

114TH CONGRESS  
2D SESSION

# H. R. 6414

To encourage and increase the use of crowdsourcing and citizen science methods within the Federal Government to advance and accelerate scientific research, literacy, and diplomacy, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

NOVEMBER 30, 2016

Mr. TONKO (for himself, Mr. MCKINLEY, and Mr. KILMER) introduced the following bill; which was referred to the Committee on Oversight and Government Reform

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## A BILL

To encourage and increase the use of crowdsourcing and citizen science methods within the Federal Government to advance and accelerate scientific research, literacy, and diplomacy, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Crowdsourcing and  
5 Citizen Science Act of 2016”.

6 **SEC. 2. SENSE OF CONGRESS.**

7 It is the sense of Congress that—

1           (1) the authority granted to Federal agencies  
2 under the America COMPETES Reauthorization  
3 Act of 2010 (Public Law 111–358) to pursue the  
4 use of incentive prizes and challenges has yielded  
5 numerous benefits;

6           (2) crowdsourcing and citizen science projects  
7 have a number of additional unique benefits, includ-  
8 ing accelerating scientific research and data acquisi-  
9 tion, improving science literacy, and connecting citi-  
10 zens to the missions of Federal agencies; and

11           (3) granting Federal agencies the direct, ex-  
12 plicit authority to use crowdsourcing and citizen  
13 science will encourage its appropriate use, including  
14 protection of human subjects and other ethical con-  
15 siderations, to advance agency missions and stimu-  
16 late and facilitate broader public participation in the  
17 innovation process, yielding numerous benefits to the  
18 Federal Government and citizens who participate in  
19 such projects.

20 **SEC. 3. CROWDSOURCING AND CITIZEN SCIENCE.**

21 (a) **DEFINITIONS.**—In this section:

22           (1) **CITIZEN SCIENCE.**—The term “citizen  
23 science” means a form of open collaboration in  
24 which individuals or organizations participate in the  
25 scientific process in various ways, including—

- 1 (A) enabling the formulation of research  
2 questions;
- 3 (B) creating and refining project design;
- 4 (C) conducting scientific experiments;
- 5 (D) collecting and analyzing data;
- 6 (E) interpreting the results of data;
- 7 (F) developing technologies and applica-  
8 tions;
- 9 (G) making discoveries; and
- 10 (H) solving problems.

11 (2) CROWDSOURCING.—The term  
12 “crowdsourcing” means a method to obtain needed  
13 services, ideas, or content by soliciting voluntary  
14 contributions from a group of individuals or organi-  
15 zations, especially from an online community.

16 (3) DIRECTOR.—The term “Director” means  
17 the Director of the Office of Science and Technology  
18 Policy.

19 (4) FEDERAL AGENCY.—The term “Federal  
20 agency”—

21 (A) except as provided in subparagraph

22 (B), means—

23 (i) any Executive agency (as defined  
24 in section 105 of title 5, United States  
25 Code); and

1 (ii) any military department (as set  
2 forth in section 102 of such title); and

3 (B) does not include any legislative branch  
4 agency.

5 (5) PARTICIPANT.—The term “participant”  
6 means any individual or other entity that has con-  
7 sented as a volunteer in a crowdsourcing or citizen  
8 science project under this section.

9 (6) RELATED ENTITY.—The term “related enti-  
10 ty” means—

11 (A) a Federal Government contractor or  
12 subcontractor, at any tier; and

13 (B) a supplier, user, customer, cooperating  
14 party, grantee, investigator, fellow, or detailee  
15 of a Federal agency.

16 (b) CROWDSOURCING AND CITIZEN SCIENCE AU-  
17 THORIZED.—

18 (1) IN GENERAL.—The head of each Federal  
19 agency, or the heads of multiple Federal agencies  
20 working cooperatively, may utilize crowdsourcing  
21 and citizen science approaches to conduct activities  
22 designed to advance the mission of the respective  
23 Federal agency or the joint mission of Federal agen-  
24 cies, as applicable.

