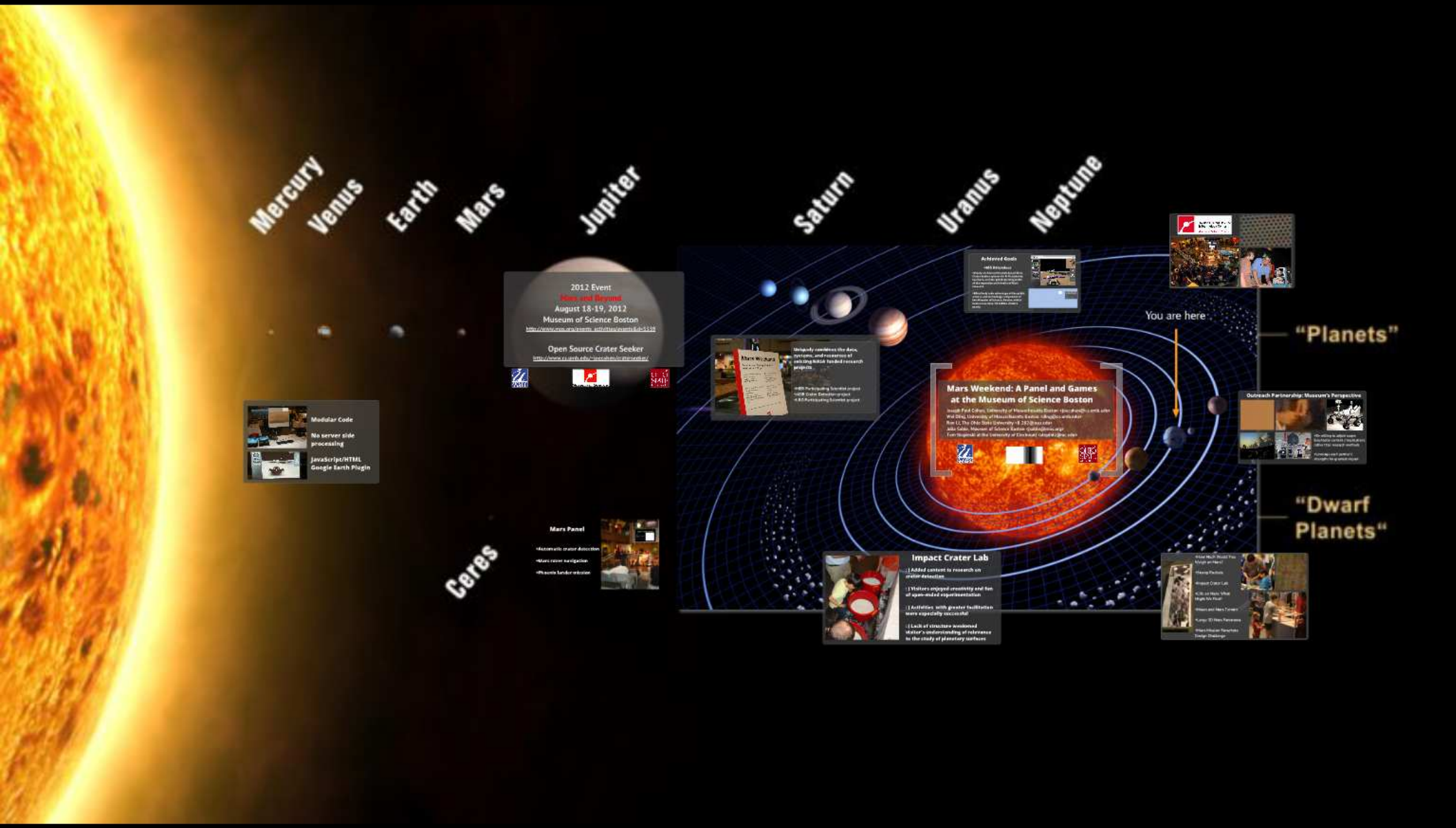
Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune
Ceres
2012 Event
August 18-19, 2012
Museum of Science Boston
Open Source Crater Seeker
Modular Code
No server side processing
JavaScript/HTML
Google Earth Plugin
Mars Panel
Mars Weekend: A Panel and Games at the Museum of Science Boston
You are here
"Planets"
"Dwarf Planets"
Impact Crater Lab
Outreach Partnership: Museum's Perspective

