Value Added

Service Design as a Framing for Career Success

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Master of Design, Interaction Design, 2015

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Service Design as a Framing for Career Success

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Abstract

Today's college students face an uphill battle to find well-matched and fulfilling work upon graduation. Many have generalized their studies, without a specific career path in mind, and are underprepared for professional expectations and needs. Lack of experience and self-knowledge, coupled with an outdated approach to workplace skills, means that they struggle 1) to find their fit, and 2) to convince employers of their worth.

My thesis focuses on researching the varying experiences and interactions of stakeholders within the existing recruitment system: college students, their career counselors, and hiring managers. I found that, while all working towards the same goal of mutually-beneficial employment, the traditional model of applying to jobs is broken, in that it does not adequately align needs and match candidates.

I prototyped multiple solutions, and worked closely with all stakeholders to evaluate my concepts' usability and utility. The solution I present here is a holistic approach to assessing and communicating the values and skills that truly create a flourishing workplace and employee/employer relationship. My goal is to equip students with tools for self-discovery and communication, creating more targeted applications, and thereby providing recruiters with richer information about potential hires.

TALIFY GIVES COMPANIES "SUMMERSUM GUIDES" SHOWING MATCHES
DASHBOARD W/ ~20 CHARACTERISTICS
INFORMATIONAL INTERVIEWS
INTERNSHIPS HOPEFULLY LEAD
SERVICE DESIGN: TOOLS, FEEDBACK & ALL STAKEHOLDERS
TESTING YOUR PASSIONS
INTERNSHIPS/ EXPERIENCE
COUNSELORS + NETWORKS
LIFETIME ENJOYMENT NOT GUARANTEED
LACK OF STABILITY, BUT ALSO MORE MOBILITY
LIFETIME COMPENSATION & ENJOYMENT
MONEY IS MOTIVATOR, BUT WHAT ABOUT OTHERS?
TALENT AS HAPPINESS FACTOR
MAJOR IS CRUC
LIBERAL ARTS CAN BE CONFUSING
U.S. LIBERAL ARTS MODEL LEADS TO "EXPERIMENTING IN ADULTHOOD"
NOW I FEEL LIKE I AM INTERESTED IN A LOT OF THINGS. IT'S HARD TO NARROW IT DOWN TO ONE THING.
85% VIEW THEIR WORK AS DIRECTLY ATTACHABLE TO THEIR FUTURE JOB
CAREER COUNSELORS ARE CRUCIAL; AS ARE NETWORKS, FOLLOWED BY ONLINE SEARCHING
HALF HAVE DIRECTION; HALF DON'T. UNSURE OF GOALS & OPTIMAL WORKPLACE
VERY SUBJECTIVE THINGS MATTER!
UNSURE OF MOTIVATION
EXPERIENCE
QUALIFICA

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Introduction

"We are what we repeatedly do." — Aristotle

Humans have to work; it is a fact of being. Work sustains us through providing basic subsistence, monetary protection, and participation in society's cultural and capital outputs. What we do is a major factor in who we are, yet most people seem to choose their work haphazardly; ignoring the implications of their choices on their individual well-being, and their impact on society.

I advocate for an approach that recognizes the deep importance of one's work, and that takes steps to address the elements of successful "fit," whereby employee and employer benefit from alignment of values, abilities, and motivation.

CONTEXT

I didn't feel afraid when I graduated from college in 2008, at the precipice of the Great Recession, because I thought that I had the academic pedigree to succeed. Coming from an elite New York private high school and Yale University, I had the records and the grades to find success. And yet, four years later, I had had a string of jobs in which I felt I had "failed"– nothing seemed to fit, from the content of what I was doing, to my relationships with coworkers, to the companies' reward systems.

An ongoing quest for self-knowledge, coupled with more informed research on the landscape of employment, has helped guide me, but I wish it could have come sooner. For all my education, I was ignorant about the things that truly mattered for success in the workplace. Although I don't believe in the Holy-Grail concept of the "dream job," and although I do believe in the benefits of trial-and-error, and in discovery through doing, there is no doubt that well-aligned guidance and goal-setting would have helped my psychological well-being throughout those years.

OPPORTUNITY

Even before beginning this project, speaking with other college-age students and Millennials convinced me that I was not alone. In my conversations, I found high levels of disengagement around jobs, confusion over expectations, and frustration over lacking a sense of professional purpose (see also: McAfee, 2013; Carpenter, 2014; Goldfarb, 2014; Yang, 2014).

In my preliminary research for this project, I stumbled upon a growing field of "human capital analytics," fueled by big data. Its practitioners purported to hold the key to supplying businesses with the best possible workers by analyzing hundreds of applicants' meta-traits (not only intelligence, but also personality, emotional abilities, even social media profiles) through a variety of psychometric testing apparatuses (Hunter, 1984; Griffeth, 1990). What an exciting possibility – to take a few tests, and simply "know" what one was meant to do ...

The glaring issue was that all of this was geared entirely toward the employer, effectively removing the employee from experiencing self-discovery

through the methods. Another problem was its reliance on predictive algorithms, the validities of which haven't been fully established: job-seekers were handing over their agency to crystal-ball machines, which could make or break their chance at a career.

There is great allure in knowing one's professional "destiny," yet many human capital methods are simply modern-day versions of phrenology– parodied in this illustration from the 1800s. (source: Krznaric, 2012).

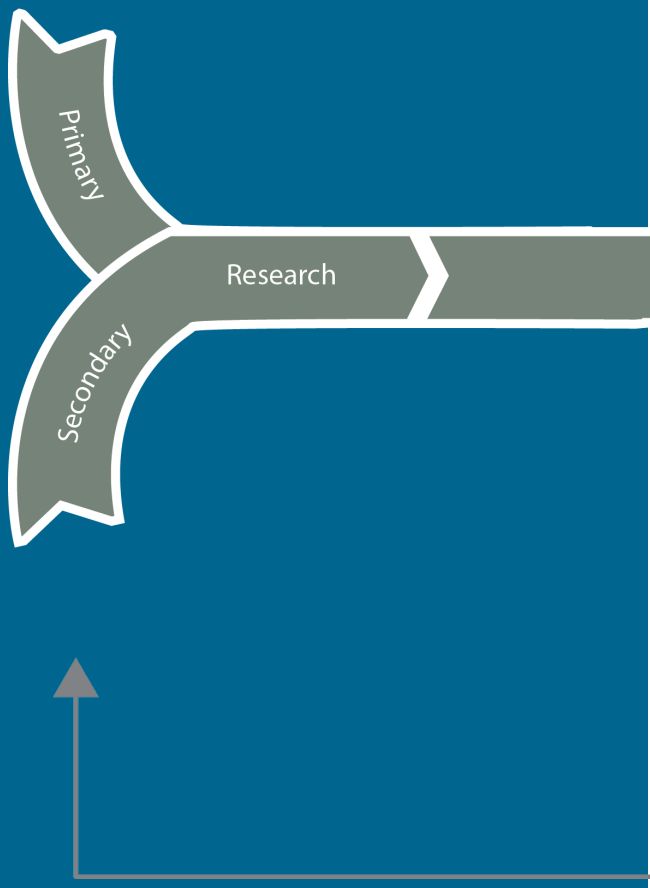
With my thesis, I resolved to find a balance between the stakeholders in play: the college-age Millennials who are seeking optimal jobs, aided by their counselors, as well as the employers' representatives who are in charge of hiring decisions (both external recruiters and in-house hiring managers).

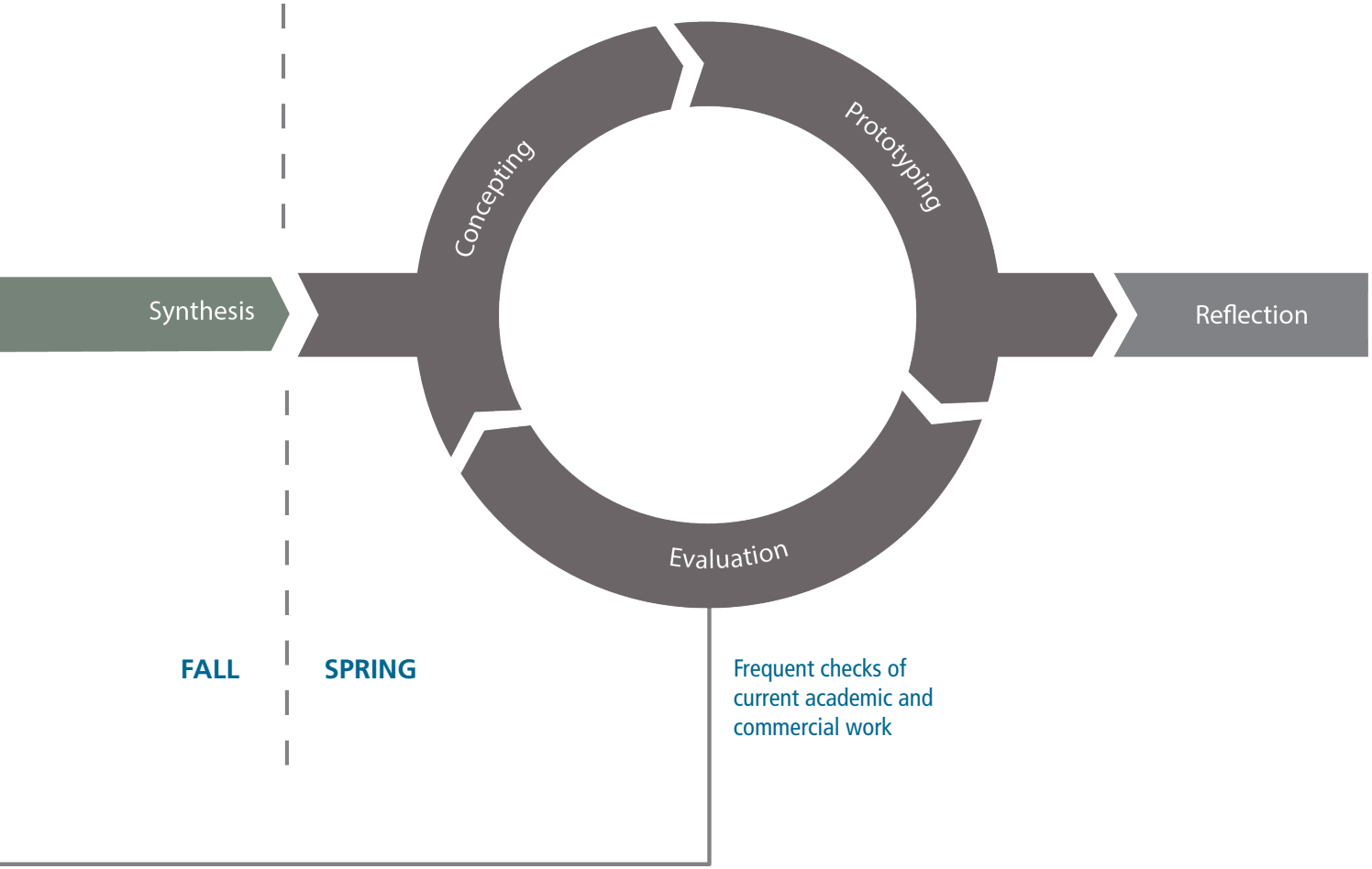
My goal was to create a tool – technologically provocative, yet feasible – with holistic service provisions to 1) reveal the innate abilities and truths of applicants, 2) re-contextualize businesses' missions and cultural environments in order to find an applicant match, and 3) help young applicants, who haven't yet gained specific work experience, and who lack an extensive professional network, express why and how they are good for a company's bottom line.

If designed correctly, this tool should not only help someone find a job, it will help him/her discover and maximize his or her full human potential.

Design Process & Approach

I strove to balance academic, commercial, and stakeholder perspectives throughout this project. As a result, I took an iterative approach that combined extensive primary and secondary research with human-centered concepting and evaluation of prototypes.