1           (2) VOLUNTARY SERVICES.—Notwithstanding  
2 section 1342 of title 31, United States Code, the  
3 head of a Federal agency may accept, subject to reg-  
4 ulations issued by the Office of Personnel Manage-  
5 ment, voluntary services from participants under  
6 this section if such services—

7           (A) are performed as a part of a  
8 crowdsourcing or citizen science project author-  
9 ized under paragraph (1);

10           (B) are not financially compensated for  
11 their time; and

12           (C) will not be used to displace any em-  
13 ployee of the Federal Government.

14 (c) PARTICIPATION.—

15           (1) OUTREACH.—The head of each Federal  
16 agency engaged in a crowdsourcing or citizen science  
17 project under this section shall make public and pro-  
18 mote such project to encourage broad participation  
19 of consenting participants.

20           (2) CONSENT, REGISTRATION, AND TERMS OF  
21 USE.—

22           (A) IN GENERAL.—Each Federal agency is  
23 authorized to determine the appropriate level of  
24 consent, registration, or acknowledgment of the  
25 terms of use that is required from participants

1 in crowdsourcing or citizen science projects on  
2 a per-project basis.

3 (B) DISCLOSURES.—In seeking consent,  
4 conducting registration, or developing terms of  
5 use for a project under this subsection, a Fed-  
6 eral agency shall disclose the privacy, intellec-  
7 tual property, data ownership, compensation,  
8 service, program, and other terms of use to the  
9 participant in a clear and reasonable manner.

10 (C) MODE OF CONSENT.—A Federal agen-  
11 cy or Federal agencies, as applicable, may ob-  
12 tain consent electronically or in written form  
13 from participants to the volunteer service terms  
14 of a crowdsourcing or citizen science project au-  
15 thorized under this section.

16 (3) PROTECTIONS FOR HUMAN SUBJECTS.—  
17 Any crowdsourcing or citizen science project that in-  
18 volves research involving human subjects shall be  
19 subject to part 46 of title 28, Code of Federal Regu-  
20 lations (or any successor regulation).

21 (4) DATA.—While not neglecting security and  
22 privacy protections, Federal agencies shall endeavor  
23 to make data collected through a crowdsourcing or  
24 citizen science project authorized under this section  
25 open and available, in machine readable formats, to

1 the public. As part of the consent process, the Fed-  
2 eral agency shall notify all participants—

3 (A) of the expected uses of the data com-  
4 piled through the project;

5 (B) if the Federal agency will retain own-  
6 ership of such data;

7 (C) if and how the data and results from  
8 the project would be made available for public  
9 or third party use; and

10 (D) if participants are authorized to pub-  
11 lish such data.

12 (5) TECHNOLOGIES AND APPLICATIONS.—While  
13 not neglecting the intellectual property rights of the  
14 Federal Government, Federal agencies shall endeavor  
15 or to make technologies, applications, code, and deri-  
16 vations of such intellectual property developed  
17 through a crowdsourcing or citizen science project  
18 under this section open and available to the public.

19 (6) LIABILITY.—Each participant in a  
20 crowdsourcing or citizen science project under this  
21 section shall agree—

22 (A) to assume any and all risks associated  
23 with such participation; and

24 (B) to waive all claims against the Federal  
25 Government and its related entities, except for

1 claims based on willful misconduct, for any in-  
2 jury, death, damage, or loss of property, rev-  
3 enue, or profits (whether direct, indirect, or  
4 consequential) arising from participation in the  
5 project.

6 (7) SCIENTIFIC INTEGRITY.—Federal agencies  
7 coordinating citizen science projects shall make all  
8 practicable efforts to ensure that participants adhere  
9 to all relevant scientific integrity or other applicable  
10 ethics policies.

