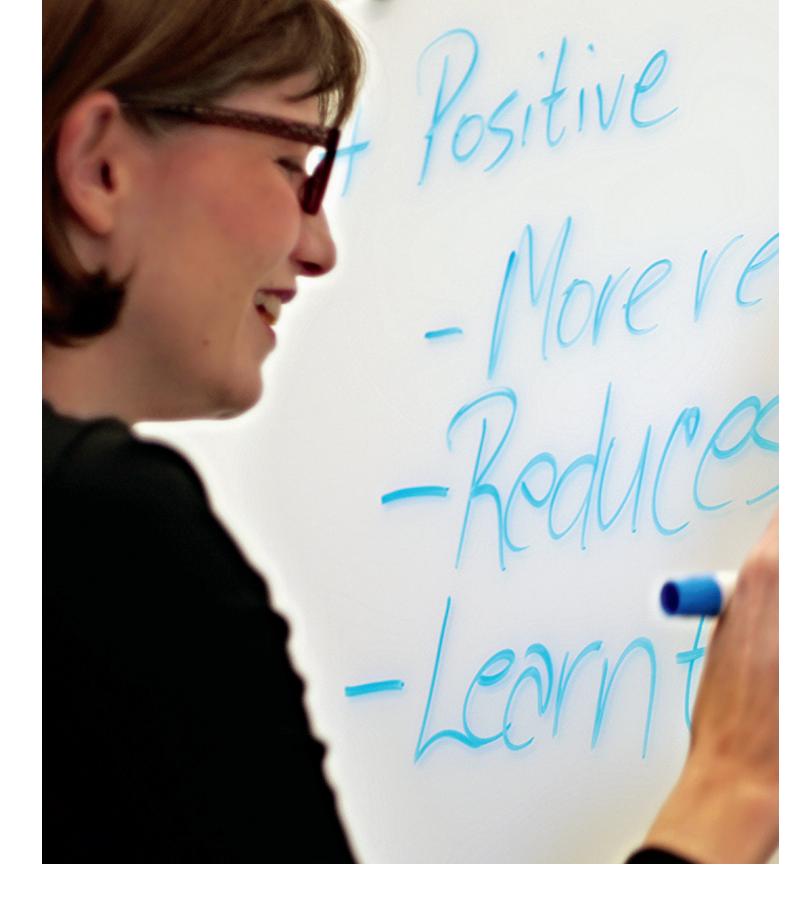




COLUMBIA CTL

Center for Teaching and Learning

Annual Report 2015 – 2016





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FROM OUR EXECUTIVE DIRECTOR



In September 2015, Provost John Coatsworth formally launched the Columbia Center for Teaching and Learning (CTL). Over the past year, the CTL focused on leveraging Columbia University's legacy of exceptional teaching and existing partnerships with faculty, students, and colleagues across the institution to develop new programs and support excellence and innovation in teaching. We are now pleased to present our first annual report highlighting the Center's accomplishments.

To support Columbia instructors in the creation of empowering learning experiences, the CTL develops programs and projects based on research-informed practices. At our Open House and Orientation events in September, we introduced our offerings—free services, including teaching consultations and educational technology training and support; programs and events; and the development of digital innovations in teaching and learning. We are thrilled to report that in our first year, we had 6,901 unique

interactions with Columbia individuals through our programs and services. Through this work, our staff interacted with over 950 faculty and 830 graduate students.

During the 2015-2016 academic year, the CTL placed a major emphasis on the development of inclusive practices to support our diverse community of instructors and learners at Columbia. Our events focused on inclusive teaching and diversity were attended by over 250 participants. We are especially grateful to the students, faculty, and administrators who joined us in collaborative and introspective discussions for our campus-wide Inclusive Teaching Forum.

Over the last year, the CTL introduced new programming for faculty, including three intensive institutes focused on course design and pedagogical practices: the Course [Re]Design Institute; the Active Learning Institute: Flipped Classrooms and Beyond; and

the Innovative Teaching Winter Institute. The CTL has also partnered with departments and schools to facilitate faculty teaching retreats and working groups to explore, articulate, and develop strategies to address specific needs and opportunities, and in so doing, support the efforts of dedicated faculty and administrative leaders.

In the spring, the CTL hosted the Celebration of Teaching and Learning Symposium to showcase the innovative efforts of faculty and graduate students who are transforming their courses and pedagogies. The event featured the 2014-2015 Provost's Hybrid Learning Course Redesign and Delivery faculty awardees. Our highly skilled team of CTL learning designers, video production staff, and technical specialists provided support for the design and development of these courses. The Symposium also highlighted the creative and scholarly pedagogical innovations of Columbia's exceptional graduate student instructors, who shared their contributions in a series of intriguing lightning talks.

Excellence in teaching and learning need not be confined to our physical campus, and the CTL has supported Columbia's vision to instigate and cultivate global and integrative thinking in multiple ways: through the creative use of digital media and technology, by engaging our community in constructive dialogues on diversity and inclusivity, and by bridging partnerships across the globe. The CTL collaborated on over 30 educational projects developing digital innovations that extend the reach of the University and contribute knowledge to learners across the globe, from providing HIV prevention intervention for African American women on probation to supporting professional development training for urban educational leaders. Our highly successful Massive Open Online Courses (MOOCs) featured Columbia's renowned faculty. Videos from the course are available on the Columbia Learn YouTube channel as open educational resources. Online viewers watched a combined 8,821 hours of educational videos from the Civil War and Reconstruction series, featuring Eric Foner, DeWitt Clinton Professor of History, over the past year.

These are just a few examples of the creative and exciting work of our collective team at the CTL. In this report, you will find a full description of our programs and activities during our first year. I am grateful to my colleagues who have been exemplary in their commitment, creativity, and professionalism in contributing to our mission, and to Provost Coatsworth and Vice Provost Soulaymane Kachani for their leadership and support for the Center. We also appreciate our important program collaborators across the institution, including the University Libraries, the Office of the Vice Provost for Faculty Diversity and Inclusion, Columbia University Medical Center, the Office of the Executive Vice President for Research, the Graduate School of Arts and Sciences, and the many faculty and graduate students who have been so generous with their time. We look forward to our continued growth and engagement with the Columbia teaching and learning community in the years to come.

Takyav

Respectfully submitted,

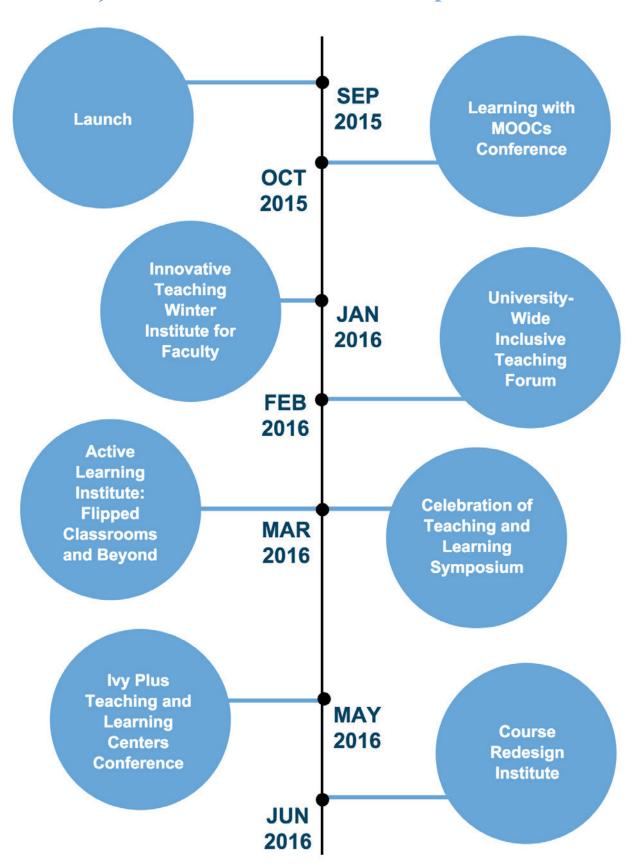
Kathy Takayama, Ph.D. Executive Director

Center for Teaching and Learning

These are just a few examples of the creative and exciting work of our collective team at the CTL.

In this report, you will find a full description of our activities during our first year.

Major Events Since Our Launch in September 2015





ABOUT THE CENTER FOR TEACHING AND LEARNING

Our Mission

The Center for Teaching and Learning (CTL) partners with faculty, students, and colleagues across the institution, to support excellence and innovation in teaching and learning. We are committed to advancing the culture of teaching and learning for professional development, curricular enhancement, and academic support through our programs, services, and resources.

Our Approach

Teaching is a critical practice, driven by inquiry, experimentation, reflection, and collaboration. We promote pedagogy that is inclusive, learner-centered, and research-based. The CTL supports the purposeful use of media and emerging technologies in the classroom and online to foster the success of Columbia's instructors and students.

Our Programs and Services

The CTL provides a range of free services including teaching consultations and educational technology training and support; programs and events, including workshops, orientations, and institutes; and the development of digital innovations in teaching and learning.

CENTER FOR TEACHING AND LEARNING STAFF



Leadership

Kathy Takayama, Ph.D.

Executive Director Center for Teaching and Learning

Directors

A. Maurice Matiz

Director, Media and Instructional Design Studio

Mark Phillipson, Ph.D.

Director, Graduate Student Teaching Initiatives and Programs

CTL Staff

Lucy Appert, Ph.D.

Associate Director, Instructional Design

Christine Bean, Ph.D.

Assistant Director for Faculty Teaching Initiatives and Programs

Jonah Bossewitch, Ph.D.

