## Textual Description for Designer (1 para)

This page presents details of some particular skill. The goal is to represent different types of information in a way that does not overload the user, but also allows for deeper analysis. The target audiences are 1) a potential student interested to learn more about a particular skill and its usage in different jobs 2) job market analyst.

The information on this page is the result of interlinking several different (Linked) Open Data repositories such as ESCO (https://ec.europa.eu/esco/portal/home) and Wikidata (<https://www.wikidata.org/wiki/Wikidata:Main_Page>) as well as the results of intelligent analysis of a large number of real job advertisements that are available online. We designed and trained modern machine learning models based on deep learning networks in order to teach them to understand human written advertisements and extract information about relevant skills, tasks, educations and experiences.

## Information to be displayed

1. [Heading]
   1. {Skill name}
2. [Skill details]
   1. [Reuse:] “domain-specific” or “cross-sector”
   2. [Links to external sources describing this skills, for example, Wikipedia]
3. [Structural information pane]
   1. “Skill categories”
      1. {List of skill categories}
         1. [with scores between 0 and 1]
   2. “Related occupations”
      1. {List of related jobs}
         1. [with scores between 0 and 1 -- how important for the occupation]
         2. [each job has a modality with score]
   3. “Related skills”
      1. {List of related / co-occurring skills}
         1. [with scores between 0 and 1]
   4. “More specific skills”
      1. {List of more specific skills} [no scores]
4. [Modifiers pane]
   1. “Education” [List of levels of typically required educations]
      1. [with scores between 0 and 1]
   2. “Level of mastery” [List of Knowledge levels]
      1. [with scores between 0 and 1]
5. “Skill trends” [Trends pane -- frequency vs timeline plot]
   1. [with an option to zoom into specific period]
   2. [with a dropdown selector to add colored zones/overlays corresponding to the chosen job categories]
6. [Lexical information pane]
   1. “Synonymous expressions” [Synonyms for this skill]
   2. “Examples from real ads” [Exemplary expressions from real job ads ]
      1. [Each job ad in a small dedicated area (like a card)]
         1. [An expression containing this skill is highlighted]

## 

## Example Data

1. [Heading]
   1. “graphic design”
2. [Skill details]
   1. [Reuse:] “domain-specific”
   2. [Links to external sources:] <http://data.europa.eu/esco/skill/7fb699d9-182a-430e-b7a0-6d8ed05c284b>, https://en.wikipedia.org/wiki/Graphic\_design
3. [Structural information pane]
   1. “Skill categories”

|  |  |  |
| --- | --- | --- |
| Occupation | % of Job Ads that mention it | Appear as Mandatory |
| “Illustrator” | 95% | 80% |
| “Cartoonist” | 55% | 40% |
| “Public relations manager” | 60% | 20% |

* 1. “Related occupations”

|  |  |  |
| --- | --- | --- |
| Occupation | % of Job Ads that mention it | Appear as Mandatory |
| “Illustrator” | 95% | 80% |
| “Cartoonist” | 55% | 40% |
| “Public relations manager” | 60% | 20% |

* 1. “Related skills”

|  |  |
| --- | --- |
| Skill |  |
| “operate 3D computer graphics software” | 85% |
| “Implement frontends” | 30% |

* 1. “More specific skills”

|  |
| --- |
| Skill |
| “Adobe Illustrator” |
| “Painting” |
| “Adobe Photoshop” |

1. [Modifiers pane]
   1. “Educations”

|  |  |
| --- | --- |
| Education | score |
| “University degree” | 50% |
| “Illustrator certificate” | 30% |
| “Vocational training” | 10% |

* 1. “Level of mastery”

|  |  |
| --- | --- |
| Education | score |
| “Excellent knowledge” | 50% |
| “Interest” | 30% |

1. [Trends pane -- frequency vs timeline plot]

|  |  |  |
| --- | --- | --- |
| Timestamp | Overall score | Information and communications technicians (ICT) |
| 2019 Q1 | 100 | 80 |
| 2019 Q2 | 110 | 90 |
| 2019 Q3 | 120 | 90 |
| 2019 Q4 | 120 | 90 |
| 2020 Q1 | 110 | 80 |
| 2020 Q2 | 150 | 120 |
| 2020 Q3 | 180 | 140 |
| 2020 Q4 | 200 | 160 |
| 2021 Q1 | 220 | 180 |

1. [Lexical information pane]
   1. “Synonymous expressions”
      1. “graphic designs”, “visual design”, “graphic designing”
   2. “Examples from real ads”
      1. “A love for clean and minimalistic **design**.”
      2. “Student majoring **graphic design.**”
      3. “You have an education in **graphic design**, motion media and typography.”