Synthesis
Concepting
Prototyping
Evaluation
Reflection
FALL
SPRING
Frequent checks of current academic and commercial work

PART ONE
Well-Being & Work

PART TWO
Self Knowledge: Skills & Success

PART THREE
Recruitment

PART FOUR
Existing Tools & Concepts

Literature & Artifact Review

PART ONE

Well-Being & Work

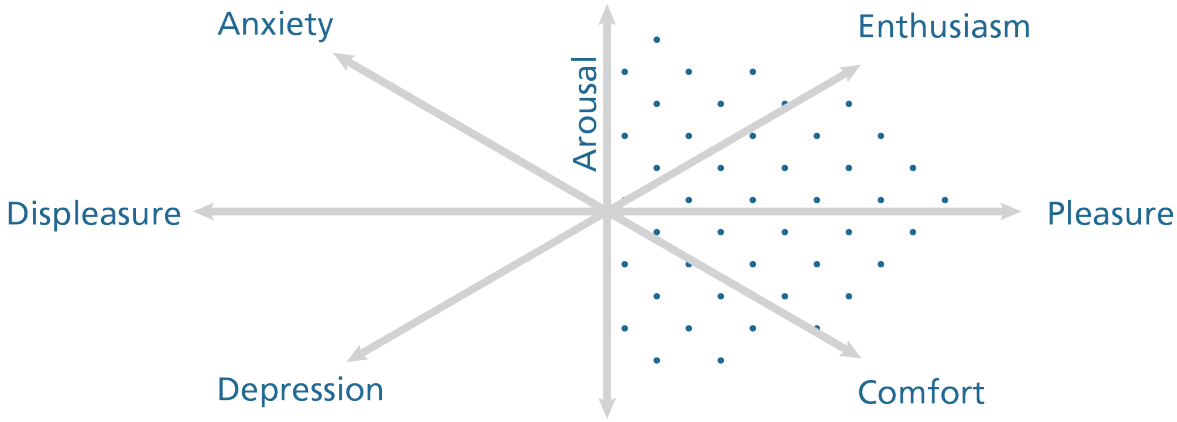
"Far and away the best prize that life has to offer is the chance to work hard at work worth doing." — Theodore Roosevelt

Positive psychologist Martin Seligman defines "well-being" as a construct composed of positive emotion, engagement, and meaning. Through these three pillars, we are able to accomplish and achieve things, participating in positive relationships and interactions in the world. It is something for which we should all strive, as it represents a harmony between ourselves and those around us (Seligman, 2011). It is a critical component of our "Right Livelihood," or our balance between ego and action; our sense of self and our work (Dweck, 2006).

Indeed, the workplace is a critical environment in which we can (or, try as we might, cannot) experience well-being and right livelihood. Decades of industrial-organizational (I-O) psychology studies have found that paid employment has a substantial impact on one's life and perception of one's "flourishing" – perhaps more so than is commonly acknowledged. Time and again, links have also been found between job satisfaction and productivity, performance, and profitability (Warr, 1999; Wright & Cropanzano, 2000).

There have been many, many attempts at delineating the determinants of well-being at work. One is the theory of "Mastery, Autonomy, and Purpose," as espoused by Daniel Pink, who holds that employees will find fulfillment in their work if it is at an appropriate level of difficulty, allowing them to achieve Csikszentmihalyi's concept of "flow," presented to them in a manner over which they have some degree of control, and matched to their own intrinsic concepts of what is meaningful and valuable (Pink, 2011; Csikszentmihalyi, 1990).

Other theories have delved into notions of "culture," and the alignment between corporate practices and individual preferences. Edgar Schein defines culture as being composed of observable artifacts within a company's work environment, corporate values and mission statements, and the company's basic underlying assumptions, which might also be described as their "ethics" (Schein, 2010). When these elements are matched with workers' own predispositions, one would hope to have a harmonic match, or "person-organization (P-O) fit" (Cable & Judge, 1997).



Warr's axes for the measurement of well-being. Ideally, an employee would experience variations of the emotional states highlighted here, in conjunction with their company's environments and interactions.

PART TWO

Self-Knowledge: Skills & Success

"There are three things extremely hard: steel, a diamond, and to know one's self." — Benjamin Franklin

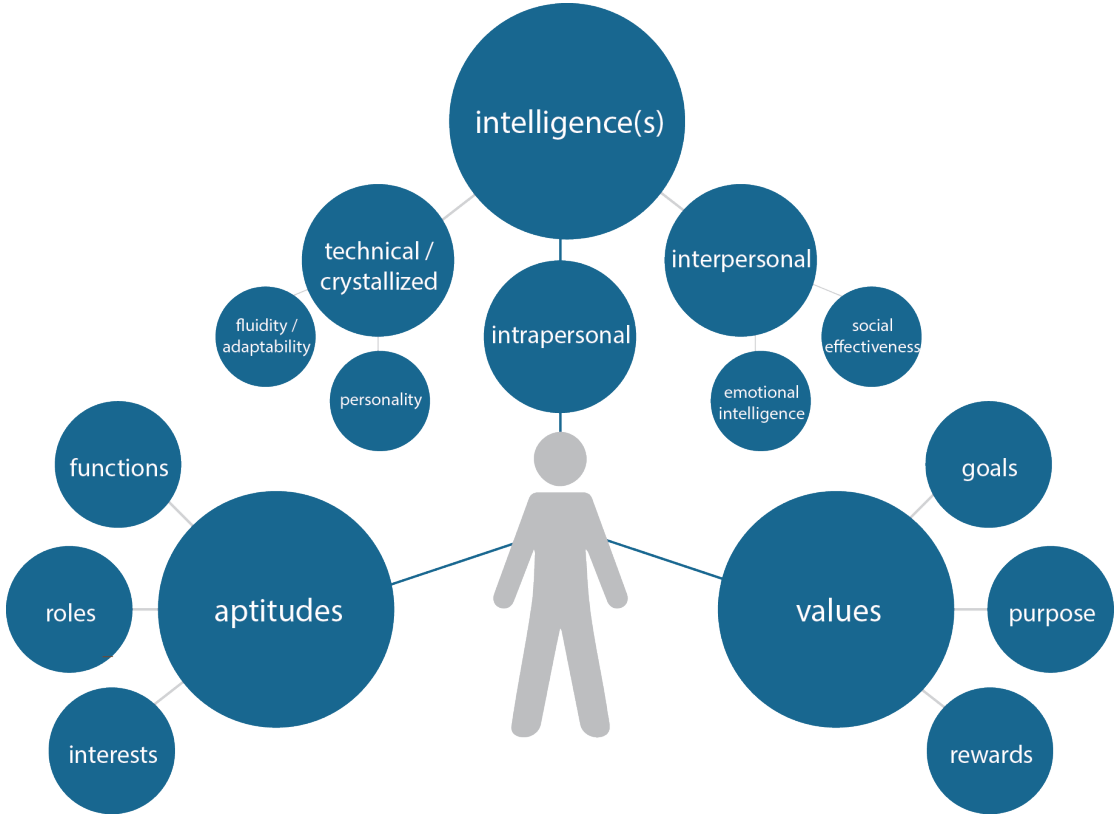
Humans are bad at self-analysis, and they're bad at predicting the future. When it comes to work, most job-seekers rely on accepted, societal norms to make judgments about what they want and what they think will bring well-being. For example, a high salary and/or an impressive job title may signify success. Similarly, employers and hiring managers tend to look at simplistic indicators to determine whether an entry-level employee is a "fit" – often their alma mater, GPA, or specific, technical skills. Time and again, research has shown that these are suboptimal metrics for predicting person-organization fit, personal well-being, and corporate profitability (Meyerle, 2013).

One key for job-seekers' success is gaining self-knowledge through career counseling. A myriad of counselors, or "coaches," including Nicholas Lore of the Rockport Institute, and Richard Bolles of the "What Color is Your Parachute" series, have built a reputation by creating holistic assessments of job seekers' aptitudes and motivations, and then helping them "design" a plan to capitalize upon their goals (Lore, 1998; Bolles, 2006). By looking at one's whole self – not just the desire for money or prestige – a young job-seeker is able to self-reflect on her true passions, as well as the realization of her human potential in the workplace.

Nicholas Lore's assessment framework.

There is a dizzying array of assessments that one can take to self-reflect. Areas of focus may include **personality** (ex., Myers-Briggs Type Inventory), **subject matter** (ex., Strong Interest Inventory), **values** (ex., Rokeach Value Survey), **aptitudes** (ex., Gallup StrengthsFinder), and **generalized "g" intelligence** (ex., Stanford-Binet Intelligence Scale).

The validity of each testing construct is still hotly contested, but the fact is: every person has a variety of suborder characteristics that makes him or her unique, and which can be translated into skills (or "strengths" or "aptitudes" or "virtues") that provide value. It is when that value is matched to the right environment, that the person is able to truly flourish and succeed.



Every person has a variety of qualities that can provide value in the workplace. For more examples and exercises see: Gale, 1982; Llewellyn, 2007; Rath, 2007.

Employers would do well to note, however, that these indicators of value are not typically accounted for in the recruitment process. Often, job-seekers' worth is limited to their fluency in specific technical tools (no indicator of P-O match or future success), or with normative markers of intelligence, such as GPA or I.Q. (Sternberg & Wagner, 1993). In fact, it has been shown that it is a combination of one's unique, environmentally-activated skills that enable success, rather than high scores in traditional tests, which focus on regurgitation of logical and linguistic technical information.

Howard Gardner and Robert Sternberg, leaders in the fields of Multiple Intelligences, have found that peoples' success lies in their ability to adapt; to be "fluid" and resourceful in response to their environment (Sternberg, 2003). This is a quality that isn't typically tested for in school or during recruitment, but is much more aligned with the daily realities of life.

They have found it is a person's ability to skillfully manipulate the "intrapersonal" and "interpersonal" interactions in her environment that produces optimal outcomes, *not* the application of crystallized, or domain-specific, knowledge (Gardner, 1983). Recently, this has begun to catch on in the popular press, with a newfound interest in "Emotional Intelligence," or the metacognitive skills of self-regulation, empathy, and contextually-appropriate emotional response (Goleman, 1995). When a hiring manager says she wants to find an employee who "plays well in the sandbox" and facilitates the daily in's-and-out's of the workplace, she is typically looking for someone who can successfully harness these suborder skills, or metacognitive traits.

> "Intelligence is defined in terms of the ability to achieve success in life in terms of one's personal standards, within one's socio-cultural context."
>
> — Robert Sternberg

PART THREE

Recruitment

It is said that people are a company's greatest asset, so it's no wonder that corporations in the United States alone spend nearly $72 billion each year – averaging $3,300 per new hire – on recruitment (Bersin, 2013). It's shocking, however, that job satisfaction and retention rates are so low. A recent study showed that only 30% of American workers feel engaged at their jobs, and nearly one quarter of new hires leave their company within one year (Peck, 2013).

One reason might be that job-seekers aren't doing their due diligence on themselves and on companies – reflecting on whether their skills and values align with corporate missions and cultures. They may not be speaking with their counselors, or networking enough (Hoffman, 2014). There are very few tools which allow applicants to "window shop" for jobs and gain true insights into the inner workings of a company, prior to accepting an offer; often insights only come about through *talking* with actual people.

Another reason might be that companies are hiring the wrong people because of their limited understanding of metacognitive, non-traditionally tested aptitudes, such as Successful Intelligence. Many people are still unfamiliar with these skills' existence, let alone with their impact on corporate profitability.

College-age Millennials are at a distinct disadvantage when applying to jobs because they lack prior work experience and technical skills,

they have small professional networks, and as novice, active job-seekers, they are competing in an already flooded market. Add to that the realities of America's Liberal Arts system, which generalizes studies, does not emphasize apprenticeship, and does not adequately prepare students to communicate to employers their marketable skills (Cappelli, 2012).

The field of recruitment is coming to terms with these facts, and is working towards new methodologies of evaluating person-organization fit. I view this thesis as a contribution to the still-nascent field of human capital analytics, which takes a research-based approach to matching talent with opportunity, promoting both individuals' well-being, and business' fitness.