Associate Director, Software and Infrastructure

Jessica Brodsky

Learning Designer

Nick Buonincontri

Senior Technical Specialist

Sarah V. Carswell

Executive Assistant

Sarohini Chahal

Learning Designer

Aurora Collado

Learning Designer

Michael R. Deleon

Media and Production Lead

Jose Diaz

Senior Tech Specialist, Media Production

Susan Dreher

Senior Software Engineer

Caitlyn Esposito

Communications and Outreach Manager

Alexia Ferracuti, Ph.D.

Assistant Director

Andrew Flatgard

Learning Designer

Teresa Gonzalez

Administrative Coordinator

Jason Guzman

Learning Designer

Michelle V. Hall

Associate Director, Educational Programs

Jon Hanford

Video Technical Specialist

Elizabeth Hernandez

Programs Coordinator

Kenny Hirschmann

Senior Learning Designer

Ashley Kingon

Learning Designer

Suzanna Klaf, Ph.D.

Associate Director

Zach Kornhauser

Associate Director of Assessment and Evaluation

Andre Laboy

Learning Designer

Laura Lechner

Digital Media Specialist

Angie Lee

Learning Designer

Ellen Maleszewski

Learning Designer

Zarina Mustapha

Senior Front-end Developer

Nik Nyby

Programmer

Stephanie Ogden

Associate Director, Media Production

Anders Pearson

Senior Programmer

Marc Raymond

Senior Experience Designer

Jessica Rowe

Senior Program Specialist

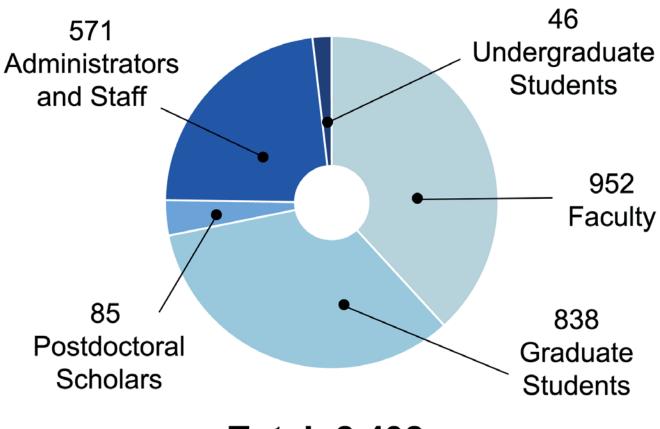
Paul Stengel

Senior Learning Designer

Learn more about our team at ctl.columbia.edu.

SUMMARY OF SERVICES AND PROGRAMS

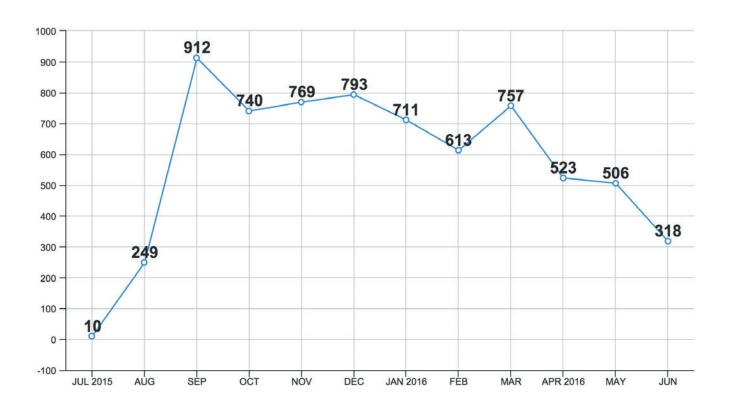
Unique Individuals Served at Columbia



Total: 2,492

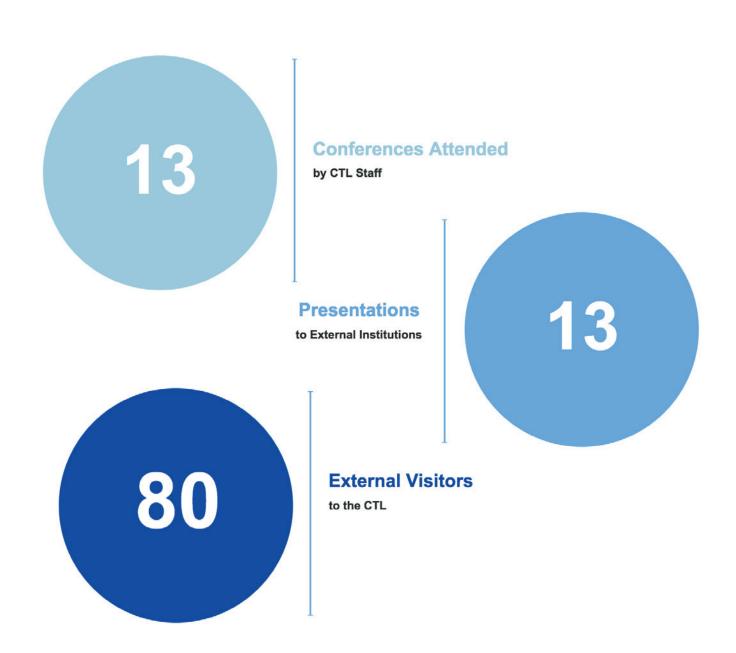
Total unique individuals at Columbia engaged in CTL programs and services from 2015-2016, segmented by university affiliation.

CTL Engagement by Month



This graph shows the number of interactions with individuals at Columbia each month throughout the 2015-2016 academic year.

SUMMARY OF CTL SERVICES AND PROGRAMS







SERVICES

CONSULTATIONS

The CTL offers a wide range of free services to the teaching community at Columbia University. Our philosophy is to provide the most supportive environment possible for Columbia faculty and instructors to become reflective and effective teachers.

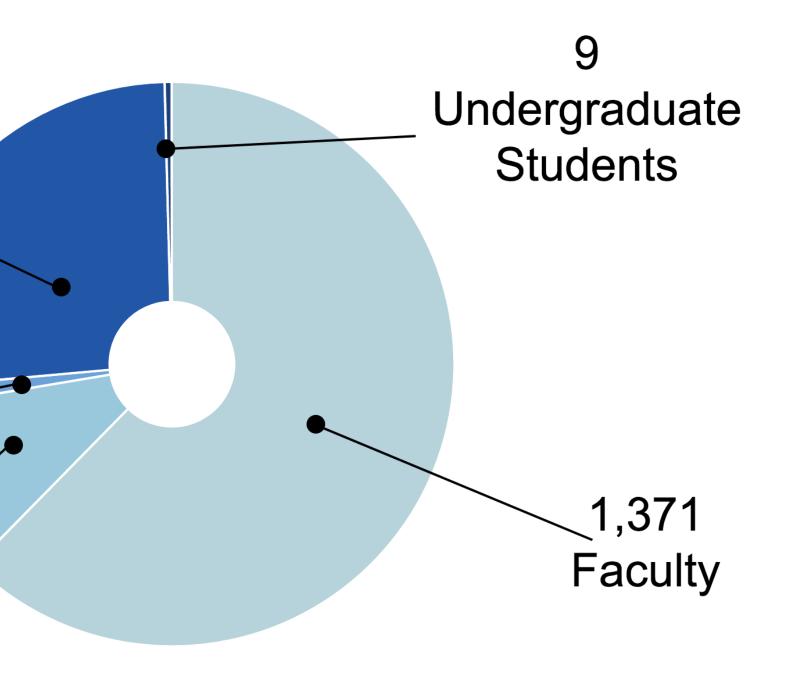
Teaching consultants, digital media specialists, and learning designers are available throughout the year for intensive face-to-face consultations to discuss course design; curriculum planning; assignment development; learning activities and teaching approaches; educational tools and resources; assessment and evaluation; and other topics related to effective teaching and communication in today's academic environment.

572 Administrators and Staff

27
Postdoctoral
Scholars

During the 2015-2016 academic year, CTL staff conducted **2,199 consultations** with individuals at Columbia University.

220 Graduate Students



Total: 2,199

EDUCATIONAL TECHNOLOGY TRAINING AND SUPPORT

Columbia instructors have access to a range of teaching technologies and tools that allow learners to conveniently access online course content, interact with and analyze multimedia content, and engage with their peers and instructors inside and outside of the classroom. The CTL provides instructors with online resources and inperson support for using these technologies, and serves as a catalyst for improving the teaching community's skills and knowledge of technology-supported teaching and learning.

The CTL also hosts hands-on workshops that are designed to help faculty choose educational technologies and employ them effectively in their courses. Workshop topics include:

CourseWorks Essentials

Course Management

Leveraging Media for Close Reading and Analysis – Mediathread

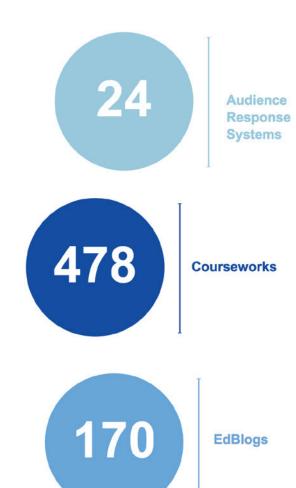
Using Wikis for Learning and Collaboration

Engaging Students with Audience Response Systems

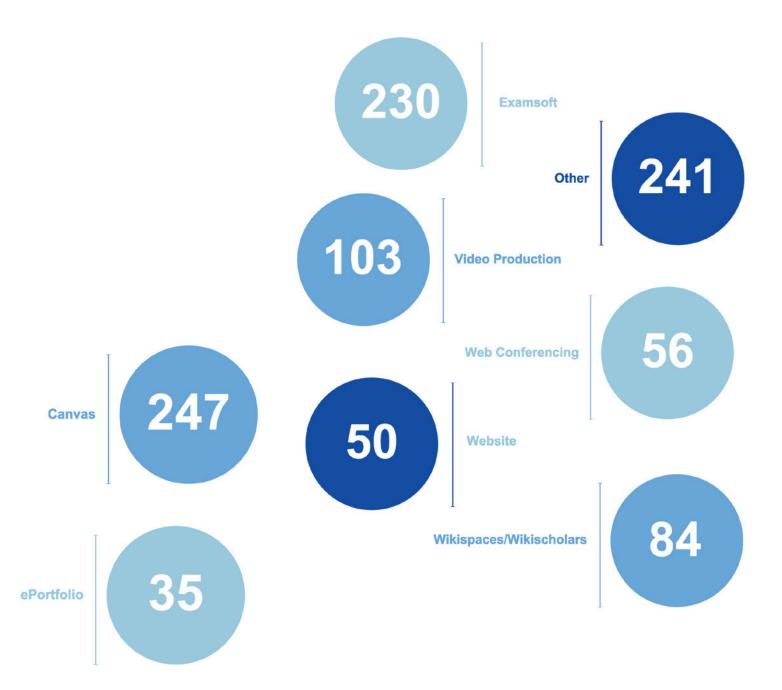
Active Learning with EdBlogs

Teaching with Google Apps

These numbers show training and support requests by educational technology category.



