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Creating an Online Resource about Careers in the Instructional Design and Technology Field

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Design & Development Project Report
Instructional Psychology & Technology, Brigham Young University

Purpose

Instructional Design and Technology (IDT) is a broad and diverse interdisciplinary field with a variety of career paths (see Bodily, Leary, & West, 2019). As a result, many people who are new to the field have a hard time learning about career options in the field and many people with experience in the field struggle to select a career path.

Several factors make learning about the IDT field challenging. First, a consistent name for the field has not been established. Titles for the field include instructional design and technology, instructional technology, educational technology, instructional design, instructional systems design, and learning experience design, among others (see Lowenthal & Wilson, 2010). Second, career paths within the field cover a variety of sectors, including corporate, academic, government, military, and non-profit. Job roles and responsibilities in one sector may vary greatly from those in another sector. Third, disparate job titles are often used to describe similar positions within the field (e.g., instructional designer, educational technologist, curriculum developer, e-learning specialist, learning experience designer, and training and development professional).

Yet despite these complexities, many people are attracted to the IDT field, and a large number of organizations are actively searching for qualified candidates with a background in IDT. According to the U.S. Bureau of Labor Statistics, the United States had over 300,000 instructional design specialist jobs in 2018 (Bureau of Labor Statistics, 2020). According to Burning Glass Technologies, the number of IDT jobs continues to grow—there were 36% more new job postings for instructional designers in 2018 than in the previous year (Instructional Design: A Growing Field, 2019).

For my design and development project, I created and implemented a website titled EdTech Careers for the Instructional Psychology and Technology (IP&T) department at Brigham Young University (BYU; see Figure 1). The website helps learners explore career paths in the IDT field, connect with and learn from IP&T alumni who are currently working in the field, and narrow down their career interests so they can locate and apply for a suitable job.
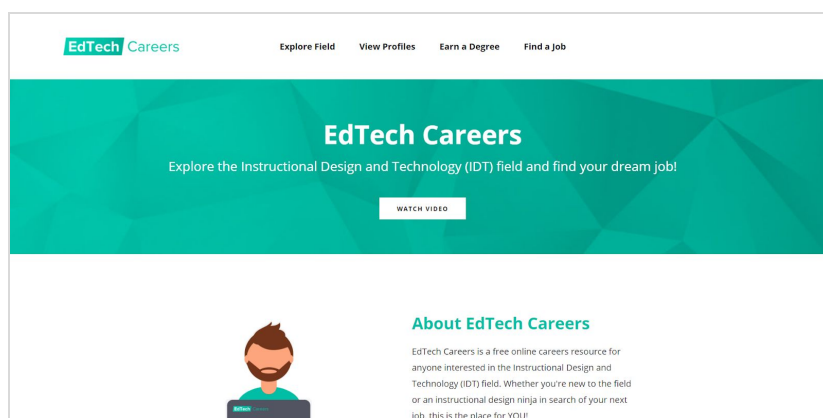

Figure 1. Homepage of EdTech Careers.

The sponsors of the project are Royce Kimmons, Jason McDonald, and Richard West, who serve together on a committee responsible for improving the online presence of the IP&T program. Because of their shared interest in this topic, these professors serve as the committee members of my project, with Kimmons as the chair. As directed by Kimmons, the majority of the website's content is directed to a general audience, rather than solely to prospective and current IP&T students, so the website can benefit the IDT community at large.

Additional project stakeholders include Jessie Curtis, who leads advertising efforts for the IP&T program, and Heather Leary, who teaches the Introduction to Educational Technology (IP&T 520) course. Curtis uses EdTech Careers as an informational and marketing resource for prospective IP&T students; Leary uses EdTech Careers to help introduce first-semester IP&T students to the IDT field during the IP&T 520 course (see the Implementation Instruments section).

<div align="center">**References**</div>

Bodily, R., Leary, H., & West, R. E. (2019). Research trends in instructional design and technology journals. *British Journal of Educational Technology, 50*(1), 64-79.

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Project Needs and Constraints

The target learners of EdTech Careers are people inexperienced in the IDT field who are exploring future career possibilities and people experienced in the IDT field who are actively searching for job opportunities. While these audiences may seem very different, they are actually just different stages along the same learner's career journey.

An example from my current job illustrates this point. As a corporate instructional designer for a financial technology company, I am a part of the Customer Success team. On the team, I develop training that is administered to clients at various points during their multi-year use of our products. Our team creates client journey maps to highlight the many times in which our clients interact with our company, from awareness of our products, to purchasing our projects, to—ideally—long-term loyalty to our products. Similar to a client journey map (often called a customer journey map), EdTech Careers was created to help aspiring IDT professionals along each step of their career journey, from learning about the field (see the *Explore Field* section), to pursuing a degree in the field (see the *Earn a Degree* section), to finding a job in the field (see the *Find a Job* section). The *View Profiles* section is populated by responses from alumni further in their career journey to help people beginning their career journey; it is also a helpful networking resource to fellow alumni searching for jobs later in their careers.

As mentioned on the Current Trends page of EdTech Careers, there has been a recent shift in the corporate sector of the IDT field from conceptualizing learning as a sporadic collection of

isolated learning experiences to "a complex, integrated system of formal and informal learning. Learning is not an event, but a journey" (Hart, 2019). With this in mind, I sought to make EdTech Careers a thorough ecosystem of information and resources to help prospective IP&T students, current IP&T students, and other aspiring IDT professionals on their career journey.

For my learner analysis, I conducted a 30-minute phone call and a learner analysis survey with Viktor, a semi-structured in-person interview with Duane, and a semi-structured phone interview with Isabel. (Please note that pseudonyms are used throughout this document to preserve the privacy of learners, usability walkthrough participants, survey respondents, and other project participants. However, I use the real names of the BYU IP&T faculty members who served as the stakeholders and sponsors for the project.)

Viktor is a junior studying Psychology at BYU. After two years of teaching English at the Missionary Training Center (MTC), Viktor was moved to a Curriculum Development position. Viktor enjoys the new position and several of his colleagues have encouraged him to pursue a career in the IDT field. Based on a friend's recommendation, Viktor contacted me to ask questions about the IDT field and the BYU IP&T program.

Similar to Viktor, Duane studied Psychology for his undergraduate degree at BYU. After a conversation with one of his professors, Duane decided to pursue a career in the IDT field. He recently began a master's degree in Instructional Technology and Learning Sciences at Utah State University and is anxious to gain knowledge and experience in the IDT field.

Isabel is a recently graduated IP&T master's student. Earlier this year, she finished her last semester of classes and defended her design and development project. She actively applied and interviewed for full-time corporate instructional designer positions, eager to find a job in the current volatile economy. During the course of my project, Isabel obtained an instructional design job at a healthcare analytics company.

Viktor's difficulty in finding relevant information about careers in the IDT field as well as the challenges of my IP&T cohort in finding suitable post-graduation jobs served as the genesis for this project. For more information about the learner personas, see the Learner Analysis section.

Although my committee members, who served as the sponsors for this project, did not have a specific deadline for EdTech Careers to be completed, Heather Leary wanted the website to be completed before the Spring 2020 semester so she could utilize the resource in her Introduction to Educational Technology course. Jessie Curtis also wanted the project to be completed quickly so she could use it during the BYU Virtual Graduate School Fair and in the Mailchimp marketing campaign.

References

Hart, Danielle. (2019, February 18). *2019 Instructional Design Trends And Learning Trends: The Ecosystem Evolves*. eLearning Industry. Retrieved from https://elearningindustry.com/ 2019-instructional-design-trends-learning-trends-ecosystem-evolves

Product Description

EdTech Careers (https://www.edtechcareers.org) is a multi-page, responsive website. The website has four main sections, with three to six pages in each section (see Figure 16 in the Design Specifications section). Although the website can be explored in whatever order and depth best meets the needs of individual learners, the overall website structure follows a logical, intentional flow.

The first section, *Explore Field*, is targeted to inexperienced learners who want a better understanding of the IDT field. This section helps learners identify job sectors they could work in, skills they could acquire, and job titles they could seek to qualify for. As requested by Richard West, the section also includes current trends in the IDT field and video interviews with IP&T alumni about their work experiences.

This leads learners to the second section, *View Profiles*. In this section, learners can read the profiles of IP&T graduates to learn first hand why the graduates pursued a career in the IDT field, what they do on a day-to-day basis, how they found their jobs, and how their graduate program prepared them for their careers. This section also includes a link to a EdTech Careers Alumni Profile Survey, created in Google Forms, for future IP&T graduates to add their profile information.

While most of the website is geared toward a broad audience of people interested in the IDT field, the third section, *Earn a Degree*, is targeted to current and prospective students of the BYU IP&T program. Learners can visit the official BYU IP&T website, learn about the history and legacy of the IP&T program, and navigate an interactive map to see where IP&T alumni have worked.

The final section, *Find a Job*, is targeted to experienced learners who are actively searching for jobs in the IDT field. Learners can read advice from job seekers, learn about the value of college and university career centers, explore job boards and other employment websites, connect with others through professional associations, learn realistic salary expectations, and gain inspiration from IDT professionals' portfolios. For more information about the website, see the Actual Product and Product Walkthrough sections.

Design Process and Evolution

I created EdTech Careers using the Successive Approximation Model (SAM), an agile instructional design approach created by Michael Allen and Richard Sites (Allen & Sites, 2012). By using SAM, I was able to make iterative improvements to the website based on learner and stakeholder needs For more information about my implementation of SAM, see the Instructional Design Approaches section.

One of my initial questions when beginning the project was, "What is the best format to present the online careers resource?" I initially explored the following format options:
1. Content included on the official BYU IP&T website
2. A website created using Weebly, a web hosting and website creation service
3. Content included in the IP&T Master Student Handbook (a Google Doc)

4. A separate Google Doc
5. A Google Slides presentation
6. An eLearning Course created in Articulate Rise

After discussions with committee members, I created prototypes in the three formats that appeared to best accomplish the purpose of the project: a Google Doc separate from the IP&T Master's Student Handbook, a Google Slides presentation, and a Weebly-based website. I shared the prototypes with my committee and with current students in the IP&T program and received their feedback. I then compiled information about the benefits and limitations of all six possible formats (see Table 6 in the Design Prototypes section). Based on my research, I concluded that the best format for the online careers resource would be a website created using Weebly.

I then created several successive iterations of the EdTech Careers website. The initial prototype (Alpha) had six pages—a homepage and five pages about different sectors within the IDT field. The subsequent prototype (Beta) had three sections and 11 pages. The three sections were (1) *Explore Field*, (2) *View Personal Narratives*, and (3) *Find a Job*. The final product (Gold) has four sections, 19 learner-facing pages, and three administrative-facing pages. The four sections are (1) *Explore Field*, (2) *View Profiles*, (3) *Earn a Degree*, and (4) *Find a Job*. The website connects to several third-party resources that I created, such as an interactive map created using Google My Maps and another Weebly-based website about the history of the BYU IP&T program. The final product serves as a robust ecosystem of relevant resources for aspiring IDT professionals at different stages of their career journey. To view detailed descriptions and screenshots of the different EdTech Careers iterations, as well as the rationale for changes and additions to the website, see the Design Prototypes section.

Product Implementation

The long-term success of EdTech Careers largely depends on the effectiveness of the website's implementation. To ensure EdTech Careers remains a valuable resource for the IP&T program, I used a variety of methods to market the website, maintain its content, and help IP&T professors utilize the website in their curriculum.

I included several key resources to help with the website's implementation in the Admin Resources section at the bottom of the EdTech Careers homepage. The resources are titled (1) Marketing Materials, (2) Sample Lesson Plans, and (3) Updating the Website. To advertise the website to prospective IP&T students, information about EdTech Careers was included in Jessie Curtis' Mailchimp email marketing campaign and in the 2019 Virtual Graduate Student Career Fair. To advertise the website to current IP&T students, I created posters for the IP&T lab and slides for the monitor in the lab. I also sent out an email about EdTech Careers through the program listserv.

To facilitate sharing of the website, I embedded social media icons on the EdTech Careers homepage. With the help of Aaron Olsen, I also added information about and a link to EdTech Careers on the Career Information page of the official IP&T website. To integrate EdTech Careers with EdTech Books, the open textbook publishing platform that Royce Kimmons created, information about EdTech Careers was incorporated in Section VI (Preparing for an LIDT Career) of the Foundations of Learning and Instructional Design Technology textbook.

To maintain the *View Profiles* section of the website, I created a Google Doc that teaches IP&T secretaries how and when to send out surveys, and how to add the survey responses to the website. The document includes step-by-step instructions in both written and screen-recorded video format. I set up recurring email reminders to remind the IP&T secretaries of this important responsibility.

To help current IP&T students familiarize themselves with EdTech Careers and take advantage of its resources, I wrote sample lesson plans to help IP&T professors incorporate the website in their class curriculum. For example, I worked with Heather Leary to create six lesson plans for the Foundations of Instructional Technology (IP&T 520) class, which most students take during their first semester of the program. I set up recurring email reminders to encourage the IP&T professors to use the lesson plans. For more information about my implementation efforts, see the Implementation Instruments section.

Assessment and Evaluation

To evaluate EdTech Careers, I created a Product Evaluation Survey using Google Forms and sent it to several groups of people, including project sponsors, other project stakeholders, IP&T professors, current and prospective IP&T students, and professionals working in the IDT field. The Product Evaluation Survey focused on how well EdTech Careers met the website's three primary learning objects. The results of the non-open-ended questions indicate that the website "completely" or "mostly" meets the website's intended learning objectives (see Figure 16 in the Product Evaluation Survey section). The open-ended questions were especially insightful in revealing website features that learners and stakeholders valued most and in providing suggestions for specific changes and additions to the website. For more information about how feedback from the Product Evaluation Survey led to improvements to EdTech Careers, see the Assessments and Evaluations Reports and Instruments section.

To further evaluate EdTech Careers, and at the request of Jason McDonald, I conducted usability walkthroughs / think-alouds with learners to see how they used the website, what things they did not understand, and what things could be changed to improve the learner experience. My first usability walkthrough was with Kara on March 10, 2020. Kara, who is interested in measurement and assessment, was in her second semester of the IP&T master's program at the time of the walkthrough. My second walkthrough was with Duane, who also was a part of my learner analysis (see the Project Needs and Constraints section). I also performed less formal observations in the IP&T lab of fellow IP&T students navigating the EdTech Careers website. However, the temporary closure of the IP&T lab due to the COVID-19 pandemic limited my ability to perform observations.

A major takeaway from my usability walkthrough with Kara was that many of the website's page titles were unclear and should be renamed to improve clarity. From my usability walkthrough with Duane, I learned that the website was missing a few resources that would benefit IDT professionals in Utah, where most of the website's users are from. For more information about how the usability walkthroughs led to specific usability and content improvements to the website, see the Assessments and Evaluations Reports and Instruments section.

Design Knowledge and Critique

I learned several important lessons as I designed, implemented, and refined EdTech Careers. Based on my experiences during the project, I present strategies that may benefit other members of the IDT community.

Develop Empathy for Learners

During past instructional design projects, I frequently faced the challenge of having limited contact with learners. As a result, I relied heavily on guidance from subject matter experts with second-hand knowledge of the learners' circumstances. In contrast, the learners who use EdTech Careers are my friends and colleagues. The challenges they face on their career path are not unknown or abstract; they are challenges I have experienced myself.

My understanding of and empathy for learners impacted the scope and features of EdTech Careers. Because I know aspiring IDT professionals face different challenges at different stages of their career paths, I decided to provide content on EdTech Careers to help learners with varying degrees of experience in the field. As a result, the scope of the website is larger than it otherwise may have been.

The features on the website were also driven by the needs of learners. As an example, I spoke with learners about the challenges of finding jobs that met specific criteria, including finding jobs in specific geographical locations. This led me to explore a variety of possible features that would help learners more easily locate jobs that met their needs. Ultimately, I created the Map of Where IP&T Alumni Work page, which features an interactive map of companies, schools, and other organizations where IP&T alumni work and automatically generated links about each place of employment.

From this project, I learned the importance of continuously communicating with learners to identify and understand their challenges. By empathizing with learners, IDT professionals can create solutions that actually get used because they meet the needs of learners.

Create Rapid Prototypes Early On

During the project, I learned the importance of creating rapid prototypes very early on. My initial Google Docs and Google Slides prototypes quickly helped me realize that a more visual, interactive format of the careers resource would better meet the needs of learners. During past instructional design projects, I waited to conduct more thorough analyses before creating prototypes; during this project, I learned that creating rapid prototypes helps facilitate learner analysis and helps to avoid time-consuming work on a misguided learning product.

Utilize Usability Walkthroughs

I also learned the value of usability walkthroughs. As the designer of EdTech Careers, I naively assumed that the different page titles were self-explanatory and that the page sections were organized intuitively. After completing usability walkthroughs, I learned that many of the page

titles were confusing to learners and that some important parts of the website were completely looked over by learners! From this experience, I learned that usability walkthroughs are an effective way to collect relevant data about a project and that I should always have learners test products before I assume they are user friendly and clear.

Help Contributors Feel Recognized and Appreciated

EdTech Careers would not be as useful as it is today without the help and feedback of others. People contributed to the project by participating in learner analysis interviews, usability walkthroughs, and product evaluations. In addition, IP&T alumni and current students with jobs in the IDT field took the Alumni Profile Survey, enabling me to populate the *View Profiles* section with their responses.

Following a suggestion from Richard West, I did not include the word "survey" in the email heading to alumni and students about the Alumni Profiles Survey. Instead, I used the email heading, "The New IP&T Careers Website!" This helped people focus on the outcome of their survey responses and not on the fact that they were being asked to fill out a survey. People may also have been more willing to complete the survey because they knew their responses would be published online and read by others, and not just stored within someone's Google Drive.

Many alumni and current students with jobs in the IDT field took the survey seriously and wrote meaningful advice and responses about their work experiences. I sent the EdTech Careers Alumni Profile Survey to 130 people (93 alumni who graduated in 2016 or later and 37 current IP&T students). My goal was to have 25 responses; I was grateful to surpass this goal with 31 responses, a response rate of 24 percent.

Because I knew that getting responses to the survey was essential to the quality and usefulness of EdTech Careers, I decided not to send a mass-survey request via the Alumni listserv. Instead, I sent individual emails to each person, addressing them by name. This took much longer and was completed in five different sittings, but it was worth the additional effort. After finishing development of EdTech Careers, I thanked participants for their time and contributions. From the project, I learned that people really are willing to contribute their knowledge and experience with others—they just need to know how their service will directly impact others and feel recognized and appreciated for their efforts.

Be Willing to Adjust When Unexpected Challenges Arise

Because I created EdTech Careers during the Coronavirus-19 (COVID-19) pandemic, my project was affected by circumstances brought about by the pandemic. When the David O. McKay building was closed, I was not able to display posters and slides in the IP&T lab for other students to see. Due to social distancing, I was limited in my ability to perform live usability walkthroughs. I was also no longer able to meet face to face with my committee members, and some people who commited to participate in the project were no longer able to do so.

While it may have been impossible for me to foresee the COVID-19 pandemic and its ramifications on my project, I learned the importance of preparing for and responding to unexpected challenges, regardless of their source. I replaced face-to-face meetings with committee members with Zoom video calls and long email threads. I placed additional emphasis

on obtaining feedback from learners through the Product Evaluation Survey. I also focused on advertising EdTech Careers online through the BYU Virtual Graduate Student Fair, email marketing campaigns, messages on the IP&T listserv, and other means. When a person who committed to participate in a learner analysis survey backed out, I found another person to take their place. From these experiences, I learned that communication, creativity, and perseverance are key to responding to unexpected challenges.