Mars Weekend: A Panel and Games at the Museum of Science Boston

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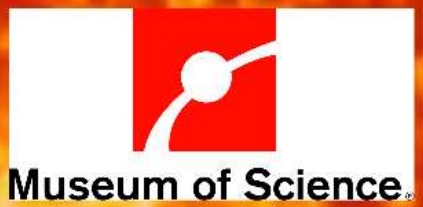
Ron Li, The Ohio State University <li.282@osu.edu>
Julia Sable, Museum of Science Boston <jsable@mos.org>
Tom Stepinski at the University of Cincinnati <stepintz@uc.edu>



Uniquely combines the data, systems, and resources of existing NASA funded research projects

+MER Participating Scientist project
+AISR Crater Detection project
+LRO Participating Scientist project

Achieved Goals

+955 Attendees

+Create an interactive web-based Mars Crater Seeker system for K-12 students, teachers, and the public by integration of the expertise and results of Mars research

+Effectively take advantage of the public science and technology component of the Museum of Science, Boston, which hosts more than 1.5 million visitors yearly

Outreach Partnership: Researchers' Perspective

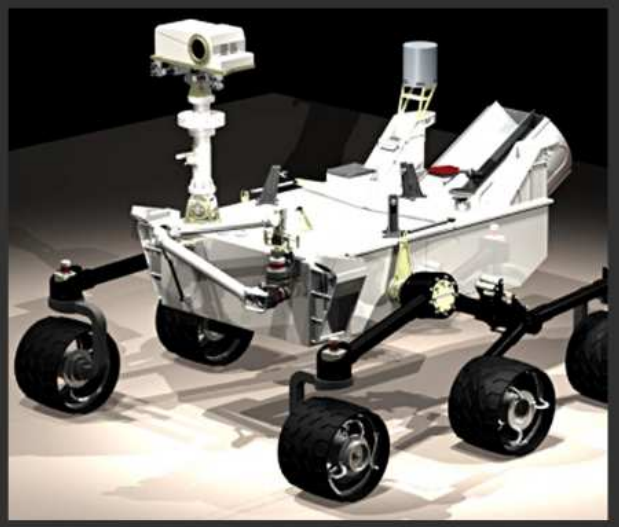
+A strong and experienced outreach partner

+Outreach continues after the museum event through an open-source game

Gordon Current Science & Technology Center

Museum of Science, Boston

Outreach Partnership: Museum's Perspective



+Be willing to adjust scope: Emphasize context / implications rather than research methods

+Leverage each partner's strengths for greatest impact

+How Much Would You Weigh on Mars?

+Stomp Rockets

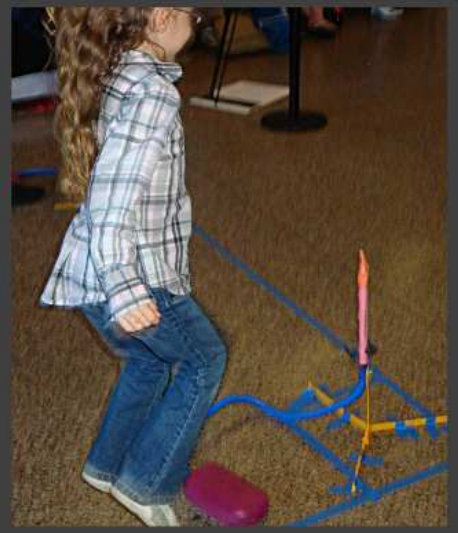
+Impact Crater Lab

+Life on Mars: What Might We Find?