During the 2015-2016 academic year, CTL staff provided technology and training support to **1,707 individuals** at Columbia University.





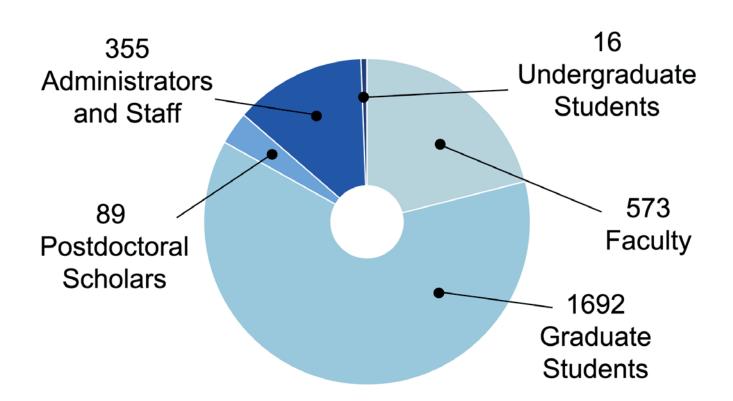


PROGRAMS AND EVENTS

OVERVIEW

The CTL offers professional development programs and events to connect Columbia instructors to effective teaching approaches, resources, and educational tools and technologies. From workshops to multi-day institutes, CTL programs emphasize cohort-building, hands-on activities, and the exchange of ideas across disciplines.

During the 2015-2016 academic year, CTL staff conducted **91 programs** and events attended by **2,725 participants**.



Total: 2,725

Number of event participants, segmented by Columbia affiliation



WORKSHOPS AND ORIENTATIONS

Collaborative Learning

The Collaborative Learning workshop series explored group learning activities and the digital technologies that support them. Participants who attended all workshop sessions and completed related track activities received individualized feedback and a letter certifying their completion of the track. Workshop topics included:

Modes of collaborative learning

Mobilizing collaborative learning with technology

Assessing collaborative work

Documenting Your Teaching

Documenting Your Teaching workshops focused on ways to gather real evidence of one's teaching life, which is crucial during academic job searches or professional reviews. The workshops also helped instructors at all levels plan and develop courses more efficiently, and supported an inquiry-based approach to teaching. Workshop topics included:

Teaching statement sprints

Diversity statements

Building a teaching portfolio

Slow Teaching: An Introduction to Contemplative Pedagogical Practices

The Slow Teaching workshop series provided an introduction to resources and practices in contemplative pedagogy. When incorporated into teaching, contemplative exercises can deepen student engagement, enhance active learning, and stimulate inquiry and insight. Participants were guided through contemplative pedagogical exercises, and came away with teaching methods to apply in the future. Workshop topics included:

Mindful listening

Reducing stress in the classroom

Contemplative writing

Promoting self-reflection

Fostering inquiry

Winding down (and around)

Presentation Skills for Educators

These interactive workshops presented by The Engaging Educator—a team of educators, facilitators and professionals—introduced participants to a series of activities that address the fear of public speaking, and help instructors build confidence, clarity, and create true engagement with a class or lecture audience. The sessions culminated in personalized feedback for each participant on presentation strengths and areas for improvement.

Pedagogies in Practice

The Pedagogies in Practice series featured leaders in educational development. Guest speakers shared insight about research-based instructional methods and discussed tactics for implementing them in the classroom. Workshop topics included:

Active Learning

Active Learning 101

Active learning strategies for student engagement

Active learning: Tools to stimulate discussion and student engagement in the classroom

Student Learning and Engagement

Beyond content: Uncovering affective and conative learning goals

Engaging students "just-in- time" to promote learning

Transforming students from groups to high-performance learning teams

How learning works: Seven researchbased principles for smart teaching

Course Design

Developing learning-centered syllabi (and courses)

Effective course design using Bloom's Taxonomy

Lecturing: An effective teaching method?

Student Assessment and **Feedback**

Feedback and grading: Designing effective, efficient strategies Gauging student learning with classroom assessment techniques

Informal Early Feedback (IEF): Just-intime student input to improve teaching and learning

Diversity and Inclusion

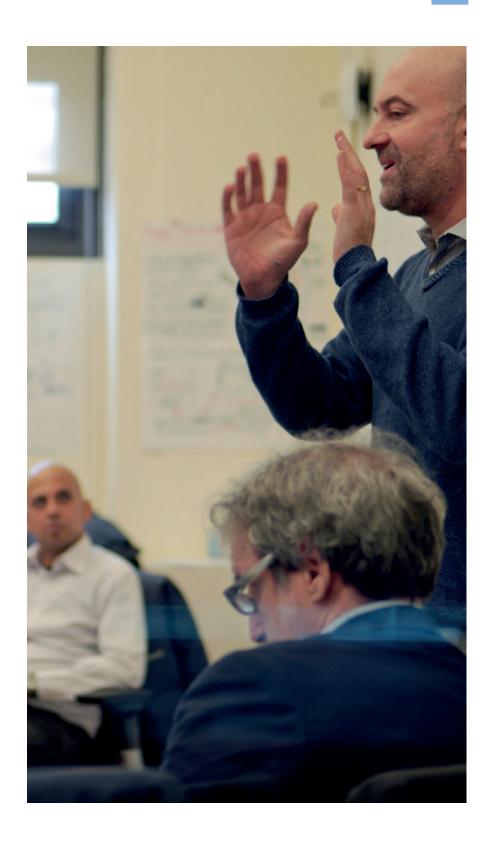
Fulfilling the promise of diversity: How to create and sustain an inclusive classroom climate

Inclusive excellence for the learning environment: Entryways and convergence

Leveraging diversity and promoting equity in your teaching

Pathways to dreams: Achieving your success

The classroom climate for LGBTQ students: How does it impact learning?



WORKSHOPS AND ORIENTATIONS

Disciplinary Applications

The Disciplinary Applications series explored the application of research-based pedagogical methods to courses in specific subject domains. Workshop topics included:

Using Case Study Method to Enhance Teaching in the Sciences

Demystifying the Primary Literature: Strategies to Implement in Your STEM Classroom

Using Case Study Method to Enhance Teaching in the Social Sciences

Teaching Strategies and Professional Development for Researchers

Teachers' Lounge

Teachers' Lounge gatherings are informal discussions of learning research and its connection to issues in the classroom. Though primarily attended by graduate students, all instructors at Columbia were welcome.

Fall 2015

Teachers' Lounges were organized around discussions of identity, inclusion, and diversity in the classroom. Participants discussed topics such as inclusive curricular design, stereotype threat, social environments in the classroom, disabilities and learning, and the interplay of various identities (race, gender, sexuality, nationality, class) with instruction in various subject area domains.

Spring 2016

Teachers' Lounges were organized around a new theme, "Master Class." Participants observed lecture footage of university educators who are noted teachers and reflected on and critiqued their practices.

RewirED Series

This series of one-hour seminars explored blended learning approaches, culminating in a showcase of projects developed by faculty. Seminar topics included:

Activate the Classroom: Just-in-time teaching and other techniques to increase student engagement and retention

Curate the Resources: Exploring ways to collect, manage, and interrogate digital source materials

Drive the Discussion: Stimulating meaningful discussions in the classroom and online

Produce the Media: Using video as an effective instructional tool

Show the Blend: Showcasing the work of Columbia faculty who have experimented with blended learning techniques

Fall Orientations for Teaching Fellows and Teaching Assistants

Ahead of the Fall 2015 semester, CTL held two teaching orientation programs for 148 new Teaching Fellows and Teaching Assistants at Columbia. These orientations featured concurrent sessions on topics such as establishing classroom policies, grading tactics, running class discussions discussions, managing activities in CourseWorks, and inclusive teaching practices. The orientations culminated with a session highlighting campus resources that can help instructors with challenging teaching situations.





INSTITUTES

Taking place over one to several days, institutes provide an opportunity for instructors to fully immerse themselves in new ideas and approaches for improving the learning experience.

Junior Faculty Course Design Institute

September 1, 2015

The Junior Faculty Course Design Institute was a one-day exploration of effective teaching and learning strategies in a collaborative and supportive environment, with an optional second day of workshops and one-on-one consultations.

Innovative Teaching Winter Institute

January 14-15, 2016

The Innovative Teaching Winter Institute for Columbia faculty was an immersive, two-day series of demonstrations, discussions, and activities centered on the effective use of instructional technologies and pedagogical approaches. Each participant designed and prepared a centerpiece assignment for use in an upcoming course. As they developed their respective assignments, participants engaged in facilitated conversations with colleagues to articulate learning goals, refine implementation plans, and hone assessment strategies.

