



Ulisse

Soft Skills for Employability

IO5 TOOLIT FOR EMPLOYERS TO WRITE EFFECTIVE VACANCIES

Software Design

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Intellectual Output 5 - TOOLKIT FOR EMPLOYERS TO WRITE EFFECTIVE VACANCIES, SOFTWARE DESIGN

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INTRODUCTION

The present report is part of the ULISSE Project; Understanding, Learning and Improving Soft Skills for Employability, 2018-1-IT01-KA203-048286. More precisely, it is the guidelines for the design of the Toolkit for Employers to write effective vacancies Intellectual Output 5 of ULISSE Project.

In this document we give the basic guidelines for the design of the software Toolkit for Employers. This document will serve as a base for budgeting the software development.

According with the project proposal submitted to the Commission:

- The toolkit is aimed to **help companies to describe in a clearer and effective way the worker profile** they are looking for, avoiding misunderstandings. Employers normally deal with a massive quantity of CVs to be screened, which is often a consequence of a lack of clarity in the job description. Students and graduates also waste time in sending applications for positions that don't fit their profile. Both employers and applicants would therefore benefit from such a toolkit as well as Career Service officers who will have **an increased capacity for facilitating the matching of job demand and supply**.

- The toolkit will innovate deeply the relation between Career Services/Temp Agencies/ Headhunters and companies, as it will allow them to **use a new common terminology**. In addition to this, **this new lexicon will be also shared with the job seekers in the coaching activities organized by the Career Services**, thus helping them to better understand what the companies are looking for on the market.

- The toolkit **will be composed of an IT tool and the guidelines for using it**, in order to allow other target groups to adopt them freely and without any external support, ensuring the transferability of the final output. The toolkit will be designed and then piloted with a limited number of companies, before releasing the final version.

SOFTWARE DEVELOPMENT

AGILE SOFTWARE DEVELOPMENT

According to Wikipedia (2020), in software development, agile approaches development requirements and solutions through the collaborative effort of self-organizing and cross-functional teams and their customer(s)/end user(s). It advocates adaptive planning, evolutionary development, early delivery, and continual improvement, and it encourages flexible responses to change.

It was popularized by the Manifesto for Agile Software Development (Beck et al. 2001). The professionals signing the manifesto declared that based on their combined experience of developing software and helping others do that, they proclaimed that they valued:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

That is to say, the items on the left are valued more than the items on the right.

We would like our software development project of the toolkit to be developed using Agile principles, frameworks and tools such as Scrum.

SCENARIOS

In designing the toolkit, it helps to imagine a few real-life stories of how actual (stereotypical) people would use them. We'll look at three scenarios.

Scenario 1: Paul.

Paul is a very busy CEO of a SME. He is also the HR manager of his tiny business employing 8 workers. His company makes diamond-based products for children which are sold through national chains such as "Toys for the Rich". During the course of a typical day, usually he has many meetings with many very different people. Sometimes he needs to hire a graduate in order to help the company with new designs and with the planning of marketing campaigns, among other tasks. Usually he sends his vacancies to the career office of the local University, but they always complain about the low quality of those vacancies and that applicants do not really understand if they comply with the requirements of the job offer. The consequences of the poor quality of the job offers is a low number of applicants he receives, usually one or zero, and the low fit between the demand of the jobs and the profile of candidates.

Paul does not have secretary to assist him, he has no much time, neither for taking some training to learn how to improve the job nor to pay much attention and invest time in writing and editing properly the vacancies the company offers.

Now, whenever Paul needs to fill up a vacancy, he simply writes one or two paragraphs about the main tasks and qualities of the ideal candidate, logs onto <https://ulisseproject.eu/toolkit> , pastes the information and in a few minutes has a understandable, clear well designed job offer, ready to be sent to social networks (Facebook, Instagram, Telegram, etc.) and to the Career office of the University.

Scenario 2:

Laura is a part of the staff of an NGO. Her employer's mission is to facilitate the entry of the young unemployed into the labour market. In order to achieve this goal, Laura has to contact companies, mainly Small and Medium Size, and get as many job offers as possible, in order to post them into the employment portal of her NGO.

Laura spent most of her day talking, by phone or in person, with employers and candidates inquiring about the job offers. She is so busy and the number of vacancies she has to deal is so high, that she has no time to improve the layout and clarity of the job offers she receives. Sometimes she feels that if the quality of the job offers would increase, not only would increase the satisfaction of employers and candidates, but also would increase the matches.

Now, when Laura receives a job offer, logs onto <https://ulisseproject.eu/toolkit> , pastes the information she has received and in a few minutes she has an understandable, clear well designed job offer, ready to be sent to social networks (Facebook, Instagram, Telegram, etc.) and to the NGO job listing platform.

Scenario 3:

Sandrine is a recent university graduate. She has spent several years studying very hard an engineering degree, and she has no clue of what employers are looking for. After finishing her university studies, she has applied for several vacancies, but with no luck. She feels that the way the job vacancies are written is not understandable, she is not familiar with the language and the appearance of the job offers she comes across.

Now, when Sandrine finds in the web or receives a job offer, logs onto <https://ulisseproject.eu/toolkit> , pastes the information and in a few seconds she has an understandable, simple and clear job offer she finds easier to understand.

AGILE USER STORY

In software development and product management, a user story is an informal, natural language description of one or more features of a software system. User stories are often written from the perspective of an end user or user of a system. They are often recorded on index cards, on Post-it notes, or digitally in project management software. Depending on the project, user stories may be written by various stakeholders including clients, users, managers, or development team

members. User stories are a type of boundary object. They facilitate sensemaking and communication; that is, they help software teams organize their understanding of the system and its context. (Wikipedia, 2020)

Now we are going to summarize the user's stories in the following table:

ID	AS A (type of user)	I WANT TO (perform some task)	SO THAT I CAN (achieve some goal)
1	CEO and HR Manager of SME	To have an easy to use tool to write short descriptions of the vacancies my company has	Achieve high response from candidates in terms of numbers and fit
2	Staff of Career Service	To have an easy to use tool to translate the SMEs vacancies into clear and understandable job offers	With low time investment I can translate the vacancies I receive from SMEs and post them to job seekers, and have high impact in terms of applicants and match
3	Student	To have an easy to use tool to translate job offers	Understand easily what are the requirements of job offers and if I fit with them

Source: Authors of the report.

PRODUCT DESCRIPTION

The toolkit that we need to develop is a tool to help companies to describe in a clearer and effective way the worker profile they are looking for. The main target users will be Companies (SMEs), Employers, Career Services, Temporary Work Agencies, Head-hunters, etc., and the secondary target group will be university students and graduates.

PRODUCT FUNCTIONALITIES

It is basically something to support employers while they are writing a job vacancy. It should help to describe more clearly the soft skills associated to a specific task/role. Specifically, it should be:

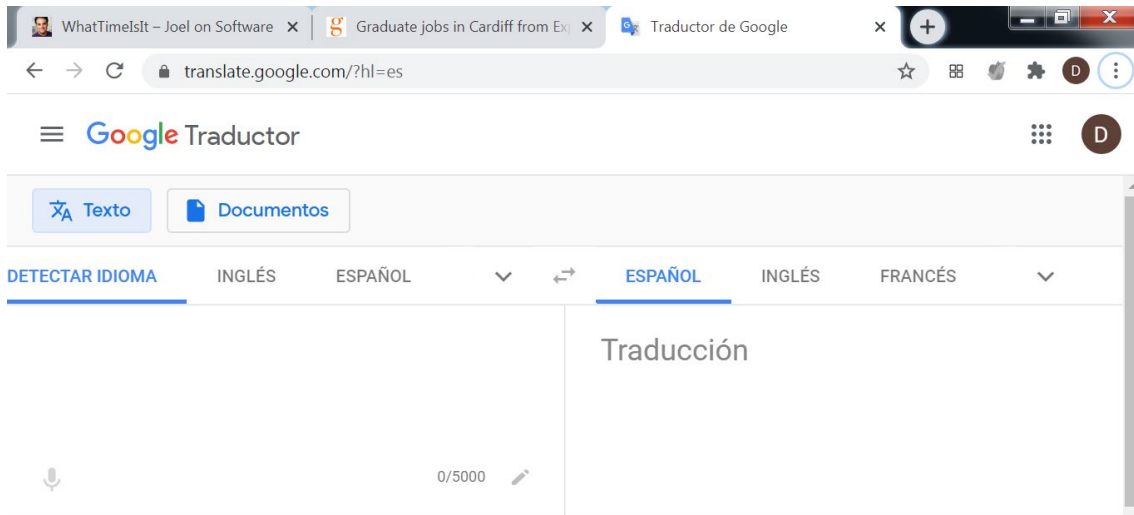
1. Able to access a "Dictionary" with our provided definitions for having more precise job offers.
2. Able to be a technical tool, which shows not only information regarding skills, but helps to write job offer from A to Z.
3. Able to translate the requirements from the company into detailed list of soft skills.
4. Able to have specific support for writing down all the sections related to soft skills.
5. Able to give the employers the possibility of picking up some parts that are fundamental to be in job vacancy to be adjusted to the different platforms.
6. Able to produce as an output the job vacancy in a format (jpg and pdf) and layout able to be used to disseminate the job offers into social networks (Facebook, Instagram, etc.).