Appendix

Actual Product

EdTech Careers is accessible online at https://www.edtechcareers.org. A screenshot of the EdTech Careers homepage is shown in Figure 2.
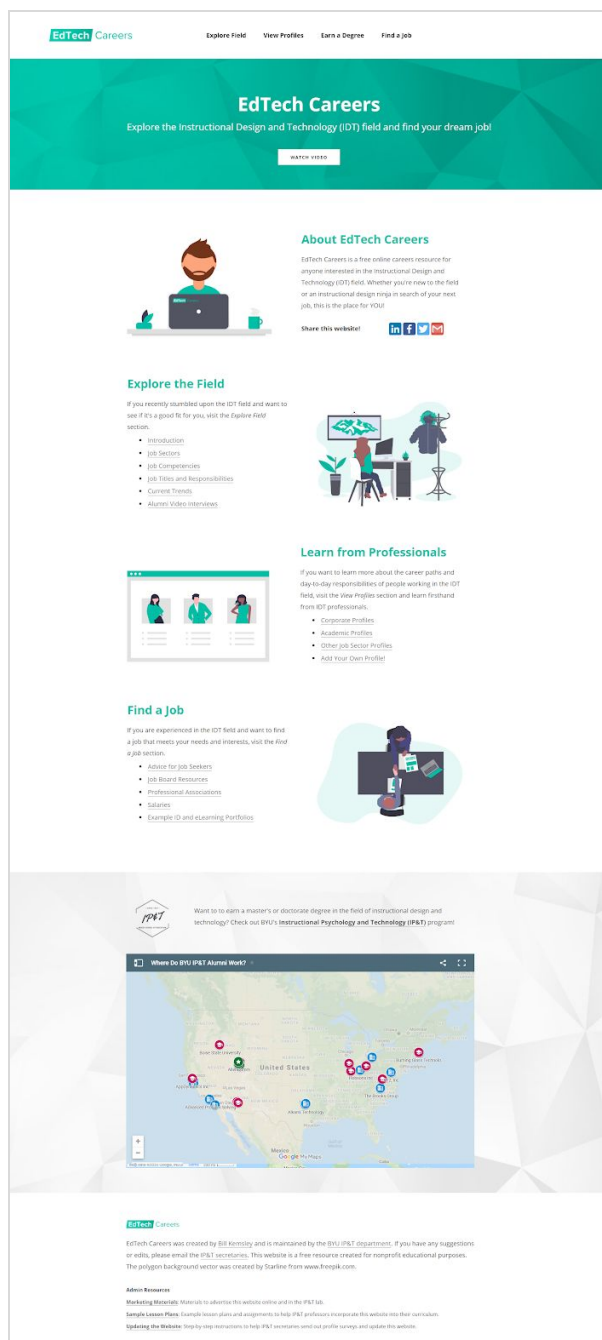
Figure 2. Entire homepage of EdTech Careers.

Product Walkthrough

I created a 2.5 minute video walkthrough of EdTech Careers, which can be accessed at https://edtechcareers.weebly. com/video.html (see Figure 3). Learners can get to this page by selecting the "Watch Video" near the top of the EdTech Careers homepage. The video is also hosted on YouTube.
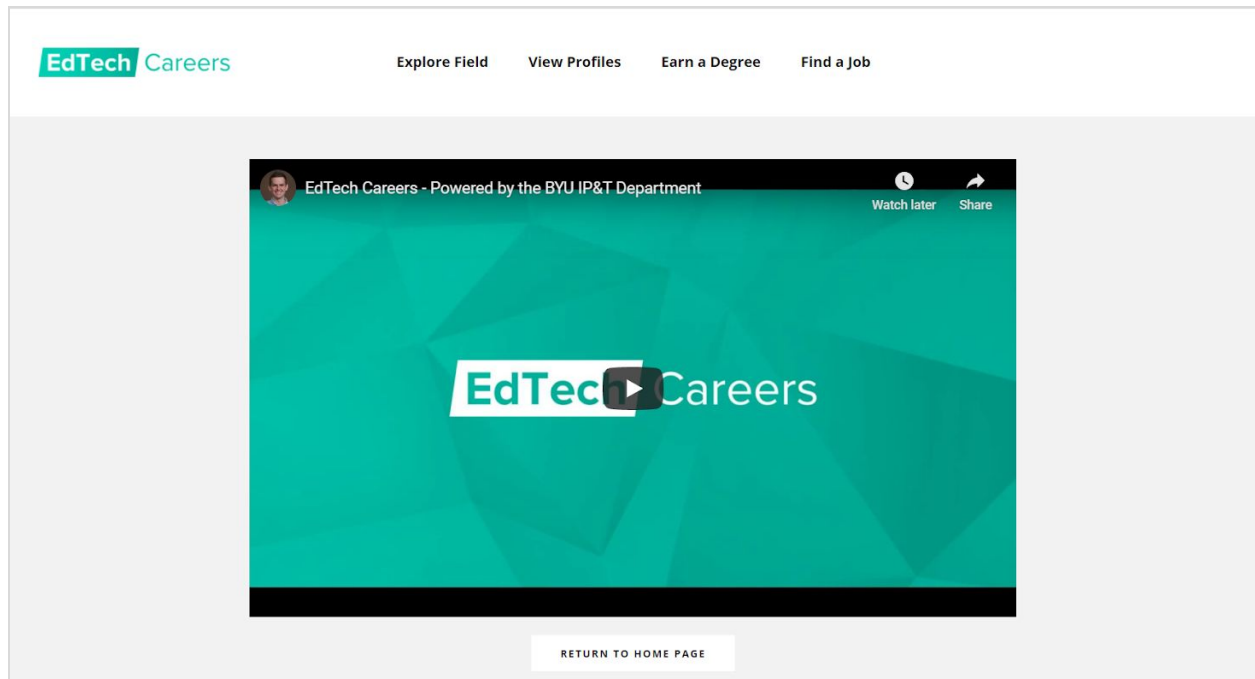
Figure 3. Video walkthrough of EdtTech Careers.

Learner Analysis

EdTech Careers is targeted to both people with limited experience in the IDT field who are exploring future career possibilities (e.g., prospective students; see the personas of Viktor and Duane) and people with significant experience in the IDT field who are actively searching for job opportunities (e.g., soon-to-graduate IP&T students; see the persona of Isabel.) As explained in the Product Needs and Constraints section, for my learner analysis, I conducted a 30-minute phone call and a learner analysis survey with Viktor, a semi-structured in-person interview with Duane, and a semi-structured phone interview with Isabel.

Persona 1: Viktor
Viktor is a junior studying psychology, in addition to two minors, at BYU. His father received a PhD in the IDT field, but Viktor himself was not directly exposed to the field until he was transitioned from an English-teaching position at the Missionary Training Center to a curriculum development position. In a learner analysis survey, Viktor stated that he has worked for several different jobs but "the two [jobs] that have made the biggest impact on me have been my time as a teacher and a curriculum designer at the MTC."

Several of Viktor's colleagues at the MTC are IP&T graduates who have encouraged Viktor to pursue a career in the IDT field. Based on the recommendation of a mutual friend, Viktor called me in late 2019 to ask questions about the IDT field and the BYU IP&T program. In a learner analysis survey several months later, Viktor explained that to learn more about the IDT field, "I have talked to lots of people, looked up programs and careers on the internet, applied for jobs, done [IDT-related work] for a job, and even just made my own little instructional projects on my own." His work experience and exploration of the field led to his plan to pursue a degree in IDT upon completing his undergraduate program.

When asked what is most confusing about the IDT field, Viktor wrote, "It is kind of tricky to nail the field down when everybody is working on a different type of project." I can certainly relate to Viktor's sentiment (see the EdTech Careers Introduction page); for example, while working at a custom eLearning development company, I spent one week developing a course on lightbulb safety certification and the next week developing a course on cryptocurrency crime. Viktor also described the challenge of understanding "the dichotomy between studying learning and studying teaching. These are both part of the field, but they are largely different topics."

When asked what types of things would be most helpful in a website about careers in IDT field, Viktor wrote:

> To give as many different examples of what people are doing in the field as possible. I want to know what are really common types of jobs, but also what kinds of jobs are on the periphery. I would also like to know what skills a degree in this field would teach me.

For an overview of the learner persona of Viktor, see Table 1.

Table 1. Viktor Overview

Background	BYU junior finishing undergraduate degree in psychology Curriculum designer at the MTC Plans to obtain a degree in instructional design
Relevant interests	Second-language acquisition Teaching and learning Curriculum design Organizational development
Goals for using the website	Explore diverse examples of jobs in the field Identify common and peripheral jobs in the field Learn what skills an IDT degree would teach
Job sectors of most interest	Still exploring all career sectors
Website pages of most interest	Job sectors Job competencies Job titles and responsibilities Corporate, academic, and other job sector profiles

Persona 2: Duane
Duane is a senior at BYU who recently graduated with an undergraduate degree in psychology. When I interviewed Duane, he was in his last semester of the program. Before pursuing a degree in psychology, Duane planned to study information technology (IT). However, Duane became tired with the monotonous parts of the IT major, such as coding. He felt that the material was not taught in a way that he understood it enough to apply for jobs in the field. In 2017, Duane took a human computer interaction course and was really impressed by how clearly and understandably the professor taught the material. Although the course was part of the IT program, it was taught by an instructional designer. One day after class, Duane spoke to the professor and asked "What did you do? I'm interested in doing what you do." The professor told him about the IDT field and encouraged him to join the design thinking minor. Duane joined the minor and switched to the psychology major because, he explained, "it could get me through fast and was related to what I was interested in."

Duane recently began a master's degree in the IDT field at a university in Utah. He also is working remotely for a custom eLearning company. For a recent project, he wrote and edited content for a course "to teach adolescents—middle school and high school students—about healthy relationships." To learn more about the IDT field, Duane tries to keep in touch with members of the BYU IP&T faculty and of the faculty at his new university. He also surrounds himself with a network of individuals working in the IDT field. He explained that the IDT field "struck me as a very collaborative and inviting environment to work; a space where people were willing to teach one another and mentor one another." To find suitable jobs in the field, Duane networks with others and searches on LinkedIn and Indeed.

Duane had a variety of suggestions about what an effective website about careers in the IDT field could include. He would want the website to describe "specific skills that people are looking to find in applicants," perhaps by having a "module to test your knowledge or aptitude in certain skills." Duane also emphasized the importance of facilitating true relationships. He explained, "I think what's been pretty pivotal for me is having people to talk to, not just in a virtual setting, but actually forming real mentor-like connections." Duane also surmised, "My perception is that those who are in the industry know the industry well, and those who are out of it have no idea of what it is." Because of this, Duane suggested that it would be important to explain what the IDT field is at a very basic level, so it could easily be understood by others. Finally, Duane mentioned that there are a variety of "niches" within the corporate instructional design field; for example, a team could have eLearning developers, a visual designer, and an audio editor. He suggested that these niches within sectors of the field be addressed.

For an overview of the learner persona of Duane, see Table 2.

Table 2. Duane Overview

Background	Graduated with a psychology major from BYU Started first IDT job at a custom eLearning company Recently began a degree in the IDT field at a university in Utah
Relevant interests	Psychology

	User experience design eLearning development Graphic design Information technology
Goals for using the website	Better understand the field as a whole Make connections Mentor and be mentored by others Learn what skills to develop Find job opportunities Learn more about specific job roles
Job sectors of most interest	Corporate Higher education
Website pages of most interest	Corporate and academic profiles Introduction Job competencies Job titles and responsibilities Map of where BYU IP&T alumni work Job board resources Example IDT and eLearning portfolios

Persona 3: Isabel

This April, Isabel graduated from the IP&T master's program after completing her last semester of classes and successfully defending her design and development project. Isabel became interested in the IDT field after working as both an elementary school teacher and as a software trainer. While working as a software trainer, Isabel observed that customers were inundated with information and did not know what to do with it. Because Isabel had been introduced to instructional design during her elementary education undergraduate program, Isabel realized that "instructional design solved those problems." After incorporating instructional design skills at the software company, Isabel thought to herself, "Maybe I should go into instructional design and get an actual degree." After learning that the BYU IP&T program had a final design project option, Isabel applied and was accepted into the IP&T program.

As a recent graduate, Isabel actively applied and interviewed for corporate instructional design positions that matched her needs. At the time of my interviews with Isabel, she was still searching for a job. She has since obtained an instructional design position at a company in the healthcare industry.

In her search for a job, Isabel tried to talk to and network with as many people as possible to help with her job search. She believes that "who you know will get you a job before what you know." Like Duane, Isabel actively used LinkedIn to find current job openings. In addition, she explained, "I use Glassdoor to see employee reactions to companies. There was a job that I thought looked ideal, until I looked at it on Glassdoor." As a result, Isabel did not apply for the position. While looking on Glassdoor for information about a company, Isabel looks at the "company culture,

employee perception, salary, [and whether] the job [is] something that I am going to be good at and that I can feel confident doing."

Isabel had already seen some initial prototypes of EdTech Careers when I interviewed her (unlike Viktor and Duane). She mentioned that the Salaries page was very helpful, especially the eLearning Guild U.S. Salary Calculator. As Isabel was looking for jobs in various states, it was helpful for her to see the average salaries in different states and the changes to salary based on a person's role within a company. Isabel also thought that the Job Titles and Responsibilities page was helpful. She explained, "You get stuck in the pit of a job when you are doing something different than what you are expecting. Jobs are not always transparent."

For an overview of the learner persona of Isabel, see Table 3.

Table 3. Isabel Overview

Background	Recently graduated from the IP&T master program Taught as an elementary school teacher and as a corporate trainer Began new corporate instructional design job
Relevant interests	Software training eLearning Development Customer service Teaching
Goals for using the website	Network with IDT professionals and (at the time of the interview) find a job
Job sectors of most interest	Corporate
Website pages of most interest	Corporate profiles Advice for job seekers Job board resources Salaries Job titles and descriptions

Insights from the Learner Analysis
The learner analysis revealed that EdTech Careers learners are at different stages of their career paths and consequently have varying levels of knowledge and experience in the IDT field. The learners' backgrounds and the stage of their career path influence what is important to them and how they would engage with the EdTech Careers website. For example, someone new to the field may use the IDT website as an exploratory tool to answer questions such as, "What type of job could I get with a degree in the IDT field?" or "What do people in this career like about their jobs?" Someone with more experience (e.g., a soon-to-graduate or recently graduated IP&T student) may use the website as a launchpad for their networking and job searching. These people may be more likely to connect with IP&T alumni via LinkedIn after exploring their EdTech Careers profiles. Whereas someone new to the IDT field may skip over or casually read the

Advice for Job Seekers page, a person searching for a full-time job may read this page earnestly and implement the advice given.

As a result of my learner analysis, I concluded that EdTech Careers is most valuable by addressing the needs of both inexperienced people exploring future career possibilities and experienced people actively searching for job opportunities in the field. As I explained in the Design Knowledge and Critique section, these seemingly distinct learner groups are different stages along the same learner's career journey. To meet the needs of aspiring IDT professionals at different stages of their career journey, EdTech Careers covers the breadth of the industry while providing sufficient depth to specific learner groups.

Environmental Analysis

As explained in the Purpose section, the sponsors of the project are Royce Kimmons, Jason McDonald, and Richard West. These IP&T professors, who serve as the committee members for my project, also serve together on an administrative committee responsible for improving the online presence of the IP&T program. Together with Jessie Curtis, the sponsors will use EdTech Careers to promote the IP&T program to prospective students and connect current students with alumni. Within the IP&T department, West is in charge of improving alumni relations; as a result he is particularly interested in the *View Profiles* section of the website, which helps website users learn from and connect with alumni.

At the request of Kimmons, EdTech Careers is directed to a general audience and is beneficial to all members of the IDT field (similar to the way that EdTech Books, the open textbook publishing platform that Kimmons created, benefits the IDT community at large). At the same time, based on recommendations from Curtis and Kimmons, I added the *Earn a Degree* section which promotes the IP&T program. In other words, because this project has multiple sponsors and stakeholders with diverse needs, I tried to find the right middle ground between making the website accessible to the IDT community at large and highlighting the IP&T program. (For more information about how I advertised EdTech Careers to both the IP&T community and the IDT community at large, see the Implementation Instruments section.)

As an example, a common employer of IP&T graduates is The Church of Jesus Christ of Latter-day Saints. Instead of referencing work for "the Church" on EdTech Careers, I use terms such as "non-profit" and "religious" to describe this category of jobs in an effort to make the website more accessible to people of diverse backgrounds and faith traditions.

The project sponsors are deeply concerned with preparing students to be successful in their careers—a foundational purpose of higher education. Because the IP&T program includes a large number of students and has limited resources to help students with their job search, the project sponsors are grateful for this new resource. EdTech Careers will help IP&T professors prepare students for their future careers by informing students about career paths in the IDT field, familiarizing students with the actual responsibilities of people working in the field, and directing students to job boards and other resources to help students find suitable jobs.

To make the purpose of the website clear to potential learners, I chose EdTech Careers as the website title. Unlike other names and abbreviations for the field, "EdTech" is easily understood by both people working in the corporate sector and academia. I chose a Weebly subdomain that

was short and clear: www.edtechcareers.weebly.com and Royce Kimmons bought the domain name www.edtechcareers.org. He then redirected www.edtechcareers.weebly.com to the new domain, so people can access the website via either uniform resource locator (URL).

EdTech Careers has been created and hosted on Weebly for free. The IP&T Department spends just $12 per year for the www.edtechcareers.org subdomain, which redirects users to the weebly website. Alternatively, we could spend $72 per year for the Personal Weebly plan which connects to a custom domain. However, a simple website redirect essentially fulfills the same task while saving the IP&T department $60. For example, we are still able to make posters and handouts with the www.edtechcareers.org URL.

For $144 per year, we could subscribe to a Weebly Professional plan, which would remove the blue Weebly ad at the bottom of pages and connect to a custom domain. The custom domain would be included in the package; we would not have to pay the $12 per year elsewhere. However, the blue Weebly advertisement is fairly discrete and does not significantly distract learners from accomplishing the website's learning objectives. As a result, we are not currently spending the extra money each year for the Weebly Professional plan. However, if needed, the IP&T Department may choose to pay to switch to the Professional plan in the future.

For a description of the limitations of other URLs that I previously considered, see Table 4.

Table 4. Limitations of previously considered URLs.

Web Address	Limitations
www.idcareers.weebly.com	"ID" may be an unclear acronym. The website could be about instructional design careers, interior design careers, careers related to identification, etc.
www.idtcareers.weebly.com	"IDT" may be an unclear acronym, especially outside of academia. In addition, the website could be confused with the career page of IDT Corporation (see https://www.idt.net/careers)
www.instructionaldesign.weebly.com	The web address is already being used by a Philadelphia university instructional systems design class. In addition, it is not clear that the website is about *careers* in the field.
www.instructionaldesigncareers.weebly.com	While clear about the website's purpose, the web address is too long and, therefore, harder to type and remember. Also, instructional design may be considered a subfield within the larger IDT field.

Consulting Products/Precedent

Several online resources have been created to help people learn more about the IDT field and find jobs within the field. (For research articles about careers in the IDT field, see the [Domain Knowledge – Careers in the IDT Field](#) section.) The resources are for people with varying levels of experience, and many are tailored to a specific sector of the field (e.g., higher education). Many pages on EdTech Careers are organized collections of relevant and reliable resources that learners can use to explore and find jobs in the field.

Resources about Careers in the IDT Field
Many IDT higher education programs have pages and documents describing careers in the IDT field. For example, the BYU IP&T department has a [Career Information](#) page, which includes information about employment in the field, salaries, career guides, and cost of living calculators. I did not want to take away from the valuable resources on this page; rather, I wanted to add to the resources with additional information about the broad spectrum of career opportunities available in the field. (For information about how I included text about EdTech Careers on the Career Information page, see the [Implementation Instruments](#) section.)

The University of Florida College of Education has a [Career Options](#) page describing career possibilities for educational technologists. This page helped me better understand the breadth of the IDT field. Unlike other resources, the page distinguished "instructional design companies" from other business jobs, which I believe is an important distinction. For example, I have worked for several custom eLearning companies that perform instructional design work for a variety of companies and industries; however, at this stage of my career, I am more interested in working within the internal Learning and Development or similar department within an organization. Influenced by this resource, in the Job Sectors page of EdTech Careers, I describe the differences between custom instructional design / elearning companies and internal instructional design roles that provide either internal training (e.g., human resources training) or external training (e.g., product training to clients).

