Industry Innovation and Classroom Constraints: Infusing Real-World UX into the University Classroom via iFixit’s Technical Writing Project

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ABSTRACT

iFixit’s Technical Writing Project provides an example of an innovative academia-industry partnership that introduces students to the field of UX. The project bridges the industry-academia divide by leveraging private-sector flexibility along with UX’s transdisciplinary nature in the design of a modular, academically-recognizable service learning project that has been successfully incorporated as coursework across multiple university departments. While gaining hands-on experience in UX design, students are exposed to best practices in information architecture, SEO, usability testing, content strategy, and categorization. At project’s end, student work is published on iFixit’s wiki-style website, which is accessed by 85 million users annually. Developed and implemented within the constraints of the academic context, innovative programmatic features—such as offering modifiable project scopes and timelines, providing students and instructors with substantive feedback and support from professional staff, and dividing the project into clear milestones—ensure that the project maintains academic rigor while simultaneously meeting the needs of its industry partner.

KEYWORDS

Academic-Industry Partnership, iFixit, Project-Based Learning, Technical Writing Project, User Experience, UX Design, UX Education

INTRODUCTION

The iFixit Technical Writing Project offers one successful example of an innovative partnership between industry and academia that infuses UX best practices and principles throughout the project. The purpose of this paper is to introduce the model developed by iFixit in partnership with university instructors at over 50 universities to date. Specifically, we discuss how the project we have developed strives to meet the needs of all stakeholders (university, student, instructor, iFixit, and the greater public) while addressing the differing constraints experienced by industry and academia. We identify the goals and challenges in setting up the project, provide the rationale and program overview, and detail how the project is experienced from the perspective of the instructor and the student. Throughout, we address how the partnership, while developed with attention to practical constraints, owes its success in large part to the explicit foregrounding of the broader social motivations underpinning the entire endeavor. Specifically, we explore how iFixit and the university are both mission-driven enterprises whose foundational principles align, and we make the case for the strength of our partnership arising from its consciously student-centered approach to learning and knowledge making.
PROJECT RATIONALE AND OVERVIEW

In this section, we will briefly introduce iFixit, outline the genesis of the Technical Writing Project (TWP), and provide an overview of how the current iteration of the Technical Writing Project is experienced from the perspective of participating students and instructors.

iFixit began in a dormitory room on the campus of California Polytechnic State University in San Luis Obispo in 2003, when two roommates, attempting to repair a broken laptop on their own, turned to the internet in search of repair documentation. Finding no service manual available to the public, they took it upon themselves to fill the knowledge gap by creating one on their own. They soon realized that there was a great demand for repair documentation as well as the tools needed for the general public to fix their own consumer devices. They then developed a website to freely share repair information with a growing online community of repair-minded individuals. The website has expanded in scope, and is now a trusted reference source of user-generated repair guides accessed from around the globe by 85 million users annually.

According to its official web page, iFixit describes itself as:

...a wiki-based site that teaches people how to fix almost anything. Anyone can create a repair manual for a device, and anyone can also edit the existing set of manuals to improve them. Our site empowers individuals to share their technical knowledge with the rest of the world. (“About iFixit,” n. d.)

In line with its do-it-yourself, pitch-in-and-share-what-you-know ethos, the “About iFixit” page features a call to action—“So what are you waiting for?”—as well as hyperlinks inviting users to “start a new guide” or “improve an existing one.”

Visitors to the iFixit website can freely access nearly 22,000 repair guides for over 6,000 unique devices. While the focus is heavily on consumer electronics repair, anyone can submit guides for anything. This freedom from constraint has resulted in users contributing repairs in a plethora of categories, from laptops and smartphones to bicycles, toys, and toasters.

The TWP arose out of iFixit co-founder Kyle Wiens’ personal experience as a university student in a technical writing course. His frustration over the lack of any practical relevance to his assigned coursework provided the impetus, years later, for designing a program that would enrich students’ understanding of the power inherent in well-crafted, feature-rich technical documentation. The project was conceived from the outset as a way to make the technical writing curriculum come alive for students by providing them the opportunity to create something that “actually teaches people how to do things” (Wiens & Bluff, n. d.). Because success is measured in terms of the user’s ability to accomplish a task or better understand a process while engaged with the documentation, the user’s experience lies at the very heart of the project: “If your manual succeeds, the reader will have done something that wasn’t possible without your help. And that’s pretty amazing.” (Wiens & Bluff, n.d.).

Students engaged in the project help to address a lack of readily-available repair documentation for the proliferation of consumer devices flooding the marketplace. While iFixit employs a team of technical writers to produce repair guides for targeted devices, the sheer volume and ever-accelerating product release cycle of consumer goods make it impossible to create all desired guides in-house. iFixit leadership saw a unique opportunity to leverage the company’s physical proximity to a local university to train students from various disciplines in best practices for technical communication while creating repair guides for the general public.

As stated on the “Prospective Universities” page of the edu.iFixit.com website:

iFixit’s Technical Writing Program brings a hands-on, real-world technical writing project into university classrooms around the world. The program is a unique opportunity for student groups to document the repair of a consumer device through iFixit’s collaborative online platform. The product of the students’ efforts is a free repair manual for anyone to use, as part of iFixit’s global effort to keep as many devices as possible out of landfills. (“Prospective Universities,” 2015)
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