PROPOSAL 0: Minimum Viable Product (MVP)

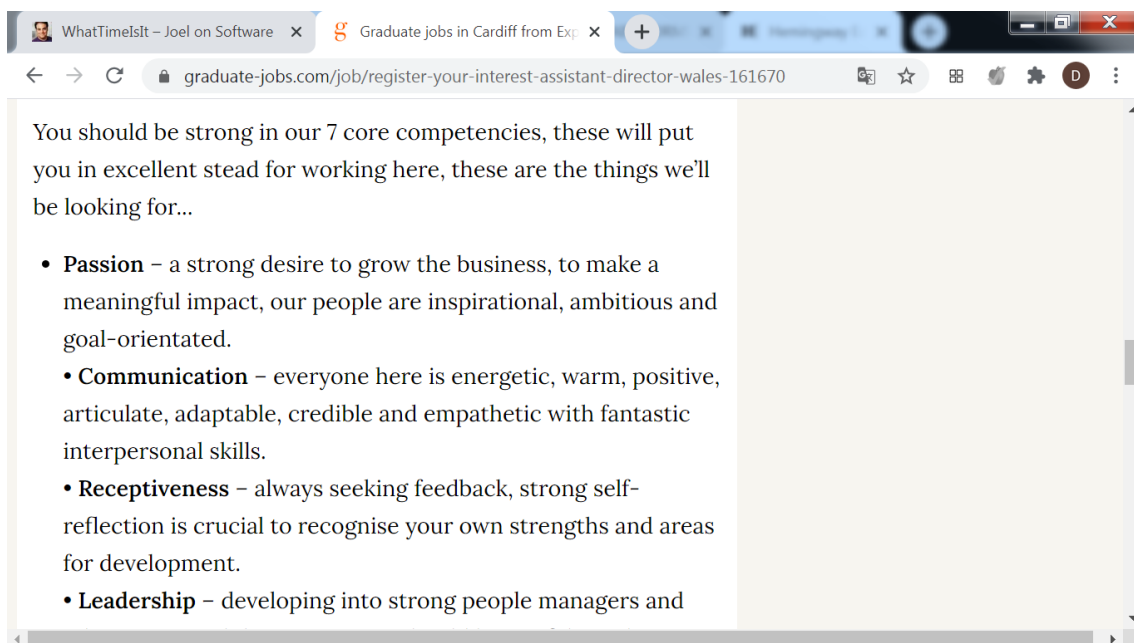
A Minimum Viable Product (MVP) is defined as a version of a product with just enough features to satisfy early customers and provide feedback for future product development. Gathering insights from an MVP is often less expensive than developing a product with more features, which increases costs and risk if the product fails, for example, due to incorrect assumptions

We are going to describe what are the minimum characteristics that the product should have to be able to be useful to our customers.

1. The appearance of the tool will be like a language translator, with two main boxes, one for the description of the job and the other for the competences needed to develop that job. The user will write (or paste) into the main board the text (in English) that intends to use for the job offer. The platform would analyze the text and will identify competencies needed to develop the job based on the lexicon developed in Ulisse project.



2. An improvement of this very basic MVP would be the same tool with an embedded translator (or a call to a free translator), so that the text could be typed in English, Italian, Portuguese, Latvian or Spanish, then selected a button of the language chosen and then internally the system calls a language translator to translate the job description into English, the lexicon produces the competences associated in English, the systems calls again a translator to translate them into the original language of the job description and shows the result in the box of competences.
3. A second improvement would be for the list to include the definition of the competences identified in order to clarify them in the language of the original job description.

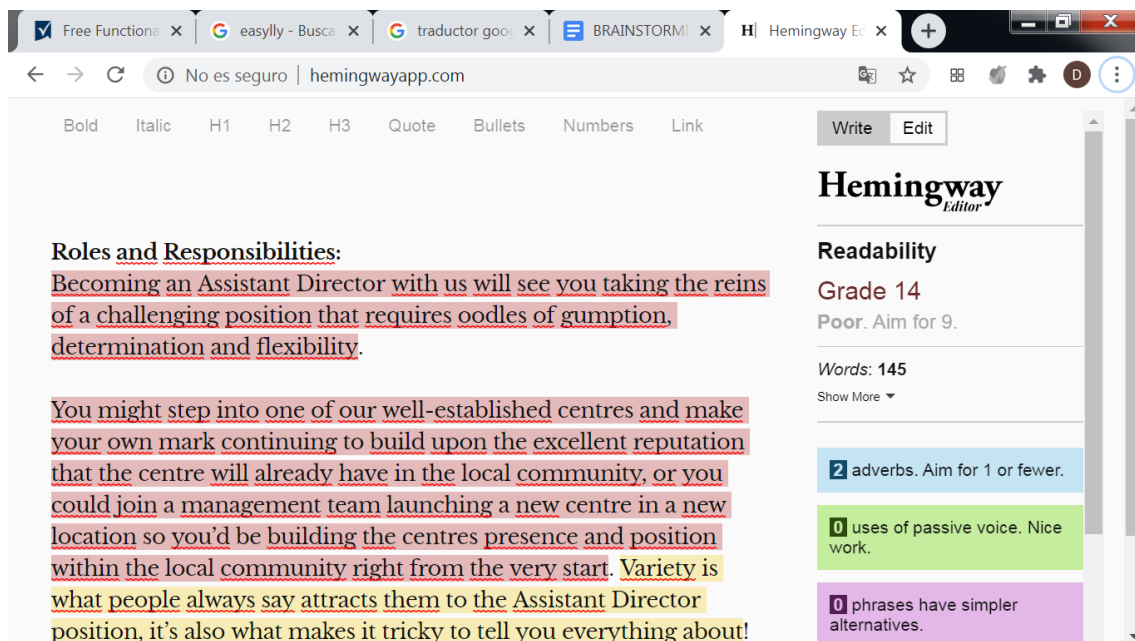


4. At this stage, the user should be able to copy the output and use it for another document or could decide to continue with the job edition.

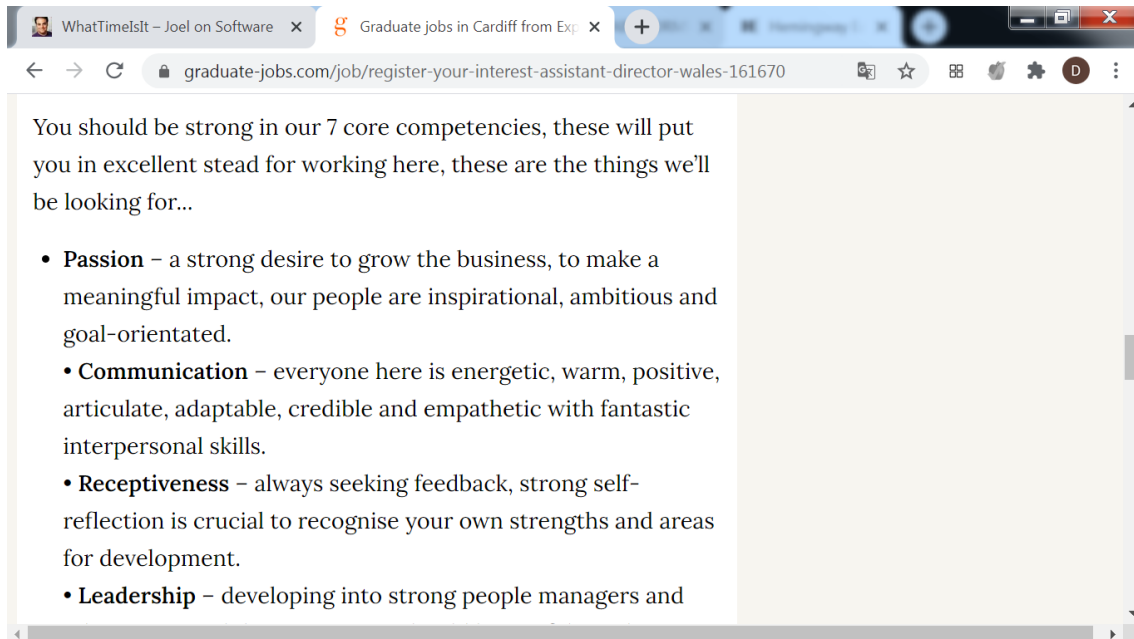
PROPOSAL 1

We imagine the product design very simple and with an extremely user-friendly interface. Following, we describe the steps the user will have available:

1. In the first step, the user could choose to create one account or not. After that, the user will write or cut and paste into the main board the text that intends to use for the job offer. The platform would analyze the text and will identify competencies need to develop the job. Ideally, if technically is possible and financially affordable, it could give a feedback on the readability of the text as shown in the example below.