Active Learning: Flipped Classrooms and Beyond

March 14-15, 2016

The Active Learning Institute (previously The Flipped Classroom Institute) was a two-day workshop for Columbia faculty that explored the essentials of flipping a course, from designing online and in-class materials to facilitating learning activities in the classroom.

Course [Re] Design Institute

June 7-9, 2016

The Course [Re]Design Institute was an intensive three-day experience in which Columbia instructors, with hands-on guidance from CTL staff, focused on designing or redesigning a specific course.

Innovative Teaching Summer Institute

June 13-16, 2016

The Innovative Teaching Summer Institute was an intensive, multi-day series of workshops, discussions, and posted reflections for graduate students centered on the effective use of instructional technologies and pedagogical approaches. Participants envisioned assignments with specific learning goals and were introduced to a variety of digital tools and directed to campus and online resources to help them meet their goals. By the end of the Institute, each participant has defined, revised, and presented an innovative assignment that exemplified his or her instructional priorities.

Columbia University Medical Center (CUMC) Summer Institute

June 28, 2016

The CUMC Summer Institute was a one-day workshop for junior faculty or senior faculty who had taken on a new teaching role. The Institute focused on exploring effective teaching and learning strategies in health sciences education.







COMMUNITY-WIDE EVENTS

Over the past year, the CTL hosted several major events to celebrate teaching accomplishments and discuss topics relevant to the Columbia teaching and learning community.

Learning with MOOCs

October 2-3, 2015

www.learningwithmoocs2015.org

The CTL chaired and hosted the Learning with MOOCs II Conference at Columbia University. The Conference gathered more than 200 educators, technologists, researchers, learning scientists, entrepreneurs, and funders of MOOCs from around the world to share innovations, discuss the impact of MOOCs on education, and look at the future of online learning. The agenda included five expert panels and produced more than 40 papers.

Inclusive Teaching Forum

February 26, 2016

bit.ly/inclusivectl

The Inclusive Teaching Forum brought together students, postdoctoral instructors, faculty, and staff to discuss aspects of diversity in the classroom and initiate the creation of a Guide to Inclusive Teaching and Learning at Columbia. Plenary speaker Michele DiPietro, co-author of *How Learning Works: Seven Research-Based Principles for Smart Teaching*, connected inclusive teaching methods and priorities to research-based principles of effective pedagogy.

Celebration of Teaching and Learning Symposium

March 25, 2016

bit.ly/celeb2016

The Celebration of Teaching and Learning Symposium was a one-day forum for Columbia faculty and instructors who are dedicated to enriching the student learning experience. The Symposium showcased the innovative efforts of faculty and graduate student instructors who are transforming their courses and pedagogies, including the Fall 2014 and Spring 2015 Hybrid Learning Course Redesign and Delivery grant awardees.





ENGAGEMENT WITH OUR NATIONAL NETWORKS

Ivy Plus

On May 12-13, 2016, the CTL hosted the annual conference of the Ivy Plus Teaching and Learning Centers at Columbia University's Faculty House. Provost John Coatsworth kicked off the conference by welcoming the directors of the Ivy Plus member institutions.

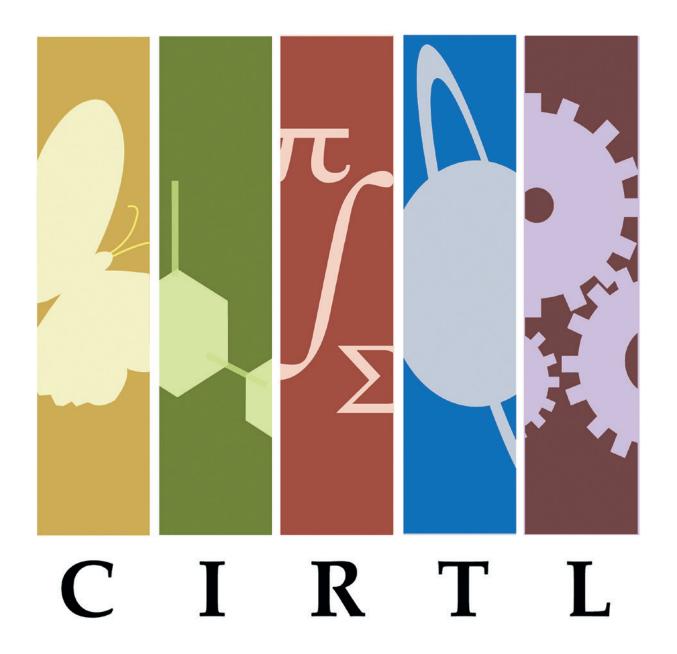
Over the next two days, participants gathered to highlight recent accomplishments, identify challenges, exchange ideas, and build cross-institution connections. A major focus was placed on addressing issues of diversity and fostering inclusive learning environments. The conference provided an opportunity for participants to share their approaches to engaging faculty and instructors on these issues at their institutions.

Participants included representatives from Ivy plus member institutions Brown University, California Institute of Technology (Caltech), University of Chicago, Columbia University, Cornell University, Dartmouth College, Harvard University, Harvard Kennedy School, University of Michigan, Massachusetts Institute of Technology, University of Pennsylvania, Princeton University, Stanford University, and Yale University.

CIRTL Network

In February 2016, Columbia University joined the Center for the Integration of Research, Teaching and Learning (CIRTL) Network, established in 2003 with support from the National Science Foundation to improve teaching skills and increase the diversity of future university faculty in science, technology, engineering, and mathematics (STEM) fields. As a CIRTL member, Columbia University will build local learning communities as well as a network with the 45 other member universities.

CIRTL stresses the use of successful, evidence-based strategies (e.g., inclusive teaching, collaborative learning, study groups, real-world scenarios, and ongoing assessment practices) proven to promote active learning and to help STEM students from all backgrounds succeed and complete their degrees. The network also emphasizes the importance of developing national connections through exchanges and virtual courses.







DIGITAL INNOVATIONS IN TEACHING AND LEARNING

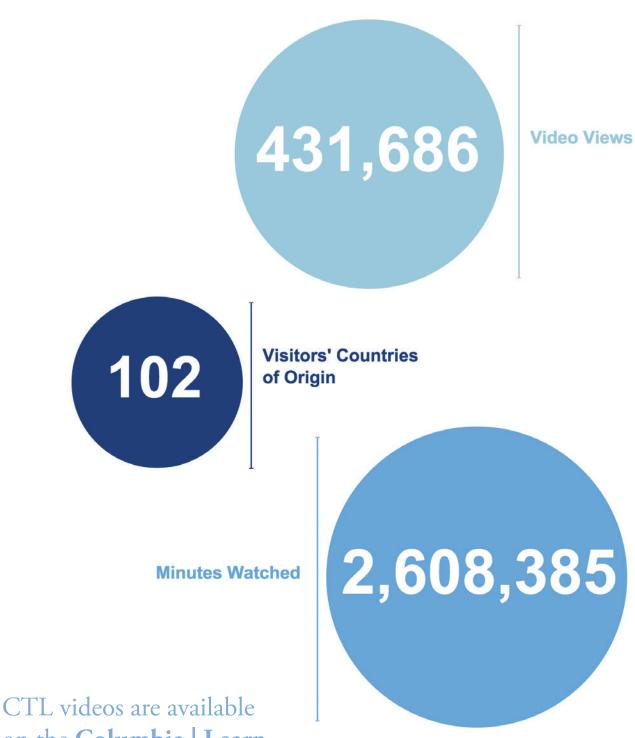
OVERVIEW

At the CTL, we incorporate innovative technologies to develop educational resources that enrich the classroom and other learning environments. Working with faculty and instructors, CTL specialists have developed a range of learning tools and experiences for learners at Columbia and across the globe.

During the 2015-2016 academic year, the CTL worked with faculty and instructors to initiate and develop more than 30 educational projects, including visualization and modeling tools; real-time data collection tools; data sharing programs; annotation and study tools; media archives; training environments; simulations; and multimedia study environments. Our staff currently maintains over 100 active projects.



Columbia | Learn YouTube Channel



on the **Columbia** | **Learn** YouTube channel as open educational resources.

FEATURED PROJECTS

The following selected projects highlight the CTL's key partnerships; our expertise in learning-experience design, media production, and software development; and our emphasis on using research-informed practices to promote communication and collaboration.

Visit our website at ctl.columbia.edu to browse a portfolio of our active projects.

Footprints

Footprints is a crowd-sourced database of information related to the circulation of printed Jewish books. Developed through a collaboration of researchers from the Jewish Theological Seminary, Columbia University, University of Pittsburgh, and Stony Brook University, the site helps scholars and students trace the history and movements of Jewish books across space and time.

The CTL helped organize a Researchathon—a gathering of dozens of participants who were tasked with entering data into a prototype system—and a classroom pilot. These efforts helped inform the CTL developers' design: a scalable application with a streamlined interface for data entry and sophisticated visualizations that help users gain a better understanding of research objects and the complex relationships among them. Access Footprints at:

footprints.ccnmtl.columbia.edu.

Project Partners:

Michelle Chesner, Norman E. Alexander Librarian for Jewish Studies

Marjorie Lehman, Associate Professor of Talmud and Rabbinics, Jewish Theological Seminary

E-WORTH

E-WORTH ("Empowering African-American Women On the Road to Health") is an HIV-prevention intervention for African-American women on probation. Developed in partnership with the School of Social Work's Social Intervention Group (SIG), the goal of the intervention is to build positive peer norms and social support systems that allow participants to successfully negotiate critical barriers to health such as substance abuse and intimate partner violence.

