COLLABORATORY
AT COLUMBIA UNIVERSITY

The Collaboratory@Columbia: 2nd Request for Proposals for

COLLABORATORY FELLOWS FUND
COLUMBIA UNIVERSITY

RFP Issue Date: December 20th, 2016
RFP Due Date: March 24th, 2017, 4PM

Award Notification: May 12th, 2017

The increasing availability of data in society is impacting our world in profound ways. As our ability to generate, store and analyze data grows by the day, so do the opportunities for using those data to improve our economy, our security, the environment and human health. Scores of professional and research areas are increasingly becoming data driven enterprises, and with this transformation comes a growing need for education that provides universal data literacy. In order to be effective, the leaders of tomorrow, whether they pursue careers in academia, government, business, industry or other avenues, will need to understand how data and data-science are influencing their fields and organizations, now and into the future. Nevertheless, the knowledge needed to enable tomorrow's graduates to meaningfully engage in today's data-rich world will vary by academic background and discipline. Students in Columbia's Professional Schools will have different needs than undergraduates following the core-curriculum, for example, and needs will also vary between the Professional Schools themselves.

Jointly founded by Columbia University's Data Science Institute and Columbia Entrepreneurship, **The Collaboratory@Columbia** is a university-wide program dedicated to supporting collaborative curricula innovations designed to ensure that all Columbia University students receive the education and training that they need to succeed in today's data rich world. Information about the **Collaboratory@Columbia**, including information about prior awardees of the Fellows Fund, can be found at: http://collaboratory.columbia.edu.

The goal of the *Collaboratory Fellows Fund* is to support innovative curriculum development that meets the data and computational literacy needs of a given discipline, set of disciplines and/or cohort of students at Columbia University. The program will award grants for pairs of instructors, one with disciplinary/ area expertise and one with data-science and/or computational expertise, to collaborate on the development and teaching of material that provides appropriate data skills (or knowledge) to a targeted set of students using pedagogy, instruction and delivery methods that are fitting for the specific student cohort. Example curricula offerings might include classes, workshops, studios, out-of-semester offerings and "boot-camps." Instructors may be full-time officers of instruction, professors of practice, lecturers within discipline and/or adjunct professors. Student cohorts can be undergraduate students, PhD students or graduate students undergoing professional training. Proposals are welcome from all Schools at Columbia University. Because the goal of the Fellows Fund is to support data literacy as an important element of a Columbia University education, it is intended that all developed material be integrated into Columbia's instructional offerings.

WHAT KIND OF FUNDING IS AVAILABLE?
All awards will be made on a competitive basis to a pair of instructors. Each pair of instructors will receive an award of up to $150,000 to support the co-development and teaching of the new material. Example uses of award funding might be to buy-out of teaching in order to free up time for the co-development activities, summer salary support, support for student assistants and/or on-line curricula components, the cost of materials, supplies and other items, etc. Applicants must provide a budget and budget justification as part of their application to the program. Proposals from more than two-instructors are welcome if a justification is provided, although the maximum funding per offering will remain at $150,000.

WHAT KINDS OF PROPOSALS IS THE COLLABORATORY'S FACULTY FELLOWS PROGRAM SEEKING?
Successful proposals will involve: (i) a well identified need for the data science and/or computational training within a Columbia University department, program and/or Professional School that is currently not being met by existing curricula offerings, (ii) a proposal to fulfill that need using pedagogy, instruction and delivery methods that will be effective for the learners being targeted, (iii) a pair (or more) of instructors that include one instructor with appropriate disciplinary expertise and another with appropriate data-science and/or computational expertise, both of whom are committed to the co-development and teaching of the proposed material, and (iv) a commitment by the Dean of the School where the proposed material is to be introduced, that the material will become part of the School's curricula offerings. Proposals that involve over-haul of existing curricula to meet the demands of today's data rich world are also welcome.

Proposals that demonstrate the ways in which the new offering has the potential to contribute to a wider goal of embedding data literacy across all domains at Columbia University will be given the greatest consideration.

It is anticipated that four pairs of Fellows will be funded for this 2nd call for proposals (a third competition will be announced during the academic year 2017/18). As part of the program all Fellows will be expected to attend about two meetings per semester to discuss, as an entire group, their progress and experience, share the lessons they have learned as well as ideas that might help ensure that all Columbia University students receive the education and training that they need to succeed in today's data rich world.

WHO IS ELIGIBLE TO APPLY?
Applications must be submitted by a pair of instructors (or more if justification is provided), each of whom must have the authority to assume scholarly, administrative, and financial responsibility for their individual award. Those eligible to apply are: full-time officers of instruction, professors of practice, lecturers within discipline and/or adjunct professors of Columbia University. At least one member of the instructional team must be appointed full-time. All full-time members on the team must hold primary appointments at Columbia University.