CASE STUDY

"People Operations" at Google

Google – one of the world's most successful companies – takes a nuanced approach to hiring. Laszlo Bock, the senior vice president of their hiring division ("people operations") has been quoted as saying, "G.P.A.'s [and test scores] are worthless as a criteria for hiring."

Instead, Google looks at "learning ability," which they distinguish from I.Q., as being more fluid and contextual, as well as "emergent leadership," which hinges on one's ability to work as part of a team. The least important attribute they look at is "expertise," which is crystallized knowledge and techical skill.

"How to Get a Job at Google," Thomas L. Friedman (2014)

PART FOUR

Existing Tools & Concepts

To remain mindful of existing commercial tools, as well as broader industry trends in the realm of recruitment, I engaged in ongoing research around professional development and vocational guidance, job marketplaces and company insights, and application communication tools.

Professional Guidance

There are countless books and websites containing career advice, but The Muse is especially well-written, up to date on recruitment trends, and geared toward entry-level applicants. It is free to users, and has a section in which job seekers can "see inside" companies by viewing employee profiles, videos and pictures of offices. They are then able to apply directly to open jobs.

Psychometric Testing

Knack is a tool for employers who wish to test their applicants' metatraits to predict corporate fit and future success. Users play games online, which are supposed to measure "talents" such as problem solving, integrity, etc. It goes beyond standard testing because it is specifically for job placement. Other companies in the space include Good.co and Pymetrics.

Educational Tools

Kuder is an online platform that combines psychometric assessments with professional guidance. It is a paid service, and its offerings resemble those of a traditional career counselor or coach. Tests and program packages include interest, skills, and values assessments; guidance can be geared toward elementary school children all the way to adult job-seekers.

Company Insights

This is one of the few tools in which users gain insights about companies from actual employees. Glassdoor collects anonymous reviews about company culture, metrics such as salary, and tips on getting interviews. It is the most comprehensive tool in this area, and also serves as a job board. Smaller competitors include CareerBliss, Salary.com, and CompanyConnector.

Networking

LinkedIn has market dominance in social recruiting. Over 300 million people use it to display their professional resumes, apply to jobs, and connect to colleagues, mentors, and potential employers. It is also popular among recruiters, who use it to reach out directly to applicants. Additionally, as a publishing platform, LinkedIn provides its users with articles from industry leaders.

Application Design

There is also an industry around providing job-seekers visual design tools to promote their skills. VisualCV is one example of a service that provides users with resume templates, pushing the content to online websites and/or printed PDFs. Related fields include: resume writing services; personal branding services; web and interactive content creators. These are mostly paid services.

Research & Exploration

I employed a number of human-centered design research methods to contextualize and better understand the varying stakeholder needs around recruitment. I began with a survey of college students, who were in the process of job-seeking, and worked with one student to test responses to counselor-approved, self-discovery exercises. Concurrently, I reached out for interviews with college career counselors, hiring managers, and industry experts, who were on the receiving end of young job seekers' applications.

Their stories provided a rich look at the struggles of recruitment: the anxiety and confusion of Millennials; the valuable insight but shortage of counselors' time and resources; and the suboptimal techniques that recruiters and hiring managers currently employ to find well-matched talent. I resolved to unearth the commonalities among their stories, in order to create a service that would balance all stakeholder needs.

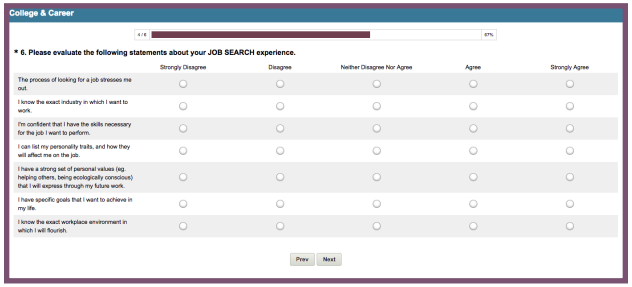
SURVEY

Job Seeker Experience

I felt it was crucial to begin my research with first-hand accounts of the struggles and needs of college job-seekers. I wanted to understand the steps they took to search and apply for jobs: the tools they used, and the people they involved. Additionally, I wanted to capture their thought processes as they transitioned out of academia into professional life: whether or not they felt prepared; how they would choose to tap into their skills and belief systems as they explored career options. And finally, I was interested in their emotional state: how did they feel about the process? What was working for them, what wasn't; and why?

METHODOLOGY

I created a ten-question survey in SurveyMonkey, and distributed it through my email lists and social media contacts. I also decided to post it as a HIT (human intelligence task) on Mechanical Turk in order to get a more diverse range of respondents. I kept the survey open for two weeks and received a total of 78 responses from students of a variety of geographic locations and areas of study.



College & Career

4 / 8 67%

* 6. Please evaluate the following statements about your JOB SEARCH experience.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
The process of looking for a job stresses me out.					
I know the exact industry in which I want to work.					
I'm confident that I have the skills necessary for the job I want to perform.					
I can list my personality traits, and how they will affect me on the job.					
I have a strong set of personal values (eg. helping others, being ecologically conscious) that I will express through my future work.					
I have specific goals that I want to achieve in my life.					
I know the exact workplace environment in which I will flourish.					

Prev Next

A screenshot of my survey design. For a full list of questions, see the Appendix.

Key Finding: **job searching is emotionally taxing and unenjoyable**

Students seem to view the job search process as a necessary evil, but they are overwhelmed with negative emotions – stress, anxiety, fear – as they engage in it. Having invested so much time and money in their education, they feel that they are now at a high-stakes crossroads, which will have enormous consequences on their future life and happiness. A typical response to the pressure was to simply avoid the job search all together and leave the job applications until the last possible minute.

Key Finding: **stress can be self-generated, due to a lack of emotional and mental preparedness**

Students are still in the process of defining their identities and understanding their values and goals. Because they aren't yet sure what they want in life, they don't know which professional path to take. This finding was especially true for students majoring in the Liberal Arts: having generalized their skills, they aren't sure which careers they should specialize in. For those who were ambivalent, salary was thought to be the deciding factor in making a job decision.

Key Finding: **stress can also be externally-generated, due to lack of professional transparency**

Many students feel they are in the dark in respect to professional expectations and future career paths. They may or may not make use of their college's career counseling resources, but in either case, feel that the services provided are lacking. Because they don't know what's in store for them, students aren't sure how to successfully land a job, and they fear the future. Additionally, they feel they have "nothing" to put on their resumes besides their GPAs and academic information, due to their lack of prior work experience.

Key Finding: **student job-seekers receive guidance through multiple channels**

There does not appear to be one sole, trusted source of professional guidance. Students report receiving more information on job opportunities and recommendations from friends and family members than from their college counselors. They also rely heavily on online job boards to guide their search, and feel the best way to apply for a job is online, through an open, listed position. It is an ad-hoc process, without a well-defined roadmap.

"I hate everything about job searching. It gives me great anxiety, on top of being extremely tedious, and often discouraging." — college student survey response

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INTERVIEWS

Stakeholder Perspectives

As I began receiving results from my survey, I reached out to a variety of other stakeholders. I interviewed two career counselors to better understand the methodologies of professional development. I spoke with two recruiters and one in-house hiring manager about their experiences both *placing* and *hiring* young talent into jobs. Finally, I circled back to another college job-seeker, asking her more in-depth questions and exploring two self-development exercises.

CAREER COUNSELORS

"We tell people: it's not a job search, it's about your goals, and career planning occurs over the course of your lifetime."

Key Finding: **"they know their stuff" but are limited in manpower and resources**

Career counselors are founts of knowledge, yet are under-utilized by college students and struggle to get their message out. They are trained in professional development techniques, and stay up-to-date on industry trends, including sought after skills, growth sectors, and placement tools. At most schools, they organize workshops to build core competencies and spur students to think about long-term professional plans.

The counselors I interviewed, however, found much of their rhetoric was met with apathy, and they felt they were already stretched too thin to reach out to disinterested students. Both agreed that online tools, such as personality tests (ex., Myers-Briggs Type Indicator) and interest exercises (ex., Strong Interest Inventory) were valuable additions to their repertoire and helped reach students who wouldn't physically come in for counseling. However, they cautioned against relying solely on automated career tools, as they lacked the nuances of interpersonal interaction.

They emphasized the importance of understanding and communicating to employers "the whole person" – not just your GPA, but your goals and values. Also crucial: gaining experience through internships, apprenticeships, mentorships, and/or shadowing and informational interviews. Networking was an under-utilized tool that could help students test the waters before jumping in.

A career counseling model. Successful fit and well-being depend on a holistic understanding of oneself as well as the job landscape.

RECRUITERS

"It's true that recruiting can be predatory. They don't always care about you as a person; they just need bodies."

Key Finding: **the ultimate goal is person-organization fit, but it's difficult to predict, and it often doesn't happen**

Recruiters want the same thing the students do: to match a person with a job, where they fit in well and add value to the company. However, the standard methods for doing so are extremely limited in predicting fit, and recruiters often resorted to simplistic criteria (ex., does the applicant have the required technical skills that match a job opening) to supply companies with options.

Both recruiters I interviewed were experimenting with new techniques to increase their accuracy: one with personality tests for the applicants; the other with "window shopping" metrics, which provided job-seekers with corporate insights. Of course, this was a difficult proposition, as companies tend to jealously guard their cultural and operational "secret sauce."

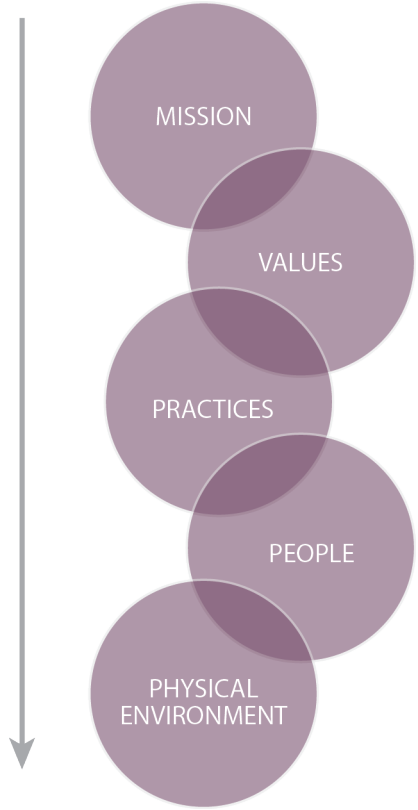
HIRING MANAGER

"I know if someone's right when I meet them and see them in action. We want people who will play well in the sandbox."

Key Finding: **metacognitive skills are often the determining factor of whether or not someone lands the job**

Hiring managers, who have the final say in whether or not an applicant is brought onboard, seem to place great stock in metacognitive skills – for example, the applicant's ability to communicate and collaborate – yet they often don't know if they possess these skills until they come for an in-person interview. Even then, "fit" decisions are based mainly on gut instinct.

"Culture fit" is a crucial element of person-organization fit, but it is a nebulous and subjective construct. Ideally, hiring managers would have a better sense of this as early as possible in the hiring process. However, deterrents to this happening include: the applicant neglecting to effectively communicate their metacognitive skills and/or the company neglecting to adequately publicize the elements of their workplace culture, so the applicant can make an informed decision prior to applying.



"Culture Fit Indicators." Just as job-seekers have qualities that make them unique and hireable; companies, too, have characteristics that determine their culture and general fitness. Applicants are able to research some of these qualities remotely – online and through networking discussions. Others, however, don't emerge until the applicant is situated within the work environment.

