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MASTER THESIS

# ENABLING JOB SEEKERS' SELF-REPRESENTATION IN JOB APPLICATION

*Online CV platform for job seekers' seamless  
job search journey and self-representation*

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*by Yoo Sun (Ahni) Ahn*



## ABSTRACT

*Some employers may thoroughly scan a resume, while others may scan it for only a few seconds.*

The client of the project is Quincy Dalh, who works in organizations supporting job seekers with their job searching journey. He organized the project brief that aims to develop ideas for an online job-matching platform that brings healthy changes to the hiring process. He gave a working title for the platform called HelloCareer. Quincy's focus was on addressing the issues around bias and communication gaps in hiring and giving autonomy over self-representation to job seekers - their ability to choose and control how they communicate their skills, motivation, personality, and experience.

Diving into the scene, the problems that Quincy mentioned related more to CV than to other hiring tools. Companies have to process the biggest number of applicants in the application stage since it is open to everyone. Therefore, applicants can only deliver written forms that recruiters screen in a few seconds without any communication. Because what they can tell is limited, and they never get feedback, applicants feel that they are not respected. The problem for companies is that they may miss the talents that are hard to identify in the application. Based on the given situation, the project's goal was determined: how to allow job seekers to self-represent in their CV.

The project followed the double diamond design process. The first step was conducting desk research to explore the context, and the key takeaway from the desk research on the hiring process was seeing how different steps and recruitment tools are intertwined. The materials and tools are often used over multiple steps. Thus, the design direction for Hello Career was determined: a platform that covers the entire job searching journey supporting a seamless experience.

Employees nowadays keep changing jobs which means the job searching journey keeps ongoing. The platform will help the users document their work-life regularly so that they can whenever start the job search in a prepared and constructive manner.

Interviews and a creative session were conducted to discover the job seeker's needs for the main research focus, self-representation on CV, and each step of the journey. Converging techniques were used to bring the gathered ideas and insights into concrete ideas.

The solution to the primary research goal was derived: an interactive online CV. A job seeker can form a bigger picture of who one is by connecting the experiences. Interactive elements and media content support delivering the story clearly. The CV would stay as an online page while being processed and screened. It would make the process transparent for applicants. The result highlights the job seeker's need for a platform that takes care of the entire job search journey and provides transparency in screening. By showing the potential of going online, the final design also suggests a new role for a CV.

Due to the capacity, the project only focused on job seekers' perspectives and needs on the issue. Thus, further research and product iteration should take place to utilize the product.

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## CHAPTER 01 INTRODUCTION

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*Understanding the problem the client wants to solve  
& forming the scope and goals for the project*

- 1.1 Client
- 1.2 Context & background
- 1.3 Challenge



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## 01 INTRODUCTION

### 1.1 CLIENT

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#### 1.1.1 HELLO CAREER

*Hello Career wants to better connect job seekers and companies.*

The client of the project, Quincy Dalh, is part of the recruitment industry, working in organizations called 'House of Skills' and 'Hello Mentor'. His job is to connect job seekers and companies and to support job seekers to be better prepared for finding jobs. He has witnessed the problems and concerns that job seekers and recruiters are having while going through the recruitment process and came up with the idea of making an online job matching service platform that could address the issues. Based on the name of the current platform he is working in, 'Hello Mentor', he has given a temporary name to the new platform called 'Hello Career' and gathered students to refine the problem statements and the service plan.



Figure 1.1 Introduction pages of House of Skills and Hello Mentor

#### 1.1.2 VISION & MISSION

*How much does an application tell about the applicant? Can it represent the person? Is it effective and fair to assess the one based on it?*

About the current recruitment process of assessing a job seeker according to the limited amount of information delivered, Quincy raised questions based on two different aspects: Is it effective? And is it fair? When a job seeker applies to a position, what and how much one can deliver is determined by the organization. Quincy pointed out that the delivered written content cannot represent the applicant as a whole since a lot more about the person would be missing there. This choice-of-contents problem lies on both sides: the company cannot be sure whether they are asking the right things and the applicant cannot be certain whether one is telling the representative and essential part of oneself. Another big problem with communication is a misinterpretation. With missing out on the detailed explanation and the process of two-way communication to build a mutual understanding, both the requirement that the company released about the position, and what an applicant said in the application can be interpreted in different ways. Unless specific standards or a definition of competency are shared, it is uncertain for both parties to have a clear picture of who is in need of the position. In order to prevent such misunderstanding, governmental offices around the world work on defining skills by giving specific details to each one. However, they do not apply to all occupations, and explaining how good and experienced one is with a skill is still a question.

## 01 INTRODUCTION

### 1.2 CONTEXT & BACKGROUND

The second issue he mentioned was about job seekers' dignity and fairness. The ideal recruitment process is a fair journey for both applicants and companies getting to know each other, and finding the right match. However, the demands from each side are not balanced with having much more applicants for the number of positions a company can offer. This situation makes an unbalanced power dynamic between the two parties and intensified the competition between job seekers. For this reason, discrimination against people with certain traits happens to fasten the process of screening a big number in earlier recruiting stages. Thus, though the unbalanced demand situation itself may be undeniable, Quincy and Evgeni, the supervisor of the project, ask the question of how it would be possible to suggest how job seekers should be treated. Instead of an applicant being a passive victim of assessments, one should have the right to independently show one's identity and represent oneself.

#### 1.2.1 HIRING PROCESS & ISSUES

Selecting and securing the right talent that a company needs is at the core of its competitiveness. A company strategically determines the hiring process, and it has a long-term impact on the level of the company's human capital capabilities. (Jackson, et al. 2014) Therefore, companies constantly look for effective recruitment strategies and selection tools to secure a sustainable competitive advantage in the changing environment. (Ryan & Tippins, 2004) The hiring process consists of multiple steps. In each step, the recruiters get more information about the job seekers and make a selection to reduce the number of final candidates. (Anne, 2012) Looking at the process from the job seeker's point of view, one has to submit different information about him/herself on each step in the form that the company asks for. In other words, in the earlier stages, before they get the opportunity to have an unstructured interview with the recruiter, job seekers get limited chances to express themselves about the things that the recruiters did not ask for. For example, when a company asks applicants only to fill out the determined application form, it is hard for them to tell them more about their passion or vision. In extreme cases with a larger number of applicants than a company can handle, the company screens one based on the numbers in the application, such as GPA. The applicants with insufficient grades do not get the chance to explain what they have achieved instead of studying for the exams. There are two main reasons why this way of the hiring process is problematic. Firstly, the competencies that were not checked or could not be detected in the early stages could be overlooked.

This results in taking opportunities from job seekers to show different aspects of themselves. Thus, companies could miss potential talents. Secondly, it induces job seekers to invest their time and energy in elaborating themselves, focusing on the required means. (Kim, 2012) For instance, job seekers these days take time to make a better-looking social media profile or practice to get the desired outcome in the AI-based tests. This could lead the selection tools to lack in the assessment function.

Regardless of the downsides, most companies have a fixed structure for the application and screen the initial applications based on limited standards for efficiency and objectivity matters. Nevertheless, the advances in data technology started to bring significant changes to the process. For instance, online communication tools have streamlined the interviewing process and allowed more opportunities for more candidates. The implementation of AI in recruitment enabled recruiters to verify more competencies in the earlier stages.

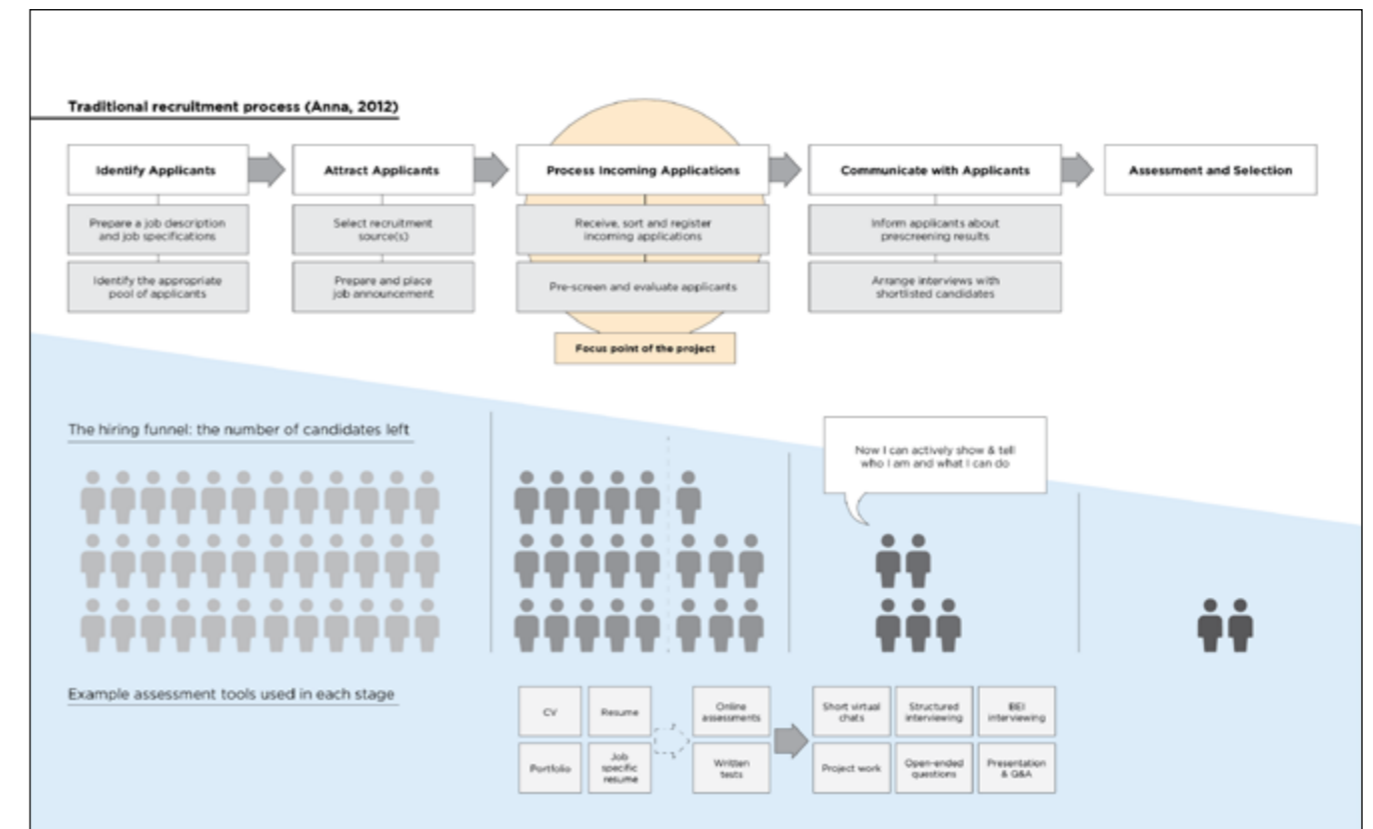


Figure 1.2 General hiring process(Anna, 2012) and examples of recruitment tools being used in each stage

## 01 INTRODUCTION

### 1.3 CHALLENGE

#### 1.3.1 PROBLEM DEFINITION

The recruitment tools and methods used by each company vary, but the entire recruitment process can be divided into five major stages. (Anne, 2012) (Figure 1.2) Job seekers who got the opportunity to move on to the fourth stage, which consists of conversational and interactive tools, can speak up about themselves and show what they are capable of in diverse forms such as giving a presentation, conducting a small project, or having a communication or discussion. On the other hand, the information that the applicants can deliver at the initial application phase is limited though it is a significant step that is open for everyone, and it is when the biggest number of applicants get eliminated.

Accordingly, the client envisions the hiring process that enables job seekers to have control over self-representation and wants to create a new job-matching platform to realize this vision called Hello Career. On this platform, job seekers will actively express who they are and what they can do without being discriminated against, and companies will find the best match considering various aspects.

Thus, to open up the space of what job seekers can show in this earlier and fair stage, this project would address the question of *'how to bridge recruiters and job seekers to give job seekers a chance to actively represent themselves in the application phase.'* The main challenge would be designing what role the client, Hello Career, would take and how.

#### 1.3.2 GOAL & APPROACH

The research questions to be addressed are: what are the elements that job seekers want to represent about themselves that help find the right match with companies but are hard to identify through current application screening? Design a recruitment service that allows job seekers to self-represent in the application stage and how the recruiters would assess them. Which role could a job matching company take in the process?

The final deliverables would consist of three parts:

- 01 Analysis of the application stage** in the current hiring process and stakeholders' experience with it
- 02 Service idea** with user scenario for the client
- 03 Implementation plan** for the client to develop the service

The research would be conducted using design research methods to better understand the needs of the stakeholders who are potential users of the service and will be presented in the form of a report to the client, Hello Career. Based on the insights from the analysis and through co-creation sessions, the service will be designed and explained with a filled service model canvas and a use case. Lastly, the implementation plan explaining what steps the client should take in each year would be delivered.

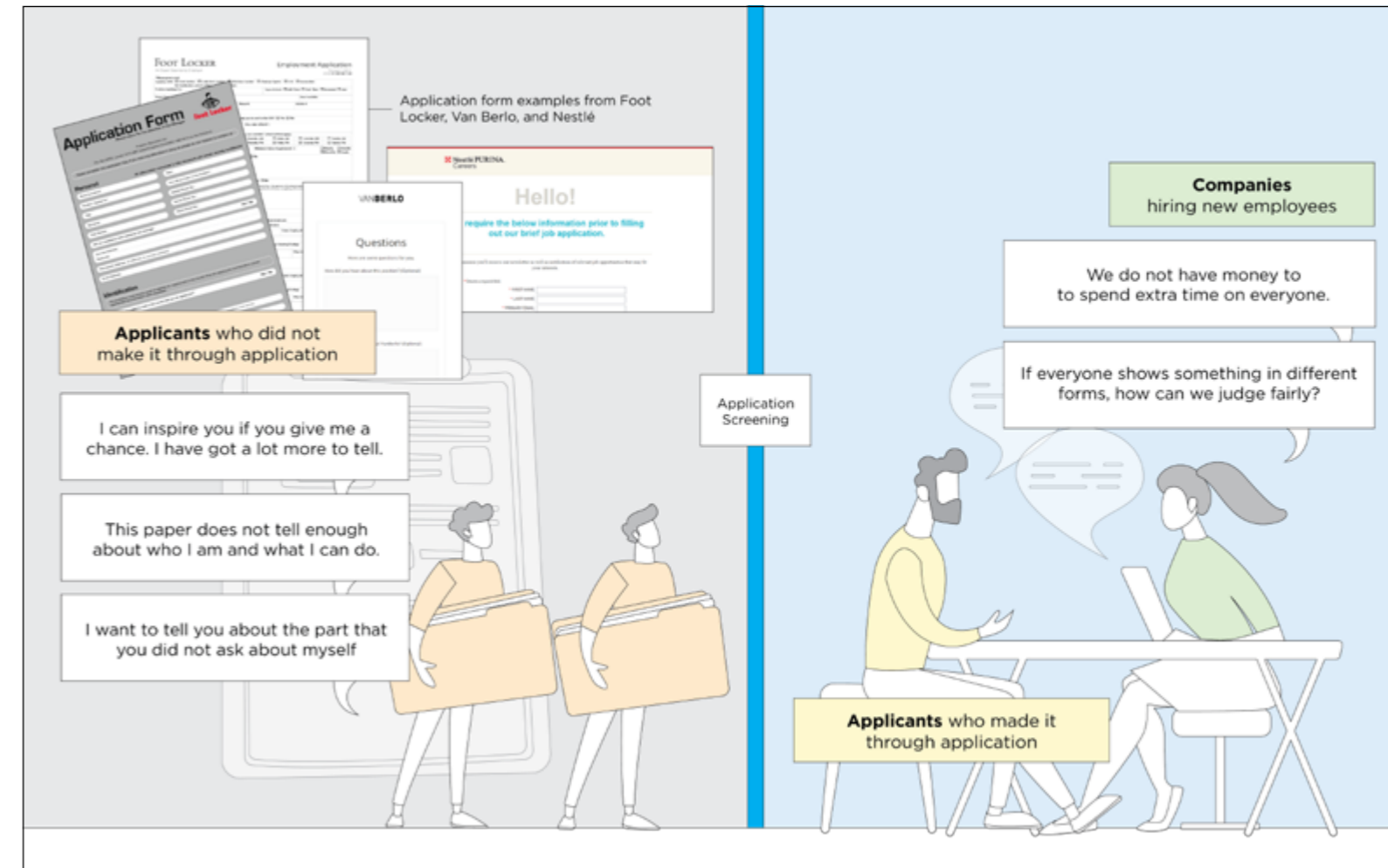


Figure 1.3 Summary of the problem

## CHAPTER 02 DESK RESEARCH

*How are the hiring process and application process?  
What are the issues and solutions in the market?*

- 2.1 Hiring Process
- 2.2 Application phase
- 2.3 Job-matching & application platform
- 2.4 Conclusion



## 02 DESK RESEARCH 2.1 HIRING PROCESS

To understand how the hiring process works and the new trends in recruitment, the first step of the desk research was to have a big picture of the overall process.

### 2.1.1 HIRING PROCESS

“

*The study of recruitment and selection methods for human resources is one of the oldest studies of psychology and has been studied for more than 100 years. The study began with measuring individual differences and predicting how they would be quantified and how far they would differ in job performance after employment.*

- Neal Schmitt

Recruitment selection has a significant impact on the future organizational productivity and efficiency of an organization. It is the first step in the company's overall Human Resources Management (HRM) and the process of selecting and supplying human resources, the fundamental part of the organization. Gatewood & Field (1987) defined 'selection' as the process of collecting and evaluating information about individuals for employment. They mentioned that the hiring process should be conducted under legal and environmental restrictions to protect future understanding of individuals and organizations. However, Jeffrey & Mello (2007) noted that the selection process is still not easy due to limitations such as lack of information about the selected person, errors and mistakes, time and cost constraints, and lack of validity and reliability in the selection process.

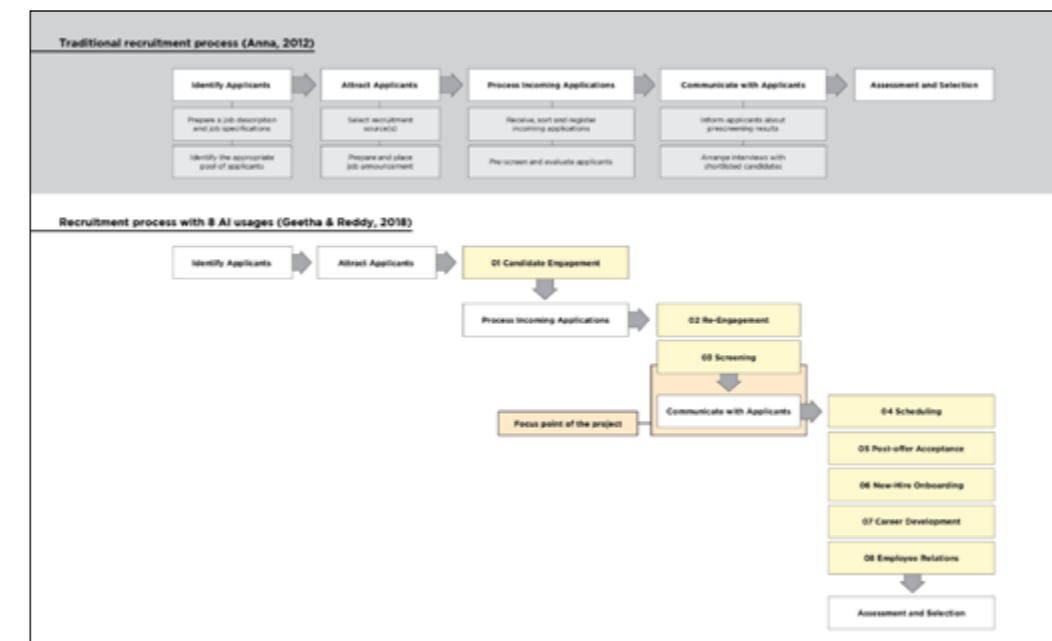


Figure 2.1 Traditional recruitment process(Anna, 2012) and the new process with the use of AI(Geetha & Reddy, 2018)

To overcome these problems, companies have been studying and designing recruitment tools and systems to assess whether the applicant's competencies and motivation are appropriate for the qualifications and conditions of the job. Depending on the characteristics of the job, the selection system can be with only one selection tool or various selection tools.

It is important to decide how to combine evaluation scores from different tools for decision-making in the system. Based on how they combine scores and screen candidates, Lee (2002) categorized the processes into three: **multiple hurdles processes, complementary processes, and hybrid processes.** (Lee, 2002)

### 01 Multiple hurdles process

Each selection tool is independent in a multi hurdles process and acts as an obstacle that the applicant must overcome. In other words, if they fail to exceed specific standards, they will be eliminated immediately. The basic premise of this method is that the evaluated ability or motivation is essential for the performance of the position, so a **lack of this ability can lead to failure in the job immediately.** However, most jobs do not usually have requirements that are such absolute competence or motivation.

One of the characteristics of the multi-obstacle process is that decisions to disqualify applicants or gather information about more applicants' capabilities are made by a series of hurdles: hiring tools that work as filters. The first hurdle usually starts with screening the information from applicants, which is easy to find out. Then, the following tools are used to gather the information which is more difficult to obtain. As this process progresses, fewer and fewer applicants remain in the pool, and more in-depth blocking tools are used. This whole process is a **cost-effective** way to screen applicants: reducing excessive numbers in the applicant pool early on and using high-cost tools with higher validity only when a small number of applicants are left.

However, there is a high risk that it may not be possible to explain the validity of proper final selection in the final stage. Because critical differences between individuals are eliminated in previous procedures, the next stage begins at information zero-base. (Schmitt & Neal, 2005)

### 02 Complementary process

This method assumes that the **applicant's excellent ability complements the lack of other abilities.** In other words, the combination of different characteristics leads to successful job performance. Therefore, applicants are involved in all selection procedures. Selection decisions are made based on the results aggregated after all selection tools have been used.

In general, compensatory processes are more universal and realistic than multiple hurdles processes because capabilities and motivations in most areas are offset in the process of performing their actual jobs.

However, the main disadvantage is that both applicants and companies have to spend relatively much more time and money. Applicants have to complete all the selection procedures by going through all the hiring tools, and recruiters have to check all the elements of all the applicants.

### 03 Hybrid process

The hybrid process combines multiple hurdles processes and complementary process methods. This method sets the skills and qualifications that are specifically needed or at least necessary for performing the job as hurdles. Candidates who pass these standards can go through different hiring tools and show different competencies. It is a method of setting up the results from other tools to supplement areas that lack excellent ability.

It can be used differently not just based on the relative importance of the hiring tool as well but also based on the needed cost for using the tools. This means using the multiple hurdles method for the tools with lower cost and using more costly tools for the smaller number of applicants who passed those steps. Here is an example of a hybrid process hiring system: the applicants who passed the hurdle in the application screening, major, GPA, or language certificates, go through given tasks, interviews, or presentations that added up scores.

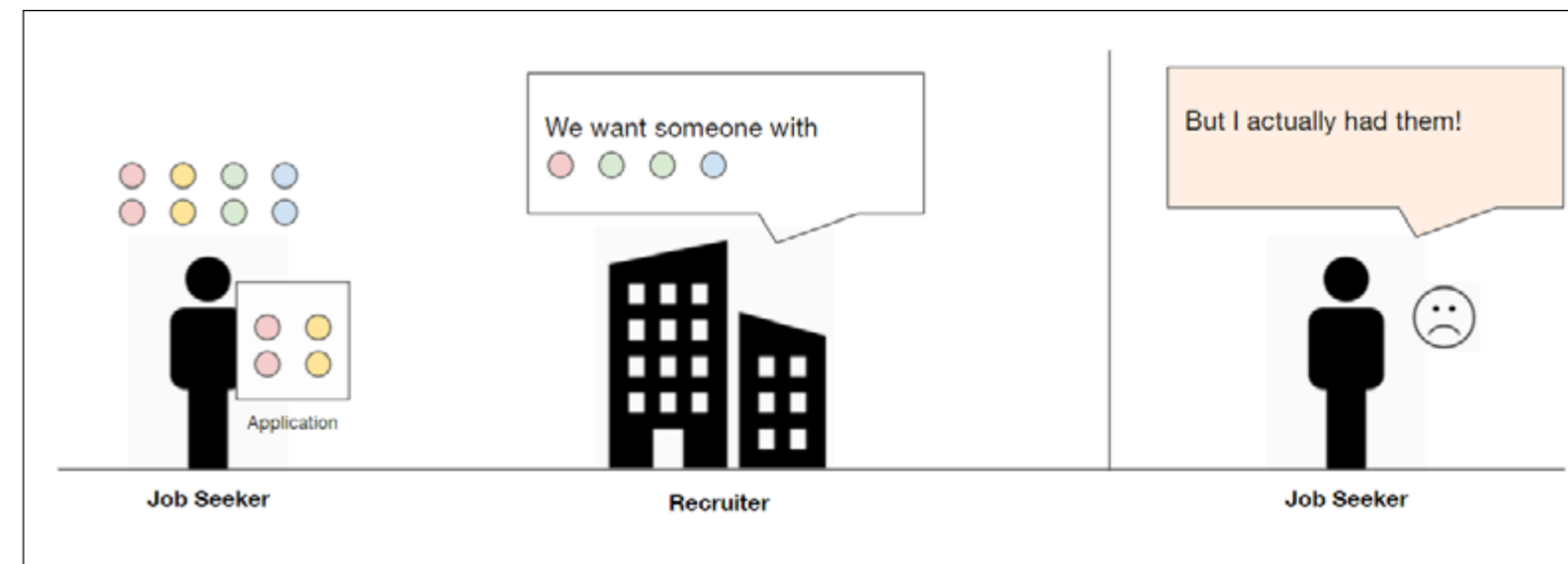


Figure 2.2 Missing job seekers with the expected skills is possible



### + The positive or negative process

Another way of categorizing hiring processes is dividing them into a positive system process and a negative system process. The positive process seeks to select a person with the necessary conditions and abilities more than any other condition. In contrast, the negative process is more about eliminating applicants who do not meet the standards at every stage. Choosing one or another depends on the nature of the organization. There is a tendency that companies or recruitments that are more subdivided use positive processes, and the companies with departments that cover more expansive fields of work use negative processes.

### What is the most ideal process?

The single most desirable selection process or method does not exist because the talent figures that companies look for differ. (Yu et al., 2017) Based on internal factors including which type of talent a company is looking for and the amount of resource a company can spend on recruiting, each company chooses a process and consistently modify it.

### Hiring tools that from the hiring process

All the hiring processes consist of multiple hiring tools. Anna(2012) categorized the tools into two: application and communication. The **application stage**, also called as document screening stage comes before the communication. At this stage, recruiters screen the primary documents submitted by the job applicant such as an application form, CV, or a motivation letter. From a CV, recruiters identify written information about the applicants' past including their educational backgrounds, majors, careers, and certificates.

Motivation letters are used to identify applicants' expectations and attitudes toward the position. Recruiters check how they align with what the company can offer. While CV and motivation letter were the two most widely used tools, more tools such as AI interviews are being developed and introduced. More research on the details about this stage and used tools will follow in the next chapter.

The **communication stage**, also known as interviewing stage, consists of multiple types of interviews with different people from the organization. Often an applicant gets to have talks with recruiters and the HR team, the potential co-workers for the team interview, and the executives. The interviews are mainly about the information on the application, motivation, and expectation but more hiring tools such as a group discussion or an assignment presentation can also be used in this stage. Communication happens in both ways. The stage is not only for companies to get to know and screen the applicants, but also a chance for applicants to ask questions and discover more about the organization.

### 2.1.2 CHANGING HIRING TREND

The interest in recruitment and hiring tools is growing heavily. What American business studies said explains the trend: "Hire Hard, Manage Easy" is much more efficient than "Hire Easy, Manage Hard." This is because recruitment is the beginning stage of HR management, and selecting talented people who are excellent and suitable for the organization reduces the cost burden not only on the future performance of the organization but also on other aspects such as educating the new employees. In addition, with labor laws and regulations, firing employees is not an easy process. Companies cannot replace them with more suitable ones in the short term. Thus, selecting and hiring the right talent is vital to reduce the loss after hiring. Secondly, with increasing ambiguity in job boundaries and fast IT and convergence technologies development, the current hiring trend is to find people with potential and diverse experiences that cannot be quantitatively accessed. In other words, the qualitative competency types of Know-Where and Know-Why are gaining more attention, while companies in the past focused on quantitative and quantifiable aspects of Know-What and Know-How.

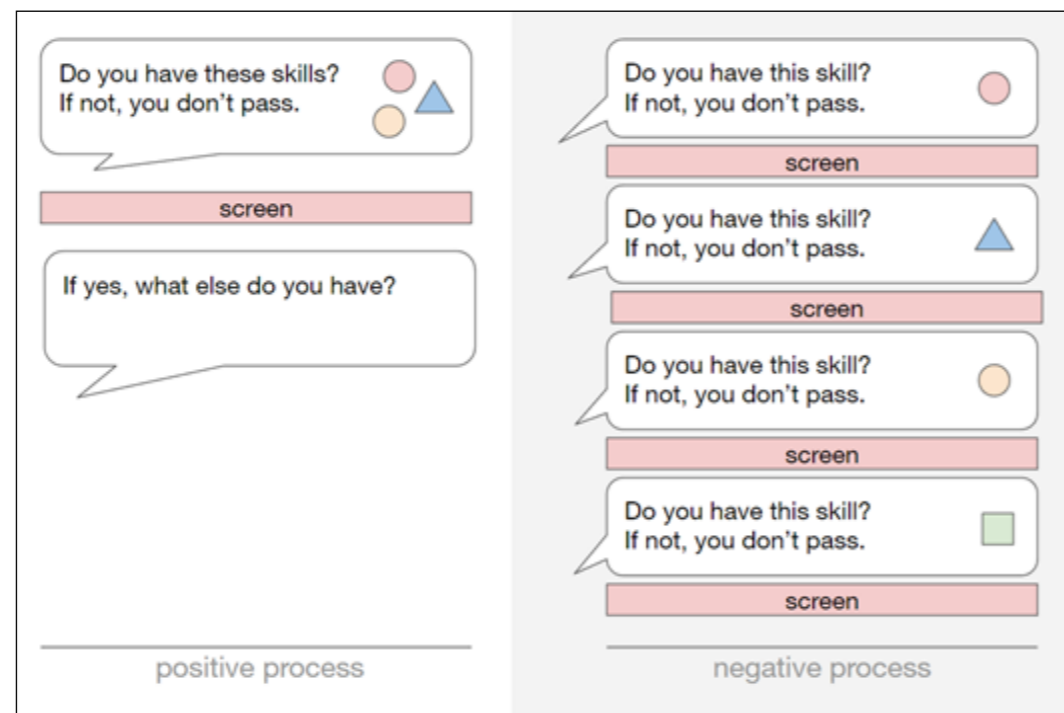


Figure 2.3 The positive and negative process

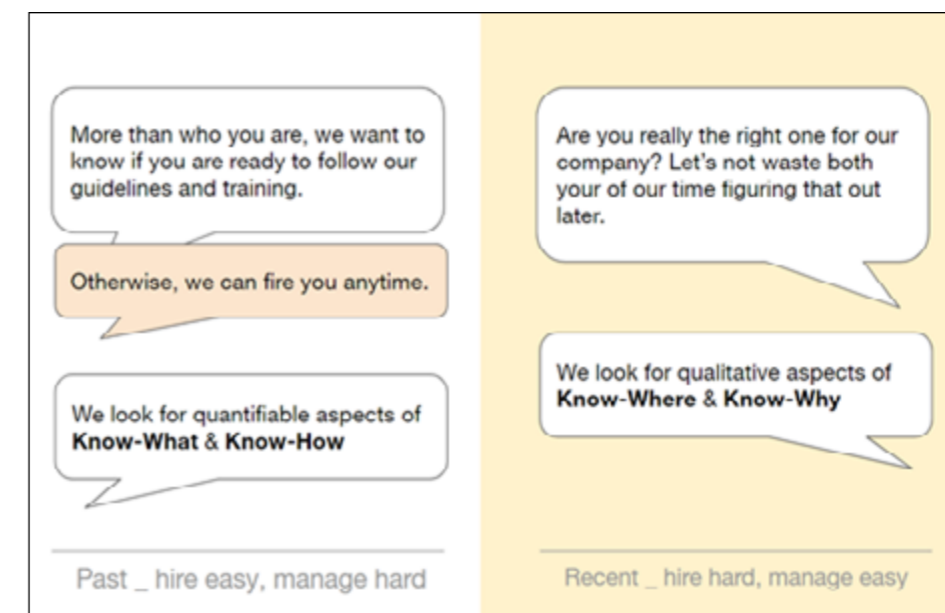


Figure 2.4 The past and the recent hiring trend

## 2.1.3 AI IN HIRING

The growing interest in developing hiring tools together with the development in data technology brought AI into the recruitment process. Not only as a selection tool but also as a supporting system for managing the overall process and communication, AI tools are establishing a solid foothold in recruitment.

### What is AI?

The word 'Artificial Intelligence(AI)' was first introduced by McCarthy at the Dartmouth Conference in 1956. He defined AI as "the science and engineering of making intelligent machines." It was initially recognized as a 'machine for performing operations,' but the meaning has expanded, in the 20th century, it became the technology behind automation that could replace human labor. Artificial intelligence today is a concept that encompasses big data, deep learning, and reinforcement learning, creating cultural changes for both individuals and organizations (Frey & Osborne, 2017). In the study forecasting changes in human resource development in response to AI development, Kim and his team mentioned that automation has reduced jobs that required doing simple repetitive tasks, while the data industry has become more important, along with the increase in the digital industry such as services and digital content. (Kim et al., 2018).

### AI in hiring: Increasing interest and use cases

These movements in markets also affected the recruitment methods in organizations. Companies have started to outsource manufacturing and production for efficient operation and hire only the most cost-efficient key talent. As a result, more than half of new jobs in the U.S. have changed to temporary contracts or part-time workers since 2010 (West, 2020). Since companies want to temporarily hire suitable people for each project every time, the demand for finding the right talent and match increased. This led online job matching platforms to grow rapidly.

Out of different platforms with different features, AI job matching platforms have been gaining more popularity in the U.S., including the Recruiter.com group with 26,000 recruiters joining, the Loxo company with more than 530 million contacts, and the XOR company, which even conducts interviews with chatbots. (West, 2020). The most common ways of using AI in hiring are screening potential applicants and using AI chatbots as recruiting assistants. LinkedIn is the most representative example of potential applicant screening. LinkedIn is known to have the effect of expanding advertising and membership by posting recruitment information appropriate for the applicant's specialty on the newsfeed of potential applicants. As a result, the number of job applications has increased by more than 30%, and the number of applicants has increased by more than 40% every year. It is also reported that the frequency of receiving answers on rejection has increased by 45%, with interactive communication between applicants and employees more than doubling (Babi, 2020). For chatbots, the recruiting agencies use them as the primary means of communication with applicants (Mengel, 2018).

The use of AI is also changing the nature of the hiring process. Davenport & Short (1990) talk about the nine changes in recruitment brought from using AI-based tools.

#### 01 Routinized transaction

All of the unstructured recruitment steps become systematically structured into the system.

#### 02 Geographic Advantage

It becomes possible for applicants to focus on the work and the position and apply for any company, regardless of the location.

#### 03 Automation

Automation of time-consuming repetitions (e.g., application processing).

#### 04 Advanced analysis (Complex Analytics)

Pre-examination is conducted with more diverse methods than before.

#### 05 Detailed Information

Stakeholders gather and utilize more applicant information than ever before.

#### 06 Simultaneous process

As soon as the company receives an application, it can conduct a pre-examination.

#### 07 Knowledge Management

Scattered information (time of application, visual information, data information) organized and utilized as needed.

#### 08 Tracking

The tasks in prior, in progress, and after finishing are identified and recorded in detail.

#### 09 Disintermediation

The position of intermediaries who mediated matching applicants and organizations disappears, and IT technology allows them to find each other directly.

It is expected that AI will replace 16% of HR work in the next ten years (Forbes Coaches Council, 2018), and the part that would be most affected is the recruitment sector (Reilly, 2018). Since most of the recruitment is being done online, the fact that much data regarding hiring is being easily piled up. This increases the potential and possibility of using AI in recruitment.

In the paper about AI and labor law, Park mentioned that some experts summarized the reasons for the growing interest in AI in HR as follows. Firstly, they expect it to **reduce the human prejudices involved**. HR professionals can be affected by personal traits such as their appearance, gender, or nationality. However, AI helps minimize potential discrimination and make a competency-based selection by minimizing such bias. Secondly, automation can **leave repetitive and simple tasks to machines, and human resources can be used for better strategies**. For example, they are using an AI chatbot for redundant questions from applicants or communication with applicants. Automating the data management will deliver messages to candidates more quickly. Thirdly, it is possible to **analyze the strengths and weaknesses of the current employees and help their training on the deficiencies**. On top of that, it can be helpful in pre-training employees to help them perform well in new work. This method is expected to be much better than conventional methods. Based on the data about individuals' competencies and the skills required at work, it can systematically, scientifically, and strategically prepare tasks for training. More stories using artificial intelligence are being introduced, for example, Talanx, a German insurance company, recorded the voice of an interviewee and analyzed the voice to find out curiosity, status awareness, patience, emotional stability, and a desire for recognition level (Park, 2020).

## AI in hiring: Emerging problems and concerns

*Faster, but also more objective and fair. Is it really?*

However, as usage increased, technical drawbacks and unexpected consequences gradually came to hand. Reliability issues began to arise and people started questioning whether what the experts and AI tool developers claimed was true. One of the biggest issues was Amazon's AI recruitment software committing gender discrimination and being discarded. The Amazon case is a good example of one of the biggest technical problems.

### Potential Harms Caused by AI Systems

Bias and Discrimination
Denial of Individual Autonomy, Recourse, and Rights
Non-transparent, Unexplainable, or Unjustifiable Outcomes
Invasions of Privacy
Isolation and Disintegration of Social Connection
Invasions of Privacy
Unreliable, Unsafe, or Poor-Quality Outcomes

Figure 2.5. Potential harms caused by AI systems (Leslie, 2019)

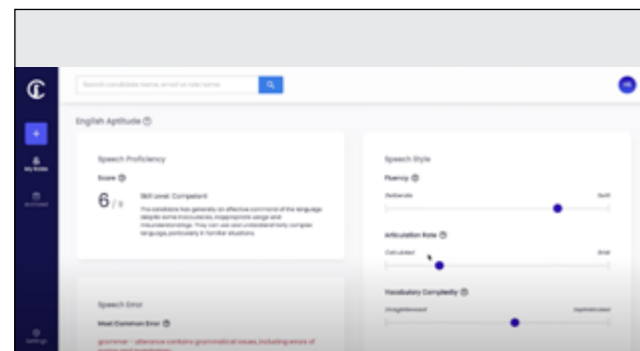


Figure 2.6 English competency score result on Curious Thing (Schellmann, 2021)

A participant from Schellmann's research answered questions in German and got 6 out of 9 for English competency.