St. Thomas University Online has [an article](#) that describes the growing field of instructional design and highlights various roles in the field. This article provided relevant data about the growing number of jobs in the IDT field, which I included in the Introduction page of EdTech Careers to help learners understand the growth of the IDT field. The article explained that as technology evolves, jobs that exist today will be irrelevant and new jobs will be created that have not existed previously. We have certainly seen this in recent years with the introduction of new technologies such as artificial intelligence and machine learning. According to the article, IDT professionals perform the essential role of reskilling workers to prepare them for these future jobs.

The University of Chicago has a PDF titled [Careers in Instructional Design](#) that describes common job responsibilities and required skills, possible job titles, and steps to prepare and apply for instructional design jobs. This document provided a wealth of resources that were helpful in creating EdTech Careers. For example, the list of possible job titles served as a starting point for the Job Titles and Responsibilities page of EdTech Careers. The advice to prepare for an IDT career by developing an online portfolio informed my decision to create the Example IDT and eLearning Portfolios page. The list of resources to find job postings was also helpful. For

example, rather than directing learners interested in the academic sector of the IDT field to the HigherEdJobs homepage, the document helped me find and direct learners to the Instructional Technology and Design page of HigherEdJobs (see the Job Board Resources page of EdTech Careers). This page provides much more relevant and targeted jobs for the learners.

References

Careers in Instructional Design. (2019). The University of Chicago. Retrieved from https://grad.uchicago.edu/wp-content/uploads/2019/10/Instructional-Design-Career-Guide-3.0.pdf

Career Information. (2020). Brigham Young University. Retrieved from https://education.byu.edu/ipt/career.html

Career Options (n.d.) University of Florida. Retrieved from https://education.ufl.edu/educational-technology/career-options

Instructional Design: A Growing Field. (2019). St. Thomas University Online. Retrieved from https://online.stu.edu/articles/education/instructional-design-growing-field.aspx

IDT Job Boards

While networking through professional associations and other means is a well-documented and effective job search activity, applying for jobs on employment websites—even if the job candidate has no personal connections with the company—is a key way that job seekers find jobs.

For example, during the course of my project, Isabel (see the Persona 3: Isabel section) obtained a job at a healthcare analytics company by applying to a LinkedIn job posting. Duane (see the Persona 2: Duane section) found his current position at a custom eLearning company through searching on Indeed and LinkedIn. Finally, while I found my previous job through networking, I found my current job at a digital banking company through a simple Google job search.

The Job Board Resources page of EdTech Careers describes resources from five different types of employment websites:
1. General employment websites (e.g., LinkedIn, Indeed, Monster, Glassdoor, and ZipRecruiter)
2. General employment websites specific to college students (e.g., Handshake)
3. Freelance employment websites (e.g., Upwork)
4. Employment websites specific to the IDT field (e.g., EdSurge)
5. Employment websites specific to a particulate sector of the IDT field (e.g., HigherEdJobs)

As with other pages, I organized the employment websites based on job sector within the IDT field. Because the amount of job posting varies significantly between resources, I noted the number of job postings on each website as recorded in January 2020. While the number of job postings fluctuate, this data point will serve as a good starting point for learners as they decide where to devote their job searching efforts. The Job Board Resources page also notes that organizations within the corporate sector frequently post IDT-related jobs to general employment websites (e.g., LinkedIn, Indeed) rather than to employment sites specific to the IDT field (as evidenced by how Isabel, Duane, and I found our current jobs.) This helps explain why the number of job postings on employment websites specific to the Corporate sector of the IDT field often have less job postings than employment websites specific to the Higher Education sector of the field.

Professional Associations
People interested in the IDT field may benefit from membership in a professional association related to the field. Joining a professional association helps people network with others in specific sectors of the field and participate in professional development opportunities. In addition, professional associations may be an effective way to meet prospective employers and find future jobs. Because of these benefits, I created the Professional Associations page on EdTech Careers.

Because the target audience of EdTech Careers includes many college students with limited financial resources, I specified whether each association had paid membership options, free membership options, or both. I considered providing the exact dollar amount for each membership but quickly realized that these values change over time and it would be challenging to keep the figures up to date. Instead, I included links to the websites of the professional associations so that learners can learn more about the professional associations and locate membership fee information.

As with other sections of the website, I specify which sector of the IDT field the professional association most closely aligns with so learners can locate a professional association that most closely aligns with their career goals. The BYU IP&T program has close ties with the Association for Educational Communications and Technology (AECT), which focuses on higher education, but provides little opportunities for students to learn about professional associations that are not affiliated with the higher education sector (e.g., the Association for Talent Development (ATD), a corporate-focused professional association). The Professional Association page on EdTech Careers seeks to familiarize learners with valuable resources from a variety of sectors that they may have little exposure to.

Salary Information about the IDT Field
When initial prototypes of EdTech Careers were shown to IP&T students, the students expressed an interest in learning the salary information of specific positions within the field. At this time, a page about salaries did not exist. I spoke with Royce Kimmons about different ways to approach this subject. One possibility was to ask alumni to identify their salaries or salary ranges within their profiles. However, Kimmons and I felt that many alumni would be uncomfortable sharing this information; further, the information could also be misleading since alumni have varying years of experience in their positions.

To confront this challenge, I displayed listings of the average national salary for positions within the corporate and academic sectors as reported by Glassdoor, ZipRecruiter, and by the American Association of University Professors (AAUP). Glassdoor and ZipRecruiter are general employment websites that collect anonymous employee data about salaries and other information. AAUP collects salary data specifically about higher education. I supplemented this information with the eLearning Guild U.S. Salary Calculator, the eLearning Guild Global eLearning Salary and Compensation Report, and data from the U.S. Bureau of Statistics' Occupational Outlook Handbook.

Feedback for the salaries page has been very positive (see the [Persona 3: Isabel](#) section). In fact, in early April 2020, Google Analytics showed that the Salaries page had the fourth highest unique page views (after the homepage, the Corporate Profiles page, and the Introduction page).

Content Analysis

Literature Review

As a part of my content analysis, I reviewed the literature about the most effective ways to search for jobs, as instructed by Jason McDonald. Based on my findings, I redesigned the Advice for Job Seekers page to summarize the best practices for searching for jobs as cited in the literature (see Figure 4).
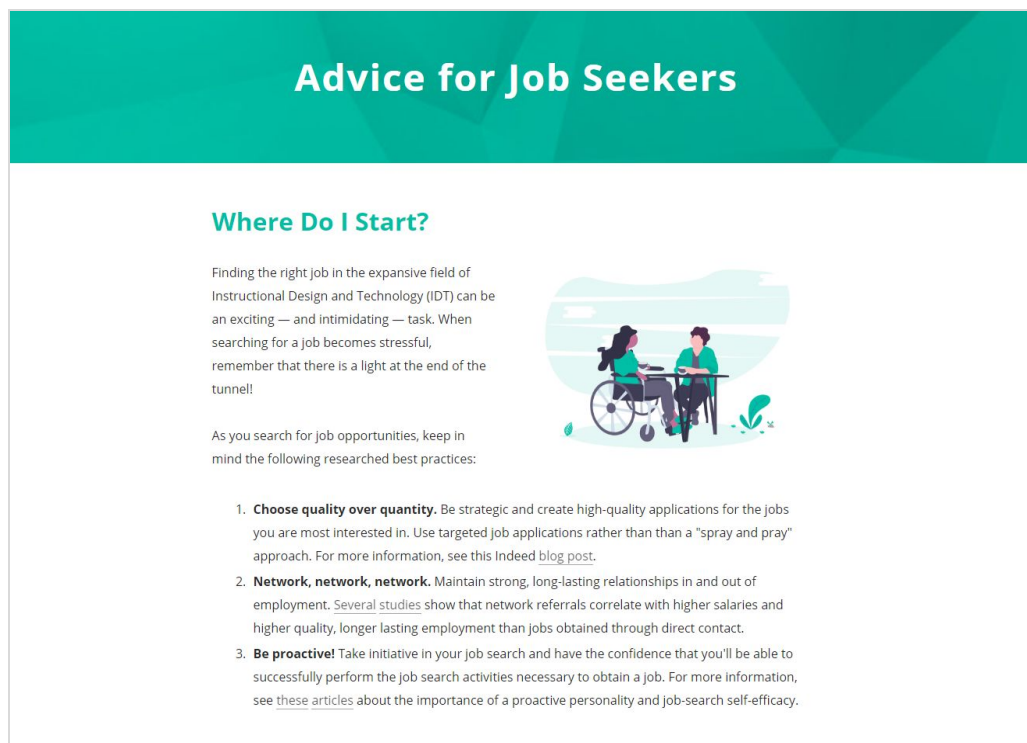

Figure 4. The redesigned Advice for Job Seekers page.

As a summary of these best practices, job seekers are encouraged to choose quality over quantity by being strategic about which jobs to apply for and by creating high-quality applications for the jobs they are most interested in. Job seekers should network by building and maintaining strong, long-lasting relationships in and out of employment. Finally, they should take initiative and have the confidence that they will be able to successfully perform the job search activities necessary to obtain their next job.

For more information about effective job search activities and behaviors discussed in the literature, see the Domain Knowledge - Job Search Activities and Behaviors section.

Concept Maps

In addition to my research of the literature about finding jobs in general, I created concept maps in between the Beta and Gold prototypes of EdTech Careers website to address two questions:
1. How does an expert explain the IDT field to someone interested in working in the field?
2. How does an expert locate and apply for suitable jobs in the IDT field?

My primary purpose of this analysis was to determine if, from an expert's perspective, there were any important topics or resources missing from my original website prototypes that would be useful to website users. From the first concept map (see Figure 5), I realized that the Beta prototype did not provide information about the competencies required of people working in the IDT field. This information would help people new to the field learn about the knowledge, skills, and abilities required to succeed in their career. Later, my learner analysis interview with Duane suggested this was a desired website feature. As a result, I added a Job Competencies page to the Gold version of the website.
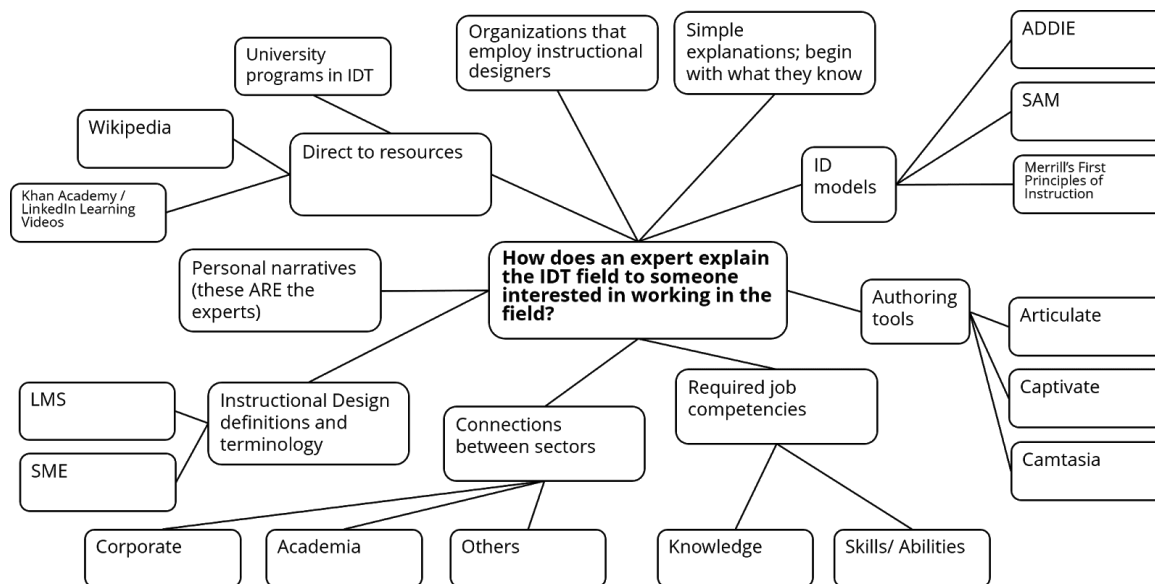
Figure 5. Concept map about explaining the IDT field.

From the second concept map (see Figure 6), I realized that my initial website prototypes did not include any information about creating a portfolio to show prospective employers. Creating a professional portfolio is especially important for people seeking jobs in the corporate and government sectors. Further, information about and examples of professional portfolios would be useful to the Instructional Product Development course (IP&T 520). To address this important topic, I added the Example IDT and eLearning Portfolios page to the Gold version of the website.
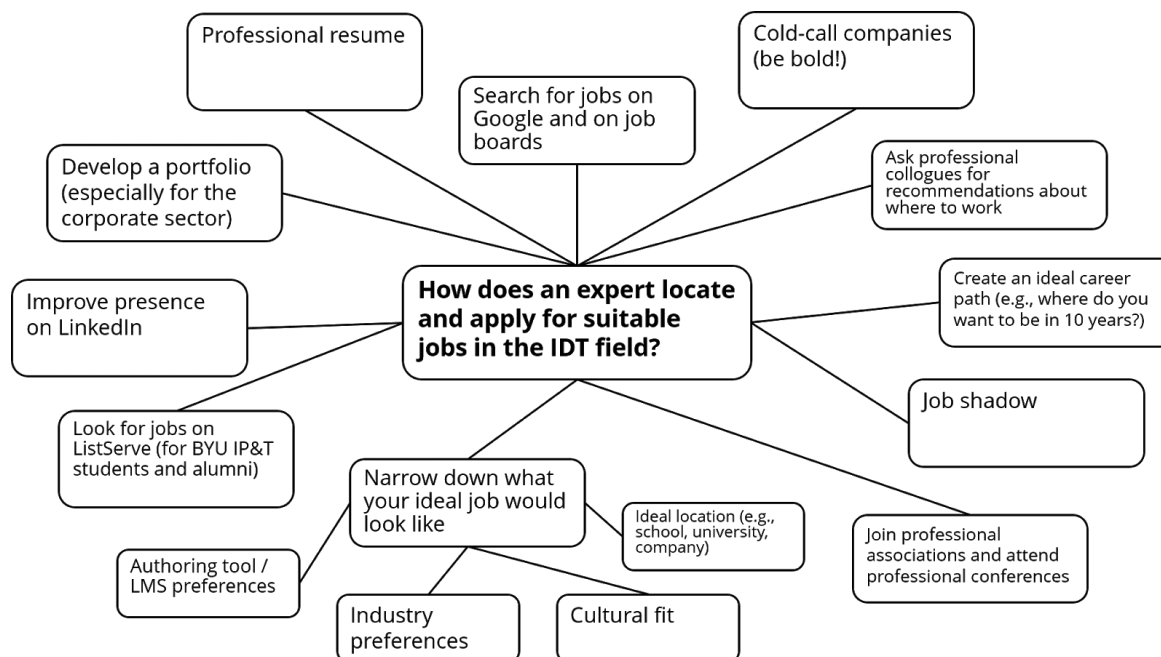
Figure 6. Concept map about finding a suitable job in the IDT field.

Based on feedback from my committee members, I later updated the concept maps based on (1) input from the managing director of a custom eLearning development company, (2) responses to the Product Evaluation Survey, and (3) a review of relevant literature (see the Annotated Bibliography section).

Figure 7 shows the updated concept map about how an expert explains the IDT field to someone interested in working in the field. The updated concept map includes a section about instructional theories and approaches. In other words, an expert would help someone understand the foundational theories, models, and approaches used by IDT professionals to create effective learning experiences. During the Beta and Gold stages of product development, I struggled to determine if I should include detailed information about this broad but foundational topic. In my research, I came across InstructionalDesign.org, a website developed by Richard Cullata and Greg Kearsley. The website provides an excellent introduction to instructional design concepts, domains, theories, and models. Instead of recreating the same concepts in EdTech Careers, I decided to direct learners to InstructionalDesign.org from the Introduction page of EdTech Careers.
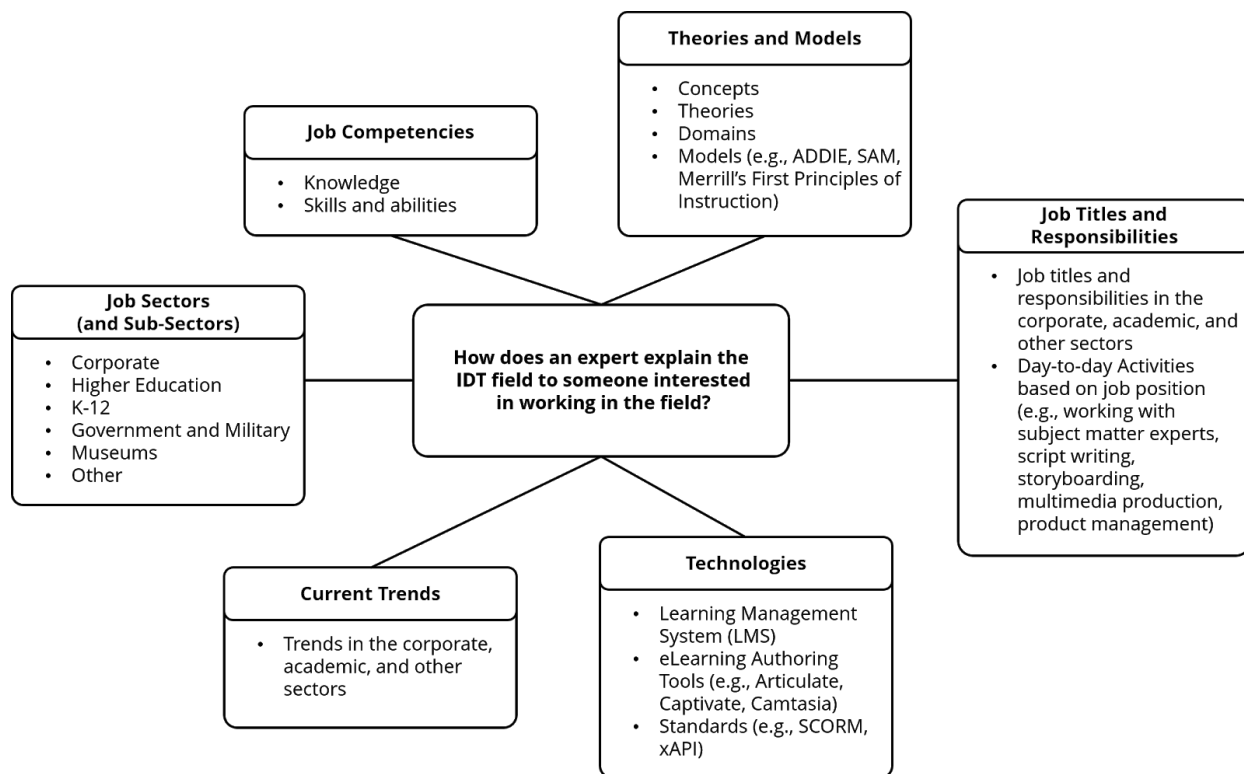
Figure 7: Updated concept map about explaining the IDT field.

The updated concept map also identifies the importance of teaching someone interested in the IDT about technologies used in the field. For example, people in the IDT field should be familiar with learning management systems (LMSs); eLearning authoring tools; and industry standards related to obtaining analytics from learning experiences, such as xAPI and SCORM. I chose to give a high-level overview of this information in the Instructional Technology Skills section of the Job Competencies page on EdTech Careers.

In addition, the "Current Trends" component of the concept map was added to the updated concept map as a result of feedback from Richard West in the Product Evaluation Survey. For more information about the design decisions that went into the creation of a Current Trends page on EdTech Careers, see the Explore Field section of this report. The Day-to-Day Responsibilities component is addressed through the *View Profiles* section of EdTech Careers, where alumni describe the daily responsibilities of their roles as part of their profiles.

