

The WorldWide Telescope

Alyssa A. Goodman

Professor of Astronomy

Harvard University

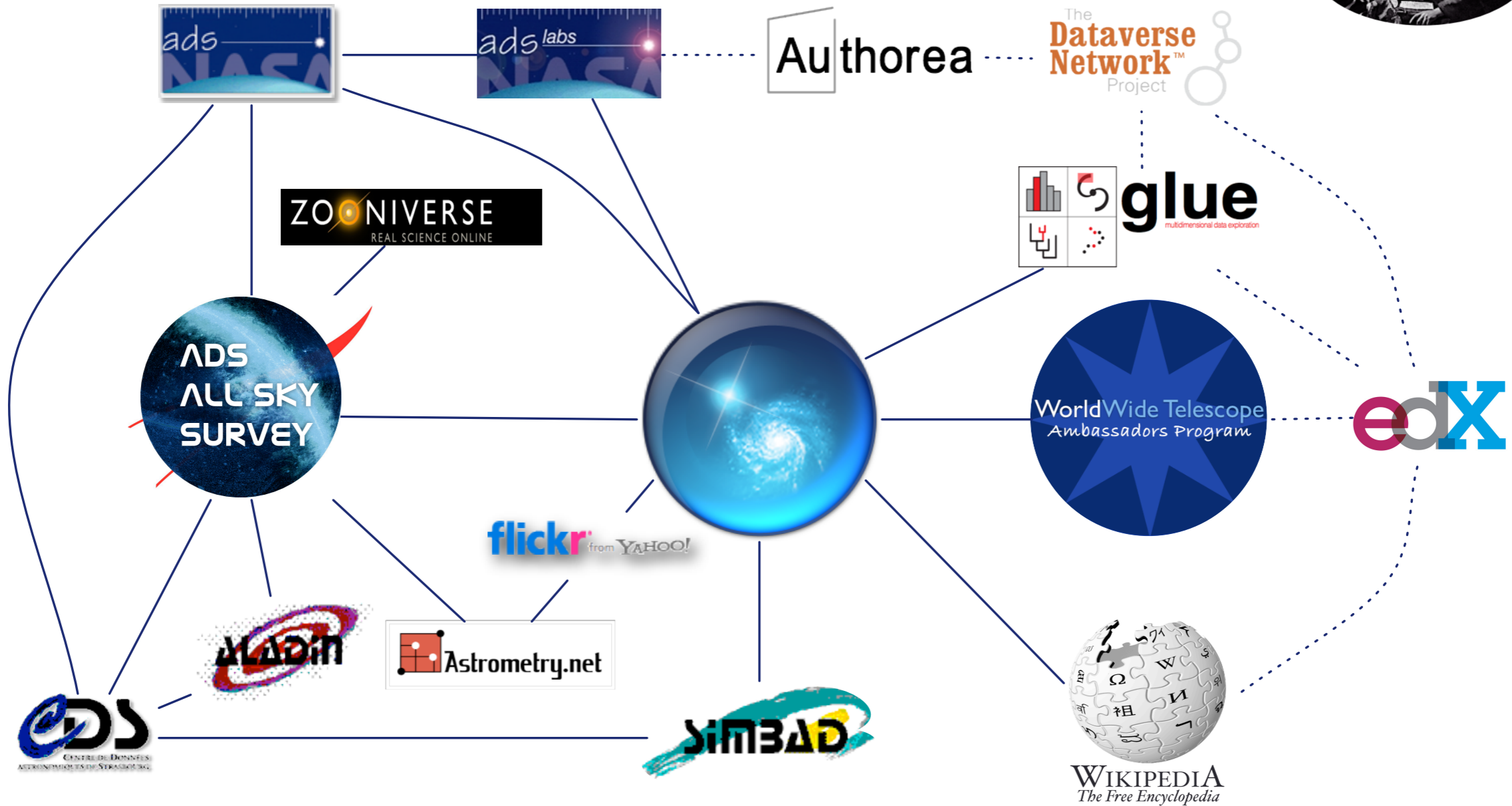


*with many thanks to Curtis Wong & Jonathan Fay, who create the WWT software at ^{Microsoft} **Research** and to Pat Udomprasert & Sarah Block at the CfA for their help running the WWT Ambassadors program*