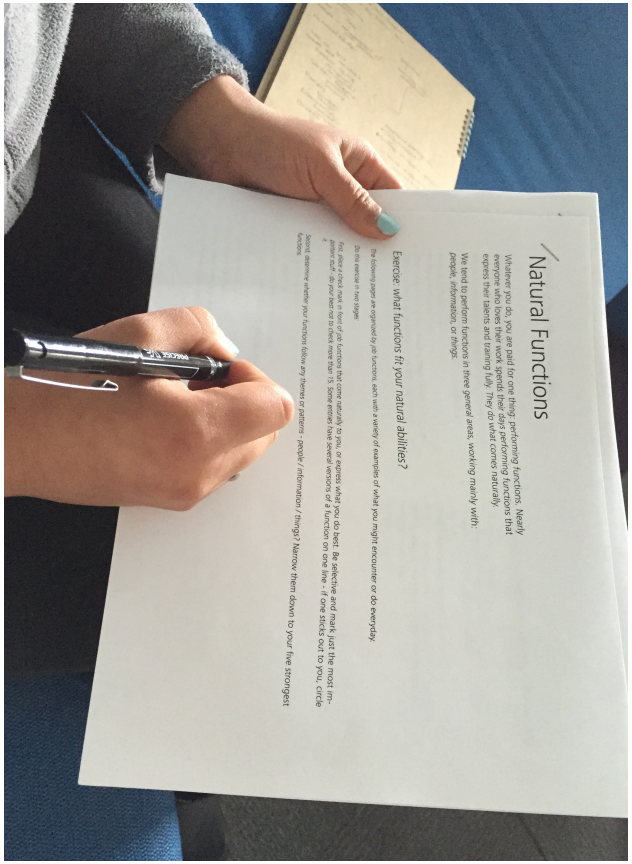
STUDENT

"I'm a history major, but I don't want to be a historian... Exercises like these help, but they can be boring."

Key Finding: **Students welcome career advice when it is presented in an engaging manner**

I worked with a student on two self-discovery exercises, adapted from counselor Nicholas Lore's book "The Pathfinder." The exercises combined written fill-in-the-blanks and rating scales to determine 1) natural aptitudes, such as memory and problem solving talents, and 2) natural functions, such as comfort working with people and/or information and/or things.

The student found the exercises useful in helping her self-reflect and consider her innate strengths. However, the format in which it was presented – a text-heavy paper-and-pen exercise – was uninspiring. She also wasn't entirely sure how she would translate these results to career ideas. I was hoping to include exercises like these in my final design, so there were clearly a lot of improvements to be made.



A scene from my testing process. "Natural Functions" and "Natural Aptitudes" are incredibly useful for job-seekers to know about themselves as they embark upon their application journey.

SYNTHESIS

Students, counselors, and hiring managers are all working towards the same goal: they want people to find professional matches that bring well-being to the employee and profitability to the company. My survey and series of interviews, however, uncovered how suboptimal tools, coupled with stakeholder misalignment, were preventing this from occurring.

The bright spots in my research were all the opportunities to pursue:

OPPORTUNITY: assuage student anxiety with engaging self-discovery tools

Self-awareness will clarify goals and aid the career decision making process.

OPPORTUNITY: provide students with improved "window shopping" tools

Help them gain insight into currently hidden corporate culture and practices.

OPPORTUNITY: increase communication between students and career counselors

Spread counselors' message effectively and efficiently, forging new bonds.

OPPORTUNITY: build channels between students and "knowledgable others"

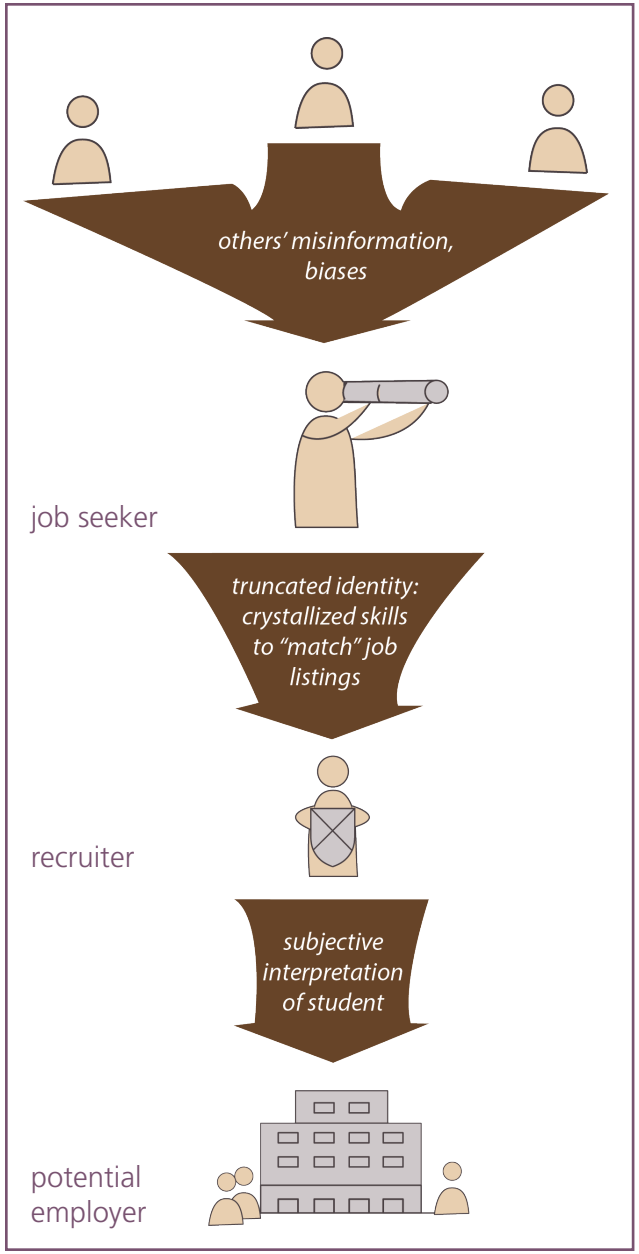
Foster networking with mentors to gain experience and information prior to applying.

OPPORTUNITY: equip recruiters with more holistic information on applicants

Thorough evaluations and the inclusion of metacognitive skills will help the hiring process.

OPPORTUNITY: increase interaction between students and hiring managers

Both parties will become more knowledgeable about the other, increasing the chance of matching.



Stakeholder Map. *Currently, counselors' advice is drowned out by pressures and misconceptions. Instead of knowing and presenting their whole selves, students rely on vague job listings to market themselves to recruiters, who in turn guess at fit.*

GUIDING PRINCIPLES

CHAMPION IDENTITY

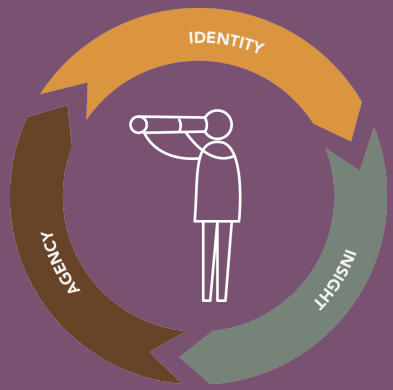
Self-knowledge benefits both job-seeker and recruiter; knowledge is power

PROMOTE INSIGHT

Transparency around corporate *and* personal information aids matching

GIVE AGENCY

Every stakeholder must be valued and given the optimal tools for their needs



Prototypes & Evaluation

By synthesizing the insights I gathered from my initial research and identifying a number of areas for positive change, I began concepting ideas. These concepts represent the needs of the three main stakeholder groups – student applicant, counselor, and recruiter – and attempt to enable their goal of "person-organization fit." Simple, hand-drawn storyboards allowed me to get honest feedback on the underlying motivations of each group.

Through this, I built an initial prototype directed towards student self-discovery and career recommendations. Calling it "DesignPath," it was limited to the realm of professional design, but it implemented a number of the principles and opportunities I had identified: 1) visually appealing, engaging, and non-onerous exercises that 2) enable self-reflection and 3) provide guidance to reduce the anxiety of the unknown. I evaluated its utility through student user testing, along with a stakeholder co-design workshop, allowing me to hone in on the elements of my final design.

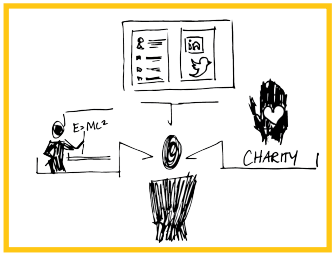
STORYBOARDS

Envisioning Optimal Scenarios

1

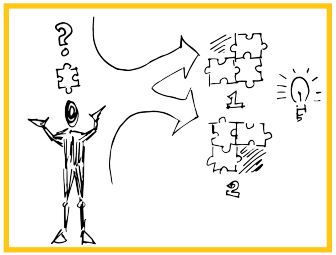
As a college freshman, Sarah is given access to a career counseling portal, which includes a variety of exercises, such as:

- games that assess her general intelligence, including problem solving ability and adaptability
- quizzes to assess her personality
- short-answer sections, where she writes her goals, values, and strong career preferences



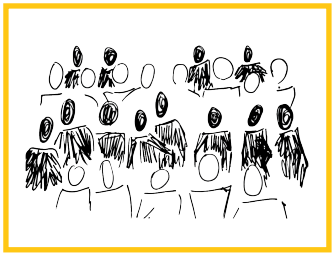
She regularly updates the portal, and meets with her career counselor to discuss her results. Additionally, she fills in the portal with:

- recommendations from her professors and her counselor
- links to her blog, portfolio, and social media profiles
- rich media uploads of her classwork and extracurricular projects



As a Liberal Arts major (History), Sarah isn't entirely sure what career path she wants to pursue. So, the portal suggests business opportunities she might be interested in, based on her test and quiz results.

Because she has high "Problem Solving" scores in the portal, including abstract reasoning and adaptability, the portal suggests positions within the fields of consulting and social work.



Her senior year, as she begins looking for jobs, the portal sends her profile and information to:

- university alumni, whose businesses have been matched to her results
- local businesses, who haven't posted open positions online, but who might be interested in her as a candidate

---

Student Response: Positive

This would be a very useful, comprehensive job-search tool

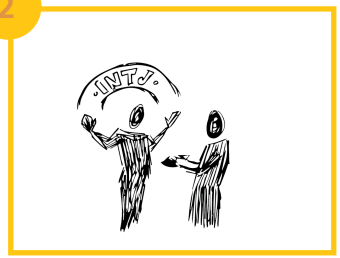
Counselor Response: Positive

The inclusion of alumni networking and local business opportunities is great

Recruiter Response: Neutral

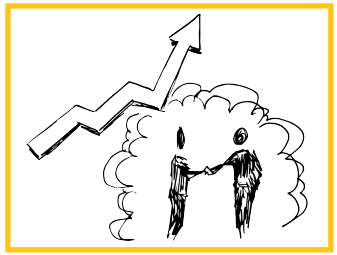
This scenario sounds nice for students, but recruiters don't seem to benefit

2



David is a college junior. When he uses the portal, he discovers his personality type is "INTJ," which suggests he will flourish in a quiet and self-directed work environment.

He meets with his counselor, Elizabeth, to discuss what this means, as he begins looking for internships. She suggests types of questions he might ask the interviewers, to ascertain whether their environments will be a fit.

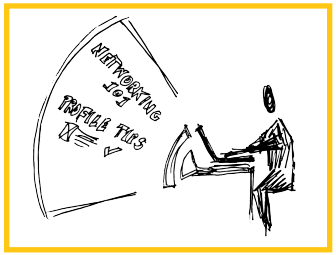


Elizabeth also notices that David has scored low in "Emotional Intelligence," which may affect his interpersonal skills on the job. She recommends some exercises to strengthen this.

As David works to improve his scores on the portal, it records his efforts and marks him as having determination, and a motivated personality.

Elizabeth can monitor the progress of all students on the portal. She notices that the History major, Sarah, has been scoring very high in intelligence, adaptability, and "soft/people skills," but that she lacks certain technical skills that employers value.

Elizabeth suggests Sarah takes an online course in Basic Accounting, which would greatly increase her potential hiring pool.



