Question 1: What legal considerations could arise under the Children’s Online Privacy Protection Act (COPPA) for a citizen science project that relies on data collected through a digital application by volunteers who could potentially be under the age of thirteen (13)?

Answer 1: The Children’s Online Privacy Protection Act (COPPA), 15 U.S.C. §§ 6501–6505, prohibits operators of a website or online service directed to children under thirteen (13) years of age from collecting or allowing third parties to collect personal information from children absent notice and other privacy protections.1 “Personal information” invoking COPPA protections may include the child’s name, parents, home or physical address, e-mail address, telephone number, Social Security number, or any other identifying information that permits the physical or online contacting of the child.2 Importantly, an operator may be deemed to collect information even if the submission of that information is optional or the application (app) is passively tracking the child online.3

Whether citizen science apps invoke COPPA’s protections depends in large part on the operator of the app and how the website or app is categorized under COPPA. A project operator should consider consulting with an attorney to understand how the Federal Trade Commission (FTC) might categorize the organization and its app service.

Depending on the operator of the app, child protection requirements and guidelines may or may not apply.

- **Nonprofit Organization:** If the app is operated by a nonprofit organization, COPPA likely does not apply in most circumstances.4 Generally, the FTC can pursue COPPA claims only against entities that fall within its jurisdiction under the FTC Act (15 U.S.C. §§ 41-58). The FTC Act applies only to corporations that are “organized to carry on business for [their] own profit or that of [their] members.”5 The FTC therefore usually refrains from
pursuing enforcement actions against nonprofit organizations unless the Commission: (i) believes the nonprofit is using charitable assets for the personal benefit of its officers, directors, employees, or other insiders; (ii) believes the organization’s business primarily benefits private pecuniary interests (such as those of a for-profit fundraiser); or (iii) believes the nonprofit organization’s tax-exempt status is a sham. Consequently, if the operator of an app would be considered an exempt nonprofit under the FTC Act, it would also be exempt from the requirements under COPPA. Nevertheless, although nonprofits are generally exempt from COPPA, “the FTC encourages such entities to post privacy policies online and to provide COPPA’s protections to their child visitors.”

- **Federal Government Agency:** If the app or website is operated by a federal government agency, the agency likely does not fall under the nonprofit exemption discussed above and must comply with COPPA if it is collecting information concerning children. A federal agency operator of an app should refer to the Office of Management and Budget’s guidelines for agency compliance with COPPA. These guidelines include the requirement that agencies must obtain verified parental consent before collecting information from children under the age of thirteen (13).

- **Local Government/Public School:** Local governments, and schools that are managed as part of a local government, are not considered to be commercial operators subject to COPPA. However, “under the Family Educational Rights and Privacy Act (FERPA), educational agencies and institutions have specific obligations to protect student privacy, including protecting personal information from children’s education records from further disclosure or uses without the written consent of the parent, unless permitted to do so under FERPA.”

- **Commercial/For-Profit Organization:** If the operator of the app does not fall under the nonprofit exemption and is not a federal or state agency, COPPA compliance will depend on how the FTC categorizes the app based on the type of service it offers. For commercial operators, there are four types of websites and online services that may be subject to COPPA regulations:

  1. A “website or online service [that] is directed to children under 13 and... collect[s] personal information from them;”
  2. A “website or online service [that] is directed to children under 13 and... let[s] others collect personal information from them;”
  3. A “website or online service [that] is directed to a general audience” but has “actual knowledge” that it “collect[s] personal information from children under 13;” and
  4. A website like an “ad network or plug-in” that has “actual knowledge” that it collects “personal information from users of a website or service directed to children under 13.”
A commercial operator of a citizen science app should consult with an attorney to understand how likely the FTC is to designate the app as a website or online service “directed to children.” The FTC states that this determination is fact-specific and should be made with full consideration of the factors involved. Criteria the FTC may look at to make this determination include the:

- subject matter, visual content, use of animated characters or child-oriented activities and incentives, music or other audio content, age of models, presence of child celebrities or celebrities who appeal to children, language or other characteristics of the Web site or online service, as well as whether advertising promoting or appearing on the Web site or online service is directed to children.