SEAMLESS ASTRONOMY

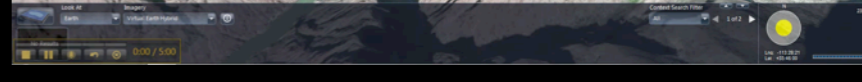
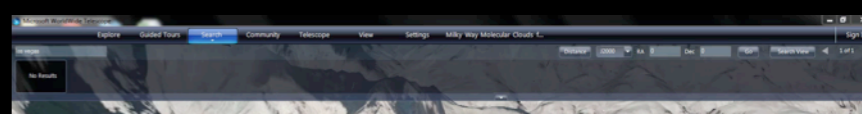
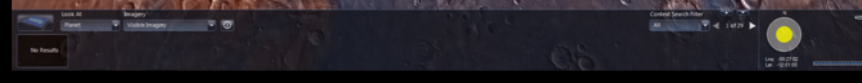
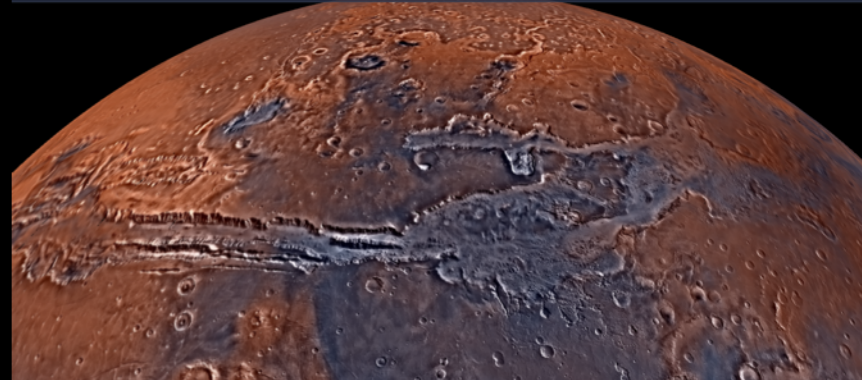
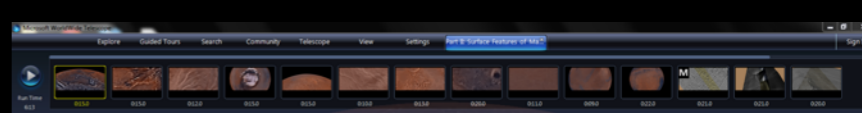
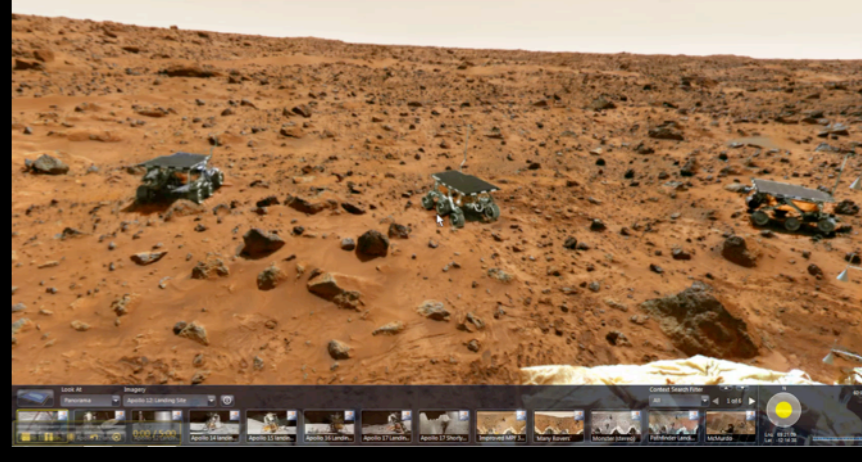
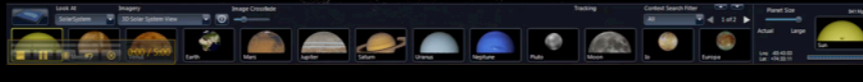
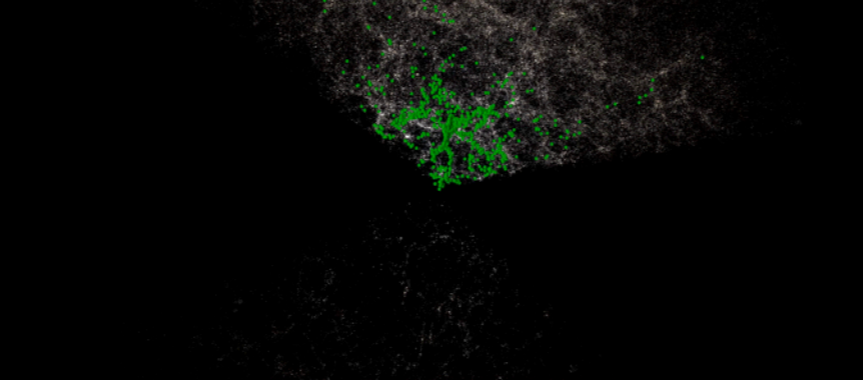
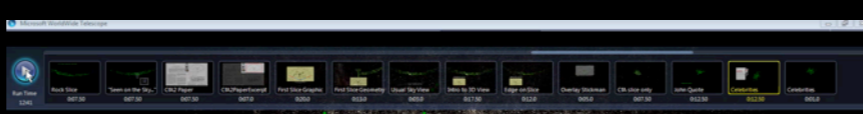
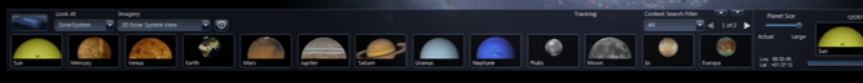