Figure 8 shows the updated concept map about finding a job in the field. The original concept map addressed how an expert located and applied for suitable jobs in the IDT field. The way the question was framed was confusing because most experts already have jobs and are not engaged in the job search process. For the updated concept map, I changed the question to read, "What advice would an expert give to someone seeking to obtain a suitable job in the IDT field?"
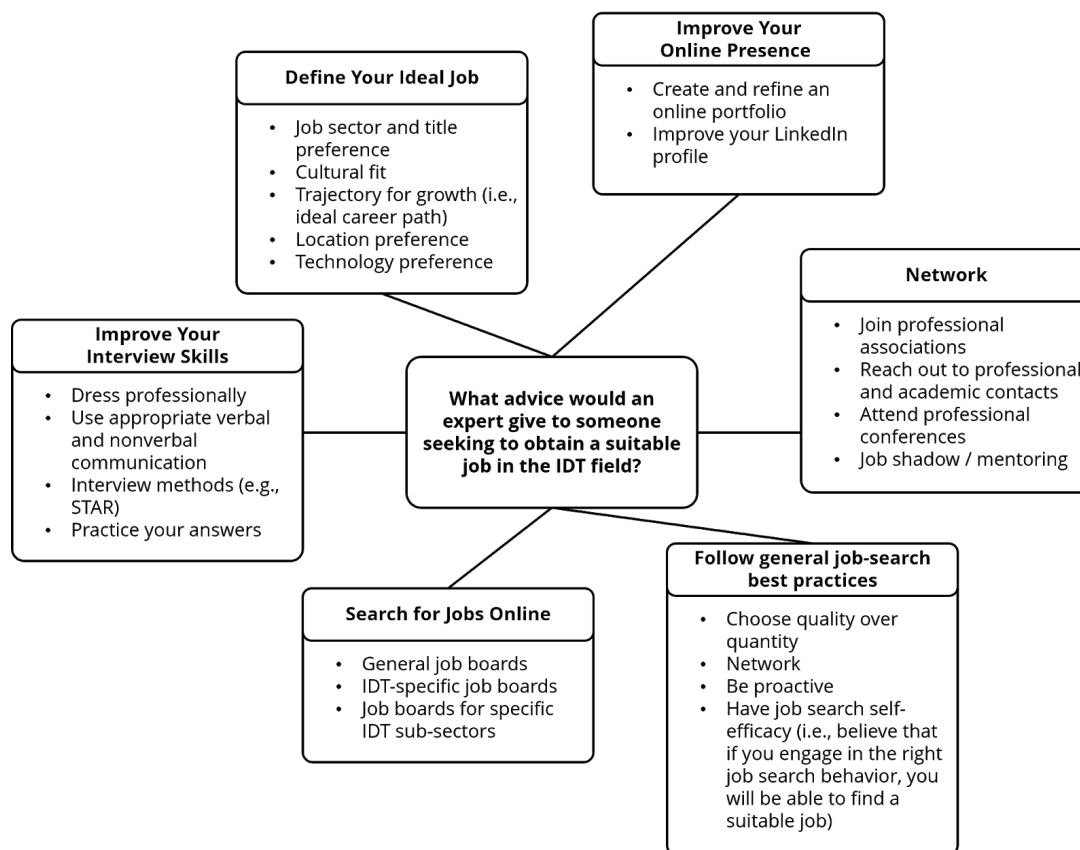
Figure 8: Updated concept map about finding a suitable job in the IDT field.

The new concept map has six sections:
1. Define your ideal job
2. Improve your online presence
3. Network
4. Follow general job-search best practices
5. Search for jobs online
6. Improve your interview skills

Many of these topics were more about how to find a job in general, rather than about how to find the right job in the IDT field. As I sought to find the most suitable content and scope for the *Find a Job* section of EdTech Careers, I struggled to know how general or specific to make the content. My learner analysis suggested that the people interested in the *Find a Job* section were further along in the career journeys (e.g., about to graduate from the BYU IP&T program). They typically had prior experience with job applications or were familiar with resources, such as college or university career centers, to help them succeed at the job application and interview process. Instead, the learners were concerned with finding a job in the IDT field that met their specific career goals or other criteria (e.g., jobs for them within the IDT field or finding a job that met their desired criteria (e.g., near their hometown). As a result, I decided to focus the *Find a Job* section on content specific to the IDT field. However, within the Advice for Job Seekers page, I provided information about resources available to job seekers through college and university career centers. As a result, students who are interested in learning how to improve their interview skills

or enhance their LinkedIn portfolio can receive this help, which is beyond the scope of EdTech Careers.

The "Define Your Ideal Job" component of the concept map illuminates a primary purpose of EdTech Careers, which is to help learners navigate the complexities of the IDT field and narrow down their ideal job. This intended learning outcome is addressed throughout various pages of the website.

Annotated Bibliography

Domain Knowledge – Careers in the IDT Field
The global workforce and the evolution of technology have increased both the need for instruction and the methods by which instruction can be administered. In this section, I describe the past and current state of the IDT career landscape, with an emphasis on research containing job announcement analyses.

Kang, Y., & Ritzhaupt, A. D. (2015). A job announcement analysis of educational technology professional positions: Knowledge, skills, and abilities. J*ournal of Educational Technology Systems, 43*(3), 231-256.

Kang and Ritzhaup conducted a job announcement analysis to identify competencies required of educational technologists. The authors collected four hundred job announcements related to educational technology from a variety of databases over a five-month period. The context of the job announcements were as follows:
- 281 (70.25%) from business/industry
- 92 (23%) from higher education
- 12 (3%) from K-12
- 11 (2.75%) from government
- 3 (0.75%) from military
- 1 (0.25%) with no sector listed

Based on their job announcement analysis, the authors identified knowledge statements, skill statements, and ability statements commonly mentioned in the job announcements. Top knowledge statements include "instructional design models and principles," "word processing software," and "presentation software." Top skill and ability statements include "oral and written communication skills," "collaboration skills," and "deliver training to learners" and "develop course material." This information was helpful in creating the Job Competencies page on EdTech Careers.

Klein, J. D., & Kelly, W. Q. (2018). Competencies for instructional designers: A view from employers. *Performance Improvement Quarterly, 31*(3), 225-247.

Klein and Kelly conducted a job announcements analysis to determine the most frequently listed competencies of instructional designers and to ascertain whether instructional design jobs in different sectors require different competencies. Based on a review of 393 job announcements, the authors indicated that top sectors for employment in the field include the following:
1. Business and industry (n = 115 jobs)
2. Higher education (n = 64 jobs)

3. Consulting (n = 39 jobs)
4. Health care (n = 32 jobs)

The authors determined the top competencies for instructional designers from both the perspective of employers and project managers. Top skills include collaborating with stakeholders, being subject matter experts, and working as a team; top competencies include utilizing the ADDIE model and working with e-learning authoring tools. Because this article was published recently, in 2018, the author's findings were particularly relevant in creating the Job Competencies page on EdTech Careers.

Larson, M. B., & Lockee, B. B. (2004). Instructional design practice: Career environments, job roles, and a climate of change. *Performance Improvement Quarterly, 17*(1), 22-40.

Larson and Lockee describe many complexities faced by practitioners working in the IDT field. These complexities include broad competency requirements, a wide range of environments where IDT is practiced, and frequent changes in the field. The authors identify several job announcement analyses performed about the IDT field. Similar to the articles by Kang and Ritzhaupt and Klein and Kelly, Larson and Lockee found that the business/industry sector and the higher education sector have far more job postings than other sectors of the IDT field. Based on these articles, I decided to consolidate the *View Profiles* section of EdTech Careers into three pages (in addition to the Add Your Own Profile page): (1) Corporate Profiles, (2) Academic Profiles, and (3) Other Job Sector Profiles. This was done to emphasize the corporate and higher education sectors, where learners may be more likely to find jobs.

Larson and Lockee describe common job roles within different sectors of the IP&T field, as described in Table 5. Although some of these roles are outdated or have evolved since the article's publication in 2004, this information was still helpful in creating the Job Titles and Responsibilities page on EdTech Careers.

Table 5. Job roles within different sectors of the IDT field (based on a diagram on page 26 of the Larson and Lockee article).

Sector	Common Roles
Business/Industry	- Sole designer - Team member/leader - Designer as a consultant
Higher Education	- Traditional faculty position - Instructional technologist - Instructional designer - Distance learning coordinator - IT manager/administrator - Technical support specialist - World wide web specialist [now outdated] - IT librarian - Miscellaneous

K-12	● Teacher
	● Librarian/media specialist
	● Technology coordinator
Government	● Instructional systems specialist
	● Supervisory instructional systems specialist

Surry, D. W., & Robinson, M. A. (2001). A taxonomy of instructional technology service positions in higher education. *Innovations in Education and Teaching International, 38*(3), 231-238.

The authors analyzed instructional technology service positions within higher education and identified eight categories. The authors then described the responsibilities pertaining to each category. For example, instructional technologists "assist faculty in integrating technology into the classroom/training of faculty" (p. 234) whereas instructional designers "develop instructional products/work as part of instructional development teams/assist in the redesign of courses" (p. 234). This article helped me describe the nuances between different job positions within the higher education sector in the Job Titles and Responsibilities page on EdTech Careers.

Williams van Rooij, S. (2013). The career path to instructional design project management: An expert perspective from the US professional services sector. *International Journal of Training and Development, 17*(1), 33-53.

Instructional design project management is a unique role within the corporate sector of the ITD field that requires a broad range of competencies. The authors compare competency lists from three organizations related to training and development:
1. International Board of Standards for Training, Performance and Instruction (IBSTPI)
2. International Society for Performance Improvement (ISPI)
3. American Society for Training and Development (ASTD, now ATD)

He then identifies standards from the lists that are most relevant to instructional design project managers. Top competencies include listening to clients and team members, communicating with stakeholders, understanding how people learn, critical thinking, and business acumen (see p. 48). This article helped me describe the roles and responsibilities of learning and development project managers, and similar positions, in the Job Titles and Responsibilities page on EdTech Careers.

Domain Knowledge – Job Search Activities and Behaviors
In this section, I describe job search activities and behaviors that researchers have found most helpful during a person's job search.

Arbex, M., O'Dea, D., & Wiczer, D. (2019). Network search: climbing the job ladder faster. *International Economic Review*, 60(2), 693-720.
Wolff, H. G., & Moser, K. (2009). Effects of networking on career success: a longitudinal study. *Journal of Applied Psychology*, 94(1), 196.

Arbex, O'Dea, and Wiczer found that jobs obtained through network searching have higher wages, allowing people to climb the job ladder to higher ranking positions more quickly. They

also found that people in higher ranking work positions are more likely to use network searching to change jobs. Wolff and Moser performed a longitudinal study to determine the effects of networking, which they define as "building, maintaining, and using relationships," and found that networking is related to concurrent salary, salary growth, and career satisfaction (p. 196). I summarize the findings from each of these articles on the Advice for Job Seekers page and encourage learners to build and maintain strong, long-lasting relationships in and out of employment.

Brown, D. J., Cober, R. T., Kane, K., Levy, P. E., & Shalhoop, J. (2006). Proactive personality and the successful job search: A field investigation with college graduates. *Journal of Applied Psychology*, 91(3), 717-726.

According to the authors, job search self-efficacy and a proactive personality are two important predictors of job search behavior and outcomes. Job search self-efficacy is people's beliefs about whether or not they will be able to successfully perform job search activities. A proactive personality is simply "a dispositional tendency to take personal initiative across a range of activities and situations" (p. 717). A proactive personality is essential in job searching because job searching is a self-directed task; people can choose to actively devote time to searching for jobs or procrastinate and half-heartedly search for jobs. Based on this article, I included the following advice in the Advice for Job Seekers page: "Be proactive! Take initiative in your job search and have the confidence that you'll be able to successfully perform the job search activities necessary to obtain your next job."

Saks, A. M. (2004). Job Search Success: A Review and Integration of the Predictors, Behaviors, and Outcomes. In Brown, S. D., & Lent, R. W. (Eds.). (2004). *Career development and counseling: Putting theory and research to work.* Hoboken, NJ. John Wiley & Sons.

Saks describes job searching as a goal-directed process that includes the steps of gathering information about job opportunities, evaluating the job opportunities, and selecting a job opportunity among the options to pursue. Several models of the job search process have been proposed. The *sequential model* teaches that a person plans a job search before actively searching and selecting jobs. The *learning model* suggests that as people search for jobs, they gain knowledge and skills that make their jobs search more effective. Finally, the *emotional response model* suggests that job seekers often face high levels of stress, which can lead to "frustration, … avoidance, feelings of helplessness, and withdrawal."

From my observations and from personal experience, I know that searching for a job can at times be stressful and frustrating. As a result, I made the Advice for Job Seekers page positive and encouraging. For example, it includes hopeful sentences such as the following:

> When searching for a job becomes stressful, remember that there is a light at the end of the tunnel! … There are a variety of ways to find a job, and the job search is different for everyone. But, as people working in rewarding jobs will attest, finding a job that you love is worth all of the effort!

The author also described the role of networking in job searching. He states that "research has often shown that many people do find jobs contacting friends, relatives, acquaintances, and contacts" (p. 161). However, he describes one study that found that "although networking intensity was related to a greater likelihood of reemployment, it was not a significant predictor after controlling for job search intensity. That is, it did not contribute further to employment outcomes

beyond job search intensity" (p. 161). In other words, while networking is an important job searching activity, job searchers should not overlook other active job searching activities such as "preparing a resume or contacting an employment agency" (p. 160).

The *View Profiles* section of EdTech Careers helps people learn from and network with alumni of the BYU IP&T program. In addition, the *Find a Job* section provides a variety of resources to help job seekers perform active job searching activities, from information about college and university career centers (which help students create resumes and prepare for interviews) to employment websites and professional associations.

Learning Theories
Constructivism, connectivism, and career construction theory have influenced the development of EdTech Careers. In this section, I discuss each of these learning theories and how they affected the *View Profiles* section.

Bosley, S. L., Arnold, J., & Cohen, L. (2009). How other people shape our careers: A typology drawn from career narratives. Human Relations, 62(10), 1487-1520.

The authors describe how a person's career path is largely influenced by his or her professional and personal relationships with others. Specifically, a person who shapes the career of another person may be described as an "adviser, informant, witness, gatekeeper [or] intermediary" (p. 1501). The alumni who post their profiles on EdTech Careers may fit into one or more of these categories. For example, if an alumni loves her job and encourages learners to pursue a similar career path, the alumni could be considered an advisor. On the other hand, as the creator of EdTech Careers, I strived to act as an informant by presenting information about different career paths without a hidden agenda to promote a specific job or career path.

Del Corso, J., & Rehfuss, M. C. (2011). The role of narrative in career construction theory. *Journal of Vocational Behavior, 79*(2), 334-339.

Del Corso and Rehfuss describe how a person's career path influences his or her identity. Career Construction Theory (CCT) considers the importance of subjective experiences and narrative in uncovering a person's vocational preferences and constructing a person's career path. Following these teachings, the *View Profiles* section of EdTech Careers utilizes subjective experiences and narrative to help learners understand what it is like to work in the field and to determine which career path would align with their "vocational personality" (p. 334).

Mattar, J. (2018). Constructivism and connectivism in education technology: Active, situated, authentic, experiential, and anchored learning. RIED. *Revista Iberoamericana de Educación a Distancia, 21*(2).

Mattar described a variety of learning theories that fall under the umbrella of constructivism. Situated cognition emphasizes the context and interactions in which learning occurs; active learning emphasizes learner engagement; experiential learning emphasizes the role of experiences in learning; and authentic learning emphasizes authentic, real-world activities in the learning process. Influenced by constructivism, the *View Profiles* section of EdTech Careers (formerly called the *View Personal Narratives* section) helps learners internalize and build on the real-world career experiences of alumni and current students working in the IDT field.

Goldie, J. G. S. (2016). Connectivism: A knowledge learning theory for the digital age?. *Medical teacher*, 38(10), 1064-1069.

Connectivism posits that learning is a "network phenomenon influenced by technology and socialization" (p. 1064). As a result, connectivism values distributed knowledge over individual knowledge. For a network to be successful, it should espouse and promote the principles of diversity, autonomy, openness, and connectivity. After discussions with Royce Kimmons, I decided that creating and facilitating a full-fledged social network (e.g., a Mighty Networks group) was beyond the scope and original purpose of this project. However, EdTech Careers still encourages networking, as learners can explore the profiles of alumni and connect via their LinkedIn accounts.

Instructional Design Approaches

As indicated in the [Design Process and Evolution](#) section, I created EdTech Careers using the Successive Approximation Model (SAM). The following pieces of literature helped me better understand SAM, learn how others have used SAM to create successful learning products, and then implement SAM in this project.

Allen, M. W., & Sites, R. (2012). Leaving ADDIE for SAM: An agile model for developing the best learning experiences. Alexandria, VA: American Society for Training and Development.

Allen and Sites introduce the Successive Approximation Model (SAM) as an alternative model to the ADDIE model. In its simplest form, SAM is the process of evaluating, designing, and developing content in quick iterations, transforming initial prototypes into a polished learning product. For larger projects, the authors recommend dividing the process into three phases: a preparation phase, an iterative design phase, and an iterative development phase. According to the authors, SAM supports collaboration and reduces inefficiencies in learning projects. Further, the model helps to divide projects into manageable chunks, enabling designers to finish projects on time and within budget.

SAM was a well-suited instructional design approach for EdTech Careers because it allowed me to design and develop the project in small, iterative steps, and then to obtain feedback from learners. This ensured that the website aligned with the needs of learners and that it did not lack any important features nor contain unnecessary features. Using SAM for this project was facilitated by my use of Weebly, a rapid website authoring tool with a "What You See Is What You Get" (WYSIWYG) interface, rather than coding the website in CSS or HTML. Coding the website would have made small website changes significantly more challenging and time consuming. Following SAM procedures, I held a "savvy start" on January 7, 2020, to brainstorm ideas with my committee, review information about the product, and discuss initial product prototypes.

Jung, H., Kim, Y., Lee, H., & Shin, Y. (2019). Advanced instructional design for successive E-learning: Based on the successive approximation model (SAM). *International Journal on E-Learning, 18*(2), 191-204.

In this article, the authors describe how SAM was used by a team of instructional designers to redesign an online course about 3D printing for Hanyang University. Eleven people attended the "savvy start," including subject matter experts (SMEs), instructional designers, and potential

learners. The team gathered information about learners' experiences with the previous e-learning course and identified the core needs of learners. Following SAM procedures, the team used iterative design and development phases. The instructional designers and SMEs rotated through designing, prototyping, and reviewing versions of the project, and feedback from alpha and beta versions of the course was used to create a final gold version. Feedback from the gold version indicated that learners considered the redesigned course to be "more impactful and user-friendly" compared to the original course (p. 192).

Roth, A., Turnbow, D., Goldman, C., & Friedman, L. (2016). Building a scalable mobile library orientation activity with Edventure Builder. *Library Hi Tech, 34*(1), 36.

The authors describe how SAM was loosely followed in developing a mobile library scavenger hunt for the University of California San Diego. During the preparation phase, a team of librarians brainstormed what library services and locations would be most valuable to incoming freshmen. Project designers also performed an initial assessment of Edventure Builder, a mobile scavenger hunt platform. During the iterative design and development phases, librarians collected information about what individual tasks students would need to complete and then created a storyboard to map student movements as they engaged in the scavenger hunt. The storyboard served as a visual prototype to determine how disruptive the scavenger hunt would be to the library's services. Through an iterative process, the scavenger hunt activity was created using Edventure Builder. After the scavenger hunt was released to first-year students, the library sent a survey to students who completed the scavenger hunt to determine how effective it was in familiarizing them with library services. Similar to the people the project described in this article, I sought to develop EdTech Careers in an expedited timeline. Using SAM will allow me to publish the website on schedule, while shaping the website to meet the needs of users.

Tamez, R. (2016). Theoretical Frameworks of Performance-Based Models. *Performance Improvement, 55*(6), 19-24.

Tamez describes the theoretical frameworks behind four models within the human performance technology (HPT) and performance improvement (PI) fields. One of these models is Allen and Sites' Successive Approximation Model (SAM). SAM is based on performance theory, experiential learning, and interface design (p. 20). According to Tamez, SAM differentiates most from the ADDIE model in its emphasis on design theory and on increased collaboration between instructional designers and the creative/development team (p. 21). While other instructional systems design (ISD) models use prototyping, SAM takes this approach a step further by encouraging sketches and prototypes of design concepts that the designer has not yet committed to yet. In alignment with this concept, I created Google Docs, Google Slides, and Weebly prototypes of the original EdTech Careers concept early on to help determine which modality would best meet the needs of learners.