Participants are introduced to fictionalized characters tackling important life-issues that lead to computer-supported learning activities tailored to accommodate a range of learning needs. The CTL and SIG faculty developed the exercises and the scripts for professional actors and a narrator that guides participants on their critical journey toward health.

Project Partners:

Nabila El-Bassel, Professor at the School of Social Work and Director of the Social Intervention Group

Louisa Gilbert, Associate Professor at the School of Social Work and Co-Director of the Social Intervention Group

Education Leadership Development Experience

The Education Leadership Development Experience (ELDEx) is an application that supports in-person intensive professional development workshops and training sessions for educational leaders. Developed in partnership with the Urban Education Leaders' Collaborative (UELC) at Teachers College, ELDEx uses case studies and simulations to engage workshop

participants in decision-making scenarios based on actual events.

UELC facilitators wanted to be able to differentiate learning experiences for each group in a workshop cohort and manage decision points to keep participants thinking on their feet. In response to their needs, the CTL created an open-source platform that enables facilitators to track group progress in real time and make "just-in-time" adjustments to the learning experience by modifying the narrative flow with decision-making "curve balls." The platform also allows facilitators to easily add and edit their case studies. ELDEx has been used to deliver trainings to hundreds of participants around the country since it launched in Fall 2015.

Project Partner:

Brian Perkins, Director of the Urban Educational Leaders Program, Teachers College

Film Language Glossary

The Columbia Film Language Glossary (CFLG) is an online environment that illustrates the grammar and syntax of film by providing definitions of essential terms used in film scholarship and analysis. Originally developed in 2005 in partnership with Columbia University Libraries and School of the Arts faculty, the glossary incorporates selections drawn from the film canon. The glossary can enhance screenings, readings, lectures, and discussions for any course that involves the study of film.

This past year, the FLG project was the recipient of a Columbia Libraries Digital Internship Program grant that supported the work of an advanced graduate student to create new content and amplify existing entries. Some of the entries are enhanced with faculty voice-overs and annotations to highlight specific cinematic techniques.

Access the CFLG at: filmglossary.ccnmtl.columbia.edu.

Project Partners:

Richard Peña, Professor of Professional Practice, Faculty of the Arts

Nancy Friedland, Librarian for Butler Media, Film Studies and Performing Arts

Mediathread

Mediathread is an open-source platform, created by the CTL, that supports multimedia analysis within a communal environment. Instructors using Mediathread designate online collections of source materials for a given course and post assignments. Their students are able to collect video, audio, and image assets from across the web (or upload original media they create), annotate them, and embed them into compositions within a coursespecific website.

During the 2015-2016 academic year, Columbia instructors used Mediathread in 129 courses. Recently added features include a new assignment type to facilitate audio analysis in Music Humanities and similar courses. The CTL continues to provide training and technology support for Mediathread, which has been used in over 250 courses since its launch in 2010. Mediathread has been adopted at other institutions, including MIT, Dartmouth, Wellesley, Georgia Tech, and the University of Maine.











MASSIVE OPEN ONLINE COURSES

The CTL produces Massive Open Online Courses (MOOCs) on several platforms, including Coursera and edX. MOOCs provide the CTL with thousands of users and a large-scale analytics system for gathering and analyzing learner data. The analysis of this data directly benefits Columbia classrooms by informing more effective teaching approaches and the creation of educational resources. The CTL also regularly participates in the NYC MOOC-Makers Meetups-a core group of professionals from NYC-based cultural and educational institutions involved in producing massive open online courses (MOOCs).

Active Courses

Civil War and Reconstruction

Project Partner: Eric Foner, Dewitt Clinton Professor of History

The Civil War and Reconstruction threepart MOOC series started in September 2015 and ended in May 2016. This was the second time that the series, featuring Eric Foner, DeWitt Clinton Professor of History, was offered on the edX platform.

This MOOC series introduced thousands of new participants to the most pivotal era in American history. The Civil War transformed the nation by eliminating the threat of secession and destroying the institution of slavery, but led to the struggle after the war to breathe meaning into the promise of freedom for four million emancipated slaves. The three courses in the series covered the Antebellum (1850-1861), the Civil War (1861-1865), and Reconstruction (1865-1890).

Big Data in Education

Project Partner: Ryan Baker, Associate Professor of Cognitive Studies, Teachers College

The Big Data in Education MOOC with Ryan Baker, Associate Professor of Cognitive Studies at Teachers College, ran in Summer 2015 for eight weeks. Participants learned how, why, and when to use key methods for educational data mining and learning analytics on largescale educational data.

Courses in Development

Women Have **Always Worked**

Project Partner: Alice Kessler-Harris, R. Gordon Hoxie Professor of American History in Honor of Dwight D. Eisenhower

Co-producer: The New-York Historical Society

This two-part MOOC explores the history of women in America and how their work has changed in the home, the marketplace, and the nation.

Release Date: Fall 2016

Course length: two 8-week courses

Major Trends in World Cinema: 1930-1960

Project Partner: Richard Peña, Professor of Practice, Department of Film

This two-part MOOC explores three decades of international cinema history. The first part covers up to the end of World War II. The second part covers the period after the war to 1960.

Freedom of **Expression in** the Time of Globalization

Project Partner: Agnes Callamard, Director of the Global Freedom of Expression Project

Freedom of expression is at the heart of many global controversies and challenges. This MOOC will explore the scope, limits and abuses of this fundamental human right.

Release Date: Fall 2016

Course length: 6 weeks

Global Muckraking

Project Partner: Anya Schiffrin, Lecturer in the Discipline of International and Public Affairs

This MOOC will explore the history and role of investigative journalism and examine how social media, innovation, and philanthropy are transforming the media today. MOOC participants will examine cases where journalists raise awareness about social problems, holding governments accountable.

Release date: Fall 2016

Course length: 6 weeks

Innovating Instruction

Project Partner: Ellen Meier, Associate Professor of Practice, Teachers College.

This MOOC prepares middle school educators to integrate technology through the design of authentic projects to support deep and meaningful classroom engagement. This course will be part of the White House ConnectED initiative.

Release date: Fall 2016

Course length: 4 weeks.

The Science of Learning: What **Every Teacher** Should Know

Project Partners:

Pearl Kane, Klingenstein Family Professor for the Advancement of Independent School Education, Teachers College

Kevin Mattingly, Adjunct Associate Professor, Teachers College

This MOOC is an introductory teaching course for K-12 teachers about the science of learning and how to use current research to improve classroom outcomes. The course will be part of the White House ConnectED initiative.

Release Date: Fall 2016

Course length: 4 weeks

MOOC videos are available on the Columbia | Learn YouTube channel as open educational resources.



youtube.com/ccnmtl

Hours Watched

from The Civil War and **Reconstruction Series** on Columbia | Learn in 2015-2016

KEY INITIATIVES

The Triangle Initiative

ctl.columbia.edu/innovations/global/

The Triangle Initiative is a strategic effort to create digital tools and capacities that serve the intersecting interests of education, research, and the larger international community. Over the past year, CTL staff supported the development of ten Triangle Initiative projects. These projects include a computer-supported curriculum that helps patients in South Africa stay on their antiretroviral medication; training modules for nurses that provide for children with HIV in sub-Saharan Africa, Brazil, and other locations; and educational modules providing guidance on genetic testing for parents of New York City children with cancer.

Case Consortium

casestudies.ccnmtl.columbia.edu

In July 2015, the CTL assumed ownership and administration of The Case Consortium @ Columbia project, an online collection of more than 80 interdisciplinary case studies that are used in more than 100 colleges and universities worldwide. The Consortium was founded by the Graduate School of Journalism, the Joseph L. Mailman School of Public Health, and the School of International and Public Affairs (SIPA).

Over this past year, the CTL expanded its services and support of case-based learning at Columbia. With a grant from the Office of the National Coordinator for Health Information, the CTL developed a case-based curriculum that will train at least 1,000 incumbent healthcare workers to use health information technologies from July 1, 2016 through June 30, 2017. The CTL also hosted three workshops on teaching with case studies at Columbia University.



CREATING DIGITAL SPACES: OUR PEOPLE AND PROCESS

Our Passion

Our staff maintains a playful sense of fascination around technology at the intersection of education, library science and research. We specialize in designing intuitive, user-friendly experiences, and have extensive experience delivering complex applications for teaching and learning. The CTL provides a uniquely supportive environment that allows faculty partners the opportunity to self-reflect, which often results in profound and positive changes to their teaching practices and learning environments.

Our Approach

Much like the design of a physical classroom, the architecture and design of digital learning environments expresses the values of their creators and significantly shapes learning experiences. For example, a digital environment can foster an atmosphere where students are figuratively sitting in the rows of a lecture hall, asking permission before they speak. Or, it can reflect the familiar circle of a seminar room where the conversation flows organically.

CTL learning designers, along with our staff of programmers, web developers, media producers, and web designers, work closely with faculty and other stakeholders to design powerful and effective learning experiences. Projects always begin with an educational hypothesis, one that imagines the ways that digital media and networked environments can promote learning objectives. Our approach is grounded in the curriculum with a focus on translating and preserving traditional scholarly practices such as critical analysis, close reading, and citing primary sources.

Our staff also helps faculty explore the frontiers of study and scholarship by creating opportunities for students to develop new digital literacies, meaningfully collaborate, analyze and construct large multimedia archives, and authentically engage in public discourse. We take pride in our adoption of cutting-edge production and engineering, and follow the principles of design research as well as industry best practices.

Our Projects

CTL learning experiences support good pedagogy by guiding the flows of knowledge, information, and power. Our projects not only reflect our staff's combined expertise in educational technology and instructional design, but the unique capabilities of our talented media production and software development teams.