11 (d) MULTISECTOR PARTNERSHIPS.—The head of  
12 each Federal agency engaged in crowdsourcing or citizen  
13 science under this section, or the heads of multiple Federal  
14 agencies working cooperatively, may enter into a contract  
15 or other agreement to share administrative duties for such  
16 activities with—

17 (1) a for-profit or nonprofit private sector enti-  
18 ty, including a private institution of higher edu-  
19 cation; or

20 (2) a State, tribal, local, or foreign government  
21 agency, including a public institution of higher edu-  
22 cation.

23 (e) FUNDING.—In carrying out crowdsourcing and  
24 citizen science activities under this section, the head of



1 a Federal agency, or the heads of multiple Federal agen-  
2 cies working cooperatively—

3 (1) may use funds appropriated by Congress;

4 (2) may publicize projects and accept funds or  
5 in kind support for such activities from—

6 (A) other Federal agencies;

7 (B) for-profit or nonprofit private sector  
8 entities, including private institutions of higher  
9 education; or

10 (C) State, tribal, local, or foreign govern-  
11 ment agencies, including public institutions of  
12 higher education; and

13 (3) may not give any special consideration to  
14 any entity described in paragraph (2) in return for  
15 such funds or in kind support.

16 (f) FACILITATION.—

17 (1) GENERAL SERVICES ADMINISTRATION AS-  
18 SISTANCE.—The Administrator of the General Serv-  
19 ices Administration, in coordination with the Direc-  
20 tor, shall, at no cost to Federal agencies, identify  
21 and develop relevant products, training, and services  
22 to facilitate the use of crowdsourcing and citizen  
23 science activities under this section, including by  
24 specifying the appropriate contract vehicles and  
25 technology and organizational platforms to enhance

1 the ability of Federal agencies to carry out the ac-  
2 tivities under this section to further the policy objec-  
3 tives of the Federal Government.

4 (2) ADDITIONAL GUIDANCE.—The head of each  
5 Federal agency engaged in crowdsourcing or citizen  
6 science under this section is encouraged to consult  
7 any guidance provided by the Director, including the  
8 Federal Crowdsourcing and Citizen Science Toolkit,  
9 to designate a coordinator for their agency’s  
10 crowdsourcing and citizen science activities, and to  
11 share best practices with other agencies, including  
12 participation of staff in the Federal Community of  
13 Practice for Crowdsourcing and Citizen Science.

14 (g) REPORT.—

15 (1) IN GENERAL.—Not later than 2 years after  
16 the date of enactment of this Act, the Director shall  
17 include, as a component of the report required under  
18 section 24(p) of the Stevenson-Wydler Technology  
19 Innovation Act of 1980 (15 U.S.C. 3719(p)), a re-  
20 port on the activities carried out under this section.

21 (2) INFORMATION INCLUDED.—The report re-  
22 quired under paragraph (1) shall include—

23 (A) a summary of each crowdsourcing and  
24 citizen science project conducted by any Federal  
25 agency during the most recently completed 2

1 fiscal years, including a description of the pro-  
2 posed goals of each crowdsourcing and citizen  
3 science project;

4 (B) the participation rates, submission lev-  
5 els, number of consents, or any other statistic  
6 that might be considered relevant in each  
7 crowdsourcing and citizen science project;

8 (C) a description of—

9 (i) the resources (including personnel  
10 and funding) that were used in the execu-  
11 tion of each crowdsourcing and citizen  
12 science project;

13 (ii) the activities for which such re-  
14 sources were used; and

15 (iii) how the obligations and expendi-  
16 tures relating to the project's execution  
17 were allocated among the accounts of the  
18 Federal agency;

19 (D) a summary of the use of  
20 crowdsourcing and citizen science methods by  
21 all Federal agencies, including interagency and  
22 multisector partnerships; and

23 (E) any other information that the Direc-  
24 tor considers relevant.

1 (h) SAVINGS PROVISIONS.—Nothing in this section  
2 may be construed—

3 (1) to affect the authority to conduct  
4 crowdsourcing and citizen science authorized by any  
5 other provision of law; or

6 (2) to displace Federal Government resources  
7 allocated to the Federal agencies that use  
8 crowdsourcing or citizen science authorized under  
9 this section to carry out a project.

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