Framework & Methodology Document

This document outlines Draup's Methodology behind Mapping of Job Roles, Skills Extraction, curating Skills Taxonomy, .

July 2025

Draup's Approach – Skills Taxonomy: Draup's approach to curating a skill-based taxonomy integrates both core and soft skills. This taxonomy is aligned with major labor board classifications, including BLS, ESCO, and others, ensuring comprehensive and standardized skill mapping across industries

Job Occupation

*Job occupation refers to a specific work or profession that an individual engages in to earn a living. It often involves a set of related tasks and responsibilities within a particular field or industry. Job occupations have been categorized based on industry-standard classification and have drawn inspiration from the O*NET mapping by the Bureau of Labor Statistics (BLS).*

Job Family

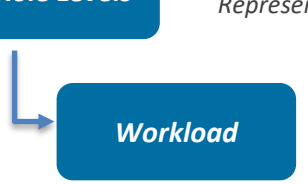
A high-level categorization of roles that share common functions, responsibilities, and skill sets within an organization.

Job Role

A specific designation for a role that reflects its primary responsibilities, skill requirements, and career level within the organization.

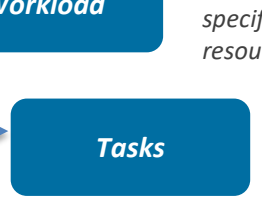
Job Role Levels

Represents the hierarchical position of a role within an organization, indicating scope of responsibility, decision-making authority, and expected experience



Workload

A decomposed summary based on competencies and responsibilities involves breaking down the tasks and duties required for a role into specific competencies, skill sets, and responsibilities, enabling a detailed understanding and effective management of workload distribution, resource allocation, and performance evaluation within the organization.



Tasks

Specific activities and duties performed within a job role that contribute to achieving business objectives and fulfilling job responsibilities

Skills

Based on a study of Job Responsibilities, skills are identified that are critical for the day-to-day responsibilities of roles across industries. This was further augmented by deep research by Draup experts into the core responsibilities and workloads identified. Draup also references research papers, forums, and other sources to identify emerging skills.

Root Skills

Root Skills are the most foundational and essential capabilities required for a role, serving as the foundation for mastering all specialized and advanced skills.

Core Skills

Core skills are defined as the skills critical for the day-to-day responsibilities of various job roles across industries.

Soft Skills

Soft skill are personal attributes that relates to how an individual interacts with others and approaches their work.

Tech Stack

Tech Stacks are a set of software tools and technologies used to build and operate applications or services.

Draup's Multi-Dimensional Talent Intelligence Capabilities

Ecosystem

- Labor Market Demographics
- Diversity Metrics
- Industry Trends
- Quality of Life Metrics
- Global Market Competitiveness
- Economic Trends
- Governance Factors

Talent Demand

- Real-time, Global, Deduplicated Jobs
- Job Postings from Employer Websites, Job Boards & Aggregators, ATS Providers, Industry & Government Portals
- Jobs Classified by: Job Titles, Roles, Families, Occupations, Functions, Workloads, Locations, Experience Levels, Skills, Tech Stack, Education, Industry, Job Type

Talent Cost

- Median Base Pay by Role, Location & Employer

Talent Intelligence by Location

- Talent Insights by Occupation, Job Families, Job Roles, Skills across MSAs, Countries & Regions
- Talent Supply
- Talent Demand
- Hiring Difficulty
- Median Base Pay
- Top Employers
- Core & Soft Skills
- Technology Stack
- Talent Diversity
- Industry & Experience Distributions
- Talent Movement
- Top Competitors
- Fresh Talent Insights

Talent Supply & Acquisition

- Global, GDPR Compliant, Professional Profiles
- Deep Interpreted Insights on Professionals
- Professionals Classified by: Job Titles, Roles, Families, Occupations, Functions, Workloads, Locations, Experience Levels, Skills, Tech Stack, Education, Industry, Job Type, Gender, Work History, Ethnicity

University Talent

- Global Universities
- Enrollments & Graduates
- Degrees, Majors, Gender & Ethnicity
- Academic Research Index (ARI)

Peer & Competitive Intelligence

- Competitor Battlecards
- Talent Flow Insights
- Peer Skills Architecture
- Real-time Signals
- Workforce Distribution by Locations & Function
- Priorities & Intentions
- Hiring Activity & Trends
- Contingent Workforce Partners

Transformative Skills Architecture & Career Pathways

- Core Skills, Root Skills, Soft Skill, & Tech Stacks
- Reskilling Propensity Index (RPI)
- Skill Gaps & Insights
- Career Path Transitions
- Courses & Certifications