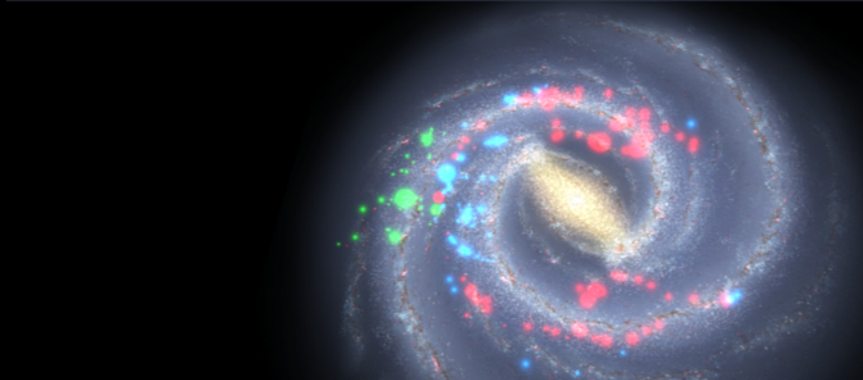
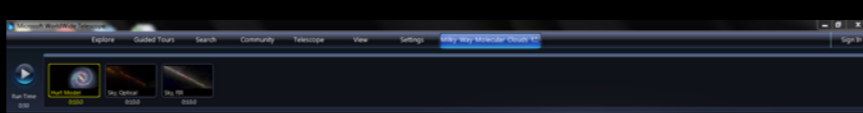
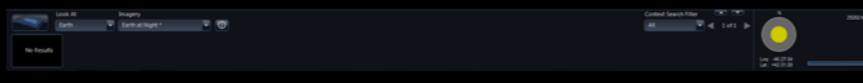
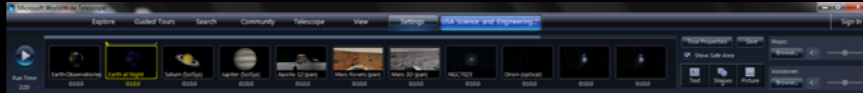
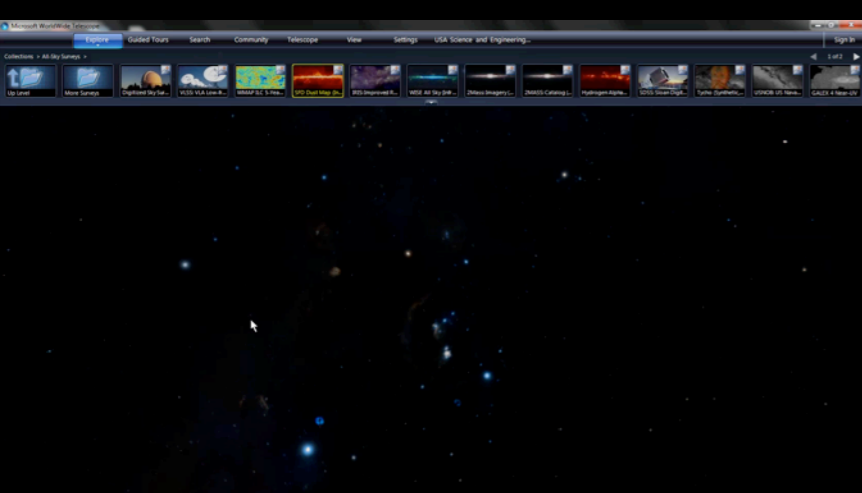
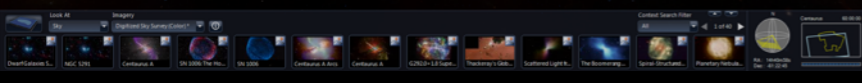
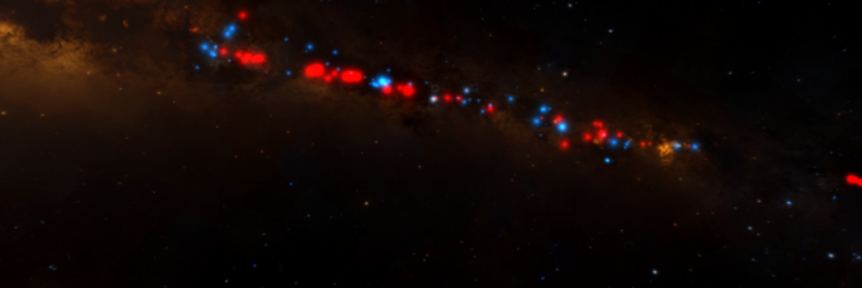
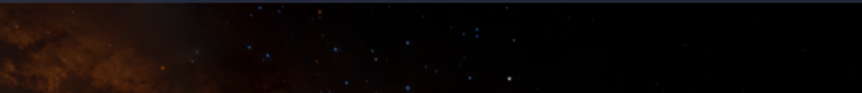
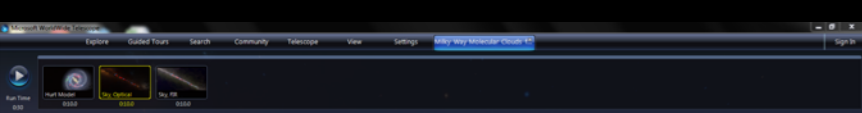
Linking scientific data, publications, and communities