## Technical criticism 01 \_

### AI learning human biases

Amazon has developed an AI application screening tool and during the last test round before the release, it showed a bias: consistently giving more points to male applicants than female applicants. The cause was found in Amazon's employee demographics. AI bases on big data and the data, in this case, was the data of employees who showed high performance and had a good evaluation. As an IT company, more than 70% of the total number of employees were part of the development department, and in the department, the majority were men. Since there were many more high performers among male employees in the parameters, AI came up with the conclusion of prioritizing male applicants based on the given data. Amazon eventually scrapped the software, finding it hard to just modify data or the algorithms.

According to the research from Harvard Business School (HBS), AI analyzes vast amounts of existing data to find the optimal talent. Thus, AI learns the biases left in the past recruitment records which affect AI's algorithm making judgments and the probability of AI considering people who do not fall in this category as 'not competent' increases. Screening applicants based on such biased learning brings the possibility of missing suitable talents and can infringe on job seekers' rights to be evaluated fairly.

## Technical criticism 02 \_

### Excessive filtering

*"You are not qualified to repair power lines because you do not have experience in customer service."  
"We cannot hire you as a retailer because you do not have experience buffing the floor." - HBS report*

Those sound absurd as reasons for rejection but getting such inadequate reasoning from AI-based application filters is happening often. More and more cases are being reported as using the AI filters is getting more common. One of the main causes is that the filters are so dense. For example, HBS has mentioned that the workers who 1)are working part-time jobs who want to work full time, 2)were unemployed for a long time, or 3)are not actively seeking but open to suitable opportunities will not make it through the dense AI filtering. The estimated number of those hidden workers in the U.S. now would be more than 27 million. (Fuller et al., 2021) The lead author from the research team gave an example of nurses being rejected by AI for not having computer programming skills on their CVs. The skill that the hospital mentioned in the requirements for the nurse opening was typing patient data on the computer. In the power line repairman case, the description mentioned that the company is looking for a friendly repairman, and AI came up with the filter 'people with customer service experience'. Kathryn Dill in Wall Street Journal pointed out that the longer and more complex job descriptions are, the more misinterpreted filters the AI would create, which would lead to filtering more people excessively.

## Technical criticism 03 \_

### Inadequate sensing technology & missing connections between data input and the result

*The criticism about doing facial analysis through AI is that there is not a lot of science that supports the idea that your face is some sort of indicator performing a job. - Julia Angwin, investigative journalist*

The two abovementioned problems are the biggest rising issues in the application screening. However, similar or more problems happen also in AI tools that process video interviews or run tests. Advanced data input devices are in need to collect biometrics and verbal information, and only highly developed analytical skills can analyze such data. However, assessment researches on AI tools criticize that the devices and skills used now can hardly collect clean data. More importantly, even when the data is collected, there is no clear evidence to prove the relation between biosignals and the qualities of an applicant. There has not been enough research done on the topic and yet it is not possible to make a judgment of an applicant's competencies based on the facial expressions or the breathing pattern. This is also why law courts do not take a lie detector result from investigations as proof but take it as a simple reference.

The technological aspect is not the only issue around collecting job seekers' data. Ethical and legal problems and concerns also have been raised.

## Collecting personal data and privacy invasion

Collecting and processing biometrics such as heart rate, respiratory rate, or body temperature, is strictly regulated by the law in many countries since it can cause a serious problem in privacy protection. On top of biodata, indiscriminately collecting personal information and records such as social media records or filmed interviews can also lead to a serious breach of privacy. To increase the performance of AI tools, tool developers try to gather as much data as possible, especially the data that is directly or indirectly provided by actual applicants. For applicants, it was not clear what exactly was being recorded and how it was being processed but had to endure the tool developers using their personal data in improving the recruitment tool service. They did not have a choice to disagree on handing over the data if they wanted to apply for the wanted positions.

As more people recognized the problem and pointed out how serious it is becoming, governments and public organizations started taking a step. Taking the U.S. as an example, in January 2020, Illinois' new Artificial Intelligence Video Interview Act (AIVIA) went into effect, meaning when employers decide to use an AI video interview tool, they have to inform applicants about the details behind the tool on paper. The paper would include what types of data will be collected and analyzed, and the technological characteristics used in processing the data. Also, the videos can only be used for the assessment and cannot be shared for other purposes. In the same year, the New York City Council proposed a bill saying employers must conduct a 'bias audit' to use, and the law will go into effect in January 2023.

## Who takes the responsibility for the outcome?

While the privacy issue was about handling the data, the concern that followed the problematic results that AI has generated, was about who should be in charge and take the responsibility for the outcome. In traditional ethics, responsibility is attributed to moral actors with free will. However, AI is not regarded as a moral actor and cannot be accountable. Thus, the discrimination caused by AI should be seen as just the consequence of the operation since it is not due to the 'act' of AI, but to the 'operation' of it. (Heo, 2018)

The problem is that there are victim applicants who were practically affected by the inadequate consequence and that the AI can potentially expand the system of generating discrimination and prejudice. To figure out how to solve the problem situation, someone has to take the responsibility, and it goes to human actors such as the designers of the algorithms or the people who are in charge of personnel affairs. However, it is still unclear to decide who exactly should be responsible for the outcome and how the responsibility should be distributed because humans cannot understand the entire process of how AI is learning and evolving on its own, and cannot have full control over it.

## Job seekers' position and rights

Like how the individuals could not go against the use of AI even when their privacy was infringed, how job seekers find using AI tools and their rights have always taken a back seat. The biggest reason is because of the imbalance in supply and demand in the job market. Companies with a good reputation and working conditions get a big number of applications for a limited number of openings. This leads to high competition for job seekers making them receptive to the process suggested by the company so they get a better chance of taking the scarce job position. Secondly, it is hard for job seekers to unite to have a stronger voice because they are individuals who happen to be temporarily going through a similar experience. During the job search period, they focus hard on getting a job which does not leave much space for addressing socioethical issues. Job seekers see the period as something to pass as soon as possible and when it's done, they are no longer job seekers but fresh employees who are busy getting used to a new workplace.

However, job seekers not strongly expressing their opinions on the AI tools and being receptive does not mean they are satisfied with the companies' decision of using AI hiring tools. Saramin, a Korean job matching platform, conducted a survey on 627 job seekers and half of them answered that the use of AI tools has increased the pressure and burden they get from job searching. The first reason for the burden was 'not knowing how to prepare', and the answers saying 'lack of information on AI tools' and 'need to spend more time and money on practicing' followed. Also, 20% of the respondents said they have resistance to being judged by AI.

To summarize, from job seekers' perspective:

- 01** Transparency in sharing information on the AI tools and the evaluation process is not guaranteed which infringes job seekers' rights.
- 02** Using AI hiring tools is not efficient for job seekers in the sense that they have to spend more time and cost on preparation.
- 03** Some job seekers find the idea that opportunities could be deprived by a system other than a human offensive.

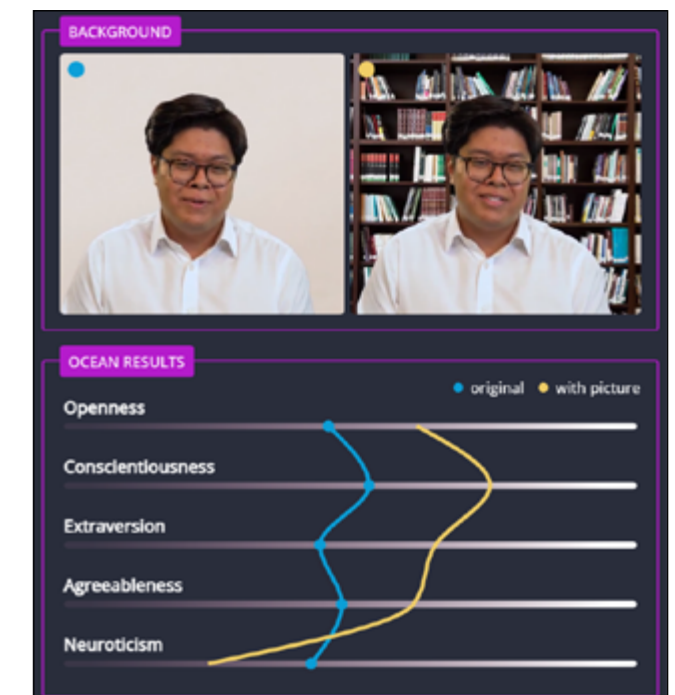


Figure 2.6 How the result differed based on the having bookshelves as background (Harlan & Schnuck, 2021)

AI software gave different results to the same video interview with different backgrounds.

Relating to the goal of this project:  
**How can AI be used to address job seekers' needs?**

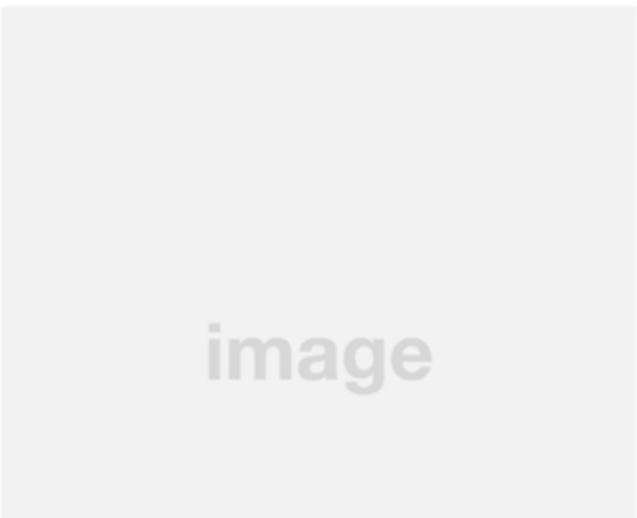
From the HBS survey with executives, nine out of ten said they are aware of the possibility of missing qualified candidates from using AI hiring tools. However, regardless of the shortcomings, the amount of AI hiring tool usage is increasing and the use area is expanding over the entire recruitment process. The HBS study mentioned that CV scanning programs are used by 75% of companies in the U.S. and 99% when you limit it to the Fortune top 500 companies. Although, the increasing criticism is bringing positive changes. More research and legislation are actively ongoing on the use of AI in hiring. Also, recognizing the problems and concerns some tech companies including Amazon and IBM are trying to be less IT tech-dependent in the recruitment process.

Considering the strong influence and values of AI hiring tools, the focus of discussion around them is not about whether they should be used or not. The big question is finding out how to use AI technology in the right and effective way in the recruitment process. Addressing the question is the main purpose of this project. The goal is to solve job seekers' needs for self-reorientation in the application. However, the possibility of development and applicability seems open for AI technology. Thus, if what AI can offer or has the potential in aligns with the solution direction, roles for AI in the solution context will be suggested.

AI hiring tool example:  
**From application tracking system to video interview**

For the growing interest and uses in the hiring process, research on the big or emerging AI hiring tool developers was conducted to understand the trend and to check out the potential for implementing an AI tool or making partnerships in the later stages. The following slides show the summary of different tool developer brands and products.

**02.0 (Name)** (Relevance)



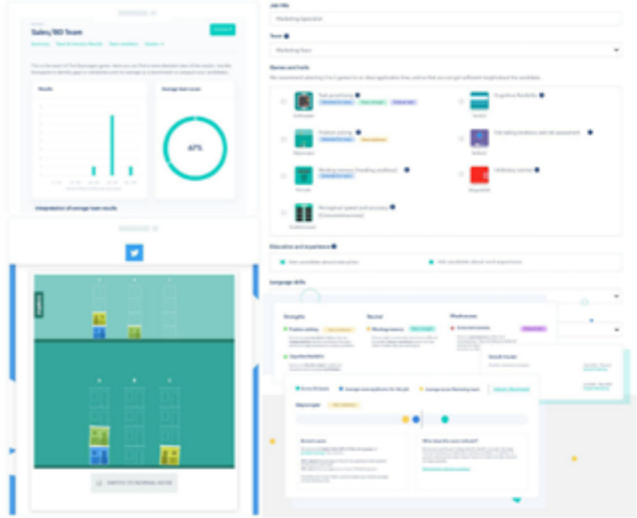
**Title (year, place)**

01\_ (Quote & Key Phrases in Bold)

02\_ (Quote & Key Phrases in Bold)

**Keywords**  
00000

**02.1 Equalture** ★★



**EQUALTURE**

**Unbiased hiring through gamification (2021, NL)**

01\_ "Look beyond the CV and remove bias. Use **neuroscientific games** to objectively reveal the skills and behaviours of **both your current team and your candidates**, to hire people based on science instead of gut feeling."

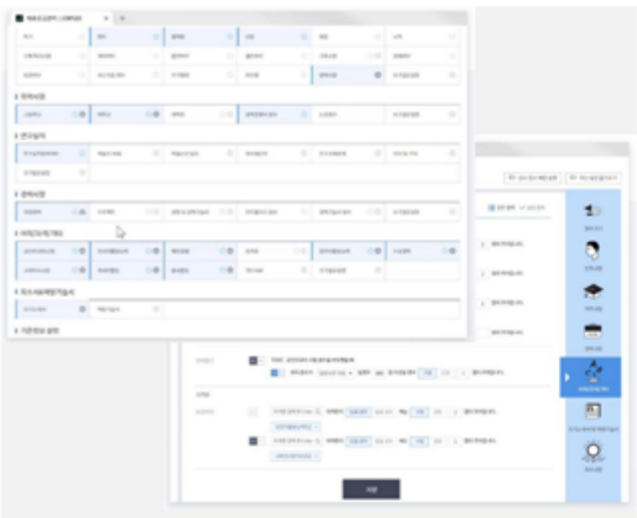
02\_ Runs "Equal Opportunity Hiring **Certification Program**"

03\_ How to

- 1) Analyse your current team and reveal your hiring needs.
- 2) Configure your jobs, based on your hiring needs.
- 3) Revolutionise your job application experience.
- 4) Get a data-backed, objective Candidate Report.

**Keywords**  
Games, certification, intetration

**02.2 Midas IT - JOBFLEX platform** ★★★



**MIDAS**

**When criteria are set, automatic screening of documents will evaluate all applicants at once. (1989, KR)**

01\_ "Automatic document screening allowed only two large-scale recruitments, supported by 10,000 people a year, to be done quickly without any extra work."

02\_ How to

- 1) First the company, customized the application template.
- 2) Then set the criteria: deciding what categories to priority and how to mark.
- 3) The system will automatically screen all the application.

**Keywords**  
Screening, application

02.2 Midas IT - AI G/S test

★★



Look beyond the spec and see the spectrum. From announcement to selection in just one week.

- 01\_How to
- 1) Based on the resume and previous General-test data, the system screens job seekers. (They can take the test again when they apply.)
  - 2) The ones who passed the screening can take S-test to check more detailed competencies.
- 02\_ The system consists of games, Q&A, and video interviews

Keywords  
Games, neuroscience algorithm

02.3 Pymetrics

★



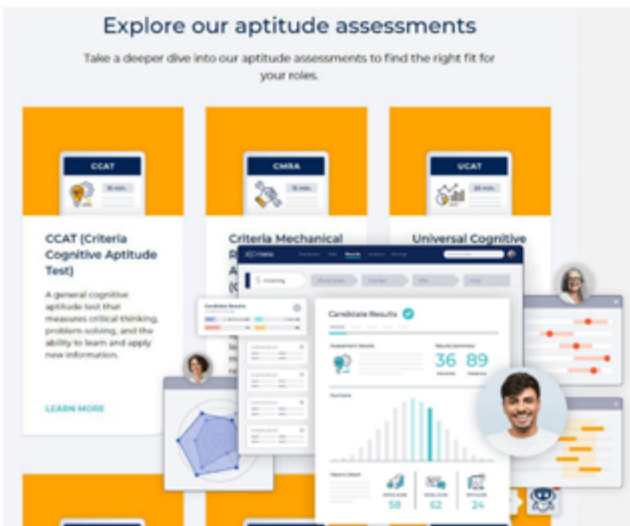
Let the perfect talent fall into place. (2011, US)

- 01\_ "Using games sourced directly from neuroscience research to assess candidates, in conjunction with big data and machine learning, we're able to improve efficiency, retention and diversity."
- 02\_ While most existing assessments rely on self-reported psychometric data, pymetrics uses objectively collected **behavioral data** points leading to more robust and accurate results.
- 03\_ Don't judge a job seeker by their resume alone.

Keywords  
Games, online career assessment, recruiting platform, neuroscience

02.4 Criteria

★



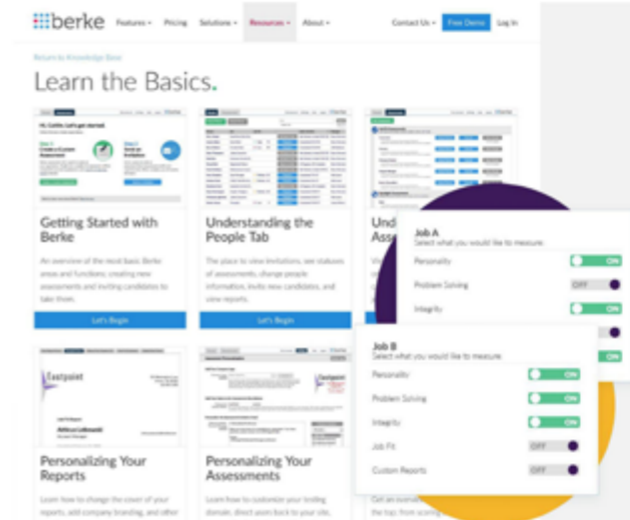
Make Better Talent Decisions (2005, US)

- 01\_ "Your goal is to build the best team. Our goal is to help you get there with multidimensional assessments, backed by science and delivered through our robust and user-friendly platform."
- 02\_ "Make more informed talent decisions with our assessment platform. Designed for peak configurability, Criteria seamlessly fits into your process, making it easy to administer assessments, manage your candidate pipeline, and interpret results."

Keywords  
Games, tests, assessments

02.5 Berke

★★



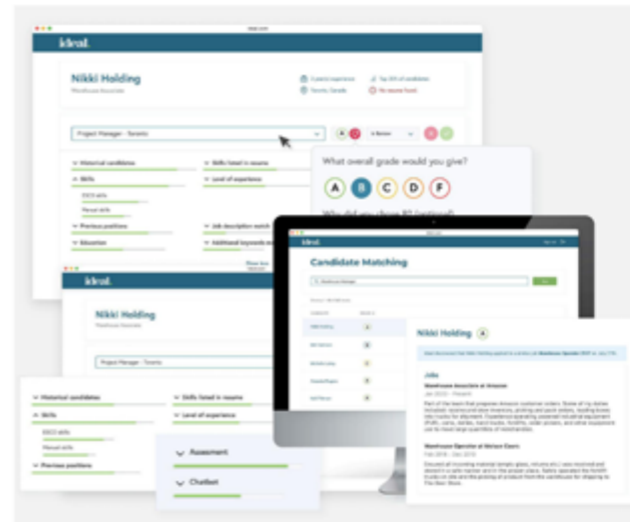
Confident hiring, made easy (2004, US)

- 01\_ "Look beyond the CV and remove bias. Use **neuroscientific games** to objectively reveal the skills and behaviours of **both your current team and your candidates**, to hire people based on science instead of gut feeling."
- 02\_ Create tailored hiring profiles that define the behavioral traits and problem solving abilities required by top performing employees at your organization.
- 03\_ Berke measures 7 personality traits, 4 cognitive abilities, and a wide variety of skills.

Keywords  
Assessments, games, tests

02.6 Ideal

★★★



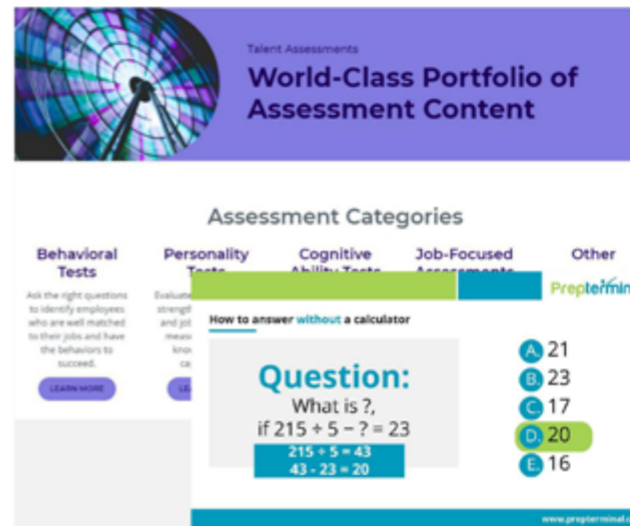
Discover our talent intelligence system (2013, US)

- 01\_ "HR teams leverage Ideal's talent intelligence to identify better candidates faster, reduce time-to-fill, and reduce screening bias."
- 02\_ Ideal lives inside your current ATS. No separate login or platform needed.
- 03\_How to
- 1) Screening: Reduce time to fill and improve quality of hires simultaneously.
  - 2) Matching: Make the most of your own database with our powerful matching feature empowers you to assist with identifying and re-engage with previous candidates.

Keywords  
Screening, application, matching

02.7 SHL

★

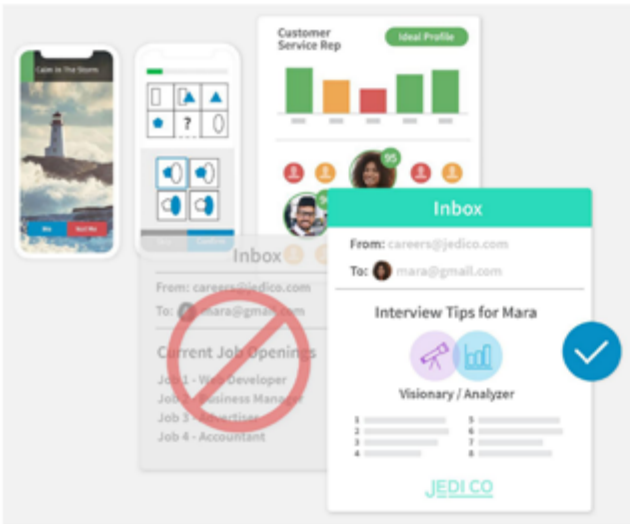


Power Your Talent Management Decisions (1977, UK)

- 01\_ SHL publishes psychometric tests designed to test the diagrammatic, numerical, and verbal reasoning of prospective employees. SHL test accuracy, speed, and test score compare candidates' suitability for the role. It is one of the most widely used recruitment tests in the United Kingdom. The average score of applicants in SHL is 80%.

Keywords  
Tests, assessments

02.8 Traitify



# traitify

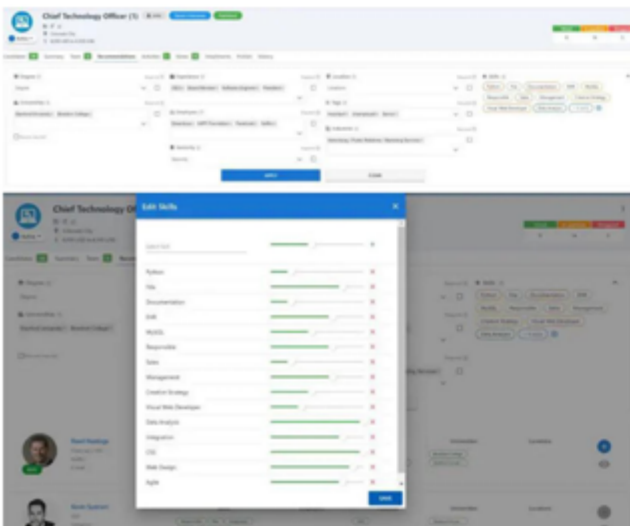
**Better Talent Experiences Driven by Human Insight (2011, US)**

01\_ Traitify is using visuals to usher in a new era of hiring and talent assessment that candidates love. Traitify uses human interaction with images to create the fastest validated talent assessments in the market.

02\_ Defy What You Expect from Pre-Hire Assessments: Our mobile-first, visual-based format delivers the fastest science-backed insights in the industry, enabling high-volume hiring companies to personalize candidate and employee experiences from the start and hire top talent quickly and easily.

**Keywords**  
Games, matching

02.9 Manatal



**Transform the way you recruit. (2018, Thailand)**

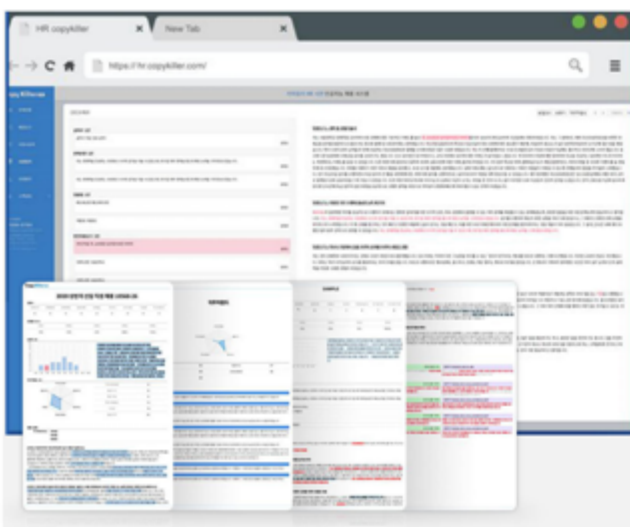
01\_ "Manatal scans job descriptions and extracts the core skills and requirements needed for candidates to perform well in the position at hand. The software then cross-references the results with your talent pool in order to match the candidates who fit the position best."

02\_ Customizable Filters: Add fully customizable criteria to filter your recommended candidates and shortlist your top choices based on skills, work experience, academic background, or other conditions.

03\_ Scoring Candidates: The recommendation system compares the candidates' skills, location, positions, education and more to the requirements of the job you have at hand and ranks candidates based on the criteria you select.

**Keywords**  
Screening, application, matching

02.10 Copy Killer



# Copy Killer

**AI-based cover letter analysis service (2011, KR)**

The system checks based on following 5 filters:

01\_ Basic inspection: checks amount of words, grammar, use of inappropriate words, etc.

02\_ Plagiarism check: compares it with more than 6,000,000,000 documents for plagiarism

03\_ Job fit and match: checks how relevant it is to the position and required skills

04\_ AI evaluation: compares the sentences with that of well performing employees

05\_ Blind checkers: blinds personal information that can have influence

**Keywords**  
Screening, application

## 2.2 APPLICATION PHASE

With a basic understanding of the recruitment process, the next step was to go closer to the application stage which is the main focus of the project.

### 2.2.1 METHODS AND TOOLS

Since the recruitment tools and the process used for each opening differ, the definition of the application stage is not definite. In a broader definition, it includes all the steps before the first interview while other articles indicate only the initial step when an applicant hands the required documents into the organization for the first time.

#### Methods and tools 01

#### Documents and data that applicants hand in

The two types of documents that are most commonly dealt with in the application stage are **CV\*** and **cover letter**. Using CVs in the hiring process became common in the early 20th century and having one became a prerequisite for a job seeker to get an interview by the 1950s. By then, it took the form of a handwritten or a printed copy but from the 1980s on it is conveyed as a digital document for the convenience. With the use of software such as applicant tracking systems (ATS) or resume screening software that make it easier and faster to go through CV files, recruiting teams can now easily process a bigger number of applications than before.

Organizations do not announce strict restrictions nor guidelines about how a CV should be in the information about the opening, but they have a general expectation of what it should contain and how it should look like. Job seekers get to know this from other people or on the internet. They look for the ideal format or inspiration and adjust it to their situation.

The other document, a cover letter also called a motivation letter, is a letter that applicants write about their motivation and their critical competencies specifically regarding the position. This can be replaced with a questionnaire form provided by the organization. While a CV is about an applicant as a whole, a cover letter is more specifically about how the person relates to the position and the organization.

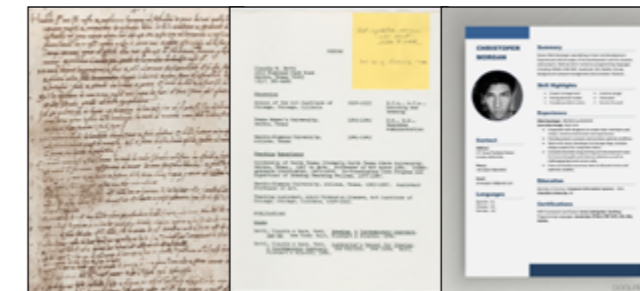


Figure 2.8 CVs from the year 1480, 1988, 2019 (from left to right)

The first use of CV recorded is Leonardo da Vinci's letter to the duke of Milan explaining his skills and experience. The purpose and the main contents remained almost the same while the format and the details changed over time.



Figure 2.10 (left) Cover letter example, (right) VanBerlo's online application page with a question asking the motivation.

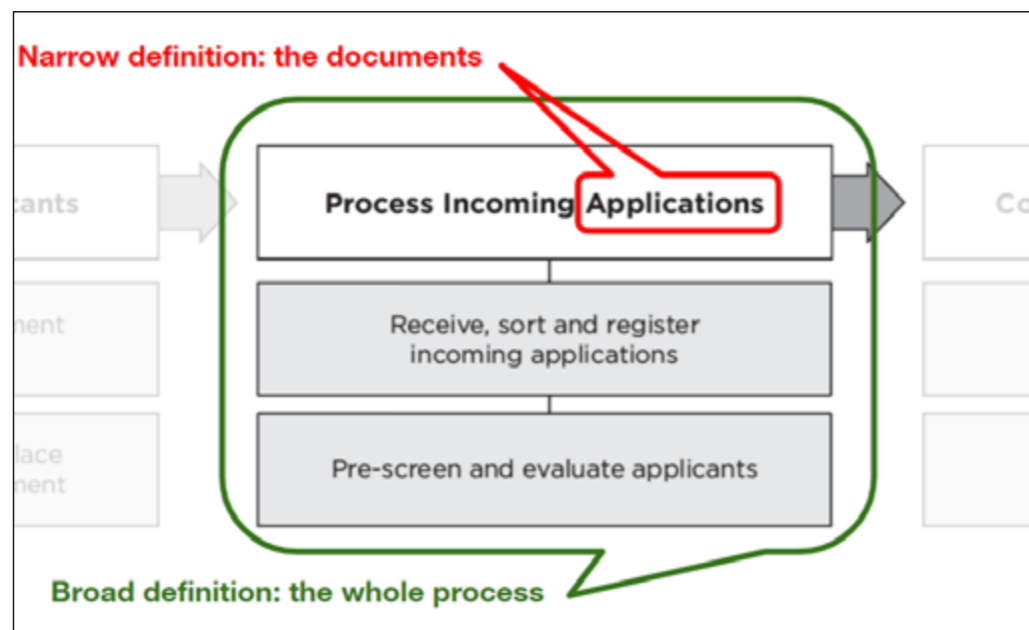


Figure 2.7 Different definitions of application

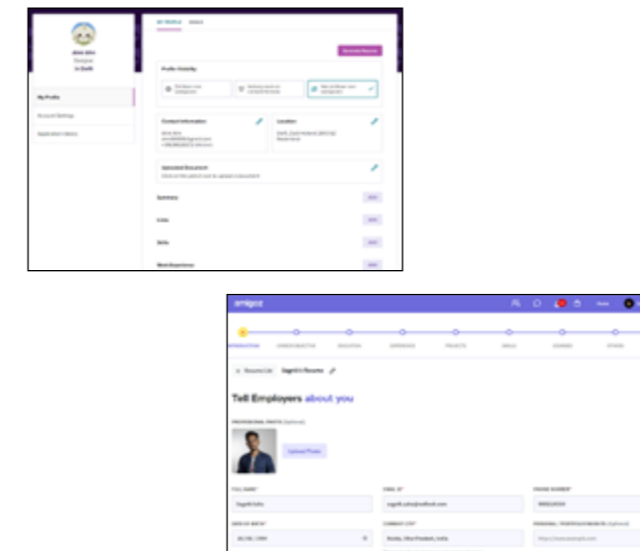


Figure 2.9 Online CV makers (Top: Monster)(Bottom: Amigoz)

It is easy to find a website where a job seeker can make a CV online by filling in the blanks in the given format. CVs can be shared online through the platform or can be exported as a digital file. Information types and the names given for each column differ.

#### \*CV or Resume? Why CV?

The difference between a CV and a resume is not clearly defined. The difference in the number of contents and pages, and the industries and positions one is being used more often are the commonly mentioned ones. However, choosing one term over another could also be based on one's or cultural preference. Both terms are often used in the same context with the same meaning: a document that summarizes one's competency, skill, goal, and interest-based on past experiences such as academic background, work experience, or voluntary work. In this report, the term 'CV' would be used over resume but as a generic term that does not differentiate the two.



While the two are documents used over hundreds of years, there is one that is rapidly gaining popularity: **LinkedIn profile**. More and more companies ask for the link to one's LinkedIn profile in the application. It can even replace a CV since the profile has the same or more data about the applicant and there is more information such as one's connections or online activities. Since the LinkedIn profile is not tailored for one application but is shared with the public, recruiters can check how an applicant shows himself to everyone instead of whom one wants to be shown to the specific company. On top of that, the information on LinkedIn has a better chance to be validated because the others who were in contact with the applicant can see how one wrote about the experience with them and they can also leave comments.



Figure 2.11 (left) Picnic's online application page asking for LinkedIn profile, (right) LinkedIn profile example

Depending on the position, other documents, such as a license copy or a portfolio, can be asked on top of a CV and a cover letter.

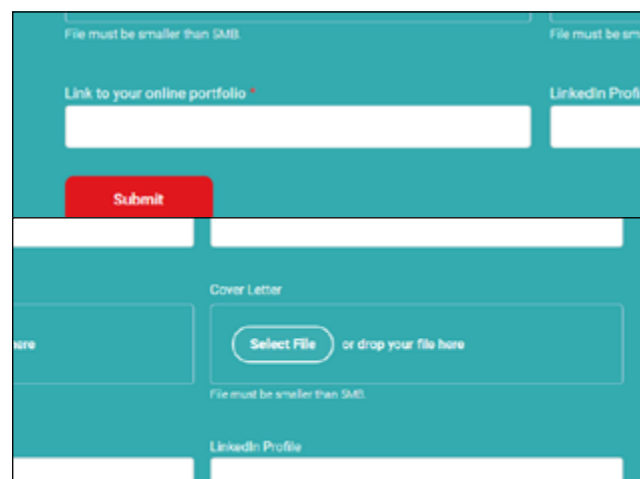


Figure 2.12 (top) Picnic's online application page asking for online portfolio, (bottom) for an optional cover letter

### Methods and tools 02 Tests and assignments

Other methods or tools used in the application phase are participatory tests and assignments. These can be a must for all the applicants or can be used after the first screening.

Some companies make applicants go through tests, to check their knowledge and personality traits. Sometimes, a task or a small mission is given to applicants that they should work on and hand in when applying. With the development in data technology, more tools such as video interviews or tests in the forms of online games are being introduced and are gaining popularity.

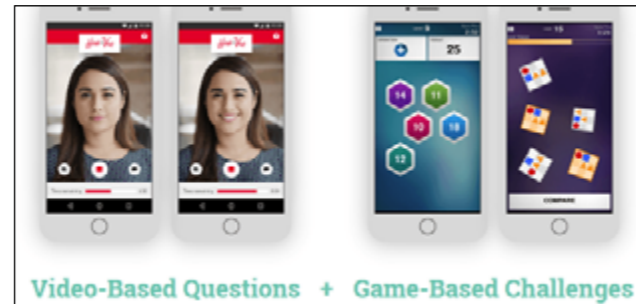
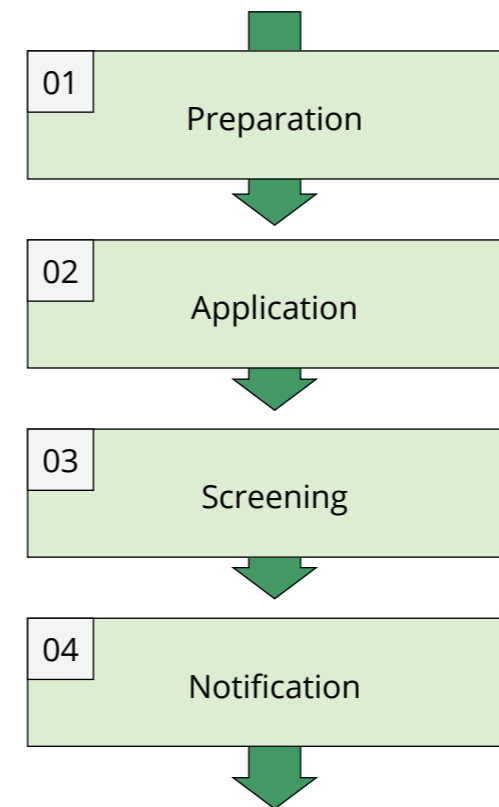


Figure 2.13 HireVue's video interview and game-based assessment

Companies could develop and organize such tools internally but third parties with the expertise in a specific tool could also stand between the companies and job seekers, run the tools among job seekers and deliver the results to companies.

### 2.2.2 4-STEP-PROCESS

The focus of the project is on the traditional definition of application: the first delivered documents. Especially CV since the cover letter is becoming more optional while CV is a must for most openings no matter which industry or position one is applying for. Thus, the scope on the job application process was narrowed down to the first four steps regarding CV which are preparing a CV, handing in the CV to the company, company screening the CV and delivering the result back to the applicant.



### 01 Preparation

Discovering and deciding what should be in the CV

It is possible to find companies where they make a specific form for applicants to fill in instead of handing in a CV but in general, it is open for applicants to make one on their own using any template they find or designing one. Companies do not give strict guidelines for what should be on it but the idea of how a CV should be like is shared as an unwritten rule that only allows small variations. The contents that are considered necessary are personal data, objective (a short paragraph that summarized one's experience, key features, and career goals), education, work experience, and skills. The other columns that are considered optional but commonly used are achievements such as awards, other activities such as being part of an organization outside of work or doing voluntary works, hobbies, or more personal data such as one's picture or background. Out of the options, applicants choose what represents them the best and add it to the CV. However, it is suggested for applicants to do research before choosing since there is a tendency in each region, industry, or position about what the recruiters expect to hear more. Also, it is important to double-check what the company mentioned for a specific opening since there could be restrictions on what one should not put in, especially for avoiding discrimination. For such information, applicants ask others or look up CV examples and tips online to get a clear picture of a good CV for the position and the company that one is applying to. When enough information is gathered, an applicant decides which content to show, writes the summaries, and collects visuals.

#### How to make a CV

Nowadays it is easy to find various CV templates online that are easy to adjust. Even the applicants who are not used to editing can find a template of one's taste and easily fill it in and change the details, such as changing the main color or fonts, to emphasize one's identity.

When the editing is done, it is often saved as a pdf file which is easy to open and occurs fewer errors, and is used when applying. Otherwise, applicants could also fill in the same information on CV on the job matching websites instead since the new trend of using a matching platform as an official application channel made some companies ask applicants to do so.