Elizabeth is able to send messages to students through the portal, including:

- tips on career success / networking / interviewing
- reminders to upload photos / videos from extracurricular activities, which help augment their "portal personalities"
- free subscriptions to Glassdoor, so they can get the inside scoop on companies

---

Student Response: Positive

This idea is helpful because it includes personalized results and recommendations

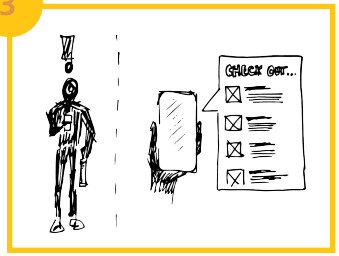
Counselor Response: Positive

If this existed, counselors could get their message across effectively - a real plus

Recruiter Response: Neutral

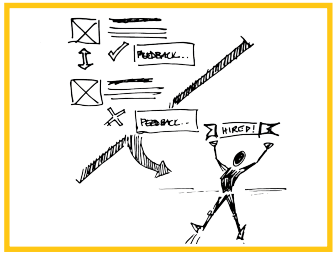
This prepares applicants, but honestly ... their personality types are irrelevant

3



Greg is an alumnus of the college. He runs a 10-person start-up and doesn't have enough time to actively recruit new hires. He receives an email from the school portal, which has four rounds of recommendations:

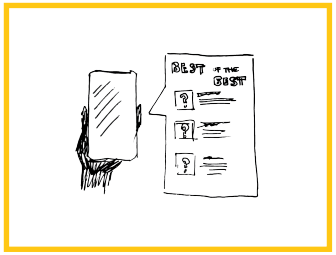
- ten students that have expressed strong interest in working for a start-up
- two students with strong "g" or general intelligence, as well as emotional intelligence
- four students that have expressed strong interest in working in his company's city
- six students with whom he shares professional contacts



Greg can filter candidates, rank them, and send requests to connect with them.

He also sends basic feedback - to students he is interested in AND students he rejects - to give them insight into their strengths and weaknesses.

He ends up hiring a student based on her innate qualities and potential to succeed within his business. Even though she lacks work experience - and isn't yet familiar with his firm's software - he decides to train her on the job.

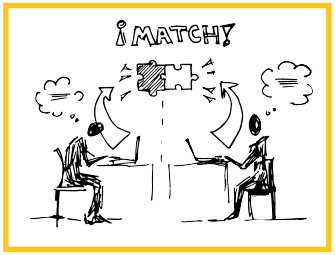


Greg receives an email from the portal every month, with new potential hires - Juniors for internships, and Seniors for full-time positions.

The process is blind, so Greg is unable to see the candidates':

- name
- gender
- major
- GPA

However, he does know if a student has marked a STRONG preferences for working in his industry, or at his company.



Likewise, student candidates who are matched to his business do not receive the company's name, or any other identifying information.

Greg sends them only:

- the company's mission
- the company's values
- a description of the workplace environment
- biographies of his employees

Only once a student has accepted an interview can they see Greg's company information.

Student Response: Positive

This tool provides feedback from employers – that would be amazing!

Counselor Response: Neutral

Anonymous matching and employer feedback are nice ideas, but unrealistic

Recruiter Response: Negative

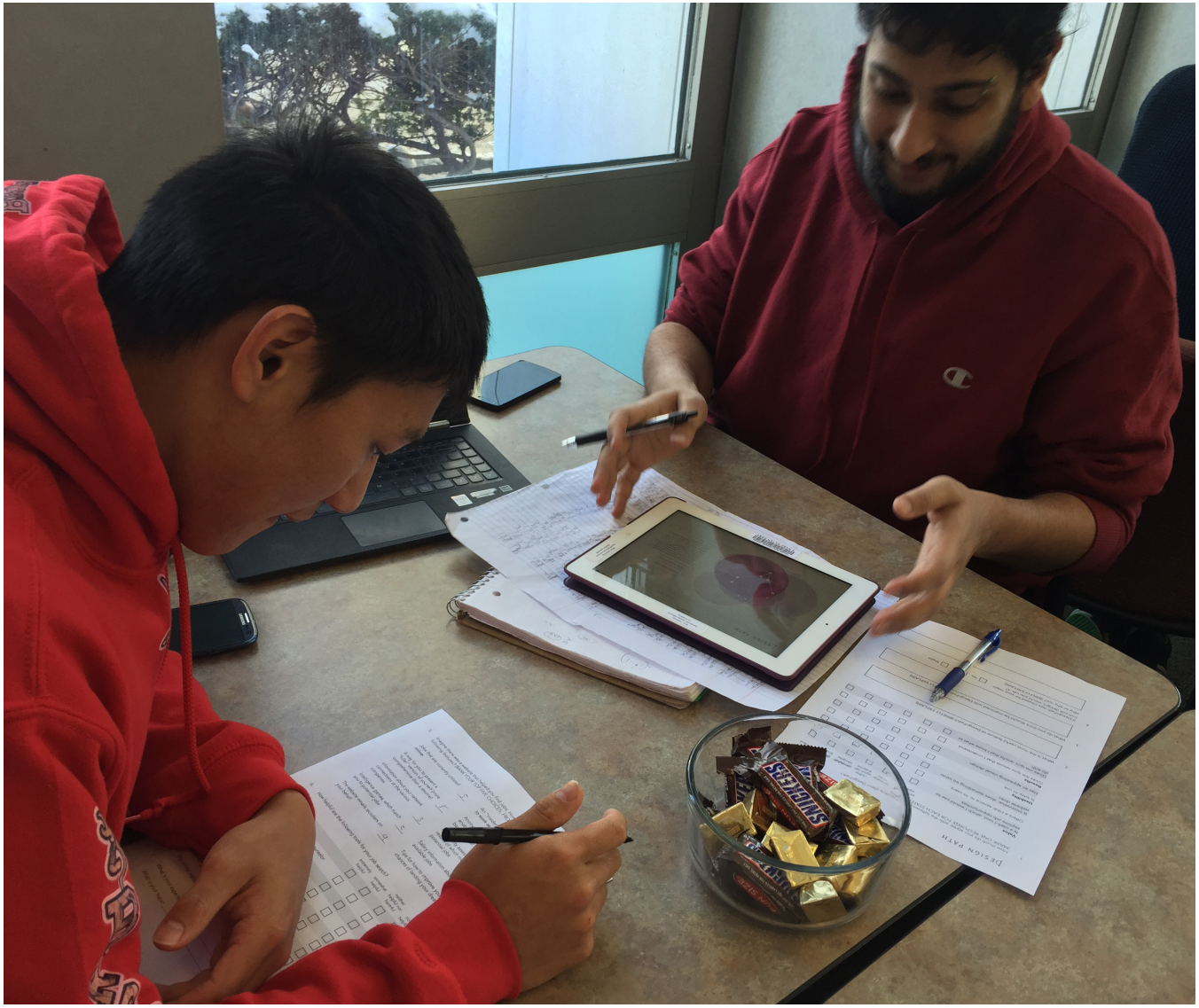
Could be useful for small companies, but overall, this is too labor-intensive for recruiters

Overall Feedback

Students and counselors appeared quite receptive to my concepts. Students felt so starved for effective job-application tools that they welcomed all my ideas. They especially desired personalization, recommendations, and feedback within the tool's design.

Counselors, meanwhile, were especially interested in scenarios that included interpersonal interaction and which facilitated in-depth, long-term career exploration (rather than last-minute job application).

Recruiters had a more negative reaction to my concepts, which didn't directly address their need to find the best talent. Although I had hoped better prepared students would equate to better applicants, recruiters wanted more tangible results.



Testing the DesignPath prototype with students.

DESIGNPATH PROTOTYPE

Student-Centric Concept Evaluation

At this point, I felt I had a strong understanding of at least the needs and desires of student job-seekers. They wanted to reduce their anxiety and increase their chances of success during recruitment. With this in mind, I built a prototype focused on my design principles of Identity and Insight, pairing a fun self-discovery exercise with career path recommendations and links to apply to relevant jobs. I hoped it would engage the students, while preparing them for the application process.

METHODOLOGY

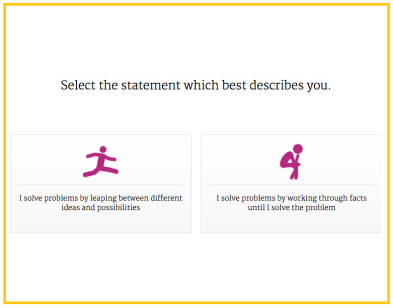
I worked with two of my fellow classmates to build the DesignPath prototype: I provided the concept, the quiz structure and design, and the visualization of job results. One classmate designed the layout and wrote the copy; the other built and hosted it at www.designpath.me. For testing, I created a survey, which asked students to evaluate the usability and utility of the tool.

Afterwards, I followed up with a semi-structured interview. In total, I spoke with 25 students from a variety of majors, all of whom were in the process of job searching.

After user testing, I organized a workshop in which a student, a career counselor and a local business owner in charge of hiring decisions provided feedback on the tool. Together we co-designed an improved version, which ultimately informed my final design.

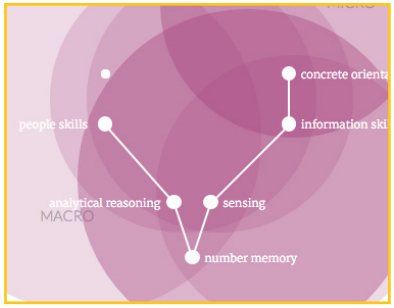
Key Finding: **students enjoyed the simplicity and the visual design of DesignPath**

People who used the prototype enjoyed the experience. They found the quiz engaging because it felt non-threatening, included images, and was relatively brief. The visualization of quiz results, which mapped one's skills onto the landscape of design careers was also quite successful: labeled as "pretty" and "interesting."



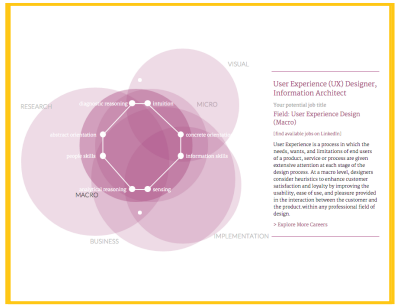
Self-Discovery Quiz

Testing the user's cognitive style and metacognitive abilities



Job-Skill Matching

The user's quiz results are plotted within a specific career field



Career Exploration

The user discovers career options, and views their required skills

View the full prototype at www.designpath.me.

Key Finding: **the concept of taking a quiz to "match" oneself was useful and alluring...**

Students enjoyed the tool's guidance and felt it would better prepare them for recruitment, should it be expanded to fields applicable to their own interests (beyond just design).

Key Finding: **... but, the current quiz framework was too simplistic, causing students to question the results**

They wanted to feel more confident in the results, with expanded reasoning behind their matches.

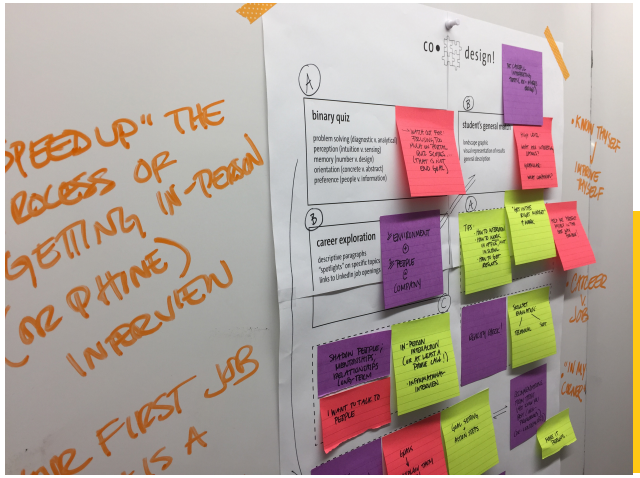
Key Finding: **students wanted to know "what next"?**

In order to be truly useful for students, the prototype would have to allow them to apply their results to the outside world; simply having links to job postings wasn't enough.

My survey and interview responses showed that students still wanted 1) a way to use these findings to present a fuller version of themselves to recruiters, and 2) more information on the recommended companies, in order to better understand whether they would be a match.