Design Prototypes

As explained in the [Design Process and Evolution](#) section, I initially explored six possible formats for EdTech Careers:
1. Content included on the official BYU IP&T website
2. A website created using Weebly, a web hosting and website creation service
3. Content included in the IP&T Master Student Handbook (a Google Doc)

4. A separate Google Doc
5. A Google Slides presentation
6. An eLearning Course created in Articulate Rise

After discussions with my committee, I created prototypes of three of these formats:
1. A Google Doc, separate from the BYU IP&T Master's Handbook (see Figure 9)
2. A Google Slides presentation (see Figure 10)
3. A website created using Weebly, a web hosting and creation service (see Figure 11)
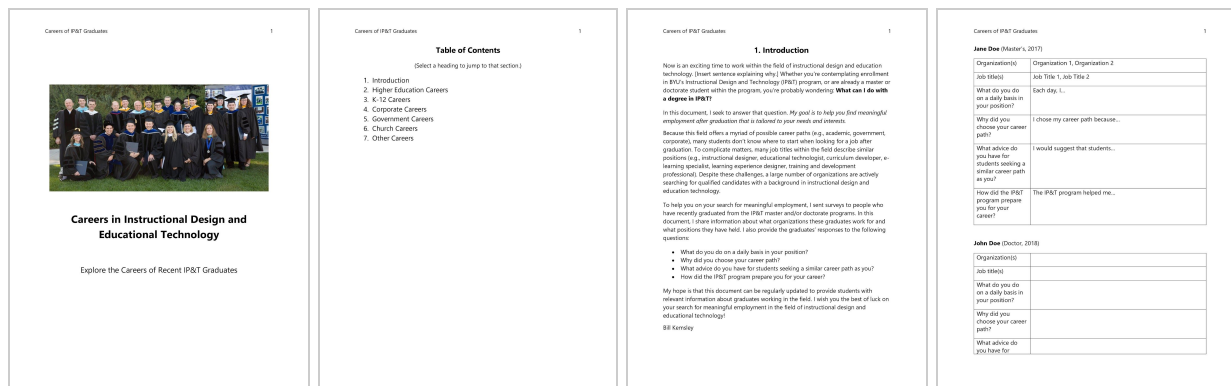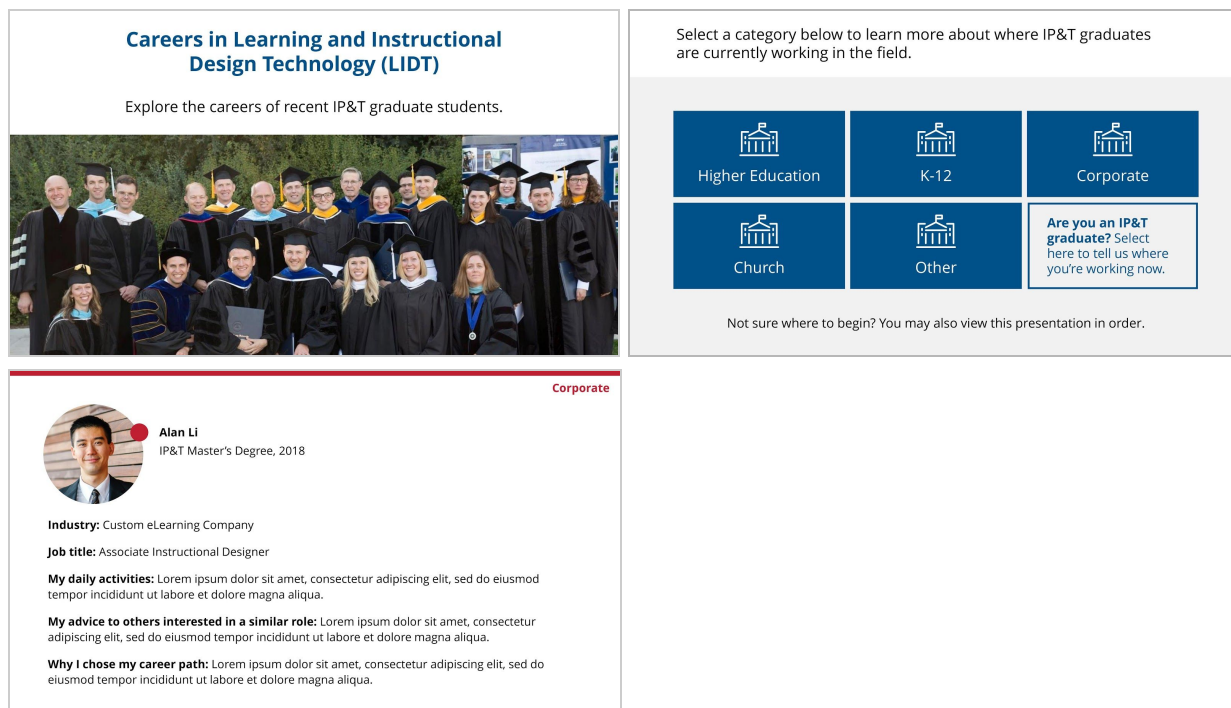

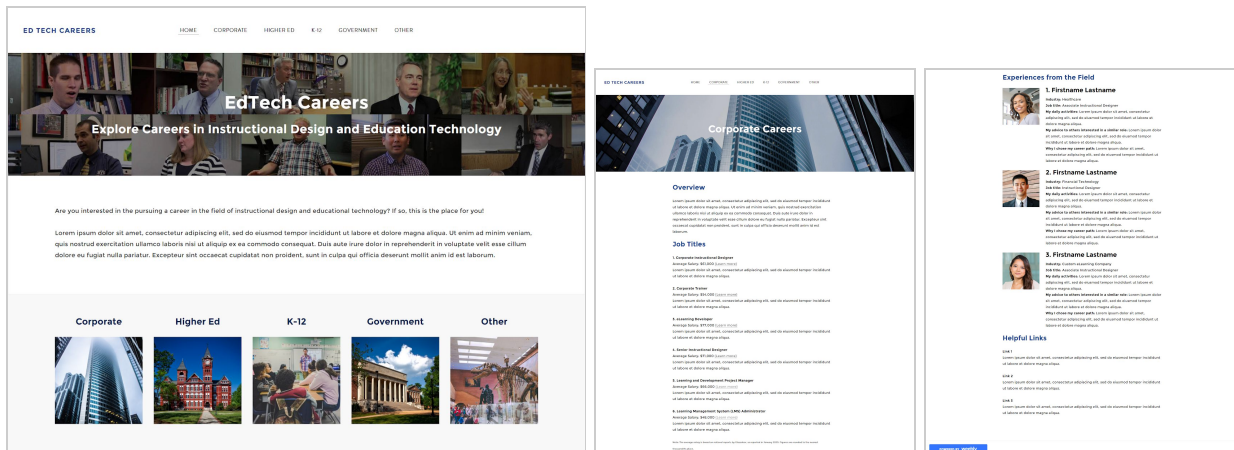Figure 9. Google Docs prototype.

Figure 10. Google Slides prototype.

Figure 11. Weebly website initial prototype.

I then analyzed the benefits and limitations of the six possible formats, including the three formats for which I created prototypes (see Table 6). I took into account feedback from my committee members and from potential learners. For example, Royce Kimmons wanted the resource to be accessible to people outside of BYU. Certain formats (e.g., content included in the IP&T Master's Handbook) were less beneficial to this external audience. As another example, Richard West and Isabel preferred an interactive, visual resource over a static, word-heavy resource. Isabel was especially interested in features to help her network with others. I took into account these considerations as I weighed the benefits and limitations of each format.

Table 6. Benefits and limitations of different possible formats for EdTech Careers

Format	Benefits	Limitations
Content included on the official BYU IP&T website	● Easily accessible by students ● Potential to be visual/interactive	● Long development time; significant time required to code in HTML and CSS ● Would require that I obtain additional web development training ● Must comply with strict BYU branding guidelines ● Hard to update; all changes would need to be approved by web administrators ● Not very accessible to people outside BYU
A website created using Weebly	● WYSIWYG interface is easy to learn and use ● Visual/interactive ● Free web hosting	● The Free plan has a "Powered by Weebly" button and does not connect to a custom

	- available - Accessible to the IDT community at large - Able to locate via Google and other search engines - Easy to update - Short development time - Easy for users to navigate based on interests	- domain - May be less accessible to BYU students than content on the official BYU IP&T website - IP&T faculty have limited experience with Weebly
Content included in the IP&T Master's Handbook	- Easy to update - Sections can be hyperlinked - Relatively easy to navigate based on interests (using the Document Outline) - Short development time	- Not very visual/interactive - May be hard for students to find sections in such a large document - Possible challenges associated with giving students privileges to edit the master's handbook - Not very accessible to the people outside BYU - Not as accessible to IP&T doctorate students who may be interested in the content
A separate Google Doc	- Easy to update - Sections can be hyperlinked - Relatively easy to navigate based on interests (using the Document Outline) - Short development time	- Not very visual/interactive - Not very accessible to people outside of BYU - Challenging for students to find information from multiple Google Docs
A Google Slides Presentation	- Easy to update - Visual/interactive	- Navigating through hyperlinked sections is more cumbersome than in a Google Doc - Time required to create a consistent theme/interface for the presentation
An eLearning Course Created in Articulate Rise	- Visual/interactive - Easy to update - Easy to receive feedback using Articulate Review	Requires a subscription to Articulate 360; the IP&T program may not have a subscription in the future

	● Relatively short development time	● Harder to navigate based on interests ● May not be very accessible to people outside of BYU

Based on this information, I concluded that the best format for EdTech Careers is a website created using Weebly. The benefits of using a Weebly website far outweighed the limitations, and many of the limitations could be mitigated. (For more information about how I mitigated potential challenges, see the Implementation Instruments section.)

Weebly's WYSIWYG interface is easy to learn and use. Unlike alternative formats (e.g., Google Docs), a website is inherently visual and allows for interactivity. Further, a website allows users to easily navigate between different categories, facilitating a sense of exploration that could not be achieved as easily using a different modality.

Weebly offers free web hosting, so the EdTech Careers website can be run for free. The free plan has a "Powered by Weebly" button at the bottom of each page; however, it is fairly minimal and does not distract from the website's purpose. The free plan does not allow for a Custom domain; however, for just $12 a year, the IP&T department was able to buy the https://www.edtechcareers.org/ domain and redirect it to the website.

Hosting the website on Weebly also makes the resource more accessible to the IDT community at large, especially since Weebly websites can be located via Google and other search engines (see Figure 12).
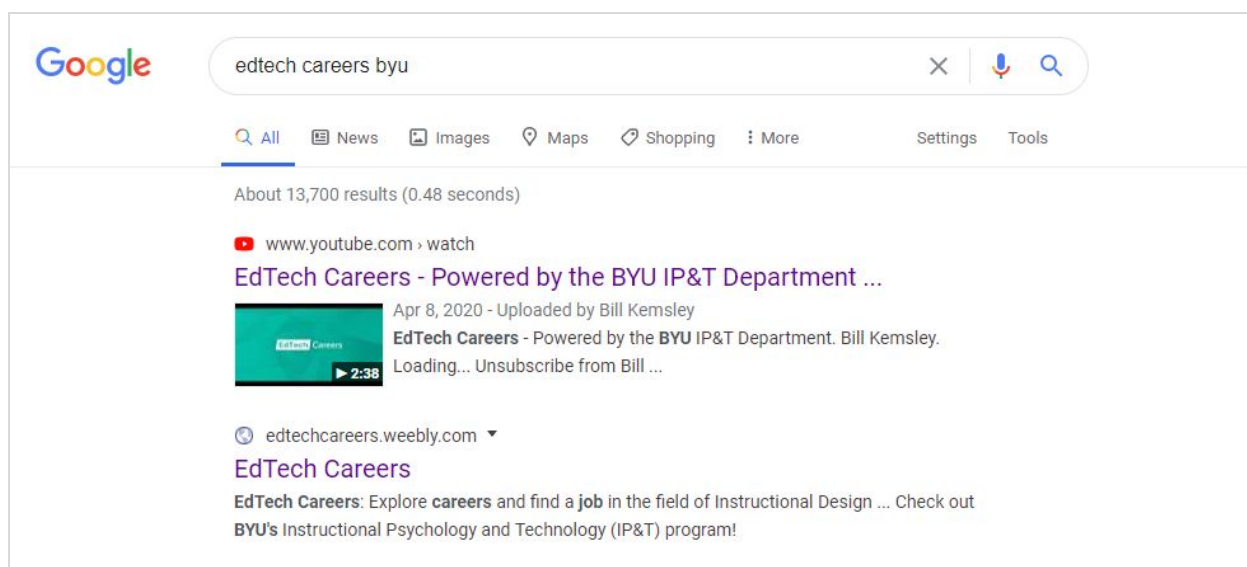
Figure 12. Screenshot showing how the final EdTech Careers website can be found via a Google search.

Alpha Prototype

My initial prototype of EdTech Careers in the format of a Weebly website included a homepage and five sections titled after different sectors of the IDT field. Within each section was an overview of the job sector (e.g., IDT jobs in higher education), job titles relevant to that sector, written experiences of people working within the field (which I called Personal Narratives), and helpful links. (See Figures 13 and 14.)
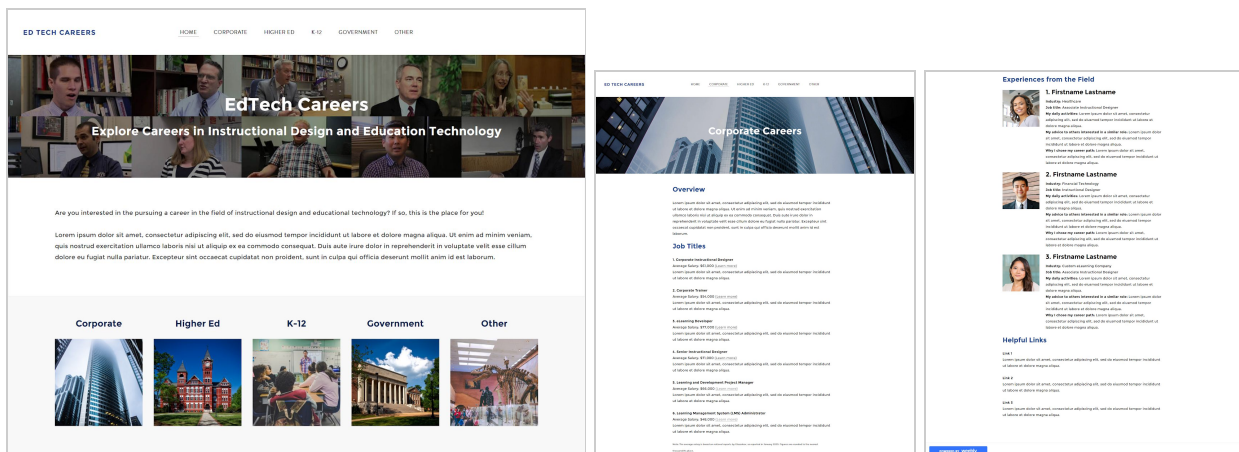
Figure 13. Original EdTech Careers Weebly-based website prototype.
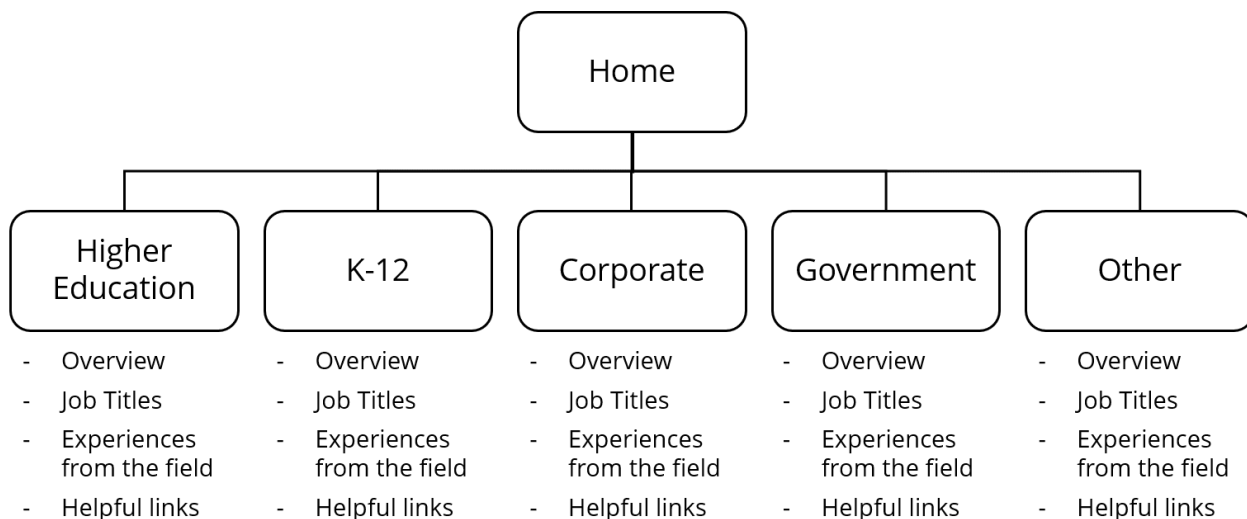
Figure 14. Site map of the original EdTech Careers prototype structure.

Beta Prototype

While conducting the learner analysis, I learned that the original website structure and content was helpful for people inexperienced in the IDT field who are exploring future career possibilities but not as beneficial to people experienced in the IDT field who are actively searching for job opportunities. For example, Devin, an IP&T master's student, wanted more resources to find current job openings. Isabel, who was mentioned during the learner analysis in the Project Needs and Constraints section, wanted the website to be more interactive, with additional ways to connect with alumni.

During my literature review, I learned from several job announcement analyses of IDT jobs that business/industry (i.e., corporate) and higher education were by far the most job sectors employing IDT professionals (see Kang & Ritzhaupt, 2015, and Klein & Kelly, 2018).

Based on feedback from learners and research for my literature review, I restructured the website to emphasize the corporate and higher education sectors and to better accommodate the needs of both inexperienced, exploratory learners and experienced, job-searching learners. The second prototype had three main sections: (1) *Explore Field*, (2) *View Personal Narratives*, and (3) *Find a Job* (see Figure 15). In this prototype, the *Explore Field* section was primarily for inexperienced learners, the *Find a Job* section was primarily for experienced learners, and the *View Personal Narratives* section benefited both groups of learners. This prototype included new content, such as a Job Competencies page and an Example IDT and eLearning Portfolios page, based on findings during my Content Analysis. (For more information, see the [Content Analysis](#) section.)
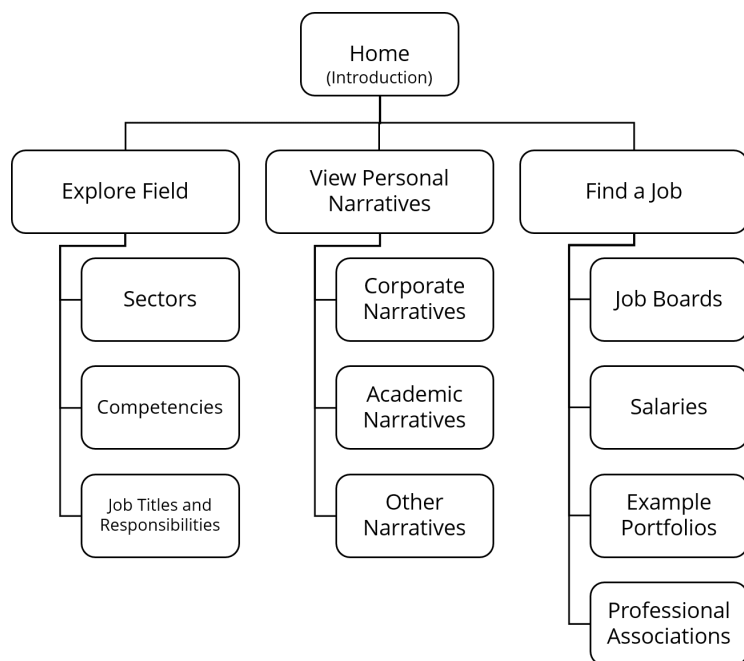
Figure 15. Site map of the second EdTech Careers prototype structure.