## 02 Application

The application could happen in both directions, either an applicant applying for an opening or a recruiter contacting an applicant. For the first case, an applicant carefully checks the opening announcement and adjusts the CV to make it a better fit for the position. Especially for the ones who are open to multiple positions with broader interests, the adjusting step of narrowing down the contents would be important to make it easier to read and appeal more strongly. The issue is that since applicants try to make themselves look as if they are the perfect match by highlighting the elements that the company was looking for, it makes it harder for companies to identify an applicant as a whole and differentiate one another. For applicants, the process makes them spend extra time editing for each opening.

On the other direction, recruiters approaching job seekers by using an agency or a job-matching platform cover this issue. An applicant gets to upload the CV and publish it to the recruiters. Recruiters then go through it and decide whether they want to hear more from the one or not. In this case, every company gets to see the same CV of one applicant, and applicants can save time by not adjusting it. However, it could make it harder for applicants to appeal by sharing more details of a specific aspect that the company could be more interested in.

## 03 Screening

When a CV is delivered, now it is the recruiters' work to read through and assess it. Depending on the number of CVs they get for an opening and how many each recruiter has to handle, companies decide whether they want to use the screening software before the manual screening. When CVs are handed over to recruiters, recruiting software can be used to support them with marking and comparing. The survey results, that articles were giving, on how long it takes for a recruiter to go through and decide whether the CV gets to pass or not varied from 10 seconds to 13 minutes. Factors such as the type of the industry, position, region, and budget seemed to have an influence on the difference but were not identified clearly how. Though the common answer from recruiters about what is important in the step was checking the relevance and coherence in the most efficient way possible.

## 04 Notifying the result

Applicants that the recruiters saw potential and want to know more about pass the screening stage and get the notification about the following steps. Depending on the size of the recruitment and what is planned for the next stages, personalized messages about the application assessment can be shared. This works the same for the ones who were not the match. The message with the result can be a general rejection or contain a specific reason why.

## 2.2.3 ISSUES IN APPLICATION PHASE

### Efficiency and limitation

After the four continuous steps, CVs are used as material for interviews and as part of the later assessments together with the results from other tools. Thus, it has more meanings and uses than just a tool used in the recruiting process. What is on the CV opens up more opportunities for an applicant and it represents one throughout the overall journey. However, despite the meaning and the influence, what applicants can convey through a CV is limited to the amount and the form. The first step of an application, handing in a CV and other documents, is open to anyone. Therefore, efficiency is an important issue with having the biggest number of applicants to assess in the whole recruitment process. Though it is not defined, the shared common knowledge of how a CV should be stayed strong and the main tip always mentions how short and neat it should be which does not allow much space for applicants to afford significant alternations.

### Applicant's dignity: stress and discrimination

The often discussed topic regarding the application step is how applicants are being treated by the organizations. The mismatch between supply and demand, the overflow of applicants for one opening, brings the question of cutting down the number efficiently and gives applicants the feeling that they are being treated as one of a bigger pool instead of one individual. Moreover, discrimination against people with certain traits happens both intentionally and accidentally. To prevent such problems, research on recruitment tools is ongoing and new tools are introduced and used for both assessing quality and applicants' dignity. Companies invest in continuous revision since what applicants experience throughout the recruitment process affects the brand image.



Figure 2.14 CV screening eye track research result (The Ladders)

The Ladders conducted eye tracking recruiter study to see how recruiters process CVs and where they focus. The result mentioned that recruiters spend **7.4 seconds** performing an initial screen of a CV on average.



## 02 DESK RESEARCH

### 2.3 JOB SEARCH AND MATCHING PLATFORM

Going back to the goal of the project, to suggest an online solution for bridging job seekers and companies, desk research on existing platforms was conducted to gather insights and to discover how to position the solution in the market.

#### 2.3.1 ONLINE JOB SEARCH PLATFORM

##### Online job searching

With the development of information technology, the Internet had a great influence on the job market. The number of job search websites has increased, and online job search has become the main activity of Internet users (Pasquale et al., 2007). On the job search websites, job seekers post information about themselves such as resumes, motivation or related certificates while the organizations provide the details about the position and the human figure that they want to hire. And the two parties can interact on the platforms. As these online portals became the major medium used in the job market for job search and recruitment, organizations can now reach out to a bigger pool of potential applicants and it became easier for job seekers to find the recruitment information (Looser et al., 2013).

Cappelli(2001) has mentioned that there are several types of key functions that each job search platform provides to support the recruiting tasks that used to be the work of all the organizations. Each platform used to specialize in a certain feature that is used in a specific stage in the hiring process.

<b>01 Hiring Management Systems Vendors</b>	The vendors that build the software for the hiring management system
<b>02 Workforce Planners</b>	The vendors that help employers set staffing and diversity goals and track hiring patterns to make sure the goals are met
<b>03 Job Boards</b>	Some vendors try to keep the board the largest as possible while some players focus on specialized job boards for certain industries or characteristics of the position.
<b>04 Application Screeners</b>	The vendors that screen the applicants based on a specific aspect such as on skills tests, general employee capabilities, applicants' interests, and personalities
<b>05 Matchmakers</b>	The vendors that match people and jobs
<b>06 Free Agents and Their Mediators</b>	The vendors that operate between employers and independent recruiters

Figure 2.15 Example players and roles in online recruiting(Cappelli, 2001)

##### Expanding features

However, over time, the platforms that started with one key type of function grew in size and started expanding their roles along with the development of data technology. For example, the websites that started as job boards such as Monster or Indeed now supports matching and networking function, and are still adding on new features. With the big user pool and the data that they have piled up, the success rate for matching has increased and the time and expenses used by both job seekers and organizations during the recruitment process have decreased (Brencic, 2014).

In addition to the matching tool or the other functions mentioned above, platforms offer other specialized features such as government-related supports, up-to-date inside information about the company, or communication tabs. Jobcentre Plus in the UK provides in-depth support such as applying for the unemployment benefit and a CV writing consultation for marginalized job seekers. Glassdoor and Blind has a space where not just the organization but also the employees can share more details about the company and where job seekers can freely ask questions.

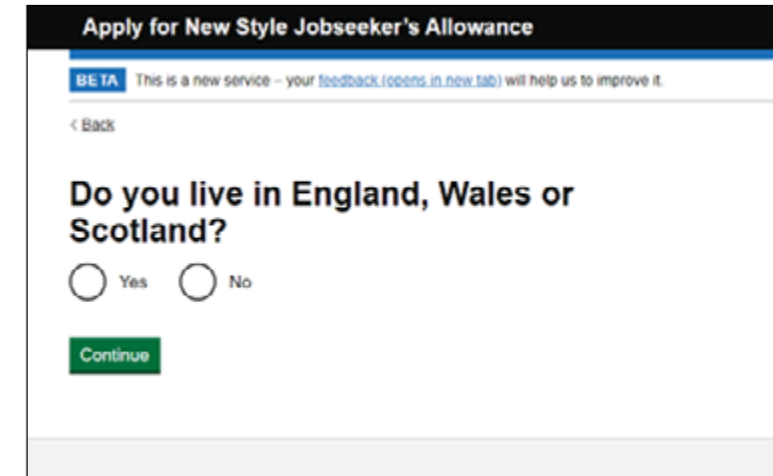


Figure 2.16 Applying for jobseeker's allowance online. (Jobcentre Plus)

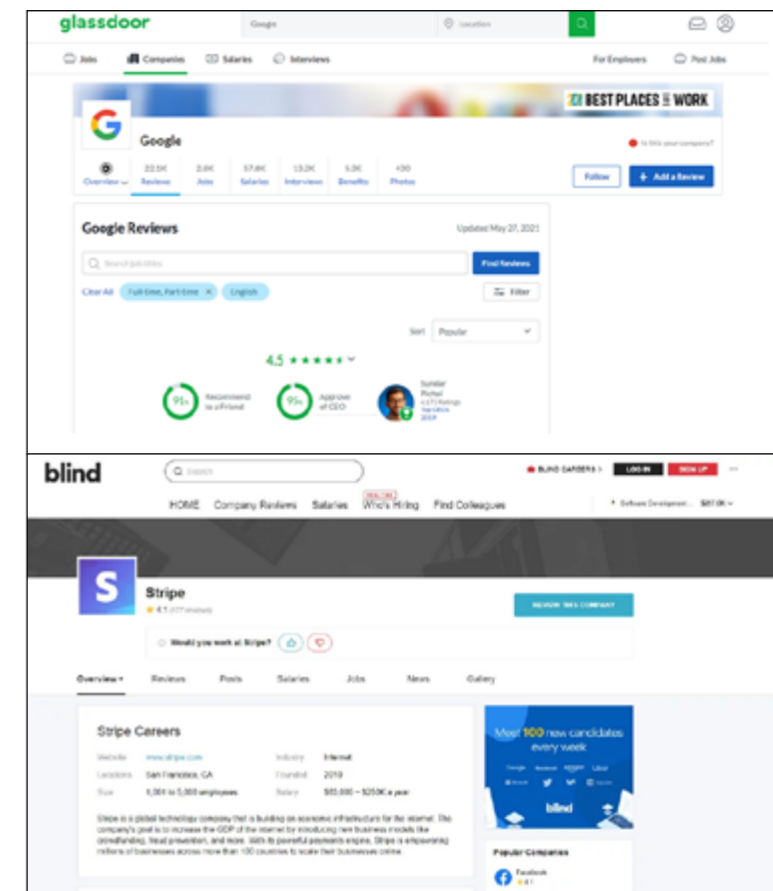


Figure 2.17 Company rating and reviews by employees. (Top: Glassdoor)(Bottom: Blind)

The new add-on tools that are gathering the biggest interest are the ones derived from the latest data technology such as big data analysis or AI. The use of the software is now not limited to screening or matching but they support users in various ways such as running tests to help a job seeker find their own talents and best-suiting positions, digital interviews with AI, and games to discover the personalities and values an applicant has.



Figure 2.18 Multiple choice questionnaires to figure out communication skills, problem solving skills, and organizational participation tendencies. (Saramin)

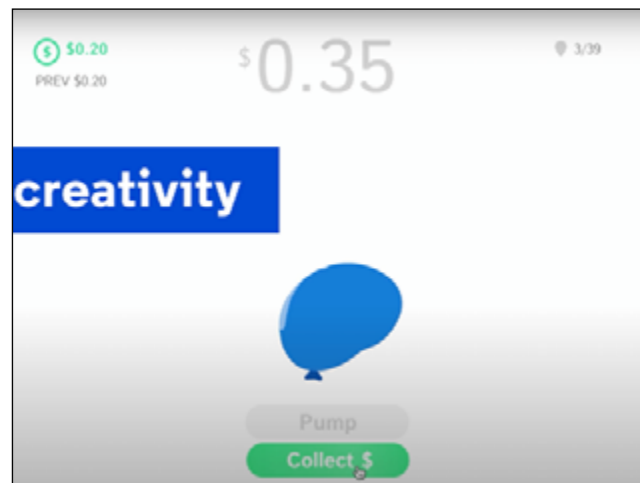


Figure 2.19 Core games that measure cognitive and emotional attributes based on gold-standard behavioral research. (Pymetrics)

### 2.3.2 KEY PLATFORM ANALYSIS

#### How are the existing platforms doing?

A recent job seeker looking for the first job signs up for three to four job search websites on average since the information on openings and companies, and other supporting functions each platform provides is different. Also, if the company that the applicant wants to apply to is in partnership with one specific platform and only takes applications through it, the applicant has to sign up on the designated one. Among the big number of websites, some keep on growing, some gain remarks while some disappear. To get to know the key to success from the biggest players and gather insights, the case study on how they run the platform and the key features they have, was done on the big or the characteristic platforms. Depending on the solution direction, some of them would become competitors or partners.

#### Platform selection

Three elements were put into consideration choosing the platforms to analyze: the location where they are running the service, the size, and the key product differentiation. Firstly about the location, the Netherlands was the first on the list since it is going to be where the client wants to launch the product. The other two countries were the United States for the impact, the size of the users and the access to the data and south Korea for also the access to the data as a researcher and the fast-developing digital content. Within the three countries, the platforms that either have the biggest number of users or have been dealt with in other publications for unique or distinctive features were chosen for the case study.

#### Analysis and comparison

The background, competencies, differentiation factors, and images of the key functions of the chosen 27 platforms were first listed on the data sorting templates in Excel and presentation slides that were designed in the Design Theory and Methodology course. The study done in the course was about analyzing the difference in using different formats and media for sharing the research data in a group. The slides were used for fast delivery with keywords and images and the table in Excel was for checking or going through the details. The data and comments are from both publicized documents and the researcher's experience using the platforms as a job seeker.

Then the key features were marked and compared to see what are in common and what are different. Based on the comparison, platforms were categorized into four.

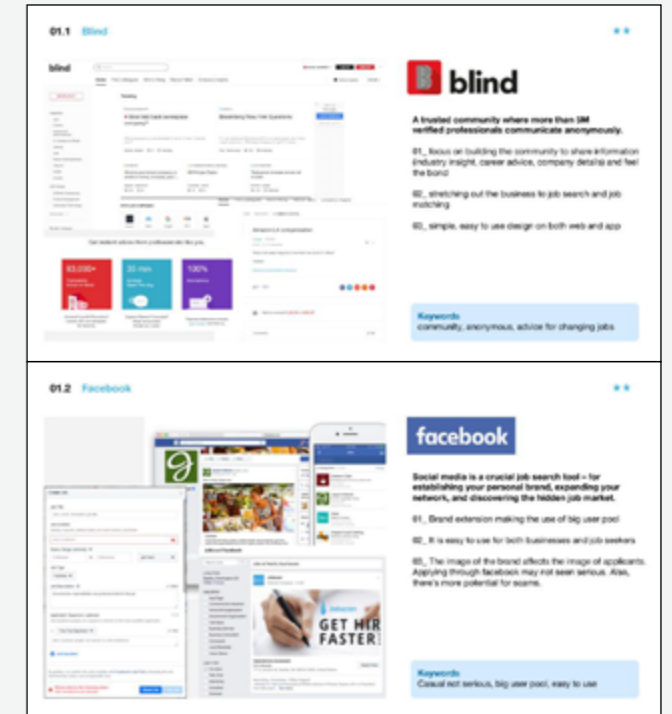


Figure 2.20 Key platform analysis on slides

Name	Feature	Key Word	Insight	Source	URL	Relevance
0 (Name of the brand/product)		(Key words)		(year, country) mother company	(Url)	1-3
1 LinkedIn	<ul style="list-style-type: none"> <li>Target: Biggest platform worldwide (80% users in UK, 26% in NL, 17.6% in US)</li> <li>Supports one click application: the profile works as resume and recruiters often look applicants up on LinkedIn</li> <li>Networking: users build connections by sending messages and staying connected</li> <li>Social media: users freely share articles and their opinions and put comments</li> <li>Platform: supports both website and the app</li> <li>Daughter companies: Lynda.com(online classes), Glint Inc(employee management &amp; development)</li> </ul>	social media, networking, profile, big user pool, international	<ul style="list-style-type: none"> <li>Career centers give tips and trainings on how to use LinkedIn.</li> <li>The key is to update your profile regularly.</li> </ul>	(2002, US) Microsoft	<a href="https://www.linkedin.com/">https://www.linkedin.com/</a>	1
2 Way Up	<ul style="list-style-type: none"> <li>Target: students &amp; recent graduates in America (entry level jobs &amp; internships)</li> <li>Platform: supports both website and the app</li> <li>Organized and up-to-date career advice</li> <li>Tips for colleges and daily life</li> </ul>	student, entry level job, ux/ui	<ul style="list-style-type: none"> <li>The website in general is well designed: easy to use and read.</li> <li>Friendly manner</li> <li>Quality control nicely done for company profiles</li> </ul>	(2014, US) WayUp	<a href="https://www.wayup.com/">https://www.wayup.com/</a>	3
3 Glassdoor	<ul style="list-style-type: none"> <li>Target: 75% of the users are based in US</li> <li>Job vacancies = anonymous reviews: users review their companies, bosses, salary and everything</li> <li>Recruiters or HR can leave comments on reviews</li> <li>Can check the interview questions / data</li> <li>"help them recruit and hire quality candidates at scale who stay longer"</li> <li>Platform: supports both website and the app</li> </ul>	review, interactive	<ul style="list-style-type: none"> <li>Not friendly for entry level applicants</li> </ul>	(2008, US)	<a href="https://www.glassdoor.com">https://www.glassdoor.com</a>	2
4 Hired	<ul style="list-style-type: none"> <li>Target: focus on tech industries = started off with few cities and now expanding</li> <li>Detailed reviews on how people got their jobs</li> <li>Employers reach out first.</li> <li>"The largest AI-driven marketplace that matches ambitious tech and sales talent with the world's most innovative companies"</li> </ul>	tech-industry, regional, personal story, young adult	<ul style="list-style-type: none"> <li>Job seekers don't get to see the vacancies.</li> <li>Algorithm based suggestions</li> <li>Promotes to make profiles with a lot of contents.</li> <li>Calendar space to show open hours for interviews</li> </ul>	(2012, US) Vetterly	<a href="https://hired.com/">https://hired.com/</a>	3

Figure 2.21 Key platform analysis on excel Appendix C. Key platform analysis on excel

**01 Platform that are run by a public organizations**

As a result of contents analysis, the websites could be separated into two big bigger groups: public platforms that are run by public organizations such as the governments, municipalities and universities and the other platforms that are run by private companies. The biggest difference in the contents was that the public platforms provide job seekers with the application for public funds and supports while the private platforms focus more on the application for companies. The main feature that the public platforms has is providing reliable and refined information and this brings users' credibility.

**Remark**

By cooperating with such platforms or the mother organizations, the new product can gain credibility and support users with funded services.

**02 Platform that focuses on career exploration and training**

There are platforms that focus on the stages before starting job search and support service such as personality and psychological tests, or career counseling to help job seekers learn about themselves and get to know more about various jobs and companies. These services reduce job seekers' pressure and burden on job search activities and provide them with more systematic approach to the job market. From the platforms' point of view, they can learn more about job seekers which later increases the accuracy rate of recommendations or matching in the future.

**Remark**

Seeing the job searching process from a broader perspective, providing service features that cover the overall job search journey would increase job seekers' usage time and loyalty on the platform.

**03 Platform that builds a community for sharing up-to-date transparent information & networking**

Beyond the communication between just job seekers, the function that is in the spotlight these days is the community tab where employees, who are already working in the company, share information and thoughts about the company and their working experiences. Sharing personal experiences may reduce the objectivity and reliability of information, but it is gaining popularity because the information users find there are something difficult to find with general searching. Additionally, it opens up the space for networking which is still an essential activity during job searching. The employees on these platforms sharing stories do this not just to help job seekers but mainly because they seek for fun and empathy, and they think of potential changes in the position or the company that they might have later on. Since job seekers learn more about different aspects of the companies, they can make better choices where to apply. When they actually start applying, the specific experiences shared about the application or interviews such as the questions asked gives them a lot of help.

**Remark**

A community that connects job seekers together or job seekers with someone more experienced in the recruitment process, provides a place for conversation and the younger generations are familiar with the concept based on their experience with social media. The main benefits that the community bring are the information delivery as well as the emotional comfort.

**04 Platform that focuses on a specific target group - provides certain features and information**

Small-sized or emerging platforms are often specialized in specific target groups, such as certain occupations, industries, or regions. They provide more detailed information and tailored opportunities for the target, create a community, or support them with related side services.

**Remark**

When the target is clear and specific, it is easier to support them with more definite services, and the depth of conversation and the information shared between them can get deepen which would make them feel loyal to the platform. Moreover, other promotional strategies can be established according to the characteristics of the target.

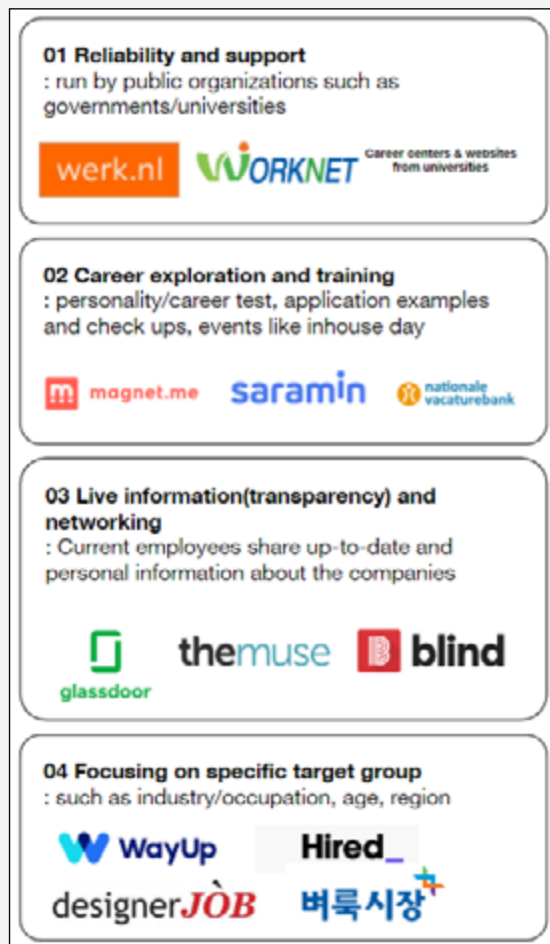


Figure 2.22 Summary of the four categories



Figure 2.23 Tab to ask the employees (Job Korea)



Figure 2.24 In-house company visits (Magnet.me)



Figure 2.25 Videos of the office and the team (The Muse)



Figure 2.26 Focuses on specific talents (Hired)

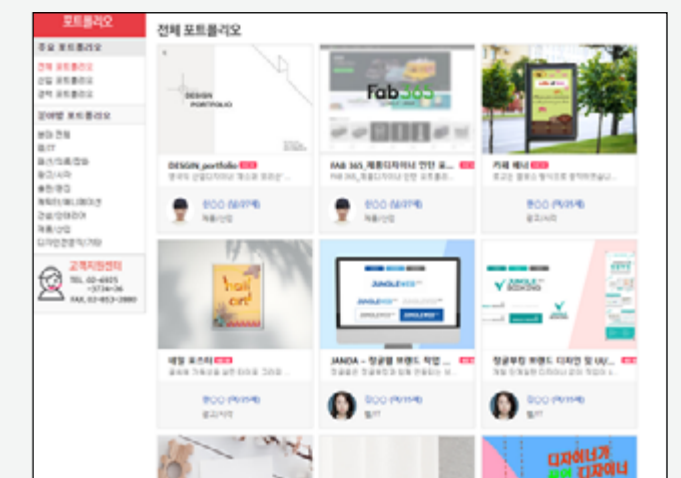


Figure 2.27 Shows portfolio examples and reviews (Designer job)

### 2.3.3 KEY INSIGHT & CONCLUSION

The following statements on the table summarize the findings from the strategies and success factors of the analyzed platforms which have been positively evaluated, long-running, or newly emerging. They were then formed into questions that could be used in later phases. Not all have to be answered but searching for answers to them could suggest directions or give insights for the solution.



Figure 2.28 Summary of the four categories

## 02 DESK RESEARCH

### 2.4 CONCLUSION

#### 2.4.1 CONCLUSION

To summarize, the second chapter was about understanding the overall hiring process and the use of CVs in it, knowing the noted issues regarding CV, and gathering inspiration for making a significant platform for making and assessing CVs. The key takeaway from the research on the process was seeing how different steps and recruitment tools are intertwined with one another. Thus, designing a new tool or a revision on a current tool should be done together with understanding its influence on the whole process. The discovered issues and insights from the platform analysis would be used for setting up the development direction of the final product in later stages.

While the second chapter was looking at the bigger picture and conventional aspects of recruitment, the following research would be about seeing the process from individuals' perspectives to find out the latent needs and understand the complexity of stakeholder relations.

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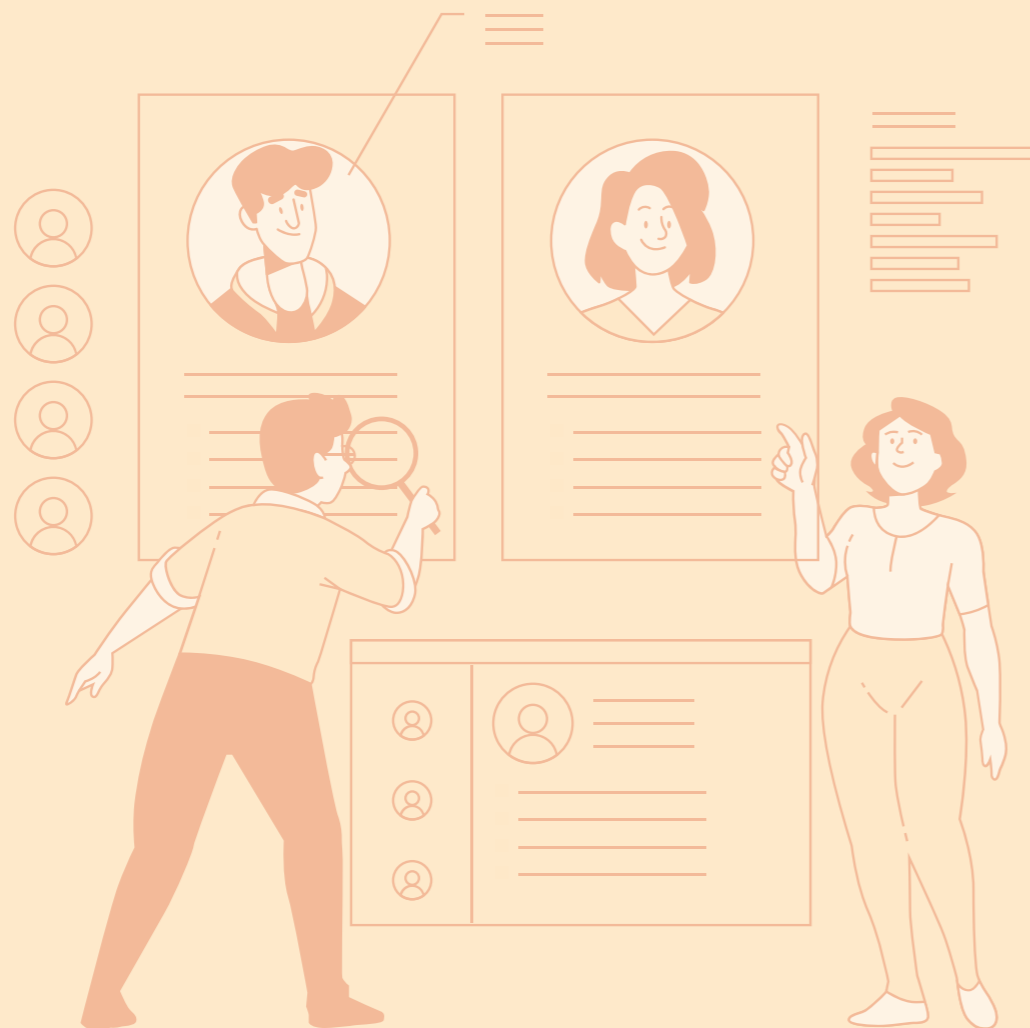
## CHAPTER 03

# FIELD RESEARCH

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*How are job seekers experiencing the application process?  
What are job seekers' needs?*

- 3.1 Overview and Planning
- 3.2 Interview with job seekers
- 3.3 Conclusion



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## 03 FIELD RESEARCH

### 3.1 OVERVIEW & PLANNING

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#### 3.1.1 STAKEHOLDERS IN THE SCENE

The stakeholders in the context can be grouped into three parties: **company**, **job seeker**, and **supporters** supporting or bridging the two. Who is involved and their interests and roles are as follow:

##### 01 Company

As mentioned in the introduction, recruiting suitable talent is an important issue within the company, as appropriate human resources are at the heart of the company's corporate competitiveness. Companies can create permanent or temporary recruitment teams within HR department, hire specialists and recruiters, or hire hiring agencies and various hiring tool developers, depending on their size and capabilities. Likewise, not just different parties but even within the company, there exist multiple stakeholders. To understand the purpose and role of each of these players, and to understand interactions in the entire ecosystem, a stakeholder map was designed. This map focuses on the stakeholders that are involved in the earlier stages

##### 01-1 HR Talent Acquisition and recruiter

Overall planning and operating the hiring process

###### *Talent Acquisition*

It is the name for the work, the job title, or the team that is responsible for the recruitment. Establishing and implementing a manpower plan is the main task, and it also directly interacts with candidates, such as contacting candidates and conducting interviews.

###### *In-house recruiter*

Most corporate recruitment was carried out by the HR team, which had a lot of other duties. This made it difficult for the HR team to recruit unexpected vacancies quickly. Thus, they hired hiring agencies to find professional talent because of their lack of expertise in recruitment. Without them, the recruitment process was delayed, which led to a problem in the company's productivity due to having less workforce for other HR jobs. It is easy and fast to hire third parties like this for companies, but the cost could be an issue. As a result, some companies came up with the idea of hiring a headhunter who works for such agencies as a company's human resources team, resulting in the job of an in-house Recruiter. Companies have benefited financially from employee salaries that are much lower than agency employment fees, and the probability of hiring more suitable people for the company on time by utilizing their hiring expertise and know-how has also increased. In addition, these recruiters gained the advantage of a sense of belonging and increased professionalism in hiring specific fields. This trend has led to creating a new profession called Recruiter, centered on the Global Fortune Top 500's conglomerates, and has become widespread.

Together with the talent acquisition team, recruiters are responsible for the following tasks:

- 1) Review recruitment requests and open new positions
- 2) Organizing Kick off recruiting strategy meetings
- 3) Posting job vacancies
- 4) Candidate search
- 5) Screen Interview
- 6) Suggesting candidates to hiring manager
- 7) Arranging interviews with the team
- 8) Negotiating salary
- 9) Supervising the offer making process
- 10) Supporting new employee on-boarding

### 01-2 A hiring manager with the team looking for a new co-worker in the company

Directly or indirectly involved in the hiring process by participating in interviews or communicating requests to the talent acquisition team. These people are most directly affected by future recruitment results

#### Hiring Manager

The person who is from the team that with the new vacancy. He/she is in charge of the recruitment and communicated the team needs with the HR talent acquisition and recruiters to find the right match but hiring is not his/her primary job at work.

### 02 Job seeker

Other groups that are the main players in the recruitment process are job seekers who are currently looking for jobs and potential job seekers who plan to do so in the recent future. The decision maker to designing and determining the recruitment process is the entity, but it is the job seeker who has the right to decide whether to apply for the company or not. Thus, companies that want to have a broad pool of applicants as much as possible for better employment will adjust the hiring tools and recruitment process based on changing job seekers' tendencies and needs.

### 03 Supporter

As a third party, the aforementioned matching platforms or tool developers may also be included, but this group is relatively less directly involved in the recruitment process.

#### 01 University

Supports job search and builds industry-academic connection

#### 02 Government

Supports job search and provides subsidies

#### 03 Occupational organization

Conducts studies on job and recruitment, such as developing skills taxonomy

#### 04 Vocational training center

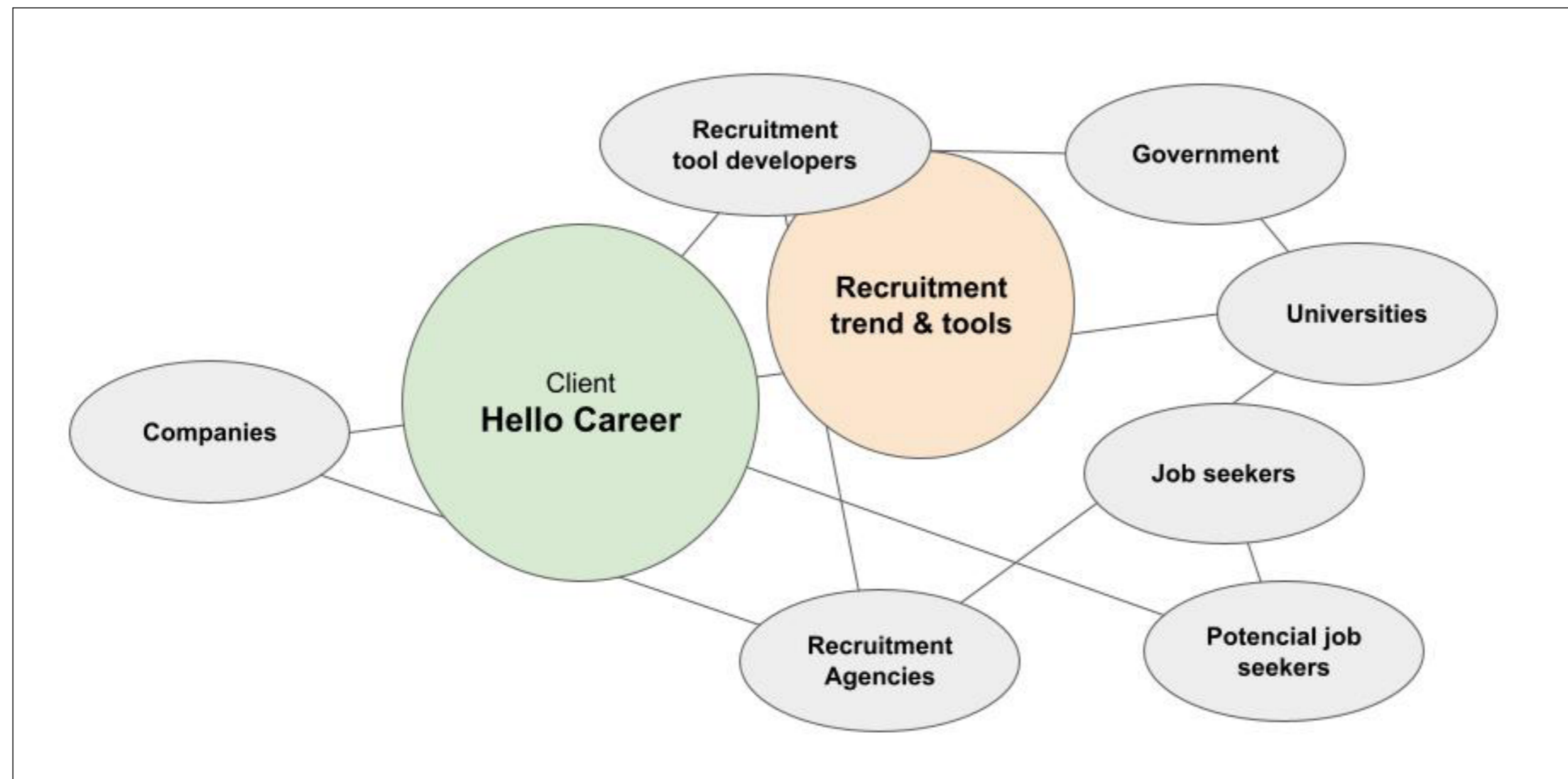
Supports job search and trains job seekers

#### 05 Hiring agency & job-matching platform

Supports or fills in for the company for the hiring process

#### 06 Hiring tool developer

Develops hiring tools for companies or hiring agencies. Some companies have their own team doing the same in-house.





The Stakeholder map below shows how the mentioned groups interact and their main purpose. The following research would specifically focus on job seeker, company and job matching platform but having the understanding of various stakeholders will provide insights when choosing the direction or finding solutions.

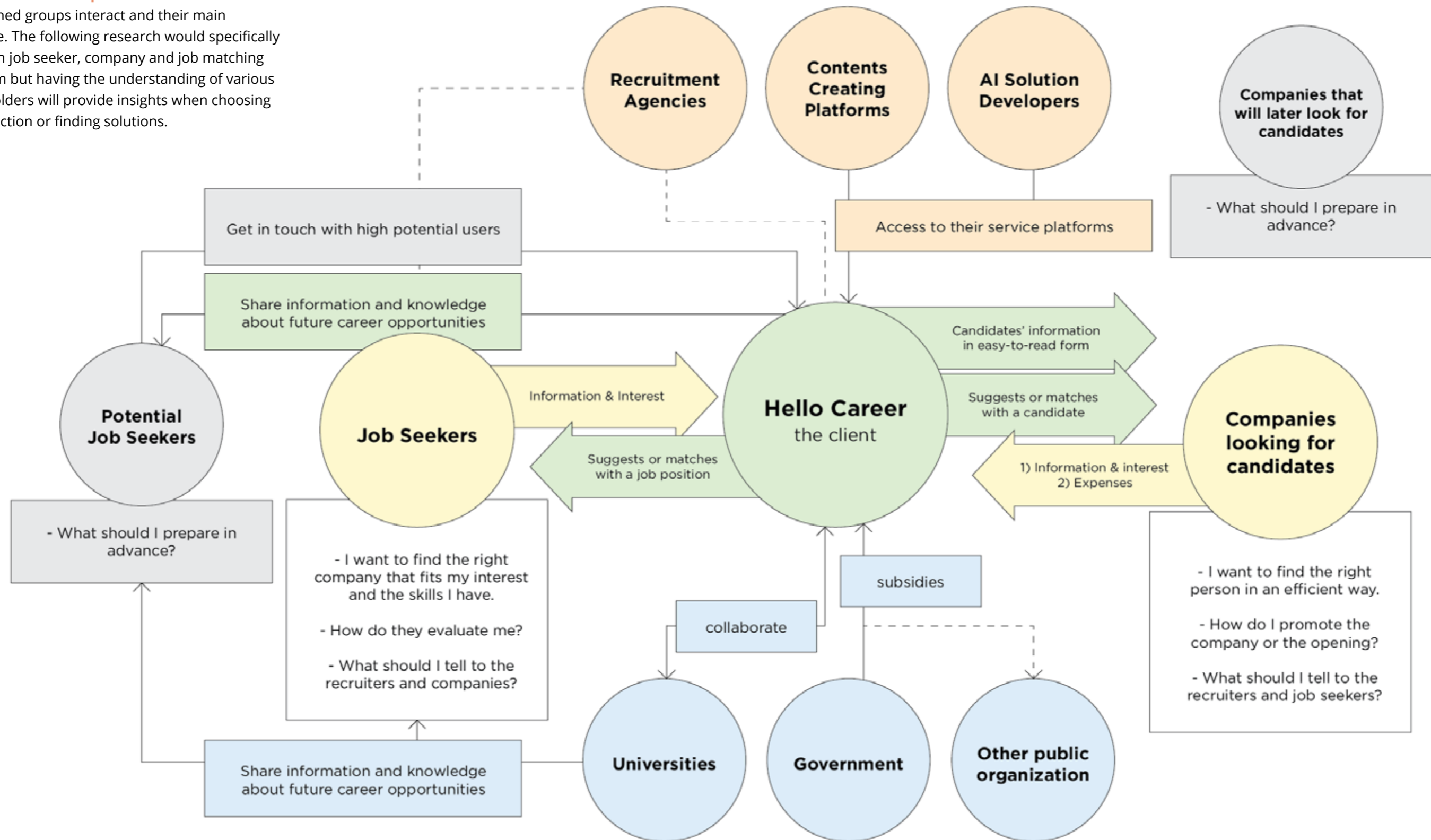


Figure 3.1 Stakeholder map.