CO-DESIGN WORKSHOP

Aligning the Service Provisions for all Stakeholders



View of stakeholders at work (top).

The module co-design board (bottom).

My crucial, final round of prototype evaluation brought *all* of the stakeholders together to evaluate the prototype and improve upon it. Based on my storyboards and user testing, I recognized that while my concepts serviced students, they still didn't provide significant value to those doing the hiring.

My workshop began with an introductory story-sharing exercise. I then walked the participants through DesignPath, and asked them to create their own, ideal version that served their unique needs. I captured their ideas in the form of "modules" or "features" that should be included, and grouped them on a large board, representing the final product.

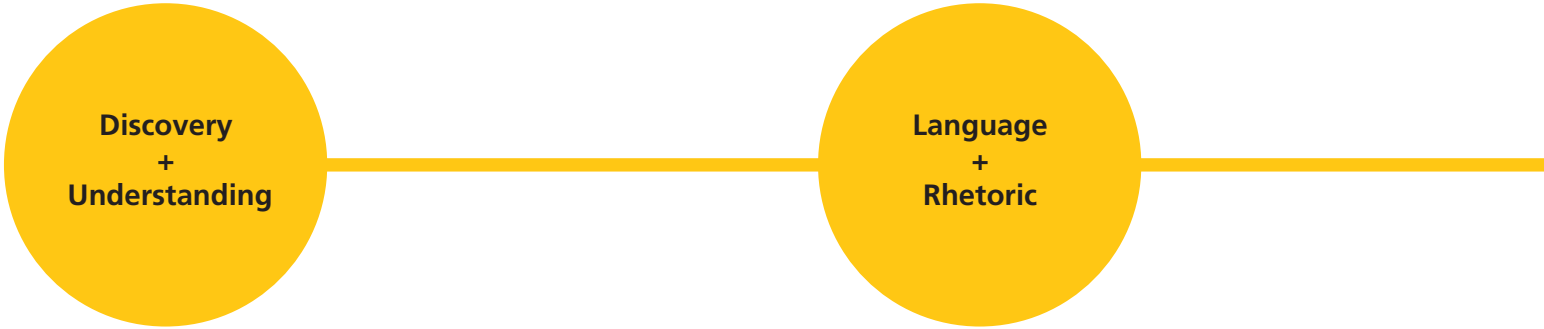
The result was my "a-ha" moment, in which I realized the missing piece of the puzzle was the addition of ***successful, targeted communication from students to recruiters.***

SYNTHESIS

In my co-design workshop, I realized that the main reason why students and recruiters were so often at odds was that they weren't speaking the same "language." Self-discovery (a la DesignPath) was a wonderful tool for students, but recruiters viewed it as self-indulgent because its rhetoric didn't appear to map directly to their needs. Student job-seekers wanted to learn about themselves, and where they fit in; employers wanted to learn about how the applicants would affect their bottom line. I needed to re-frame the tool, so the two goals no longer appeared mutually exclusive. I realized that students' self-discovery process also needed to include targeted communication, explaining *why* they were a match for a specific company.

COMMUNICATION FUNDAMENTALS

In which applicants and employers are mutually serviced:
For academic references, see Cialdini, 2007; Covey, 2003; McLellan, 2005; Olson, 2013; Parr, 2015; Ryan, 2015.



1) Self-discovery and 2) insight into company dynamics remain crucial to the process. They enable a student to understand how his or her skillset can bring value to an employer.

It is then the student's duty to translate his or her understanding into the language of the employer. Business needs are paramount, and must be mapped to individual skills.

Armed with this realization, I expanded upon my Guiding Principles, and placed a new emphasis on students' relationships with recruiters.

Here, "Identity," "Insight," and "Agency" are still paramount, but they are grouped under "Discovery" and "Translation," both of which are geared towards the hiring agent.

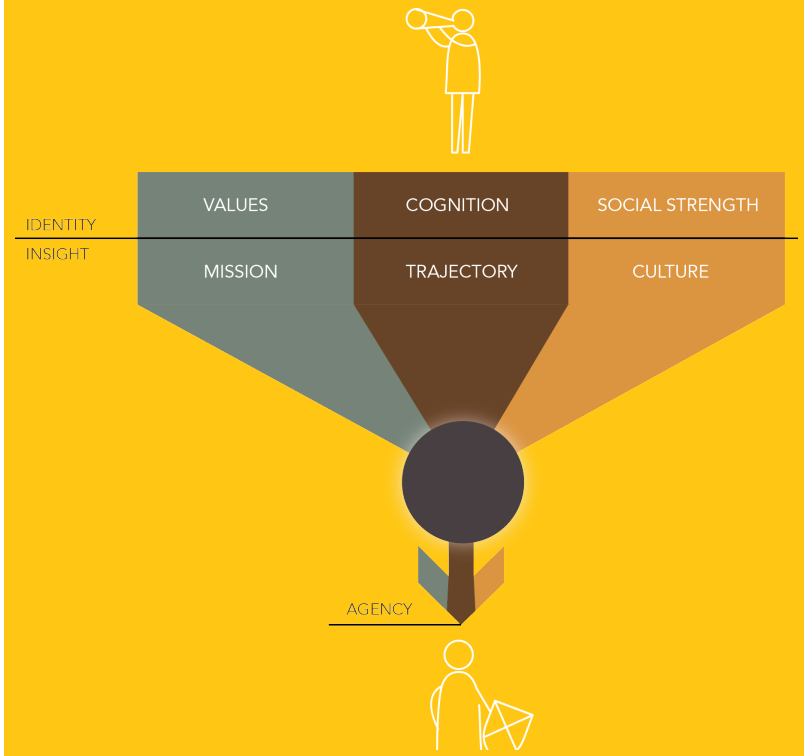
Persuasion + Storytelling

People don't buy your "what" – they buy your "why." The language the student uses must be packaged compellingly, through multiple channels, over time.

GUIDING PRINCIPLES

DISCOVERY
Self-knowledge and company research are crucial first steps in finding your match

TRANSLATION
Once you have a match, you need to translate your findings into the "language" of the powers that be



Final Concept & Design

MY TOP TRAITS

(V) Benevolence

Life is good: patagonia

(C) Abstract Orientation

IKEA

(E) Plasticity / Adaptation

WARBY PARKER IKEA

(S) Leadership

Honest tea

"I'm a dedicated and conscientious person, who is passionate about social issues, and who enjoys working in small team settings to create tangible products."

OVERVIEW

My final concept – Value Added – is the culmination of my research findings, which stress the interdependence of student job-seekers and employers. A web application, Value Added uses the rhetoric of career counselors to balance: 1) students' need to understand who they are and what they want, with 2) companies' need to find cultural fit. All stakeholders are serviced, while catering to the "real world" needs of businesses, who are more interested in productivity and profitability than personal self-actualization.

Students take engaging exercises, which measure and graphically display their personal values, along with their cognitive and metacognitive strengths. They then collect information about recommended companies, learning how to map their strengths onto company needs, and their values to company missions. This culminates in a communication push, summarizing their findings, which students send to targeted professionals and people in charge of hiring decisions.

VALUE PROPOSITION

Value Added's primary components

1

DISCOVERY

Begin discovering your strengths! Our exercises determine your Value, Cognitive, Emotional, and Social Profiles.

COGNITIVE INTERPERSONAL VALUES INTRAPERSONAL

2

NETWORK

Tap into the power of your Social Capital. By leveraging your network, you can gain insights and land your dream job faster!

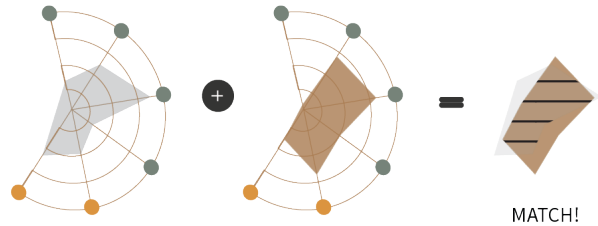
Informational Interviews
On-site Visits
Mentorship Opportunities
MeetUps

Get Started with LinkedIn

3

WORKBOOK

Determine how and where you can add value to companies. By amplifying their “Goodness Factors,” while mitigating their “Pain Points” – you will be their greatest asset!



4

OUTREACH

Translate your findings into persuasive self-marketing materials. Each one is specifically tailored to the company you’re applying to.

SELF DISCOVERY

Values, Cognition & Metacognition

Engaging quizzes generate visual mappings of users' characteristics. Users can also input their **technical skills**, which include the specific tools (hardware, software, and methodology) in which they have been trained.

VALUES

One's principles and judgements of what is important in life

COGNITION

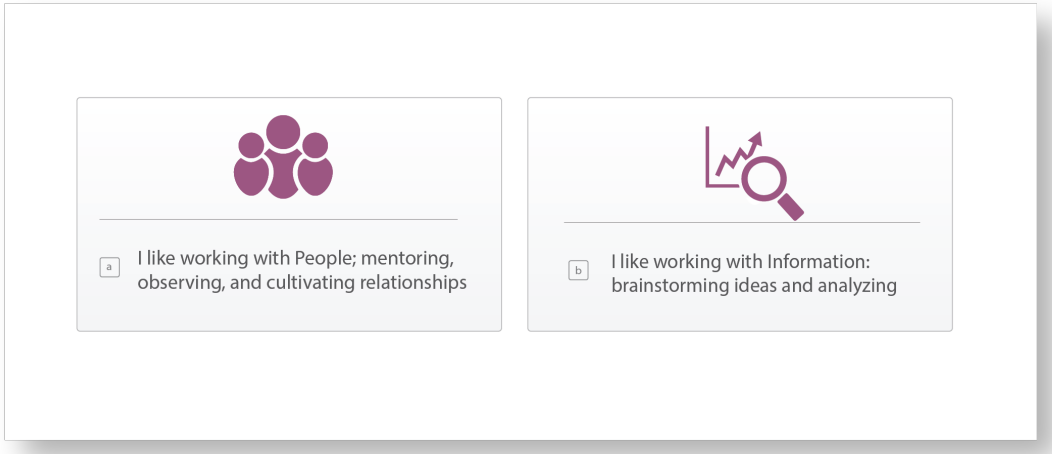
The mental processes by which one acquires and utilizes knowledge