+Moon and Mars Terrain

+Large 3D Mars Panorama

+Mars Mission Parachute Design Challenge



Impact Crater Lab

:) Added context to research on crater detection

:) Visitors enjoyed creativity and fun of open-ended experimentation

:) Activities with greater facilitation were especially successful

: (Lack of structure weakened visitor's understanding of relevance to the study of planetary surfaces

Mars Panel

+Automatic crater detection

+Mars rover navigation

+Phoenix lander mission

Plan for Crater Seeker

Web Based

MER-B data from The Ohio State University

Real tools used for crater ingress such as slope maps and point of view imagery

Use HiRISE and MRO orbital imagery

Real restrictions such as 25 degree tilt limit

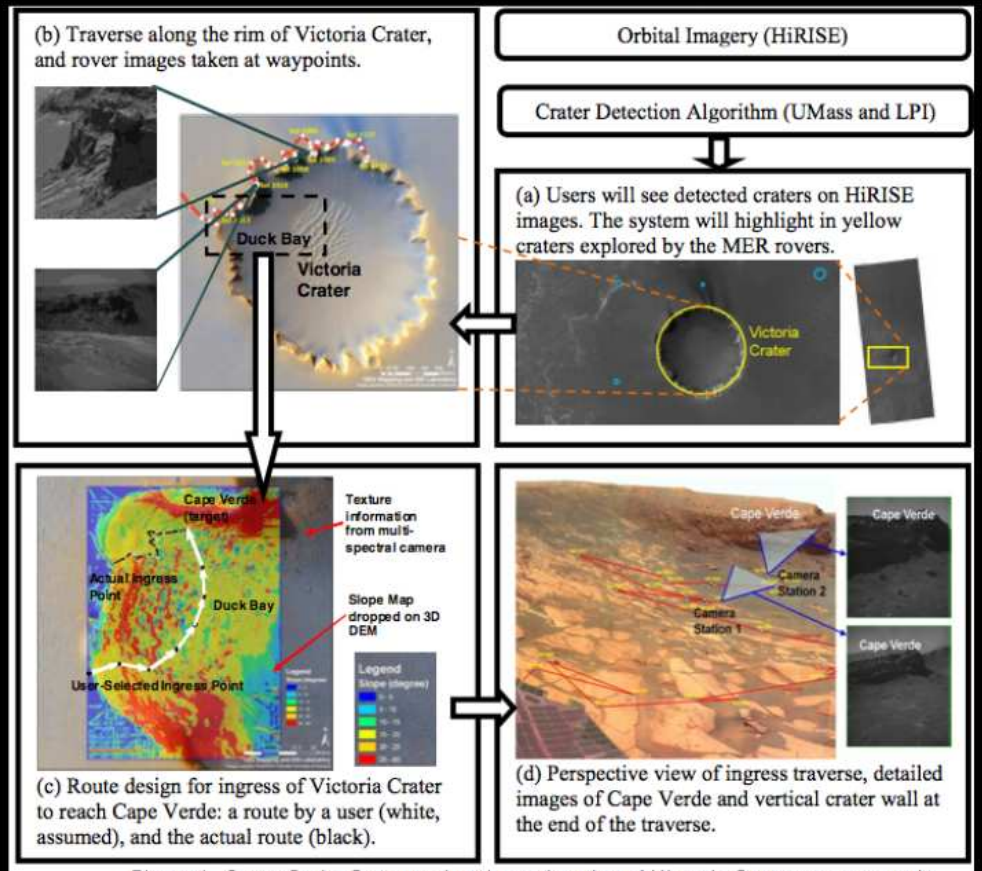
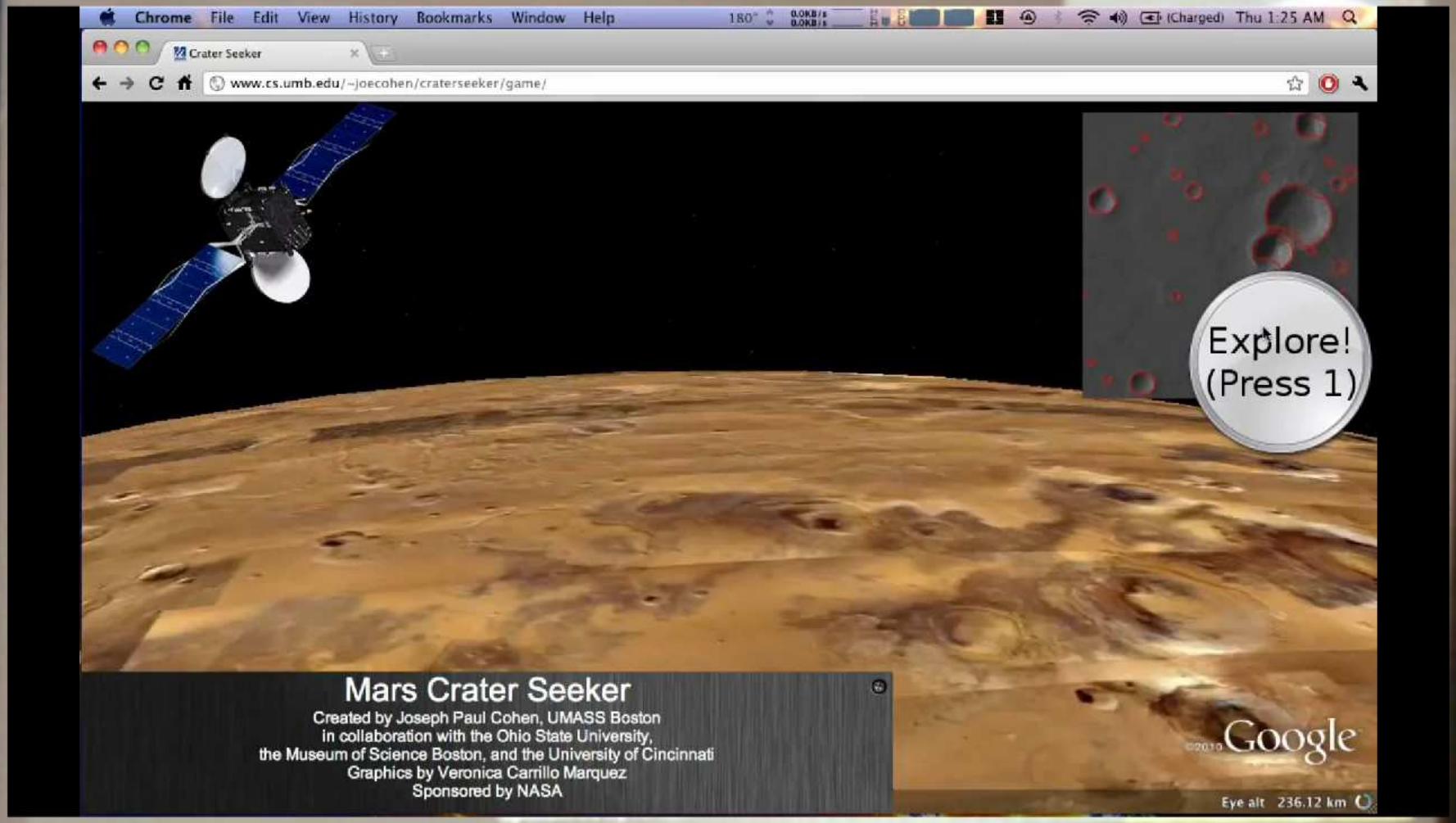


Figure 1. *Crater Seeker* System using the exploration of Victoria Crater as an example.

Modular Code

No server side processing

JavaScript/HTML Google Earth Plugin


Chrome File Edit View History Bookmarks Window Help
(Charged) Thu 1:25 AM
Crater Seeker
www.cs.umb.edu/~joecohen/craterseeker/game/
Explore!
(Press 1)
Mars Crater Seeker
Created by Joseph Paul Cohen, UMASS Boston
in collaboration with the Ohio State University,
the Museum of Science Boston, and the University of Cincinnati
Graphics by Veronica Carrillo Marquez
Sponsored by NASA
Google
Eye alt 236.12 km

Derivative Work

2012 Event

Mars and Beyond

August 18-19, 2012

Museum of Science Boston

http://www.mos.org/events_activities/events&d=5339

Open Source Crater Seeker

http://www.cs.umb.edu/~joecohen/craterseeker/

UMASS BOSTON

Museum of Science

THE OHIO STATE UNIVERSITY

Mars Weekend: A Panel and Games at the Museum of Science Boston

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