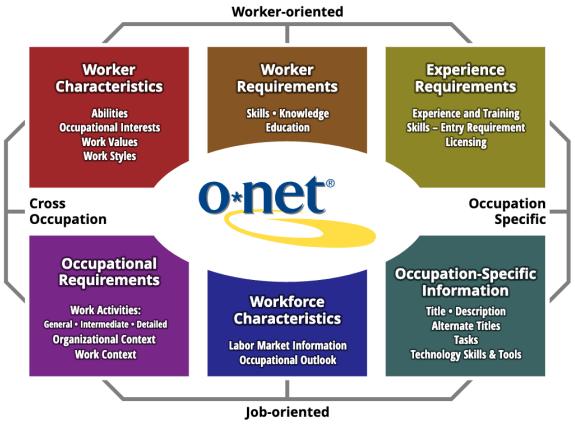
About O*NET Integration

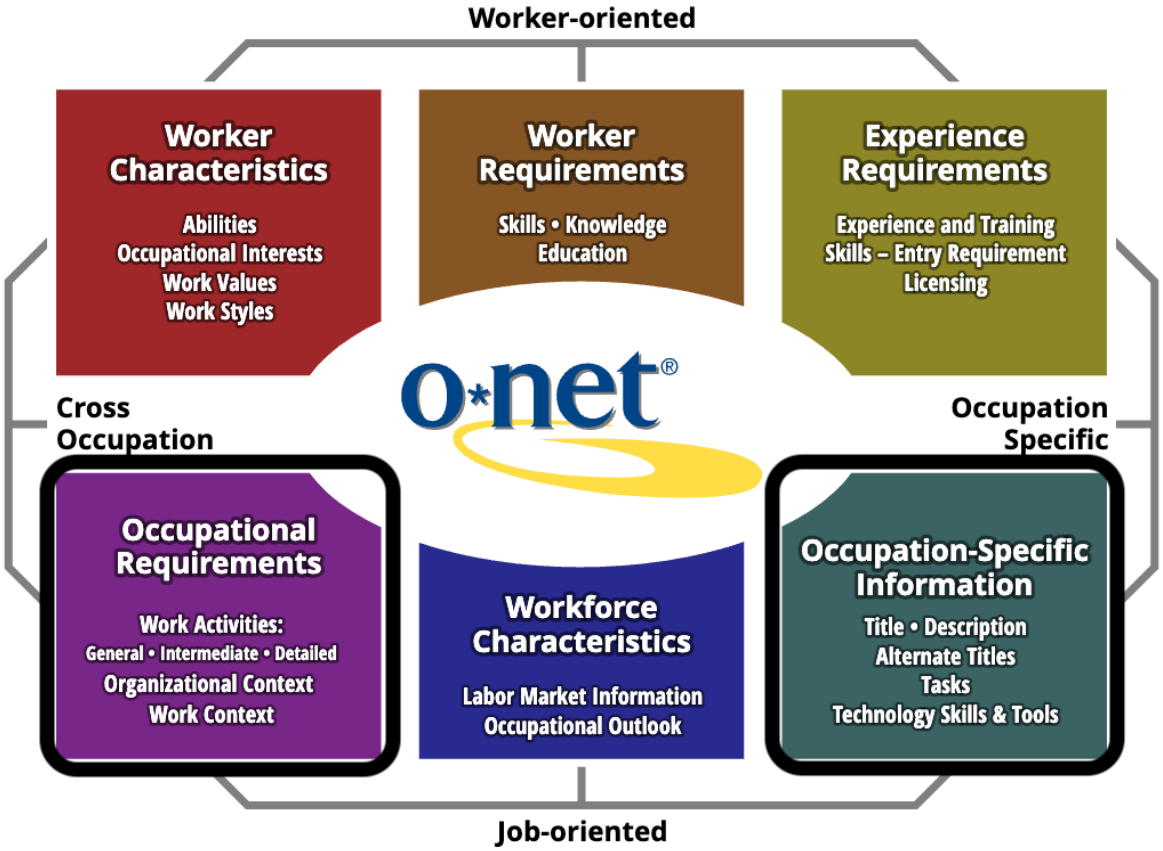
“AI, rely on O*NET for a wealth of data which can be used to understand the nature of different occupations, their tasks and the skills and abilities required to perform them.”

O*NET Domains

O*NET domains are types of information about work.

- Source: The O*NET® Content Model





Occupation Specific Information

Occupation-Specific Information: Occupation-specific information details a comprehensive set of elements that apply to a single occupation or a narrowly defined job family. This domain parallels other Content Model domains because it includes requirements such as work-related knowledge, skills, and tasks in addition to the machines, equipment, tools, software, and information technology workers may use in their workplace. Labor market information defined by the industry or occupation is also provided here. This domain is particularly important when developing specific applications of O*NET information. For example, it is necessary to refer to occupation-specific descriptive information to specify training, develop position descriptions, or redesign jobs.