METACOGNITION

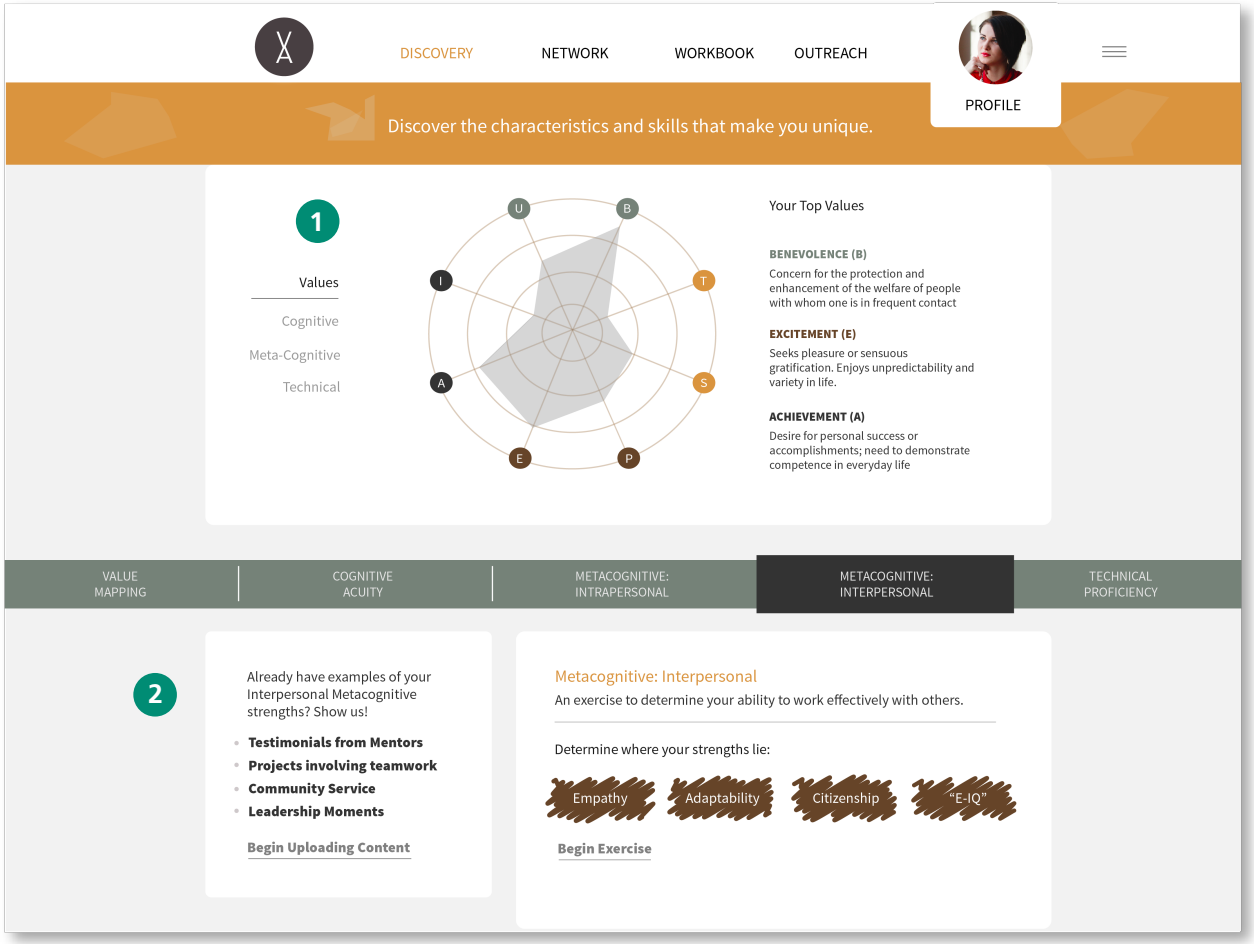
The enactment of cognition through emotional and social channels

Intrapersonal: personality; self-regulation; drive; the ability to self-reflect

Interpersonal: social effectiveness; the ability to interact with others



The quiz aesthetic is based on DesignPath's format, which is quite visual, and feels more approachable than a typical psychometric evaluation.



1

Users can explore their quiz results through maps, which plot their strengths. Brief descriptors explain what each strength means.

2

Quizzes aren't the sole method of reflection and discovery. Users are encouraged to upload rich media – projects, essays, portfolio pieces – along with recommendations from counselors, teachers, and mentors to fill out their profiles.

COMPANY INSIGHTS

Matching Abilities to Needs

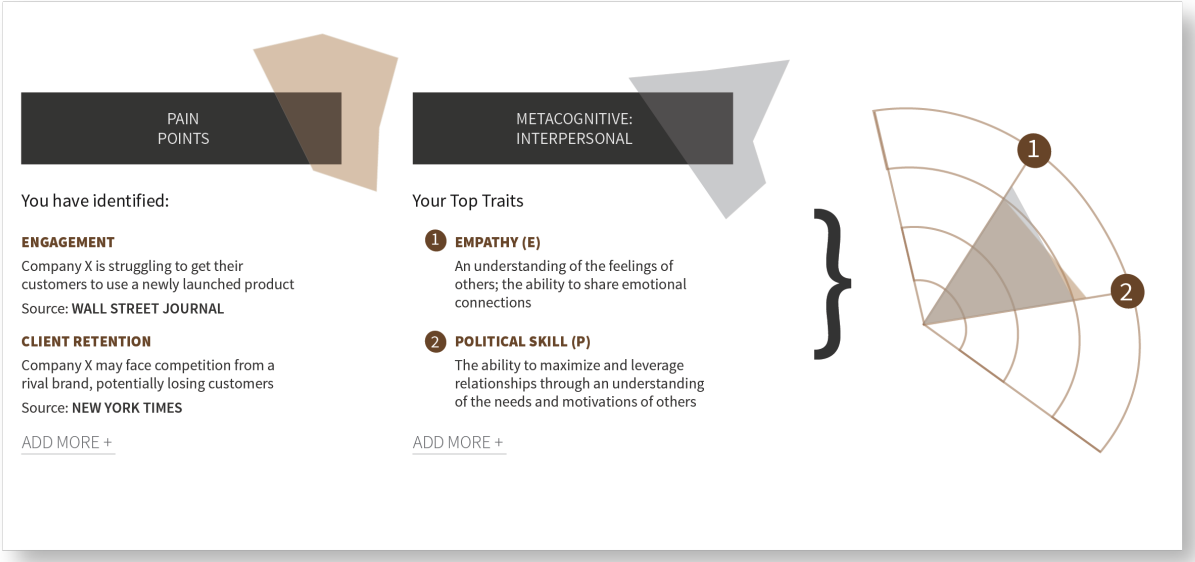
The user is presented with information gathered from public sources including companies' websites and marketing materials, news articles and social media mentions, and insight aggregators such as Glassdoor. The user is tasked with pinpointing specific areas which either appeal to them – "Goodness Factors" – or which are in need of their skillset – "Pain Points." The user is able to graph their findings alongside their self-discovery results to visualize their matches.

GOODNESS FACTORS

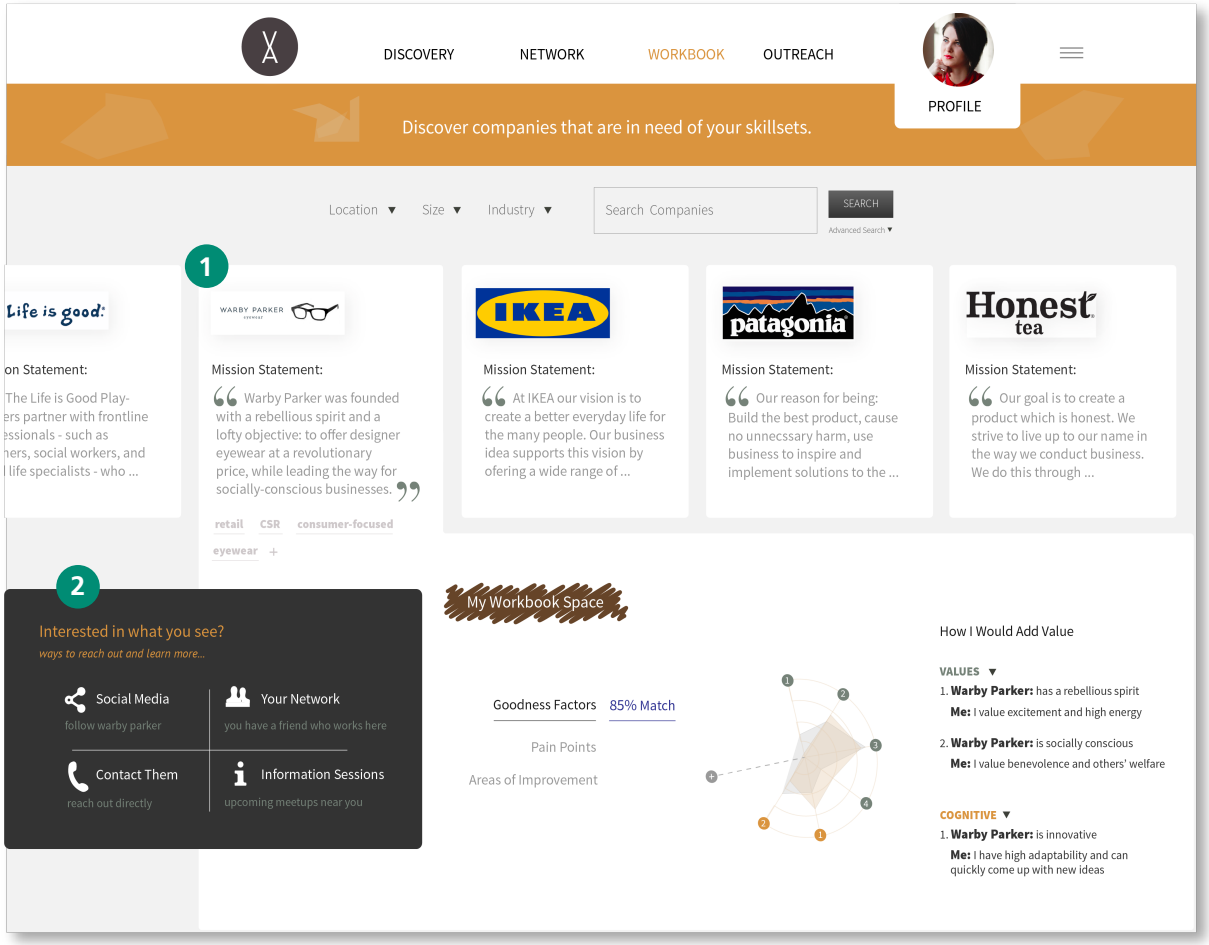
Areas in which the job-seeker's skills and/or values are aligned

PAIN POINTS

Areas in which the company is struggling, and where the job-seeker can apply skills to help them



Here, a user researches a company's "pain points" and uses the information to map her strengths onto them. The result is a visualization of the value she will add to the company, should she be hired.



1

Companies' missions – as indicators of their culture and values – are emphasized. It is crucial to have an alignment of mission and purpose between employer and employee.

2

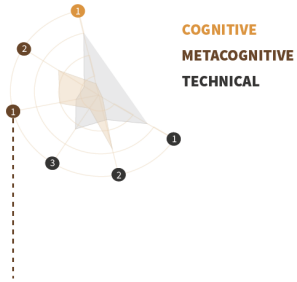
Users are continually prompted to reach out to others and increase interaction with companies throughout the process. They may use this section to network, to engage in conversations with companies, or to gain more employment insights.

COMMUNICATION

Translating Findings to Results

Communication templates allow users to plug their self-discovery and match findings into various formats. Each instance of outreach is targeted to the recipient company, whether the format is verbal (ex., elevator pitch), written (ex., cover letter, resume), or visual (ex., online portfolio).

Pain Points 63% Match



... It's wonderful to see Product X making such a splash in the marketplace. It has great potential, which I feel can still be maximized ... As a customer-savvy young professional, I believe I can help boost engagement ... In the past, I've used my human-centric research skills to develop a novel and award-winning solution ...

Here, various types of strengths are matched to a pain point that the company is experiencing. Although Value Added provides the templates, the user is responsible for determining what information is most relevant.

