

Does Being an Astronomy Ambassador Give You Astronomy Diplomatic Immunity? Summary of the AAS Astronomy Ambassadors Workshop

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Graduate Student / Postdoc Seminar



Why give public talks?

Stolen from Rachael Livermore's talk last semester:

- Lots of research is taxpayer-funded
- Scientific illiteracy is a real threat
- It reinforces your own knowledge about your field
- It's fun!

Rachael's great, very complementary slides:
http://www.as.utexas.edu/~jsilverman/gsp/livermore_public_talks.pdf

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Astronomy Ambassadors



AMERICAN ASTRONOMICAL SOCIETY



M.O.O.S.E. = Menu of Outreach Opportunities for Science Education

<http://aas.org/outreach/moose-menu-outreach-opportunities-science-education>

Contents

I. How to Be an AAS Astronomy Ambassador

- A. Outreach Training Programs at Other Scientific Organizations
- B. A Few Projects Already Being Done by Young Astronomers
- C. General Presentation Techniques for Outreach
- D. Miscellaneous Sites Useful for Outreach

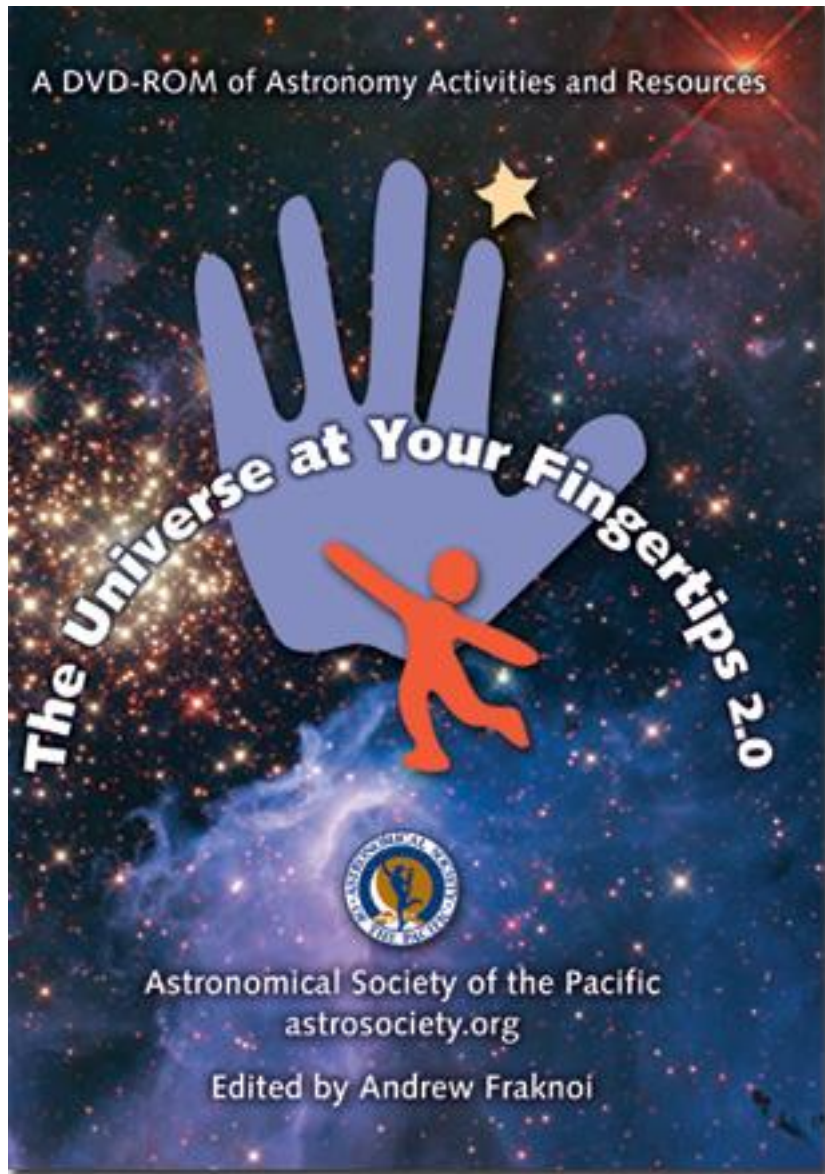
II. Where to Be an AAS Astronomy Ambassador

- A. Types of Places & Finding Aids for Each Type
- B. Education Pages at Astronomy Organizations
- C. Examples of Outreach Options at Specific Astronomy Departments

III. What to Do as an AAS Astronomy Ambassador

- A. Where to Find Good Astronomy Activities
- B. Sites Where Public Astronomy Questions Are Answered
- C. A Few Selected Sites for Finding Good Astronomical Images
- D. Some Key Resources to Read about Astronomy Education and Public Outreach
- E. How to Evaluate Educational Programs

The Universe at Your Fingertips 2.0



Instructions for 133 hands-on public outreach activities.

Lara Eakins has the DVD-ROM

I have all non-video contents on a flash drive.

I (Keaton) also have:

- Instructions for leading the AAS Astronomy Ambassadors Workshop activities, including:
 - Building a Common Vision (which we will *do* now)
 - Personal Learning
 - Concept Mapping (see handout)
 - Questioning Strategies
 - Talk to Your Neighbor
 - What's in a Word?
- Cosmic Decoders Card Game
 - Card deck with astronomical objects and values.



Building a Common Vision

- Pair up, each with a differently numbered folder (1, 2)
- Concept: you will try to communicate contents completely foreign to a learner.
- Consider:
 - How do people learn?
 - What are effective communication strategies?
 - How to tackle your “expert blind spot.”

Building a Common Vision

- ROUND 1:
 - For five minutes, Person 1 (teacher) will try to instruct Person 2 (learner) to reproduce the drawing in their folder.
 - Rules:
 - The learner may not ask questions.
 - Neither can see the contents of anyone else's folders.
 - No hand gestures.

Building a Common Vision

- **ROUND 2:**
 - For five minutes, Person **2** (teacher) will try to instruct Person **1** (learner) to reproduce the drawing in their folder.
 - Rules:
 - The learner *may* ask questions.
 - Neither can see the contents of anyone else's folders.
 - No hand gestures.

Effective Communication Strategies

- Use known vocabulary
- Use analogies
- Compare and contrast to familiar objects
- Ask probing questions – no yes/no questions allowed
- Frame the “big picture,” set context as necessary
- Allow significant time for discussion (which I did not do).
- Use thoughtful sequencing
- Consider the appropriate level of detail

See back of supplied drawings for “Sample Concept Map”