### 3.1.2 FIELD RESEARCH PLAN

#### Initial research plan

Field research in this study consists of interviews and the result analysis. In addition to the objectives and roles of the stakeholders, previously detected through desk research, the interviews will support refining and specifying their wants and latent needs based on their personal experience. Interview targets are as follows:

- 1) Job seeker
  - Recent graduates or current job seekers
  - People with experience in employment in the Netherlands
- 2) Recruiter and recruitment team employee
  - Specialist in charge of recruitment team within a company
  - Netherlands or close countries with similar employment systems
- 3) Job matching platform or hiring agency
  - Specialists in charge of recruitment at hiring agency
  - Service design and recruitment-related research staff for online platforms
  - Netherlands or close countries with similar employment systems
- 4) AI tool developer
  - An expert who can talk about users' opinions and their experience with the development process over time has passed since it was launched on the market.
  - Company employees developing high-quality or unique tools
  - From any communicable area

#### Revised research focus and approach

The initial goal was to have a holistic view of the scene and to align the needs of different parties. However, after running interviews with job seekers and contacting the target interviewees, the research focus was narrowed down and the field research plan has changed along with the altered focus.

Firstly, the interviews suggested that **job seekers do not often get opportunities to share their opinions** on the recruitment process publicly. Job searching is a long journey for them and they invest a big amount of effort and energy to pass the heavy competition. Thus they do not afford the time to reflect on how the recruitment process can be revised in a way that respects their rights, doubts, and feeling. Relating such a situation to the main question of the project, 'how to allow job seekers to self-represent', **bringing more focus and going deeper into the job seekers' point of view** seemed significant.

Moreover, for the given time and resources for the project, it did not seem possible to have a meaningful number of interviews with all the aforementioned parties on top of the ones with job seekers. Therefore, instead of having a few interviews with multiple parties and aligning the results, a different approach was taken: interviewing only job seekers, designing solutions with more focus on job seeker needs, and suggesting further research plans on how to revise the ideas to align them with others' needs.

## 03 FIELD RESEARCH

### 3.2 INTERVIEW WITH JOB SEEKERS

#### 3.2.1 INTERVIEW PLAN

Since the main challenge and the focus of this project focuses is about the self-representation of job seekers, the main purpose of the interview was to spot out the problems that job seekers are facing and their needs while they work on the application to self-represent. Additionally, questions were added to hear their thoughts and experience on the overall job searching journey and the new AI recruitment tools.

#### Interview Guide

The interview guide consists of four parts. The first is about the general job search experience to first put the interviewees into the context and help them recall their memories. After talking about the past experience and reflection on it, the interviewees will be asked to fill out the blank in the sentence: Job searching process is \_\_\_\_\_. This questionnaire is to make them summarize their experience and impression in own words.

Job Seeker interview	
Theme	Questions
1. general job search experience	<p><b>Most recent experience</b></p> <p>1) Which company did you apply to most recently? As which position?</p> <p>2) How did you get to know the opening or the company?</p> <p>3) After making up your mind to apply, how did you start the preparation?</p> <p>4) What are the application steps you took?</p> <p>5) Are you satisfied with what you have done and what has happened?</p> <p><i>Follow up) If not, how would you do it differently?</i></p> <p><b>Overall past experience</b></p> <p>1) How many times have you applied so far?</p> <p><i>Follow up) Would you explain them briefly? Like when, to which company and position?</i></p> <p>2) Were the recruitment steps similar or different for each application?</p> <p><i>Follow up) What was different?</i></p> <p>3) Is there any remarkable experience that stands out? In either positive or negative way?</p> <p>4) Based on your job searching experience so far, how would you describe job searching process? Would you feel in the blanks?</p> <p>Job searching process is _____</p> <p>Job searching process is _____</p> <p>Job searching process is _____</p> <p><i>Follow up) Would you elaborate your answers?</i></p>
2. Job application	<p>We have talked about the overall job searching journey you went through. This research focuses more on the early phases in the recruitment process which regard the documents you first hand in when applying. Let's talk about each step in detail.</p> <p><b>01 Preparation</b></p> <p>1) How did you decide which position and company to apply to?</p>

Figure 3.2 Job seeker interview guide  
Appendix D. Job seeker interview guide

1-1.

Recruitment process is \_\_\_\_\_ opportunity to find out more about yourself \_\_\_\_\_.

Recruitment process is \_\_\_\_\_challenging\_\_\_\_/ learning experience to pitch yourself \_\_\_\_\_.

I want recruitment process to be \_\_\_\_\_better way to filter/ find the jobs that suit you \_\_\_\_\_.

Figure 3.3 How the fill in the blank question sheet was used in the interviews

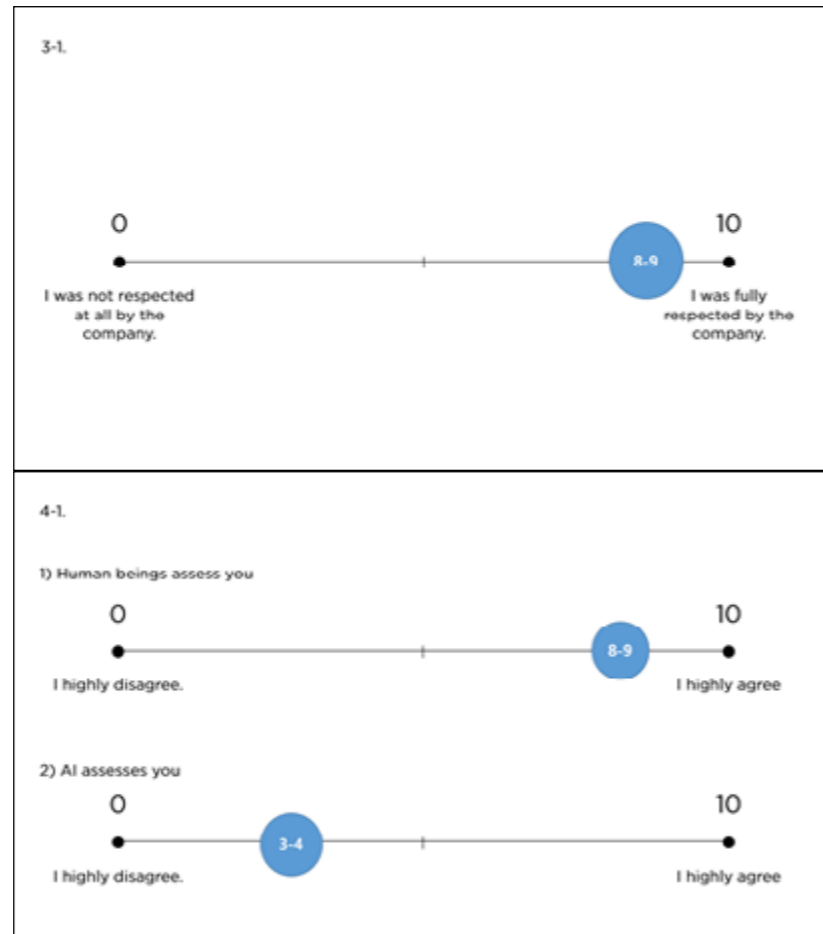


Figure 3.4 How the numeric scales were used in the interviews

After having an overview, the next set of questions focuses on the job application phase, from the preparation to getting the results of application screening. Starting with going deeper into experience and thoughts, the last set of questions of this part is about self-representation in the application. From here on, the numeric scale will be used, not for the purpose of coming up with the average number, but to ask follow up questions about the two different sides. For example, the scale will be given to the question: how much do you think the company has figured out about you based on your application? If the applicant says a number that is closer to not knowing but not 0, and talks about the information that the company missed about him/her, the next question would be about the little portion that he/she thinks was delivered.

Following the self-representation questions from part 02, the theme of part 03 is 'Dignity and self-representation'. The participants would be asked to talk about what and how they want to show and tell about themselves, and how they want to be treated in the recruitment process. The scale will again be used for some of the questions.

The last part of the interview is about AI hiring tool experience. If the interviewee has tried or is aware of the AI tools, they will be asked to describe their experience and thoughts. If one is new to them, some background information about the tools would be given and they will be asked to share impressions and opinions on them. Considering that the time planned for the interview is 45 minutes to an hour, this part could be shortened based on the time left after finishing up with part 03.

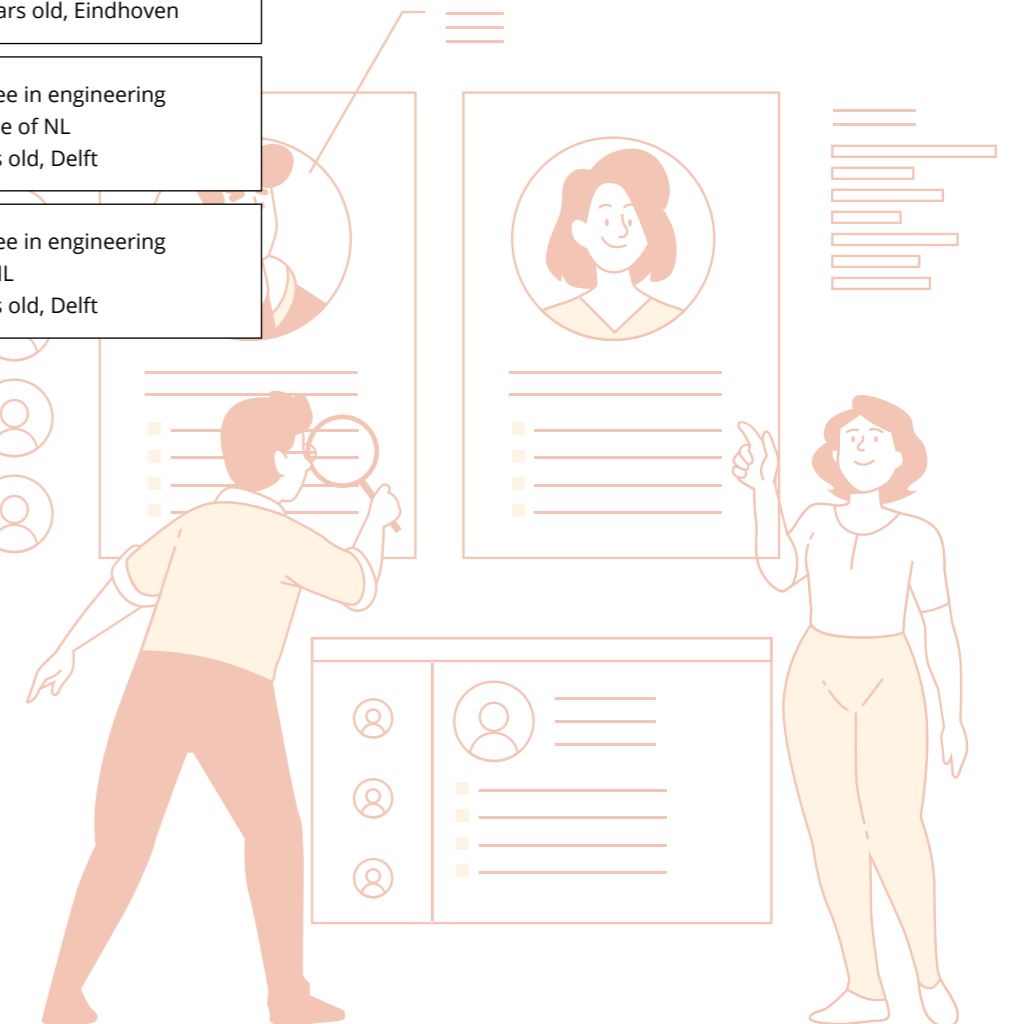
### Interviewee profile

While working on the interview guide, the search for participants was on going and the table below shows the profile details of the selected 6 interviewees.

01	YK	<ul style="list-style-type: none"> <li>· Master's degree in design</li> <li>· 5 times in NL</li> <li>· Female, 29 years old, Delft</li> </ul>
02	TS	<ul style="list-style-type: none"> <li>· Master's degree in design</li> <li>· 3 times in NL</li> <li>· Male, 27 years old, Den Haag</li> </ul>
03	SJ	<ul style="list-style-type: none"> <li>· Master's degree in design</li> <li>· 20+ times in NL</li> <li>· Female, 26 years old, Delft</li> </ul>
04	DJ	<ul style="list-style-type: none"> <li>· Master's degree in marketing</li> <li>· 20+ times in NL</li> <li>· Female, 30 years old, Eindhoven</li> </ul>
05	MR	<ul style="list-style-type: none"> <li>· Master's degree in engineering</li> <li>· 3 times outside of NL</li> <li>· Male, 25 years old, Delft</li> </ul>
06	IH	<ul style="list-style-type: none"> <li>· Master's degree in engineering</li> <li>· 10+ times in NL</li> <li>· Male, 24 years old, Delft</li> </ul>

### Limitation

The demographics and study background of the interviewees are very specific. Thus, the data cannot be generalized to the target persona suggested by the client, freshly graduated job seeker. This has happened since the approachable pool for the researcher was limited. Taking the limitation into account, the focus of the analysis should not be on specific experience but should be more general experience, personal thoughts and interpretation.



### 3.2.2 INTERVIEW RESULT ANALYSIS

Company Search	<p>01 Active job search online #LinkedIn I scroll through vacancies often during weekdays and save them on my list. On the weekend or in the evening, I take time to sit down and check all the saved ones choosing the ones to apply and to un-save. (TS) #LinkedIn I found it hard looking for the right positions on LinkedIn. Companies use different terms and names for the same position. (DJ) #Multipleplatforms I often saw vacancies in the course group chat and social media communities. (YK) #Multipleplatforms I just sat down and went through all the websites that I could find. (IH) #Multipleplatforms When you feel desperate, you look for all the options you know: uni website, career platforms, company websites, Facebook groups and everything. (SJ) #Multipleplatforms Some big companies have their own career platform so I checked the ones from the companies I was interested in from time to time. (IH) #Activestep The companies that I really liked, I just sent them emails with my CV. (DJ) #Activestep #LinkedIn #Network: I tried taking to people from the company I liked through LinkedIn. Maybe they tell me about vacancies, otherwise it could be a nice fun talk. (TS)</p>	<p>02 Human connection &amp; influence #Acquaintance I asked the people I know first, if they know anyone looking for people or if they just know a nice lab. (MR) #Acquaintance #Alumni I looked for the alumni from my course on LinkedIn, see where they are, what they are doing and look at what their companies are doing. (SJ) #Network #LinkedIn Sometimes some random people, recruiters, talk to me on LinkedIn. (DJ) #Network #LinkedIn #Rolemodel I follow people who post nice articles on LinkedIn. I tend to get interested in the companies they work in. The people you know builds the image you have on the companies. (SJ)</p>	<p>03 In daily life #Experience #Reputation I listed the companies I have heard of or seen in the Netherlands. (DJ) #Experience #University #Network In my classes, I had chances to work with companies. I also thought of applying to some of them. (SJ) #Network I know some companies where my family and friends work. I remember them talking about them and that gave me good impressions. (IH) #Experience #Work I don't mind working again in the companies I worked in as an intern or part timer. (MR) #University #Offlineboard Before Corona, I used to check the board in the faculty quite often. (YK) #Experience #University I heard that there are some students who choose a graduation project thinking of working there. (YK) #Experience #Work The company I worked was located in a start-up hub so I had chances to see what neighboring companies were doing. (MR)</p>	
2 Choosing the company & position	<p>01 Human connection &amp; influence #Network #LinkedIn I tried looking for people who are working there on LinkedIn. Checked if there's any alumni. (TS) #Colleague I want to work with good people. A company with good vibe. The work feels worse with not friendly colleagues. (YK)</p>	<p>02 Work #Work I don't focus on the job title but try to find the actual work that I would do. (TS) #Work #Experience I want to work somewhere where I would find the work fun so I look at company portfolios carefully. (YK) #Work #Learn I like experiencing and learning new things. Start ups could be nice options. (YK)</p>	<p>03 Company's potential #Potential #Learn I am just starting my career so I want to work but learn a lot at the same time. Seeing the company grow together would be really nice. (IH) #Stable #Safe I need a company to support my VISA so I am not about start ups. I saw so many people quitting or getting fired in short periods. (SJ)</p>	<p>04 Practical issues #Standard I had some standards in mind like the local working hours, salary, size of the company and stuff. (T) #Standard #Stable #Safe I first looked into big international firms. Cause then I can be sure that they expats. (DJ)</p>
3 Research on the company & position	<p>01 Human connection &amp; influence #Recruiter #LinkedIn I checked the names of recruiters on the company website and tried finding them on LinkedIn. To get to know them to feel at ease and maybe who knows, I might find some important information there right? (TS) #Network #Experience I also looked for the people who worked as the vacant position. Seeing what they did and where they are now gave me better clues about the position. (TS)</p>	<p>02 Search online #Info #Research I looked for everything I could find about the company. Their vision, key values, recent changes in the company, even the price for the stock. (TS) #Info #Research You can find anything on Google and maybe NEWS? (DJ) #Info #Research I think the company websites contain everything you need to know. (SJ)</p>	<p>03 Position and work #Research #Learn Every field, every company has own jargons and expressions. I tried to look them up. (TS) #Research #YouTube #Learn Whenever I applied to positions that I am not confident about, I used to watch videos about them. (DJ)</p>	<p>05 Less care #Lesscare #Info #Interest There are companies I apply that I don't even remember the names. I wasn't really it. I wonder what I would have done if I got in. (YK) #Info #Trust Feel like the company websites only talk about good things. I am still not sure whether if I can them. (SJ)</p>

Figure 3.5 Interview coding result  
Appendix E. Interview coding result

The interview result was analyzed in the following four steps.

#### 1) Placing the quotes on the timeline

The first step of analyzing the interview results was to list out the sentences that showed more relevance to the research goal, or indicated something that is new or different compared to the data from the desk research. Also, considering the limitation, the statements that were about why and how were dealt more than the ones about what the interviewees did. The sentences were then organized into the related stages in the recruitment process. This was done to connect the given task to the action and thoughts, and to separate what are more relevant to the application and what are from the stages around it.

#### 2) Grouping within the stage

Then within the stages, the first groups, sentences were put into 2 to 5 sub-groups based on the activity or the topic. The sub-groups were titled in easily understandable terms. The titles of the sub-groups showed the relationship between different activities from different stages.

#### 3) Giving key words

To clarify the relationships and that goes across different sub-groups and to make it easy to trace statements back, every statement was labeled with 1 to 3 key words.

#### 4) Finalizing the relationships and selecting key quotes

The sub-group titles and the key word labels were put on a digital board. The ones with similar meanings were grouped and the groups were connected with the explanation how they are related written on it.

### SUMMARIZED RESULT

The following table is the final result that shows the summaries of the four main groups and the quotes under each group that are from two different sub groups.

#### 01 Importance of self-reflection

- Having a full understanding of what oneself wants and can do leads to a more successful matching.
- The process of self-reflection gives confidence and helps one to answer the questions throughout the hiring process.

##### True wants and needs

- I first listed out every work I did and picked the ones that I actually enjoyed and think I can work on for longer. (YK)
- After getting some rejections, I noticed some kind of pattern. Maybe they were not suitable for me. (SJ)
- Thinking of what I am not good at told me what I should work on a bit more. (IH)

##### Emotional benefit

- I felt like I had the chance to look back on myself and gain confidence. (TS)
- Looking at all the work I have done made me feel like I really lived my life the fullest. (DJ)

#### 03 Knowing what you really want and focusing on it

- Focusing on less options and dedicating more time on the application brings bigger chance of getting positive feedback and emotional benefits.

##### Why focus on one?

- Getting rejections always feels shitty even though I didn't want the option that much. (DJ)
- I don't know if the one click application on LinkedIn really works. I never got replies. Maybe it was just too competitive. (YK)

##### Emotional benefit

- Because I tried my best and put all the effort, I got no regret. (YK)
- Especially with small firms, I think it is the way you respect them, sending personalized documents. You also get respected in return. (SJ)

#### 02 Planning the job search journey with advice

- Research on how to go through this journey should be done before actually working on application.
- Networking is important to get information but also to better understand the company and make a decision whether you really want it or not.

##### Information hunt

- I feel like most students really don't know much about what they should work on and how they should apply. (TS)
- Would they screen my application with AI? I didn't even know that I will be put to AI games. (IH)

##### Networking

- Talking to the people who works there gives you a much better image of the company. (MR)
- I even looked for the person who was there before and checked what they are doing now. It gave me a more clear picture what that position would be like. (TS)
- You actually learn a lot about the field and profession by talking to professionals. (MR)

#### 04 Communication & delivery is hard

- Wondering if you speak in the same language and questioning how to communicate in simple and clear way are the big concerns job seekers have.

##### Speaking the same language

- The first interview was about checking whether the application I sent were correct. Checking if I lied and also if we have the same understanding, speaking the same language. (MR)
- I was not sure if the jargons and words I have been using would mean the same in the company. (SJ)

##### Simple & clear way of communication

- Giving examples and using jargons but easy words help conveying stories more clearly. (TS)
- I don't like writing that much on my portfolio. I would use graphics to explain complex things. (YK)

## 3.3 CONCLUSION

### 3.3.1 KEY INSIGHT & CONCLUSION

#### Importance of the former steps

One part of the interview about the impression of job searching experience best explains and represents the main pillars from the result:

*Job searching process a long journey. You have to figure out who you are and what you really want by going deeper into your past experience, what you have now, and your future goals. If you are sure about these, you will also be sure where you want to be and stop applying for all the possible options. (TS)*

What the interviewees have mentioned as the positive experience they had during the job search process was self-reflection. To prepare for the application, they first reflect on their lives to list out what they have achieved. This step brings confidence to job seekers and also guides them to clarify future goals. Few interviewees have mentioned how prepared you were in this early reflection and research phase and how concrete the conclusions were from them affected the result and how they feel about it. When they felt like they are fully ready and confidently prepared the application, they had better results and were feeling okay even when they got rejected, thinking that the opening was just not the right fit for them. To be prepared in such a way, various activities take place, from personality tests, and career counseling to networking.

#### Features that are hard to explain in short words but could be told by observing situations

The answer to one of the key questions of the interview session, finding the needs in self-representation in the application phase, was about the concerns regarding features that can only be shown or explained through time. Though the job seekers were not fully satisfied with the contents that they could deliver in the application, they have not thought much about how they could deliver the untold parts and how to prove the other important aspects of themselves such as soft skills. When asked how you would tell if an applicant has those features and if you are the one assessing the person, four of them have said through observing how one acts in certain situations. When someone shows that he/she behaves in a certain pattern not just once, but multiple times, that tells and proves certain skills that one has.



Figure 3.6 10 of the most common leadership styles (Indeed)

Taking leadership skills, for example, the Indeed career guide suggests 10 different leadership styles. Each has its own characteristics but they all can be summarized under the word 'leadership'.

#### Conclusion

To conclude, the key takeaways from the job seeker interviews were:

- 01** Job seekers value and put meaning to the entire job searching process by seeing some part of it as self-exploration and self-reflection.
- 02** How the negative result was delivered affects job seekers in different ways such as how they start to feel about the whole recruitment process, how they see themselves, and how they change their approach to the job market.
- 03** Respect comes from both sides. When job seekers put much respect and dedicate effort to one application, their expectation for the amount of respect from the company increases.
- 04** Job seekers feel uncertain about how the information is being delivered: whether they explained it in an understandable way and whether the audience understood it in the way they intended.

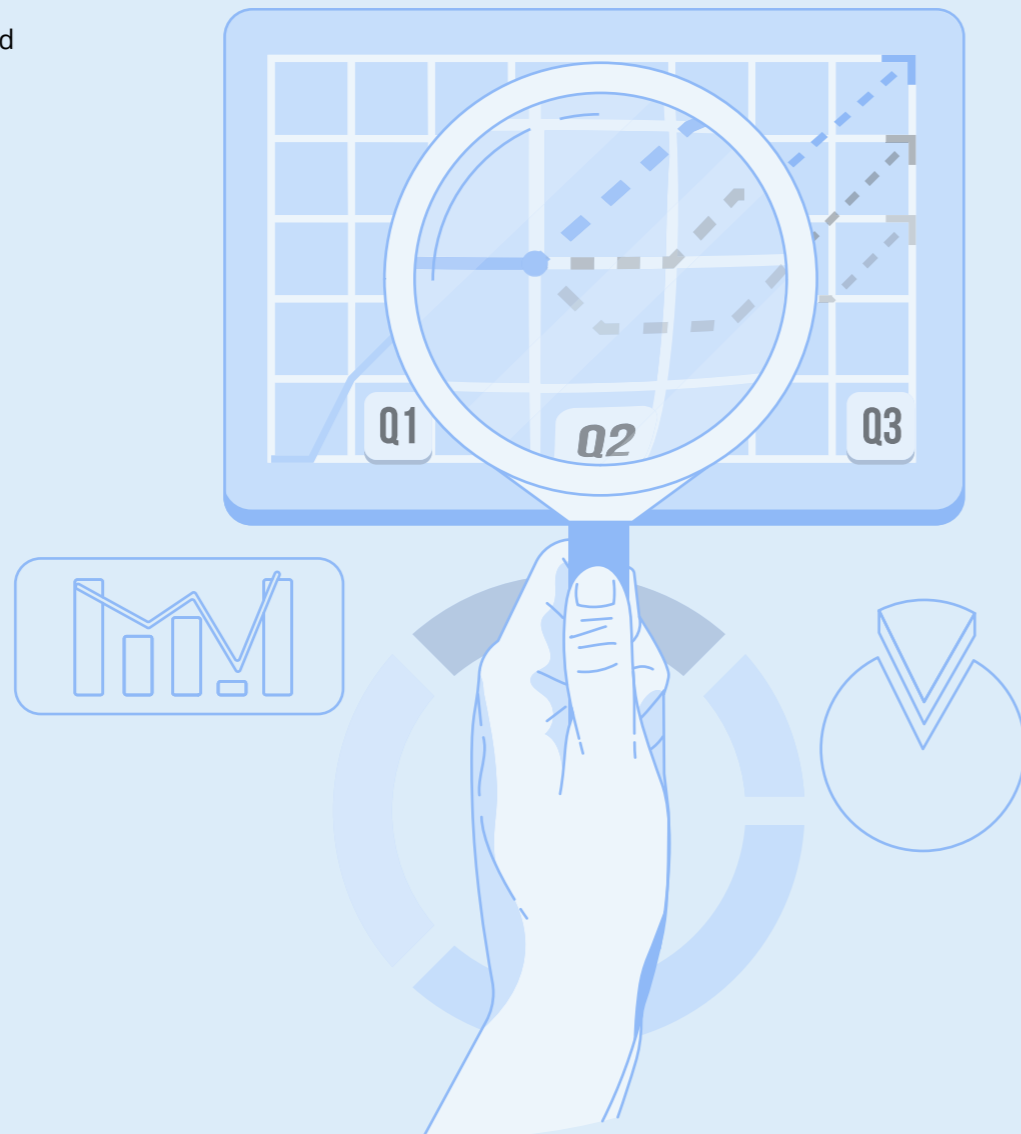
#### How to relate the result to the next steps

The findings would be used for defining the solution direction and forming guidelines in the product development phase. The suggestion for further research or the use of analyzing method in the next steps is to map out the relationship between actions and emotions. Though how the job seekers feel in the same situation can differ, there was a certain tendency on what situation and which element causes a certain type of emotional reaction. Diving into this has the potential of bringing insights into the solution.

CHAPTER 04  
RESEARCH SYNTHESIS

*Does the product fulfill job seekers' needs?  
How do job seekers find the product?*

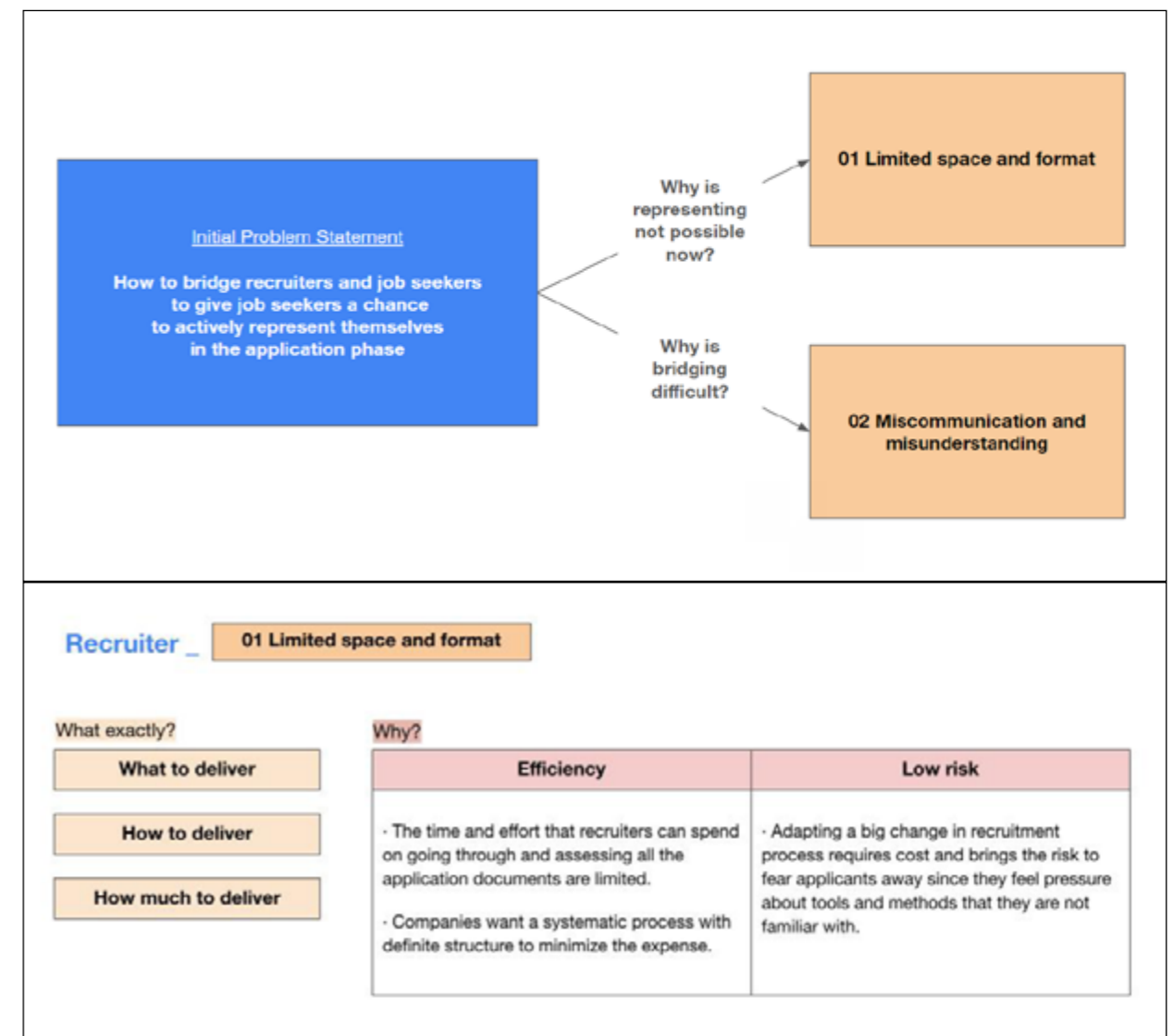
- 4.1 Problem definition
- 1.2 Context & background
- 1.3 Challenge



04 RESEARCH SYNTHESIS  
4.1 PROBLEM DEFINITION

Going back to the problem statement that was defined in the beginning of the project, 'how to bridge recruiters and job seekers to give job seekers a chance to actively represent themselves in the application phase,' the results from the desk and field research explain the causes that limit the space for job seekers to represent and that make the bridging difficult for the stakeholders.

Figure 4.1 Visual summary



## 01 LIMITED SPACE AND FORMAT

The documents that job seekers can hand in have to be in certain format and structure that each company provides or suggests. This limits the contents that job seekers want to deliver in three ways: what to deliver, how to deliver and how much to deliver.

### 01.1 What content?

*Answer the questionnaire.*

The platforms that support job seekers to make a CV guide job seekers on what to write by providing specific categories to fill out with designated forms for each one. This structure is based on the commonly used CV structure because people generally share similar expectations of the role of a CV and how a CV should be. Thus, even the job seekers who make a CV on their own to add different content, using different software, cannot go far from the traditional structure to safely fulfill the expectations.

In the cases of companies providing strict guidelines for what to hand in or forms to fill in, job seekers simply have to write down what the companies ask for or answer the questions they give on the form that they designed or suggest.



Figure 4.2 Users cannot add categories on their CV on job-matching platforms (Hired)

### 01.2 How? Through what?

*Use the designated websites or forms.  
We only take pdfs.*

People can express themselves in many different ways online, choosing the medium they feel confident in. People freely share images or videos, record voices or do a live chat, or build their own websites and write posts. Likewise, there are platforms that support users to make an online CV where they can upload such media content and that have interactive elements in it. However, it is not always easy to use these CVs for job applications. To make it easy and efficient to go through and process the data from all the job seekers, companies and recruiters design specific forms or guidelines on how information and files should be delivered. Some organizations tried using a different medium, instead of or on top of traditional written documents, but in many cases, it is not possible for job seekers to choose one that they prefer.

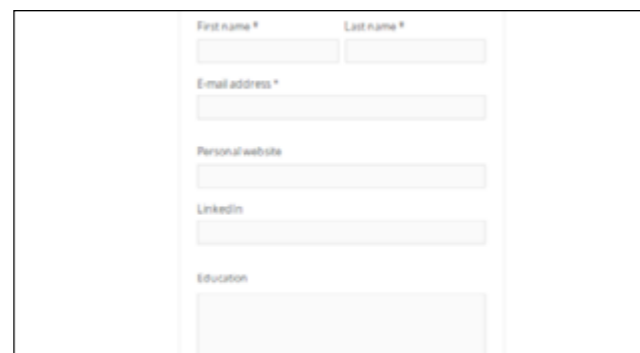


Figure 4.3 Though platforms support users with making online-CV, companies prefer to use matching platforms, their own forms, or pdfs (Vanberlo)

### 01.3 How much?

*Motivation should be less than 200 words long.  
Each pdf has to be under 5 pages and under 2 Mb.*

The fore-mentioned guidelines and formats in the application often indicate how much a job seeker can fill in. Company application websites or job-matching platforms have word or page count limits for each column, limit the number of items for each category, or have the data size limit for each document.

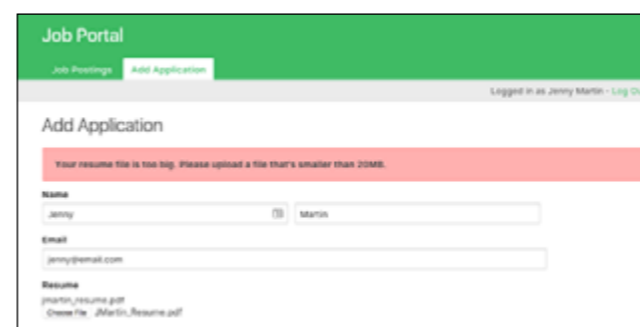


Figure 4.4 Wayup's certain columns have character count limit  
Figure 4.5 Applicants experience files not being uploaded for the size on application pages

## Requirements

The main reason why companies have these limits in an application is because of efficiency. The time and effort that the talent acquisition team can spend on going through and assessing all the application documents are limited, and companies want a systematic process with a definite structure to minimize the expense. Adapting a big change in this process not only requires cost but also has the risk to fear applicants away since they feel pressure about tools and methods that they are not experienced in. This is why organizations find the stability of traditional processes with minor changes more attractive. Therefore, to attract companies and smoothly implement the product, there are three important requirements to fulfill when easing down the limits in the application.

- Design a systematic process of processing and assessing the new form of data
- Make the adaptation process gradual to give an adaptation period to both job seekers and organizations
- Highlight the newly created values over stability

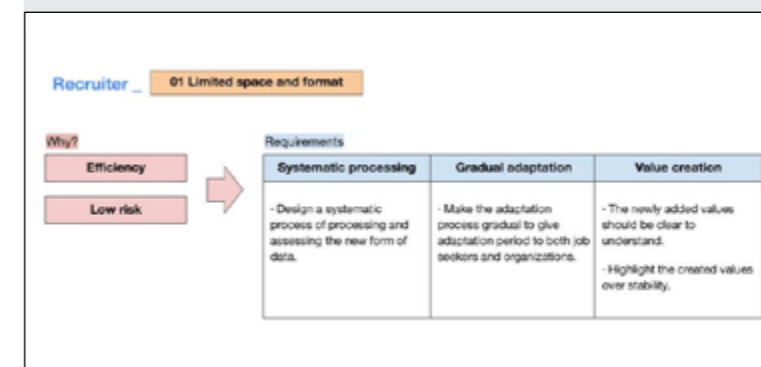


Figure 4.6 Visual summary

## 02 MISCOMMUNICATION AND MISUNDERSTANDING

The problem ahead was something that job seekers experience more directly but the miscommunication and misunderstanding problem lies in between job seekers and recruiters, confusing the readers more since this happens when the application is being processed. Competencies that are mentioned in words in applications are in many cases hard to objectively define and assess. Each individual has own definition or picture in mind and assess ability with own standards that are not explained nor shared publically. For example, when one describes himself as a leader type and only mentions one liner: "I exercised leadership as a PM in this project by bridging employees with conflicting opinions." Without further information about the context, it is hard to specifically picture him since there are multiple leadership styles and the limited text does not tell which type he is. Without the proper picture, recruiters cannot be sure if he is someone that they want in their organization.

One top of the problem that competencies can be interpreted in different ways like the given example, another problem is that the evaluation standards could also be biased and vague. An example for this is shown in the figure below. A job seeker writes 'Photoshop' in the skill column and gives three points out of four. This does not objectively show what exactly he can do with Photoshop and how skilled he is since the scale does not explain what each level means and people can have very different expectations about each level. Both public and private organizations are investing a lot on objectifying the standards assessing skills by creating skill taxonomy or official exams but due to the diversity, this does not apply to all the skills.