Company X

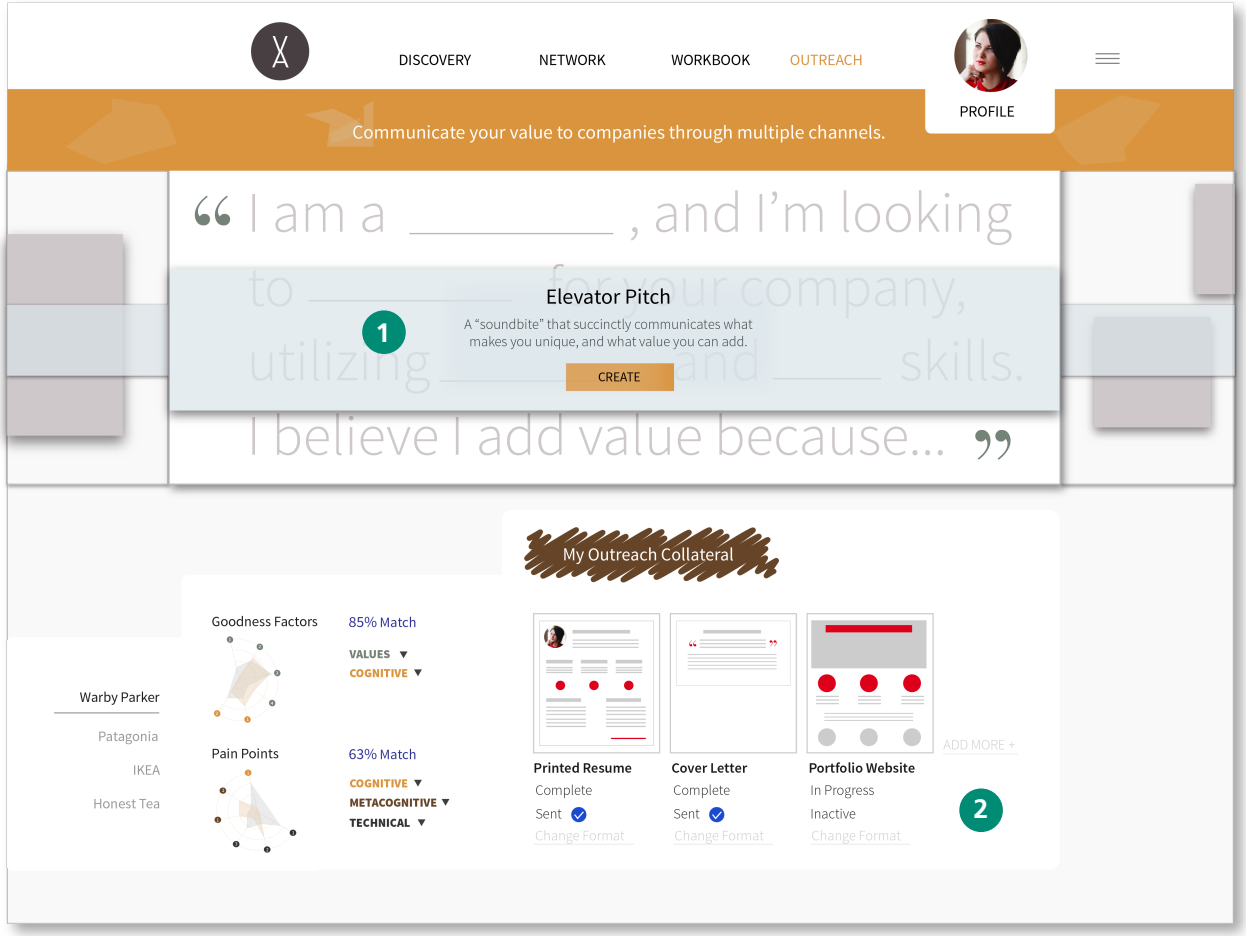
project A
project B
skill 1

Company Y

project A
project B
skill 1
skill 2

recommendation

No communication piece is identical to another. These two resumes have different visual styles and content, based on the companies that the user is targeting. Again, templates are provided to aid the user in clarity and persuasion.



1

Users are encouraged to create multiple communication pieces. In additional to traditional formats, a user might also craft LinkedIn InMail, business cards, etc.

2

Users can send and track their various collateral through Value Added. It serves as a dashboard, through which they can organize their plan of attack.

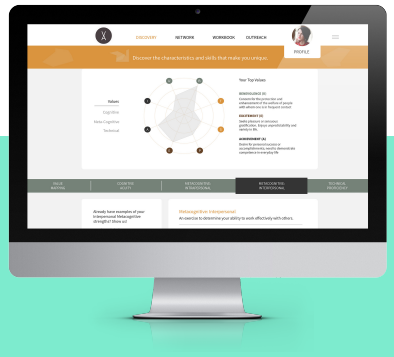
Conclusion & Future Implications

My final design solution, Value Added, is a comprehensive approach to assessing and communicating the "fit" between applicant and employer. It balances stakeholder needs by assuaging the anxiety and inexperience of college students, giving them counselor-approved professional development exercises, and then translating findings into targeted communication collateral.

Although the application itself is student-facing, it facilitates the rhetoric of the counselors, and creates output that is geared specifically towards hiring managers.

As of May 2015, Value Added is still in prototype-phase. Thus far, I have evaluated the concept with two college students and two hiring managers, and the results have been quite positive. Overall, it is clear that this iteration of Value Added services a variety of unaddressed needs, and does so in a way that is currently commercially unavailable.

I am quite pleased with where this thesis project took me, and with my current result. At its core lies the desire to help others experience well-being and realize their human potential in the workplace. It's a desire that continues to motivate me, as I look towards the future of this product.



What's Next

Value Added expands possibilities for what it means to seek employment. In an ideal future scenario, college-age students would increase dialogue and interaction with mentors and working professionals well before they reach the point of actually applying to jobs. An interesting outcome might be a more widely accepted apprenticeship model, done conjointly with counseling services, over the course of one's college career.

Additionally, as employment becomes more mobile and fragmented, Value Added might increase its services for people interested in part-time or freelance work. Entrepreneurs, or those interested in starting their own businesses, could also benefit from self-discovery exercises that match them with team members or advisors.

Finally, I see great potential in innovating recruiters' tools for assessing candidates. More accurate metrics; improved filtering; tools to assess human capital ROI – increased sophistication around person-organization fit will only lead to better matching and better results.

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Appendix

Exploratory Research: Student Survey

*** 1. Please write your:**
College, Academic Major, and Expected Graduation Year

*** 2. Do you have a job lined up for when you graduate?**

3. If you answered "Yes," please write 1 - 2 sentences about how you found that job.
If you answered "No," please write 1 - 2 sentences explaining why you do not yet have a job.

***This question is not required, but is useful for my research :)**

*** 4. Please evaluate the following statements about your COLLEGE experience.**

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree	Not Sure
The subject of my academic major will be directly applicable to my future job.						
I have learned skills in college that prepared me for the workforce.						
My college's classes are geared towards real-world application.						
I have a mentor (or mentors) who help me explore my life and career options.						

*** 5. Please select which of the following tools you have personally used:**

- [ ] Met with a career counselor at my college
- [ ] Taken a personality assessment
- [ ] Taken a test to measure my level of intelligence (NOT an academic test in class)
- [ ] Taken a test to measure my natural aptitudes and/or my professional interests
- [ ] Visited career advice websites
- [ ] Signed up for career advice emails
- [ ] None of these

*** 6. Please evaluate the following statements about your JOB SEARCH experience.**

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
The process of looking for a job stresses me out.	○	○	○	○	○
I know the exact industry in which I want to work.	○	○	○	○	○
I'm confident that I have the skills necessary for the job I want to perform.	○	○	○	○	○
I can list my personality traits, and how they will affect me on the job.	○	○	○	○	○
I have a strong set of personal values (eg. helping others, being ecologically conscious) that I will express through my future work.	○	○	○	○	○
I have specific goals that I want to achieve in my life.	○	○	○	○	○
I know the exact workplace environment in which I will flourish.	○	○	○	○	○

*** 7. I learn about job opportunities through:**

- ☐ Career counselors
- ☐ Friends
- ☐ Family members
- ☐ The news
- ☐ Online Job Boards (eg. Indeed, Monster, CareerBuilder)
- ☐ Social Networks (eg. Facebook, Twitter, Tumblr)
- ☐ Professional Networks (eg. LinkedIn)
- ☐ General searching

Other (please specify)

*** 8. How many hours do you spend per WEEK on activities that will aid your job search?**

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree	Not Sure
The career that I choose will be a major factor in my life happiness.	○	○	○	○	○	○
My first job will be a test run for what I *really* want to do. I imagine I will have lots of jobs throughout my life.	○	○	○	○	○	○
Even if I dislike my job, if I make a lot of money - it will be worth it.	○	○	○	○	○	○
I want to have a fulfilling job, but I'm not sure I want to put in the time and energy to actually get it.	○	○	○	○	○	○
I know exactly what my dream job is.	○	○	○	○	○	○
I want to know how I rank against others; and how likely I am to get the job that I want.	○	○	○	○	○	○
If I took a personality test, I would want potential employers to see the results.	○	○	○	○	○	○
I'm nervous that I won't like my coworkers and/or workplace environment once I get there.	○	○	○	○	○	○
Having a job, and working for a living, is a valuable and rewarding experience.	○	○	○	○	○	○

10. Anything else you would like to share about your college experience?
Anything you LOVE or HATE about searching for jobs?
Is anything missing from this survey?

Please press "Done" when you are finished. Thank you for your time!!!

Exploratory Research: Interview Questions (Sample)

STUDENT

How do you feel about the job search process?
What career tools do you use?
Who do you interact with during your search?
Have you taken self-assessments (personality, I.Q., etc?)
If so, what did you do with the results?
What do you think would improve your experience?
What do you look for in a job posting?
How will you know if a job is a fit?

COUNSELOR

How do you view the role of a career counselor?
Why do you do what you do; what motivates you?
How do you track employment and recuitment trends?
What do you think of psychometric evaluations?
What are your opinions on online job search tools?
What are the most effective methods for students to find jobs and plan their careers?

RECRUITER

What do you do? What is a day-in-the-life?
What does the recuitment landscape look like today?
What tools do you use?
What are your biggest challenges?
How do you know if a candidate is a fit?
How do you determine culture fit?
How do you make money?
Any specific recommendations for young job-seekers?

HIRING MANAGER

What do you look for in a job applicant?
Is that any different for a college student?
In your opinion, what makes an employee successful?
Do you offer any mentorship programs?
What is your relationship like with external recruiters?
Any advice for college seniors and recent graduates?
How might one get an employment offer from you?

Generative Research: DesignPath Survey

1. How much do you agree with the following statements about DesignPath? (MARK ONE RESPONSE FOR EACH STATEMENT)

	strongly agree	somewhat agree	neither agree nor disagree	somewhat disagree	strongly disagree	not sure
Value						
Is a useful tool, which I would use to explore job opportunities	☐	☐	☐	☐	☐	☐
Offers a clear service to its users	☐	☐	☐	☐	☐	☐
Is innovative: does something no other website does	☐	☐	☐	☐	☐	☐
Usability Is easy to use	☐	☐	☐	☐	☐	☐
Has an appealing visual design	☐	☐	☐	☐	☐	☐
Results Gives me quiz results that I understand	☐	☐	☐	☐	☐	☐
Gives me quiz results that I know what to do with	☐	☐	☐	☐	☐	☐

2. What is the most useful feature of DesignPath? (BRIEFLY EXPLAIN)

3. What do you think should be improved with DesignPath? (BRIEFLY EXPLAIN)

4. If DesignPath was created for your major (not just design), would you use it? ☐ Yes ☐ No ☐ Maybe

Why or why not? (BRIEFLY EXPLAIN)

5. Imagine there was a website that helped you find jobs. How much would you like the following features? (RANK YOUR TOP FIVE CHOICES, FROM "1" TO "5")

Jobs that are currently unlisted online	____	An "insider's look" at what it's like to work at the various companies	____
A way for you to present a "fuller" version of yourself (more comprehensive than a resume)	____	Anonymous matching, which enables companies to find you based on your values and goals	____
Information about your network connections at the various companies	____	Personality assessments, the results of which match you to potential jobs	____
Intelligence games, which match you to potential jobs	____	Salary information about the available jobs	____
The website emails recruiters on your behalf	____	Tips for how to improve your chances of landing your dream job	____

6. How helpful are the following tools for your job search?

	extremely helpful	somewhat helpful	neither helpful nor harmful	not helpful	actively harmful	not sure
Job fairs	☐	☐	☐	☐	☐	☐
Meeting with my career counselor	☐	☐	☐	☐	☐	☐
Professional interest assessments	☐	☐	☐	☐	☐	☐
Advice from my elders (ex- parents)	☐	☐	☐	☐	☐	☐
LinkedIn	☐	☐	☐	☐	☐	☐
Company insights (ex- Glassdoor.com)	☐	☐	☐	☐	☐	☐
My personal network (ex- friends)	☐	☐	☐	☐	☐	☐
My resume	☐	☐	☐	☐	☐	☐
Job listing sites (ex-Indeed.com)	☐	☐	☐	☐	☐	☐
My online website/portfolio/blog	☐	☐	☐	☐	☐	☐

7. What is your expected graduation year: _____

What is your major: _____