<https://www.cfa.harvard.edu/~agoodman/seamless/>



Made possible by MANY collaborators, listed at projects.iq.harvard.edu/seamlessastronomy



Experience  at worldwidetelescope.org



WWT Ambassadors

WorldWide Telescope Ambassadors

Search this site: Search

HOME ABOUT LEARN WWT FIND TOURS EDUCATORS AMBASSADORS COMMUNITY GET WWT SUPPORT

Upcoming Events

- AAAS Family Science Days
Feb. 16 - Feb. 17
- Belmont 6th Grade Star Party
Feb. 28
- Cambridge Science Festival
Carnival
Apr. 13
- Clarke Middle School, Lexington,
MA
Apr. 22 - May. 31

About WWT

The WorldWide Telescope computer program (WWT) from Microsoft Research is a stunningly beautiful and freely available tool offering immersive views of the sky and multimedia links to interactive descriptions and explanations of millions of celestial objects.

WorldWide Telescope Ambassadors (WWTAs) use WWT to educate the public about Astronomy and Science. WWTAs is run by a team of astronomers and educators at Harvard University, in collaboration with the WWT team at Microsoft Research.

[Read more](#)

Download Tour

Experience Tour Online

Watch as Video

WWT at Harvard



WWT in Research

COMPLETE

POWERED BY THE **Dataverse Network** PROJECT

Glue Demo: World Wide Telescope

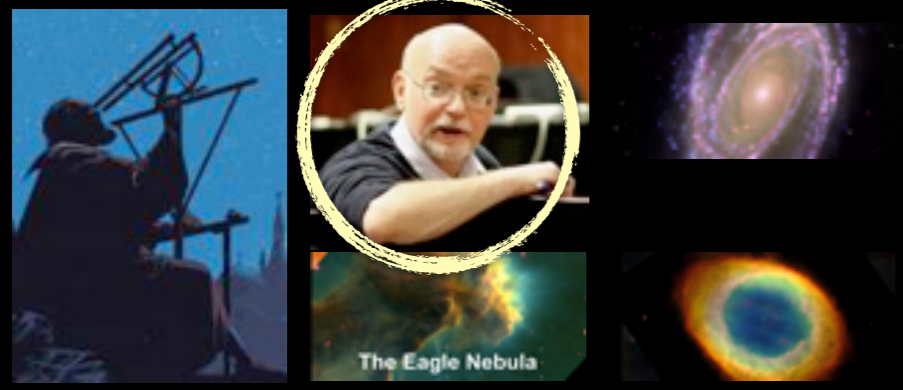
glue
multidimensional data exploration

ADS ALL SKY SURVEY

milkywaybones.org

Viz-e-lab

"Tours"



[Demo]

John Huchra's Universe

This WorldWide Telescope Tour was created to thank
John Huchra (1948-2010) for the knowledge and cheer he gave us all.

also available on YouTube (search "John Huchra's Universe")



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- Outreach Requirements
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- Samples
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- Explanatory Videos
- Live Presentations
- WWT Tours**
- Writing/Blogging

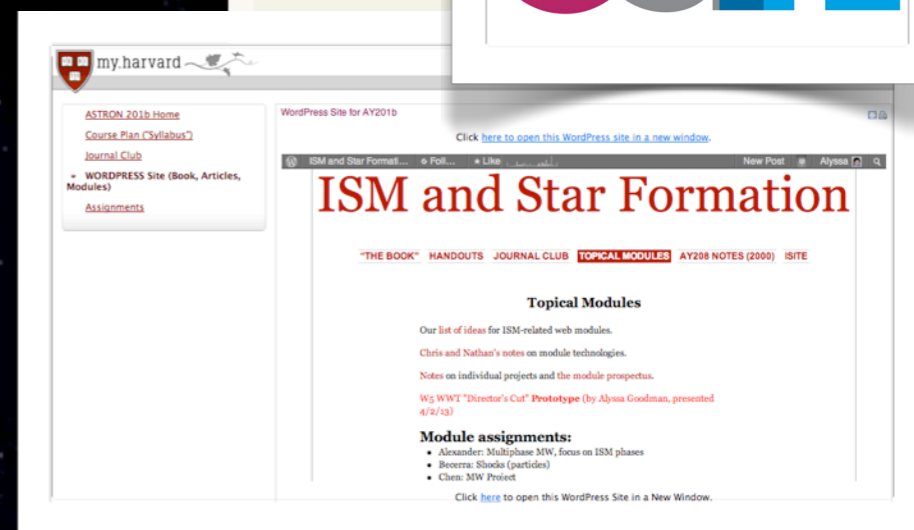
WWT Tours

Harvard Astronomy students can use the Microsoft Worldwide Telescope software to make interactive tours showing and narrating their thesis work. The tours can be played back using the WWT Windows desktop client, the HTML 5 client (using supported web browsers), and/or can be converted to a YouTube video for all users to see.

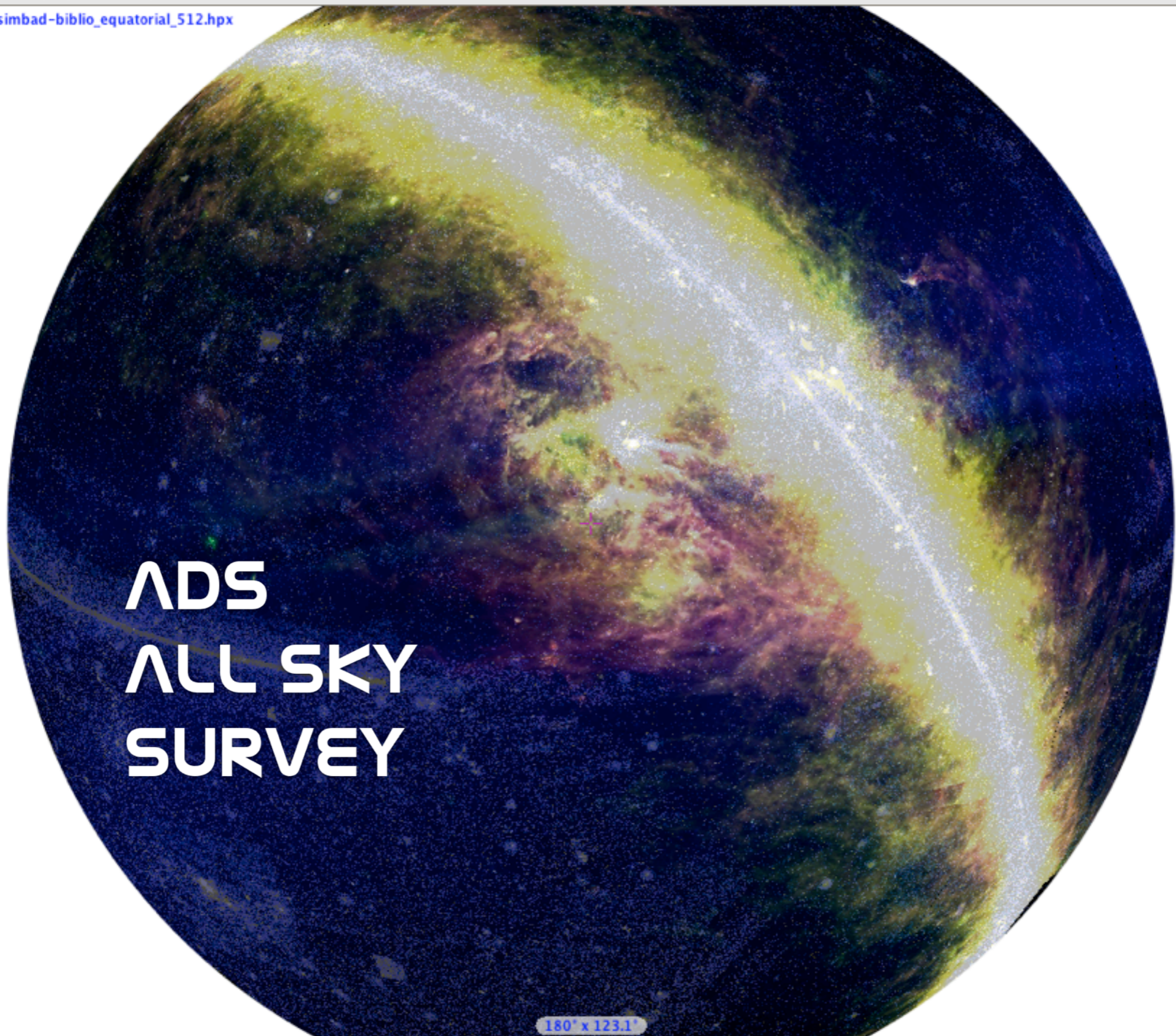
As an example, see the "Dust and Us" tour created by Alyssa Goodman:



[Printer-friendly version](#)



<http://astronomy.fas.harvard.edu/book/world-wide-telescope-tours>



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180° x 123.1°

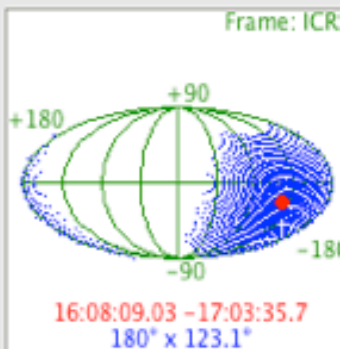
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IRAS-IRIS color

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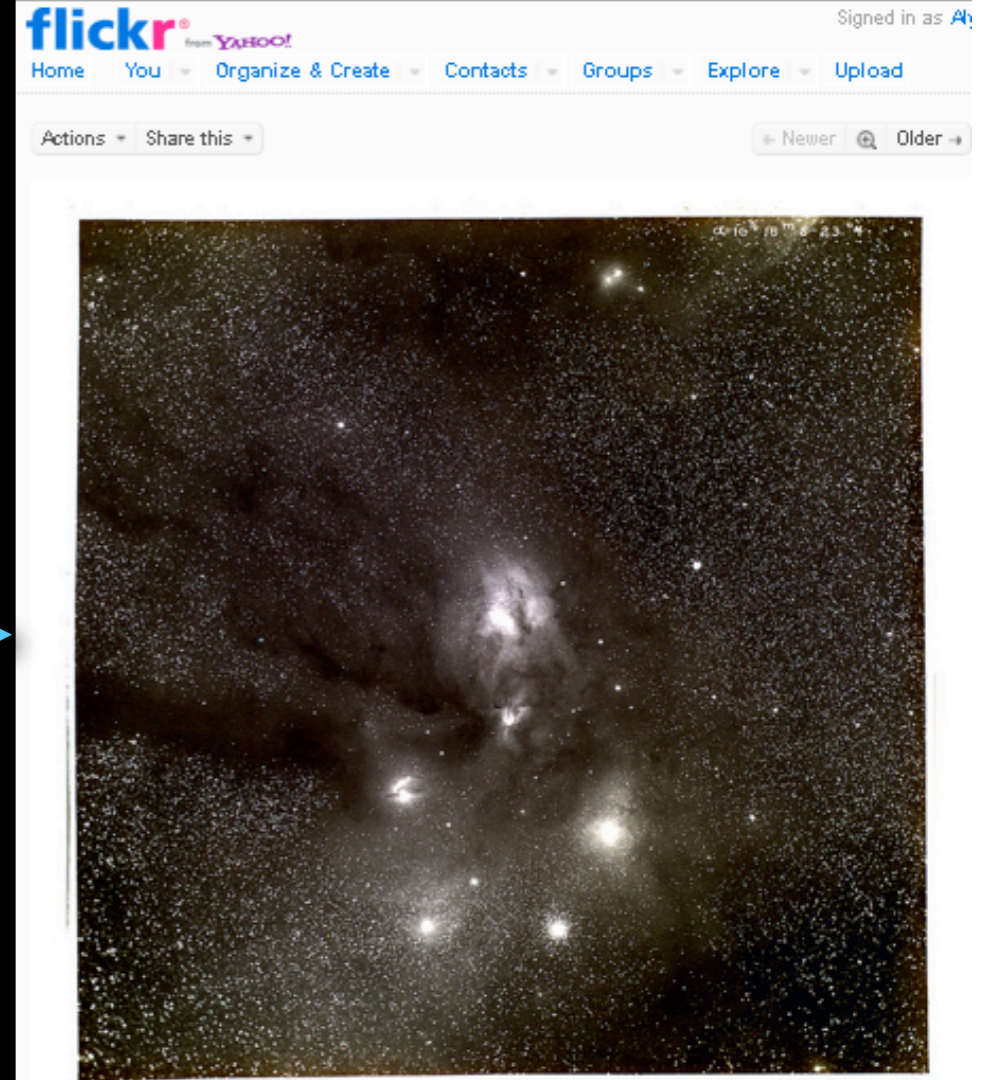
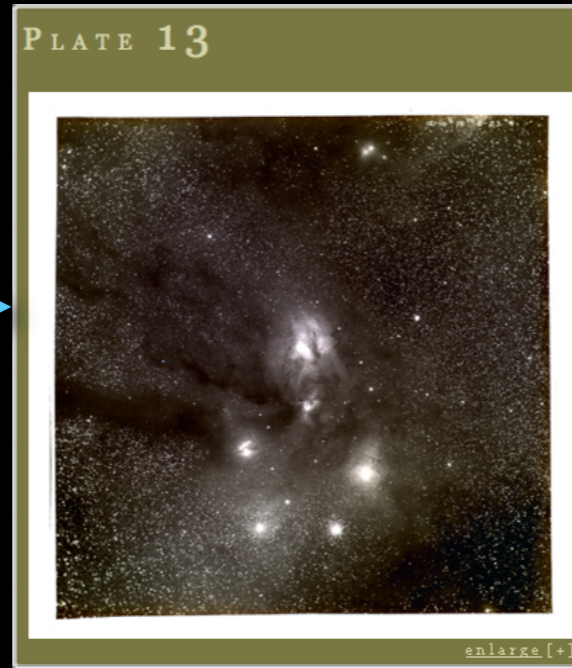
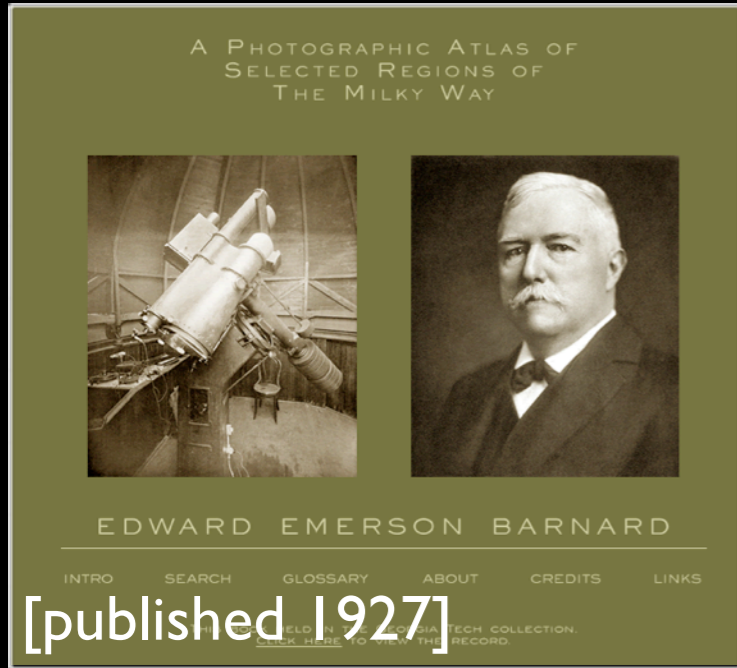
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om 1/16x



