What's different about our technology?

Our work in the UK searched for a sustainable, infinitely scalable, way to unlock the full potential of each worker. Start with that and you arrive at a very different platform.

Thinking in Britain started with a list of all possible interventions to support irregulars. But reasons people work this way are so diverse. No one intervention fits all. But their common issue is *quality of marketplace*. Someone in a job enters the labor market every few years. An irregular can be in and out several times a day. The way their market is constructed, whose interests it serves, its breadth and depth, the facilities it offers; these determine life chances. Any market will have to be technology based, transactions are too low-value and complex for offline models.

We compiled a list of 20 specific criteria for a marketplace which would (a) reduce overheads (b) allow anyone to sell their hours on their terms across as many types of work as they wished with data and tools for progressing towards enhanced earnings, stability, a particular career or any other personal goal (c) enforce all aspects of legal compliance and other protections.

To make that tangible: Assume a manager needs, say, 8 market researchers outside a station at lunchtime today. We have to instantly show every possible work-seeker who is available/ qualified/ willing to do that assignment. We have to price each for this specific requirement factoring in their personal rules for accepting bookings plus pro-rated benefits/tax. Crucially we have to ensure for each person, these two hours of interviewing are a steppingstone for their personal progression. All confirmation, monitoring and administration has to be handled.

Intermediaries must be incentivized to act as employer-of-record; vetting, payrolling and supporting workers while invoicing employers. They may be staffing agencies, not-for-profits or public bodies. They can set a mark-up in the rate paid by an employer for each hour. Partnering with other intermediaries is incentivized.

A public utility

Our platform is an *underlying* service rather than a brand.

This is best explained with an analogy. When the travel industry moved online; airlines and hotels collaborated on a database of their assets (seats and rooms). It stores hourly availability of each asset plus how it is to be priced to maximize earnings. When we book a vacation on Expedia, Booking.com, Travelocity or other consumer sites they are interfacing to this underlying database. This model keeps costs down, widens buyer choice, makes booking instant and reliable. It increases demand, while generating unique data to generate seller opportunities and maximize income.

Our underlying service for any city is called a CEDAH (Central Database of Available Hours). It offers possibilities for interventions, skilling and support that are hard to imagine in today's world of narrow, commoditizing marketplaces. The idea of operating such a platform under local control is not radical. Already every US state commissions its own online market for all kinds of jobs.
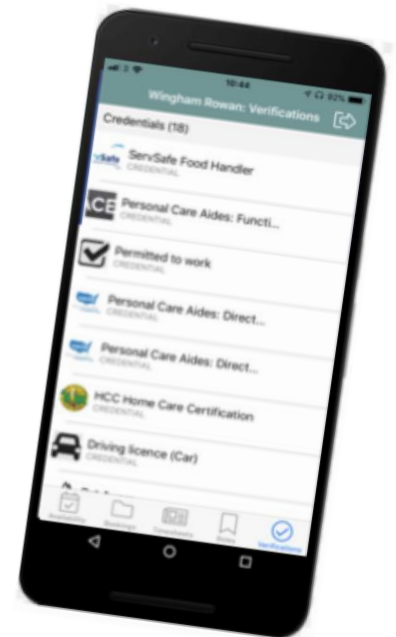
What's different about our solution?

Thousands of websites and apps offer *part* of what we do. We started from a different place to existing services. Years of painstaking development are behind our belief that the scale of Irregular Work requires a holistic, sustainable, game-changing approach. Not just one more app.

To analyse our offering, it's helpful to categorize hourly labor platforms along two lines:

- Low-tech to High-tech

- Vertical market to Horizontal market

Low-tech to High-tech

E-markets are not generic. A variety of mechanisms for matching buyers and sellers then transacting have emerged. Each has its own strengths and challenges. In temporary work markets, two mechanisms underpin nearly all the platforms:

- Bulletin Board: This is simply advertisements with a search facility. Typically, buyers post their need and work-seekers race to respond. Examples include Care.com, Thumbtack or Wonolo.

- Algorithmic Assignment: To increase buyers' convenience some platforms take in a need then instantly offer a named worker who will fulfil the task. Taskrabbit, for example, switched to this model in 2016.

A typical bulletin board: listing openings for which a work-seeker can apply

Both are low-tech. Bulletin Boards are time consuming and uncertain for buyers who must commit to a need, then wait to see who, if anyone, might fulfil it. But work-seekers are able to engage with a buyer before deciding terms on which they will complete a task. Algorithmic Assignment removes control for the worker; the site knows when they are available and a location, it then either tells them what to do, or offers them nothing.

The basic mechanism in a market can be obscured by additional design features. Often the software sophistication is not in the labor function. (Uber for instance uses advanced technology for pricing and routing but as a labor market it's basic: a driver is either available to be told what rides to fulfil or not.) Sophistication in the mechanism for aligning work-seekers with opportunities is critical in assessing any market's economic and social value.

High-tech does not mean "*complex to use*". The most high-tech online market for any commodity is probably Amazon. Their one-click ordering button is compellingly simple for users. But it takes scheduling, logistics, supply-chain and despatch capabilities under-the-hood to make the button reliable at low cost. High-tech. absorbs time and uncertainties of transacting.

