA.gov homepage with a dark blue header. Navigation tabs include HOME, NEWS, MISSIONS, MULTIMEDIA, CONNECT, and ABOUT NASA. Below the header is a search bar and a 'For Public' section. The main content area features a large article titled 'Expedition 32 Lands in Kazakhstan' with a photo of astronaut Joe Acaba. To the right of the article is a grid of category icons including 'STATION & SHUTTLE', 'SOLAR SYSTEM', 'BEYOND EARTH', 'COMMERCIAL SPACE', 'UNIVERSE', 'EARTH', 'AERONAUTICS', 'TECHNOLOGY', 'NASA IN YOUR LIFE', and 'HISTORY AND PEOPLE'. At the bottom, there are sections for 'NASA Images', 'NASA Multimedia', and a 'Twitter' widget.

It's perfectly fine to go to NASA.gov simply to watch Curiosity videos. They're exhilarating and educational. But they're also only one attraction on a site that's full of good stuff. There's textual material, photos and videos on decades' worth of missions and upcoming projects as well as a special section for kids. If you're a space buff, it's heaven; if you're not, you might become one.

The screenshot shows the NASA.gov Forum page. At the top, there's a 'Skip to content' link and a search bar. Below the header, there are social media icons for Facebook, Google+, and Twitter. The main heading is 'Welcome to the NASA.gov Forum'. The text explains that the forum is for providing feedback on the website's redesign. A 'Submit New Idea' button is visible. Below this, there's a 'Browse Popular Ideas' section with filters for 'Recent (60)', 'Popular (60)', 'Hot (54)', and 'My (0)'. Three ideas are listed:

- Give the public access to more raw data**: Feedback Score 76. Description: NASA already collects more data than it can interpret. Make more databases widely available to the public, and encourage app builders, programmers and students to build and share apps that make that data understandable. Centralize current data crowdsourcing projects. Develop, or encourage the development of, an open-source SDK for NASA data. Submitted by N.V. Binder 1 day ago.
- Countdown clock**: Feedback Score 55. Description: Often when I want to be sure not to miss an event on NASA TV I wish there was a clock on the website showing either current EST or a countdown to event. I'm on west coast and sometimes I get the time difference wrong. Submitted by Erika Acuna 1 day ago.
- LIVE FEED**: Feedback Score (not visible).

On the left side of the forum, there are sections for 'Campaigns' (All Ideas, Design, Social Media, Mobile, Functionality, Content, Off Topic) and 'Usage statistics' (60 ideas posted, 48 comments, 939 votes, 195 users).



Office of Communications

Third Rock Radio

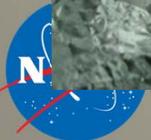
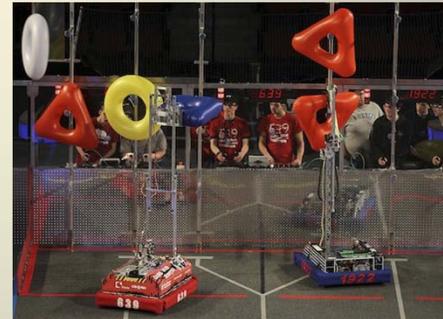
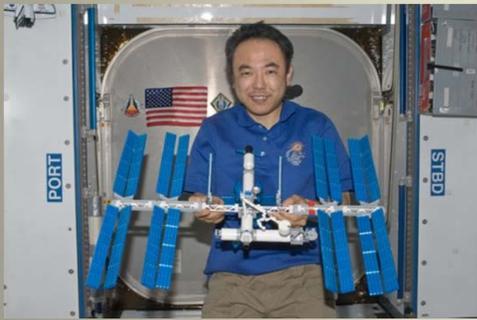
- Internet-based radio station that features NASA news and information
- Recent announcers included Expedition 32 astronaut Joe Acaba from the International Space Station and NASA “Mohawk Guy” Bobak Ferdowsi from the Mars Curiosity team
- Service is available on NASA.gov, NASA’s primary mobile applications, and was recently incorporated into Tune In’s mobile applications



Office of Communications

Participatory Engagement

- NASA creates a conversation with the general public through Social Media and other activities
 - The recognized government leader in Social Media
 - @NASA has 3+ million followers
- Students across the country are engaged in actively participating in NASA missions
 - 12,000 students participate in First Robotics, including entertainer wil.i.am
 - Lego collaboration results in space-based projects
- Service is available on NASA.gov, NASA's primary mobile applications, and was recently incorporated into Tune In's mobile applications



Office of Communications

Last Space Shuttles Retired

- Communications provided comprehensive coverage of space shuttle deliveries
 - Live NASA TV coverage, still imagery distribution, citizen journalist participation
 - Multiple NASA Social events
- NASA exhibits followed the final journeys of Endeavour and Atlantis
- Salute the past; look to the future
 - Communications exhibits and presentations focused on future NASA activities