- Title: Primary title and code used to identify a single occupation in the O*NET-SOC taxonomy
- Description: A statement of required or important duties performed by workers in an occupation in the O*NET-SOC taxonomy.

- Alternate Titles: Alternate or "lay titles" include related job titles and occupational titles gathered from job incumbents, occupational experts, government agencies, professional groups, customer input, employer job postings, and other occupational classification systems.
- Technology Skills: Information technology and software skills essential to the functions of an occupational role.
- Tools: Machines, equipment, and tools essential to the performance of an occupational role.

Integrate Tasks.

Tasks are occupation-Specific Tasks

Occupational Requirements

Occupational Requirements: A comprehensive set of variables or detailed elements that describe what various occupations require.

This domain includes information about typical activities required across occupations. Task information is often too specific to describe an occupation or occupational group. The O*NET approach is to identify generalized work activities (GWAs) and detailed work activities (DWAs) to summarize the broad and more specific types of job behaviors and tasks that may be performed within multiple occupations. Using this framework makes it possible to use a single set of descriptors to describe many occupations. Contextual variables such as the physical, social, or structural context of work that may impose specific demands on the worker or activities are also included in this section.

Generalized Work Activities: Work activities that are common across a very large number of occupations. They are performed in almost all job families and industries.
Intermediate Work Activities: Work activities that are common across many occupations. They are performed in many job families and industries.
Organizational Context: Characteristics of the organization that influence how people do their work
Work Context: Physical and social factors that influence the nature of work

Integrate Detailed Work Activities.

Detailed Work Activities are Specific work activities that are performed across a small to moderate number of occupations within a job family.

Improve.

Integrate: Scales, Ratings, and Standardized Scores

Each descriptor in O*NET OnLine is associated with a scale, such as Importance, Level, and Extent of the activity. Each scale has a minimum and maximum value (e.g., Importance: 1 - 5; Level: 0 - 7). Because each of these scales covers a different numerical range, a descriptor mean of 3.0 signifies something different in each scale. In order to simplify interpretation, descriptor means have been standardized to a scale ranging from 0 to 100. To make sense of the different rankings, understand the significance of the scale. Some people find it particularly difficult to understand the difference between Importance and Level. As an example, consider skills. While the same skill can be important for a variety of occupations, the amount or level of the skill needed in those occupations can differ dramatically.

1. Importance: This rating indicates the degree of importance a particular descriptor is to the occupation. The possible ratings range from "Not Important" (1) to "Extremely Important"
    - Domains: Tasks, Knowledge, Skills, Abilities, Work Activities, Work Styles
2. Level: This rating indicates the degree, or point along a continuum, to which a particular descriptor is required or needed to perform the occupation.
    - Domains: Knowledge, Skills, Abilities, Work Activities
3. Relevance: The percentages reported for relevance refers to the proportion of job incumbents who rated the provided task relevant to his/her job.
    - Domain: Tasks
        - Frequently - includes daily, several times a day, hourly or more
        - Occasionally - includes more than once a month, more than once a week
        - Rarely - includes once a year or less, more than once a year
4. Frequency: Frequency refers to how often a task occurs within a given time period. Values of "frequently", "occasionally", and "rarely" are used to report the percentage of time job incumbents reported that a given task was performed.
    - Domain: Tasks
5. Occupational Interest: O*NET occupations are rated on 6 types of interests: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional and are compatible with Holland's R-I-A-S-E-C Interest Structure (Holland, 1985).
    - Domain: Interests

6. Extent: This rating indicates the degree to which an item affects the nature of an occupation.
    - Domain: Work Values
7. Context: Context includes a variety of scales with some unique and specific work context variables.
    - Domain: Work Context

Deepen contextualization.

8. Evaluate the Tasks, Work Activities and Technology Skills & Tools.
    - Review the list of tasks and work activities associated with the occupation. As previously explained, tasks that are repetitive, quantitative, context-limited, and do not require physical interaction are more likely to be automated.
9. Review the Knowledge, Skills, Abilities, and Work Context.
    - Consider the nature of the skills and abilities required.
    - If they involve complex decision-making, creativity, interpersonal interaction, or require working in a constantly changing environment, they are more likely to be augmented by AI.
    - The work context can also provide clues about the degree of autonomy or structure in the work, physical requirements, and interaction with others - all important factors when considering potential for automation or augmentation.
10. Cross-reference with Technology Skills & Tools.
    - If there are specific technology skills or tools associated with the occupation, research if there's existing AI technology that can perform or assist with these tasks.
11. Examine Work Values and Work Styles.
    - This could give an insight into the level of independence, initiative, leadership, or collaboration typically required in the role. Jobs requiring high level of these elements are more likely to be augmented by AI, rather than fully automated.
12. Consider the Education, Experience, Training Requirements.
    - This can give a sense of the complexity of the job. Jobs that require higher levels of education, specific training, or experience are typically more complex and hence less likely to be fully automated.