ArcGIS Online Use Strategies for Instruction

ArcGIS Online allows easy mapping, analysis, and sharing, via browser, on any connected device. Each username is tied to a specific account type. Educators need to decide how best to engage the technology for their situation. This doc describes characteristics of different ArcGIS Online account types usable in instruction.

#	Acct type	Description	"Advantages"	"Limitations"	Note
1	None (aka 'anonymous')	Not signed in. Go to www.arcgis.com or any Org account offering anonymous access (for instance https://k12.maps.arcgis.com/)	 Free to anyone Access to publicly shared maps/apps, galleries, layers, links, hubs, groups, and group contents Anyone can access from any connected device without login/password 	 Users can view & interact but not save changes, which limits capacity to share (links, screenshots) Access only to "public" content Limited access to groups (public only) Limited uploadable file types 	Education users outside the Org
2	" <u>Public</u> "	Individual signs in to his/her own individual "public" account, at www.arcgis.com ; licensed for personal noncommercial use	 Free to any adult for personal use Save and share custom maps and apps Individual privacy and control of sharing Use/Save/Share "map notes": create new, or use CSV, KML, GPX, shape.zip Space: 2GB for storing content 	 Minors need a parent to set up account Limited geoprocessing available (e.g. limited qty of address geocoding, records in XY tables) Only share with "Public", create "Public" groups Limited integration with external tools Check "terms of use" for work 	sers can work in mult Org who don't log in
3	" <u>Public</u> " but shared login	Public account, where the same public login is used by multiple people (many educators have used this successfully for introductory purposes)	 Permitted for teaching by educational inst. Single login/password; easy for many to log in Easy setup, easy operation; students do not have to set up accounts or enter personal data Any logged in user can create folders and store custom content inside 	 Similar to above but with login set by educator Anyone signed in has full read/write access to all contents and profile elements (e.g. password). It is easy for anyone to modify anything change, move, rename, or delete whether by accident or intent. It can be hard to verify authorship. 	tiple modes, e.g. v
4	Organization (part of the ArcGIS School Bundle - free to schools for instruc- tional use)	Organization subscription Fee-based, with a bank of credits and renewal date 1-n members; account has a finite but changeable number of logins available Roles: Admins, Publishers, Users, custom; all Orgs include at least 1 Admin See https://esriurl.com/agoorgsforschools	 Each member has private, unique login (+password) (sharing not permitted) Org admins set up home page look & sharing Admins set up custom logins, control all users' privileges, limiting "opportunities for trouble" Publishers/Admins can share reusable feature services, tile maps, or geoprocessing services Powerful analysis options in MapViewer Login ties in to apps: Survey123, Dashboard, StoryMaps, etc, and premium apps in School Bundle: Community Analyst, ArcGIS Pro, etc 	 Minors need Org admin to set up account Org logins may not be shared like Public logins Authorizing many users is best via single sign-on (enterprise login); reusing "assigned logins" and "periodic maintenance" requires work by admin Members may not have total control of the extent to which they can search or share Admins need to monitor credit consumption and logins (#used/#available) The larger the Org, the more Admins and the more coordination is needed 	can work in multiple modes, e.g. with publishers inside an Org and viewers who don't log in to use content, or who log in to a public account to save file.
5	"Developer"	See <u>developers.arcgis.com</u>	Free Org option for very limited use, 1 login only	Free account is for personal exploration only	view
	All	Info architecture options (metadata): people, items, tags, categories, groups, galleries, folders, profiles	 Content creators can easily (and should) create/edit/update metadata to help users Many methods to organize and search people, groups, content, metadata 	 No absolute best way to provide metadata for all types of users. No guarantee of metadata quality or availability for any given item, group, user 	iewers save files.

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Effective Strategies for Teaching

- 1. Teachers should set up their own individual <u>ArcGIS Online</u> public account ("Row 2" of Page 1) <u>and</u> individual developer account ("Row 5" of Page 1), to understand how to use the different powers and to have secure personal access to capacity that will survive changes in personal employment.
- 2. Educators getting started with ArcGIS Online should see the guidance at https://esriurl.com/gettingstartedforeducators, especially #1-10.
- 3. Develop comfort with ArcGIS Online first using no login ("Row 1" of Page 1) and then using a public account ("Rows 2+3" of Page 1). All skills developed here transfer into use of Organization accounts ("Rows 4+5" of Page 1). Users can do a lot without logging in. Take advantage of easy opportunities to practice, on multiple devices. See "ArcGIS Online SkillBuilder" for guidance and references in each login level.
- 4. Frequency of experience is key to success. Encourage using the tools in multiple classes, for various activities, to build and share techniques.
- 5. Personal connection matters. Encourage projects allowing students to develop data, maps, and stories about the community or subjects of interest.
- 6. Educators should understand the different strategies for teaching with GIS, from https://esriurl.com/GISinstructionaluse, the key T3G graphic.
- 7. Educators and students alike can learn much from the collections of resources available from https://k12.maps.arcgis.com/, #01-#08
- 8. Explore the value of GIS in careers. This helps students, educators, and communities see the opportunities available to those with capacity.
- 9. Learn about map design to get the most out of maps as tools for communication and analysis. GeoMentors can be very helpful here.

Strategies for Teaching with ArcGIS Online *Public* Accounts

- Use a shared public account (not your own personal) to have students use a shared login ("Row 3" of Page 1) with folders for non-secure personal storage. Depending on numbers of students, this could be done by school, by grade, by group, etc.
- 2. Any critical files in the shared account should be copied into the teacher's secure individual account, or built there and copied into the shared account. Have a safe and secure backup!
- Build skills with the <u>AGO SkillBuilder doc</u>. Learn to use and then to create different file types, especially tables. Using tables effectively is an essential skill for GIS. See this <u>blog+lesson</u> and this <u>blog+movie</u> to build basics.
- 4. Learn to add/create layers, compose maps & apps, even Story Maps, and to embed maps in web pages. Seek opportunities to use different capacities.

Strategies for Teaching with ArcGIS Online Organization Accounts

- 1. K12 Schools and clubs can <u>request an ArcGIS School Bundle</u> with ArcGIS Online Org ("Row 4" of Page 1) plus apps, premium apps, and more, for free for instruction.
- 2. Admins should learn about Orgs by studying the <u>AGO Orgs for Schools</u> doc, watching some quick <u>videos</u>, and exploring the <u>Help doc</u> for ArcGIS Online.
- 3. Admins should look carefully at the ability to control sharing and <u>privileges</u>. Decide <u>security</u> needs, and who needs access to <u>credit-intensive operations</u> (geocoding, routing, reports, infographics, enrichment), and set up student and educator roles accordingly. <u>Roles</u> can be customized, given credit use limits, and changed easily. Create special "educator-plus" and "student-plus" roles for a few "big credit consumers."
- 4. Setting up many <u>invitations and logins</u> into an AGO Org is done most easily via a <u>single sign-on process</u>; <u>spreadsheet-based invitations</u> or assignments are also easy. Admins should work closely with the network administrator (or an outside <u>GeoMentor</u>) on this.
- 5. Every AGO Org website has a unique, changeable address in this form: "<abc>"should represent the school/club. When creating individual logins, Admins should set student logins as something like "<abc>.0123", keeping the prefix and appending a unique number, so "identity-free" logins can be created and assigned, eliminating use of personally identifiable information (PII), then reclaimed when a student's time at school is over.