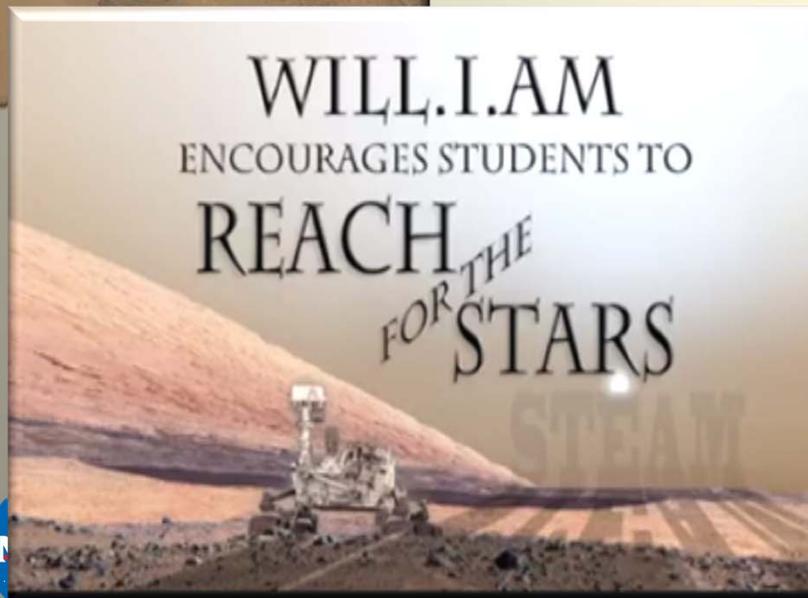


MSL: A New Era of Exploration and STEM Education Opportunities



Mars Science Laboratory represents a new era of exploration and STEM education opportunities.

Partnerships: Will.i.am of the Black Eyed Peas recently released a song entitled, “Reach for the Stars,” during an event at JPL for the event where we spoke to a group of local high school students about the importance of getting involved in STEM fields and how exciting it can be.



One Stop Shopping Initiative (OSSSI) for

NASA Internships, Fellowships, Scholarships

Year One Data: Application Pool
OSSSI Performance Period: 00/01/10 - 09/30/11

Application Type	Applicant Pool	Students Selected
Fellowship (Graduate Students)	1,303	296
Internship (Undergraduate Students)	7,193	889
Scholarship (Undergraduate Students)	435	120
Total	8,931	1,305



Summer of Innovation (Sol) FY 2011 Sol Summer Participant Distribution

the reach...