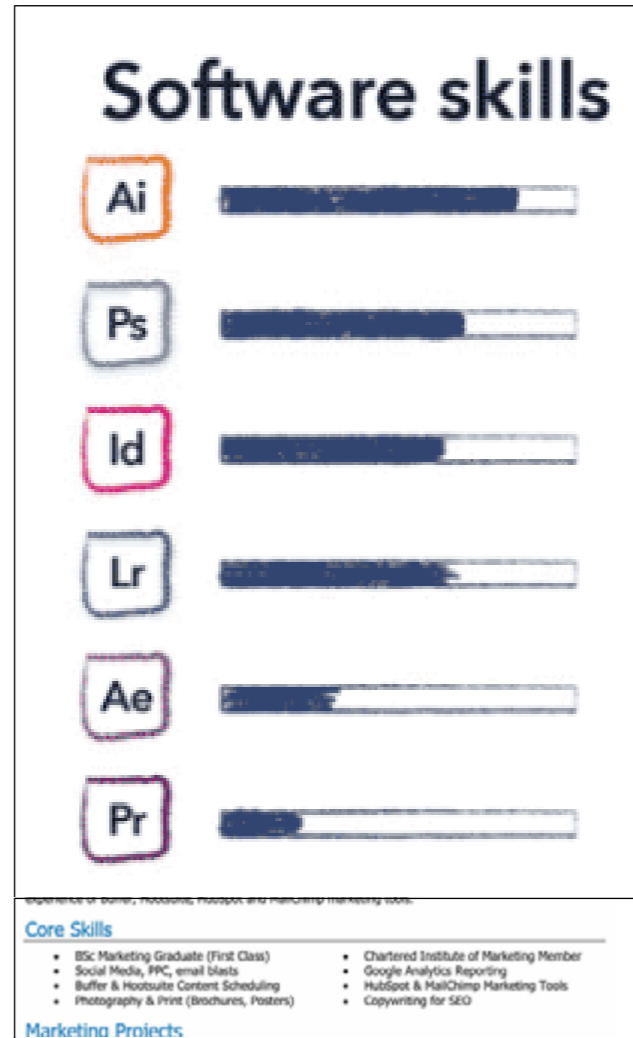


Figure 4.7 How skills are presented on CVs (resumegeenius.com)

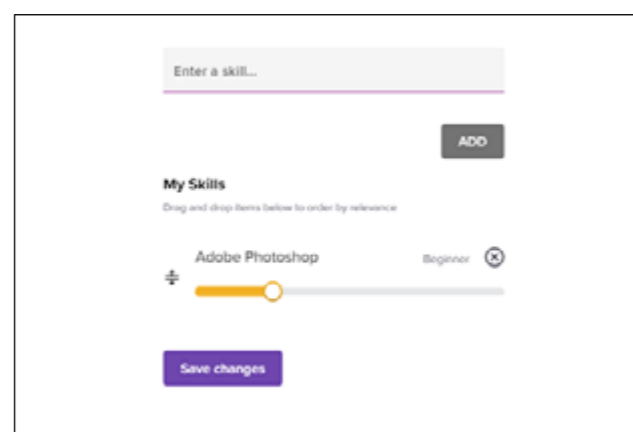


Figure 4.8 How users choose the skill level on Monster board. (monster.com)

## Requirements

There are two common solutions, conducted by individuals, for this misunderstanding issue: Giving more details and having a continuous communication that builds a common ground in mind. Recruiters and hiring managers ask applicants for additional material about the competence or story that they want to clarify, or they would have a conversation over the point during interviews.

However, since these solutions require more labor expense, only a very few applicants get the chance to be asked to do so. Even with the potential of misunderstanding and ambiguity, the majority are assessed with only the application documents and do not make it into the selection. Thus, finding a way to support clear communication, by **delivering more details and having more interaction**, without the need for big cost difference would be one of the main goals in this project.

## PROBLEMS INTO HOW-TO STATEMENTS

Based on the above-mentioned problems, three sub-statements to be addressed in following stages were defined.

- **01** How to make space for more information and media use in application
- **02-1** How to make extra information easy and fast to go through
- **02-2** How to induce recruiter-applicant interactions before an interview

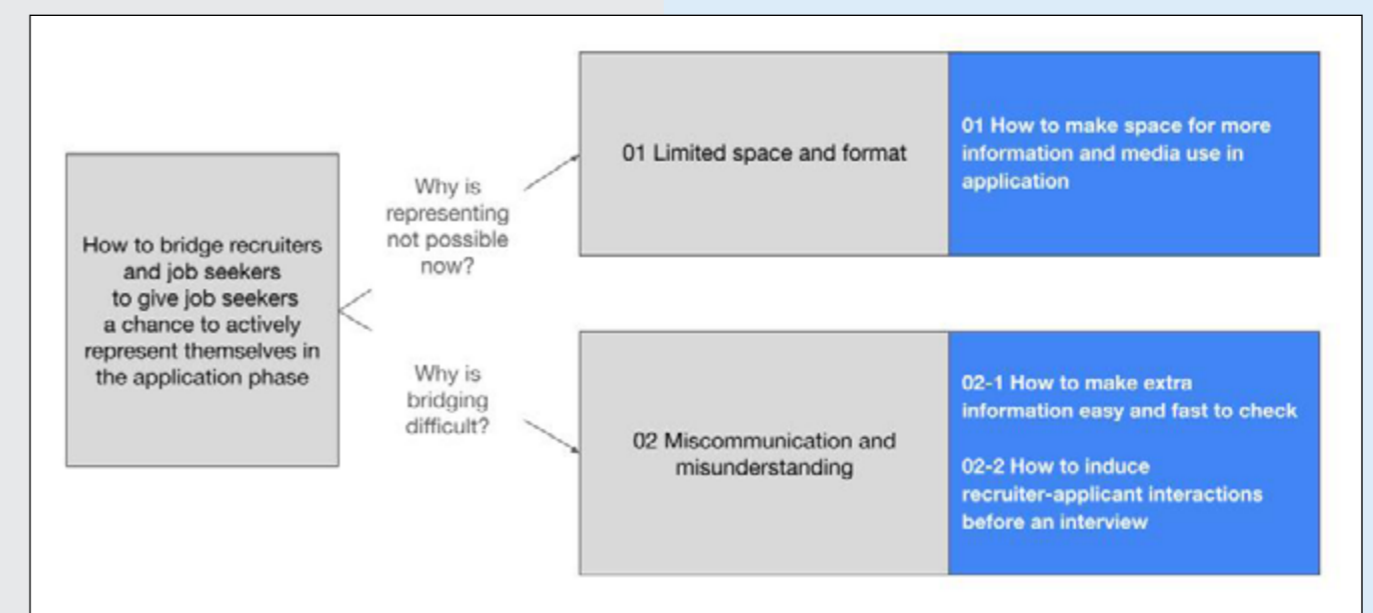


Figure 4.9 Redefined problem



## 4.2 DESIGN DIRECTION

### 4.2.1 OPPORTUNITY SPACE FROM ANALYSIS

#### Continuity and Interaction

In order to address the three aforementioned problem statements and the original challenge, designing an online job-matching platform that gives more space for active self-representation, the opportunity space was identified under the two keywords that were dealt continuously in the research results: continuity and interaction.

#### 01 Continuity

*The platform should support the users throughout the overall job searching journey with a continuous and coherent service.*

Looking at how each step in the recruitment process connects to one another and how the application is being used in the upcoming steps, the importance of having a fluent flow was depicted. What happens in each step and the results are passed down to or have an impact on the next steps. However, apart from this nature of the process, job seekers' information is becoming more scattered with the use of multiple hiring tools, and the parties involved, such as recruiter/hiring manager/HR, come in at different periods and engage with different info segments. Therefore, job seekers are not being screened as a whole with all the representative data but rather as fragmentary.

What the job seekers perceive as the recruitment process is longer than and involves more activities than the general definition. Job seekers see the steps of getting to know and testing out their interests in professions, and the revision phase after getting the final results also as part of the recruitment process. The experience and the decisions they made, build-up from such earlier stages, and extend to the more active job searching steps. One interviewee has mentioned that the job searching process is like a journey to get to know himself and to know where he wants to be. Accordingly, there are platforms that support these extended steps.

In short, the recruitment process can be described as a journey made of multiple steps and activities that last over time with multiple parties involved. Thus, it is important to have a clear structure in the middle that connects and supports steps and individuals continuously.

#### 02 Interaction

*The platform should allow human-to-human and data-to-human interaction for more efficient and effective communication.*

The research result has shown that the misunderstanding happening in the earlier stages of the application can be solved by having communication. However, with the increase in the use of automated tools, job seekers are getting fewer and fewer chances for human-to-human interaction during the hiring process. On the other hand, the community function on job search websites is gaining popularity by matching the needs of current or potential job seekers and the ones who already passed the phase. They look for more personal or one-on-one talks and information and the ones with the experience are willing to share for fun and the future since they could also be looking for a position again. Job seekers not only get valuable tips and feedback here but also relieve the pressure and anxiety. Seeing the values in such human-to-human interaction, it would be beneficial to make space for communication on the platform and encourage users to engage. The features that an online medium has over printed documents can support this interaction to happen more efficiently and effectively.

Additionally, the various interactive elements that can be implemented on websites can suggest a new way of recording and delivering job seekers' data. Examples could be found in a form of personal websites. More and more job seekers and professionals with visualization talents and stories to tell in visual forms, make their own websites to have an online work collection and to promote themselves. Organizations may or may not allow applicants to share links to the websites, and may not check even if it was allowed due to lack of expenses and having a structured way of assessing. However, the websites depict the needs of job seekers for such open space and the strengths of such presentations.

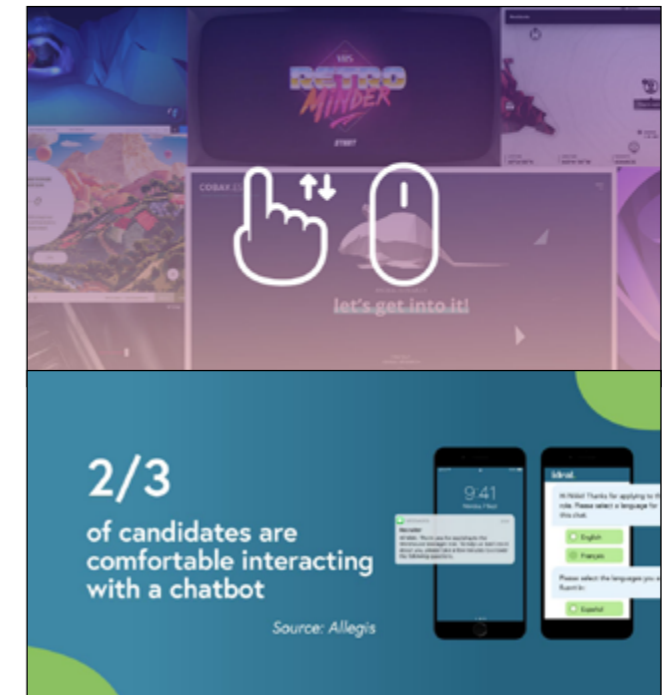


Figure 4.10 Websites can easily include interactive elements (Webdesignerwall)

Figure 4.11 Use of quick communication method like chatbot (Ideal)

Likewise, the two key words both addressed the key needs and showed the potential solution direction. Hence, they will be taken to set the design direction in the following step.

#### 01 Continuity

Fluent service that covers the overall journey from preparation, application, communication, to revision and again preparation.

#### 02 Interaction

Service that allows human-to-human and data-to-human interaction

- Interactive elements
- Layered structure
- Use of various medium
- Online communication

## 4.2.2 DESIGN DIRECTION

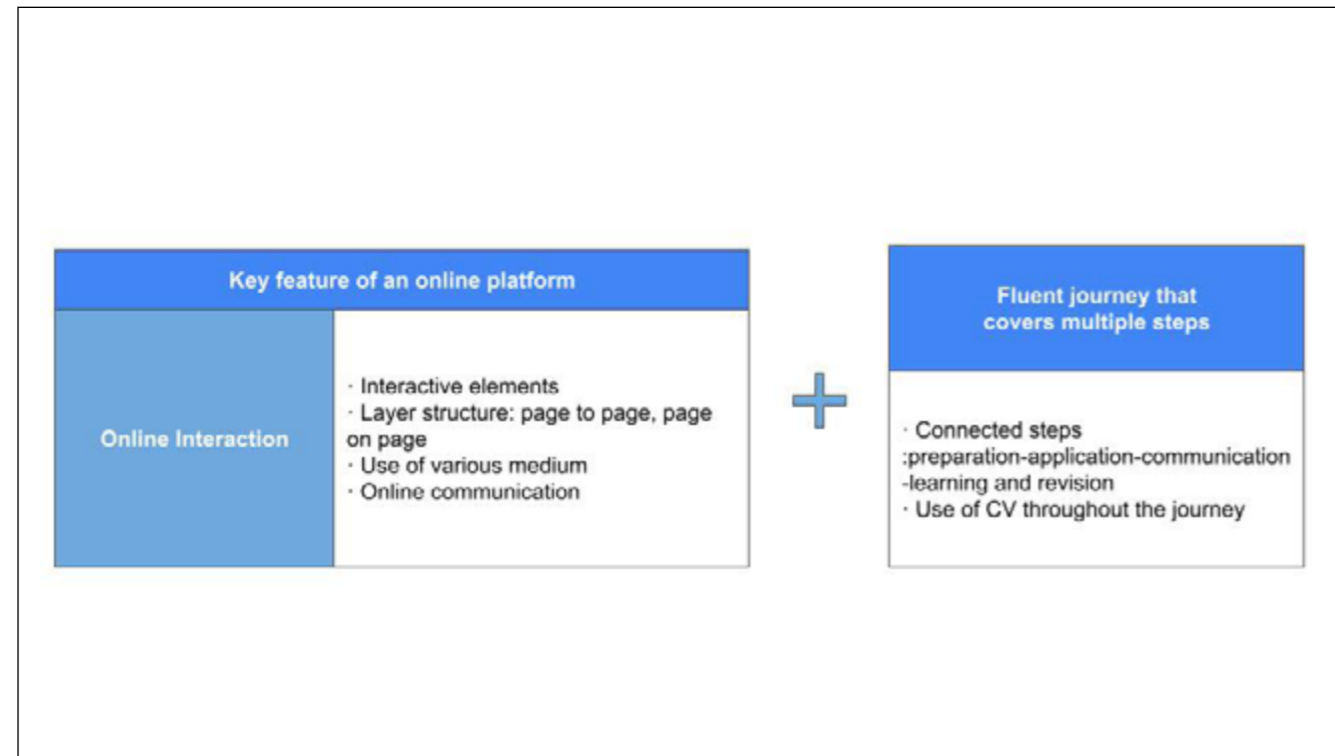


Figure 4.12 How the problem statements connect to the keywords

Placing the problem statements and the features from the key words together, the design direction got a basic structure: 'Make an interactive online-application with the work-life journal.'

### Make an **interactive online-application with the work-life journal**

On the platform, job seekers can gather all their thoughts on career and working experience not just to use them for their application but to figure out their career expectation and goals. When they are ready and feel confident of what they have, they can arrange the elements into an interactive web-CV that is easy to read but tell and show more about who they are than the traditional application documents. The platform will allow recruiters and other parties to go through and talk over it online. With the shared comments, job seekers can easily revise what they have and prepare for the next applications.

To clarify and detail out the functions, following questions should be answered in the ideation phase.

- Who should be involved as main users and partners? What are the roles each party would take in using this platform?
- What kind of information should be collected and how?
- How will the web-CV look like? How will the users arrange the info pieces into web-CV?
- What do job seekers and recruiters want to communicate about and how?
- How will the platform address the design requirements?

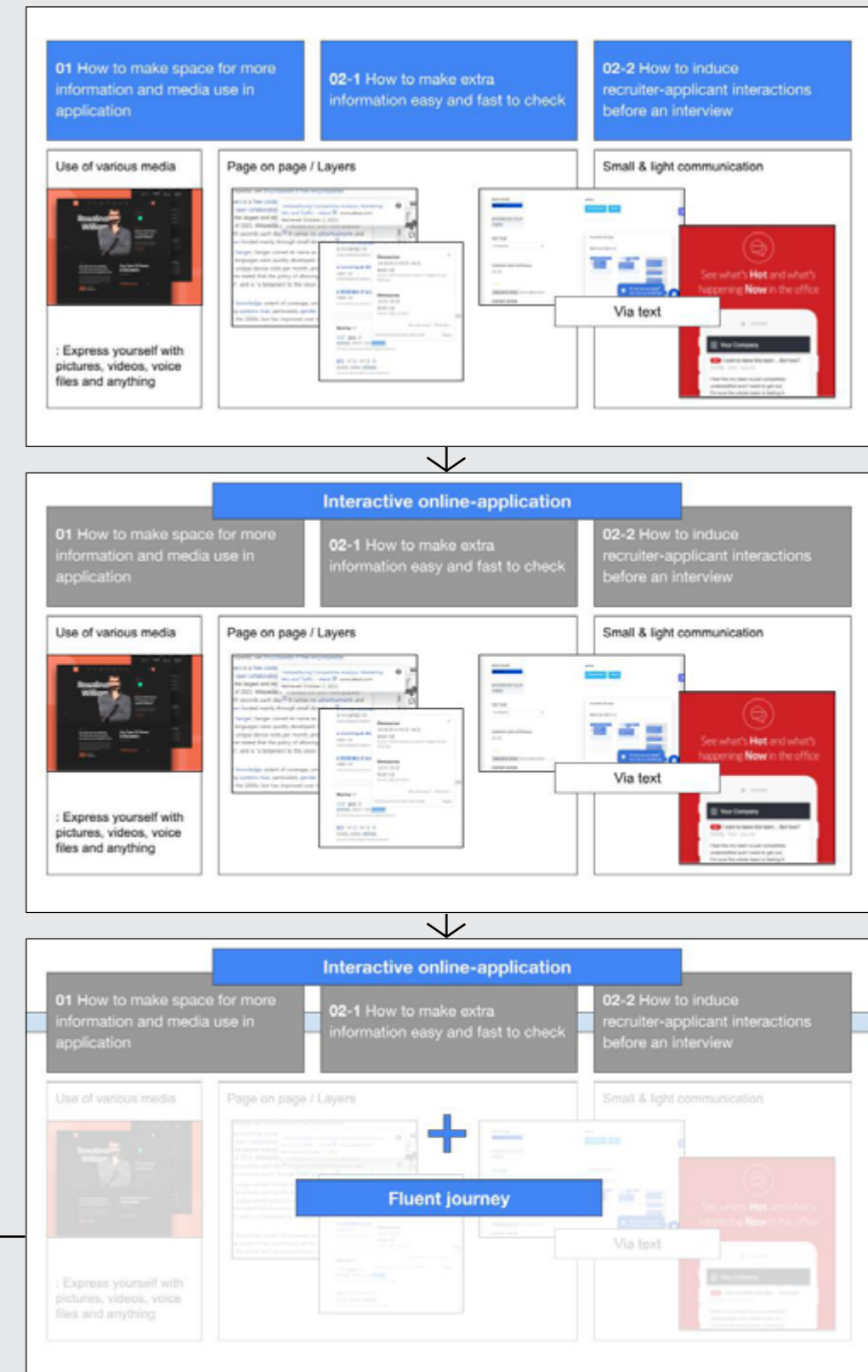


Figure 4.13 Visual summary of the process of finding the design direction

## CHAPTER 05 DESIGN IDEATION

*How to come up with ideas, to diverge them into a product,  
and to place it on the user journey*

- 5.1 Planning overview
- 5.2 Creative session with job seekers
- 5.3 Diverge and converge
- 5.4 Concept development



## 05 DESIGN IDEATION

### 5.1 PLANNING OVERVIEW

#### Questions to be addressed

- Who should be involved as main users and partners? What are the roles each party would take in using this platform?
- What kind of information should be collected and how?
- How will the web-CV look like? How will the users arrange the info pieces into web-CV?
- What do job seekers and recruiters want to communicate about and how?
- How will the platform address the design requirements?

#### 5.1.1 PLANS AND GOALS

01	Collect insights and ideas to answer the questions	<b>Method</b> <ul style="list-style-type: none"> <li>• Creative ideation session with job seekers</li> <li>• Concept-generating matrix</li> </ul>	
02	Map and converge the ideas	<b>Method</b> <ul style="list-style-type: none"> <li>• Concept sorting</li> <li>• Mapping along the user journey</li> </ul>	<b>Goal result</b> <ul style="list-style-type: none"> <li>• One concept mapped out along the journey map</li> <li>• The concept ready to be presented</li> </ul>
03	Evaluate the concept	<b>Method</b> <ul style="list-style-type: none"> <li>• Solution evaluation matrix</li> <li>• Prescriptive value web</li> <li>• Feedback sessions</li> </ul>	
04	Revise and finalize	<b>Method</b> <ul style="list-style-type: none"> <li>• Platform plan: structuring the solution into a platform</li> <li>• Solution database: listing all the relevant ideas on a database</li> </ul>	<b>Goal result</b> <ul style="list-style-type: none"> <li>• Concept scenario</li> <li>• Finalized value web</li> <li>• List of small ideas</li> </ul>

For the ideation stage, the following four steps would be taken.

- 01 listing down the insights and ideas gathered in earlier research, collecting more ideas by sorting them out, and running ideation sessions
- 02 mapping out the ideas and converging them into concrete solutions
- 03 evaluating the concept with an evaluation matrix and sessions with professionals
- 04 revising and finalizing the concept.

## 5.2 CREATIVE SESSION WITH JOB SEEKERS

### 5.2.1 APPROACH

#### Ideating with job seekers

The research group, consisting of IDE students who are job seekers or potential job seekers, participated in the creative session to give thoughts on the given problem and generate ideas to solve it. The stated problem was 'CV cannot tell who you really are' and the goal was to design an interactive online CV.

The session plan followed the double diamond approach of diverging into the problem, converging them into a key problem statement, generating ideas, and converging them into final solutions.

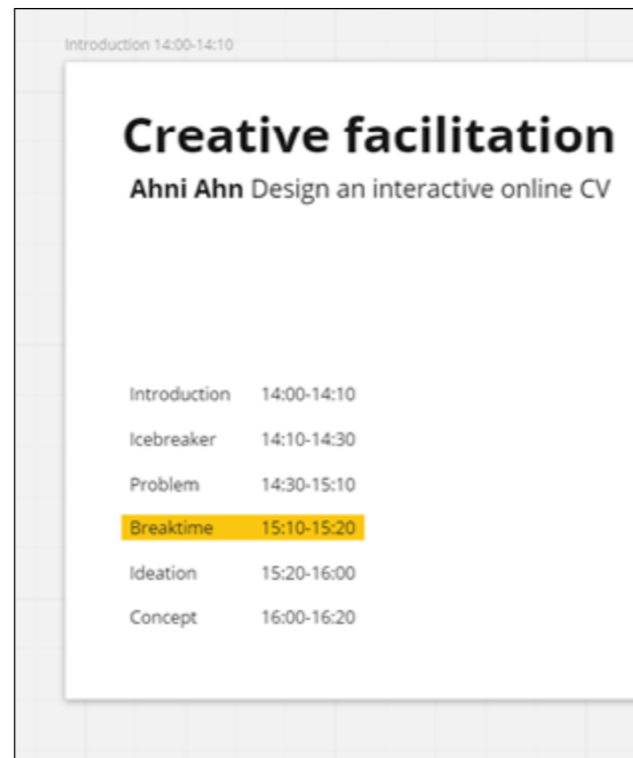


Figure 5.1 Session schedule



Figure 5.2 Overview of the result

#### Activity 01 Problem finding

To put the participants into the context and as part of a mini role-play, the first activity was putting them into two different roles, job seeker and recruiter. Participants took turns listing out all the thoughts on CV, thinking from two perspectives: 'what is a CV to a job seeker or a recruiter?' The thoughts were then put into groups and the participants did dot voting to choose the clusters that meant more to them and that they wanted to work on in the following steps. The chosen clusters were: building identity as an applicant, showing one's true self, selection process as a recruiter, and fun elements.

#### Activity 02 Forming the problem statement

The chosen clusters were then formed into 'How to' questions by the participants and they took turns to ideate on all four questions. The same process went on, grouping the ideas and voting on the ones to work on. Even under different questions, there were similarities in the ideas which made it easy for participants to tell which direction they wanted to head to. The four chosen labels were ice breaker, game element, fun activity, and different medium/format.

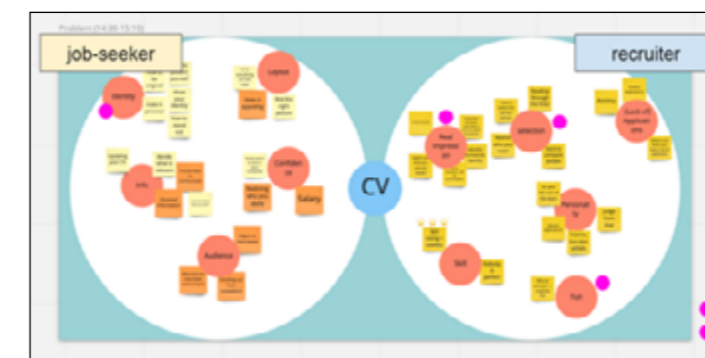


Figure 5.3 Activity 01 result

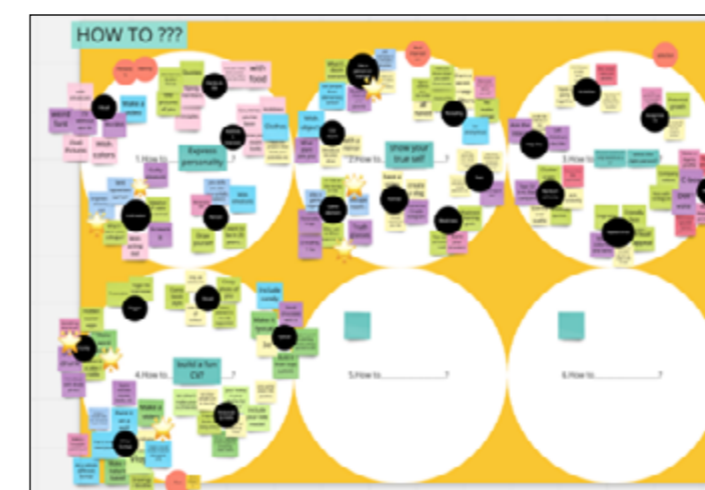


Figure 5.4 Activity 02 result.

### Activity 03 Concept pitch

Based on the four idea clusters, participants came up with two final concepts and pitched them. The first idea was called 'interactive resume' which shows different aspects of the applicant and clickable pages so that the person reading can choose what to read by going deeper into each category. The second idea was called 'inverse application' where job seekers tell the working conditions that they are looking for and the recruiters and organizations apply to job seekers.

### Limitation

The results from the session cannot be generalized to average job seeker needs for the following reasons. Firstly, the participants are all from similar study backgrounds and have similar interests and problems when it comes to job searching. To apply to the positions they are interested in, organizations may ask similar questions or ask for similar types of documents that differ from what is asked of other applicants applying for other positions or industries. Secondly, for their background, they are more experienced with expressing themselves in different mediums and in different contexts which makes their needs for creative and open space not applicable to the less experienced job seekers. Lastly, there is a chance that the result focuses on a more provocative and unusual direction since the participants are aware of different ideation methods, and considering the expectation for creativity in such a creative session, voting tends to go for the seemingly more creative options.

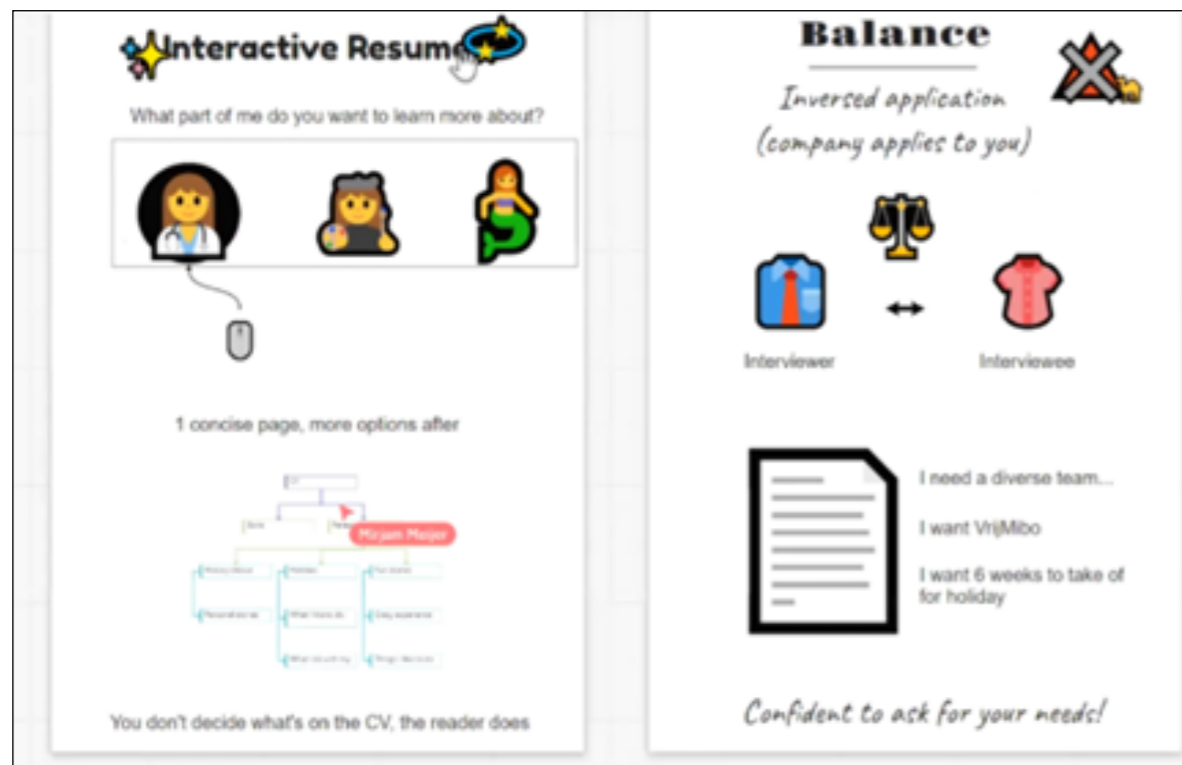


Figure 5.5 The idea pitch posters from activity 03

### 5.2.2 SESSION RESULT

#### Result Insight and idea lists

Despite the limitations, a list of inspiring insights and ideas were gathered from the session. It is not just the final pitch idea that suggested solutions but the clusters and single ideas gathered throughout the session were also meaningful and were put into insight and idea listing.

01 Job seeker's issue	
Job seeker's identity	<ul style="list-style-type: none"> <li>How to be original</li> <li>How to present yourself</li> <li>How to show your identity</li> <li>How to stand out</li> <li>How to make it personal</li> </ul>
Contents on CV	<ul style="list-style-type: none"> <li>How and what to update your CV</li> <li>What information is relevant</li> <li>Choose what to deliver</li> </ul>
Confidence	<ul style="list-style-type: none"> <li>Clarify why you apply</li> </ul>
Look & Layout	<ul style="list-style-type: none"> <li>How to make it appealing</li> <li>How to fit everything on one page</li> <li>How to find the right pictures</li> </ul>
Audience	<ul style="list-style-type: none"> <li>How to adjust to the viewer</li> </ul>

02 Recruiter's issue	
Selection	<ul style="list-style-type: none"> <li>How to read all the lines</li> <li>How to make the perfect selection</li> <li>How to make comparisons</li> </ul>
Fun element	<ul style="list-style-type: none"> <li>Make the process fun</li> </ul>
Skill	<ul style="list-style-type: none"> <li>Skill rating is useless</li> </ul>
Real impression	<ul style="list-style-type: none"> <li>You need social interaction and real life communication to get real impression.</li> <li>You have to watch out for biases.</li> <li>Possibility of miscommunication</li> </ul>
Judging personality	<ul style="list-style-type: none"> <li>Will the applicant fit in well?</li> <li>How do you judge the personality?</li> </ul>

05 Ideas - How to build a fun CV	
Game element	<ul style="list-style-type: none"> <li>Personality bingo</li> <li>Play a game together</li> <li>Who am I &amp; Who I aspire to be</li> <li>Escape room</li> <li>Truth glasses, truth or lie</li> </ul>
Fun element	<ul style="list-style-type: none"> <li>Word jokes and riddles</li> <li>Drunk photo</li> <li>Hidden Easter eggs</li> <li>Something to draw attention</li> </ul>
Visual element	<ul style="list-style-type: none"> <li>Comic book style</li> <li>Crazy photo of one</li> <li>No words just emoticons</li> </ul>
Physical element	<ul style="list-style-type: none"> <li>Include/send candy or chocolate</li> <li>Make it physical, 3D</li> <li>Build it from LEGO</li> </ul>

03 Ideas - what and how to express	
Visual element	<ul style="list-style-type: none"> <li>Emoticon, picture, color, video, font</li> <li>CV without words</li> <li>Word art (word cloud)</li> </ul>
Hobby & interest	<ul style="list-style-type: none"> <li>Places you've been to</li> <li>Hobbies, clothes, favorites</li> <li>Place you live in</li> </ul>
Relationship & life	<ul style="list-style-type: none"> <li>Quotes from friends and families</li> <li>Old pictures</li> <li>Let others make your CV</li> </ul>
Icebreaker activity	<ul style="list-style-type: none"> <li>Guilty pleasure</li> <li>What if I were your colleague?</li> <li>What if I were an animal?</li> <li>Singing, dancing, drawing, acting out</li> </ul>
Personality & ambitions	<ul style="list-style-type: none"> <li>Emotions, future goals, personalities</li> <li>Only write the positive things</li> <li>Your role model</li> </ul>
Format	<ul style="list-style-type: none"> <li>Video, vlog, hologram, collage</li> <li>Treasure skill hunt</li> <li>Social media channel</li> <li>Drawings</li> <li>Picture of the day</li> </ul>
Object	<ul style="list-style-type: none"> <li>You plants, shoes, favorite objects</li> </ul>
Weakness	<ul style="list-style-type: none"> <li>Your weakness</li> <li>Your worst personality traits</li> </ul>
Test result	<ul style="list-style-type: none"> <li>Personality test results</li> <li>Psychological test</li> <li>Test on your skills</li> </ul>
Revealing	<ul style="list-style-type: none"> <li>How you dress at home</li> <li>Your insecurities</li> <li>Ugliest outfit in your closet</li> <li>Naked photos</li> <li>Share a secret</li> <li>No makeup &amp; no filter photo</li> <li>Be anonymous</li> <li>Share opinion about yourself</li> </ul>

04 Ideas - How to select the right candidate	
Helpline	<ul style="list-style-type: none"> <li>Let other people have opinions: interns, children, friends of the participants</li> </ul>
Assignment	<ul style="list-style-type: none"> <li>Give an assignment to see the potential</li> </ul>
Method	<ul style="list-style-type: none"> <li>C-box</li> <li>Dot vote</li> <li>Gut feeling</li> <li>Make a Harris profile</li> <li>Evaluate based on company values</li> </ul>
Appearance	<ul style="list-style-type: none"> <li>Originality, friendliness, appeal, colors</li> <li>The same format: only judge content</li> </ul>
Random stimuli	<ul style="list-style-type: none"> <li>Pick randomly</li> <li>Quantity over quality</li> <li>Tear CV in 4 and compare</li> </ul>
Activity	<ul style="list-style-type: none"> <li>Have a party or drinks together</li> <li>Create the desired persona</li> </ul>

## 05 DESIGN IDEATION

### 5.3 DIVERGE AND CONVERGE

#### Summary and reflection on the result

##### What do job seekers want to show and tell?

- The participants from the MZ generation who grew up with and are used to sharing personal life on social media, showed the need of expressing themselves through personal and private life stories. They mentioned that showing and telling about their favorites, surroundings and close people can really explain who they are. Though the given context was about job application, more non-work-related items were discussed.
- The need to make the CV stand out from others and give originality to it seemed to be an important issue among the participants. Ideas of making an original style or putting unique experience elements were discussed and examples of how were addressed.
- Putting oneself into a scene and telling what one would do in it was mentioned several times. Participants seemed to find this kind of 'what would you do?' activity fun and believe the answers tell more about themselves.
- Thinking from the recruiter's point of view, participants wanted the reading experience to be enjoyable and suggested putting fun or game elements that may not tell much.

#### 5.3.1 DIVERGE

##### Concept-generating matrix

Another diverging technique called the concept-generating matrix was used to map out the ideas gathered in the earlier phases and to generate new ideas based on the findings from the understanding phase. The X-axis was the steps in the recruitment process for the continuity keyword and Y-axis was the problem statements. Yellow cards were the ideas focusing on what job seekers would work on and what the platform would support while the blue notes are ideas and thoughts from the recruiter's side. Words in the circle summarized the nearby ideas.

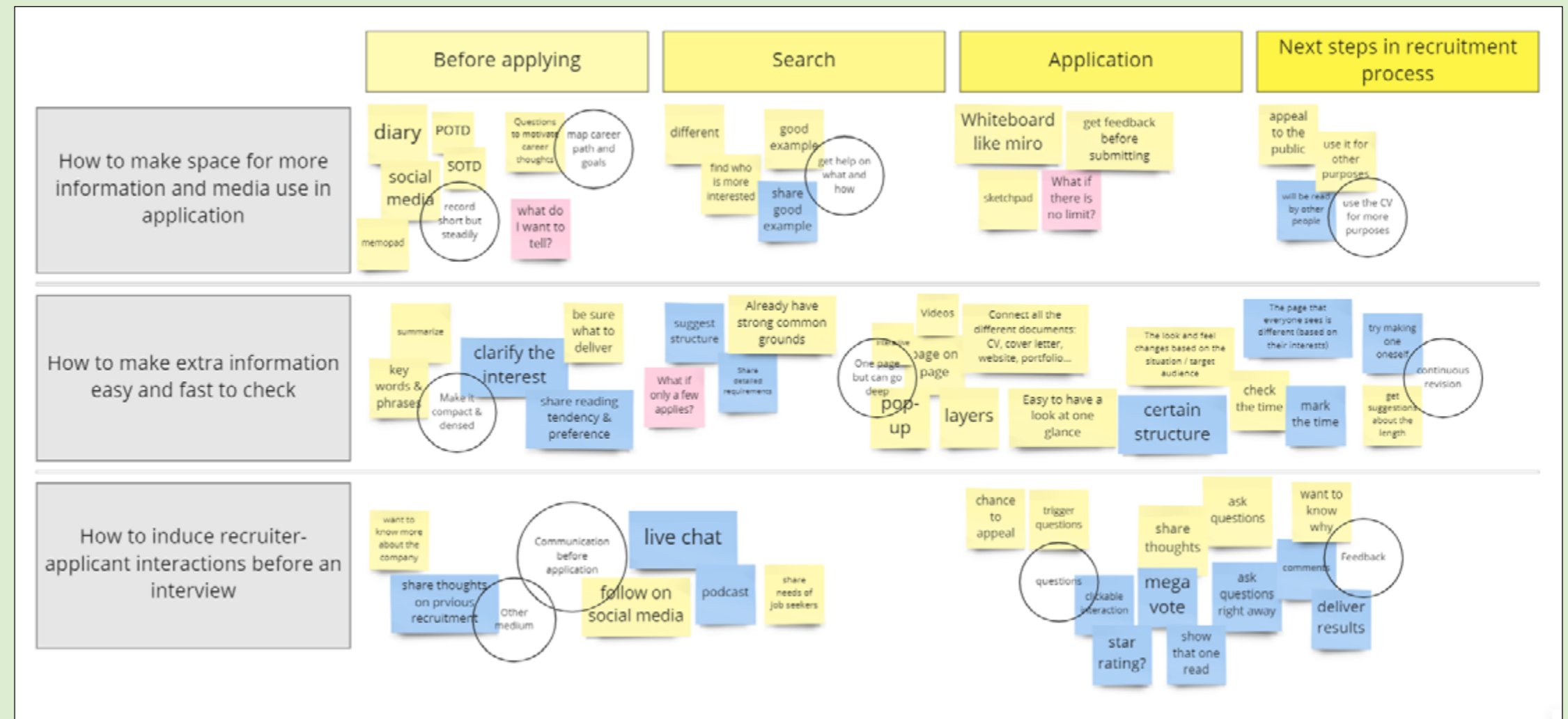


Figure 5.6 Concept-generating matrix.

