WorldWide Telescope Ambassadors Program

Alyssa Goodman
Harvard University Professor of Astronomy, WGBH Scholar-in-Residence, Microsoft Academic Partner

Annie Valva
WGBH Interactive, Director of Research & Development

Pat Udomprasert
WWT Program Coordinator
WorldWide Telescope: a UIS from Microsoft Research
[UIS=Universe Information System]

Seamless Data/Literature Connections
Windows, Silverlight, API
Communities & Guided Tours

Created by Curtis Wong and Jonathan Fay at MSR; AG is “Academic Partner” on the WWT Project
“Why is one polar ice cap on Mars bigger than the other?”
– Clarke Middle School 6th Grader
WGBH

teachers’ domain

NOVA

1.5M visitors/month

450K registered users
WWT Ambassadors

Who?
Harvard/CfA and WGBH staff in collaboration with Microsoft Research & Volunteer Ambassador

What?
Future-leaning way to teach and learn STEM concepts

How?
Use new WWT platform to give experts and learners access to the Universe

Where?
Public spaces and schools in a variety of regions
Who?

Harvard/CfA and WGBH staff in collaboration with Microsoft Research & Volunteer Ambassadors

Here today

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Annie Valva
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Creator of WWT

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Advisors

Christine Borgman
Lead Author, NSF Cyberlearning Report (UCLA)

Roy Gould & Susan Sunbury
CfA Science Education Department

Megan Watzke
NASA Chandra Public Affairs Coordinator

Pilot Ambassadors

Michelle Bartley, Science Teacher
Clarke Middle School, Lexington, MA

Phil Rosenfield, Graduate Student
University of Washington

Steve Strom*
NOAO Retired Scientist

*Steve Strom is not listed in the original document.
What?
Future-leaning way to teach and learn STEM concepts

WWT Tours, including creation by Ambassadors & learners + hosting

Guided WWT Exploration activities created by program staff & Ambassadors/teachers
Clarke Middle School, Lexington, MA (WWT Ambassadors Pilot School)
Michelle Bartley interviews her 6th-grade science class about WWT
December 19, 2009
How?
Using new WWT platform to give experts and learners access to the Universe

WWT Ambassadors Program
Recruiting, Vetting, Coordination

- Community Presentations
- WWT Tours
- In-school programs

hosted/promoted by WGBH

data, literature, media

WWT
Ambassadors
Where?
Public spaces and schools in a variety of regions

Pilot ★ Boston Area
Phase I candidates ★ Tucson, AZ; Seattle, WA; Appalachia; Gainesville, FL; Fairbanks, AK

Phase II: US-wide; Phase III: International
Why?
Increase STEM literacy in US now. Demonstrate cyberlearning’s value to the “Cone of Experience”

“I never knew programs like this could even exist. It’s just amazing.”
–Clarke Middle School 6th grade student

More quotes from Clarke 6th Graders

“Learning about our Universe by actually seeing and exploring it makes it easier to contemplate and more fun.”

“You can explore the Universe yourself and you don’t always have to only learn from the teacher.”

“It gave me a better mental map of the universe.”

(And of the 72 surveys we’ve collected, 71 are positive toward WWT Ambassadors.)
Exemplars/Partners...

TIP on TOPS

- Scientists participate and assist in classroom presentations, family science nights, field trips, science clubs, careers days and act as content resources over the school year.
- Training at a school site is offered to scientists to bridge the worlds of science and K-12 education.
- Ongoing training and support is provided for the TOPS team, scientists and teachers.
- TOPS targets elementary school who have made a commitment to improving their science instruction and curriculum.
- TOPS has served over 50 elementary schools and over 3,000 students in six counties of Central California.

AAAS
Programs
Education
Senior Scientists and Engineers

MCPS Science Volunteer Project

In 2004, the AAAS Senior Scientists and Engineers (AAAS/SSE) decided to partner with the Montgomery County Public Schools (MCPS) to implement the MCPS Science Volunteer Project (MCPS SVP). AAAS and the SSE organization recognized that a successful project would benefit both MCPS and the scientists and engineers who participate. For volunteers, this initiative can:

- Provide great satisfaction in working with teachers and students to share knowledge gathered in university and professional life.
- Broaden content knowledge, e.g., as a physical scientist assists in life science activities, and a life scientist assists in physical science activities.
- Allow them to contribute to AAAS's national focus on science education through lessons learned and recommendations to similar organizations across the US interested in establishing K-8 science volunteer projects in their local school districts.

During the development of the MCPS SVP, it became clear that an essential element of a science volunteer project is "ownership" by a local organization that is strongly motivated to improve K-8 science education. It can be a needed representation for the science, math, and technology (SMT) Office of...
When?
Now...and we need your advice on NSF funding to make this happen.
WWT Ambassadors: Phased Approach

Pilot  ●  Boston Area

Phase I candidates  ●  Tucson, AZ; Seattle, WA; Appalachia; Gainesville, FL; Fairbanks, AK

Phase II: US-wide; Phase III: International
How best to work with NSF OCI, MPS/AST, EHR & CISE simultaneously?

Proposals/Phases

➢ RAPID/EAGER?
➢ Unsolicited?
➢ Cyberlearning?
➢ Other?

We are ready-to-go in 2010 on Phase I. Phase II possible in 2011-12.
The Matrix

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