

### **It's Your Skills offers APIs and Web Plugins for the Skills Ontology and Profiler**

The purpose of these resources is to help HR Tech / HRIS companies benefit from the most comprehensive skills database in mapping skills of individuals and jobs.

A few short points about the **Skills Ontology**:

1. Skills include Technical Skills, Functional Skills, Domain Experience, Knowledge, Certifications, Roles / Activities and Behavioral Skills
2. Skills are categorized into different logical groups
3. These skills groups in turn are associated with one or more skills categories to enable mapping of skills in different aspect of skills profile
4. Semantics related issues including Acronyms, Synonyms are taken care of
5. Proficiency levels (legends) are tailored to the specific skills category
6. Skills are constantly updated

Here is a snapshot of the different options

<b>Skills Resource Option</b>	<b>Brief on the option</b>
API on Skills with no associations or contexts	Restful API The users can build their own frontend Skills are autoprompted / autocompleted from the IYS Skills Ontology server
API on Skills with associations	Restful API The users can build their own frontend Apart from autocompletion, the skills related to the selected skills are shown to the users
Web plugin for Skills Search	Ready to use Search box that is responsive (and so mobile compatible) that can be plugged into applications
Web Plugin for Skills with associations	IYS has created a frontend that is simple yet powerful wherein the related skills in the same category and related skills category are displayed for users to pick
Web Plugin for Skills with associations and proficiency ratings	In addition to the above, the users can rate on proficiencies of the skills. These proficiency levels are tailored for skills i.e. different categories of skills have different proficiency legends
Web Plugin for Skills with associations and proficiency ratings and addition of comments	In addition to above, users can add comments to their skills to qualify their skills

### **General features:**

- All the user related information is stored at the HR Tech / HRIS companies end. No user related information such as name, email, proficiencies in skills are collected or stored by It's Your Skills
- It's Your Skills will track the API calls i.e. what skills are called by the users when
- The pricing is also based on the number of API calls consumed by the HR Tech / HRIS companies.
- The Skills Ontology is maintained in a dedicated server in the US hosted by Rackspace
- The APIs can be called through a API key generated for the specific domain of the customer
- The output data from the APIs and Plugins are rendered as JSON

### **Highlights of Skills Profiler and Ontology**

1. The focus is on "Skills Profile" and not just skills of an individual. The former is a structured pattern for capturing skills in various aspects of one's skills based on one's function. Adding skills randomly, as is normally done, provides little insight to one's profile.  
Example: Normally such skills Java, Mobile Application Development, Puppet etc are added to one's profile.  
In the case of IYS Skills Profile we prompt individuals to add skills in different areas such as technical skills, domain experience, role/ activities, behavioral skills, certification, knowledge etc. Each function requires a different kind of importance to each of these areas of skills. For instance for a call center support agent we would want to know proficiency level in one or more languages, their proficiency in using software tools, their behavioral skills such as engaging customers, managing difficult customers and so on.  
In another case say an Automotive Engineer we may want to know one's proficiency levels in Mechanical Analysis, tools used for FEA and CFD, the experience in designing or engineering of particular automotive system such as Power Train, Chassis. Contrast this with one just mentioning Automotive Engineering, Autocad, FEA as their skills
2. The Skills Ontology establishes relationships between different categories of skills. For example the category of Programming Languages is linked to Software Application as also Operating Systems, Development Methodologies.  
In the case of say an Accounts & Finance, the category of types of Risks (Tax Risk, Compliance Risk, Governance Risk etc.) is associated with one performing Financial Control function. The category of risks is also linked in Banking function for one playing Governance and Risk Management.

Such association of skills have profound impact on the Talent Landscape. Imagine a situation where we need to fill a position for Data Analytics in Healthcare domain. It is quite

possible that knowledge of healthcare domain is paramount in this case and that of data analytics secondary. When we compare or match skills profiles of different people we may analyse and realise that there are many good (and some excellent) on Data Analytics while there are very few with very good Healthcare Domain expertise but almost all of who have no exposure to Data Analytics but within that there are a few who have used tools like Excel. Maybe these are better fit as they can be trained on Data Analytics while leveraging on their Healthcare domain expertise.

3. Acronyms. Phrases, where required also have Acronyms so that even when different people use either the full phrase or the Acronym they can be correlated. Example: Cisco Certified Network Associate (CCNA)
4. Aliases. Many a time different people refer to the same thing in different ways or by using different words and phrases. For example Digital Marketing, Online Marketing, Internet Marketing, Web Marketing refer to the same thing. In the case of IYS Skills Ontology these are matched or normalized at the backend. So no matter which of these phrases one uses we will be able to match them
5. Proficiency Levels. Here we have made two attempts. One, normalize the scale and two, use customized scales for different skills. In order to make analysis on skills such as matching skills of person to that of job or to identify gaps in skills, we use two or three kinds of scales. Where there is a graded nature of proficiency level we use four scale rating (after carefully researching of the different levels that are used by different plyers) and another i.e. Yes / No kind of rating (for example to check if a person has a particular certification or not)

The more important exercise is that customizing the rating scale based on skills. The rating scale that is used in the case of a person's proficiency level in programming, proficiency in using a particular tool say Laboratory Information System, familiarity with standards say ISO, knowledge level of say Earthquake Resistant Structures need different kinds of scales to help understand the proficiency levels. Thus in the IYS Skills Ontology the legends for the various types of skills are customized or tailored to the skills.

6. User contribution and Governance IYS very well understands that by itself it cannot even have a complete and correct Skills Ontology. It banks on users to contribute to the skills ontology. They can suggest new skills to be added. However the contributions will be vetted and added to the Ontology (after classification). This way the Skills Ontology grows meaningfully to the benefit of one and all.
7. Behavioral Skill. IYS has taken an unique approach to profiling the "soft" side of skills profile. It places emphasis on two key aspects. One, Role and attributes related to the role. Two, Attitude. This structure has been arrived after considerable research on profiling the "soft" side of skills. After considering different approaches including competencies, psychometric assessments and generic behavioral skills, we have arrived at clusters of roles

which in turn depend on certain attributes. The essence of this approach is that we all have, naturally, certain attributes and these are suitable for certain roles. Honing these attributes help us get better at playing these roles. More importantly, roles are perennial while technologies and functions change with time. Thus there is an attempt to give emphasis to honing one's attributes.

Similarly attitudes though underplayed normally have significant effect on our performance. There are two dimensions of it. In some cases absence of or weakness in certain attitude can be disabling to performance and on the other hand an outstanding strength in certain attitudes enable performance.

8. The Skills Profiler is similar for jobs and people. In some cases there is a difference in terminologies used. However, all other aspects are same. This has very profound impact on talent acquisition and management. The common structure helps create simple precise skill level "data" which then becomes useful for analytics.