WHAT IS REQUIRED TO APPLY FOR FUNDS?
To be considered for this competition, applications to the **Collaboratory Fellows Program** must be received by March 24th, 2017 at 4:00 PM.

Potential Fellows must inform their Dean of their application to join the program. In developing proposals and budgets, applicants are *required* to consult with their Dean, or another appropriate representative of their School, as well as their Department Chair.

Fellows are expected to apply as a pair (or more if justification is provided), to enable evaluation of the strength of the proposed cross-disciplinary collaboration.

A completed application must include (**in this order**):
− A cover page (a cover sheet is included at the end of this RFP).
− Executive Summary (not to exceed 300 words)
− Budget documents
     o Detailed budget and narrative (a budget sheet is included at the end of this RFP). Budget items should be listed by expense category (e.g., travel, materials production).

- Proposal (not to exceed 5 pages) describing:
  - o the need for need for the data science and/or computational training within the unit/ area where the training is being proposed;
  - o a description of the materials to be developed to fulfill that need;
  - o the target audience, number of anticipated students that will be impacted, how students might be selected for participation if offering is outside of normal curricula (e.g., boot-camps)
  - o a description of how the materials are to be delivered (course, workshop, on-line, etc.), and what place they will occupy in Columbia's instructional offerings
  - o a description of the roles of each instructor
  - o an implementation time-line
  - o evaluation criteria and proposed evaluation methodology for understanding the effectiveness of the new materials in meeting their intended instructional goals
  - o any other information that supports the proposal (including literature cited, etc.)
- Letters of support *(required)*
  - o from Deans of each School involved, describing their commitments
- Letters of support *(as appropriate)*
  - o from Department Chair(s)
- Each instructor's Bio Sketch (not to exceed 2 pages)

Please use a reasonable sized font (11 point or larger), and margin widths (no less than one inch).

How will proposals be reviewed?

Proposals will be reviewed by a committee of faculty representing a range of disciplines and schools, who will submit the results of their review to the Provost. The Provost will make a final recommendation on funding to the President. Example evaluation criteria include:

- o The intellectual rigor and clarity of expression for the proposed activities
- o The appropriateness of the activities with respect to the targeted student group and the desired education and training experience(s)
- o The quality and feasibility of the budget for the proposed activities
- o The likelihood of impact in the target population(s) and the potential for broader impact across multiple domains at Columbia;
- o The quality of the evaluation plan

What is required of grantees?

Collaboratory Fellows receiving awards will be expected to provide full reporting of funds spent. Unspent funds must be returned after 3 years. As well as the co-development of the proposed materials, Collaboraotry Fellows are expected to co-teach the material, which will become part of Columbia University's instructional offerings during the funding period and beyond.

In addition, award recipients will provide progress updates and agree to meet as a cohort to discuss as a group their own pair's progress and experience, share lessons learned as well as ideas that might help ensure that all Columbia University students receive the education and training that they need to succeed in today's data rich world.

Submission

Applicants are required to submit the entire application (as **one** PDF file, in the order of the application requirements) via email to collaboratory@columbia.edu by March 24th, 2017 at 4:00 PM. Late or incomplete applications will not be considered.

For further information related to this RFP, contact: **collaboratory@columbia.edu**

APPLICATION COVER PAGE

Project	Course Title:	
Contact Information (Principal Investigators/Instructors)	
Full Name:	
Title:	
School(s):	
Dept./Division/Center/Institute:	
Email:	
Phone:	
Full Name:	
Title:	
School(s):	
Dept./Division/Center/Institute:	
Email:	
Phone:	

(If additional contacts are needed, please check here, _____, and provide supplemental listing before CV's.)

Executive Summary | 300 words or less

Funding Amount Requested: | Maximum Request: $150,000.00

Proposal Check-List

[   ] Application Cover Page
[   ] Executive Summary
[   ] Budget, Narrative & Justification
[   ] Proposal

Letters of Support

[   ] Deans *(Required)*
[   ] Department Chair(s) *(As appropriate)*
[   ] Bio Sketches for Each Instructor

Please email the required documents in this order, in a single file, to **collaboratory@columbia.edu** by the stated deadline.

BUDGET REQUEST

Project	Course Title:	
BUDGET		
Please provide a summary budget of the proposed project. Add lines or categories as necessary.		
Personnel, including salary and fringe		$
Supplies & Materials		$
Meetings & Travel (airfare, hotel, etc.)		$
Other costs (please specify)		$
		$
		$
		$
		$
Total Cost		**$**

*NOTE: You're welcome to use your own template in excel, however, please ensure to include relevant budget categories.

Budget Narrative & Justification:

Please provide a short description and justification of how funds received from the **Collaboratory Fellows Program** will be used. It is required that all funds be expended within a 3-year period. Proposed instructional offerings must be introduced into the Columbia University Curriculum within 2 years of obtaining funding.