In the next section, I describe the final product in detail and describe why and how additional changes were made to better meet the needs of learners and stakeholders.

References

Kang, Y., & Ritzhaupt, A. D. (2015). A job announcement analysis of educational technology professional positions: Knowledge, skills, and abilities. J*ournal of Educational Technology Systems, 43*(3), 231-256.

Klein, J. D., & Kelly, W. Q. (2018). Competencies for instructional designers: A view from employers. *Performance Improvement Quarterly, 31*(3), 225-247.

Design Specifications

As explained in the Product Description section, the final (Gold) version of the EdTech Careers website has four main sections, with three to six pages in each section (see Figure 16).
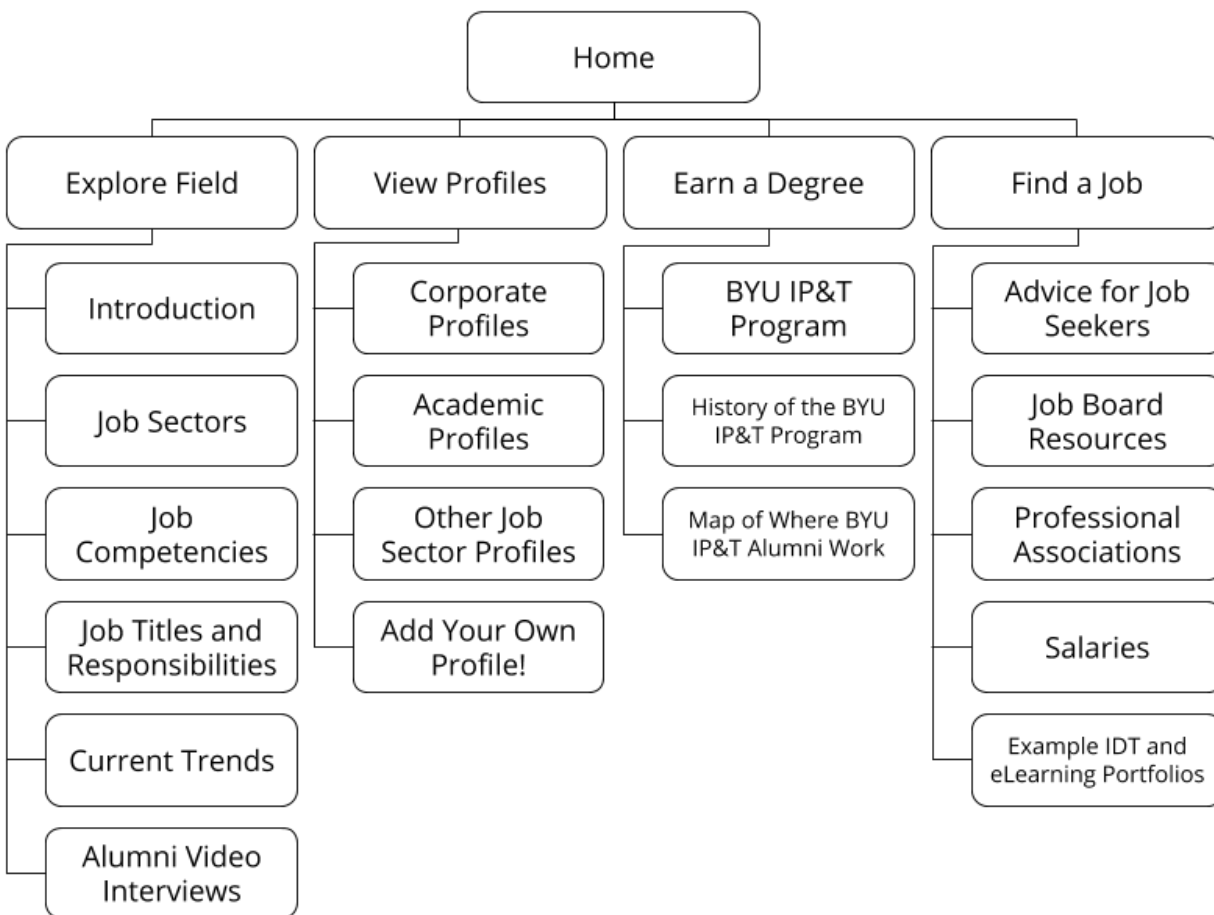
Figure 16. Final structure of EdTech Careers.

Instead of having the Introduction content within the homepage (its previous location in the Beta prototype), I created a separate Introduction page in the *Explore Field* section. This allows the homepage to better serve as a site map and to emphasize other new features. The new EdTech Careers homepage briefly identifies the website's purpose and includes a prominent link to a short video overview of the website (see the Product Walkthrough section). It also describes the sections of the website that are directed to members of the IDT community at large: (1) *Explore Field*, (2) *View Profiles* (previously titled *View Personal Narratives*), and (3) *Find a Job*.

Further down, the homepage includes a new, interactive map that shows where BYU IP&T alumni work. Finally, the bottom of the homepage includes a section titled Administrative Resources with resources for IP&T faculty members and secretaries; namely, (1) Marketing Materials, (2) Sample Lesson Plans, and (3) Updating the Website. Since the Beta prototype, I updated the website's

branding, opting for a more modern look that includes a green gradient, polygon shapes, and illustrations on each page.

Explore Field

The first section of EdTech Careers, *Explore Field*, is targeted to inexperienced learners who want a better understanding of the IDT field. The Introduction page describes the complexities of the IDT field and how the website can help learners navigate these complexities. In this final (Gold) version of the website, I also include information about InstructionalDesign.org, a website created by an IP&T alumnus that helps people learn about IDT concepts, theories, domains, and models. This website is a useful resource to EdTech Careers learners but is beyond the scope of the EdTech Careers website.

The Job Sectors page gives summaries of the five job sectors in the IDT field and includes videos and links to articles about the sectors. The Job Competencies page describes skills and knowledge that may be helpful to IDT professionals in their careers. The Job Titles and Responsibilities page describes the responsibilities that correspond to common IDT positions in the corporate and academic sectors. For example, in the section on jobs in the academic sector, I describe the difference between assistant (tenure-track) professors, associate professors, and full professors, as well as other non-professor job titles such as instructional designer, LMS administrator, and library media specialist.

The Current Trends and Alumni Video Interviews pages are new to the final (Gold) product, and were both added based on feedback from Richard West. I was initially hesitant about adding a page about current trends in the IDT field due to the challenge of keeping the page updated. To overcome this challenge, however, I direct learners to two continually updated third-party resources—a podcast and a database—about trends in the field.

The Alumni Video Interviews page includes previously recorded video interviews with BYU IP&T alumni about their career experiences. The video interviews, which are categorized by job sector, were originally located on a separate website titled BYU IP&T Department History that I created for the IP&T department in 2018. However, these videos better aligned with the content of EdTech Careers, so I moved them over and deleted the previous page on the history website. To make the history website more accessible to the IP&T community, I included a link to the history website in the *Earn a Degree* section of EdTech Careers.

View Profiles

The second section of EdTech Careers is titled *View Profiles*. In the Beta prototype, this section was titled *View Personal Narratives*; however, during usability walkthroughs, learners suggested that this title was confusing and that they would be more likely to access the section if the term "profiles" was used.

The section includes three pages of profiles: (1) Corporate Profiles, (2) Academic Profiles, and (3) Other Job Sector Profiles. The profiles were created using responses to the EdTech Careers Alumni Profile Survey. In the future, IP&T secretaries will send the survey to recently graduated students and update the profiles pages with their responses, as explained in the Implementation Instruments section. To make the survey easily accessible, the *View Profiles* menu includes a link to the survey titled "Add Your Own Profile!"

Influenced by connectivism, constructivism, and Career Construction Theory (CCT; see the Learning Theories section), the EdTech Careers Alumni Profile Survey sought to elicit responses that would help learners better understand what it is really like to work in the IDT field. See Table 7 to view the survey's questions.

Table 7. Questions in the EdTech Careers Alumni Profile Survey.

Question	Question Type	Answer Choices (If Applicable)
What is your first and last name?	Free response: Short answer text	N/A
What sector of the field are you working in? (Note: If you work for BYU or another Church-owned school, select "Higher Education." If you work for the the MTC or Church headquarters, select "Religious or Non-profit.")	Multiple Choice	A. Corporate B. Higher Education C. K-12 D. Government E. Museums and Exhibits F. Religious or Non-profit G. Other
What companies, schools, or organizations have you worked for within the field?	Free response: Short answer text	N/A
What have your job titles been within the field?	Free response: Short answer text	N/A
Next to your responses on the EdTech Careers website, can we add a link to your LinkedIn account?	Multiple Choice	A. Yes B. No
Why did you pursue a career in the instructional design and technology field?	Free response: Long answer text	N/A
What are some of your day-to-day responsibilities in your roles?	Free response: Long answer text	N/A
How have you found your jobs? What advice do you have for someone trying to find a job in the instructional design and technology field?	Free response: Long answer text	N/A
In what ways did your graduate	Free response: long	N/A

program prepare you for your career?   answer text

On the left side of the profile pages, learners can view photos of IP&T alumni and read responses about why they pursued a career in the IDT field, what they do on a day-to-day basis, how they found their jobs, and how their graduate program prepared them for their careers. There are also LinkedIn buttons to encourage learners to connect with the alumni (or current students who have taken the survey). On the right, a sidebar allows learners to select from a tagged list of all the companies and schools where alumni have worked. When learners select the name of a company or school from the list, they can see the profiles of all of the people who have worked at that company. This is a helpful feature for learners who are trying to network with people at specific companies and search for employment opportunities. I used the Weebly Blog functionality to create the profiles and tag them with multiple tags, as needed. Also within the right sidebar, learners can see a miniature view of the Map of Where BYU IP&T Alumni Work and access links to resources created by IP&T alumni to benefit the IP&T community at large.

For this project, I chose to send the EdTech Careers Alumni Profile Survey to IP&T students who had graduated in 2016 or later. I also sent the survey to current IP&T students who were currently working in the field, as indicated on their LinkedIn accounts.

I chose to focus on recently graduated students, and not on alumni who graduated before 2016, for two main reasons. First, in order to obtain a high response rate, I was sending personal, individualized emails to each alumni to invite them to take the survey. Within the scope of this project, it would not be feasible to send personalized emails to a larger set of less-recently graduated alumni. Second, having profiles of recently graduated students helps learners get a better sense of jobs they may be able to realistically obtain shortly after graduating from a graduate program in the IDT field.

I chose to also send the survey to current students because I believed they had a high chance of completing the survey, due to my personal relationships with them, and I knew that increased number of profiles on the website would make the *View Profiles* section and the Map of Where BYU IP&T Alumni Work more valuable to learners.

Earn a Degree
While most of the website is geared toward a broad audience of people interested in the IDT field, the third section, *Earn a Degree*, is targeted to current and prospective students of the BYU IP&T program. Rocye Kimmons and Jessie Curtis recommended that I included this section. The first link in the *Earn a Degree* menu is to the official BYU IP&T website; the second link is to a website I created for the IP&T department in 2018 titled BYU IP&T Department History. At the request of Richard West, I also added a link to the EdTech Careers website at the bottom of the BYU IP&T Department History homepage.

The Earn a Degree section also includes a page titled Map of Where BYU IP&T Alumni Work that displays an interactive map, which I created in Google My Maps, of companies, schools, and other organizations where IP&T alumni work. I also used iframes to include this map on the homepage of the website and on the right sidebar of the profiles pages. I decided to create the map after a semi-structured phone interview with Isabel, who was really interested in finding a company to work for that was a good fit for her, and after a conversation with Rita, who was

specifically looking for companies to work for in Utah or Arizona. The map is intended to provide value as a supplement to the profile pages by (1) showing specific locations where alumni work in IDT jobs and (2) providing automatically-generated links to the companies' websites, provided by Google, for people to learn more about the companies and to search for open IDT positions on their career pages.

As an example use case, imagine a soon-to-graduate IP&T student named Natalia who wants to find a corporate instructional design position in Utah or a few other states. She can uncheck the Higher Education and Other Sector labels so that only companies in the corporate sector appear. Then, she can explore the companies and their websites to see if they have any available job openings. Since all of the companies on the map correspond with the companies on the Corporate Profiles page, she can contact an alumni from a company of interest (using the LinkedIn link on their EdTech Careers profile) to ask if they anticipate future IDT job openings at their company in the future. She can also search on other websites, such as Glassdoor, for employee reviews about the companies of interest. As this example illustrates, the Map of Where BYU IP&T Alumni Work can be a valuable starting point for students as they network and search for jobs.

Find a Job
The final section, Find a Job, is targeted to experienced learners who are actively searching for jobs in the IDT field. The Advice for Job Seekers page provides best practices from the literature about searching for jobs as well as encouraging job search advice from BYU IP&T alumni. Based on feedback from the Product Evaluation Survey, the page also describes resources available through college and university career centers, such as BYU Career Services.

Similar to other sections of the website, the Job Board Resources page and the Professional Associations page are divided by job sector to help learners with different career goals find pertinent information. The Job Board Resources page describes employment websites learners can use to find jobs in different sectors of the IDT field. The Professional Associations page describes professional associations in the corporate sector (e.g., the Association for Talent Development), higher education sector (e.g., Association for Educational Communications and Technology), K-12 sector (e.g., Aurora Institute), and other sectors.

The Salaries page provides information about the average salaries of specific jobs within the IDT field. For example, in February 2020, I collated information from Glassdoor, Indeed, and the American Association of University Professors about the average salaries of IDT jobs. This data is included for both corporate and academic jobs and helps learners have better expectations of the type of compensation they may receive from future jobs. The Salaries page also includes a summary of and link to the eLearning Guild US Salary Calculator, which learners can use to find information about the salaries of IDT jobs in different parts of the country (see Persona 3: Isabel).

The Example IDT and eLearning Portfolios page includes links to 8 portfolios that students can use for inspiration as they design their own portfolios. This page is especially helpful to students in the Instructional Product Development (IP&T 560) class; an example assignment that incorporates this page is included in the Sample Lesson Plans page of EdTech Careers (see the Implementation Instruments section).

Assessment and Evaluation Reports and Instruments

Product Evaluation Survey
To evaluate EdTech Careers, I created a Product Evaluation Survey using Google Forms and sent the survey to several groups of people, including project sponsors, other project stakeholders, IP&T professors, current and prospective IP&T students, and professionals working in the IDT field. Ten people responded to the survey:

- Three IP&T professors (the sponsors of this project)
- Two soon-to-graduate IP&T students
- A former educational script writer
- Two current instructional designers
- A freelance consultant
- The managing director of a custom eLearning development company

The Product Evaluation Survey focused on how well EdTech Careers met the website's three primary learning objects. See Table 8 to view the survey's 12 questions.

Table 8. Questions on the Product Evaluation Survey

Question	Question Type	Answer Choices (If Applicable)
What is your first and last name?	Free response: Short answer text	N/A
Objective 1: How well does EdTechCareers.org help users "explore a variety of career paths in the Instructional Design and Technology (IDT) field?"	Multiple Choice	A. Completely meets the objective B. Mostly meets the objective C. Somewhat meets the objective D. Does not meet the objective
In what ways does the website successfully help users explore a variety of career paths in the IDT field?	Free response: Long answer text	N/A
How can the website be improved to better help users explore a variety of career paths in the IDT field?	Free response: Long answer text	N/A
Objective 2: How well does the website help users "identify specific positions and responsibilities of people working in the IDT field?"	Multiple Choice	A. Completely meets the objective B. Mostly meets the objective

		C. Somewhat meets the objective D. Does not meet the objective
In what ways does the website successfully help users identify specific positions and responsibilities of people working in the IDT field?	Free response: Long answer text	N/A
How can the website be improved to better help users identify specific positions and responsibilities of people working in the IDT field?	Free response: Long answer text	N/A
Objective 3: How well does EdTechCareers.org help users "use resources to apply for suitable jobs in the IDT field?"	Multiple Choice	A. Completely meets the objective B. Mostly meets the objective C. Somewhat meets the objective D. Does not meet the objective
In what ways does the website successfully help users use resources to apply for suitable jobs in the IDT field?	Free response: long answer text	N/A
How can the website be improved to better help users use resources to apply for suitable jobs in the IDT field?	Free response: long answer text	N/A
In your opinion, what are the most useful features of the website (e.g., for prospective and current IP&T students)?	Free response: long answer text	N/A
Is there any other feedback you would like to give about the website?	Free response: long answer text	N/A

The results of the multiple choice questions (questions 2, 5, and 8) indicated that the website "completely" or "mostly" met the website's intended learning objectives (see Figure 17).

Objective 1: How well does EdTechCareers.org help users "explore a variety of career paths in the Instructional Design and Technology (IDT) field?"
10 responses
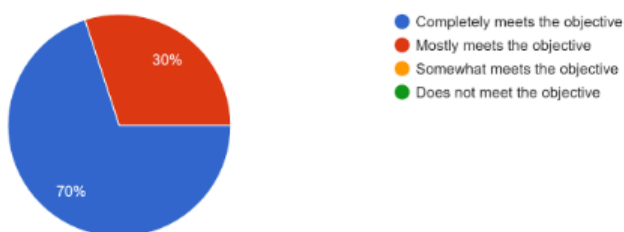
● Completely meets the objective
● Mostly meets the objective
● Somewhat meets the objective
● Does not meet the objective

Objective 2: How well does the website help users "identify specific positions and responsibilities of people working in the IDT field?"
10 responses

● Completely meets the objective
● Mostly meets the objective
● Somewhat meets the objective
● Does not meet the objective

Objective 3: How well does EdTechCareers.org help users "use resources to apply for suitable jobs in the IDT field?"
10 responses

● Completely meets the objective
● Mostly meets the objective
● Somewhat meets the objective
● Does not meet the objective
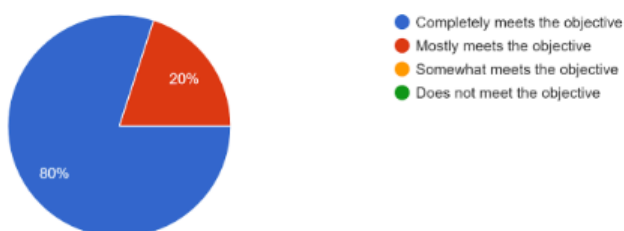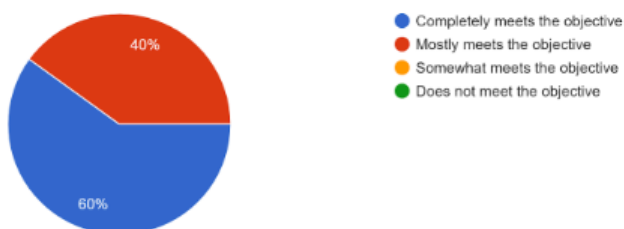
Figure 17. Responses to Product Evaluation Survey about how well EdTech Careers helped learners accomplish the website's three learning objectives.

Similarly, the open-ended responses suggest that learners believe EdTech Careers is a useful tool to learn about the IDT field and find jobs, as demonstrated by the following example responses:

- "I've been working in the IDT field for almost two decades and there were some resources I was not familiar with that I think could prove very useful."
- "This is an incredibly useful site. It's practical and the website itself highlights proven learning strategies to teach visitors about the program. And the design is thoughtful and engaging, without being overwhelming."
- "I love how there is a clear and consistent use of several sectors throughout the website (corporate, higher ed, K-12, etc.). The pages have clear purposes and the content clearly

matches each page title description. The video interviews give specific insight while the website can stay appropriately broad within each sector, matching the industry's broad reach and opportunities."

However, as suggested by Jason McDonald, respondents may have been biased because of my personal relationships with them. As a result, the open-ended questions that provided constructive suggestions for improvement were especially insightful.

For example, based on feedback from a corporate instructional designer, I separated the Advice for Job Seekers page from the Job Board Resources page—they were originally combined—and added additional evidence-based strategies to the Advice for Job Seekers page. In the Job Board Resources page, I added more information about general employment websites to supplement the existing information about IDT-specific employment websites.