Skill Taxonomy Normalization Framework: Draup will aid TE Connectivity in creating a skills framework, standardizing classifications for Root Skills, Core Skills, Soft Skills, and Tech Stacks, and forming condensed job roles and families

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Skills Taxonomy Normalization Framework

I. Job Architecture Mapping

II. Skills Extraction

III. Curating Skills Taxonomy

IV. Emerging, Futuristic Skills Identification

Job Architecture Mapping

Draup shall undertake a comprehensive mapping of TE Connectivity's job roles to Draup's proprietary global role taxonomy, employing **advanced machine learning models** to ensure robust alignment with prevailing industry benchmarks and to establish a scalable, skills-based job architecture framework across the enterprise.

Skills Extraction

Leveraging Draup's proprietary **Natural Language Processing (NLP) engines**, documented job descriptions for each mapped role shall be systematically deconstructed to extract, normalize, and validate the underlying skills corpus, thereby enabling a granular understanding of functional, technical, and behavioural skill requirements.

Curating Skills Taxonomy

Draup shall curate a rigorously structured skills taxonomy for each identified role, categorizing the validated skills inventory into **Root Skills, Core Skills, Soft Skills, and Technology Stacks**. This unified taxonomy shall serve as the foundational layer for standardizing skill definitions, competency frameworks, and benchmarking exercises across TE Connectivity's talent ecosystem.

Identification of Emerging, Futuristic Skills

Drawing on Draup's proprietary corpus of 850+ million global job descriptions and associated labor market signals, advanced trend analytics shall be deployed to surface emerging and future-relevant skills for each mapped role over a rolling three-year horizon. This insight shall inform the design of targeted upskilling pathways and enable TE Connectivity to future-proof its workforce capabilities proactively.

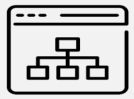
Skill Taxonomy Normalization Framework (1/4): Draup deploys a robust methodology behind mapping organization-specific roles to Draup Role Taxonomy which is designed to be industry standard and compatible with major global labor boards

I. Job Architecture Mapping

Job Architecture Mapping

Draup employs **advanced machine learning models** such as **Sentence Transformer (GTE-small)** for job titles and the **Semantic Model (BGE-base-en-v1.5)** for job descriptions to semantically map TE Connectivity's job architecture to Draup's standardized global role taxonomy.

Input from TE → **Methodology** → **Output from Draup**



Receiving Job Architecture

Required to align TE Connectivity's internal roles with Draup's standardized taxonomy for accurate skills mapping and benchmarking

Includes

Exchange of TE Connectivity Job Architecture across Job Families, Job Roles, Job Titles, and other relevant documentation as Job Profiles, and Job Descriptions

Purpose

Enables precise alignment between TE Connectivity's internal structure and Draup's industry-aligned role taxonomy. This forms the foundation for scalable skills mapping, role clustering, peer benchmarking, and downstream analytics

Draup employs advanced machine learning models to standardize job titles and descriptions by semantically mapping them to its proprietary job role taxonomy. Titles are embedded using GTE-small, while job descriptions are processed through BGE-base-en-v1.5 to extract key entities and contextual meaning. This enables robust alignment with prevailing industry benchmarks and supports the development of a scalable, skills-based job architecture framework across the enterprise. The system returns top-matched job roles along with similarity and confidence scores to ensure precision and transparency.

Job Title to Job Role Mapping	Job Description to Job Role Mapping
Sentence transformer (GTE-small)	Semantic model (BGE-base-en-v1.5)
Job title embeddings	Contextual Matching
Similarity scoring with standardized roles	Entity Extraction (Skills, Tools, etc.)

TE Connectivity Title	Draup Role
Talent Acquisition Specialist III	Talent Acquisition Specialist
Sr R&D/Product Dvl Engineer	Product Engineer
R&D/Product Dvl Engineer ii	R&D Engineer
Sr Project Manager Engineer	Project Manager
Sr Manufacturing Engineer	Manufacturing Engineer
Sr Mfg & Process Dvl Engineer	Process Engineer
Assembly Operator I	Assembly Operator
Account Manager	Account Manager

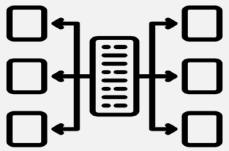
Skill Taxonomy Normalization Framework (2/4): Draup employs a robust methodology utilizing ML models to identify the skills at TE Connectivity

II. Skills Extraction

Skills Extraction

Draup's proprietary **Named Entity Recognition (NER) model** leverages advanced **Natural Language Processing (NLP)** techniques to extract, classify, and standardize entities from a repository of over 850 million global job descriptions.