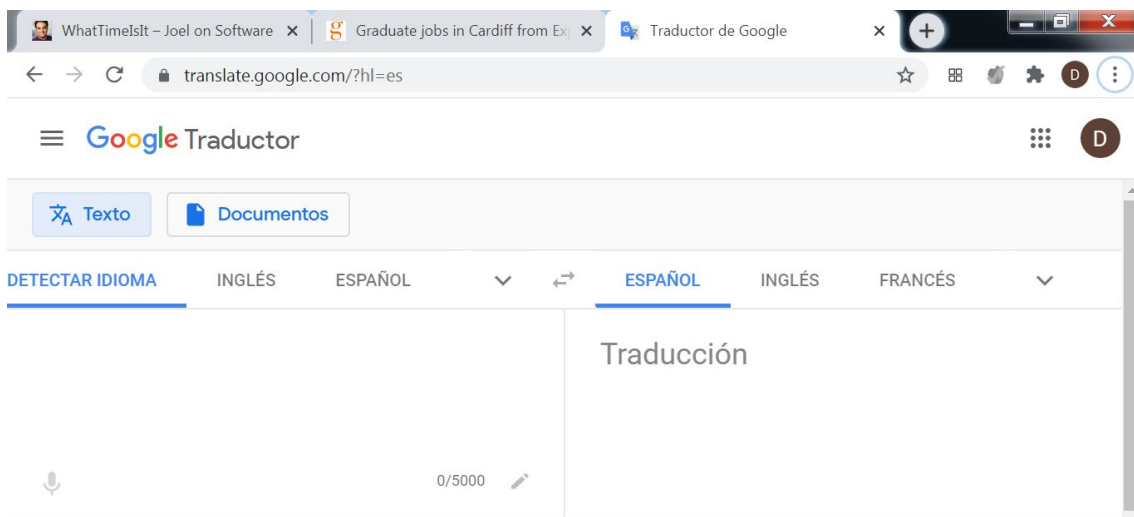


2. Once the competences are identified, it will prepare a list of competencies with their definition and clarification obtained from the lexicon of the project.



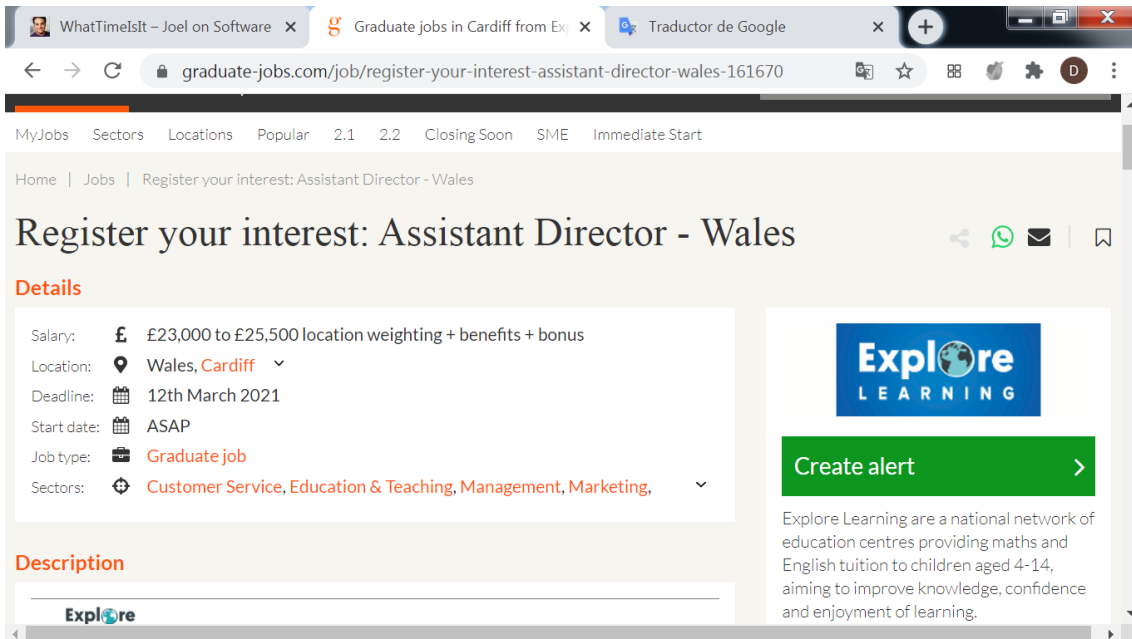
This step can also look-like a translator from a job vacancy into competencies, as if it was a translator of languages. On one side the user will paste the job description and on the other the system will detail the competencies involved, with the definitions and with the lexicon to clarify them. It could also make inferences of the useful skills based on the required skills for the job (taking the knowledge extracted in the skills mapping of IO2).

The tool should be aimed to ease the employers in writing down job vacancies and have specific support for writing down all the sections related to soft skills. It should also give the employers the possibility of picking up some parts that are fundamental to be in job vacancy so as to be adjusted to the different platforms.



3. At this stage, the user should be able to copy the output and use it for another document or could decide to continue with the job edition. If that is the case, the system will ask the user the specific data for the offer to be attractive and clear, such as salary, location, deadline for applications, starting date, sector, activity of the company, values, etc. The user could

choose to create one account or not. The advantages of creating an account are that will not have to type every time the contact or company information, will be able to retrieve previous vacancies, etc. Below we show an example:



- Once the complete job offer is completed, the system will create the job offer in text, allowing once more for the user to edit the vacancy, and to copy and paste for its use in another word processor or platform, or to continue in the generation of a nice layout, that could be used from several templates, to be generated in a jpg or pdf file, ready to be used for posting into the social networks like Facebook or Instagram. Find below some examples of templates:



eaklandhasjobs presents

YOUTH JOB

• AND PAID INTERNSHIP FAIR (UP TO AGE 25)

**WEDNESDAY
APRIL 24
2 - 5PM**

MAIN LIBRARY
BRADLEY C. A
COMMUNITY ROOM
135 14TH ST.

Come meet with employers and youth agencies who offer paid internships! We will also have people to review your resume.

If you are interested in more job leads (dozens every week!) follow eaklandhasjobs on Instagram or view it online at oaklandlibrary.org/eaklandhasjobs

Call (510) 238-7332 if you have any questions!

Employers / Organizations:

- Project WHAT! (ages 12-17)*
- Brothers on the Rise (10th-12th Grades)
- HOPE Collaborative (ages 14-24)
- Unity Council (ages 14-24)
- Youth Beat Media (ages 14-24)
- YR Media (ages 14-24)
- Metropolitan Transportation Commission (ages 16-18)
- Beyond Emancipation (ages 16-24)*
- Starbucks (ages 16+)
- New Door (ages 16-24)
- Youth Spirit Artworks (ages 16-25)
- The UC Theatre's Concert Career Pathways (ages 17-25)
- Target (ages 18+ (some 16+))
- a2 Ventures (ages 18+)
- Alameda County EMS Corps (ages 18-26)
- Children's Fairyland (ages 18+)
- NPower.org (ages 18-25)

Your Library

OAKLAND PUBLIC LIBRARY

Headline → want to join our dynamic sales team?

Text → If you are interested in tech sales and enjoy talking to customers over the phone, via email and in-person we'd like to meet you! We offer a vibrant workplace with free meals and snacks, as well as a generous vacation plan and a flexible work schedule.

Link → Apply at <https://careers.workable.com/@71AF1EE08F>

Image (optional) →

Social Marketer
Aneka & Patrick - Pure Lifestyle Experience
Otro tipo de contrato - 150 € - 3000 €/mes

Enviar solicitud

Guardar Compartir Más

Descripción

Si tu est énergique, motive, persévérante, creative cette travail est pour toi. Tu va créé ta propre entreprise avec une boutique en ligne dans la domine santé et bien-être. Les formations gratuite et une équipe de soutien garanti que tu est jamais seule.