### 5.3.2 CONVERGE

#### Step 01 Concept sorting

The first converging technique used was concept sorting. The process started by placing all the ideas from the diverging stage, grouping the ideas that are on a similar level of complexity, and labeling the groups. Looking at the relationships that groups have, place them on the hierarchy or again group the groups and give names to the bigger cluster. Some new ideas were added during the sorting process. The last step was to give each big concept a catchy, easy-to-understand name.

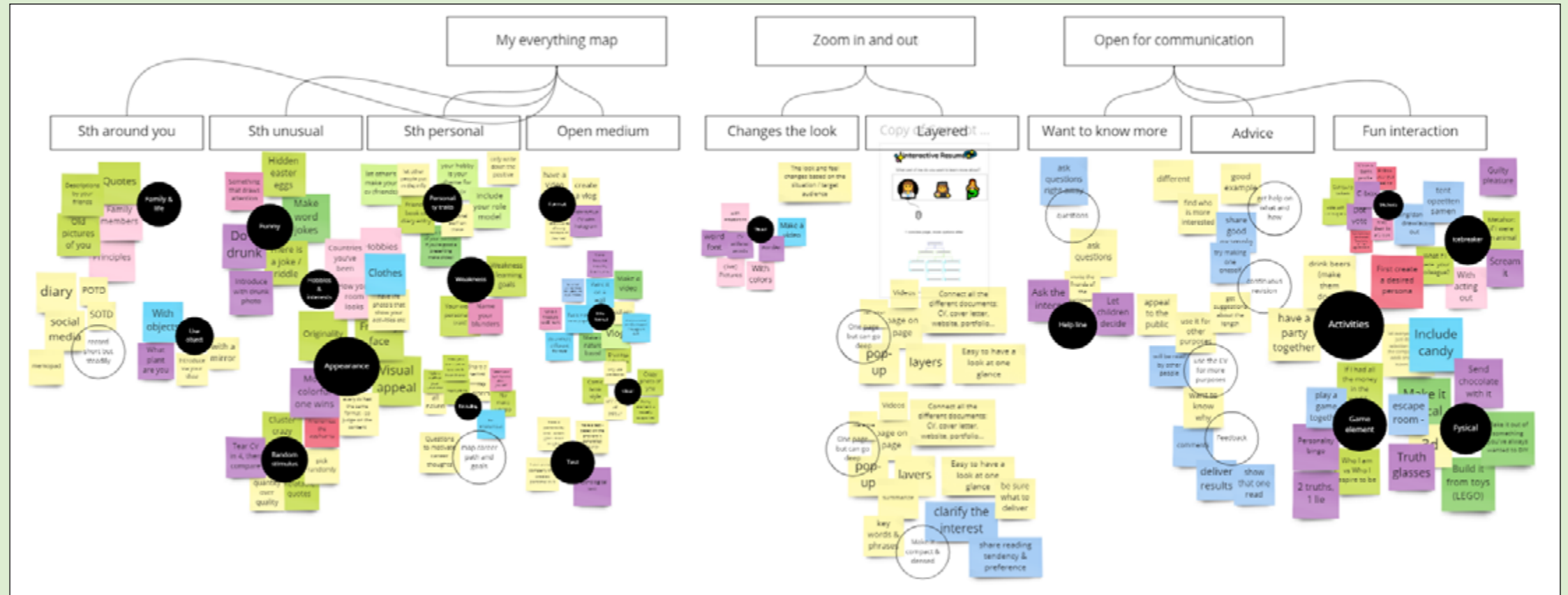


Figure 5.7 Concept sorting

#### Step 02 Mapping along the user journey

Going back to the user journey showing what job seekers and recruiters do during each step in the recruitment process in general, the concepts were placed along the journey. Out of them all, based on how each concept connects with another, one fluent use flow was detected.

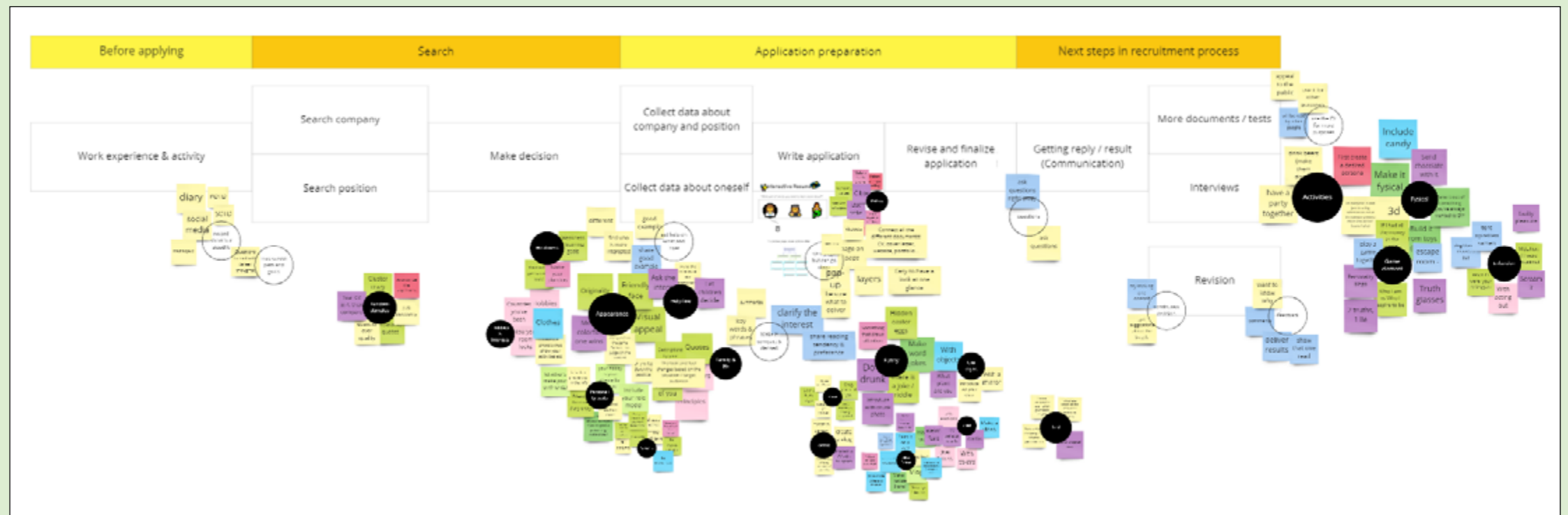


Figure 5.8 Concept-generating matrix

### 5.3.3 CONVERGED DIRECTION

Relating the converged idea clusters to the defined problems and solution directions from the research phase, three idea groups showed more relevance. A new name was given to each group and here are the summaries of how each group suggests a solution referencing back to the problems.

#### 01 Work life journal

**Collect all the personal data and remarks, and reflect.**

While going through the questions of how an applicant chooses which opening to apply for, and what else or how differently an applicant wants to tell about oneself that is hard to share on the current application form, the need for having a place to save all of the notes and documents about one's past experience and thoughts that could be relevant to work-life was figured out. Job seekers have mentioned they started gathering data of themselves that were scattered around or not documented after they decided to start looking for a job position. They first look at requirements listed by companies on the job description and gather good application examples and information about a passing application. Looking back on their experiences happens along with or after this search phase. Therefore, either consciously or unconsciously, job seekers think of the facts about themselves that are closer to the winning examples they have seen. This explains that an applicant could be tailoring one's application to an opening not only to pass the screening but also because one was already under the outside influence and was not sure about what else one has.

Therefore, keeping all the data and remarks in one place, and reflecting on them often while collecting would be a meaningful feature for job seekers to know where they want to place themselves and how. The platform will work as a notebook and a data hub where job seekers can write about what they just did and their thoughts on the experience, and attach related files. It will also suggest them to reflect on the experience after some time and how to tell about it to others.

#### 02 CV with context

**Tell whom you are with flowing storylines instead of listing out facts.**

The traditional CV form consists of lists of information in suggested categories. Thus, it is the recruiter's work to connect the scattered information pieces and tell who the applicant is as a whole. For example, when an applicant has a good leadership skill, one would talk about the skill in the soft skill column, and explain how one practiced and performed in both the work experience column as an intern, and in the extracurricular column in university projects and associations. Different terms could be used in different columns which gives more details about each line but could disconnect the lines from the related context. Coming up with a misinterpreted or unclear picture of an applicant happens during this process of putting the information together. The solution to this problem could be found in the idea of letting applicants put different types of information together themselves and suggest bigger aspects of who they are.

#### 03 Communication on CV

**Have a quick but detailed conversation over CV on the CV.**

The biggest struggles that job seekers have mentioned were not getting feedback on why they did not make it through the application screening and not having the chance to defend or explain themselves. In the current recruitment process, the first two-way communication comes after screening the application which happens in the form of a face-to-face interview. Interviews require resources and for that, a big number of applicants do not get the chance to be in a conversation with the company when they can hear more and talk more. In addition, CVs are used in interviews but it is only the company side that has a CV in front of them. Applicants cannot be sure where the interviewers are looking at and based on what they came up with a question or a comment. The idea of having an online CV where people can easily pinpoint certain elements and share comments showed the potential in addressing this issue with a lighter burden for the company.



Figure 5.9 (top) Inspiration from Milanote, (Bottom) Idea sketch

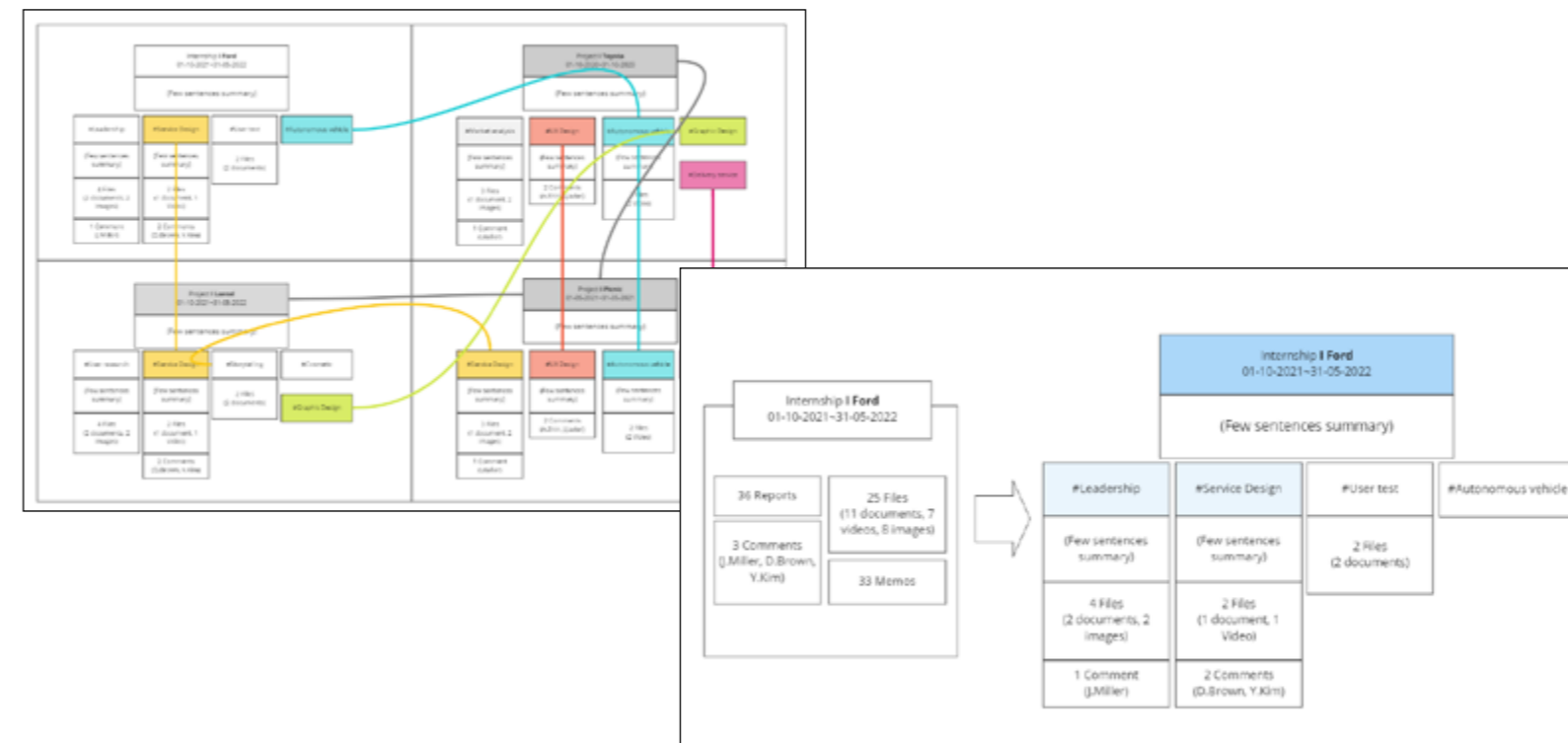


Figure 5.10 Idea sketches



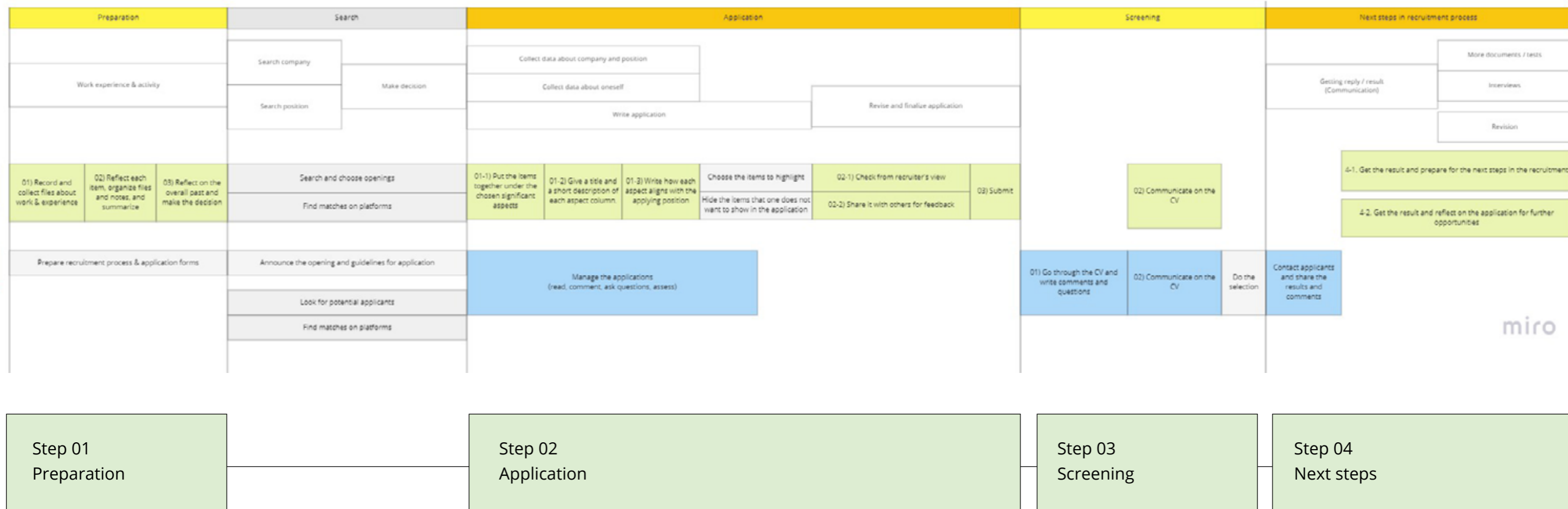
05 DESIGN IDEATION  
**5.4 CONCEPT DEVELOPMENT**

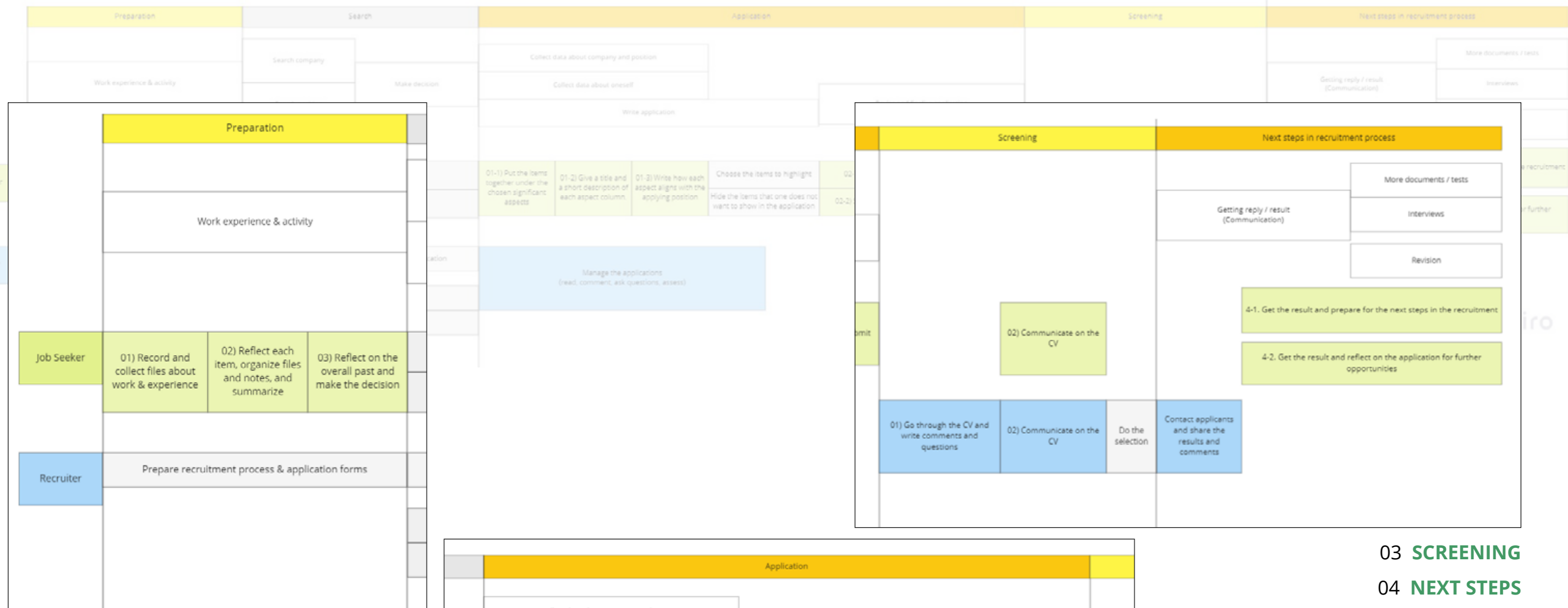
Out of the ideas related to the three pillars, more relevant ones were chosen and this chapter explains how they come together to form a fluent service for the target user.

**5.4.1 PRODUCT IDEA**

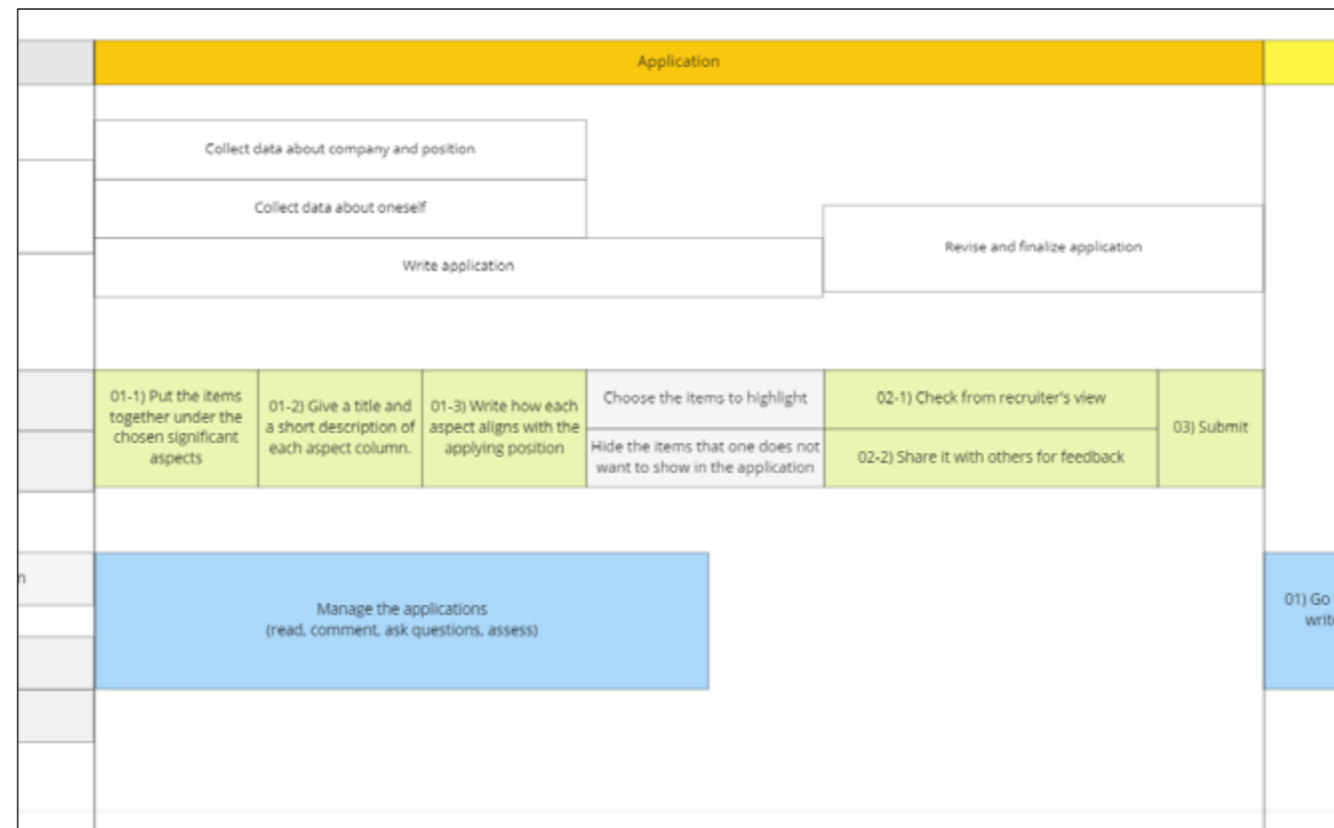
This user journey shows how a job seeker uses the Hello Career platform to prepare, make, and submit the CV and the steps that happen after submitting it. Next pages will go closer to each stage and explain how the users would use the product.

Figure 5.11 The user journey of the product





## 01 PREPARATION



## 02 APPLICATION

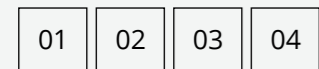
## 03 SCREENING

## 04 NEXT STEPS

# 01 PREPARATION

## 01-1 Gather information

While a potential job seeker who does not plan to look for a job yet lives one's life, one can write about what one has learned from various activities on the Hello Career platform. The experience could be about anything such as planning a family trip, being part of the student board, or doing an internship. It is not only limited to work experience. Any activity that one finds meaningful should all be documented. The platform supports multiple templates and works as an online data cloud that makes it easier for the job seeker to make remarks and save relevant files all together in one place.



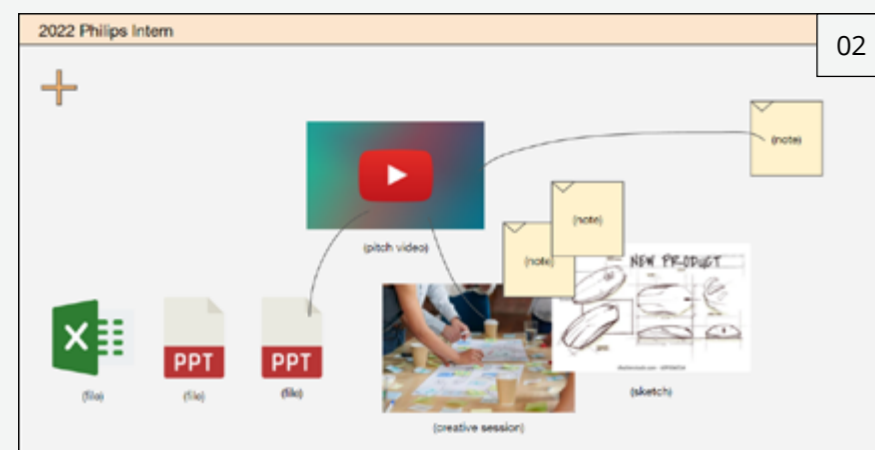
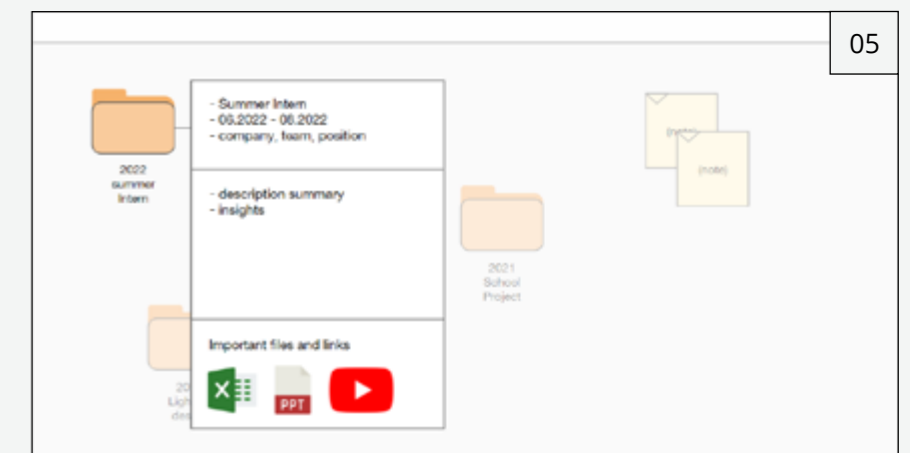
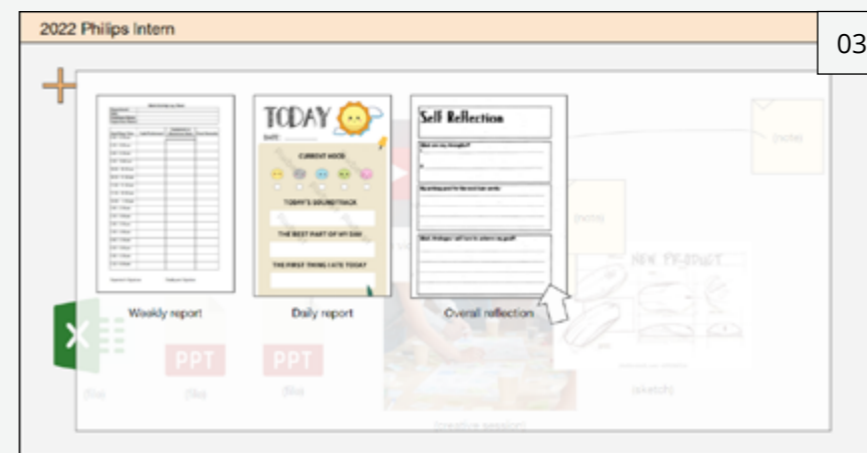
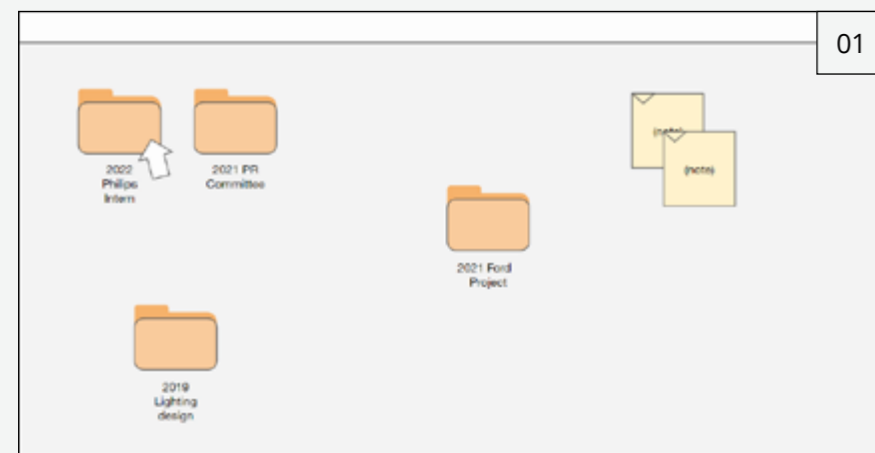
## 01-2 Pre-reflect and organize

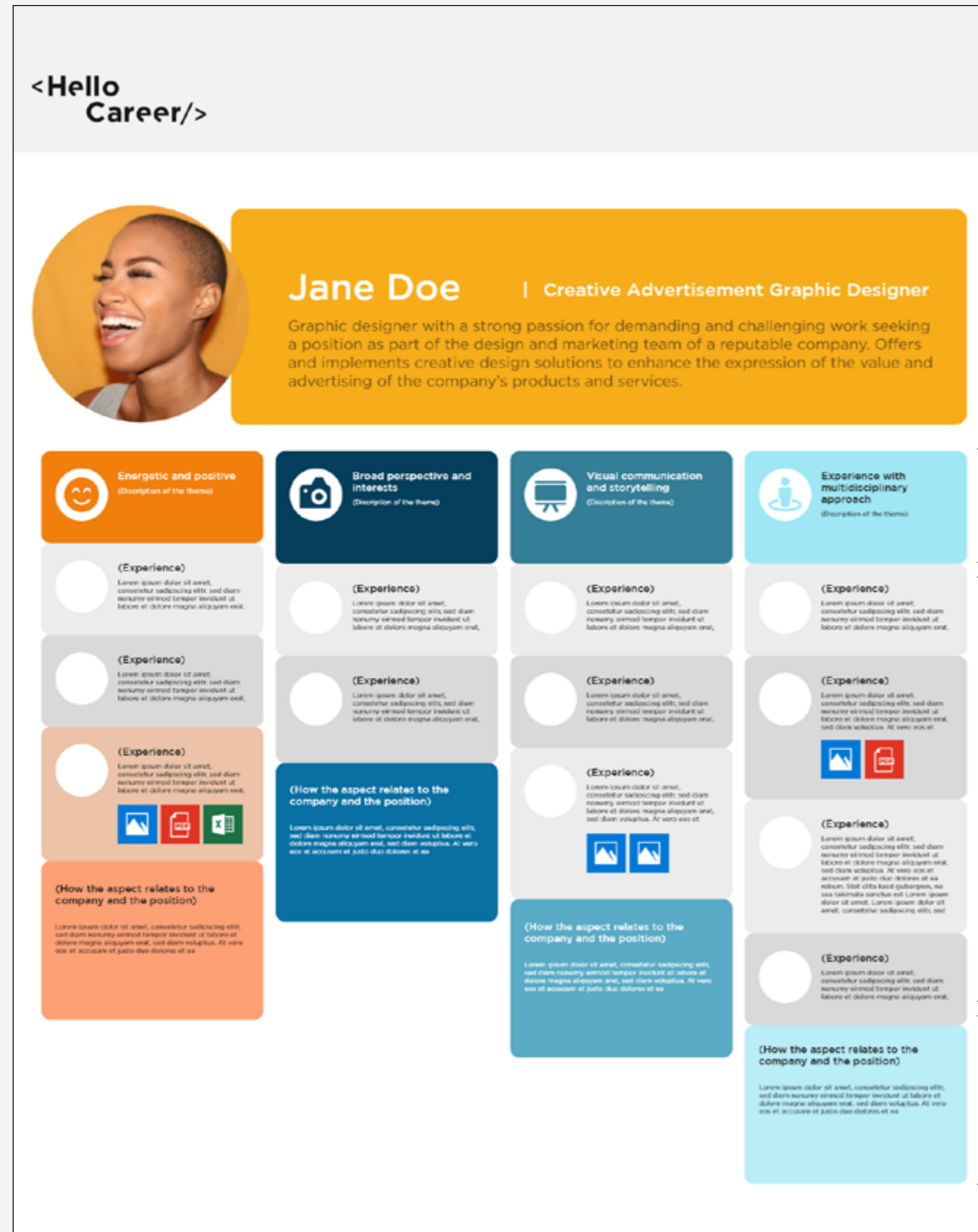
The platform suggests the potential job seeker reflect on what one has written and collected after some time. By looking back on the past experience and comparing it with other data pieces, the job seeker gets a clear picture of what one has and what one wants. The job seeker can already start organizing the collected information: summarizing each story in a few sentences and placing the files in the order of relevance.



## 01-3 Reflect and make a decision

When the job seeker decides to look for a job, one can start the overall reflection. The platform allows the job seeker to take a look at the gathered information in different ways such as in chronological order, in keywords, or in industries. Through this step, the job seeker figures out to which company and for what position one should apply that really meets one's wants and needs.





02-1 Sort out and organize

First block

The job seeker chooses which aspects that really represent oneself and what one really wants to tell. A title, a symbol, and a few line description comes first to briefly describe each aspect. This first block focuses on the present self of what one has and wants.

Second block

The job seeker then puts the descriptions of not only the work experience but all the relevant past experience in the second block below. Each piece shortly describes what the experience is about and how it related to the theme of the column. But it is clickable so more descriptions and relevant media and files can be put on a deeper level.

Third block

In the last block, the job seeker can write how this aspect aligns with the applying position. Based on the research on the company and the position, the job seeker can tell how one's aspects and expectations would meet the requirements.

These three blocks form one column which tells one aspect of a job seeker in a flowing context. Job seekers can make as many columns as they want but the platform would suggest them to choose three to five of them to highlight. The theme for each aspect is not limited to one category. For example, it could be about a personality trait, skill, interest, and expertise in one industry. The title could even be a study program that one graduated from if one believes that it is an important aspect that represents oneself.



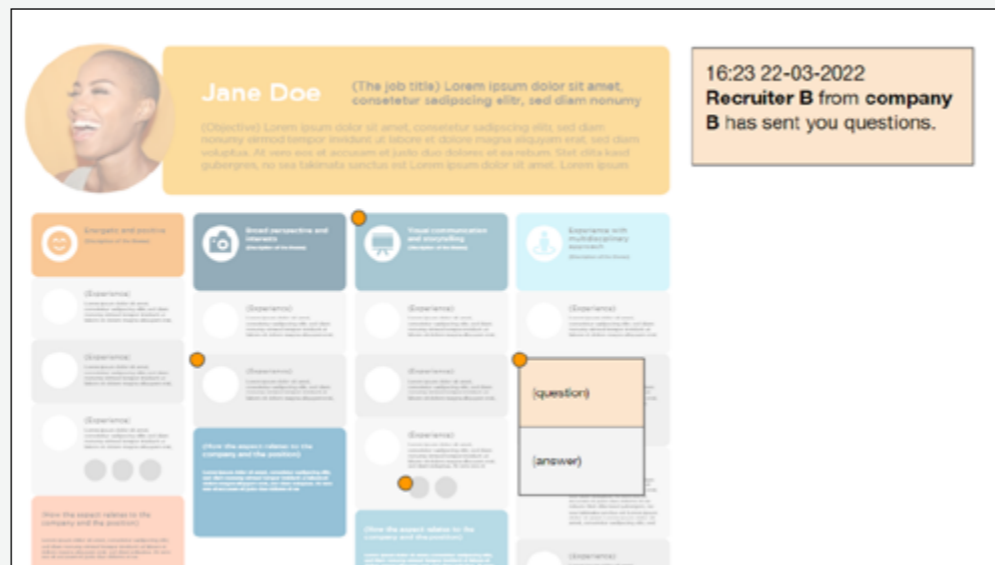
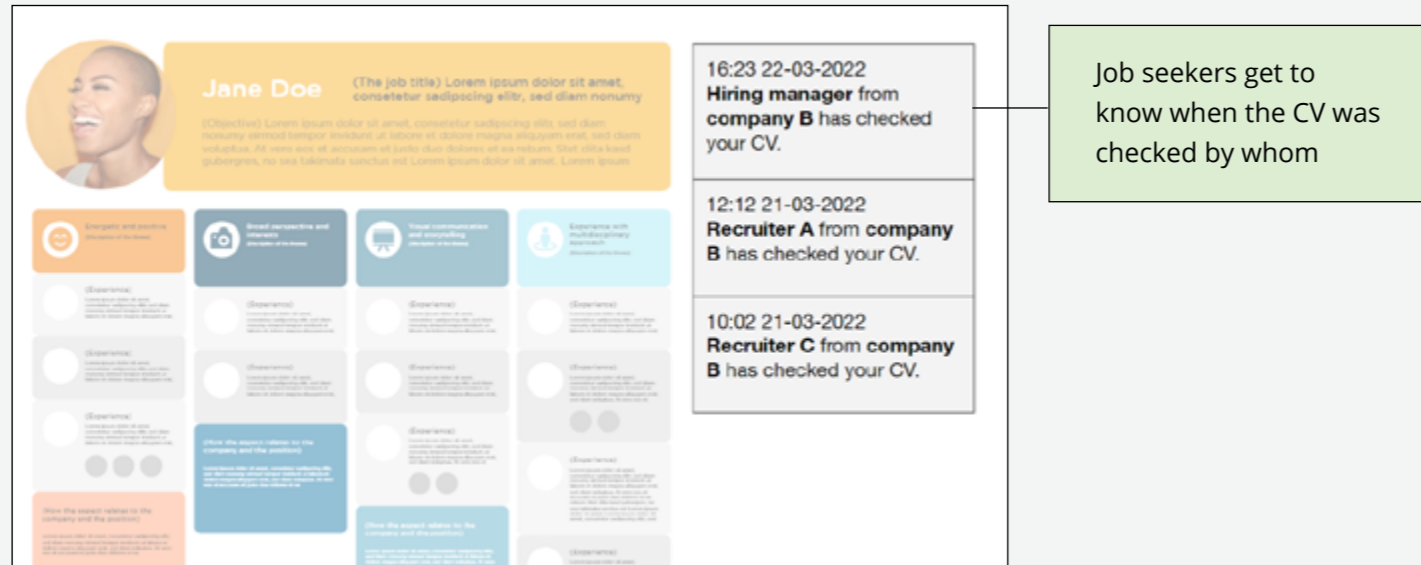
02-2 Check and get it checked

After the job seeker is done writing, organizing, and highlighting, the job seeker can share it with other people and ask for comments. It is also easy to share the CV since it is an online page that can be shared with a link. The job seeker can also check it from the reader's point of view, see how the recruiter would see it, before submitting it.

02-3 Submit but still have the ownership

Instead of submitting a file that can be copied and shared around people in the company without the applicant knowing it, the job seeker can submit the CV in the form of a link to a webpage. If the company allows it, the job seeker can also keep track of who is checking the CV out and when.