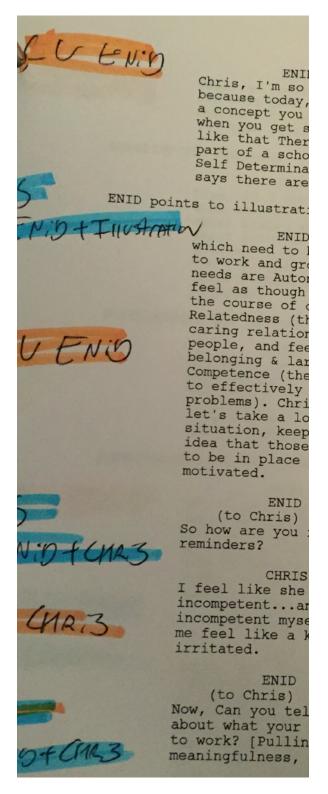
The CTL media production team produces media for all of the CTL's online and face-to-face programs and projects, from

producing digital health interventions to capturing interviews with world-renowned artists and intellectuals to developing hybrid and online courses such as MOOCs. The videos produced by the CTL promote in-depth inquiry and analysis, broaden understanding, and help promote diverse thinking and viewpoints within and beyond the academic community. Our team prides itself in maintaining a rigorous practice of experimentation and research to stay abreast of a fast-moving field.

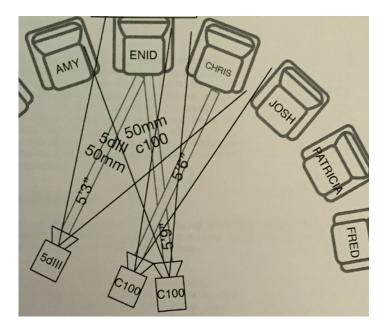
The CTL developers' work begins with supporting commodity platforms such as the LMS, wikis and blogs. Our custom software projects pick up where these systems leave off; we have a great deal of experience improving users' experiences with rich media, annotations, collaboration, simulations, and translating software developed on a lab bench to the web. Customizing software, often by extending existing open-source frameworks, allows for even more control, allowing faculty to design student experiences tailored to their specific needs as well as utilize tools to administer and assess student performance.

Follow our reflections on the technical aspects of the CTL's work at **compiled.ctl.columbia.edu** and on **github.com/ ccnmtl**.

Watch our public video productions on our YouTube channel, **Columbia | Learn**.











FELLOWSHIPS

LEAD TEACHING FELLOWS

The Lead Teaching Fellows program is a professional development opportunity for a select group of graduate students committed to promoting and advancing pedagogy. During the 2015-2016 academic year, five Senior Lead Teaching Fellows were added to the program, and the Lead Teaching Fellow roster expanded to 33. This cohort attended a series of gatherings, and produced over 60 teaching-related workshops and discussions in their home departments.

Working with the support of the CTL and the Graduate School of Arts and Sciences, Lead Teaching Fellows (or LTFs) produce teaching-related events in home departments, advance their own pedagogical development, and facilitate communication between the CTL, other LTFs, faculty, and graduate student instructors across the university.

Anthropology

Victoria Gross (Senior LTF) Soo Young Kim Fatima Mojadeddi

Art History and Archaeology

Natasha Marie Llorens

Astronomy

Stephanie Douglas

Biological Sciences

Suzie Tozier (Senior LTF) Niyo Kato Kausik Regunath

Chemistry

Nevette Bailey

Classical Studies

Sam McVane

Classics

Kate Meng Brassel

Earth and Environmental Sciences

Franziska Landes

East Asian Languages and Cultures

Joshua Batts

Economics

Leo Wang

English and Comparative Literature

Andrea Crow Emma O'Loughlin Berat

French

Anna Provitola (Senior LTF)

Germanic Languages

Tabea Weitz

History

Melissa Morris

Italian

Savannah Cooper-Ramsay

Latin American and Iberian

Cultures

Cristina Perez Jimenez (Senior LTF) Wendy Muniz

Middle Eastern, South Asian, and African Studies

Sahar Ullah Max Schmookler

Music

Ben Hansberry Paula Harper

Philosophy

Robby Finley Christine Susienka

Physics

Minghao Cheng

Political Science

Hadas Aron

Psychology

Daniel Barulli Noam Zerubavel

Religion

Cara Rock-Singer

Slavic Languages

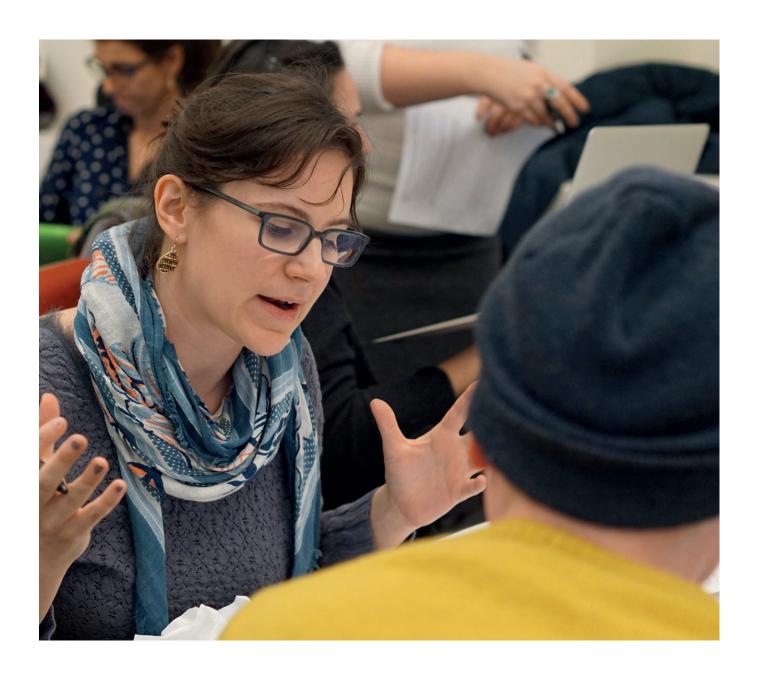
Holly Myers (Senior LTF) Robyn Jensen Inna Kapilevich

Sociology

Luciana Leao

Sustainable Development

Jason Wong



PEER TEACHING CONSULTANTS

Peer Teaching Consultants (PTCs) are doctoral students who work closely with the CTL during the academic year to better design, implement, and assess elements of teaching. PTCs work with a partner to plan and conduct two peer teaching observations during the academic year. With each observation, PTC pairs collaboratively draft an observation plan and report. In addition, each PTC observes a faculty member teaching in a different discipline within the course of the academic year.

Molly Rose Avila

Slavic Languages

Justin Canfil

Political Science

Nassime Chida

Italian

Whitney Cowell

Environmental Health

Nicholas Croggon

Art History & Archaeology

Andre Deckrow

East Asian Languages and Cultures

Allison DeWitt

Italian (2015-16 CTL Graduate Fellow)

Alex Fabrizio

English and Comparative Literature

Nicole Gervasio

English and Comparative Literature

Orit Hilewicz

Music

Manpreet Kaur

Religion

Ana Méndez Oliver

Latin American and Iberian Cultures

Vivek Pal

Mathematics

Halimat Somotan

History

Ana Varela Varela

International and Public Affairs







AWARDS

OFFICE OF THE PROVOST'S HYBRID LEARNING AWARDS

The Hybrid Learning Course Redesign and Delivery grant program, from the Office of the Provost, provides support for faculty who are developing innovative and technology-rich pedagogy and learning strategies in the classroom. Columbia faculty received support from CTL staff for the redesign, delivery, and evaluation of their courses during the 2015-2016 academic year.

FALL 2015

Alhelí Alvarado-Díaz

Lecturer, History

Alvarado-Díaz's redesign employs new technologies to develop and interpret canonical texts as a part of Contemporary Civilization I & II in Columbia University's Core Curriculum.

Jonathan Barasch

Professor of Medicine and Pathology and Cell Biology

Barasch and medical student Adam Schweber redesigned the course Molecular Mechanism to incorporate pre-class activities—interactive simulations and videos with quizzes—to allow for more patient visits and group work during class.

Adam Cannon

Senior Lecturer, Machine Learning
Cannon put together a team of instructors
to blend an entirely new interdisciplinary
computing course, Computing in Context.
Students watch lecture videos before class,
and participate in collaborative assignments
online.

Matthew Connelly

Professor of History

Connelly incorporated new methods for analyzing the historical record in the age of big data into his course International and Global History Since World War II. Students contributed web exhibits and interactive tools to History-Lab.org.

Donald Davis

Ragnar Nurkse Professor of Economics
Davis built a 2.0 version of the course
The Economics of New York City with
video elements and geo-spatial mapping,
allowing students to experience spatial
elements in the historical evolution of New
York City.

Amy Fairchild

Professor of Sociomedical Sciences
Fairchild incorporated a collaboratively authored website into the Masters of Public Health Core Curriculum. The site includes videos, an index of publications, faculty and student blogs, and live chat sessions created throughout each semester.

Rachel Gordon

Assistant Professor of Medicine and Epidemiology

Gordon used team-based learning and flipped classroom techniques to rework her course on infectious diseases. Students form groups to work through clinical scenarios in which they must respond to difficult questions as a cohesive unit.

Martin Haugh

Associate Professor of Professional Practice in the Department of Industrial Engineering and Operations Research Haugh redesigned his Foundations of Financial Engineering course using the flipped classroom model. He produced a series of professional videos to replace his lectures.

Darcy Kelley

Harold Weintraub Professor of Biological Sciences

Kelley redesigned her Frontiers of Science (FoS) course—a Core Curriculum course for all Columbia College students. Students watch lecture videos before class and use Smart Sparrow, an adaptive e-learning tool, to evaluate their learning.