Alicante
Publicado hace 23 dias

Buscar más empleos

IO5 Toolkit for Employers to write effective vacancies



Below we present the flowchart of the itinerary of a user for Proposal 1:

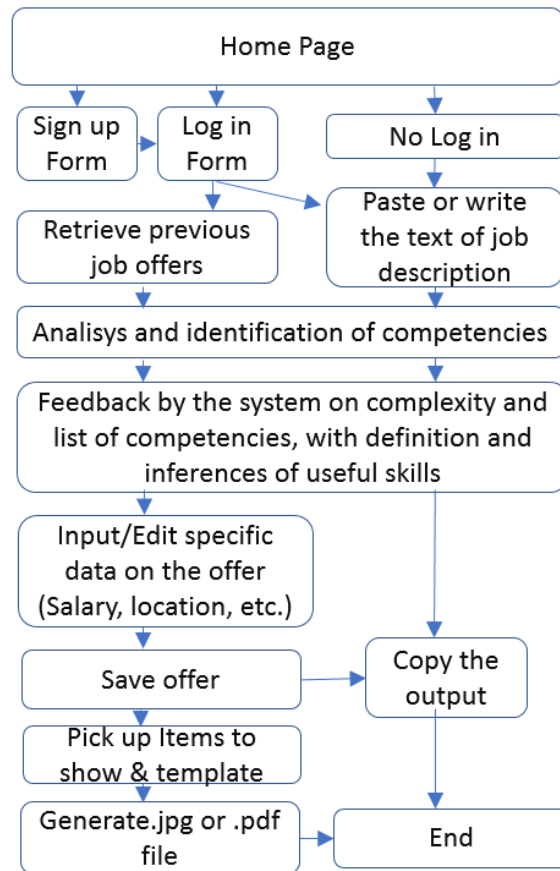


Figure 1: Flowchart of Proposal 1. Source: Authors of the report.

PROPOSAL 2

Now we imagine the product design a little bit more sophisticated, however, it will have some guided steps to build up a vacancy. It will require the user with more knowledge and time. Following, we describe the steps the user will have available:

1. **Registration of the company.** The user will have to create a profile of the company into the platform. In this form data of the company and the user will be required in order to be used latter on in the creation of the final vacancy. Find below an example, however the real questionnaire will ask for more information, like the web of the company, the contact details, the description of the activities, the values, etc. of the company.

The image shows a 'USER REGISTRATION' form with the following fields: Business Email, Password, Retype Password, Company, Position, Phone Number, Address, Town, Region, Postcode / Zip, and Country. A 'Register' button is located at the bottom. A note states 'Fields marked * are required.' The Country field is currently set to 'United Kingdom'.

2. Previous **reflections/conditions** about the job offer. A questionnaire should be filled for every vacancy the user is going to create. Find below some of the information that can be required:

- a. Position designation
- b. Weekly working hours
- c. Workplace
- d. Weekly working hours
- e. Working hours
- f. Salary/Wage
- g. Hierarchical leadership/superior
- h. Direct and indirect subordinates
- i. Responsibility and autonomy
- j. Working conditions
- k. Holidays
- l. Social benefits
- m. Employment contract regime

3. In this step the Company has to create the **text the job offer**. Again, a questionnaire could be filled with the information required by the system.

EX:

Company **X**, based in **Y**, intends to recruit a **type of professional**.
Integration in an expanding company, in a young and dynamic team, with the possibility of professional growth and career progression.

Or

We provide/offer:

- *Integration in an attractive and growing organizational project;*
- *Integration in a team that fosters innovation in strategic management ...;*
- *Excellent opportunity for personal and professional development;*
- *Salary conditions, depending on experience and knowledge demonstrated;*
- *Health insurance.*

4. **Description of the tasks / functions** to be performed and respective requirements in terms of competences (this item will give rise to two subheadings - functions to be performed and the required competencies or requirements). For making the tool more interactive could be, for instance, including some hints for the employers or the possibility of reading some examples, starting from some soft skills or activities that the employers would like that the job-seeker would perform. For sure the tool should be clear and simple as much as possible. All the information to support the employers should be on the tool, and they should be easy to retrieve. The tool should be aimed to ease the employers in writing down job vacancies and have specific support for writing down all the sections related to soft skills. It should also give the employers the possibility of picking up some parts that are fundamental to be in job vacancy so as to be adjusted to the different platforms.

Ex:

Task 1 → necessary skills → soft skills → how to describe in the ad/offer (link soft skills Ulisse)

→ Technical skills

Task 2 → necessary skills → soft skills → how to describe in the ad/offer (link soft skills Ulisse)

→ Technical skills

5. **Necessary conditions or requirements**

- a. Age
- b. Qualifications
 - i. Literary
 - ii. Professionals
- c. Experience
- d. Availability to travel
- e. References
 - i. Professionals
 - ii. Personals
- f. Others

6. Once the complete job offer is completed, the system will create the job offer in text, allowing once more for the user to edit the vacancy, and to copy

and paste for its use in another word processor or platform, or to continue in the generation of a nice layout, that could be used from several templates, to be generated in a jpg or pdf file, ready to be used for posting into the social networks like Facebook or Instagram. Example of output:



applimundo
web & mobile applications

Applimundo is a startup developing genuine high-end web and mobile applications.

Job position: Software Engineer
You like challenges, you're an 'out of the box' thinker, you don't give up ..
We are looking for software engineer to focus on special development assignments.

Duties & Responsibilities

- Program clean, structured and testable code
- Research, propose, develop and implement creative technical solutions with minimum guidance and supervision
- Take part in the technical implementation and maintenance of various web applications with the use of a wide range of web APIs
- Debug and troubleshoot issues.

Skills & Experience

- BSc degree or equivalent qualification in software engineering
- 2+ year experience in web application development
- Proficiency in PHP, OOP, MySQL, HTML, CSS, AJAX, JavaScript/JQuery
- Good software analyzing, architecture and programming skills
- Ability to work in Linux environments
- Ability to work with multiple members in multiple teams
- Knowledge in version control system (SVN, Git)
- Experience in PHP and JavaScript frameworks
- Good communication skills in English

Added Advantage

- Experience in Phalcon or codeigniter frameworks
- Experience in vuejs framework
- Experience in Google, Facebook, Twitter, Dropbox APIs
- Experience in SaaS or Less

If you think you've got what it takes to perform the above role within our company, please send your CV to info@applimundo.com with the subject line **Careers - Software Engineer**.

Below we present the flowchart of the itinerary of a user for Proposal 2:

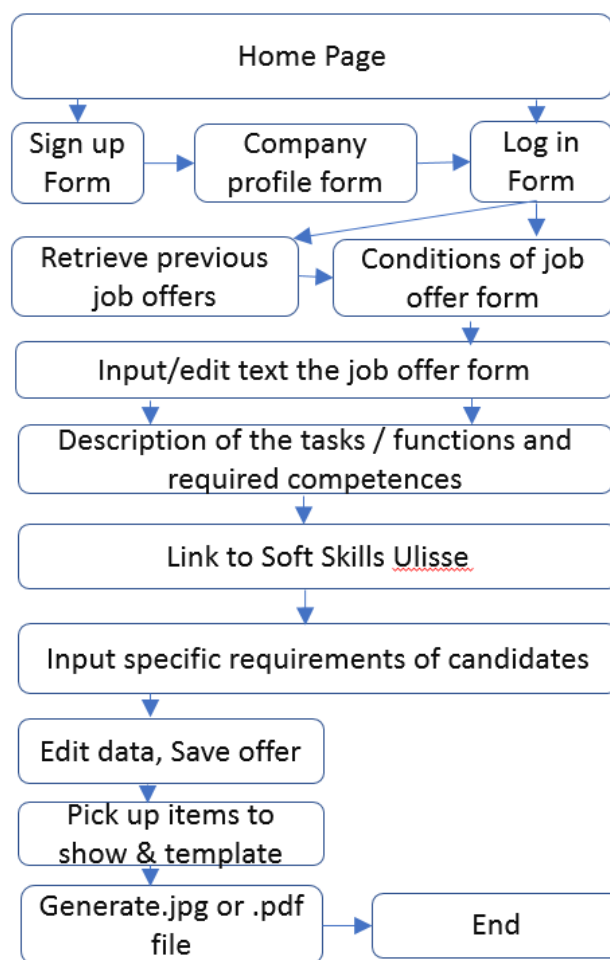


Figure 2: Flowchart of Proposal 2. Source: Authors of the report.