As another example, a current IP&T student wrote, "Since much of the audience are IP&T students, it might be good to link to career services on campus." As a result, I included the following text to the Advice for Job Seekers page: "A valuable but often overlooked resource for students is a college or university's career center. For example, BYU Career Services helps students to explore career options, write resumes and cover letters, prepare for interviews, attend fairs and events, and find jobs and internships."

Another respondent wrote, "Some of the pages are a little long for scrolling - maybe add side menus to help break up the information or make specific sections more easily accessible." I investigated this challenge and came up with a two-part solution to address it. First, I added a side-menu at the top-right corner of most of the pages with links to specific sections within the page. These links can be found under the "Jump to" heading, as shown in Figure 18.
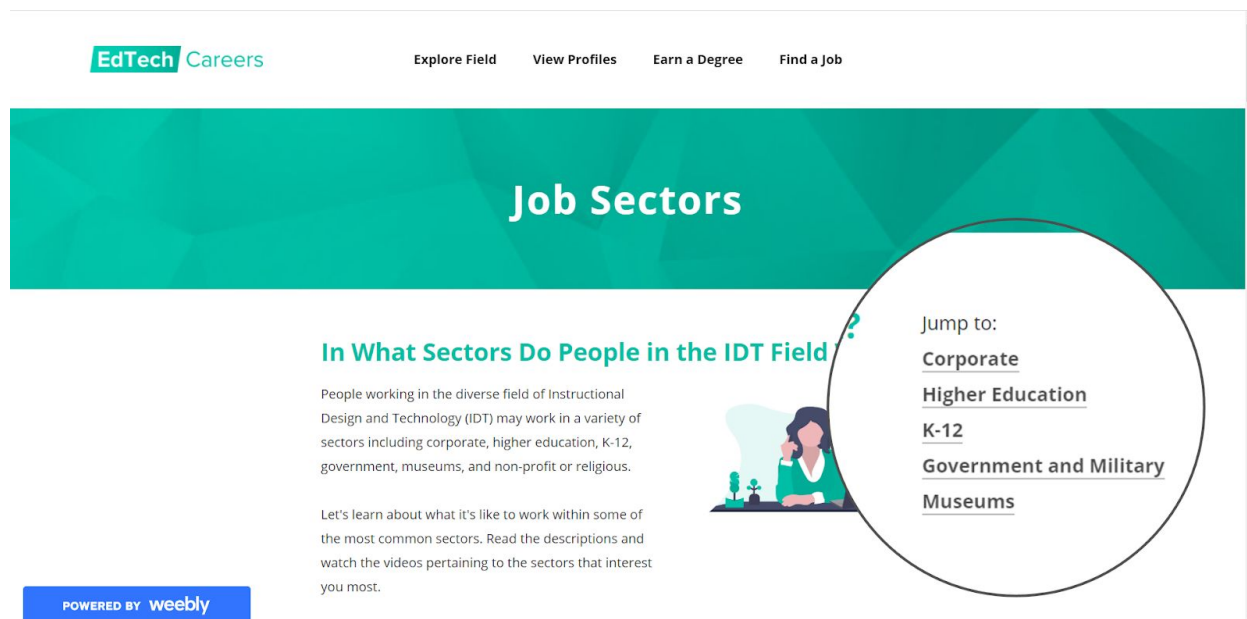
Figure 18. Example of a sub-menu that helps learners navigate to a specific section on a page; magnification added for emphasis.

Second, I also created an arrow button that appears after a learner has scrolled down on a page. When the button is clicked, the learners screen is quickly scrolled to the top of the page (see Figure 19).
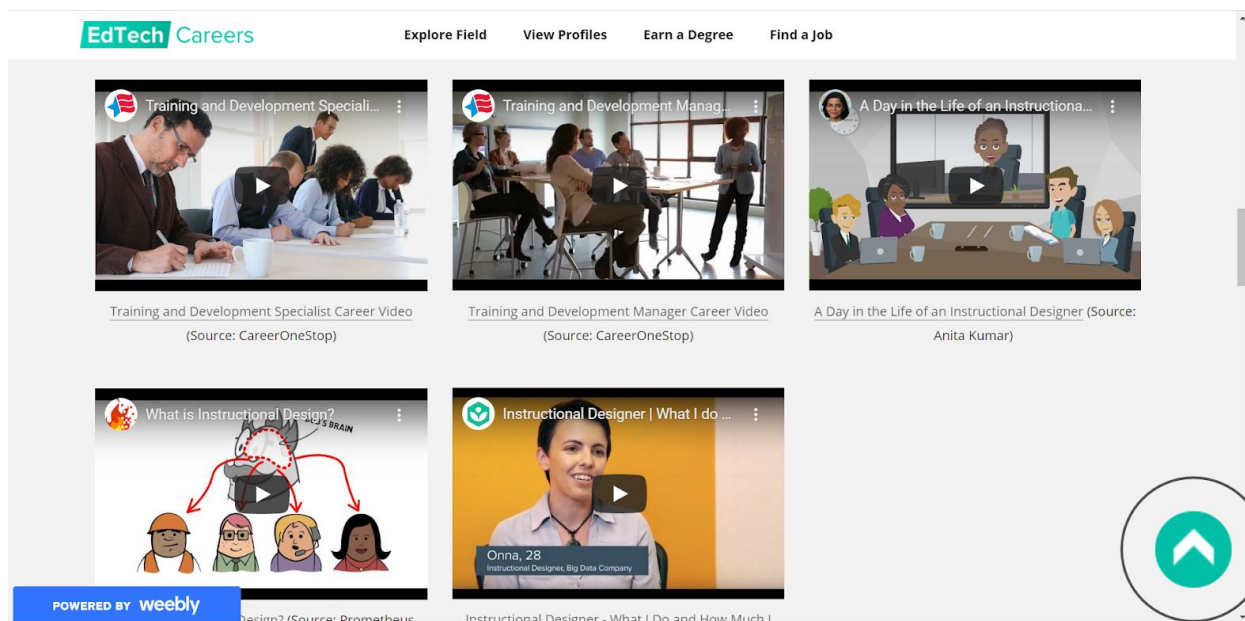
Figure 19. Example of an arrow that scrolls the learner back to the top of the page; magnification added for emphasis.

The navigation of the website is significantly improved through these two additions. Now, learners are more likely to see relevant information that is not near the top of longer pages. The "Jump to" sub-menu is particularly helpful for learners who are interested in learning about a particular sector within the IDT field.

To enhance the *View Profiles* section, a respondent suggested that I include work samples or portfolios of people's work and attach it to their profiles. This was an excellent suggestion, but I did not want to go back and bother all of the people who had submitted their profile information. (Richard West, who oversees IP&T alumni relations, wanted me to be particularly careful about not sending too many emails to alumni about surveys.) As a result, I searched through the LinkedIn profiles of people who had submitted the EdTech Careers Alumni Profile Survey for publicly available portfolios. I was surprised that very few people had links to portfolios on LinkedIn. However, I did find that several alumni had created diverse resources—a podcast, a blog, and a website—to benefit people in the IDT community at large (see Figure 20). I added these resources to the right sidebar of the Profiles pages. I also added information about InstructionalDesign.org, co-created by IP&T alumnus Richard Culatta, to the bottom of the Introduction page on EdTech Careers.

Figure 20. Links to resources created by IDT alumni (and a soon-to-be alumnus) to benefit the IDT community at large.

My committee members also offered valuable feedback about how to improve EdTech Careers. Jason McDonald mentioned that the Job Sectors page was missing a section on military, government, and healthcare. As a result, I added a section about the government and military before the section about museums. Then, within the Corporate section of the Job Sectors page, I listed information about sub-sectors, including healthcare.

Jason McDonald also brought to my attention the existence of the International Board of Standards for Training, Performance and Instruction (IBSTPI), which McDonald described as "one of the better known sets of ID standards and competencies." I added information about this organization and its resources to the Job Competencies page.

In response to the survey question, "How can the website be improved to better help users explore a variety of career paths in the IDT field?," Richard West responded that "It would help if there was more quantitative data about market trends in the field." As a result, I added a completely new page within the *Explore Field* section titled Current Trends. Within this page, I provide information and links to the Trends in Instructional Design and Technology Database, maintained by a team of professors and other industry experts from Florida State University, Olivet University, the University of West Georgia, and Pearson. I also added a link to the Trends and Issues Podcast by Abbie Brown and Tim Green. Both of these resources are continually updated by their creators and will therefore remain relevant in the future.

Finally, at the request of Richard West, I added a link to EdTech Careers at the bottom of the BYU IP&T Department History website to make it easier for learners to navigate between the two resources (see Figure 21).
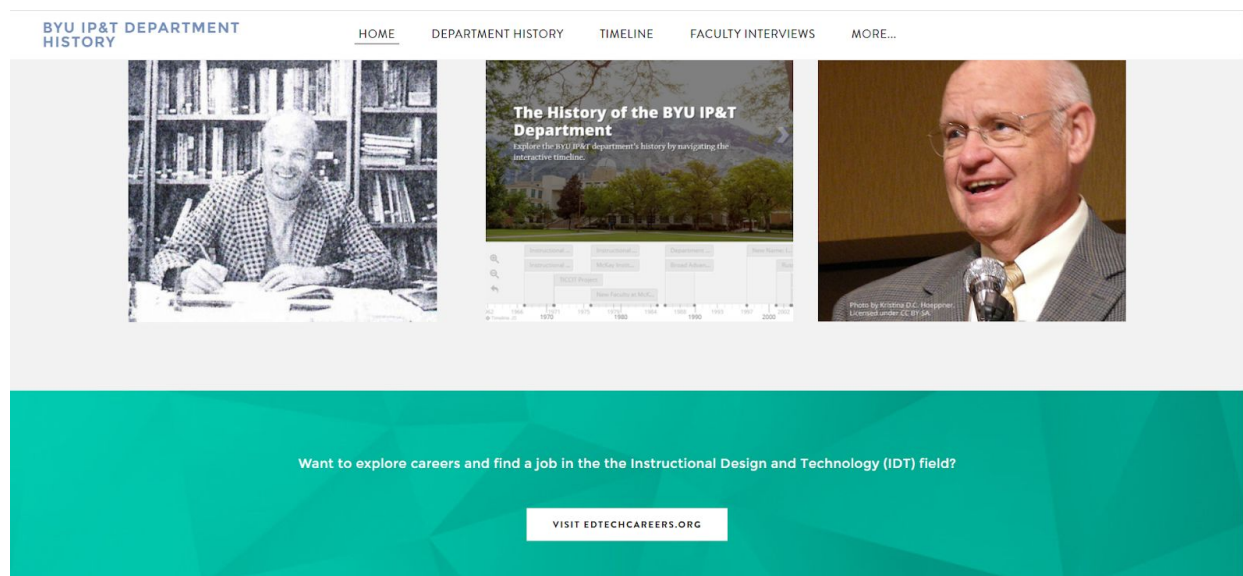
Figure 21. A button at the bottom of the BYU IP&T Department History website homepage that navigates learners to EdTech Careers.

Usability Walkthroughs

To further evaluate EdTech Careers, and at the request of Jason McDonald, I conducted usability walkthroughs / think-alouds with learners to see how they used the website, what things they did not understand, and what things could be changed to improve the learner experience (e.g., by improving usability or better tailoring content). My first usability walkthrough was with Kara on March 10, 2020. Kara is a relatively new IP&T master's student who is interested in measurement and assessment. My second walkthrough was with Duane, who was a part of my learner analysis, as described in the Project Needs and Constraints section. A major takeaway from my usability walkthrough with Kara was that many of the page titles were unclear and could be retitled to improve clarity. I clarified the title of many of the pages (see Table 9).

Table 9. Previous and updated (clarified) titles of EdTech Careers pages.

Previous Title	Updated Title
Sectors	Job Sectors
Competencies	Job Competencies
Corporate Narratives	Corporate Profiles
Academic Narratives	Academic Profiles
Other Narratives	Other Job Sector Profiles
Job Boards	Job Board Resources
Example Portfolios	Example IDT & eLearning Portfolios

From my usability walkthrough with Duane, Duane informed me of a resource that may be beneficial to IDT professionals in Utah: LXD Connect. As a result, in the Job Board Resources page, I explain that "LXD Connect is a subgroup of ProductHive that helps learning experience designers in Utah to network and learn from each other. The group announces free meetups and job postings in its Slack channel."

Also, during the usability walkthroughs of Isabel and Duane, I noticed that they both overlooked the feature of tagged company names within the Profiles pages. When I showed this feature to them, they both indicated that it was a valuable feature that they would have used if they had seen it. Duane suggested that I add a background color to the list of tagged companies so that it stands out more. Based on his suggestion, I added a light gray background to the list of tagged company names.

During the usability walkthroughs, I also tested ways to automate the process of adding profiles to the website. One option that I created a prototype of was a blog-based Weebly page that displayed the questions from the EdTech Careers Alumni Profile Survey and instructed alumni to copy and paste the questions and then write their responses. Upon selecting Submit, their answers were instantly posted to the bottom of the page.

Usability walkthroughs revealed that it was cumbersome for users to have to copy and paste the questions before typing in their answers. Today's users are accustomed to intuitive products that require minimal effort. For example, searching for a movie at Blockbuster may have taken someone 20 minutes, plus travel time. Now, someone can search for movies on Netflix in minutes, from the comfort of their couch, thanks to machine learning that keeps track of their previously watched movies and makes suggestions based on their preferences.

While the blog-based Weebly page functioned as an automated way of getting responses directly to the website, users preferred the interface of a Google Form, which they were familiar with and which took less time to complete. As I developed and refined EdTech Careers further based on learner evaluations and feedback, I added new website features such as tagged profiles and a custom, interactive map with the names of companies and schools where the alumni worked. Tagging profiles would not have been possible using the blog-based Weebly page; and, since the map had to be manually maintained anyway, it made sense to have the people who maintain the map also upload the responses to the EdTech Careers Alumni Profile Survey.

Implementation Instruments

As a key initiative to ensure EdTech Careers was successfully implemented, I created a set of resources to market, utilize, and maintain the website. I included these resources in the Admin Resources section at the bottom of the homepage. Within this section are three links: (1) Marketing Materials, (2) Sample Lesson Plans, and (3) Updating the Website.

I deliberately chose to include these resources directly on the website because implementation and maintenance resources, such as login credentials, can be easily overlooked or misplaced if they are not in an easily accessible location. By having the resources available on the homepage of EdTech Careers, Jessie Curtis, the IP&T secretaries, and IP&T professors can all easily find the resources, even after my involvement with this project is finished.

The Marketing Materials page includes posters, handouts, logos, and QR codes to advertise EdTech Careers online and in the IP&T lab (see Figure 22). All materials are available for download in portable network graphics (PNG) format. On March 10, 2020, Jessie Curtis committed to print out EdTech Careers posters for the IP&T lab and handouts, which will be stationed at the IP&T front desk.
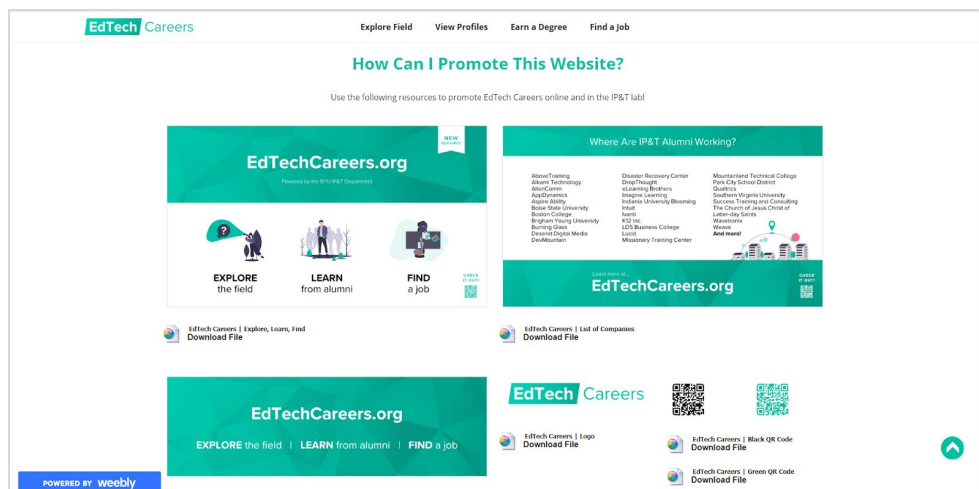
Figure 22. The Marketing Materials page.

I also professionally printed out five small posters to place around the walls of the IP&T lab (see Figure 23). I printed the posters before Royce Kimmons bought the EdTechCareers.org domain name, so the longer Weebly domain name is on the posters. I was unable to display these in the IP&T lab because classes were cancelled due to the COVID-19 pandemic. Before moving to Texas, I had my brother-in-law attempt to bring these posters to the IP&T lab to display after the pandemic ended and classes were resumed. However, a sign was posted on the door of the McKay School of Education stating that the building was closed due to the pandemic. As a result, Jessie Curtis will print out posters and handouts for the IP&T lab after the pandemic.

Figure 23. Five professionally printed posters for the IP&T lab.

During a Zoom call on March 16, 2020, Heather Leary committed to add two slides from the Marketing Materials page to advertise EdTech Careers to the slide deck displayed on the large, wall-mounted computer monitor in the IP&T lab. She again committed via email on March 18, 2020 to post the two slides to the slide deck.

The Sample Lesson Plans page includes sample lesson plans to help IP&T professors incorporate material from EdTech Careers into their course curriculum (see Figure 24). Specifically, there are example assignments that can be used in Foundations of Instructional Technology (IP&T 520), Instructional Product Development (IP&T 560), Academic Internship (IP&T 599R), and Seminar (IP&T 690R). The six assignments for IP&T 520 were created as a result of a collaborative brainstorming session with Leary during a Zoom meeting on March 16, 2020.

Figure 24. The Sample Lesson Plans page.

Using SendRecurring.com, I created recurring email reminders to help IP&T professors to remember to utilize these lesson plans (see Figure 25). The first email reminder was sent on May 11, 2020 at 10 a.m. MST. The remaining email reminders will be sent on September 2, 2020; and January 26, 2021 at 10 a.m. MST. Other IP&T professors are also encouraged to use the website in their courses. In addition, as explained on the Sample Lesson Plans page, other colleges and universities are welcome to adapt the sample lesson plans to meet the needs of their unique course curriculums.
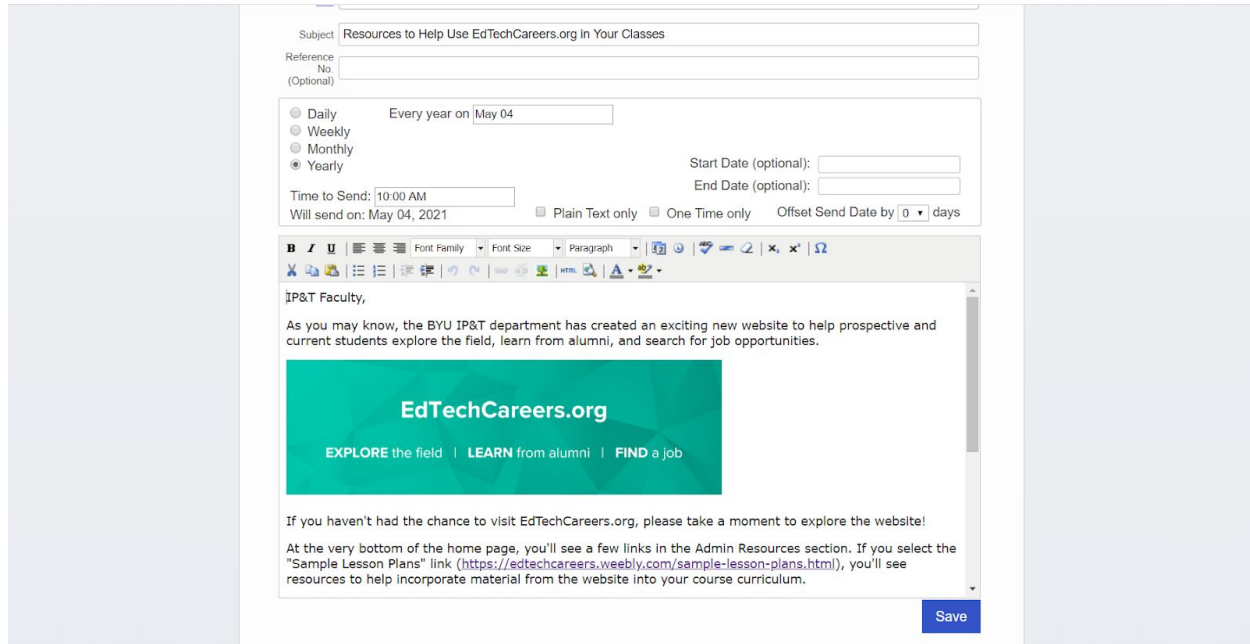
Figure 25. A recurring email reminder to encourage IP&T faculty to incorporate EdTech Careers into their curriculum by utilizing the sample lesson plans.