## 03 SCREENING



### 03-1 Recruiters go through the CV

Recruiters and hiring managers go through the CV. Depending on one's interest, one can click the segment that one wants to know more about for more information. While reading, it is possible to **leave comments or questions** on each segment or the whole CV.

### 03-2 Communicate on the CV

Out of the comments and questions, the people from the company side choose which to share, especially the ones that the replies from the applicant can have an impact on the decision making for the screening. **The applicant can choose to react to the given comments and questions.**

## 04 NEXT STEPS



### 04-1 Get the result and prepare for the interview

The applicants who **passed** the application screening get the result and can start **preparing for the upcoming interviews based on the comments and questions** they got on their CVs. The CV will be used in some interviews and questions will be asked about the contents of it.

### 04-2 Get the result and prepare for the next application

The applicants who **did not pass** the application screening get the result. Based on the comments and questions they got, they **get to know why they did not make it through**. This insight can be used in revising the CV or choosing another opening to apply for.

## 5.4.2 FEATURE AND BENEFIT

### 01 Work life journal

#### Not for others to assess but for oneself to record and reflect

HelloCareer platform forwards job seekers to build a habit of recording their experiences and thoughts regularly with details, and to reflect on them. Practically, this would save job seekers time to gather them later on when they start application preparation. Additionally, this brings more focus to a job seeker oneself and to one's bigger career goals. Instead of seeing the process of making a CV as trying to better sell oneself, the platform would support job seekers to see it as a process of organizing personal information in a way that presents themselves as who they really are. Also, work-life lasts for decades and is a big part of one's life. But the preferred way of sharing the work records to the public is showing only the recent or significant ones and by doing so, even oneself loses to keep the entire track of what one has done. The platform would support users to keep everything behind the façade as part of records of their lives.

To summarize, the following explains the key features and benefits.

### 02 CV with context

#### Different way of categorizing and storytelling

Instead of categorizing the information pieces in the traditionally suggested way that results in weakening the connections between the ones in different categories, HelloCareer opens up the space for putting the relevant lines together in the way that best represents the significant aspects of a job seeker.

### 02 CV with context

#### Interactive online board with layers

Making a CV as an online page tackles the struggle of having a limitation in the number of contents and the media uses. The first view would stay simple but by having layers for further information, job seekers can use the space to share more, and the recruiters or hiring managers who want to know more about a specific fragment can dive into the ones they find interesting. The online board allows job seekers to easily attach images, videos, and other files and readers to access them via the internet without downloading. Being online also makes it easy to share the CV with other people and revise it remotely. a job seeker.

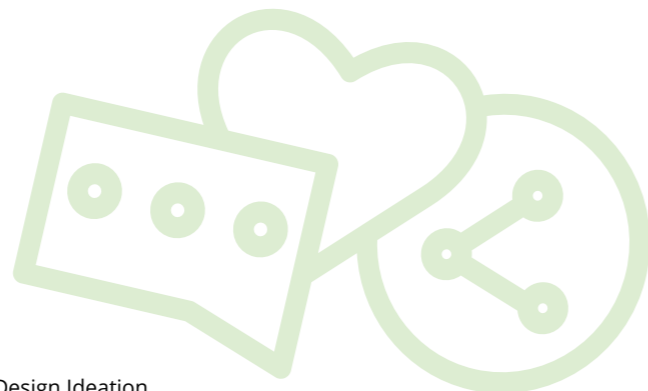
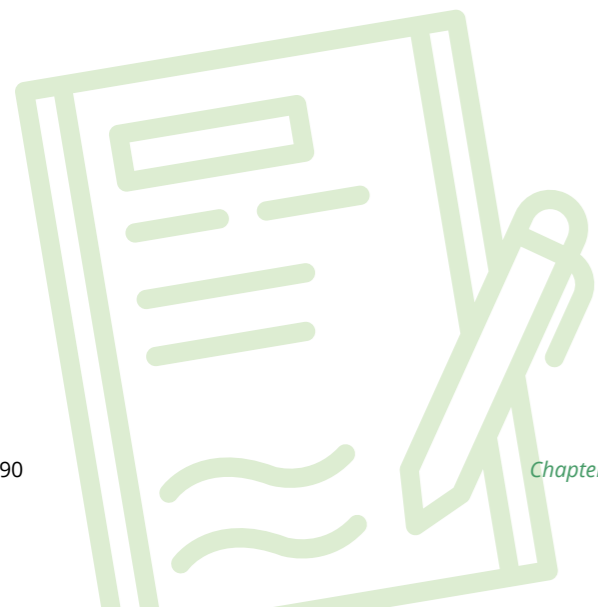
### 03 Communication on CV

#### Communication

Online communication via text is more cost-efficient than making a phone call or having an interview. Thus, when the recruiter side is not sure about certain applicants, they can have a simple communication on the platform to get to know a little more to make a definite decision. For applicants, receiving comments or questions over their CVs would give a clearer picture of the next steps.

## 5.4.3 LIMITATION AND CONSIDERATION

The suggested concept is future-forwarded and based more on the job seeker's needs than on the needs of other parties involved. Especially the important factors in realizing the product such as the capacity of the client and the recruiters are not put into account yet. Also, addressing the following questions such as how much information would be visible in the first view, or whether the information that used to be on traditional CVs would still be there or not would be part of further research. The purpose of presenting the developed idea is to emphasize the problems that job seekers are facing in the application phase and to suggest possibilities for changing the long-lasting form of a CV. This concept sketch would serve as an inspiration and work as the starting point for further research.



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## CHAPTER 06

# IMPLEMENTATION PLAN

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*What should be done to bring the idea to the market?  
How do job seekers find the idea?*

- 6.1 Validation with job seekers
- 6.2 Product revision
- 6.3 Implementation plan



## 06 IMPLEMENTATION PLAN

### 6.1 VALIDATION WITH JOB SEEKERS

#### 6.1.1 PURPOSE

*Does the product fulfill job seekers' needs?  
How do job seekers find the product?*

The illustrated ideas were not directly derived from what the target users have suggested but my personal opinions as a designer were involved while developing the ideas. Thus, validation sessions with job seekers were conducted to see how they align with the user expectations and needs and to suggest the direction for further research and product development.

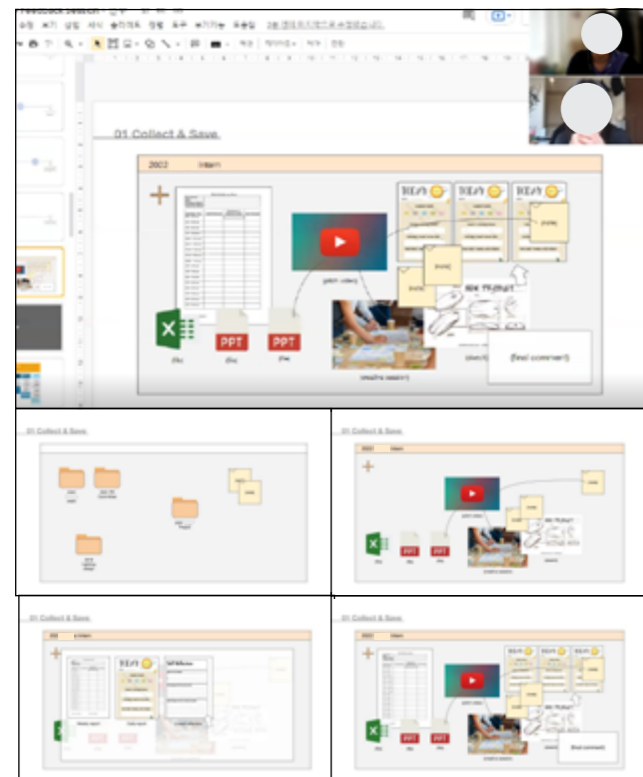


Figure 6.1 Using slides to introduce the product

#### 6.1.2 STRUCTURE AND PROCESS

Each session was done in the form of a one-on-one interview for around an hour, and four participants who recently had experience with job applications took part in it.

##### Participant detail

01	AY	<ul style="list-style-type: none"> <li>· 2022 MSc in Design Engineering</li> <li>· Applied for UX design positions</li> <li>· Female, 23 years old, Delft</li> </ul>
02	YJ	<ul style="list-style-type: none"> <li>· 2021 MSc in Design Engineering</li> <li>· Applied for UX design positions</li> <li>· Female, 28 years old, Den Haag</li> </ul>
03	VM	<ul style="list-style-type: none"> <li>· 2021 MSc in Design Engineering</li> <li>· Applied for various design positions</li> <li>· Female, 27 years old, Delft</li> </ul>
04	MR	<ul style="list-style-type: none"> <li>· 2021 MSc in Applied Sciences</li> <li>· Applied for PhD positions</li> <li>· Male, 25 years old, Delft</li> </ul>

Guide for the feedback session / 60 minutes	
Part 1. General experience	1) Do you have experience with job applications? 2) Do you remember what documents you handed in for the application? 3) How did you work on your CV? Would you explain in detail? 4) What was the part that you were uncertain about? 5) Will you follow the same process? If not, how would you try differently?
Part 2. Product ideas & feedback	<b>Idea #1 - Work journal</b> (Pre-question) 1) Do you keep your work records? How? 2) Are you satisfied with your way now? If not, how would you try differently? 3) What was the biggest struggle you faced while tracking the records back? (Walk the participant through the product) (Focus question) - (1-10) How useful do you think it would be? - (1-10) Would you prefer using this product over your original way of recording? - (1-10) Would this product solve the issue of missing records? - (1-10) Would this product help to solve career concerns? (General question) 1) What did you like about the product? 2) What were you not sure about the product? 3) Would you suggest any add-ons or revisions? <b>Idea #2 - Online CV</b> (Pre-question) 1) What kind of information did you put on your CV? 2) How did you decide what to put on your CV? 3) Did you put everything you wanted to deliver? If not, why? 4) Where did you get the idea of an ideal amount? 5) How did you come up with the structure? 6) Are you satisfied with your current CV? If not, what kind of changes do you want to make? (Walk the participant through the product) (Focus question) - (1-10) How useful do you think it would be? - (1-10) Freedom in expressing on CV - (1-10) Self-representation on CV - (1-10) Would this product solve the misinterpretation issue? - (1-10) Would you prefer using this product over the current CV?

Figure 6.2 Guide for the feedback session  
Appendix F. Guide for the feedback session

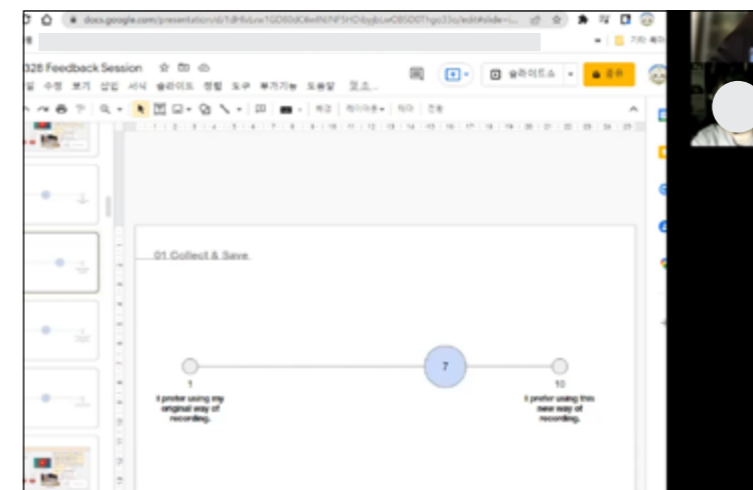


Figure 6.3 Use of a scale in the feedback session

#### Structure and questions

The first set of questions was about the general experience with job applications to recall participants' memories and to check what exactly they have been through.

The second part of the session was when the ideas were introduced to the participants. The questions were formed around the three main pillars: work journal, online CV, and communication. For each set, a few questions about the relevant experience were first given, then the low fidelity prototype was shown with an explanation of how a user would use the product. Then a few specific questions were asked to talk about different aspects of the product, and more general questions about their likes, dislikes, and suggestions were given.

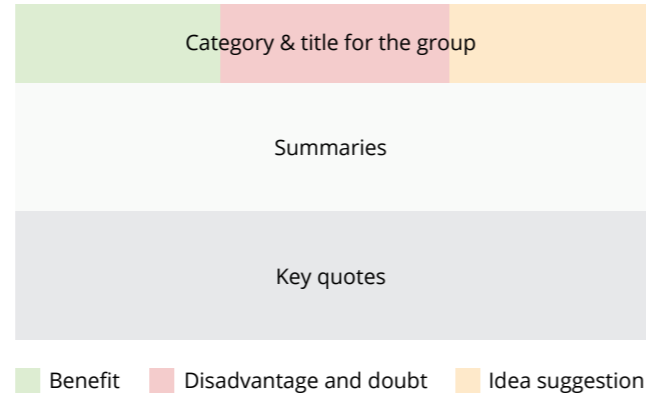
The last part was short with two questions: one to think outside of the box and the other to sum up the session by talking about the changing trend in the job application.

The focus questions were given together with a scale to induce participants to think of both positive and negative sides, not to get a quantitative answer.



### 6.1.3 RESULT ANALYSIS

The first step of analyzing the session result was to highlight the quotes that were mentioned by multiple people or were strongly emphasized. The next step was to separate the quotes into three categories: benefit, disadvantage and doubt, and idea suggestion. The final step was grouping the quotes and summarizing them. The following blocks show the summarized result.



#### Part 01 Work life journal

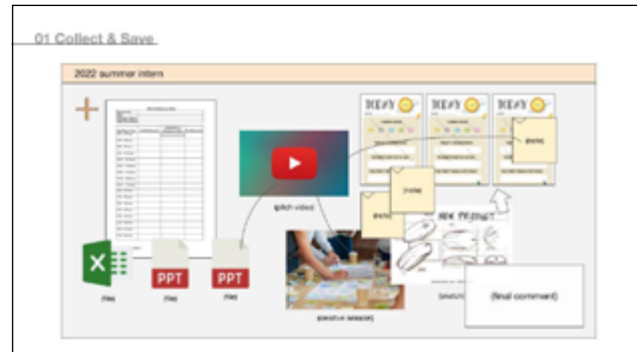


Figure 6.4 Key image of the first part of the product

#### 🥰 Having an overview

- Seeing different types of files as once
- Seeing the files together with notes and summaries
- Seeing the relations at one glance

- I like that you see all the relations like a map. (YJ)
- Now I write the summaries another PPT file so I like that you can have them next to files on this platform. (MR)
- I like having notes next to files and seeing them all on one page. (VM)

#### 🥰 Having everything in one place

- Supporting various file extensions
- Having a visual dump of everything
- Having one place to store everything

- I like that you can upload different file types on one page. (YJ)
- Having an online dump is good but I hope it helps with organizing as well. (AY)
- It could work as a personal gallery about you. (VM)
- My portfolio files are actually scattered around. So having them at one place would help. (VM)

#### 🥰 The use of templates

- Templates would help recording and reflecting.
- Various designs for different purposes should be provided to really make them beneficial.

- I like the templates the most but wonder how many there would be about what. I may need help choosing which one I should use. (AY)
- I want to have more templates. Like achievement template? to write what did I learn and achieve from this project. (VM)

#### 😞 Need help organizing

- (Viewing) White board would be hard to read after few days.
- (Making) There's a need for auto organizing supported by the platform.

- I don't want to spend a lot of time working on this. I hope it helps with writing and organizing. (AY)
- What if things just organize themselves? I hope it simplifies the process. (AY)
- What if you can have both the listed view and the white board view? (MR)(YJ)

#### 😞 Connecting to existing platforms

- Job seekers who already have their ways and methods of documenting would find it hard and not convinced of moving everything onto a new platform.

- I already use other platforms like Google drive, notion, and Microsoft documents. (VM)
- I save my data on my diary, photo gallery, Notion, Google docs, and Miro. It is complicated but I don't know how to bring them all together. (YJ)

#### 😞 Need motivation to habituate

- Those who are not used to documenting things on a regular basis would still find it hard to use this platform regularly.
- Need a strong motivation or trigger to use it.

- Afterall, if one doesn't put time on collecting and documenting, the issue cannot be solved. (YJ)
- People keep telling you it is important to keep track of your work but you don't feel motivated until you actually face the struggle. (MR)

#### 💡 Make it easier to record and organize

- Job seekers do not want to spend too much time on documenting and organizing. The platform should make the process simpler and easier.
- 1) Auto-organize function: dump and click to organize
- 2) Auto-record using other records and platforms

- I don't want to spend extra time on this. (VM)
- What if you just drop all you have and it organizes for you? (YJ)(AY)(VM)

#### 💡 Make it easier to read and search

- Reading and searching should be easy to keep track of records from the past and to make use of them.
- 1) Having both options for the board view & the list view
- 2) Using color codes to mark importance or relevance
- 3) Having view / search filters

- What if you can have both the listed view and the board view? switch them around with a click. (MR)(YJ)
- Dump is great for a day but the next day you wouldn't remember where things are and what it was about. (AY)

#### 💡 Analyze & suggest

- The platform should analyze who the user is and share the analyzed reports and suggestions such as:
- 1) what the user should work on / what one lacks of
- 2) aligning the user to companies / matching

- I want it to connect what I have to the reality, telling me what I should add and where I should apply. (AY)
- If I do not know much about companies, it would still be hard to know what to do. (MR)

#### 💡 Motivate users to habituate recording

- The platform should tell users to use it regularly and have a trigger that motivates them. It is because it is efficient and helpful to start the preparation from earlier on and to update the documents regularly.

- It only helps if users are using this regularly. Updating and reflecting at the right moment. (AY)
- I think people would use it more often if the process is fun and simple. (YJ)

## Part 02 Online CV with context

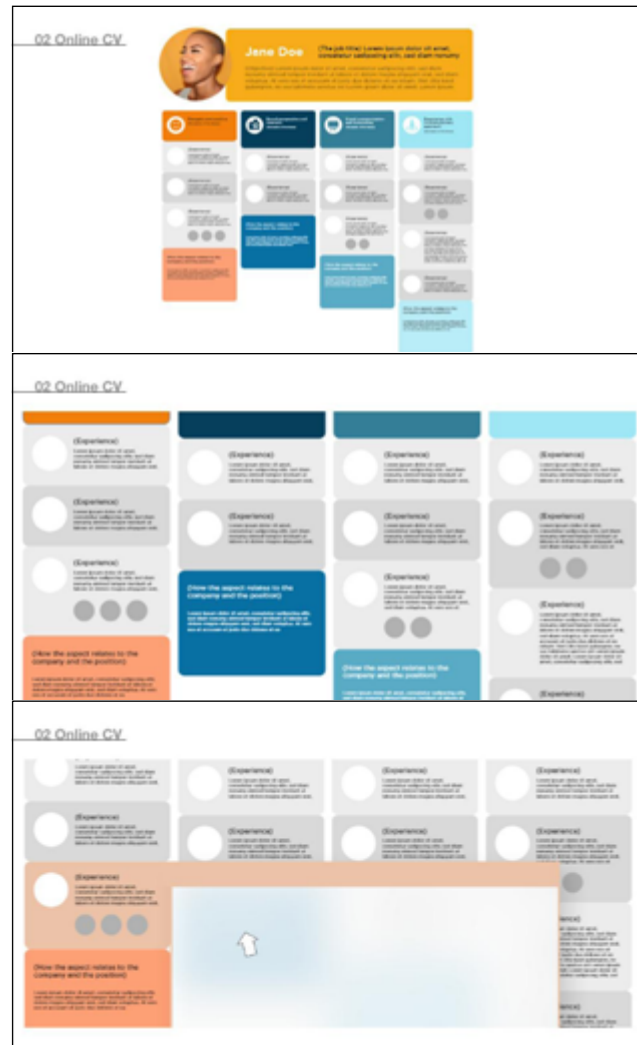


Figure 6.5 Key images of the second part of the product

### 😊 Online - easy to read

- Online space allows readers to zoom in and out easily.
- Having interactive elements and using visuals and animation effect make it easier to read and remember.

- I like that you can find the related information right next to it. (MR)
- Since it's online. I can zoom in and out. (VM)

### 😊 Online - more freedom

- Freedom to add layers, files and extra resource opens up more space and different ways to communicate.
- The surface would stay simple.

- I feel like I can put everything I wanted. It is expandable enough. (YJ)
- It is not restricted since you can link everything. (AY)
- I can categorize things as I want. (VM)

### 😊 Online - easy to manage

- Users do not need another software to edit and they can simply edit where ever they are.
- It is easy to keep track of old copies.

- I like that you don't need to use other software because I don't have Adobe products and find it hard to edit Pdf files. (YJ)
- I often use my old CVs as reference. It would be easy to look at different versions on this platform. (VM)
- If I can just drag and drop, I would find it easy. (AY)

### 😊 Overview - storytelling structure

- The structure shows a clear overview of the applicant.
- It would be useful for fresh graduates with not much work experience.

- It shows growth as a person. It can point out what you learned from which experience. That would give a nice overview. (AY)(YJ)
- I like that it is connected to your qualities as a person. (AY)
- I think it would be easier to understand the person. (YJ)

### 😞 Difficulty using something new

- The question would be how hard and how long it would take to get used to the new structure.
- The expected difficulties for writers would be:
  - 1) Spending time and energy on research and making
  - 2) Feeling lost and uncertain with lack of information
- The biggest difficulties for readers are:
  - 1) Hard finding where the information that they are looking for is
  - 2) Making new assessment guideline and process

- Isn't CV just a way to help others judge you? It is stressful but in that sense wonder if this product would work. (AY)

### 😞 Too much focus on storytelling

- Job seekers who are good at storytelling would stand out no matter what experience they had.
- It would be hard to choose the headers and what to tell about oneself if you are not certain.

- I don't think I would do well since I am not good at branding and storytelling. (YJ)
- What if you don't know much about yourself and not sure of the main aspects? (MR)

### 😞 Pressure from open space and freedom

- There are job seekers who find active self-representation and filling up an open space hard.
- Job seekers would not know how much to put in if there is no suggested limit.

- I find it much easier just filling in forms and I am okay with that. Maybe it's for the people from my field. (MR)
- I would feel pressure to put all the details. (AY)

### 😞 Remaining limitation

- The main page is still text based so it is not fully open to other medium uses.
- It is not entirely free since a certain structure still exists.

- Words(text) cannot describe me. I want to have visual blocks to represent myself as a designer. (AY)
- It's still text and also recruiters might miss information because they are not used to it. (VM)

### 💡 Easy to read

- Combine all the documents into one on this page.
- Give color codes or icons to mark what type of information use to be.
- Give the option to see it in the traditional way.

- Can you convert it to the form that people are used to? (AY)
- It would be useful if this CV can replace all the other documents like motivation letter and reports. (MR)

### 💡 Easy to make

- Give guidelines or example structure to help users decide what to put on the first row.
- Provide more information about the company and the position for the third row.

- I don't think I need absolute freedom. Having some structure can make it easy to make and read. (MR)
- What if the company gives suggestions for each column? (YJ)(MR)

### 💡 Modular structure

- Make the blocks modular to make it easy
  - 1) to put them around and see how they connect and fit
  - 2) to build a CV for an opening

- To have a deck prepared, just drag and drop to make a CV. (VM)
- The experience part wouldn't be hard to make at all. I just have to rearrange what I have on my current CV. (YJ)
- By putting blocks around, think you can figure something out yourself and how to make a CV. (AY)

### 💡 Customizing element

- Adjust block sizes, placement, and looks to differentiate oneself from others.
- Have free blocks and space outside of the given structure.

- Customization. How would I stand out? (AY)
- I wonder how I would make myself stand out on this. (YJ)

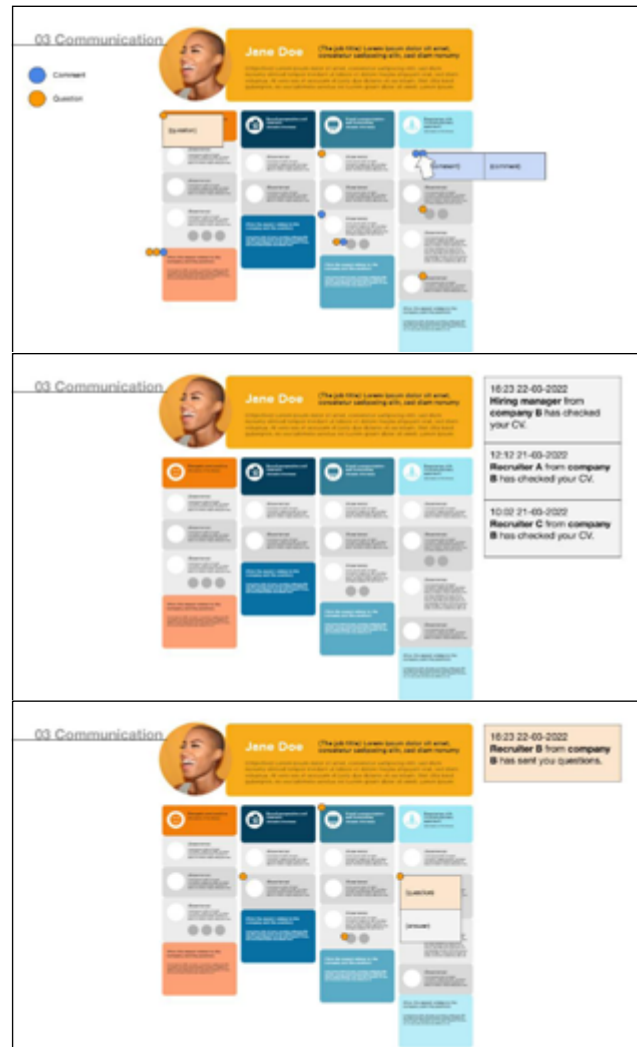


Figure 6.6 Key images of the third part of the product

**😊 Easy to share and manage application**

- It is easier to share a CV as a link than as a pdf file.
- It would be easy to have an overview of all the submitted applications.
- Sharing online is so much better. Pdf files does not open sometimes and are hard to edit. (YJ)(MR)(AY)
- This way I get to see all my past applications. (MR)(VM)
- So I can always show the most recent version. (VM)

**😊 Easy to keep the feedback organized**

- All the feedback from different people would be documented and saved. By separating and grouping, it would be easy to organize them and reflect on them.
- I like that the feed back would be documented in a written form. I can always look back and reflect on them on my own. (YJ)(AY)(MR)
- If you can edit while someone is looking at it, you can have live feedback session. (YJ)

**😊 Having status updates**

- Showing the records of views would work as a status update which would make the process transparent and relieve job seekers' stress from uncertainty.
- I hated that you never know if they processed it or not. I only get to know when someone checks my LinkedIn out. (YJ)
- In most cases, I didn't get any updates nor reply. (YJ) (AY)(VM)
- It means that they are reading my CV. (AY)

**😞 Questions from recruiters - ineffective**

- Just by knowing where the recruiter read and showed more interest would be valuable feedback.
- Wouldn't they prefer talking over texting? Depends on the length of a question but I don't think it saves that much time. (MR)
- Better than without questions but it's not the same kind of representation that you get in actual interviews. After all, it's just text. (MR)
- What if I forget or miss answering? (VM)
- If I get questions, my expectation would grow. Getting rejection on that would hurt more. (YJ)

**💡 Simple feedback - marking**

- Just by knowing where the recruiter read and showed more interest would be valuable feedback.
- Similar to using an eye tracking device, if I get to know where they clicked, how long they were on my CV, where they read, liked and disliked, that would really help. (YJ)
- The comments don't have to be long and detailed. Just knowing the parts they were more interested in would be great. What if they can click like or dislike to mark? (MR)
- It means that they are reading my CV. Knowing that they read it would already be something. (AY)

### 6.1.4 LIMITATION AND CONSIDERATION

The limitation is that the validation was done on only four participants with similar and specific backgrounds. All four did master's studies at the same university, and three of them majored in design. For a few questions, the three designers shared similar opinions that differed from the answer of the engineer participant. For example, the design majors showed a stronger desire for more space and freedom on CV, while the engineering major was happy with filling out a given form. However, the sample size is too small to generalize the tendency to the study background. Further research should be conducted on a bigger scale on people with more diverse backgrounds to specify the initial target user and to tailor the product.

Here are questions derived from the validation analysis to be addressed in further research:

- Is it a personal preference or does self-representation matter more for people from a certain industry or for specific positions?
- How does feedback from the recruiter or the company affect the applicant? How can the applicant make use of it?
- What are the reasons behind recruiters not sharing the status update? Has there been a successful try? How would transparency affect the company?
- How can a job seeker tell the information or the feedback one got is reliable or meaningful?

06 IMPLEMENTATION PLAN  
**6.2 PRODUCT REVISION**

**6.2.1 MODIFICATION DIRECTION**

Based on the validation result, the user journey was revised. The parts with positive feedback were highlighted while the questionable parts were removed or revised. The solution ideas that address the main problems were added, and small ideas were placed as suggestions to give inspiration for possibilities.

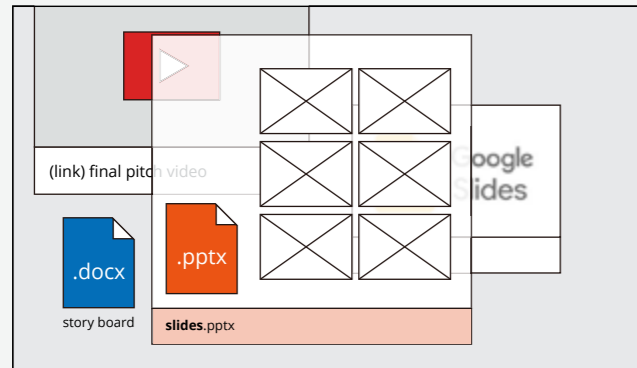
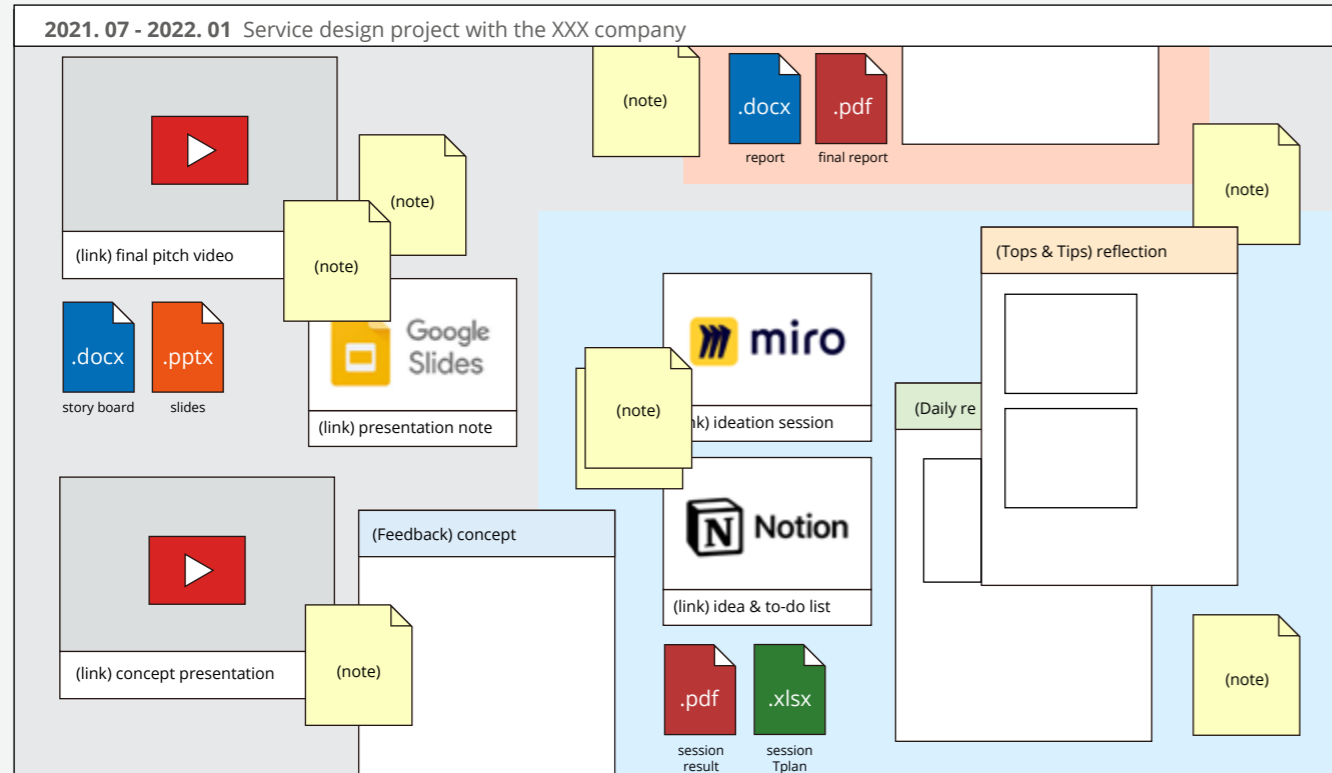
The design was simplified to make the audience not focus on visual elements and contents but concentrate on the idea of the product. This would give them room to picture the product on their own and induce having open opinions.

**6.2.2 REVISED PRODUCT USE FLOW**

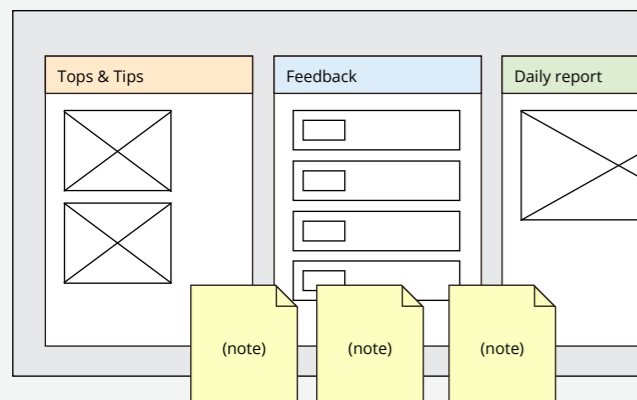
	Job seeker	Recruiter
<b>01 PREPARATION</b>	<ul style="list-style-type: none"> <li>01.1 Collect records and make remarks</li> <li>01.2 Organize the data and reflect</li> <li>01.3 Make a summary block</li> </ul>	
<b>02 REFLECT &amp; MAKE A CAREER CHOICE</b>	<ul style="list-style-type: none"> <li>02.1 Understand oneself through the collected summaries</li> <li>02.2 Compare the summaries with requirements and make career choices</li> </ul>	
<b>03 MAKE A CV</b>	<ul style="list-style-type: none"> <li>03.1 Select the key aspects and keywords</li> <li>03.2 Place the summary blocks</li> <li>03.3 Add extra blocks if needed</li> <li>03.4 Complete the cover letter blocks</li> </ul>	
<b>04 SHARE &amp; REVISE</b>	<ul style="list-style-type: none"> <li>04.1 Share the CV and get a feedback</li> <li>04.2 Modify the CV</li> </ul>	
<b>05 SUBMIT &amp; SCREEN</b>	05.1 Submit the CV as an online page	
	05.2 Job seeker gets an alarm when a recruiter opens it	
		05.3 Read and mark the CV
	05.4 Recruiters can leave comments and have chats with the applicant	
<b>06 RESULT &amp; NEXT STEPS</b>	<ul style="list-style-type: none"> <li>06.2.2 Rejected: use the remarks for upcoming applications</li> <li>06.2.1 Accepted: use the remarks for interviews</li> </ul>	06.1 Send the result with remarks

# 01 PREPARATION

## 01.1 Collect records and make remarks

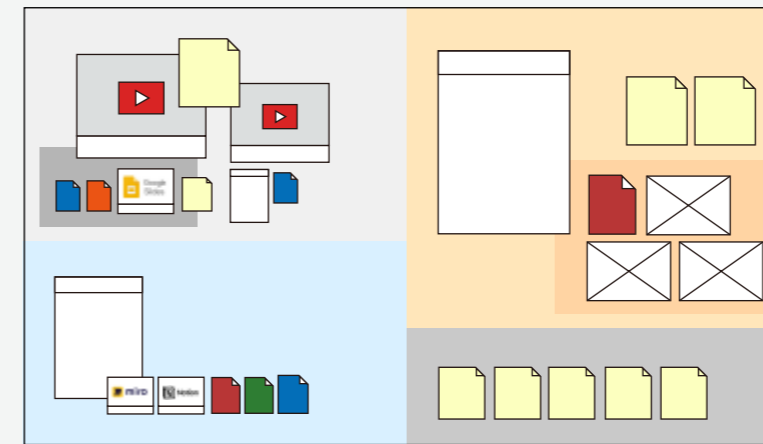


The job seeker makes a folder for the project that one is working on. In the folder, one finds a board where one can **upload all the files and links** that are related to the project. Any type of file can be uploaded and **a preview pops up** when one clicks the file.

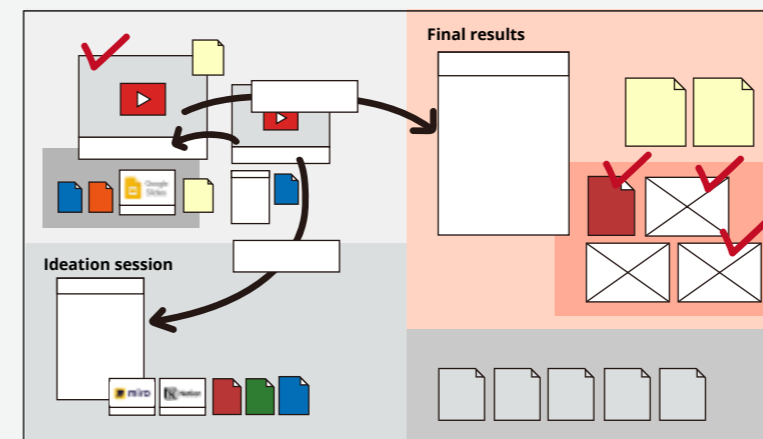


The platform provides **templates and memo blocks** to help the job seeker document one's thoughts, achievements, and feedback from others in an organized way.

## 01.2 Organize the data and reflect



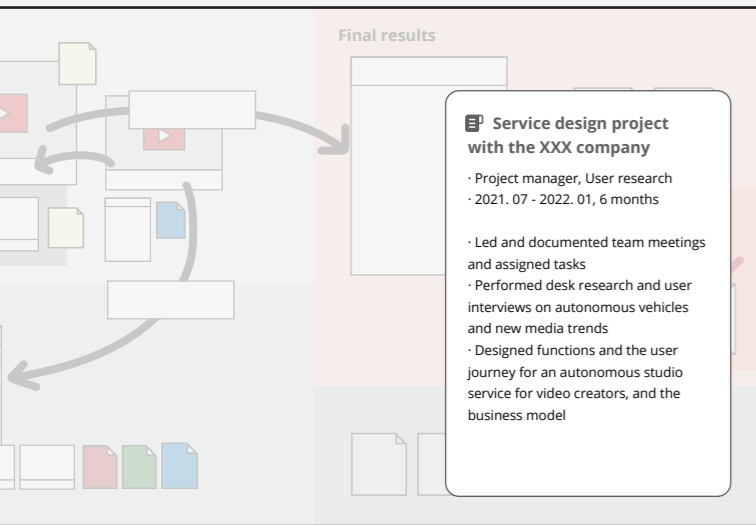
In one's free time, one starts to organize the data. The platforms support the organizing process 1) by **showing the files in different orders**, and 2) by **suggesting grouping ideas and titles** to the clusters.