Shantanu Lal

Associate Professor of Dental Medicine Lal used Google Glass and Apple iPads to enhance his pediatric dentistry course. Google Glass enables master clinicians and instructors to film cases and view what their students are seeing in real-time using the iPad.

Letty Moss-Salentijn

Edward V. Zegarelli Professor of Dental Medicine

Moss-Salentijn began an ambitious redesign of the entire didactic course component for third-year dental students. Instructors use WACOMtablets with Camtasia to produce content in order to flip 4 of 13 didactic course modules.

Bernard Salanie

Professor of Economics

Salanie flipped his Mathematical Methods for Economists course by incorporating modular units, such as filmed lectures and "chalkboard" instructional videos, and using Piazza to enhance classroom participation.

Jay Sethuraman

Professor of Industrial Engineering and Operations Research

Sethuraman redesigned his Introduction to Mathematical Programming course using the flipped classroom model. He incorporated videos that provide pre-class overviews for all of the mathematical concepts and theories covered in the course.

Brent Stockwell

Professor of Biological Sciences and Chemistry

Stockwell took his already-flipped course Biochemistry: Structure and Metabolism and applied web-based, analytical tools to evaluate the effectiveness of team-based science learning.

Paola Velenti

Lecturer, Discipline of International and Public Affairs

Velenti flipped her Microeconomics for International and Public Affairs course, a part of the Core Curriculum at the School of International and Public Affairs, by integrating pre-class lecture videos and podcasts.

Amy Weman

Adjunct Assistant Professor of Social Work

Weman flipped her Program Evaluation in the Social Services course and worked on enhancing a project that incentivizes a local social service program to partner with her course and receive a free evaluation from her students.

SPRING 2016

Susan Boynton

Professor of Music

Boynton and her colleague Professor Brad Garton used Mediathread to allow her Masterpieces of Western Music students to visualize, analyze, and markup digital sound files. This is Boynton's second Hybrid Learning Award.

Annette Insdorf

Professor of Film

Insdorf and Professor Rob Brink (Barnard College) used the Mediathread tool to allow Analysis of Film Language students to annotate clips from cinematic masterpieces.

Robert O'Meally

Zora Neale Hurston Professor of English and Comparative Literature

O'Meally conducted an extensive survey to allocate media assets and collections that focus on the Harlem Renaissance, to be reviewed by his students and showcased in an online environment.

Bryan Winn

Assistant Professor of Ophthalmology Winn worked with cartoonist Benjamin Schwartz (The New Yorker) to develop an interactive, humor-rich instructional tool called Teech'Em. Winn evaluated the tool by incorporating it into his one-week course, Ophthalmology Clinical Clerkship.





CENTER PUBLICATIONS AND PRESENTATIONS

Publications

Gilbert, L., Shaw, S. A., Goddard-Eckrich, D., Chang, M., Rowe, J., McCrimmon, T., Almonte, M., Goodwin, S., & Epperson, M. (2015). Project WINGS (Women Initiating New Goals of Safety): a randomized controlled trial of a screening, brief intervention and referral to treatment (SBIRT) service to identify and address intimate partner violence victimization among substance-using women receiving community supervision. Criminal Behavior and Mental Health, 25(4), 314-29. doi: 10.1002/cbm.1979.

Robbins, R. N., Mellins, C. A., Leu, C. S., Rowe, J., Warne, P., Abrams, E. J., Witte, S., Stein, D. J., & Remien, R. H. (2015). Enhancing lay counselor capacity to improve patient outcomes with multimedia technology. AIDS and Behavior, 19 (Suppl 2), 163-76. doi: 10.1007/s10461-014-0988-4.

Stockwell, B.R., Stockwell, M.S., Cennamo, M., and Jiang, E. (2015). Blended Learning Improves Science Education. Cell, 162(5), 933-6. doi: 10.1016/j.cell.2015.08.009.

Forthcoming

Reuther, K. and Cennamo, M. Redesigning design: A technology-enhanced graduate-level biomedical design course. ASEE - American Society for Engineering Education Journal, forthcoming.

Saumaa, Hiie and Cennamo, M. Blended learning, creativity, and the power of two: A teacher and technologist collaborate. Hybrid Pedagogy, forthcoming.

Review and

Editorial Work

Journal of Librarianship and Scholarly Communication. Appert, L.

Conference and External **Presentations**

Appert, L. What's new in educational technology? Presented at Cengage, Inc.'s Engage Speakers Series.

Ferracuti, A. and Phillipson, M. Shared goals, different paths: Programming for graduate student development. Presented at the 2015 POD Conference.

Hirschmann, K. Learning together: Two models of an inter-institutional collaboration for faculty development. Presented at Online Learning Consortium International Conference.

Kingon, A. and Laboy, A. Lessons learned from an e-portfolio pilot: Using an e-portfolio to provide evidence of student learning and professional identity. Presented at the Association of American Colleges & Universities (AAC&U) 2016 Annual

Matiz, M. Columbia's MOOCs. Presented at the Open edX Meetup.

Pearson, A. and Kingon, A. The future of Masivukeni: Adaptations and new technologies for redevelopment. Presented to the Republic of South Africa Department of Health.

Takayama, K. Catalyzing institutional change: Connecting learning outcomes across the curriculum. Presented at the Tools for Evidence-Based Action Conference.

Takayama, K. Preparing the future professoriate: The scholarship of mentorship as reflective praxis. Presented at the International Society for the Scholarship of Teaching and Learning Conference.

Takayama, K. Reflective teaching meets reflective learning: Forming partnerships with undergraduate students. Presented at the 2015 POD Conference.

Takayama, K. The importance of diversity in the classroom and institutional impact. Presented at Creating Connections Consortium (C3) Summit.

Takayama, K. The scholarship of teaching and learning: A microbiologist's journey. Presented at the Scholarship of Teaching and Learning (SoTL) Academy.

Takayama, K. The value of uncertainty in the learning sciences: Intersections of technology and student engagement. Keynote speaker at the Global Learning Symposium session on Technology-Enhanced Learning in Asia: Promises and Challenges.

Takayama, K. Visualizations in teaching and learning. Presented at Brown University's Warren Alpert Medical School.

Executive Director's Presentations to Columbia University

Leadership

Presentation to the Columbia University Board of Trustees

Presentation to the Council of Deans

Presentation to the Deans of Education

Office of the Vice Provost for Faculty Diversity and Inclusion

Presentation at the Office of the Vice Provost for Faculty Diversity and Inclusion's Bridge to PhD Program Workshop

Presentation at the Office of the Vice Provost for Faculty Diversity and Inclusion's Junior Faculty Career Development Institute

Presentation to the Office of the Provost's Leadership Fellows

Office of the Executive Vice President for Research

Presentation at the NSF CAREER Award: Strategies for Successful Proposal Development Workshop

Effective PowerPoint Presentations. Presentation at the Office of the Executive Vice President for Research's Staff Meeting.

Committees and Legislatures

Presentation to the Columbia University Senate

Presentation to the Columbia University Senate IT Committee Meeting

Presentation to the Columbia University Senate Education Committee

Presentation to the Middle States Commission on Higher Education Accreditation Committee

Presentation to the Senate Committee on Student Affairs

Presentation to the Senate Libraries, Education and Information Technology Joint Committee Meeting

Schools

Presentation at the Faculty of Arts and Sciences' Chairs Meeting

Presentation at the School of Journalism's Faculty Meeting

Presentation at the School of Journalism's Faculty Retreat

Presentation to the Fu Foundation School of Engineering and Applied Science's Annual Meeting of the Faculty

Columbia University Medical Center (CUMC)

Presentation at the School of Nursing's Anna Maxwell Teaching Academy

Presentation to the CUMC Education Resource Council

Presentation to the CUMC Educator Clinic

Invited lecture at the CUMC Irving Institute for Clinical and Translational Research Colloquium on Patient-Oriented Research

Columbia University Libraries

Presentation to the Columbia University Libraries

Presentation to the Libraries Research Services Discussion Group

Departments

Presentation to the Computer Science Department

Presentation to the Distributed Computing and Communications Laboratory

Presentation to the Department of Music

Administrative Offices

How Students Learn. Presentation to the Office of Postdoctoral Affairs

COMMITTEE WORK

CTL staff served on a large number of committees within Columbia University and nationally.

Internal Committee Participation

Chandler/Math Steering Committee

Columbia Faculty Mentoring Initiative Committee

Columbia Information Technology Leadership Committee

Educational Policy and Planning Committee (EPPC) of Arts and Sciences Working Group on the HHMI Initiative to Improve Science Education for Undergraduate Students

EPPC Sub-Committee on Innovative Practices in Teaching

Senate Education Committee

XPMethods - Columbia's Group for Experimental Methods in the Humanities

External Committee Participation

International Society for the Scholarship of Teaching & Learning (ISSOTL) Board of Directors

Ivy Plus Conference Planning Committee

POD Network: Professional and Organizational Development Network in Higher Education





COLUMBIA PARTNERSHIPS AND COLLABORATIONS

We are grateful to our partners for helping the CTL deliver programming to faculty and instructors with diverse interests, needs, and backgrounds, and to our project partners who collaborate with us on digital innovations across a range disciplines, schools, and departments.