ADSASS: History on the Sky

astrometry.net + flickr + WWT



WorldWide Telescope Ambassadors



Upcoming Events

- Dallin Elementary School Math & Science Night
Mar. 28
- Cambridge Science Festival Carnival
Apr. 13
- Cambridge Explores the Universe
Apr. 20
- Clarke Middle School, Lexington, MA
Apr. 22 - May. 31

Explore WWT through hands-on demos at AAAS Family Science Days

Submitted by patudom on Feb. 15



WWT Ambassadors hosted a booth at the [AAAS Family Science Days](#) event in Boston. Many thanks to WWT Ambassadors Moha Azimlu, Zach Berta, Hope Chen, Ana Constantin, Chris Faesi, Jonathan Jackson, & Erin Lotridge for helping to make the WWT booth a great success!

This was a free event, open to the public.

Where: Hynes Convention Center, Boston

When: Saturday and Sunday, 2/16-2/17, 11am-5pm both days

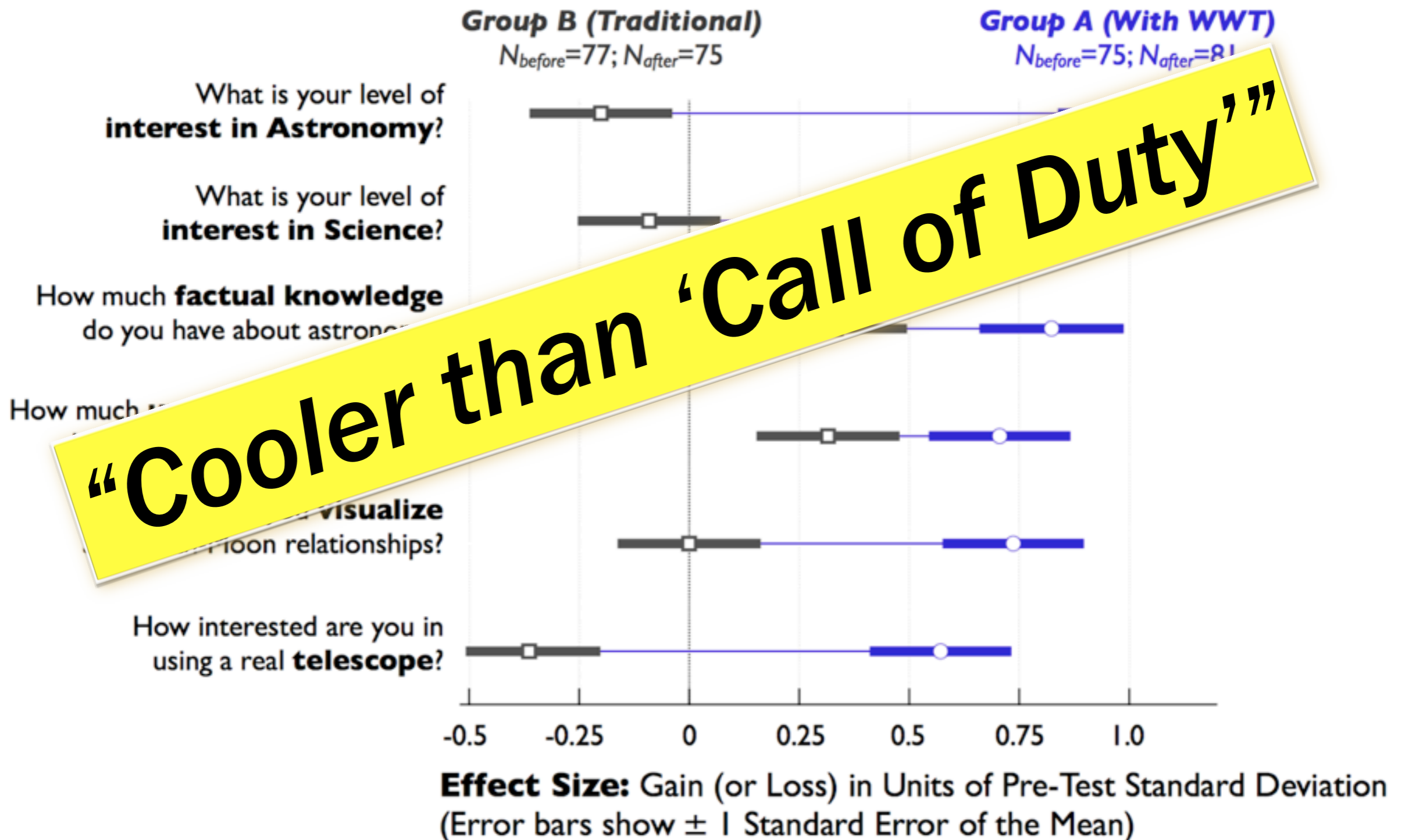
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Read more

