

Draft roadmap for the OAE 2020–2024

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Shaw-IAU OAE Workshop, Paris, 19 December 2019

Ceci n'est pas une roadmap

10/2019	Telecon IAU-ADS to discuss future role of ADS in hosting education data base
12/2019	First Shaw-IAU Workshop "Astronomy for Education": building the OAE network
12/2019*	Messages seeking appointment of NAECs sent to NCAs
12/2019*	Open OAE positions advertised
12/2019*	Preliminary work w/existing HdA staff: contacting stakeholders, scouting NAEC candidates
T1/2020	Members for first steering committee named
1/2020	Call for hosting the 2nd Shaw-IAU Workshop "Astronomy for Education"
Q1/2020	OAE coordinator positions filled (may be later, since willing to wait for suitable candidates)
1/2020	Infrastructure talks (ADS, arXiv)
2020+	At least one White Book per Year finished/published
Q1/2020	Online seminars on Astronomy Education commence
2023	First external review of OAE in time for GA 2024
GA 2024	External review results presented at GA 2024
GA 2024	New steering committee appointed, for 3-year term

1st Shaw Prize-IAU Workshop "Astronomy for Education"

Now hiring!

- 5-year position, suitable for early-career researcher
- starting date from 3/2020 onwards
- should have PhD in AER, PER or related field
- will take lead in OAE Review planning, formulating standards/best practices
- astronomy education research component
- Job ad will be out by 1/2020

Please tell suitable candidates about this!

National Astronomy Education Coordinators

- OAE letter to National Committee for Astronomy (NCA), defining role/qualification/NAEC team concept
- How to define a nation? We're taking a cue from the OAO, e.g. Puerto Rico with a separate NAEC
- NAEC Team – different areas of expertise, NAEC Chair if needed, but always one “NAEC Rapporteur” as single point of contact to OAE
- Please tell us and/or your NCAs about suitable candidates!
(We will cc you in the call that goes out to the NCAs.)

Call 1: OAE Centres and OAE Nodes

- Early 2020
- Defines Roles of OAE Centres and OAE Nodes (rule of thumb: any commitment of resources beyond volunteer [NAEC] level is node, anything that could be a stand-alone OAE is a Center)
- Please disseminate the call widely!

Call 2: Shaw Prize – IAU Workshop 2020

- should be outside of Europe
- proposal should include suggested special topic
- local host should have funding for local accommodation of participants (travel funds covered by OAE)
- how to include regional education community?

Communication infrastructure: external

- Set up website
- Twitter ✓
- Facebook ✓
- YouTube on IAU channel
- IAU newsletter, Catalyst etc.

Communication infrastructure: internal

Need ways to:

- quickly bounce ideas off community
- solicit community proposal
- take quick polls
- find volunteers/collaborators for specific tasks

Infrastructure:

- Mailing list (“newsletters”, not general discussion)
- Community software – recommendations?

General model for getting work done

Example: OAE Review

1. Solicit proposals for scientific editor, choose editor
2. Solicit proposals for contributors, fix structure
3. Preparatory work by contributors remotely
4. One or two meetings at Haus der Astronomie (via Visiting Scientist program)

Intermediate documents (separate contribution) visible as “work in progress” on website?

Defining the structure of OAE Reviews

We take our cue from **systematic reviews** in medicine (Cochrane):

- Define the format and procedure of OAE reviews beforehand
- OAE reviews will have different (scientific) editors, need structure to ensure conformity/comparability
- *Not* conference-proceedings style – unified opus

OAE Reviews Topics I

1. How to evaluate resources and activities
2. Standards for teacher training
3. Accessibility and inclusion in astronomy education
4. Online formats for astronomy education
5. Remote observing
6. Astronomy education with authentic data (e.g. Archives)
7. Naked-eye astronomy
8. Collaborations Amateurs/Educators/IAU Astronomers
9. Daytime astronomy
10. Cosmology
11. planetary atmospheres (climate change)

OAE Reviews Topics II

12. Teaching methods (active learning etc.)
13. Science centers and planetariums
14. Astronomy across disciplines (includes critical thinking)
15. Evaluating workshops
16. Working with indigenous groups
17. International collaborations within education

Actions that depend on specific OAE Reviews

- Teacher training standards → Call for hosting Schools for Astronomy Education (SAEs)
- Education overview → Needs for resource development

Astronomy education in different countries

- Start with existing literature (e.g. OECD study)
- Circulate (free-text) questionnaire draft in community
- NAECs consult with community, fill questionnaire
- In light of answers, “second round”
- OAE Review consists of: general summary plus original answers to questionnaire

Collaborations (existing or new)

- ADS negotiations → upon completion, begin filling the data base
- contact arXiv for astro-ph.edu
- Big Ideas (plus related material)
- multi-language astronomy glossary
- where could OAE fit into your own resource development plans?

Resource example: **Basic Astrobiology Videos**

[idea with Muriel Gargaud]

- create scripts for videos on the basics of astrobiology
- combine external funding for project with OAE funding for visiting scientists program
- preparation first: write scripts, expert vetting
- one week of discussion plus filming at Haus der Astronomie
- hire professional editor for editing
- invite contributors from different countries to film different language versions

Getting started with best-practice resources

- Define reviewing scheme – how do we take into account country diversity?
- Solicit proposals from community
- Review process



From Planck to Euclid 24-28 June 2019

The Beginning!