If the FTC’s assessment of these factors favors a designation that the app is “directed to children under 13,” but children are not the app’s “primary audience,” the operator may still satisfy COPPA by implementing a system in which users must provide their age before submitting information and children under thirteen (13) are prevented from submitting personal information absent notice and verified parental consent.
If an operator is aware that its partner organizations are marketing the app towards children, some of whom may be under the age of thirteen (13), the FTC may consider this “actual knowledge” that the service is collecting children’s personal information within the COPPA context. Although COPPA does not itself define “actual knowledge,” the FTC has considered proof that the operator collected information indicating that a user is under the age of thirteen (13) sufficient to constitute “actual knowledge” in past cases. For example, in a FTC enforcement action against Musical.ly, the FTC claimed that the defendant had “actual knowledge” that some of its users were under thirteen (13) as:

(1) Musical.ly provided parents guidance about their child’s use of the app;

(2) Musical.ly “received thousands of complaints from parents that their child under 13 years old had created a Musical.ly App account without their knowledge;”

(3) A third party publicly alleged in an interview with the cofounder of Musical.ly, Inc. that seven users whose accounts were among the most popular in terms of followers appeared to be children under thirteen (13); and, most importantly,

(4) The youth of the user base was easily apparent by perusing users’ profile pictures and in reviewing users’ profiles, many of which explicitly noted the child’s age, birthdate, or school.

Accordingly, an operator should consider implementing COPPA protections regardless of whether the operator determines, with the advice of an attorney, that the app is directed at children. Actual knowledge that you are collecting personal information directly from users of a child-directed website (e.g., you know that a link to your citizen science app is available on educational websites for young students) may be sufficient for the FTC to conclude that COPPA obligations apply.
Question 2: Would a policy requiring that an adult, guardian, or parent needs to be the account holder for a child wishing to collect data for a citizen science project by using an app satisfy COPPA requirements?

Answer 2: As discussed in the answer to Question 1, to answer this question, the operator should, with the advice of an attorney, determine whether it would be considered a federal or state government agency, nonprofit, or commercial entity under COPPA and assess whether its website or online service is directed to children. If the operator is subject to COPPA requirements as a federal government agency or for-profit organization, the use of an adult account holder may be useful for satisfying COPPA.

As previously mentioned, geolocational metadata, photographs, and email addresses for users of a citizen science app are considered “personal information” under COPPA.²³ Importantly, COPPA only covers personal information collected online from children and it does not cover information collected from adults that may pertain to children.²⁴ COPPA is thus not triggered by an adult uploading personal information about children, such as photos, on a general audience site or in the non-child directed portion of a mixed-audience website.²⁵ If the information from the child’s guardian is acquired in the course of obtaining parental consent or providing for parental access pursuant to COPPA, however, the FTC expects that operators will keep such information confidential.²⁶

Operators of websites or online services that are primarily directed to children must assume that the person uploading a photo is a child and they must design their systems to: (1) give notice and obtain prior parental consent; (2) remove any child images and metadata prior to posting; and/or (3) create a special area for posting by adults, if that is the intention.²⁷ Accordingly, even if your citizen science app is directed to children, restricting submission of personal information that may pertain to a child to an adult guardian account holder is permissible under COPPA.

Question 3: Does an exemption to COPPA exist if children participate in citizen science by collecting data using an app under the supervision of a teacher, and if so, does this exemption also apply to “informal educators”?

Answer 3: An educational institution can act as an agent for a parent by consenting on their behalf to the collection of data from a child within a limited educational context.²⁸ This consent is limited to the collection of student data “for the use and benefit of the school, and for no other commercial purposes;” the school must contract with the operator and the operator must provide the school with “full notice of its collection, use, and disclosure practices.”²⁹ Generally, this type of consent is granted by the school or school district rather than an individual teacher.³⁰ Examples of online educational services include homework help lines, individualized education modules, online research and organizational tools, and web-based testing services.³¹ It is unclear whether a citizen science app for student research/curricular activities would be considered as a service collecting data for the school’s own benefit.³²

In deciding whether to consent to the use of online technologies, a school should be careful to understand how the operator will collect, use, and disclose personal information from its students. The school should investigate the operator’s use of the students’ personal information prior to agreement and ask if possible:
• What types of personal information will the operator collect from students?