Why aren't more flexi-labor sites high-tech?

- No commercial return: The resource gig-work markets are selling (time of work seekers) is abundant and doesn't cost them anything. Overheads of registration then seeking and managing bookings have been shifted onto individuals needing work. Algorithmic Assignment offers immediacy and simplicity for buyers. With workers commoditized, there's no return from making tech. even more complex to increase their options.

- Risks: Any platform absorbing the complexities of a transaction is in danger of taking on liabilities. As soon as the site assigns a worker, they can be deemed not just the employer of record but also responsible for working-hours, vetting and legal compliance.

- Cost: Genuinely high-tech mechanisms are exponentially costlier to develop and typically only work with enormous scale. They can't start small and grow incrementally. This makes them expensive and precarious to launch, a showstopper for investors.

Commercial labor markets are typically primitive. A traveller browsing Expedia does not post her requirement and wait for sellers to respond. She is not just shown a list of hotels that *may* have availability who can be contacted. Nor does the site tell her where she will stay and how much it will cost. Instead, high-tech lays the market bare; she sees every genuinely available option, priced according to the seller's rules, instantly and reliably bookable with a few clicks.

To deliver this control for work-seekers and buyers in a labor market, our tech. has to be sophisticated. The basic mechanism handles 20 key issues within each possible transaction. It is structured to use algorithms not to drive down pay or lock-out competing markets, but to offer precision upskilling and foster incentives such as "*guaranteed work*" arrangements with employers. The challenges of launching such a comprehensive market are covered on page 10.

Vertical to Horizontal

Most online labor markets are "Vertical"; they cover only one type of work. Rover is for dog-walkers/sitters, Wonolo provides hour-by-hour warehouse staff, Glamsquad matches beauticians with anyone requiring a treatment at home, and so on. Some exchanges are sector-specific such as Care.com, UrbanSitters or Honor for multiple types of care in the home.

But it is a "Horizontal" market covering all types-of-work that creates data and opportunity to seamlessly move to better paid, more stable, types of work. *("You are earning average $16.42 ph as a carpet-layer, there is a 20% shortage of office fitters in your travel area at times you want to work. Click for training that will allow you to do this work as well".)* Horizontal exchanges can also be more convenient for employers. Walmart for example are an obvious customer for any site offering short-term retail workers. But they are also large consumers of security, fitting, distribution, building, cleaning and promotion staff.

Attempts to launch "Horizontal" markets covering all types of work seamlessly have tended to fail or quickly re-purpose. Recent examples include Dispatcher and OpusforWork.

Why is this?

- Costs: Getting a commercial market to a critical mass of buyers and sellers requires expensive advertising, usually through ad-words in Google. (To have the top ad. for a search such as "*Housecleaning Los Angeles*" can cost $50 or more each time it is clicked.) Bidding against competitors for words covering every type of work would be unthinkably costly.

- Commercial resistance: The fast way to an all-types-of-work market is to aggregate other marketplaces (Dispatcher's intention at one point). But each of those incompatible markets will aggressively fight appropriation of their data and relationships.

- Initiator's focus: Bodies that start social platforms tend to be rooted in one sector. They often have a regional focus as well. Carina, started by the SEIU union covers homecare in Washington state. UP&GO is for housecleaners in NYC. Loconomics covers a range of home services in San Francisco.

- Branding: Marketplaces must maintain buyer awareness in a volatile environment. It is easier to do that with a laser focus on one task (doing laundry for example).

The investor-appeal of vertical markets is clear. In 2014, for instance, TaskRabbit narrowed the range of tasks it offers. This was unpopular with many work-seekers. Our technology has been conceived from the start as a horizontal market. Requirements for any one sector are handled generically. We hold "Verifications" about each work-seeker. Confirmed by their intermediary, these are data points about credentials, likes and needs that allow the system to offer personalized "Roles". A Role is a type of work such as Babysitting or Bricklaying. It can be generic (from the O*Net classifications typically) or employer-specific, perhaps with an agreed payrate. Each individual can have dozens of Roles then decide which are active. They may choose to be available only for better paid roles but switch their earlier Roles back on if work is short.

Our place in the spectrum

As this categorization of some well-known markets shows; our CEDAH platform dominates the "High-tech, Horizontal" category. This position has many challenges which we have had to confront. But the potency of what could be achieved with successful launches is barely conceivable in today's world of largely low-tech, vertical, markets.

Our tech. has been thoroughly tested, handling over $8m of these small transactions for corporate and public-sector employers in the UK.

➔ **Full technical documentation and system log-ins can be provided.**

Categorizing online markets for low-skill irregular work

- Craigslist
- CEDAHs
- Dispatcher
- FlexJobs

Horizontal market

Low tech. — High tech.

- gigtogig
- Loconomics
- Wonolo
- COMMERCIAL MARKETS
- SOCIAL MARKETS
- Postmates/Instacart/Doordash/Grubhub/Shipt
- Handy
- Sitter.com/Care.com/Honor/Homehero
- Thumbtack
- UP&GO • Carina • Taskrabbit • Rover • Gigwalk • Uber
- Lyft • Amazon Flex

Vertical market