 Over 45,000 students

 Over 5,500 educators

 Camps and activities in 46 states, D.C. and Puerto Rico

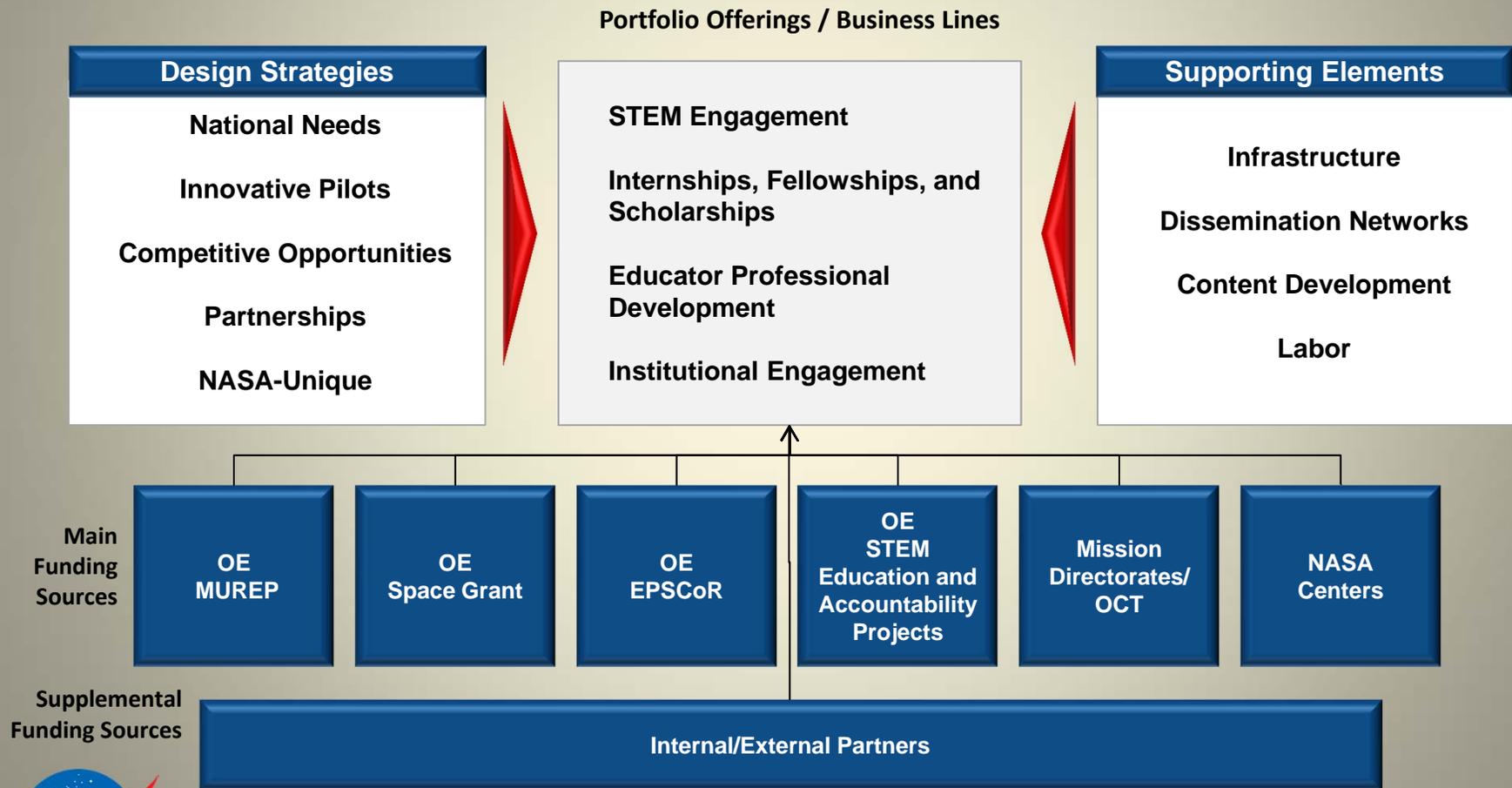


NASA Education is making significant changes to its portfolio to increase efficiencies and develop a more integrated approach.

FY 2013 will be a transition year.

FY 2014, the new NASA Education portfolio will be fully implemented.

Portfolio Development Architecture



Recommendation Status



Elevation of CCC

- Recommendation

- Building on the success of the ECC, the Communications Coordinating Committee (CCC) should be elevated to a Council, moving it from a coordination role to strategic and decisional function.

- Reason

- The ECC has been successful in bringing together Center education resources to coordinate their activities and present a higher profile, integrated presence to the public. A similar opportunity exists now for communications.

- Consequences of No Action

- Duplicative messaging to public, lack of message coordination, less “wood” behind more “arrows”, leading to public confusion.



EPO C of E

- Recommendation

- NASA should identify and/or develop “centers of excellence” for EPO activities to whom project teams can reach out when developing their EPO programs. These should include (but not be limited to): social media, web site design, app development, data visualization, and video production.

- Reason

- Lower costs, reduce duplication of effort, share best practices, move toward consistency in communication style and usability.

- Consequences of No Action

- NASA will overspend as it continues to “reinvent the wheel” as each project, mission develops its own online, mobile and social presence. These various implementations may “speak with different voices” and not be aligned with NASA’s overall strategic goals.



approach for planning and implementation of Education and Public Outreach activities. The August 18, 2012, release of NASA Procedural Requirement 7120.5E includes a new requirement for flight programs and projects to submit Communications and Education Plans.

One Message

- Recommendation

- NASA should develop one overarching message under which all NASA activities and programs (e.g. Aeronautics) can be integrated and presented to the public. All NASA websites, videos, apps, and social media should be consolidated and be organized thematically under this message and exposed via WWW.NASA.GOV.

- Reason

- The public is exposed to NASA activities through various channels and without a unifying conceptual framework, leading to confusion about NASA's identity and purpose. Some activities (ARMD) have little public awareness.

- Consequences of No Action

- Continuing public confusion about NASA's mission and direction, leading to eroding public support and marginalization of NASA's societal role.

NASA
CONCURS



November 26 Meeting

- Lars Perkins
- Steve Pearse
- Richard Garriott
- Matthew Chamberlin
- Michael Bostick
- Dwayne McKay
- Doug King

64 % ...



ACTIONABLE AT THE LEVEL OF THE ADMINISTRATOR



Up (Context)	Administrator (Define)	AA's (Implement)
<ul style="list-style-type: none"> • Ambitious and inspiring directorate goals • Goals must be realistic and durable • Goals must be funded 	<ul style="list-style-type: none"> • Define the “Why” Message 	<ul style="list-style-type: none"> • Consolidate web, social, video, apps
	<ul style="list-style-type: none"> • Create the unifying framework to communicate the “How” 	<ul style="list-style-type: none"> • Top down message integration
	<ul style="list-style-type: none"> • Ensure E/PO activities are funded 	<ul style="list-style-type: none"> • Advertise Education
<ul style="list-style-type: none"> • Clarify NASA’s role in national STEM initiatives 	<ul style="list-style-type: none"> • Ensure E/PO activities are integrated in directorate activities 	
<ul style="list-style-type: none"> • Acknowledge NASA’s strategic assets 	<ul style="list-style-type: none"> • Implement Organizational design to support 	





Where big ideas are born.