Royce Kimmons and Jessie Curtis determined that the IP&T secretaries will be responsible for sending out the EdTech Careers Alumni Survey to alumni and then inputting their responses into EdTech Careers to keep the *View Profiles* section up to date. The Updating the Website page is a link to a Google Doc with step-by-step instructions to help IP&T secretaries send out the EdTech Careers Alumni Profile Surveys and upload their responses (see Figure 26). Based on feedback from Rick West, I also added information about how to add additional videos to the Alumni Video Interviews page. The instructions in the document are provided in both text and screen-recorded video format. The Google Doc is restricted and can only be viewed by the IP&T secretaries, Jessie Curtis, and the committee members for this project.
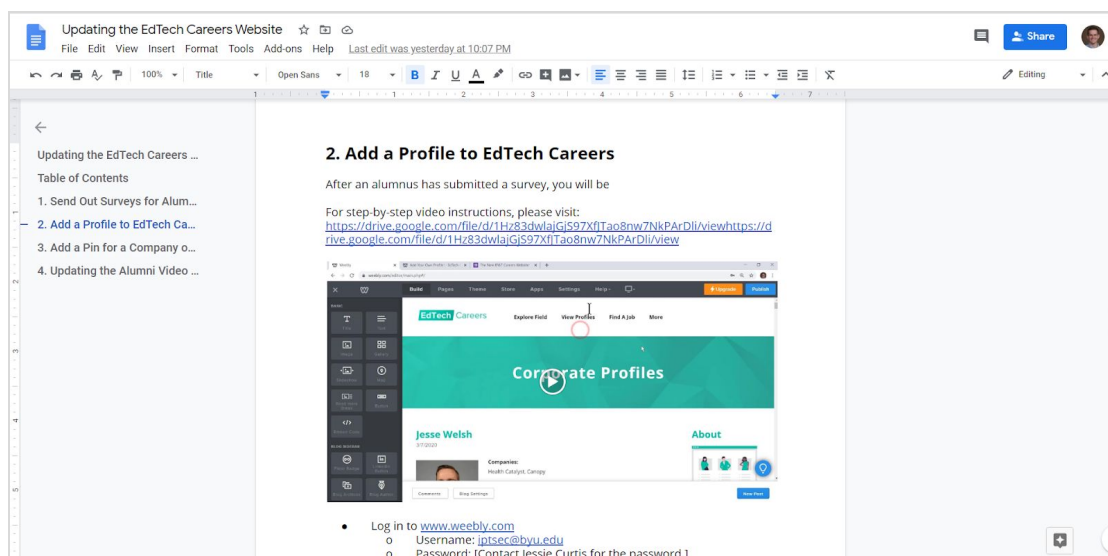
Figure 26. Google Doc to help the IP&T secretaries update the EdTech Careers website.

The IP&T secretaries will send the EdTech Careers Alumni Survey during the Winter semester of each year to alumni who graduated during the previous year. I created a recurring email reminder that will be sent during the second week of January in 2021, 2022, 2023, and 2024 to ensure the IP&T secretaries fulfill this responsibility. The email includes a link to the Updating the Website Google Doc for the IP&T secretaries to access the step-by-step instructions (see Figure 27).

Figure 27. A recurring email reminder to remind the IP&T secretaries to send the EdTech Careers Alumni Survey to alumni and to update EdTech Careers with their responses.

To make EdTech Careers more accessible to current and future students, I contacted Heather Leary on March 25, 2020, to ask for assistance in adding an EdTech Careers banner to the Career Information page on the official IP&T website. I provided a prototype of how the banner and accompanying text could look on the page using the Developer Tools in Google Chrome (see Figure 28).

Eventually, I was put into contact with the website administrator for the McKay School of Education's website. With permission from the Dean's Office, the website administrator added a link and text about EdTech Careers to the Careers page of the official IP&T website in late May.

Figure 28. A prototype depicting how a banner and text about EdTech Careers could be added to the Career Information page of the official IP&T website.

To help prospective students explore the IDT field using EdTech Careers, I worked with Jessie Curtis to advertise the website during the BYU Virtual Graduate Student Fair on March 11, 2020. Due to a surprisingly successful Facebook Ad that Jessie created, over 100 people registered for the Virtual IP&T Fair. The day before the virtual fair, a link to EdTech Careers was included in an email to all registrants. During the virtual fair, a link to EdTech Careers was included in the virtual tour interface. Only 9 prospective students participated in the virtual fair; the low attendance was likely influenced by uncertainty caused by the emerging coronavirus disease 2019 (COVID-19).

Fortunately, however, Jessie Curtis has access to the emails of all the registrants. She has included these registrants as recipients of her monthly Mailchimp marketing emails to prospective IP&T students. In these emails, Jessie includes links to EdTech Careers to help prospective students better understand the field and determine if the IP&T program is a good fit for them. These prospective students come from a variety of sources, including students from

BYU Idaho, BYU Hawaii, BYU Graduate School Fairs, BYU Virtual Career Fairs, and visitors to the IP&T front desk.

To facilitate easy sharing of the website, I added social icons to the EdTech Careers homepage. Specifically, I included buttons for learners to easily share the website via LinkedIn, Facebook, Twitter, and Gmail (see Figure 29).
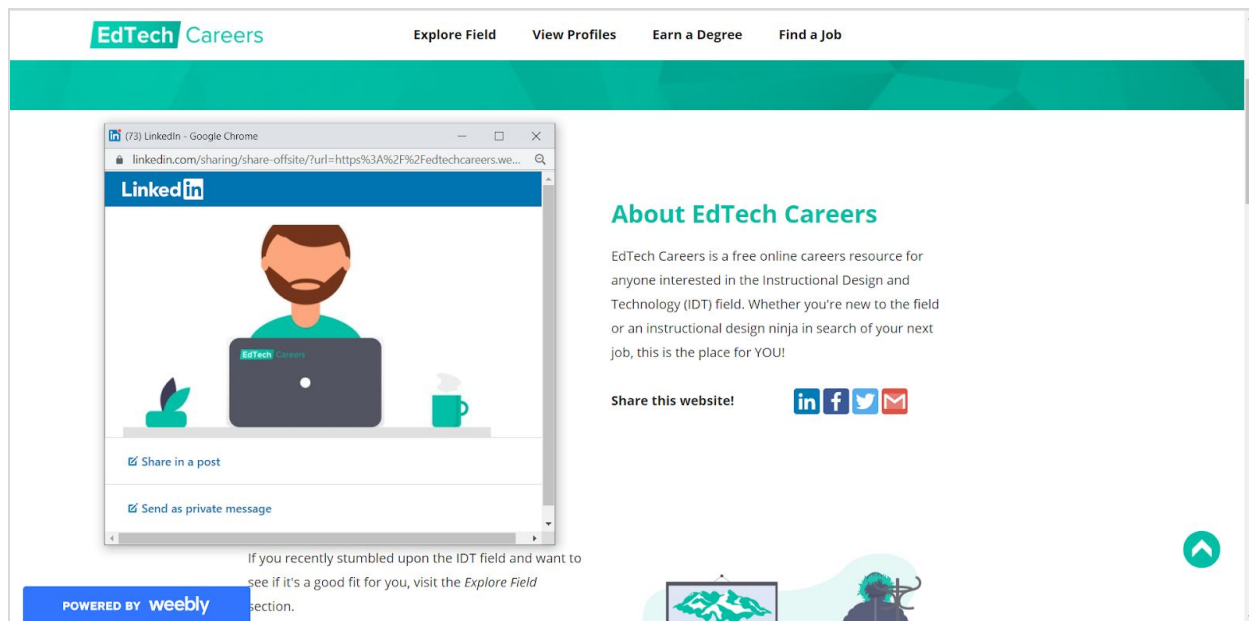

Figure 29. The social icons on the EdTech Careers homepage and a popup to share the website via LinkedIn.

During my project proposal to my committee, Richard West suggested integrating EdTech Careers content with EdTech Books content. EdTech Books (https://www.edtechbooks.org) is an open-source textbook publishing platform created by Royce Kimmons and sponsored by the IP&T department. To fulfill this request, I worked with Richard West to add a link to the Job Sectors page of EdTech Careers within Section VI: Preparing for an LIDT Career of the *Foundations of Learning and Instructional Design Technology* book on EdTech Books (see Figure 30).
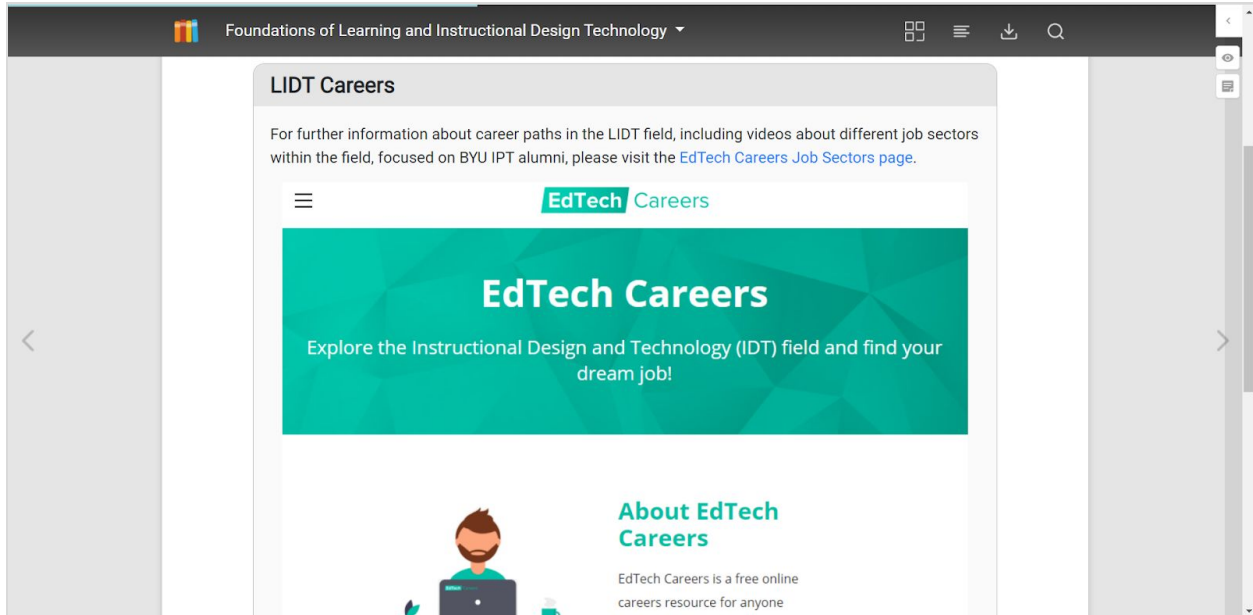
Figure 30. A section within the Foundation of Learning and Instructional Design Technology textbook on EdTech Books that directs readers to visit EdTech Careers.

Finally, after a large number of prototypes and product iterations, EdTech Careers was in a sufficiently finalized state to share widely. On March 31, I worked with Jessie Curtis to send an email to the IP&T Students and IP&T Alumni listservs to promote the website (see Figure 31). In the email, alumni who had not yet created profiles on the website were encouraged to do so by completing the EdTech Careers Alumni Profile Survey.
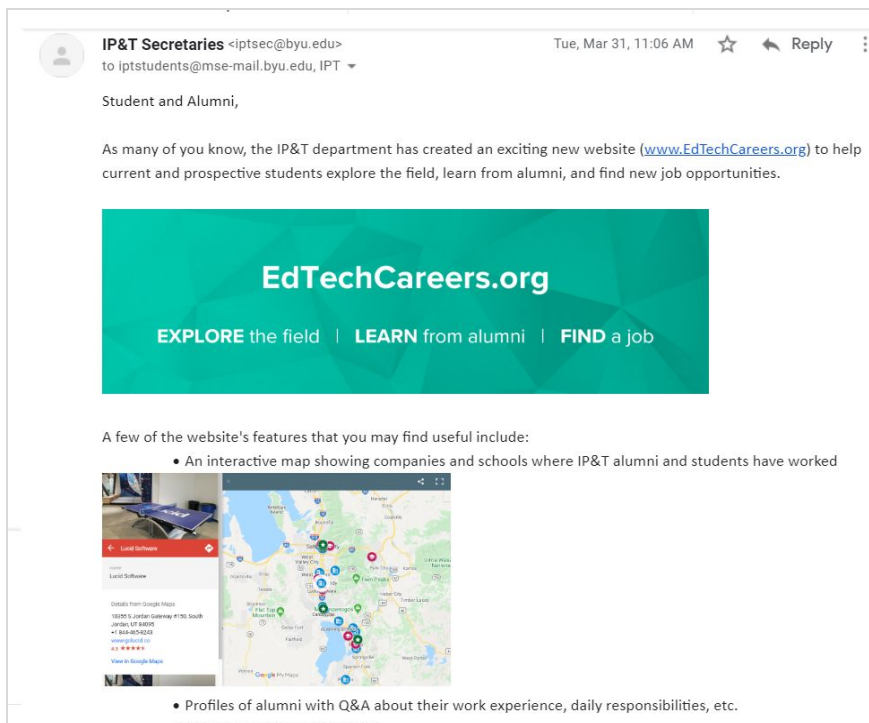

Figure 31. Email sent to the IP&T Students and IP&T Alumni listservs to promote EdTech Careers.

Budget and Timeline

I spent an average of 15.9 hours per week over the course of the Winter 2020 semester to create and implement EdTech Careers. At the end of the semester, I moved with my family to Dallas, Texas to work as an instructional designer for a financial technology company. At that time, I transitioned from part-time work to full-time work for the company. During the Spring 2020 semester, I spent an average of 5.38 hours per week during nights and weekends to finish writing this report. In total, I worked over 280 hours on the project.

Because I had to finish the bulk of my master's project before I moved to Texas and began full-time work for the financial company, and because I had to balance work for the company with work on my master's project, I used a Gantt chart to plan and organize my project schedule. In other words, I combined an agile instructional design approach, SAM, with a waterfall project management reporting method, a Gantt chart, so that I could utilize the affordance of each to meet the specific needs of my project. My original project schedule is shown in Figure 32.
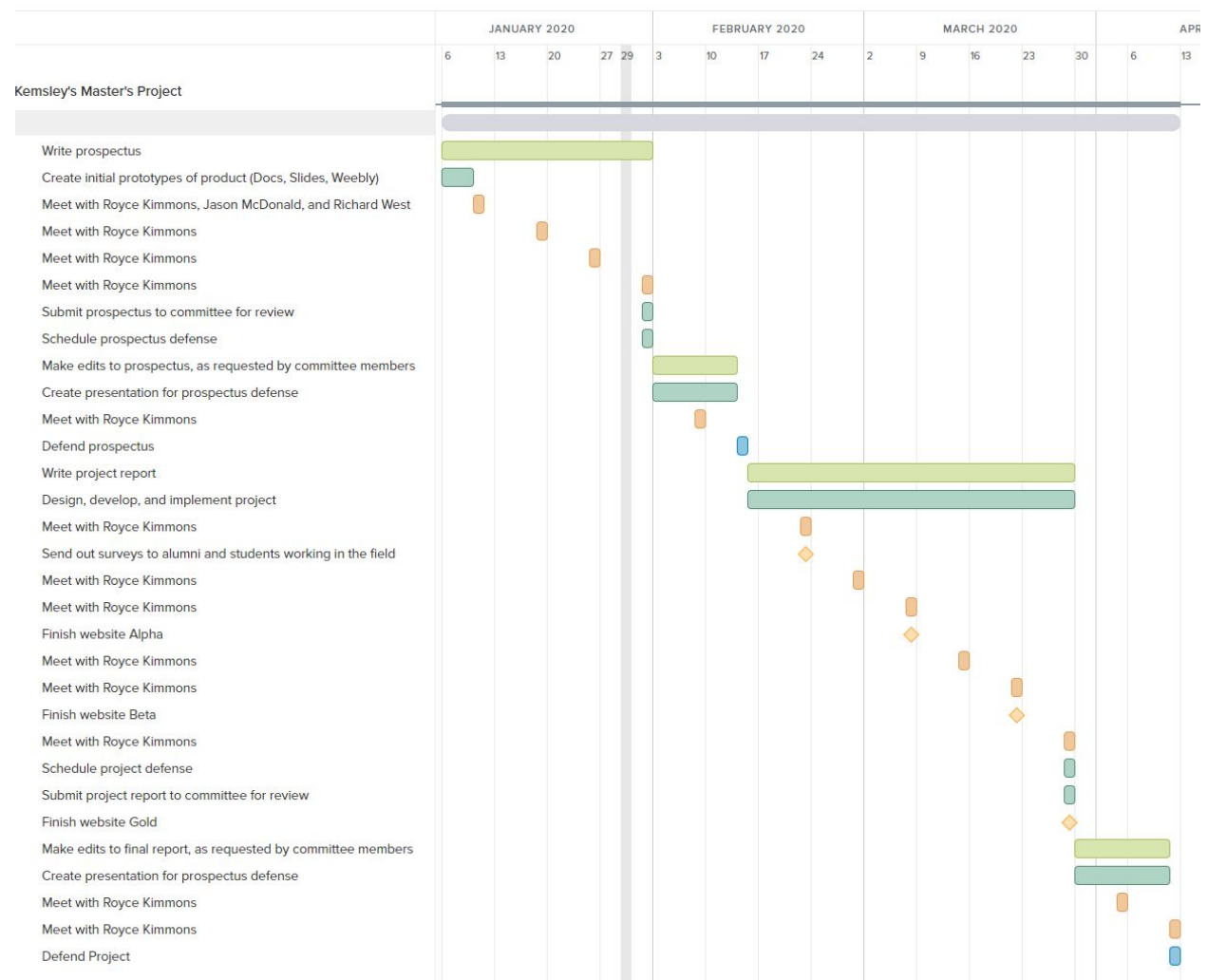

Figure 32. Gantt chart of the original project schedule.

While each of the major milestones from my original project schedule were met, the days and means by which I completed them varied from the original schedule due to unforeseeable circumstances related to the COVID-19 pandemic. Specifically, I began to rely on virtual meetings via Zoom and email conversations in place of physical meetings. The following dates in 2020 represent the actual dates of some of the milestones of my project:

January 7: Conducted "Savvy Start" meeting with committee; presented three initial prototypes
February 7: Sent rough draft of prospectus to my committee for review
February 18: Defended prospectus
February 25 to March 10: Sent out the EdTech Careers Alumni Profile Survey
March 10: Conducted Usability walkthroughs with Kara and Duane
March 10 and 11: Advertised EdTech Careers in conjunction with Virtual IP&T Grad Fair
March 11: Printed out professional small poster advertisements for the IP&T lab
March 17: Purchased the EdTechCareers.org domain
March 18: Sent out the Product Evaluation Survey
March 18: Heather Leary added EdTech Careers slides to the monitor in the IP&T lab
March 30: Added links to EdTech Careers within Richard West's book on EdTech Books
March 31: Sent email about EdTech Careers to the student and alumni listservs
April 9: Published 2.5 minute explanatory video to the EdTechCareers homepage
May 28: Sent this project report to my committee for review
June 15: Defended the project