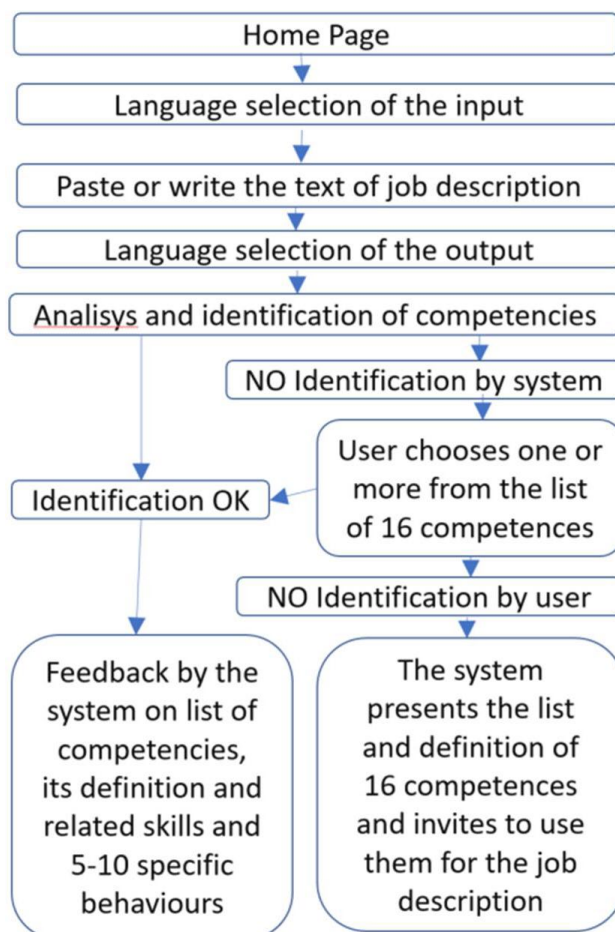
DOABLE PROPOSAL (Toolkit Request for Proposal)

After consulting with the partners and with the leader of the project, and taking into account the limited budget for the development of the software, it was decided to propose a Doable proposal to the Developer subcontractor. The request for proposal was as follows:

The toolkit that we need to develop is a tool to help companies to describe in a clearer and effective way the worker profile they are looking for. The main target users will be Companies (SMEs), Employers, Career Services, Temporary Work Agencies, Headhunters, etc., and the secondary target group will be university students and graduates.

The toolkit should exploit the results that have already been achieved during the project: *Lexicon Soft Skills* and *Soft Skills Mind-map*.

The toolkit usage workflow is described as follows:



1. The employer enters the website and finds a “space/window” in which to load the part of his/her job offer that refers to the job description.
 - a. If the text is already in English, he/she just copies it in the window
 - b. If the text is in another language, he/she will find the link to the European Translation Tool, approved by the European Commission, free of charge for all SMEs, that can automatically translate the text from the 4 official partner languages into English: <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eTranslation>. Once the text has been translated, it can be pasted into the “window” so to be processed by the tool
2. The employer selects the language in which he/she wants to receive information from the 5 official project languages (English, Italian, Spanish, Latvian, Portuguese).
3. The system created uses the Lexicon and identifies if there are soft skills in the text and which are:

CASE A: The system identifies the terms (“original skills wording”) that have been mapped in the Lexicon and associates them with one or more of the 16 ULISSE soft skills (labels)

I. output: The system suggests to the employer other soft skills from ULISSE - and their description - as well as a series of

suggestions about the use of these skills that are logically linked to those that have already been inserted, using the interrelationships contained in the mind-map.

CASE B: The system does not identify any terms (“original skills wording”) that have been mapped in the Lexicon.

I. output: The system asks the employer to choose from the list of 16 skills/labels the one or those that he/she thinks would be present in his/her text.

1. If the Employer is able to select a soft skill, the system returns the correct definition of that sub skill and invites him/her to revise the text and then reprocess it starting from the beginning

2. If the Employer is unable to select a soft skill, the system presents him/her the 16 soft skills and definitions and invites him/her to formulate the job description by inserting those soft skills he/she believes are necessary for his/her job offer

The Lexicon Soft Skills and the Soft Skills Mind-map, together with 5-10 examples of skills from Lexicon that will be presented together with the soft skills, will be provided for all needed languages in an agreed format.

NON-FUNCTIONAL REQUIREMENTS

Non-functional requirement is a requirement that specifies criteria that can be used to judge the operation of a system, rather than specific behaviours.

PERFORMANCE AND SCALABILITY

Performance defines how fast a software system or its particular piece responds to certain users' actions under certain workload. In most cases, this metric explains how much a user must wait before the target operation happens (the page renders, a transaction is processed, etc.) given the overall number of users at the moment. But it's not always like that. Performance requirements may describe background processes invisible to users, e.g. backup. But let's focus on user-centric performance.

Scalability assesses the highest workloads under which the system will still meet the performance requirements.

Jakob Nielsen back in 1993 (Nielsen, 1993) outlined 3 main metrics for response time. While this outline may seem ancient, the metrics are still meaningful as they are generally based on the way human attention works:

0.1 second – the limit after which the system reaction doesn't seem instantaneous;

1 second – when user will notice the delay, but without interrupted flow of thought;

10 seconds – when user attention is completely lost.

Usually, you don't want to reach this 10-second threshold, as about 40 percent of users will abandon a website after 3 seconds (Altexsoft, 2019).

The landing page supporting one thousand users per hour must provide 3 seconds or less response time in a Chrome desktop browser, including the rendering of text and images, over an LTE connection.

PORTABILITY AND COMPATIBILITY

Portability defines how a system or its element can be launched on one environment or another. It usually includes hardware, software, or other usage platform specification. Put simply, it establishes how well actions performed via one platform are run on another. Also, it prescribes how well system elements may be accessed and may interact from two different environments.

Compatibility defines how a system can co-exist with another system in the same environment. For instance, software installed on an operating system must be compatible with its firewall or antivirus protection.

Supported Operating Systems:

- Windows
- Mac OS
- Android
- IOS

Supported browsers:

- Chrome
- Explorer
- Mozilla
- Safari

Supported devices:

- Mobile responsive
- Tablet
- PC

RELIABILITY

Reliability. This quality attribute specifies how likely the system or its element would run without a failure for a given period of time under predefined conditions. Traditionally, it's expressed as a probability percentage.

We require that the system has 95 percent reliability for a month, this means that during this month, under normal usage conditions, there's an 95 percent chance that the system won't experience critical failure.

AVAILABILITY

Availability describes how likely the system is accessible for a user at a given point in time. While it can be expressed as a probability percentage, it may also be defined as a percentage of time the system is accessible for operation during some time period.

We require the system to be available 90 percent of the time during a month.

MAINTAINABILITY

Maintainability. Maintainability defines the time required for a solution or its component to be fixed, changed to increase performance or other qualities, or adapted to a changing environment. Like reliability, it can be expressed as a probability of repair during some time.

Our system should have 75 percent maintainability for 24 hours, this means that there's a 75 percent chance the component can be fixed in 24 hours.

SECURITY

Security is non-functional requirement assuring that all data inside the system or its part will be protected against malware attacks or unauthorized access. The system must comply the ISO 27000.

LOCALIZATION

This attribute defines how well a system or its element falls in line with the context of the local market-to-be. The context includes local languages, laws, currencies, cultures, spellings, and other aspects.

The system might be able to operate under at least 5 languages: English, Italian, Portuguese, Latvian and Spanish.

USABILITY

As Jakob Nielsen defined in 2012, **usability** is a quality attribute that assesses how easy user interfaces are to use. The word "usability" also refers to methods for improving ease-of-use during the design process.

Usability is defined by 5 quality components:

Learnability: How easy is it for users to accomplish basic tasks the first time they encounter the design?

Efficiency: Once users have learned the design, how quickly can they perform tasks?

Memorability: When users return to the design after a period of not using it, how easily can they reestablish proficiency?

Errors: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?

Satisfaction: How pleasant is it to use the design?

As for our system, the error rate of the first time users should be lower than 20%.

REGULATORY REQUIREMENTS

The system must comply with the European Union General Data Protection Regulation (EU GDPR) and with all legal requirements in any location where it will be made available.