wwtambassadors.org



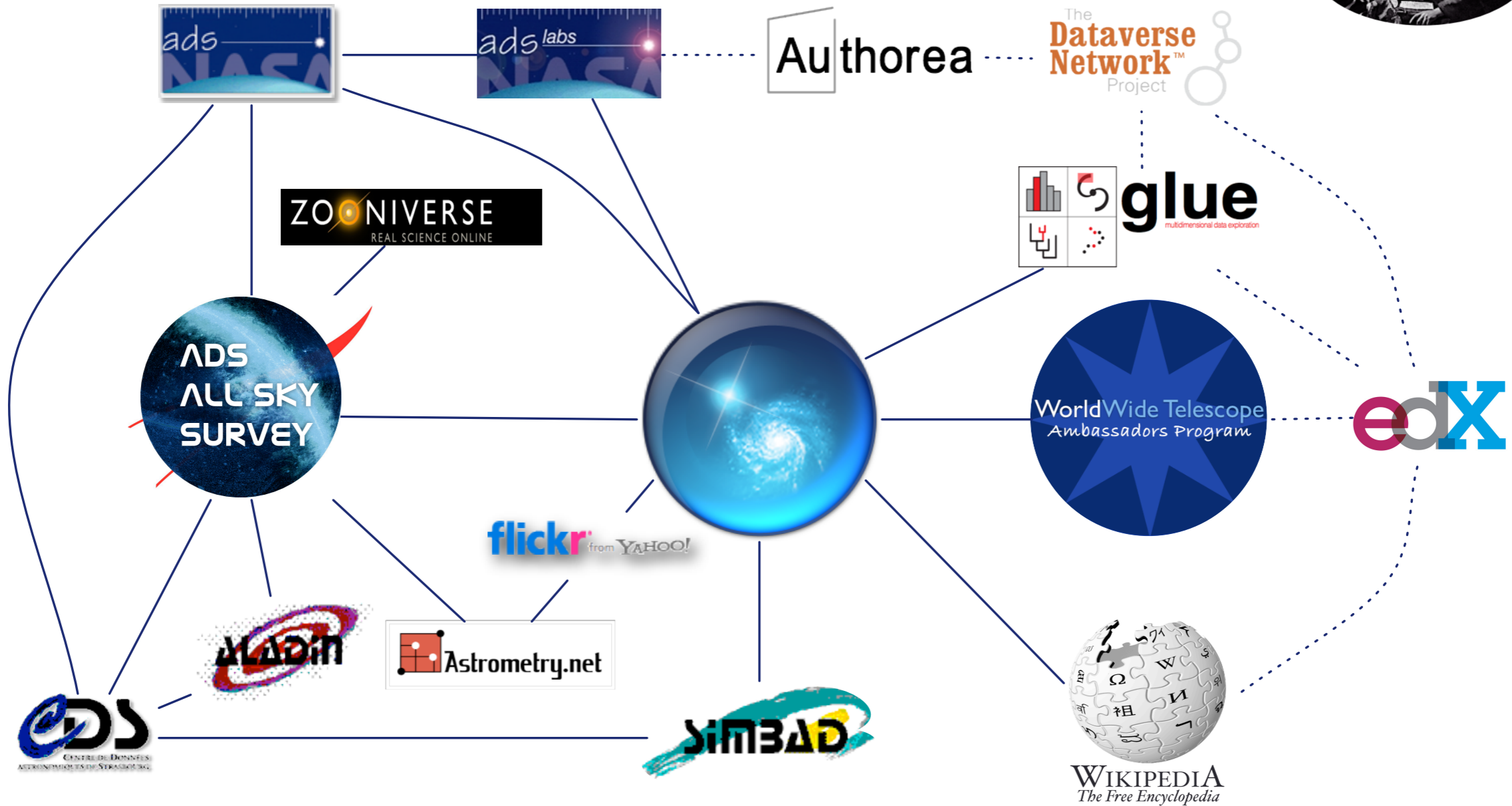
Gains in Student Interest and Understanding ("Traditional Way" vs "WWT Way")





