STAFFING INDUSTRY ANALYSTS

The Human Cloud, the Gig Economy & the Transformation of Work

The Gig Economy and the Human Cloud Landscape

The gig economy continues to disrupt, enhance and transform traditional work models, methods, means and infrastructures. As organizations around the world utilize, explore and reconfigure contingent work across marketplaces, there is an increasing spotlight on the ***Human Cloud***, the fastest-growing segment of today's technology-fueled gig economy.

The human cloud is an emerging set of online/digital labor marketplaces where talent and those looking to hire talent can find and engage one another in a work arrangement.

With total human cloud spend reaching **an estimated $82 billion dollars globally**, human cloud revenue grew by approximately 65% in 2017. While the vast majority of that spend was generated by business-to-consumer (B2C) human cloud companies, the business-to-business (B2B) segment of the human cloud grew an estimated 19% year-over-year.

Staffing Industry Analysts (SIA) actively monitors the shifts and the rapid developments around how work arrangements are facilitated and how talent is engaged. Our ongoing research detailing the human cloud focuses a sharp lens on an evolving ecosystem. **The Gig Economy and Human Cloud Landscape: 2018 Update report** is the fourth iteration of SIA's annual look at the state and evolution of the human cloud and presents a comprehensive framework around the related business services and features of human cloud platforms. The full version of this 53-page report, available to SIA's Corporate and CWS Council Members, includes market intelligence and data for over 350 firms operating in the sphere; and pays particular attention to the B2B segment (see Appendix for report information and top ten largest B2B and B2C company listings).

GLOBAL HUMAN CLOUD SPEND REACHED AN ESTIMATED

$82

BILLION DOLLARS

Key insights and findings from the report are summarized here, as we highlight the state of play and the current outlook for an area of the workforce solutions ecosystem where innovation is in full swing.

Companies mentioned here, as well as in the full report, provide examples of and specifically identify leading human cloud firms; however new enterprises crop up continuously, and existing ones may extend offerings, streamline focus or undergo other types of organizational transitions. We acknowledge we have not captured every human cloud platform as there may be a number not yet on our radar. Unless otherwise specified, all estimates and revenue calculations are based on 2017 data.

Defining the Landscape

Defining and understanding the human cloud and its relationship to the gig economy and to labor markets at large is essential in further understanding the evolution of the workforce solutions ecosystem and how to leverage a changing workforce predicated on the collision of technology and talent. The following detailed definitions[1] characterize the core components of the human cloud and inter-related aspects.

