

35University of Arizona Consent to Participate in Research

Study Title: Authors in the driver's seat: fast, consistent, computable phenotype data and ontology production (NSF DBI-1661485)

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Sponsor: National Science Foundation

Summary of the research

This is a consent form for participation in a research project. Your participation in this research study is voluntary. It contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate.

The "Authors" project will conduct a set of experiments studying ways to produce high quality data for scientific computing. We are enrolling participants to test an editor for ontology authoring.

An ontology is a dictionary made for computers to understand and use. When scientists have tools, such as the ontology editor, to publish their findings for computers to understand and analyze, their publications will be *directly usable* for large scale scientific computation, skipping the current process of manual conversion of publications to computable data. This legacy process is not only slow and costly, it could also produce potentially inaccurate data. This study will publish the findings of these experiments to encourage the adoption of new data production approaches. UA Research Data Repository will be used to store the anonymized research data and the research findings will be published in open access journals

Why is this study being done?

In the data science era, data quality will need to be measured not only by their usefulness for human consumers, but also by their fitness for use by computers. This study investigates ways to encourage science authors to produce high quality data for large-scale data analyses by computers.

What will happen if I take part in this study?

There are three sessions in this experiment.

In Session 1, all participants will watch videos about 4-5 user interfaces related to an ontology editing software application. The participant will watch the videos and be asked to complete a short questionnaire about their perception of the interface.

In Session 2, participants will be asked to complete a task to add a few terms and relations to an ontology by using each of the interfaces. Participant interactions with the user interfaces will be automatically recorded by the computer. Participants will be asked to answer a questionnaire about their perception and experience with the interface.

Participants successfully completing the task will continue to Session 3, where they will interact with one more user interface and answer another short questionnaire.

How long will I be in the study?

We expect Session I to be completed within 30-35 minutes, Session II in 50 minutes, and Session III in 25-30min.

How many people will take part in this study?

We are recruiting 20-30 participants at the University of Arizona for this study.

Can I stop being in the study?

Your participation is voluntary. You do not need to participate in this study. If you decide to take part in the study, you may leave the study at any time. No matter what decision you make, there will be no penalty to you. Your decision will not affect your future relationship with The University of Arizona. If you are a student or employee at any University conducting this experiment, your decision will not affect your grades or employment status there.

What risks or benefits can I expect from being in the study?

The activities that you will participate in have no criminal, social, financial, or breach of confidentiality risk. Names of participants will be kept confidential and/or anonymized, and not used anywhere.

Participating in this study may raise your awareness of data quality in digital era. It may incentivize you to produce high quality data in your study or research.

Will I be paid for participating in the study or experience any costs?

Aside from your time, there are no costs for you to take part in the study. If you participate in the study online, you will need to use your personal computer that is connected to the Internet.

You will be paid \$10 (USD) for completing Session I, \$10 (USD) for completing Session II, and \$10 (USD) for completing Session III. If you start, but do not complete a session, you will not be paid.

Will my study-related information be kept confidential?

The information that you give in the study will be anonymous. You will be given a subject code to participate in the experiment and to answer the questionnaire. Your name will not be collected or linked to your answers.



The information that you provide in the study will be handled confidentially. However, there may be circumstances where this information must be released or shared as required by law. The University of Arizona Institutional Review Board; other federal, state, or international regulatory agencies; or the sponsor of the study, if any, may review the research records for monitoring purposes.

Will my study-related information be used for future research?

Anonymized information collected from you may be used or shared for future research studies, as your participation in this study may inform future studies.

Education records used by this research project are education records as defined and protected by Family Educational Rights and Privacy Act (FERPA). FERPA is a federal law that protects the privacy of student education records. Your consent gives the researcher permission to access the records identified above for research purposes.

- Your student email address will be used to communicate with you regarding the payment for your participation in the survey;
- We will use your student email address to send you a digital gift card;
- The study researchers and business manager will have access to this to process payment for the gift card.

Who can answer my questions about the study?

For questions, concerns, or complaints about the study you may contact **Zuleima Cota (zcota@email.arizona.edu)**.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721.

Signing the consent form

I have read (or someone has read to me) this form, and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by signing this form. I will be given a copy of this form.

Printed name of subject

Signature of subject

Date