Program **Partnerships**

Columbia University Medical Center

Graduate School of Arts and Sciences

Office of the Executive Vice President for Research

Office of the Vice Provost for Faculty Diversity and Inclusion

Office of University Life

Project Partnerships

College of Dental Medicine

College of Physicians and Surgeons

Columbia University Libraries

Department of History

Jewish Theological Seminary

Mailman School of Public Health

School of Arts and Sciences

School of International and Public Affairs

School of Journalism

School of Social Work

Teachers College

External Partnerships and **Associations**

Center for the Integration of Research, Teaching and Learning (CIRTL) Network Coursera

edX

International Society for the Scholarship of Teaching and Learning (ISSoTL)

Ivy Plus Teaching and Learning Centers

National Science Foundation

New-York Historical Society

POD Network: Professional and Organizational Development Network in Higher Education

Liaison Networks

Our department liaisons help keep the CTL informed about faculty and graduate students' needs for programming and support. Liaisons also share announcements of CTL programs and activities to colleagues in their departments.

Anthropology

Graduate Student Liaisons: Fatima Mojaddedi, Soo-Young Kim

Art History & Archaeology

Graduate Student Liaison: Natasha Marie

Astronomy and Astrophysics

Faculty Liaison: Frits Paerels Graduate Student Liaison: Stephanie Douglas

Barnard College Department of Dance

Faculty Liaison: Katie Glasner

Barnard College Education Program

Faculty Liaison: Maria Rivera Maulucci

Biological Sciences

Faculty Liaison: Debby Mowshowitz Graduate Student Liaison: Kausik Regunath, Niyo Kato

Biomedical Engineering

Faculty Liaison: Ed Guo Graduate Student Liaison: Rachel Sattler

Chemistry

Faculty Liaison: Laura Kaufman Graduate Student Liaison: Nevette Bailey

Civil Engineering and **Engineering Mechanics**

Faculty Liaison: Raimondo Betti Graduate Student Liaison: Miguel Arriaga

Classics

Faculty Liaison: Joseph Howley Graduate Student Liaison: Kate Brassel

Classical Studies Program

Graduate Student Liaison: Samuel McVane

College of Dental Medicine

Faculty Liaison: Letty Moss-Salentijn

Columbia University Libraries

Faculty Liaison: Barbara Rockenbach

Computer Science

Faculty Liaison: Adam Cannon Graduate Student Liaison: Marshall Ball

Earth and Environmental Sciences

Graduate Student Liaison: Franziska Landes

East Asian Languages and Cultures

Graduate Student Liaison: Joshua Batts

Ecology, Evolution, and **Environmental Biology**

Faculty Liaison: Maria Diuk-Wasser

Economics

Faculty Liaison: Susan Elmes Graduate Student Liaison: (Leo) Lijun Wang

Electrical Engineering

Faculty Liaison: Charles Zukowski Graduate Student Liaison: David Gidony

English and Comparative Literature

Graduate Student Liaisons: Emma O'Loughlin Bérat, Andrea Crow

French and Romance Philology

Graduate Student Liaison: Anna Provitola

Frontiers of Science

Faculty Co-Liaisons: Ivana Nikolic Hughes, Monica Rouco Molina

Germanic Languages

Graduate Student Liaison: Tabea Weitz

History

Graduate Student Liaison: Melissa Morris

Industrial Engineering and **Operations Research**

Faculty Liaison: Jay Sethuraman

Institute for the Study of **Human Rights**

Faculty Liaison: Kristina Renee Eberbach

Italian

Graduate Student Liaison: Savannah Cooper-Ramsey

Language Resource Center

Faculty Liaison: Stephane Charitos

Latin American and Iberian Cultures

Graduate Student Liaison: Wendy Muniz

Mechanical Engineering

Faculty Liaison: Sunil Agrawal Graduate Student Liaison: Jenny Ardelean, Braden Czapla

Middle Eastern, South Asian, and African Studies

Graduate Student Liaison: Max Shmookler, Sahar Ullah

Motor Neuron Center

Postdoctoral Liaison: Carlos B. Rueda Diez

Music

Faculty Liaison: Susan Boynton Graduate Student Liaison: Ben Hansberry, Paula Harper

Oral History Master of Arts

Faculty Liaison: Amy Starecheski

Philosophy

Graduate Student Liaisons: Christine Susienka, Robby Finley

Physics

Faculty Liaison: Jeremy Dodd Graduate Student Liaison: Minghao Cheng

Political Science

Faculty Liaison: Jeff Lax Graduate Student Liaison: Hadas Aron

Psychology

Graduate Student Liaisons: Daniel Barulli, Noam Zerubavel

Mailman School of Public Health

Faculty Liaison: Leah Hooper

Religion

Graduate Student Liaison: Cara Rock-Singer

School of Journalism

Faculty Liaison: Duy Tu

School of Nursing

Faculty Liaison: Judy Honig

School of Social Work

Faculty Liaison: Craig Schwalbe

Slavic Languages

Graduate Student Liaisons: Robyn Jensen, Inna Kapilevich

Sociology

Graduate Student Liaison: Luciana Leao

Statistics

Faculty Liaison: Daniel Rabinowitz

Sustainable Development

Graduate Student Liaison: Jason Wong

Theatre

Faculty Liaison: Bill Worthen Graduate Student Liaison: Warren Kluber

DISTRIBUTION OF SERVICES TO COLUMBIA UNIVERSITY

School Name	Unique Individuals Served
Barnard	94
Business School	18
College of Dental Medicine	41
College of Physicians and Surgeons	277
Columbia College	40
Faculty School of Arts and Sciences	356
Graduate School of Arts and Sciences	611
Jewish Theological Seminary	90
Law School	19
School of Architecture Planning and Preservation	15
School of Arts	17
School of Engineering and Applied Sciences	194
School of General Studies	8
School of International and Public Affairs	67
School of Journalism	17
School of Nursing	58
School of Professional Studies	55
School of Public Health	92
School of Social Work	52
Teachers College	69
Union Theological Seminary	2
Other	300
Grand Total	2,492

Anesthesiology Anthropology Applied Physics and Applied Mathematics Architecture Planning and Preservation Art History and Archaeology Arts Astronomy Barnard Biochemical Engineering Biological Sciences Biomedical Engineering	10 93 42 21	10 42 28
Applied Physics and Applied Mathematics Architecture Planning and Preservation Art History and Archaeology Arts Astronomy Barnard Biochemical Engineering Biological Sciences Biomedical Engineering	42	
Architecture Planning and Preservation Art History and Archaeology Arts Astronomy Barnard Biochemical Engineering Biological Sciences Biomedical Engineering		28
Art History and Archaeology Arts Astronomy Barnard Biochemical Engineering Biological Sciences Biomedical Engineering	21	
Arts Astronomy Barnard Biochemical Engineering Biological Sciences Biomedical Engineering		16
Astronomy Barnard Biochemical Engineering Biological Sciences Biomedical Engineering	118	50
Biochemical Engineering Biological Sciences Biomedical Engineering	21	12
Biological Sciences Biomedical Engineering	59	22
Biological Sciences Biomedical Engineering	304	94
Biomedical Engineering	7	6
	126	51
	16	12
Biomedical Informatics	85	11
Biostatistics	6	6
Business	28	19
Cardiology	6	6
Chemical Engineering	13	9
Chemistry	135	35
Civil Engineering and Engineering Mathematics	41	22
Classics	60	26
Computer Science	38	26
Dental Medicine	123	40
Earth and Environmental Engineering	23	16
Earth and Environmental Sciences	79	42
East Asian Languages and Cultures	124	42
Ecology Evolution and Environmental Biology		
Economics	36	9

62 | DISTRIBUTION OF SERVICES TO COLUMBIA UNIVERSITY

Department Name	Unique Interactions	Unique Individuals Served
Education	2	2
Electrical Engineering	29	20
English and Comparitive Literature	207	86
Environmental Health Sciences	23	11
Epidemiology	106	21
Film	64	4
French and Roman Philogy	57	18
General Studies	12	8
Genetics and Development	8	6
Germanic Languages	61	26
Health Policy and Management	11	9
History	422	83
Human Development	4	3
Human Rights	3	1
Industrial Engineering and Operations Research	30	25
International and Public Affairs	201	64
Iranian Studies	6	2
Italian	98	18
Jewish Theological Seminary	181	90
Journalism	45	19
Latin American and Iberian Studies	235	47
Law	42	18
Mathematics	12	6
Mechanical Engineering	37	19
Medicine	130	66
Microbiology	3	2
Middle East and Asian Languages and Cultures	40	21

Department Name	Unique Interactions	Unique Individuals Served
Middle East South Asia and Africa	43	17
Music	214	52
Neurobiology	2	2
Neurological Surgery	3	2
Neurology	15	8
Nursing	117	59
Obstetrics and Gynecology	22	8
Occupational Therapy	11	10
Ophthalmology	2	1
Orthapedic Surgery	4	3
Otolaryngology/Head and Neck Surgery	1	1
Pathology and Cell Biology	23	12
Pediatrics	70	24
Philosophy	106	28
Physical Education and Intercollegiate Athletics	1	1
Physics	101	39
Physiology and Cellular Biophysics	3	2
Political Science	56	25
Population and Family Health	32	15
Professional Studies	144	47
Psychiatry	176	38
Psychology	66	27
Public Health	87	19
Radiation Oncology	2	2
Radiology	8	4
Rehabilitation Medicine	45	23
Religion	73	25

64 | DISTRIBUTION OF SERVICES TO COLUMBIA UNIVERSITY

Department Name	Unique Interactions	Unique Individuals Served
Slavic Languages	91	21
Social Work	245	52
Sociology	91	33
Sociomedical Sciences	72	16
Statistics	69	12
Surgery	26	8
Systems Biology	3	3
Teachers College	301	69
Theater	8	4
Union Theological Seminary	3	2
Writing	5	3
Other	820	36
Grand Total	6,901	2,492

Acknowledgments

Submitted by Kathy Takayama, Ph.D., Executive Director

Special thanks go to Marc Raymond, Caitlyn Esposito, Sarah Carswell, and Zach Kornhauser.

COLUMBIA | CTL Center for Teaching and Learning

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