![Warner School of Education, University of Rochester logo]

Warner School and Partnering School Districts to Develop Digitally-Rich Master Teachers with $3M Grant
NSF Grant to Help STEM Teachers Lead Districts in Digital Conversion Efforts

The Center for Professional Development and Education Reform and the Center for Learning in the Digital Age (LiDA) at the University of Rochester's Warner School of Education have been awarded a $3 million grant from the National Science Foundation (NSF) to support teachers in leading K-12 school districts through new digital conversion initiatives — a comprehensive process that provides each student with a tablet or laptop computer and uses these devices to enhance student learning.

This new Noyce Master Teaching Fellows (MTF) project will support efforts centered on transforming math and science teaching and learning by effectively integrating and supporting instructional technology into K-12 classrooms at six local school districts: East Irondequoit, Geneva, Newark, Dansville, Penn Yan, and Auburn.

An ongoing partnership of the six school districts with the University's Warner School of Education and College of Arts, Sciences, and Engineering and Rochester Museum & Science Center, the project will recruit, engage, and support a cohort of select digitally-rich master teachers through a combination of coursework and mentored experiences. Fellows will receive a state-approved Advanced Certificate in Digitally-Rich Teaching in K-12 schools. Additionally, a limited number of fellows will be able to pursue NYS Certification as School Building Leader and School District Leader.

Over the next five years, this newly awarded Noyce MTF grant will provide intensive training to 20 experienced teachers who will serve as master teaching fellows in these six school districts. As part of the program, fellows will complete 41 post-master's credits of customized coursework at the Warner School, attend monthly leadership seminars, and engage in mentored field experiences. The goal is to provide digitally-rich experiences in STEM teaching, coaching, professional development, and reform and digital conversion over the course of project.

This grant is the third award the Warner School has received since 2010 from the NSF Teaching Fellowship/Master Teaching Fellowship Track, which aims to support the development of NSF

Master Teaching Fellows by providing professional development and salary supplements for exemplary K-12 math and science teachers to become master teachers in high-need districts. The previous two awards, totaling $5 million, will have prepared, by 2020, a total of 32 master teachers and teacher leaders in math and science in nearby urban districts—the Rochester City School District, Geneva Central School District, and Newark Central School District.

Building on the work to develop teacher leaders from the first two phases of the project, this new grant will address the growing national need for mathematics and science teachers who are equipped to provide high-quality instruction in digitally-rich classrooms. It will allow the project to continue another five years and also adds four additional high-need school districts: East Irondequoit, Dansville, Penn Yan, and Auburn.

"We are proud to partner with these six districts in this endeavor to bring digital learning to life in math and science classrooms and to empower educators with rich knowledge, skills, and experiences to enhance instruction," says Cynthia Callard, professor and executive director of the Center for Professional Development and Education Reform who serves as the principal investigator on the project. "We are thankful for the National Science Foundation's ongoing support and commitment to preparing teacher leaders who can support the implementation of high-quality, technology-enriched STEM instruction that will help to improve student achievement."

Research has shown that integrating technology into education can deepen and enhance the teaching and learning process. The Warner School has been engaging in research and course design to address the principles and implications of digital conversion and online learning. Most recently, the Warner School created the Center for Learning in the Digital Age to build and expand on its work.

In 2015, the Warner School formed a unique partnership with the East Irondequoit Central School District, a leader in digital conversion in schools, to help promote the adoption of a digital conversion model in area K-12 schools. This collaboration led to the creation of a K-12 Digital Conversion Consortium in which the six partnering school districts are among nearly two-dozen participating districts across the state that are collaborating and sharing ideas and resources related to digital conversion efforts.

The UR Noyce MTF Program has the potential to serve as a replicable model for other universities working to support the development of similar cadres of digitally-rich master teachers in math and science in the future. Partners will continue to disseminate results and lessons learned at conferences and through journal articles.

The new Track III MTF funding is the sixth NSF-funded grant, totaling over $10 million, awarded to the Warner School under the Robert Noyce Scholarship Program in the past decade. Learn more about the Warner School's Noyce Programs and teacher preparation programs in mathematics and science and K-12 Digitally-Rich Teaching.

The Center for Professional Development and Education Reform partners with organizations and institutions to improve educational practices and policies through professional learning, leadership development, and program evaluation. The center merges policy, scholarship, and practice to build

capacity among its education partners while fostering a vibrant, intellectual community for collaboration on the most pressing educational challenges. For more information on professional development opportunities, contact the Center for Professional Development and Education Reform at warnercenter@Warner.rochester.edu or 585.275.2616.

The Center for Learning in the Digital Age aims to level the educational playing field by leveraging digital technologies to enhance learning experiences, developing new educational models, and increasing access to education in K-12 and higher education settings, as well as across the lifespan in a variety of non-traditional settings. For more information about the Center for Learning in the Digital Age, contact Raffaella Borasi, the center's director and Warner School's dean, at rborasi@warner.rochester.edu.

About the Warner School of Education
Founded in 1958, the University of Rochester's Warner School of Education offers graduate programs in teacher preparation, K-12 school leadership, higher education, education policy, counseling, human development, online teaching and learning, program evaluation, applied behavior analysis, and health professions education. The Warner School of Education offers PhD programs and an accelerated EdD option that allows eligible students to earn a doctorate in education in as few as three years part time while holding a professional job in the same field. The Warner School of Education is recognized both regionally and nationally for its tradition of preparing practitioners and researchers to become leaders and agents of change in schools, universities, and community agencies; generating and disseminating research; and actively participating in education reform.

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