• How does the operator use this personal information?

• Does the operator use or share the information for commercial purposes not related to the provision of the online services requested by the school? For instance, does it use the students’ personal information in connection with online behavioral advertising, or building user profiles for commercial purposes not related to the provision of the online service? If so, the school cannot consent on behalf of the parent.

• Does the operator enable the school to review and have deleted the personal information collected from their students? If not, the school cannot consent on behalf of the parent.

• What measures does the operator take to protect the security, confidentiality, and integrity of the personal information that it collects?

• What are the operator’s data retention and deletion policies for children’s personal information?33

Educational institutions should also consider state privacy laws that may impact their ability to act as the parent’s agent in this context.

If the school is not able to act in lieu of the parent because the educational app is partly commercial or if the school is still concerned about potential liability, it may consider using an Acceptable Use Policy or similar document that is sent home to parents at the beginning of the school year.34 Such a document describes the types of online services a school intends to use, what types of information they may collect, and how the students’ information might be used. Within this policy, schools should provide a detailed list of exactly what websites/online services/apps students will be using, what the information practices are for each program, and an opportunity for the guardian to consent. The more detailed the policy, the more likely the document will be considered valid notification and consent under COPPA.

If you are a school teacher, you should be very careful about using online educational tools. First, you should determine whether the product requires children to register, provide personal information (this could even include an IP address), or share anything else online that may implicate privacy concerns. Second, you should determine whether the school or school district has an approved list of apps and websites for student use. If the app you wish to use is not on this list or not covered by an Acceptable Use Policy, you should discuss the use of such technology with your supervisor and the school’s legal counsel. If you are given permission to use the app, you must then notify and request consent from each student’s guardian prior to student use.

Due to the limitations of the educational consent exception, an “informal educator” would most likely not be able to act in lieu of a parent to provide verified consent under COPPA.
Question 4: How do other citizen science programs deal with the issues raised by an organization’s data-collection tool being marketed to children under the age of thirteen (13) by partner groups?

Answer 4: While others have suggested some approaches for a citizen science program to comply with COPPA, an operator should consult with an attorney to develop a policy, because the proper approach will vary depending upon the facts of each case.35

- Some projects refuse to let anyone under the age of thirteen (13) participate, unless a parent or guardian registers and allows their child to use their account.36

- Some projects require parents to fill out and sign consent forms, especially when the project requires an in-person training or organized activity. For school use in particular, the operator may require in its terms of service that the school or teacher is responsible for getting verifiable consent from parents. An operator may even stipulate that schools or teachers using its service are required to retain proof of that consent and produce it on demand.37

- Another example of a very strict compliance procedure would be to: (i) include a link to the privacy notice on every webpage and communication with the user; (ii) require users to identify their age as a part of their registration and (if under eighteen (18)) the name of a parent or guardian; (iii) prohibit anyone under thirteen (13) from registering without verified consent from a parent or guardian; and (iv) ensure that no personally identifying information is contained in any public reporting or data publication.38
If you have questions or concerns about COPPA, you can email the FTC at CoppaHotLine@ftc.gov. However, in order to determine the best approach to achieve COPPA compliance, the operator of a citizen science app should consult with an attorney.

To date, the FTC has only instigated COPPA compliance suits against commercial entities that profited from data collected from children.39 However, under COPPA, non-commercially operated websites and apps can still be subject to FTC enforcement under certain circumstances. In order to comply with COPPA, operators should consult with an attorney to understand how the FTC would likely categorize their operations and services. For example, a nonprofit is likely to be exempt from COPPA’s requirements, while a government agency should follow the specific COPPA guidelines as designated in the Office of Management and Budget’s memorandum.40 Commercial operators should seek an attorney’s advice to determine how the FTC would designate their app and what type of information it collects in order to ascertain the best method for complying with COPPA.

