TEACHING PHILOSOPHY

Oliver Wendell Holmes, the 19th century doctor, writer and poet, once said that "a mind, once stretched by a new idea, never regains its original dimensions." Effective teaching facilitates the stretching of minds. It is not always a painless process, but in my courses I strive to make it as stimulating and enjoyable as possible. In my classes at RIT, I incorporate not just field trips to design firms, but site visits to thought-provoking locations connected to project topics, such as a behind-the-scenes tour at a dining facility or a visit to the community garden. I not only invite guest designers, but also introduce local experts in public policy, environmental engineering, and a multitude of other fields. These guests provide helpful information, perspectives, and insights that not only relate to students' design projects, but also help them understand the inherent interdisciplinarity of the design practice.

Learning how to learn

I recognize that every classroom contains a variety of learners, and that not all methods are effective for everyone. Any single technique quickly becomes monotonous and even the most dedicated students struggle to maintain focus. Therefore, my classes are hybrids that might include hands-on activities, discussions, demonstrations, guest lecturers, field trips, critiques, and group work. Promoting original projects and class plans also ensures a flow of fresh ideas, which is vital for a design program to remain relevant in a rapidly evolving discipline and profession.

I want to ensure that my students enter the field with knowledge beyond the basic essentials: they should also possess an awareness of the world around them as the greater context of their work. While providing some project parameters is useful (and realistic), my goal in teaching interactive design is not to elicit a uniform response to a problem. Instead, I direct students to explore processes and solutions based on their research, perspectives, and various methods of creating. This teaching style encourages students to initiate and complete assignments, framed by their awareness of current design issues, standards, theories, and design history – while also envisioning the future.

Introducing complexity

I believe that design education should strive not only to prepare students for the pace, complexity, and ambiguity of the world they will face upon graduation, but also to show them the myriad ways that design could promote the welfare of people and planet. In the coming years, it is my hope and vision that designing for sustainability will gain greater traction as society witnesses design's positive impacts and cultural innovations, particularly in the realms of behavior change and civic engagement. As visual communication tools and acumen become more mainstream, designers have the opportunity to change the perception that design is for the elite, and instead delve into substantive global and social problems.

The best teachers prepare students to ask complex questions that will help them move beyond obvious approaches to actually challenge boundaries, and ultimately innovate more conscientious, pleasing, and effective solutions. One of the ways such teachers succeed is by creating a safe and positive learning environment with limitless possibilities. I work diligently to cultivate this type of atmosphere in all of my classes by not only grouping students into different teams and configurations throughout the semester, but also talking in depth about how to successfully communicate and collaborate. Establishing this space and encouraging students to learn from their peers cultivates a productive studio culture: peers support each other, exchange feedback, and build upon each other's ideas.

Although I am comfortable integrating tools and techniques into my courses, and believe that interactive designers should understand code, I have observed that students often place too much importance on learning software in the college classroom environment. In the midst of constant technological progression, teaching them to approach problems by thinking for themselves is a more durable skill that will extend to their future design practice and life. In my experience of teaching software and techniques, students retain more technical knowledge when it is co-introduced alongside theory and necessitated in the context of a specific design problem.

Design is inherently complex – creating solutions that seem simple requires a great deal of research, synthesis, ideation, planning, and trial and error through iteration. After discussing the "big picture" overview, I break intricate analytical and creative phases into digestible chunks, explaining how all of the parts relate. As in professional practice, my students have multiple check-in points (milestones) during each project phase so they can present ideas, ask questions, and get feedback from me and their peers. The class becomes invested in their collective success.

On a related note, because they are designing sophisticated solutions, I believe design students must also learn how to adequately describe their work through adept writing and oral presentations. My students at all levels write reflections on each of their major projects and deliver many formal presentations to the class and to guest critics throughout the semester.

Thinking through making

In addition to conducting research for their projects, I encourage my design students to actively visualize their research findings so they can use them as tools to

make informed decisions about their potential design interventions. Their research visualizations also serve as a communication tool about their process, which is particularly effective when working with teams and will have industry value in the future when they are communicating with colleagues and clients. Through co-design methodologies that engage designers with their audiences (real people!) during the design process, my students participate in activities such as brainstorming, research, sketching, modeling, low-stakes design studies, and concept and usability testing en route to a finished product. These phases help students become more empathetic to their audience and more attuned to the importance of process.

Multidisciplinary, collaborative work

Design is a productive outlet for my inquisitiveness and my love of research, communication and form-making. My professional and academic experiences in collaborating with other designers and disciplines is stimulating and highly constructive. I continue to pursue collaborative projects in practice and in the classroom. My students have opportunities to build collaboration skills by working not only with immediate peers and students from other fields, but also with students from other cultures, as in my ongoing collaboration between my senior design classes at RIT and my colleague Denielle Emans' design students at Virginia Commonwealth University Qatar in Doha, Qatar.

I believe multidisciplinary collaboration is increasingly common in industry because it is critical to the development of inventive work. Thus, design educators should prepare students with the social, technological, intellectual and design tools to facilitate their success in this important arena. Please see my Research Statement for more details on recent multidisciplinary projects that also provide unique and cross-cultural learning opportunities for some of my students.

Accountability and assessment

Students should be able to visually demonstrate their understanding of information and concepts, not just regurgitate them in presentation. Visualized research, process work, and an ability to make complex information understandable reveal a student's true grasp of a problem's many layers. Ultimately, students working at the highest levels can convey not only a connection to the subject matter and audience, but also show their own opinions and voices within original, provocative, and engaging designs.

Giving students the opportunity to evaluate their peers and themselves reinforces accountability, helps students practice presentation and critical analysis, and adds variety to the typical critique formats. I use many different critique formats in my classes: for example, students may engage in written analyses, small-group reviews, online discussions, one-on-one meetings, or formal presentations. I find that students appreciate the novelty of participating in unconventional critique formats, and that these varied approaches strengthen their analytical skills. Additionally, they help give a voice to students who are shy, speak English as a second language, or who might otherwise have difficulty contributing verbally in class.

The big picture: redirective practice

Tony Fry has written extensively about redirective practice, saying that this concept "elevates the seriousness, importance, and futuring potential of design." Through my courses, I try to shift students' perspective of what the practice of design can entail by creating scenarios in which designers can wear multiple hats, can do more than just commercial work, or can approach traditional design roles in new ways. As I have seen through many of my course projects, the introduction of redirective practice into the design classroom can further expose students to critical contemporary topics that could greatly benefit from successful design, including local economies, ecological issues, cultural preservation, and global perspectives. Through grappling with intractable problems that impact life on a global scale, design students can start to see the value and application of design. In lieu of one-off "things," they begin to see design as an approach to systems thinking in a transdisciplinary sense. Though it may take a lifetime for students to evolve into interdisciplinary scholar-practitioners such as Oliver Wendell Holmes, they emerge from my courses having had a taste of holistic thinking and the challenge of a true brain-stretch. I am invested in this approach not to create efficient "pixel-pushers" for today, but to help develop the radical game-changing design minds of tomorrow.