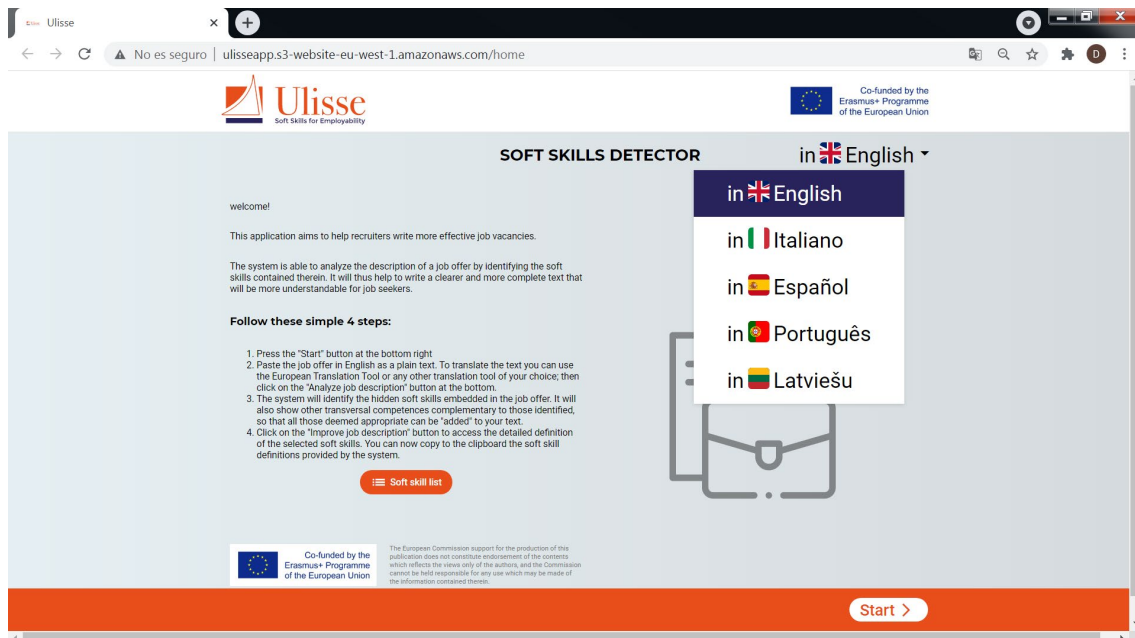
THE TOOLKIT: “Soft Skills Detector”

THE SOFTWARE

The software developed was made available in the following link <http://ulisseapp.s3-website-eu-west-1.amazonaws.com/home>

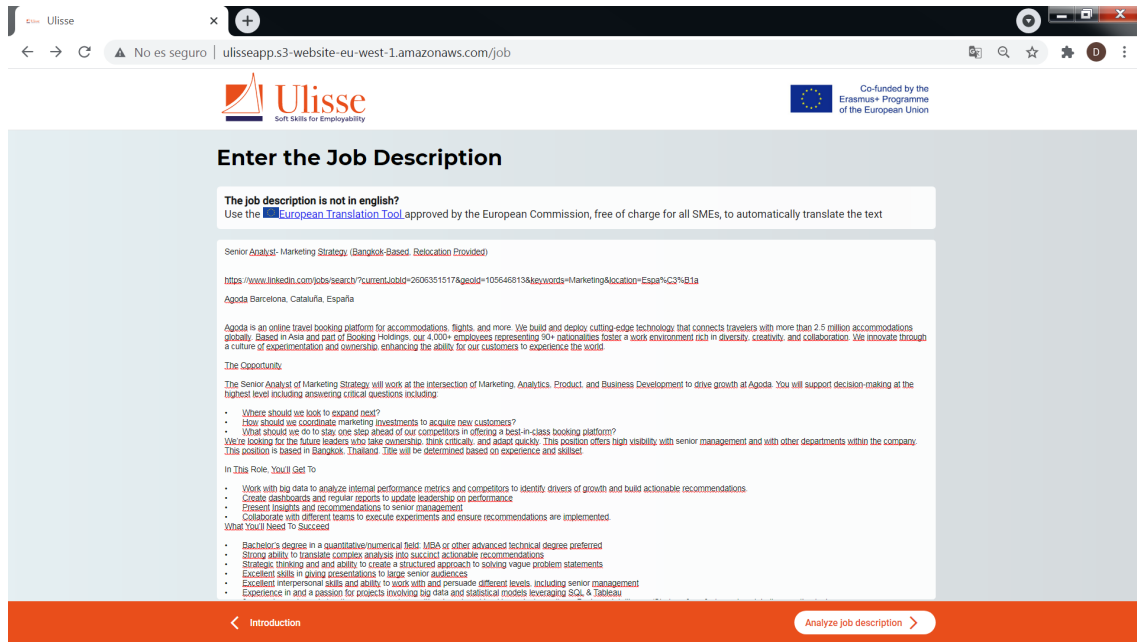
It is made of several pages (It is possible to choose one of the 5 languages available: English, Italian, Spanish, Portuguese and Latvian) guiding the user through the process of unveiling the soft skills implicit in a job vacancy:

1. **Welcome page:** details the steps to be taken, it has a button to produce a list of the soft skills, and at the bottom of the page the user can click the Start option.

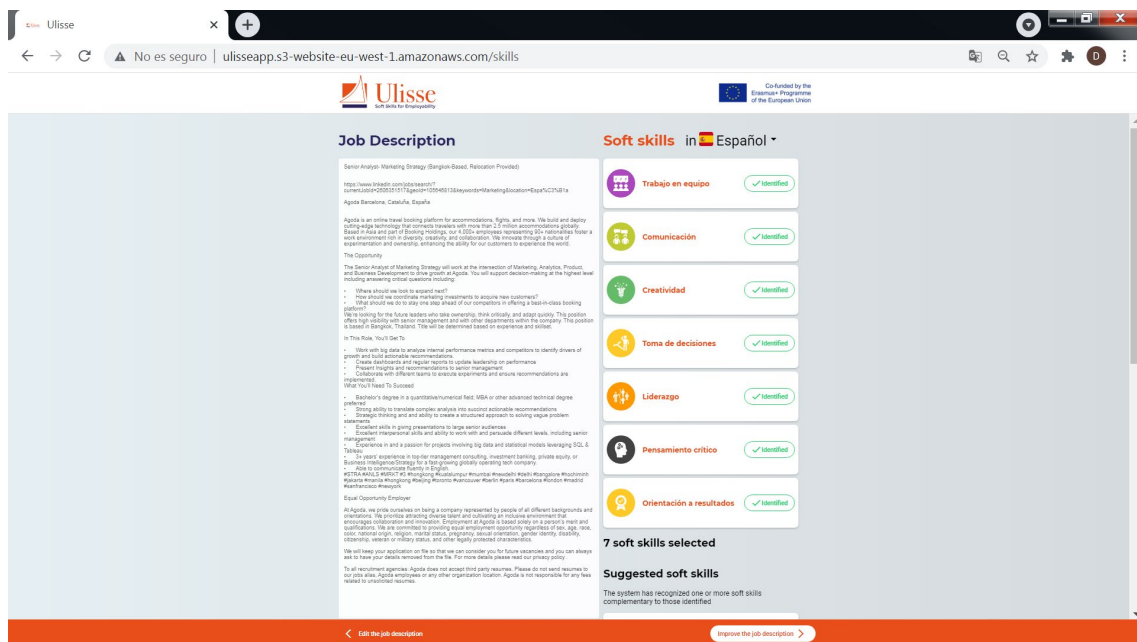


2. **Enter the Job Description page:** the user can paste here the job description of the vacancy in English to be analysed. If the user needs assistance with the translation of the job vacancy, there is a link available to direct the user into the European Translation Tool approved by the European Commission. Once the vacancy is pasted, at the bottom of the page can be found the button Analyze job description to proceed to the next step.

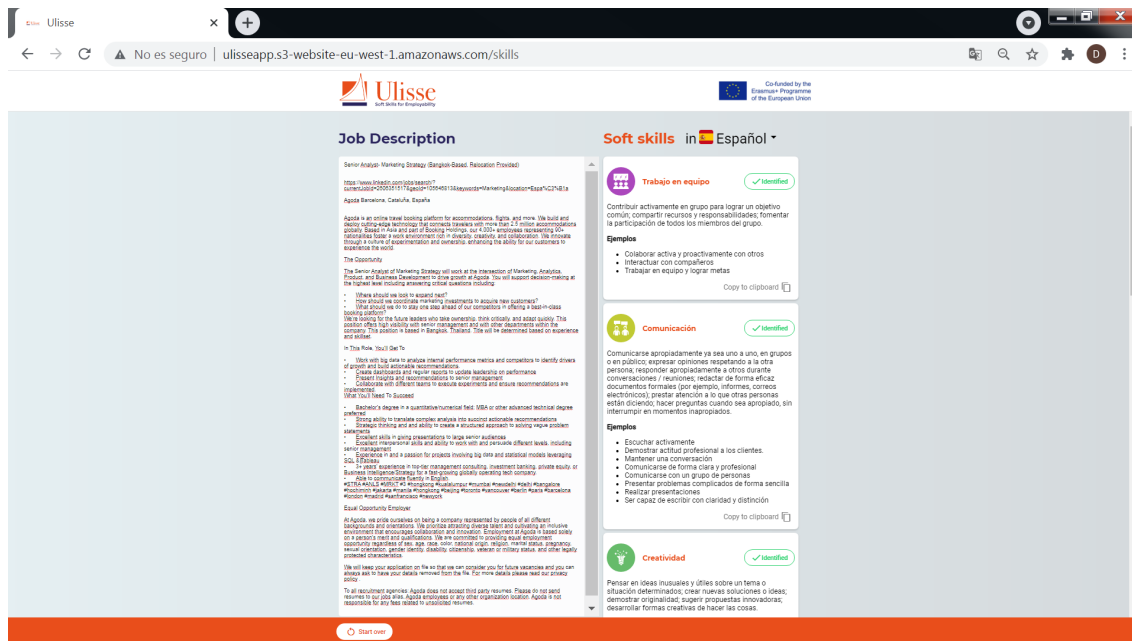
IO5 Toolkit for Employers to write effective vacancies



3. **Job description soft skills detected page:** in this page soft skills implicit in the job vacancy are unveiled. The user can add some other soft skills that are suggested by the tool that appear on the right frame side of the page. To proceed to the next step, the button Improve the job description should be pressed.