Input from TE → **Methodology** → **Intermediate Output from Draup**



Skills Inventory

Helps in mapping existing TE Connectivity skills to Draup's skill library for comprehensive coverage and analysis

Includes

Any available list of existing skills tagged per role, if maintained in internal platforms or HRIS. If available, any internal competence framework/proficiency Framework

Purpose

Allows Draup to better understand TE Connectivity's current skills definitions and Draup's standardized skills library, allowing Draup to map, and analyze skill coverage, gaps, and redundancies

- **JD Extraction**: Utilizing TE Connectivity's Job Description Data
- **Skill Extraction**: Understanding Language & Context; Identification of top skills
- **Skill Categorization**: Categorizing skills into Draup Skills Clusters; Identification of Root Skill, Soft Skill, and Tech Stack
- **Draup Skills Taxonomy Finalization**: TE Connectivity SME Review; Draup Expert's Validation; Finalization of Taxonomy
- **TE Connectivity's Skills Taxonomy Finalization**

Talent Acquisition Specialist	
Recruitment	Workforce Planning
Talent Operations	Employee Referrals
Stakeholder Management	University Relations
Candidate Sourcing	Talent Mapping
Employer Branding	Offer Management
Hiring Metrics	Interview Process Management
Recruitment Marketing	Onboarding Process Management
Communication	Negotiation
Influencing	Strategic Thinking
LinkedIn Talent Insights	Microsoft Office Suite

Skill Taxonomy Normalization Framework (3/4): Draup employs a robust methodology leveraging ML models to identify the top skills at TE Connectivity & integrate various insights at a Role Level

III. Curating Skills Taxonomy

Curating Skills Taxonomy

Draup shall curate a rigorously structured skills taxonomy for each identified role, categorizing the validated skills inventory into **Root Skills, Core Skills, Soft Skills, and Technology Stacks**. This unified taxonomy shall serve as the foundational layer for standardizing skill definitions, competency frameworks, and benchmarking exercises across TE Connectivity's talent ecosystem.

Methodology → **Output from Draup**

Utilizing TE Connectivity's Job Description Data — JD Extraction

Understanding Language & Context — Skill Extraction

Identification of top skills — Skill Extraction

Categorizing skills into Draup Skills Clusters — Skill Categorization

Identification of Root Skill, Soft Skill, and Tech stack — Skill Categorization

Draup Skills Taxonomy Finalization

- TE Connectivity SME Review
- Draup Expert's Validation
- Finalization of Taxonomy

TE Connectivity's Skills Taxonomy Finalization

TE Connectivity Title	Draup Role	Root Skill 1	Root Skill 2	Core Skill 1	Core Skill 2	Soft Skill 1	Soft Skill 2	Tech Stack 1	Tech Stack 2
Talent Acquisition Specialist III	**Talent Acquisition Specialist**	Recruitment	Workforce Planning	Employee Referrals	Stakeholder Management	Influencing	Strategic Thinking	LinkedIn Talent Insights	Microsoft Office Suite
R&D/Product Dvl Engineer ii	**R&D Engineer**	Prototyping	Feasibility Studies	Product Development	Package Testing	Methodical	Innovation	Autocad	Solidworks
Sr Project Manager Engineer	**Project Manager**	Project Management	Project Planning	Portfolio Management	Risk Management	Team Work	Time Management	Atlassian Jira	Microsoft Power Bi
Sr Manufacturing Engineer	**Manufacturing Engineer**	Machining	Continuous Improvement Management	Project Management	Six Sigma	Result Driven	Analytical Thinking	Solidworks	Autocad
Assembly Operator I	**Assembly Operator**	Soldering	Visual Inspection	Microscopy	5s Methodology	Evaluation	Attention To Detail	Autocad	Minitab

Skill Taxonomy Normalization Framework (4/4): Draup will aid TE Connectivity in identifying Emerging and Futuristic skills by leveraging proprietary Skills Miner ML model and Statistical Measures like Regression Coefficient and Hypothesis Testing

IV. Emerging, Futuristic Skills Identification

Identification of Emerging, Futuristic Skills

Leveraging Draup's proprietary corpus of 800+ million global job descriptions and associated labor market signals, **advanced trend analytics** shall be deployed to identify Emerging Skills for each mapped role, based on demand signals observed over a rolling **three-year horizon**. In parallel, Draup's Skills Miner model shall be used to surface Futuristic Skills — capabilities likely to gain critical relevance in the near future.