I NVENT.

- A cheaper way to fly ›
- The world's most powerful telescope ›
- A way to detect melting icecaps ›
- See more »

D ISCOVER.

- Other habitable planets ›
- The origin of our solar system ›
- The birth of the univers ›
- See more »

E XPLORE.

- Mars ›
- Venus ›
- Our nearest star-neighbors ›
- See more »

A DVANCE.

- Propulsion ›
- Supercomputing ›
- Aeronautics ›
- See more »

RESOURCES



VIDEOS



PHOTOS



JOBS

Download our apps



Fun fact: Kepler has discovered **2,321** planets!

Surprise me!





NASA Watch

This is not a NASA Website. You might learn something. It's YOUR space agency. Get involved. Take it to the next level. nasawatch@spaceref.com | Voice +1.703.787.6567 | [RSS Feed](#) | [Twitter](#) | [Advertising](#) | [Archives](#)

NASA Says It Cannot Advertise - and Then Buys Advertisements

By [Keith Cowing](#) on August 25, 2011 2:53 PM [No Comments](#)

[NASA GSFC Solicitation: Know Your Earth Message Displays](#)

"NASA/GSFC has a requirement for messaging displays to be posted in [Chicago](#) during the months of November and December, in support of the Know Your Earth 2.0, Chicago (KYE II) project. These include city wallscape, shopping mall kiosk displays, rail transit posters, and airport dioramas. NASA/GSFC intends to purchase the items from Clear Channel Outdoor pursuant to FAR 13.106, for the acquisition of supplies or services determined to be reasonably available from only one source. The KYE II project is a joint venture between NASA's Earth-Observing Missions and Clear Channel Outdoor. Each NASA Earth-Observing Mission involved has written the KYE project into their Education/Public Outreach Implementation Plans."



Keith's note: I have lost count how many times people at NASA have told me that they cannot self-promote, advertise, lobby, or otherwise try to use standard marketing tools to inform the public of the things that they do. They always cite dire Congressional prohibitions against such activities. Then they go off and totally violate these prohibitions with advertising procurements such as this one. I am not certain that they actually know what it is they are allowed or not allowed to do and just throw this answer out when they do not want to do something.

- [Is NASA Advertising Allowed or Prohibited?](#), earlier post
- [Got Space?](#), earlier post

Categories: Commercialization

Tags: advertisements, billboard, Congress, PAO



So where does the EPO \$ Come from?

Science Mission Directorate Policy

Policy and Requirements for the Education and Public Outreach Programs of SMD Missions

SMD Policy Document SPD-18

Recommended by SMD Science Management Council, January 28, 2010
Approved by SMD Associate Administrator, Edward J. Weiler, January 28, 2010

Responsible SMD Official: SMD Lead for Education and Public Outreach

1. Overview

1.1 Principles

SMD requires that all missions have robust and substantial education and public outreach (E/PO) programs. These E/PO programs must be consistent with SMD's principles for mission E/PO:

- SMD missions must have an E/PO program that supports NASA's strategic goals and objectives for education and outreach, contributes to NASA's education portfolio, and is aligned with SMD's E/PO portfolio.

- SMD missions must have an E/PO program that is funded with at least 1% of the total prime mission cost excluding launch vehicle.
- SMD missions will designate an E/PO Lead who has the qualifications and experience necessary to successfully implement the mission's E/PO program.
 - SMD missions will partner with NASA and non-NASA organizations as appropriate in order to increase the quality and reach of the E/PO program.

1.2 Rationale for Mission E/PO Requirements

The SMD E/PO lead is required to report on the SMD E/PO portfolio and show that it aligns with the NASA Education portfolio. The Lead is responsible for reporting E/PO metrics for



1% for EPO

- Recommendation

- SMD's allocation of 1% of budget for EPO activities (or an appropriate percentage) should be implemented across other directorates.
- Proposed expenditures from this allocated amount will be reviewed and approved by the PI/PM and the AA for Education and/or Communications.

- Reason

- All NASA directorates have an interest and obligation to support NASA's education mission. These activities are not currently adequately funded or coordinated with NASA HQ.

- Consequences of No Action

- NASA's diverse activities will continue to be presented to the public in different ways, at different levels of intensity, in ways that are not always in alignment with the agency's strategic goals.



"All one can really leave one's children is what's inside their heads. Education...is the ultimate legacy."



A small inset image showing a portrait of a man in a suit, likely a historical figure, framed within a blue border. Above the portrait is a small circular logo with a stylized figure.

