

DOCUMENT 2c: Quality irregular work in the JDX Schema

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CONTEXT

Irregular Work can be challenging to classify into an occupation-types schema. But it can generate – and exploit – usefully categorized data much faster than job markets.

Characteristics relevant to the JDX

Any large scale platform dedicated to progression through periods of ad-hoc low-skilled work will have attributes such as these:

1. Commercial gig work markets are overwhelmingly “vertical”, each handles only one type of work (Uber for driving, Sitter.com for homecare, TaskRabbit for home tasks, etc.). A market focused on workers’ progression has to be “horizontal”; all types of work. And it has to understand dependencies/relationships to plot pathways. (For examples: *“30% of the skills needed for roofing can be found by doing diverse gardening bookings.”*)
2. We use “Roles” to describe a type of work that can be attached to an eligible work-seeker. In JDX terminology, this equates to the Job Master. A Role can be generic (eg: *“O*NET Sales Assistant”*) or buyer-specific (*“Acme Candy: Customer Server”*). At any time we can show how many hours of a particular Role are available for work at a specific location. We do this hour-by-hour for the next ten weeks. So, shortages of workers show up in advance. We then need to correlate “top-up Roles”. (*“You only have 4 hours of Ticket Seller availability for your stadium on Easter Sunday at 10AM, we have found 27 hours of Crowd Marshalls.”*)
3. We generate enormous data about each Role. Payrate-over-time with regional variations obviously, but also factors like “Utilization”; a measure of hours offered to hours booked. If 1m hours of qualified beauticians were offered last week but only 400,000 of them were booked, Utilization of beauticians was 40%. We also track

average period of notice for bookings and length of bookings. From this we can derive a “Stability Index”. If someone seeks regular hours from a portfolio of irregular employment, we know the Roles they need to be nudged towards. All this data can be broken down by geography, timeframe, days of week, times of day and attributes of workers getting the bookings. A schema could facilitate groupings within these factors, for example someone seeking fast skilling would want short-length bookings; we need to plot their route using a schema.

4. A work-seeker gains a Role when they have all the “Checks” required. A Check is one of; (a) Credential (b) Tag – any attribute that might attract resources to this person’s work search, for example disability status or recent release from incarceration (c) preferences, we need to know if they will wear a uniform, lift loads up to 20lbs, work outdoors and so on.
5. The right schema will allow us to credential any significant life experience then rate the value of any Check for any individual by plotting which Roles it may allow them to move to next. For example “*Selling my children’s old toys on eBay*” reflects a set of abilities, easily verified with a print-out of account activity. We need to automatically parse it to Roles (our version of the Job Master for ad-hoc work).

Irregular work markets built around progression generate particularly rich data to feed into a schema:

- **Granular**: built up on hour-by-hour bookings rather than jobs.
- **Faster to accumulate**: emerges in real time from the first day of a market, not as people move jobs (a cycle that runs in years typically).
- **Secondary data**: we know not just what skills were sought then hired, but factors such as:
 - **Utilization rate**: The ratio of hours offered of a given skill to hours booked at the time of a booking. We can report Utilization by geography, day of week, time of day, or attributes of the worker (eg; age, reliability, veteran status).
 - **Period-of-notice**: How far ahead are bookings of this skill being made (this determines the type of worker who can do them, for example someone needing to find caregiver cover for a loved one typically can’t do short-notice work assignments).
 - **Duration of bookings**: How many hours do bookings for this skill last? Again, it determines who can do the work, for example students typically seek short bookings to fit around studies.
 - **Day-of-week/Time-of-day of need**: When do needs for a given skill peak. This impacts its value to – for instance – people who seek work while their children are at school.

- **Rate correlations:** Does the hour-by-hour aggregated payrate for this skill align with other data? For example a cross-read to weather reporting will show scaffolders rarely get work when it rains.

If the schema works seamlessly: Data like that above can inform reporting for the wider labor market. Irregular work is often an early indicator of trends that then flow into jobs.

Additionally, we can trial vocabularies in our rapidly moving markets. (For example; we trialed “Vettings” and “Verifications” before arriving at “Checks” to describe the unique set of datapoints we build on each work-seeker.)

How irregular work markets dedicated to worker progression can exploit the JDX schema:

- **Pathways:** If the market understands relationships between skills it can better build stepping stones to a person’s desired goal. That might be a particular career, greater stability, higher utilization, increased earnings or a resilient portfolio of skills for the area in which they will travel to work assignments. If, for example, it knows “customer care skills give 30% of what is needed for homecare work” it can ensure a work-seeker is exposed to those opportunities as part of a path.
- **Cross training:** Our markets quickly spot skills shortages (through overheating Utilization, for instance *“90% of all carpet-layer hours were booked last week in East Indianapolis”*). A robust taxonomy would allow us to then offer employers a path to cost-effective upskilling (*“East Indianapolis shopfitters have 40% utilization, 300 have proven reliability, they have 75% of skills required for carpet laying”*).
- **Substitution:** No labor pool is perfectly aligned with employer needs. We can use a schema to identify workers who don’t have the exact skills required but whose unique diverse experience makes them the next best thing. (These individuals have retail or hospitality accreditation combined with a track record of sales related work that suggests they could quickly learn the skills required to work at your contact center.)

If the JDX taxonomy is to comprehensively include irregular workers it needs to:

- **Allow precise categorization of soft skills:** Reliability, personal presentation, ability to take instructions, comfort operating a digital device; these are typical determinants of success in low-skill non-standard employment. Each can be broken down to component parts. A granular categorization sitting below a badge for “Reliability” might factor in not just punctuality but response times, handling of

unavoidable delays, prompt handling of timesheets and so on. The right structure will reward people who may have few formal skills, but a determination to behave professionally.

- **Sub-divide job types**: “Petcare” might be a job category. But it doesn’t reflect the granularity of “gig economy” work. Dog-walking is a key sector in household work opportunities. But it has its own sub-divisions that matter to a worker who is cherry-picking their favored types of work across multiple roles. Is the person comfortable with Multi-dog bookings? Very big dogs? Sick dogs? Valuable show dogs? A structure allowing specialization in odd-hours of bookings to sit below a generalized job type would allow markets like ours to report even more accurately while sitting within the JDX general format.
- **Combine multi-employer outputs**: Our workers could easily have five unrelated employers in one week. Each has its own skills requirements/training. We want to aggregate them into some sort of coherent picture of what the person is showing they can do. With the right structure we can then – for instance - draw on historical trends to create comparisons: *“People combining these skills in the past in your area achieved average 75% reliability, you are on 82%”*.
- **Inform rate setting**: Where no fixed rate agreement covers a period of work, we allow the individual to set a rate against a particular type of work. (*“I will only do Personal Support Worker bookings for \$17 an hour because I know the market is tight and I have a strong fit with the profile.”*) Again, building a composite picture of each person’s match with skills required for any role is vital.