While organizing, one can **draw on the board** for example to mark the **relations** or **relevance**.

When one is done organizing, one can have an overview of the experience and **reflect on what one has learned**, liked/disliked, or did well/made mistakes.

01.3 Make a summary block



When one is done with reflection, one can start writing a summary of the project on the experience block. One writes the role that one took, the period when the project happened, and what one has performed, learned, and practiced.

If one has taken multiple roles that are very different with different experiences to share, one can make multiple blocks for one project.

**Service design project with the XXX company**

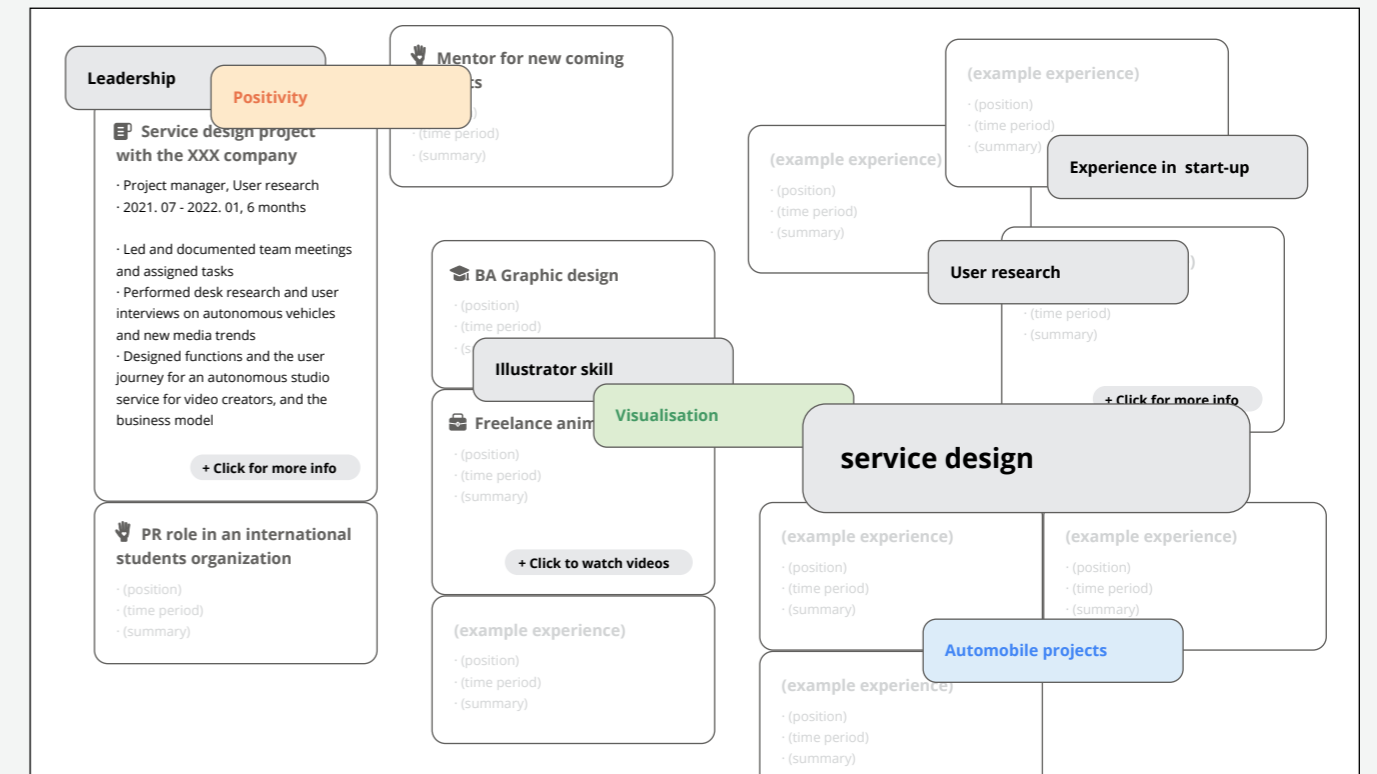
- Project manager, User research
- 2021. 07 - 2022. 01, 6 months
- Led and documented team meetings and assigned tasks
- Performed desk research and user interviews on autonomous vehicles and new media trends
- Designed functions and the user journey for an autonomous studio service for video creators, and the business model

[+ Click for more info](#)

Service wireframe

User scenario

If there is more to show and tell about the project, the job seeker can add a layer under the block to write more and to add different media files.

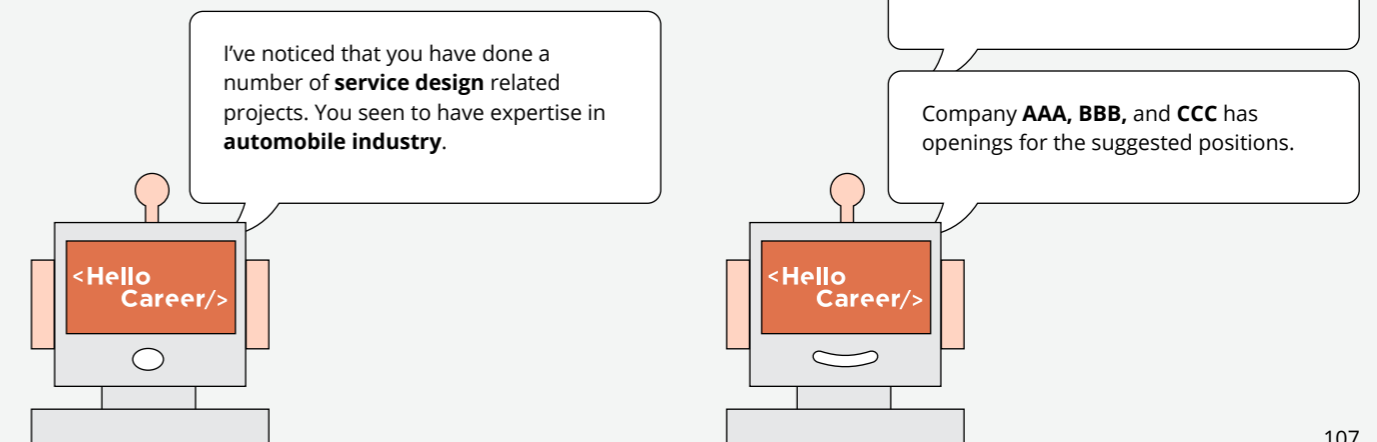


02.1 Understand oneself through the collected summaries

When the job seeker is ready to apply for a job, one can have an overview of all the work one has done. By analyzing the collected user data, the platform gives suggestions for grouping and naming. Taking the suggestions into account and by placing the experience blocks around, and giving keywords to the groups, one gets a more clear idea about what one can do and wants to do.

02.2 Compare the summaries with requirements and make career choices

The platform helps the job seeker to compare one's traits to the job requirements, and suggests positions and companies that show a high matching rate. With the help, one decides which position and company to apply for.



## 03 MAKE A CV

### 03.1 Select the key aspects and keywords

**(key aspect of yours)**  
(summary of the trait)

For the first block, the job seeker chooses a key aspect of oneself and gives a title with keywords, and writes a short description about it. One can make 3 to 5 of these blocks.

### 03.2 Place the experience blocks

**(example experience)**  
(position)  
(time period)  
(summary)

+ Add another layer  
for more info or files

Under the title block, the job seeker places the relevant experience blocks. The contents are not limited to work experience. They can be about anything such as school projects, extracurricular activities, and voluntary work. One can keep the extra layer with more information that one has made in the previous step.

### 03.3 Add extra blocks if needed

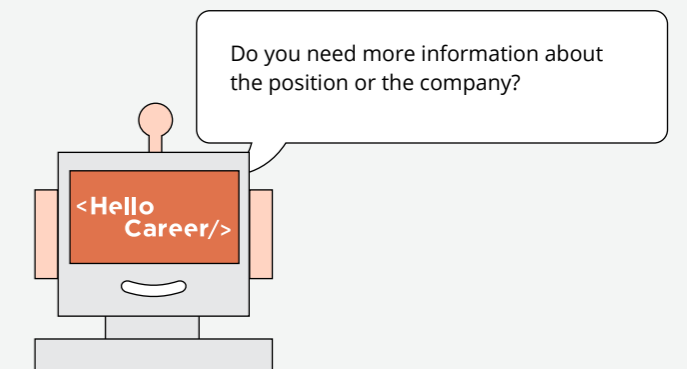
(interesting and personal content like an image, video, quote)

To support the contents and to make the CV more interesting to read, one can add extra blocks with an image, video, quote from someone, or q&a, in-between experience blocks.

### 03.4 Complete the cover letter blocks

**(how the trait relates to the position or the company)**  
(explain how in detail: motivation or expectation for example)




In the last block, one can align the aspect to the applying position and write about the motivation or expectation. The platform would support you in case you need more information about the position or the company, These last blocks would replace the cover letter.



## 04 SHARE & REVISE




### 04.1 Share the CV and get a feedback

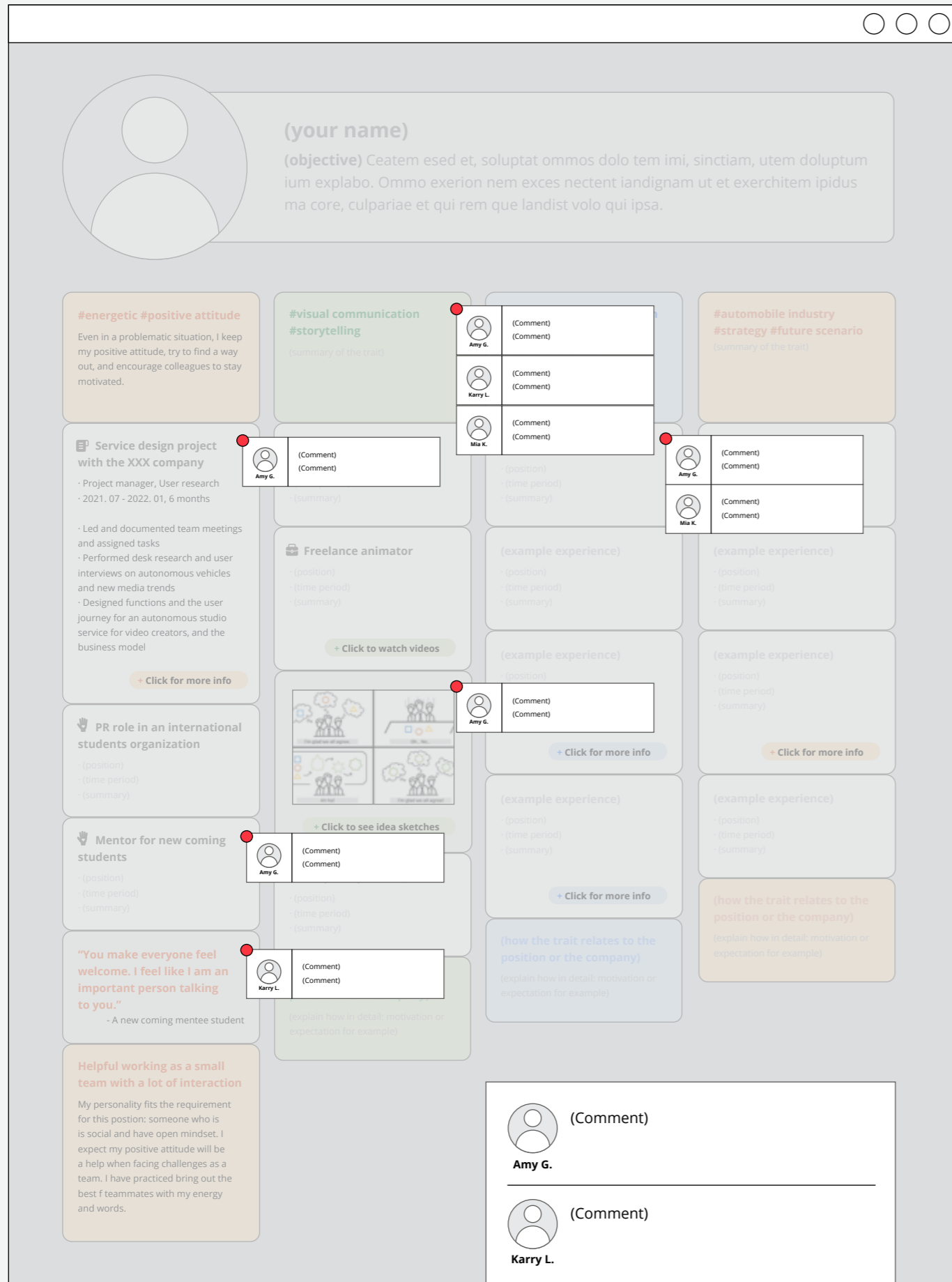
Since the CV is online, the job seeker can easily share it by sending the link to it and ask for feedback. Friends and mentors can leave comments on a specific block or as a whole. One can find a list of all the sent-out copies and feedback on the platform. This would help the job seeker document the feedback and reflect on them over time.

	<b>02-04-2022</b>   Shared with Amy, Karry, Mia 20 total comments 8 unread comments
	<b>06-02-2022</b>   Shared with Johnathan 4 total comments 0 unread comments
	<b>12-08-2021</b>   Shared with Emily 7 total comments

### 04.2 Modify the CV

Modifying the CV can easily be done online and the old copies would be saved on the platform. Job seekers mentioned the need for keeping the track of different versions of CV and the results they have gotten for each CV. Thus, the platform supports them with the list of CVs and the results.

	<b>07-04-2022</b>   CV for AAA Version 2.2 - Final Status   sent
	<b>05-02-2022</b>   CV for BBB Version 2.3 - Final Status   rejected
	<b>06-11-2021</b>   CV for CCC Version 1.5 - Final



**(your name)**  
(objective) Ceatem esed et, soluptat omnos dolo tem imi, sintciam, utem doluptum ium explabo. Ommo exerion nem exces nectent iandignam ut et exerchitem ipidus ma core, culpariae et qui rem que landist volo qui ipsa.

**#energetic #positive attitude**  
Even in a problematic situation, I keep my positive attitude, try to find a way out, and encourage colleagues to stay motivated.

**#visual communication #storytelling**  
(summary of the trait)

**#automobile industry #strategy #future scenario**  
(summary of the trait)

**Service design project with the XXX company**  
- Project manager, User research  
- 2021. 07 - 2022. 01, 6 months  
- Led and documented team meetings and assigned tasks  
- Performed desk research and user interviews on autonomous vehicles and new media trends  
- Designed functions and the user journey for an autonomous studio service for video creators, and the business model  
+ Click for more info

**Freelance animator**  
(position)  
(time period)  
(summary)  
+ Click to watch videos

**PR role in an international students organization**  
(position)  
(time period)  
(summary)  
+ Click for more info

**Mentor for new coming students**  
(position)  
(time period)  
(summary)  
+ Click to see idea sketches

**"You make everyone feel welcome. I feel like I am an important person talking to you."**  
- A new coming mentee student

**Helpful working as a small team with a lot of interaction**  
My personality fits the requirement for this position: someone who is social and have open mindset. I expect my positive attitude will be a help when facing challenges as a team. I have practiced bring out the best of teammates with my energy and words.

(Comment)  
Amy G.

(Comment)  
Karry L.

(Comment)  
Mia K.

(Comment)  
Amy G.

(Comment)  
Mia K.

(example experience)  
(position)  
(time period)  
(summary)  
+ Click for more info

(example experience)  
(position)  
(time period)  
(summary)  
+ Click for more info

(example experience)  
(position)  
(time period)  
(summary)  
+ Click for more info

(example experience)  
(position)  
(time period)  
(summary)  
+ Click for more info

(example experience)  
(position)  
(time period)  
(summary)  
+ Click for more info

(how the trait relates to the position or the company)  
(explain how in detail: motivation or expectation for example)

(how the trait relates to the position or the company)  
(explain how in detail: motivation or expectation for example)

(Comment)  
Amy G.

(Comment)  
Karry L.



## 05 SUBMIT & SCREEN

### 05.1 Submit the CV as an online page

When the CV is modified and is ready to be sent to the company, the job seeker can submit it by sending the link to it. This way, the job seeker has ownership over the CV and can keep the track of what is happening to it.

### 05.2 Get an alarm when someone opens it

As part of the tracking, when someone from the company opens the CV, the applicant gets to know when it was checked by whom. This would be a clear status update to the applicant that the CV was submitted properly and is being screened.

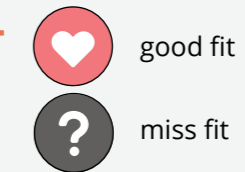
	<b>07-04-2022</b>   CV for AAA Version 2.2 - Final Status   checked 2 times
	<b>16:23 10-04-2022</b> A hiring manager from company AAA has opened your CV.
	<b>13:02 08-04-2022</b> A recruiter from company AAA has opened your CV.
	<b>05-02-2022</b>   CV for BBB Version 2.3 - Final Status   rejected
	<b>06-11-2021</b>   CV for CCC Version 1.5 - Final

The screenshot shows a CV profile page for "(your name)". At the top, there is a profile picture placeholder and an objective statement. Below this, the CV is organized into a grid of sections:

- Personal traits:** Includes sections like "#energetic #positive attitude", "#visual communication #storytelling", "#multidisciplinary approach #product development", and "#automobile industry #strategy #future scenario". Each section has a "summary of the trait" and a "Click for more info" button. A red heart icon indicates a "good fit", and a question mark icon indicates a "miss fit".
- Work Experience:** Lists roles such as "Service design project with the XXX company", "BA Graphic design", "Freelance animator", and "PR role in an international students organization". Each entry includes a position, time period, and summary, with a "Click for more info" button.
- Portfolio/Projects:** Includes "Mentor for new coming students" and "Helpful working as a small team with a lot of interaction".
- Feedback/Comments:** A section titled "How the trait relates to the position or the company" with a "Click for more info" button. Below it, a comment from a "New coming mentee student" reads: "You make everyone feel welcome. I feel like I am an important person talking to you."
- Chat/Questions:** A section at the bottom titled "(Question to the applicant from the recruiter)" with a corresponding "(Answer from the applicant)" field.

### 05.3 Recruiters read and mark the CV

While reading the CV, recruiters can click and mark the part they think is a good fit or a miss fit to the position. For the blocks they find interesting, they can click the button to the under layer to find more information.



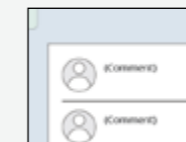
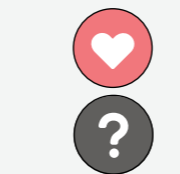
### 05.4 Recruiters can leave questions and have chats with the applicant

When recruiters have critical questions that they want to get the answers to before making the final decision, they can ask them on the CV. The applicant would answer the questions in text in the given time period.



## 06 RESULT & NEXT STEPS

### 06.1 The result comes with remarks



When the screening is done, the applicant gets the result together with the remarks. There are three types of data they would get on the CV. The first is the number of clicks for each under layer which indicates which blocks the recruiters had more interest in. The second is the good fit and miss fit marks on the blocks. The last is the comments and the records from the Q&A.

\*From the first type to the last, recruiters have to spend more time remarking. The questions for future research would be testing out how effective each type is, figuring out how long each takes, and how much the recruiters would be willing to use this and share the information.

### 06.2.1 Accepted: use the remarks for interviews

When the result was positive and the applicant got accepted for the next steps in the hiring process, the applicant can use the remarks to expect what kind of questions on what the recruiters would ask in the upcoming interviews. The applicant can also prioritize what to talk about when introducing considering the contents that had more interest.

### 06.2.2 Rejected: use the remarks for upcoming applications

When the result was negative and the CV got rejected, the applicant can utilize the remarks for other applications. The applicant can revise the CV and apply again in the next opening, or consider applying for other positions or companies.

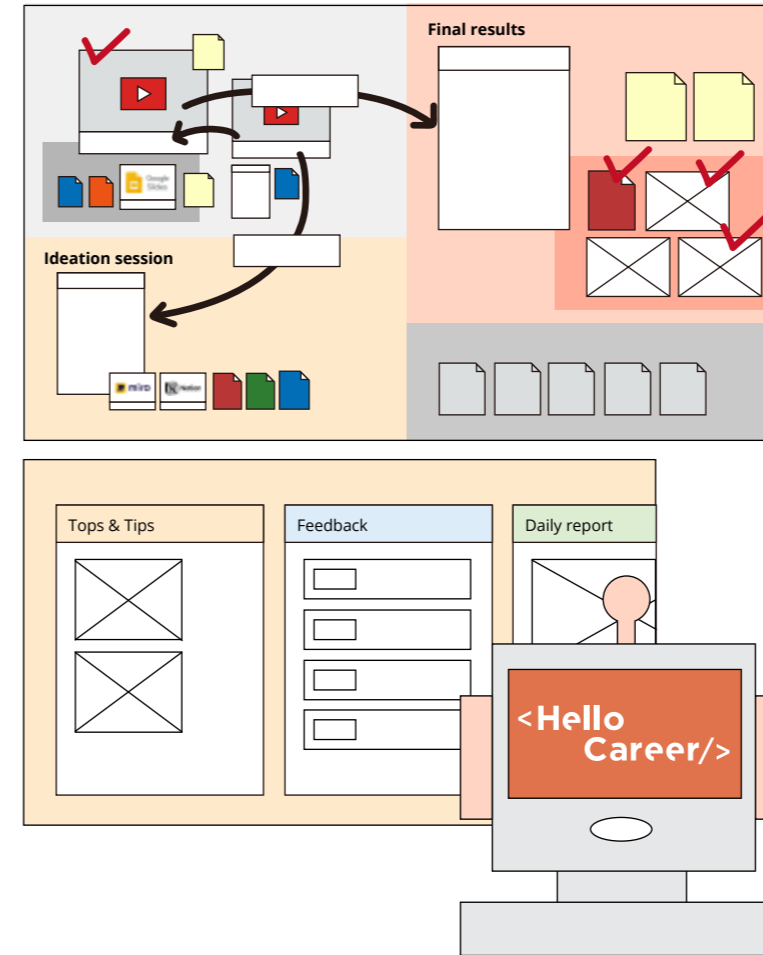
## 06 PRODUCT DEVELOPMENT

### 6.3 IMPLEMENTATION PLAN

As previously stated, the suggested concept is based on the job seekers' needs and ideas. Thus, to commercialize the product, conducting research on other stakeholders, especially recruiters, and aligning the current ideas to their needs should take place. This chapter would suggest how the research should be conducted and the steps to develop the product.

The service features can be separated into two groups. The first group of ideas is the ones that only serve job seekers, and the second is the services that connect applicants and recruiters. The first group supports job seekers' job searching journey with a focus on the application preparation process. The client can start building this part of the platform since the first step of the research and validation was conducted in this project. However, for the second part, clarifying recruiters' positions and needs is crucial. The ideas can only be implemented through mutual discussions and with recruiters' approval. Based on the research, even when both parties agree on using the new type of CV, it is suggested that putting it to use should be done gradually over time.

Therefore, the strategic approach for the client would be first building up the company and the brand by bringing in job seeker users with the first group of ideas, then developing and adjusting the second part of the product step by step. The following implementation plan explains the suggested future steps in detail. The tasks were placed in a chronological order but the time period is not stated since the client does not have a specific expected time frame for the product.



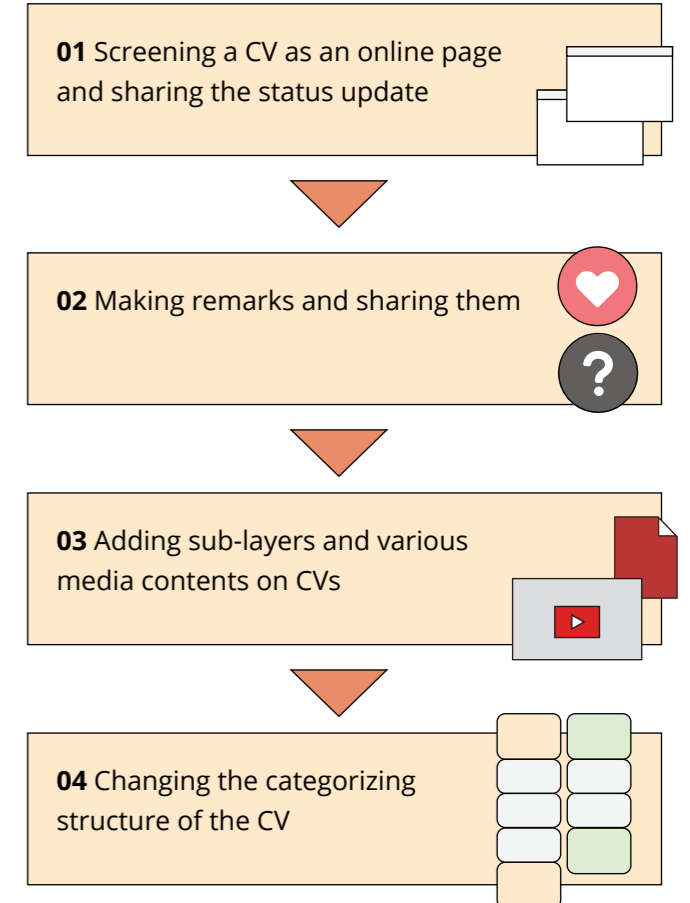
#### 01 Features for job seekers

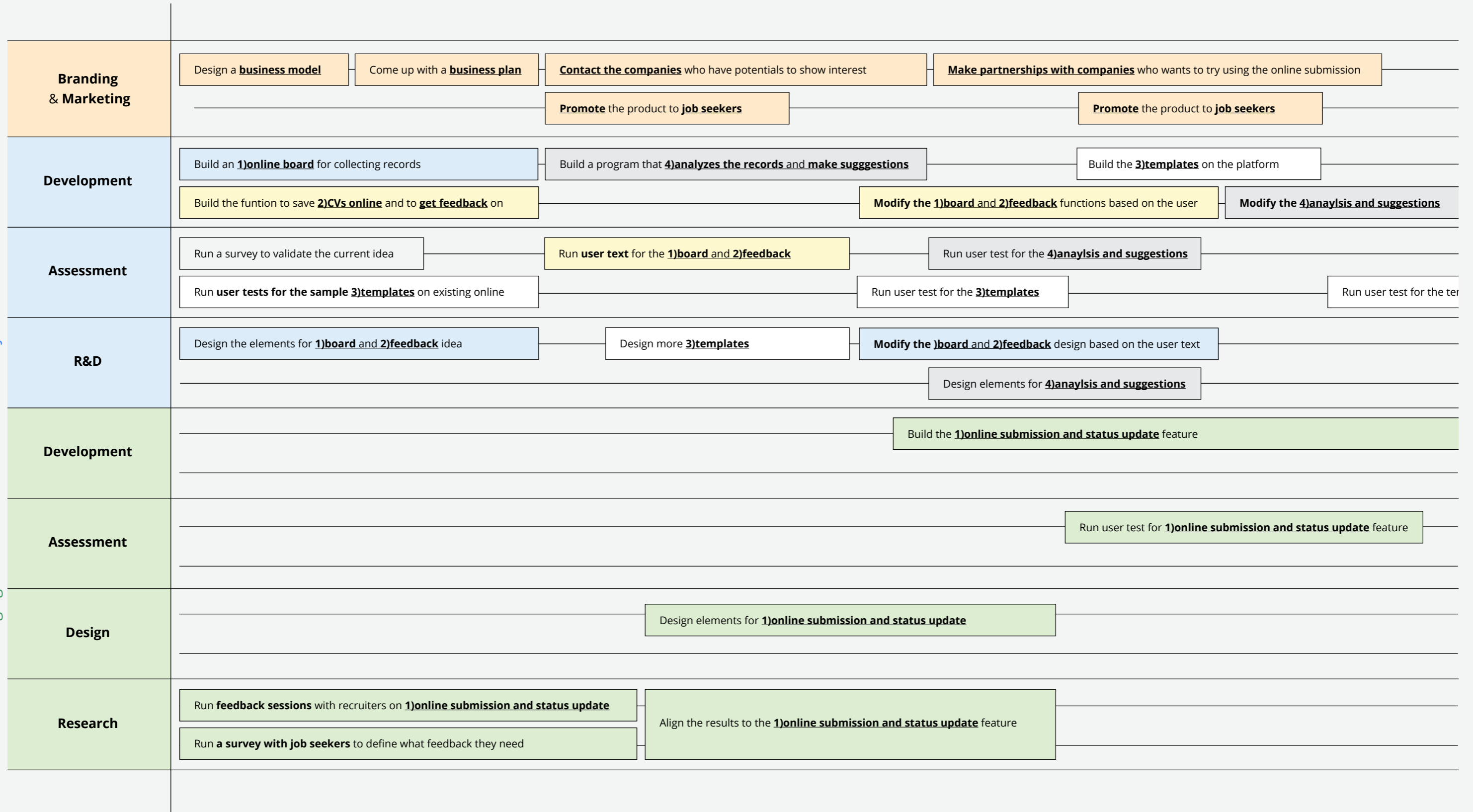
- Collecting and documenting experience records
- Various templates supporting documenting and reflecting
- Summarizing the experiences into modular blocks
- Building a CV online
- Sharing the CV and documenting comments
- Getting suggestions based on the analysis of the records

#### 02 Features bridging applicants and recruiters

- 1) Screening a CV as an online page and sharing the status update
- 2) Making remarks and sharing them
- 3) Adding sub-layers and various media contents on CVs
- 4) Changing the categorizing structure of the CV

The features were separated into four parts. From the first to the last, the difference between the suggested idea and the CV now gets bigger and the amount of time a recruiter would spend on the CV grows. Thus each feature has to be approved and verified one after another.





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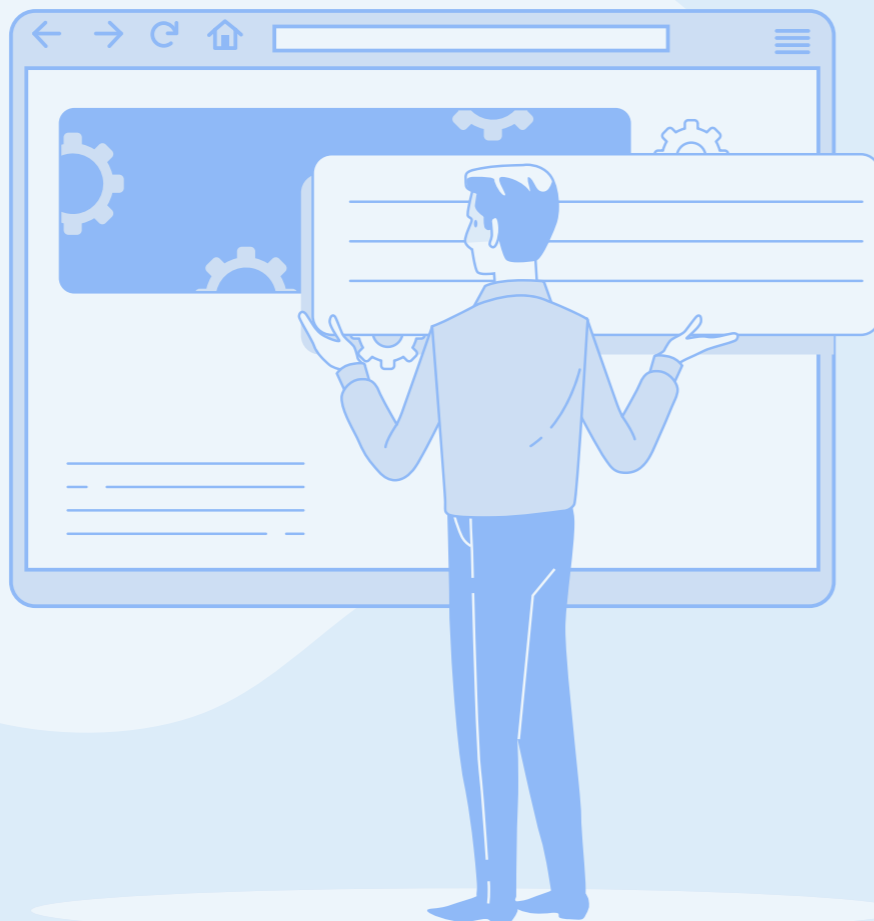
## CHAPTER 07

# REFLECTION

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*How did this project address the starting point problem?  
What are the limitation and contribution?*

- 7.1 Conclusion
- 7.2 Limitation & contribution
- 7.3 Personal reflection



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## 07 REFLECTION

### 7.1 CONCLUSION

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Going back to the starting point, the main research question was to figure out 'how to bridge recruiters and job seekers to give job seekers a chance to actively represent themselves in the application phase'. To conclude the project, here is a remark on how the result addressed the question.

The research focused on understanding why it is currently not possible for job seekers to have the autonomy to self-represent in the hiring process, especially in the application. It is mainly because the hiring process is designed to meet companies' needs of screening fast and cost-efficiently. From a company's perspective, a CV functions as a checklist. The ones with more checks pass the screening, and those who miss the checks that the company picked, do not make it through. This way of processing has been used for a long time, and it is now commonly done by an algorithm. However, questions and concerns are rising. Quincy, the client, was one of the people who questioned whether it is possible for one segment, some words on a CV, to represent a core capability of someone. Can competencies that are hard to measure and define be explained in a few words? If it is not easy to tell on CVs, is it still fair to disqualify someone based on the contents on CVs? In short, what does a combination of a few words tell about someone?

Companies need people who can easily adapt to the fast-changing world instead of someone good at doing the same thing repeatedly since computers are replacing such repetitive tasks. Thus, job requirements are getting more complex, diverse, and longer. Some of those requirements are hard to tell and prove in a short text. Nevertheless, what if the short texts are connected and build up a bigger picture of the applicant? The idea of the new structure, the new way of categorizing, came from there.

On the Hello Career CV, the applicant can place blocks about one's past in groups representing specific aspects of oneself. Small stories together would make a clearer picture of who one is. Having the CV online allows one to place different media content to support the stories. With the new CV, it will now be the applicant's role to show oneself as a whole instead of letting the recruiter connect the dots and make assumptions.

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## 07 REFLECTION

### 7.2 LIMITATION & CONTRIBUTION

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The most significant limitation of the project is the insufficient amount of field research and validation. First of all, considering the capacity of an individual student researcher and the given time period, the focus was narrowed down to job seekers. Thus the final solution would lack in meeting other stakeholders' needs. Also, it is even hard to say that the result would apply to the majority of the target users since it is hard to say that the participants in the project represent them. Their study backgrounds and demographics are particular to generalize the findings.

The following limitation that holds the result back from being commercialized would be the lack of connection between the client's property, technical suggestions, and the suggested product. In the design process that was often practiced in the Strategic Product Design program, analyzing the client took part in earlier stages to develop ideas that utilize what the company has in the later stages. However, I had communication issues and also wanted to go far with the ideas to suggest a future-forwarded concept to deliver a stronger story and motivate talks on the topic. There are concept ideas designed to tell a story, raise a question, or inspire the audience, while there are ideas designed to go under production soon. After recognizing that job seekers do not often get the chance to publicly share how they find and are going through the hiring process, the project's goal was shifted towards the inspiring direction. Thus, I hope the partially non-realistic ideas, such as suggesting a new structure for CV, making recruiters spend a lot more time on marking a CV, and sharing information that they kept confidential, would draw attention to the problems that job seekers face.

#### Suggestions for the use of AI in hiring

I am okay with a human recruiter making a mistake but not with AI doing the same thing.

The desk research mentioned the considerable discussion around whether AI is making the hiring process better than before or it is not yet ready to be used. Considering the used research methods and focus of this project, I would conclude by stating how job seekers find the use of AI in hiring and suggest roles for AI.

No matter how well someone explains the positive impact, some changes take time for people to take in. Especially since AI hiring tools are making critical mistakes, not yet ready to function as intended, the application should be made more carefully to respect job seekers' perspectives.

From the interviews with job seekers, the most significant displeasure seems to come from the idea that AI can judge who the applicant is and takes away the opportunity. Thus, a supporting role was given to AI in the suggested product that does not affect the screening result. AI's feature processing many data in a short period can help job seekers in many ways in the preparation stage. The analysis of who one is and where one would make a nice fit is valuable for both companies and job seekers to understand themselves and make career choices. Therefore, until the tools are fully functioning and people are ready to take them, I would like to suggest using AI for assisting job seekers by giving them the advice to make the way through the job search journey.

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## 07 REFLECTION

### 7.3 PERSONAL REFLECTION

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#### The dark side of the journey

In a workshop on student well-being, some participants and I agreed on the fact that we need more failure stories. Success stories are often openly shared while not many people talk about the experience of falling behind. I also did not talk about the struggles I was going through and that was one of the main reasons why the problems I was facing got worse and caused the graduation journey to fall apart. I would like to finally take a step and share what I went through.

I had the kick-off meeting exactly one year ago which means it took me half a year more than it should have to finally get to the finishing line. Looking back, I would summarize the year as 'the period I learned the things I should work on which I am horrible at.' To share a few, firstly, I get easily obsessed with not important details and that resulted in poor time management. Secondly, I tend to conceal problems thinking that facing them would make them worse. That is why I hesitated for months to reach out for help. Lastly, I found taking the responsibility for such a big project on my own new and challenging.

I think it would have been great if I could finish up the story by sharing how I got over the problems, but unfortunately, I am still on the way to overcoming them. But what I see as a bright side is that now I openly talk about such issues, and ask for help and advice. People around me offer constructive solutions to warm emotional support. Some helped and some did not work but most importantly, thanks to all the help, I feel much better about myself and have high hopes for the coming days. I wanted to note such a personal story down as a remark of the long journey since it was a big part of it. I hope this would remind my future self to always dare to face my weaknesses and not keep the problems to myself.

#### The bright side of the journey

If the dark side was what was pulling me back, the people on the bright side were the only reason how I eventually made it this far. I will thank you all privately. Here I have to mention big thanks to my amazing mentors.

First of all, my mentor, Evgeni, is not only the best mentor I ever had in life but a man of the best character that I cannot admire more. If I were in his shoes, I would have given up on myself a long time ago, but he offered all kinds of help and always stayed supportive. Throughout the entire year, I have never seen him feeling low. He was a very motivational figure. If I could have put all his advice into practice, I would have been a top-of-the-class student. They were all genuine, thoughtful, and helpful. It was just my will that was lacking that I feel so sorry for. I believe with his exceptional coaching skills and passion, he would flourish as an honorary coach.

Lianne, as a chair, gave remarkable advice and always stayed supportive. Whenever I had a meeting with her, I could end up having a positive mindset. She genuinely complimented what I have done and showed me the way to make it better. Her comforting and cheering coaching manner was a big help to get out of the depressive moments I was having.

Thank you both for walking along the long journey with me. I hope to be someone like you guys one day, cheering and being helpful to other people. I'll always be rooting for you.

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