4. **Improve job description page:** the last page shows the selected skills with their description and with some examples of what they mean in order to facilitate the communication with the applicants. Below each skill a button of Copy to clipboard is available in order to take the information and latter to be pasted into the job vacancy advertisement.



FOCUS GROUPS

PARTICIPANTS

The partners of the four countries participating in Ulisse project organized an activity to show companies the software we were developing in order to ask for feedback to improve the tool.

The total number of employers participating were 22 Human Resource Managers or Managing Directors. The companies participating were 10 from SMEs (>50 employees) and 12 from Large companies (>50 employees). They also represented a diverse representation of 20 business sectors (Banking, Chemical, Government Agency, Spring Water Production, Business Consulting, NGO, Bio-food Production, Beverages Production, Recruitment, Holding (areas: Food, Packaging, Real Estate and Services), Accounting, Digital Marketing, IT and Telecommunications, Health (Psychology clinic), E-commerce, Vegetable Wholesaling and Humanitarian Aid Production Food.

The split by countries was 4 participants from Italy, 7 participants from Latvia, 6 participants from Portugal and 5 participants from Spain.

FEEDBACK RECEIVED

The employers participating in the focus groups in order to increase the usability and the usefulness of the Toolkit highlighted the following points regarding the software:

Positive aspects of the tool:

IO5 Toolkit for Employers to write effective vacancies

- Superintuitive tool
- Interesting tool
- Interesting aids
- Standardised tool which is useful
- Quick to identify some soft skills present in the offer placed
- The tool suggests new skills helping to make the job post richer
- The description of the job competence clarifies its meaning
- Nice icons and colors for skills for visual design
- Nice visual design - less is more, very simple and easily to navigate
- Good for it's simplicity, no need for more complicated structure
- Appropriate size and font of text - seems visual nice and easy to read

Suggestions for improvement:

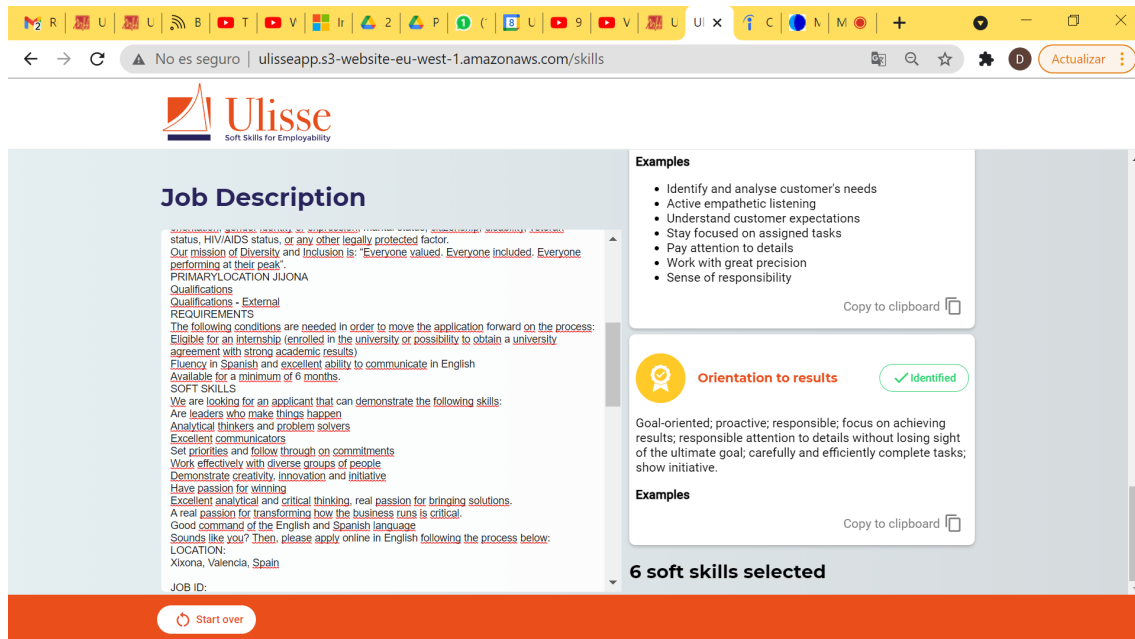
- The “start” button should be more visible
- **Not all soft skills detected**
- Having to copy and paste soft skills is not so practical, it could, after selecting the skills, the chosen ones been added to our text
- Observation: detected situation - in the suggestion of soft skills, duplicate soft skills appear
- It seems there is mistake with LV flag and there should be written “Latviešu”

instead of “Latvietis”

- The suggested soft skills appear repeated several times.

The screenshot shows a web browser window displaying the Ulisse website. The page title is "Job Description". The main content area contains a job description text with sections for "RESPONSIBILITIES", "SUMMARY OF JOB RESPONSIBILITIES", "HOW TO APPLY", and "REQUIREMENTS". To the right of the job description, there is a vertical list of suggested soft skills, each with an icon and an "Add skill" button. The skills listed are: Emotional management, Leadership, Problem-solving, Leadership, Planning, and Planning. The "Leadership" and "Planning" skills are repeated. At the bottom of the page, there are two buttons: "Edit the job description" and "Improve the job description".

- Orientation to results does not have examples



- In Latvian language didn't work "Copy to clipboard";
- Somehow to take the text of all soft skills or more than one soft skill to the clipboard so in one action get all the information to be used and pasted in the original vacancy.

Wish list:

- Have profiles adapted to some functions; Identification of profiles => text proposals that could be adapted to the profiles that are being recruited (profiles already built that could be chosen)
- Have different proposals for texts related to soft skills and functions.
- A button to print directly, generate a PDF, or be able to share right on Social Networks, web pages, etc.
- Possibility of generating a file, e.g., XML that functions as a free interface to import to several platforms, creating a standard accepted by all the countries involved and structure of various platforms, allowing the exchange of offers between countries
- Tool in several languages
- Possibility to connect this tool to job vacancies platforms
- Versions of the Toolkit to extract soft skills from CVs
- Improve the intuitiveness of how it works
- Identify the original text of the vacancy where the soft skill was extracted
- Would be good, if, when I click on the skill, there would show up definition of the skill
- Would be good to have possibility in the end to save all advertisement as Word or Pdf file

TESTS ON THE SOFTWARE

FEEDBACK ON VERSION 1

1. In the mobile version i can only see the first page, it is not possible to scroll down and to upload the job description. Therefore, no further revision can be done.
2. There is one missing skill "Orientation to results", so there are 16 instead of 17 soft skills.
3. The wording of the "Conflict management" in Spanish, it would be better translated as "Gestión de conflictos"
4. Between the description of the competence and the examples, there is the word "Examples", it is always written in English, it would be nice if it is written in the language which is translated to, for example, Ejemplos in the Spanish version.
5. The competence willingness to learn, there is one example in English instead of Spanish (where it says "Learn from one's mistakes" it should say "Aprender de los errores de uno").
6. Sometimes it says 2 skills but is the same skill found.
7. When writing in the job description the examples of problem solving, it doesn't find any soft skill. The same happens with:

Solve complex situations
Consider the options and alternatives to a challenge
Resolve problems of highly diverse scope
Creative problem solutions
8. When pasting in the job description all the examples, then it says strange things, it does not identifies the right skills (Focus, planning and customer focus are not found at all), (problem solving, and also planning are given as suggested soft skills several times, but are not identified).
9. The scroll bar does not appear in the frame of the left if the job description is long, so you cannot get back to change job description (see the screen captured above).
10. When writing the 17 soft skills wording as job description it only identifies 8.
11. When writing the description of all soft skills in the job description, it only finds 12 of them (creativity, focus on customers, planning, diversity sensitivity and teamwork are not found at all).
13. Sometimes it appears as a skill "skills.focus_on_customer_needs_name"
14. When you put in the job description the following (see below): it should say 4 skills (willingness to learn, critical thinking, emotional skills, time management), but

it repeats twice willingness to learn and critical thinking, and it misses emotional skills

ability of self learning
ability to learn
ability to think in a critical and analytical manner
able to relax
abstract reasoning
abstract thinking
access information for learning
accomplish tasks on deadlines

15. When writing in the description all the soft skills identified in IO1, it does not find focus on customer's needs, and finds 437 soft skills.