Methodology

Utilizing TE Connectivity's Job Description Data — JD Extraction

Understanding Language & Context to Identify top traditional skills — Skill Extraction

Statistical Measures — Emerging Skills Identification

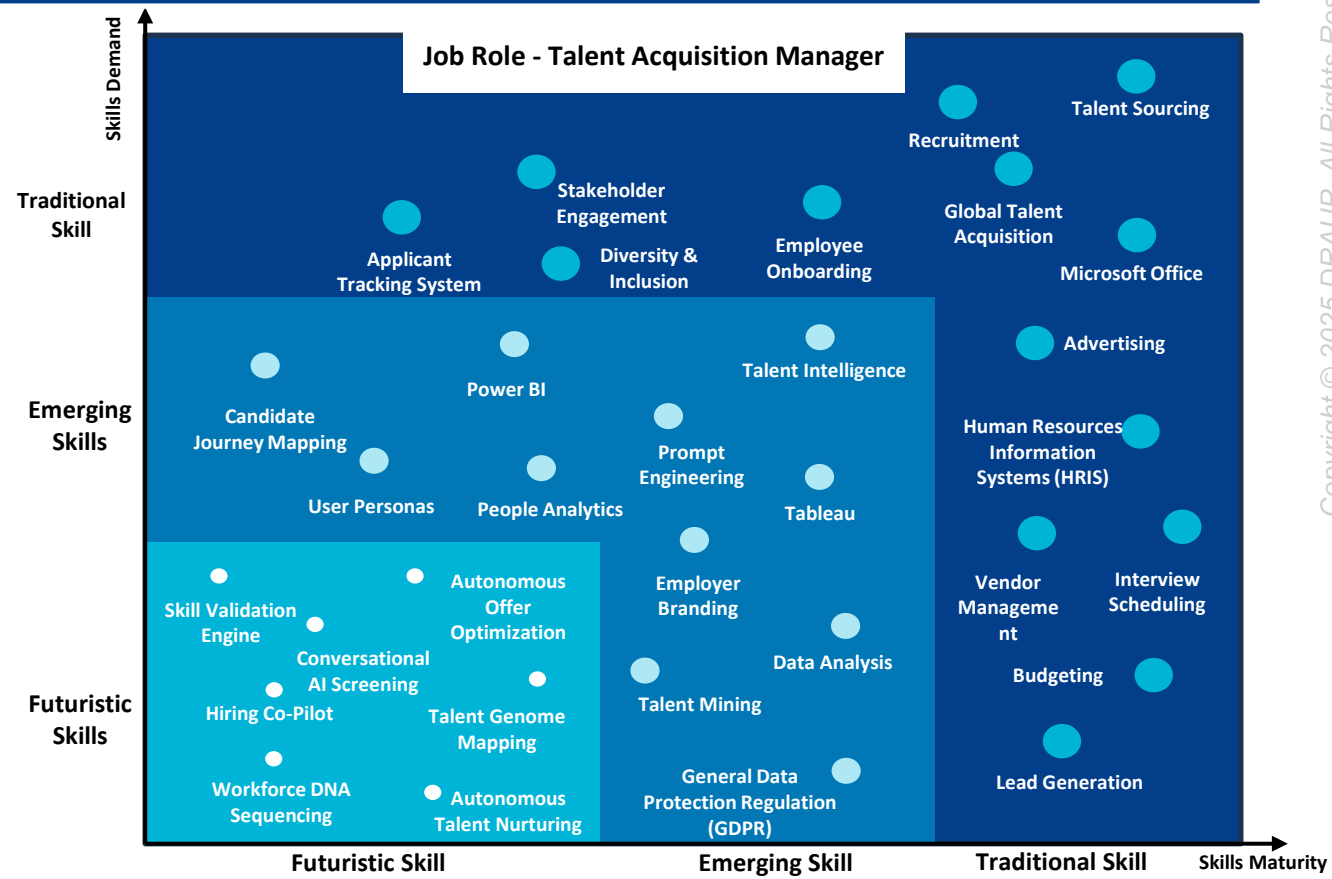
- **Regression Coefficient**
- **Hypothesis Testing**

Draup's Proprietary Skills Miner Model — Futuristic Skills Identification

which analyses 16 Mn+ data points from over 8000+ data sources mined across historical Job Opening Data, Annual Reports, Industry Publications to identify and predict future skills

Manual Validation

Output from Draup



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