SEAMLESS ASTRONOMY

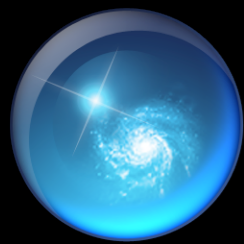
Linking scientific data, publications, and communities



<https://www.cfa.harvard.edu/~agoodman/seamless/>



Made possible by MANY collaborators, listed at projects.iq.harvard.edu/seamlessastronomy



Microsoft® Research WorldWide Telescope

Experience WWT at worldwidetelescope.org

The screenshot displays the WorldWide Telescope interface with several key components:

- Navigation Bar:** Includes 'Explore' (selected), 'Guided Tours', 'Search', 'View', and 'Settings'.
- Collections:** A row of thumbnails for 'All-Sky Surveys' including 'Digitized Sky Survey', 'VLSS: VLA Low-frequency Sky Survey', 'WMAP ILC 5-Year', 'SFD Dust Map (Infrared)', 'IRIS: Improved Resolution', '2MASS: Two Micron All Sky Survey', and 'Hydrogen Alpha Filter'.
- Main View:** A large 3D visualization of a spiral galaxy (NGC 224) with a central crosshair.
- Finder Scope:** A pop-up window for 'NGC224' showing its classification as a 'Spiral Galaxy in Andromeda' and providing coordinates: RA: 00h42m42s, Dec: 41:16:00, Alt: 70:06:26, Az: 275:42:17, and Magnitude: 00:35. It also includes a 'Research' button and a link to 'http://astro.berkeley.edu/~marc/dust/'.
- Context Bar:** Located at the bottom, it shows 'Look At' (Sky), 'Imagery' (Digitized Sky Survey), 'Image Credits', and a 'Context globe' showing the current field of view in the Andromeda constellation.
- Bottom Panel:** Features a 'Look At' dropdown, 'Imagery' thumbnails (Digitized Sky Survey, Three Faces of Andromeda), 'Image Credits', and a 'Context globe' with a yellow box indicating the current view.

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Finder Scope links to Wikipedia, publications, and data, so you can learn more

Context bar shows items of interest in current field of view

Context globe shows where you're looking.



Galileo Galilei

(1564-1642)

Sc. Principale.

Galileo Galilei, Familiare. Seruo della Ser. V. inuigilante
 et assiduo, et lo ogni spirito se bene no solo satisfar
 aluano che non della lettera di Madonata nelle sue
 Dio di Padova,

Inuere d'auere determinato di presentare al Sc. Principe
 l'occhio et il p. essere di giuamenti inestimabile se ogni
 negozio et in circa marittima o terrestre stimo di tenere que
 sto nuovo artificio nel maggior segreto et solam a disposizione
 di V. Ser. L. Galileo conato dalle piu uide speculazioni di
 prospectua in l'uantaggio di scoprire Legni et Vele dell' inimico
 et di uere et piu di tempo prima di esse sopra noi et distinguend
 il numero et la qualita de i Vasselli guidare le sue forze
 ballottarsi alla caccia et combattimento o alla fuga, o pure esser
 nella campagna aperta uedere et particolarly distinguere ogni suo
 posto et fortificamento.

Adi 7. di gennaio
 Giove si uede a 7. * uici: 10. 11.
 Adi 8. uici * * * * *
 4. * * * * * ora d'uy diretto et no retrogrado
 Adi 12. si uede in tale uisione * * * * *
 N. 13. si uede in uisione a Giove 4 stelle * * * * *
 Adi 14. è angelo * * * * *
 N. 15. * * * * * la pressi a 4. ora in uici la 4. ora di =
 stante dalla 3. a gruppo terra * * * * *
 Lo spazio delle 3. uide non om
 maggiore del diametro di 7. et e
 uici in linea retta.

7	* * ○ *	17	* ○
8	○ * * *	18	* ○
10	* * ○	19	* ○ * *
11	* * ○	19	* ○ * *
12	* ○ *	20	○ * ○ ○
13	* ○ * *	21	... ○ *
15	○ * * *	22	* ○ * *
15	○ * * *	22	* ○ * *
16	○ * *	23	* ○ * *
16	○ * *	23	* ○ * *
17	* ○ *	24	* ○ *
17	* ○ *	24	* ○ *

SIDERIUS NUNCIUS

On the third, at the seventh hour, the stars were arranged in this
 quence. The eastern one was 1 minute, 30 seconds from Jupiter
 the closest western one 2 minutes; and the other western one wa

East * ○ * West

0 minutes removed from this one. They were absolutely on the
 same straight line and of equal magnitude.

On the fourth, at the second hour, there were four stars around
 Jupiter, two to the east and two to the west, and arranged precisely

East * * ○ * * West

on a straight line, as in the adjoining figure. The easternmost wa
 distant 3 minutes from the next one, while this one was 40 second
 from Jupiter; Jupiter was 4 minutes from the nearest western one
 and this one 6 minutes from the westernmost one. Their magnitude
 were nearly equal; the one closest to Jupiter appeared a little smaller
 than the rest. But at the seventh hour the eastern stars were only
 30 seconds apart. Jupiter was 2 minutes from the nearer eastern

East ** ○ * * West

one, while he was 4 minutes from the next western one, and this
 one was 3 minutes from the westernmost one. They were all equal
 and extended on the same straight line along the ecliptic.

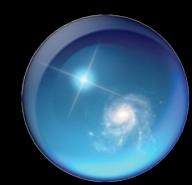
On the fifth, the sky was cloudy.

On the sixth, only two stars appeared flanking Jupiter, as is seen

East * ○ * West

in the adjoining figure. The eastern one was 2 minutes and the
 western one 3 minutes from Jupiter. They were on the same straight
 line with Jupiter and equal in magnitude.

On the seventh, two stars stood near Jupiter both to the east



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