16. Classify customer's needs is not found as a soft skill neither finds the following:

classify customer's needs
determine customer's needs
diagnose customer's needs
identify a customer's needs
identify customer's needs
identifying a customer's needs
identifying customer's needs
perceiving speech
sound out learned words
understand customer expectations

17. With listening comprehension it finds 2 skills.

18. With achieve innovation or discover industrial and commercial applications or with arrange creative performance does not find any skill.

19. With the rest of 988 soft skills from IO1 some are found, others are not (eg. it is found abstract reasoning, but it is not found ability to think in a critical and analytical manner, neither finds creative thinking or many others).

20. Regarding the suggested soft skills, I don't know how they work, because looking at the soft skills diagram from IO2, Communication is related with Leadership, Teamwork, diversity sensitivity, emotional management, but with the toolkit the only relation is leadership.

21. For problem solving it gives many related soft skills, but it doesn't do so for creativity.

22. Sometimes gives a suggested soft skill and it repeats the same skill below in other soft skills, that happens for example when you look at a skill of leadership, and it repeats communication under both headings.

23. when I try the EU translation tool I see you need to get a login, I suppose that does not depend on us, but don't see this is very practical.

24. When I try to get a real job offer, it doesn't find any skill.

Example:

JFC Innovation is a startup with an international team that wants to have a global impact. We are building a platform that facilitates the rental of electric motorcycles. With our service, travelers have greater mobility in the city they visit and it is also sustainable. For this reason, we are looking for a person to help us make our company known in the digital world.

Job Description

JFC Innovation is looking for an intern for its digital marketing department. With us you will have the opportunity to be part of a young and dynamic startup. After having successfully expanded into various countries in Europe, we are now looking for someone like you to be part of our team in Spain.

It is a unique and unrivaled opportunity to participate in the creation of a new brand in one of the fastest growing companies in Europe.

Responsibilities

Help develop a communication strategy to reach customers, mainly through the web.

Identify and contact key potential partners such as travel agencies, blogs, social media, websites, and event organizers.

Understand the needs of our clients and provide solutions.

Manage and organize company events.

Analyze the results through tools such as Google Analytics

We offer

Part-time work (to choose between mornings or afternoons)

Fixed salary: € 500 + transport assistance (up to € 150)

Training in the digital marketing sector

Healthy work environment oriented towards the well-being and professional development of each of the members of the company

Possibility of growing within the company

Requirements

Advertising / marketing / ADE student

Possibility of establishing an agreement with the university

Knowledge of tools such as Google Analytics and Adwords will be valued.

Young, dynamic, organized and responsible person with tolerance to frustration.

If you think you fit the profile and want to work with us, request this offer!

25. There is the add button for adding a soft skill, but once added nothing happens. No report or summary is made to be able to cut and paste the skills on other platforms. I know this is not on the Doable proposal but see very limited interest in the output we are having now.

Conclusions of feedback version 1:

1. The graphic implementation It is nice and neat implementation, it should also work on mobile, a few improvements are suggested
2. The correctness of the implementation of the algorithm according to the technical specifications we gave to the company, the flow of the work is ok, but I am not sure that it identifies well the competences with the work done in IO1 and IO2, and also should identify names and descriptions of competences, it is in better detail above
3. The final copy for the application and its steps. If we don't have a further step to copy and paste the list of selected skills I see the tool of a very limited use. we are running out of time. do you think they will be able to fix the bugs that are now present in a short time? for me the tool as it is now will not be of use to the companies.
4. Yes once you say it is the final version, we prepare a few instructions to be included on the tool.
5. We should circulate to the partners, for them to have a look of what is done so far, and for them to say what they think of it.

FEEDBACK ON VERSION 2

1. Ideally, besides the sentence 4 soft skills selected there could be a "Copy to clipboard" button, so the list of soft skills (just the names) selected can be copied and pasted elsewhere in the job description of the company.
2. In the suggested soft skills list, some of the soft skills are repeated, it could do a check and just show the unique entries.
3. Ideally, in the last page of the tool, in addition to the copy to clip board of each soft skill, there could be a button besides 4 soft skill selected to "copy all" to the clipboard.
4. The wording of the "Conflict management" in Spanish, it would be better translated as "Gestión de conflictos" .
5. Does not find the competence is you write in the description "willingness to learn", nor it finds it with "keep updated on innovation", does not find when you write skill "customer focus".
6. When you copy the name of the soft skills on the job description only finds 16 of them, doesn't find willingness to learn.
7. If I write in the job description the examples of problem solving, it doesnt find any soft skill.

Solve complex situations

Resolve problems of highly diverse scope

8. Classify customer's needs is not found as a soft skill neither finds the following: it only finds communication instead.

classify customer's needs
determine customer's needs
diagnose customer's needs
identify a customer's needs
identify customer's needs
identifying a customer's needs
identifying customer's needs
perceiving speech
sound out learned words
understand customer expectations

9. Probably we cannot do nothing but When I try to get a real job offer, it just finds 2 skills orientation to results and communication

Example:

JFC Innovation is a startup with an international team that wants to have a global impact. We are building a platform that facilitates the rental of electric motorcycles. With our service, travelers have greater mobility in the city they visit and it is also sustainable. For this reason, we are looking for a person to help us make our company known in the digital world.

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Help develop a communication strategy to reach customers, mainly through the web.

Identify and contact key potential partners such as travel agencies, blogs, social media, websites, and event organizers.

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Fixed salary: € 500 + transport assistance (up to € 150)

Training in the digital marketing sector

Healthy work environment oriented towards the well-being and professional development of each of the members of the company

Possibility of growing within the company

Requirements

Advertising / marketing / ADE student

Possibility of establishing an agreement with the university

*Knowledge of tools such as Google Analytics and Adwords will be valued.
Young, dynamic, organized and responsible person with tolerance to frustration.
If you think you fit the profile and want to work with us, request this offer!*

Conclusions of feedback version 2:

1. The improvements made and the new feature of copy to clipboard has improved the usability of the tool. CONGRATULATIONS ON THIS.
2. If mobile can be done it would be Great.
3. It seems it finds most of the wordings of IO1 and IO2, however still some fail to be found
4. Now I will circulate to the partners. If you could include the instructions at the entry of the tool, this version could be tested by companies.

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ANNEX 1: OTHER PROPOSALS

Below we describe some other proposals discussed during the brainstorming session. Depending on the complexity and the cost to implement proposals 1 and 2, if resources are available, the proposal implemented could be enhanced with them.

PROPOSAL 3

Once the soft skills have been evidenced through either Proposal 1 or Proposal 2, it is possible to create a value-added tool both for companies and for candidates. This proposal is about creating a battery of questions to evidence the skills needed in the job vacancy.

For example, when creativity is a required soft skill, then a list of questions should become available for the employer like:

- Tell us your highest success using creativity?
- Last time you had a problem,
- How did you generate different options to solve it?
- When was the last time you proposed a creative alternative to your associates?
- How often do you think differently from your colleagues?

In that way employers will have a guide for the interview, and candidates could prepare evidence backing up the competencies a job offer is asking for.

PROPOSAL 4

Once the soft skills have been evidenced through either Proposal 1 or Proposal 2, it is possible to create a value-added tool both for companies and for candidates. This proposal is about generating a list of tasks or assignments to the candidates in order to show they possess soft skills, for example:

- To prepare a video to promote our product,
- To write a letter to one of the employees who has been late to work for the last 3 weeks,
- To write a report detailing what would they tell an employee to do when others consider that is an untrustworthy person?

PROPOSAL 5

The most innovative tool we could develop is a chatbot, that is a window that pops up when a customer is visiting a website to offer support in case of troubles, problems etc. This system must be trained with specific questions/answers.

Critical aspect: to train the machine with thousands of examples requires a lot of time.