Note: Operators should continue to be alert to potential developments with regard to the application of COPPA to citizen science apps. Recently, the FTC sought comments on its implementation of COPPA, asking whether the regulations should broaden the definition of “personal information” to include biometric data and soliciting feedback on a potential expansion of the educational consent exception to verifiable parental consent.41

CSA and CSA’s Law & Policy Working Group cannot provide legal advice or any kind of advice, explanation, opinion, or recommendation about possible legal rights, remedies, defenses, options, selection of forms or strategies. This site is not intended to create an attorney-client relationship, and by using the linked form no attorney-client relationship will be created. Clinic students are not practicing attorneys. By answering questions, Clinic students are not providing legal advice, acting as your attorney, or serving as a substitute for the advice of an attorney. Their answers to submitted questions do not create an attorney-client relationship or a commitment to answer additional questions. Communications between you and the Clinic’s students are not protected by the attorney-client privilege or work product doctrine.

1 15 U.S.C. §§ 6501(1); 6502(a)(1).
2 Id. § 6501(8).
3 16 C.F.R. § 312.2.
7 See id.


12 The appropriate method of verifying consent depends on what the data is used for; the requirements are less strict if the agency is only collecting the information for internal use rather than if the data will be disclosed to the public or a third party. Id.

13 Lesley Fair, Testing, testing: A review session on COPPA and schools, FED. TRADE COMM’N (Jan. 23, 2015), https://www.ftc.gov/news-events/blogs/business-blog/2015/01/testing-testing-review-session-coppa-schools (“While we encourage all types of entities to respect children’s privacy, the FTC’s enforcement authority doesn’t extend to information collection by state governments or most nonprofits.”).

14 Id.

15 Step 1, Children’s Online Privacy Protection Rule: A Six-Step Compliance Plan for Your Business, FED. TRADE COMM’N, https://www.ftc.gov/tips-advice/business-center/guidance/childrens-online-privacy-protection-rule-six-step-compliance#step1 (last updated June 2017). While this step-by-step guide to COPPA compliance does not specifically address nonprofits or federal agencies, it does provide a comprehensive and relevant review of the actions an entity must take to maintain COPPA compliance.


18 16 C.F.R. § 312.2.

19 See id. (defining exception to “[w]eb site or online service directed to children” language where the website or online service is not directed to children as its primary audience and it “(i) [d]oes not collect personal information from any visitor prior to collecting age information; and (ii) [p]revents the collection, use, or disclosure of personal information from visitors who identify themselves as under age 13 without first complying with the notice and parental consent provisions of this part.”).

20 See, e.g., Complaint, U.S. v. Yelp Inc., Civil Action No. 3:14-cv-04163, at ¶19 (N.D. Cal. Sept. 16, 2014), https://www.ftc.gov/system/files/documents/cases/140917yelpcmpt.pdf (asserting, “[b]ecause Defendant collected information from users who provided birthdates indicating that they were under 13, Yelp is deemed to have had ‘actual knowledge’ under the COPPA Rule that it was collecting information from several thousand children under 13, in violation of the COPPA Rule”).


22 See, e.g., Elizabeth Klemick, Mobile Apps for Citizen Science, SMITHSONIAN SCI. EDUC. CTR. (July 15, 2019), https://ssec.si.edu/stemvisions-blog/mobile-apps-citizen-science (“An abundance of mobile apps makes participation in citizen science projects easier than ever and allows data entry in the field. Here is a selection of apps that we found particularly useful for engaging students.”).


25 Id. at E.4.

26 Id. at A.10.
27 Id. at E.4.
28 Id. at M.1.
29 Id. at M.2.
30 Id. at M.3.
31 Id. at M.1.


35 For a blog post that highlights some specific projects and their strategies to comply with COPPA, see Lily Bui, Keeping the Kids Involved: A Look at COPPA and Citizen Science, SciSTARTER (Jan. 6, 2014), https://blog.scistarter.com/2014/01/keeping-kids-involved-look-coppa-citizen-science/.

36 See, e.g., About Our Policies, BUDBURST, https://budburst.org/policies (last visited Nov. 18, 2019) (“Budburst provides educators with the ability to create anonymous accounts for use by their students. Children under the age of 13, who are participating in a school-related Budburst project, should make use of these accounts.”).


40 OMB Memorandum, supra endnote 11.