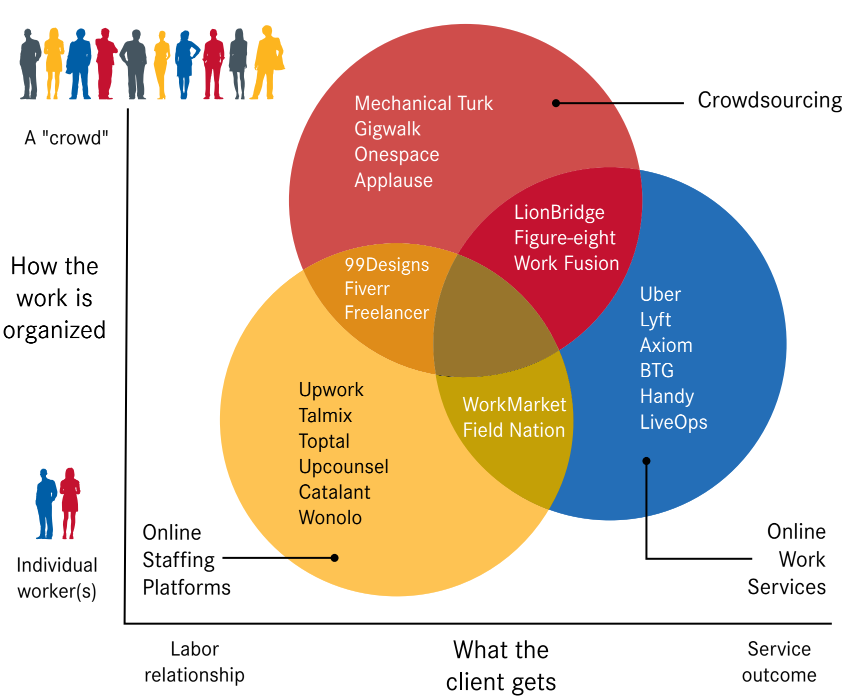
Gig Work/ Gig Economy

TThe **gig economy** is one of several names used to describe various forms of “gig” work, or small project freelance work. Others include “on demand economy,” “collaborative consumption” and “sharing economy.” Definitions of the gig economy vary widely among commentators. The more narrow definition includes work structured as small projects of a relatively limited duration typically facilitated by an internet platform or app (i.e. freelancing as intermediated by vendors operating in the so-called “human cloud”). SIA’s definition is broader than this in that it includes **any contingent work** of a fixed duration such as temporary workers (sourced directly or through a staffing agency) and independent contractors. We see no reason to limit the concept of a “gig” solely to transactions mediated online. SIA treats the gig economy as synonymous with contingent work and, as such, these workers are sourced and managed through a number of different segments within the Workforce Solutions Ecosystem. Some commentators would also include online services such as Airbnb and Zipcar as part of the gig economy. As these services are not labor-related, SIA regards these services as part of the sharing economy, but not part of the gig economy (see figure page 10).

Human Cloud

The **Human Cloud** is an emerging set of work intermediation models that enable work arrangements of various kinds to be established and completed (including payment of workers) entirely through a digital/online platform. In many cases (though not always), the platform also supports “the enactment and management” of the work (to a lesser or greater degree). Job boards and social networks do not fall within our definition of the Human Cloud; while those two types of talent exchange platforms may support the sourcing and recruiting part of work arrangements being established, such platforms do not generally further enable or support work arrangements through to their completion (including payment of workers, tax filings, etc.). SIA has defined three types of Human Cloud platform models: **CrowdSourcing**, **Online Work Services** and **Online Staffing Platforms**. Some companies operate across more than one of these Human Cloud segments.

The Human Cloud framework and taxonomy



[1] Definitions taken from SIA’s Lexicon of Global Workforce Solutions-Related Terms http://lexicon.staffingindustry.com/

Defining the Landscape (cont.)

Online Staffing Platforms

A sub-segment of the Human Cloud, an online staffing platform enables specific hirers and specific workers to enter into, complete and transact work arrangements most often virtually with resources anywhere in the world. It is the oldest Human Cloud model, arising in the early 2000s. There is typically a direct legal relationship between the hirer and worker, which the platform enables.

Subsets of Online Staffing

Freelancer Management System (FMS): A cloud-based workforce management platform. The FMS helps businesses initiate, manage, complete, track and analyze engagements with individual independent workers, who may be sourced by the provider of the business itself.

Just-in-Time Staffing (JITS): JITS comprises labor intermediaries that are web/smartphone-enabled and provide a staffing-like service for on-site, blue collar work. These companies combine technology more typical of freelancer marketplaces, such as a two-sided digital labor marketplace, ratings, algorithmic recruiting/matching, with services that are typical of a "traditional" staffing firm, e.g. screening, recruiting and employment.

Online Work Services

A sub-segment of the Human Cloud, Online Work Services is an online platform model that enables the delivery of certain specialized services (customer service, translation, writing, taxi rides, etc.) performed by a group of online workers that are organized/managed by the platform provider. The client is purchasing "an outcome" (as a service output, not a labor relationship).

Online staffing's labor marketplace

Marketplace of workers

Can be comprised of a variety of occupations, skill sets, geo-locations, etc. Workers often have searchable profiles and ratings/work history.

Online staffing platform

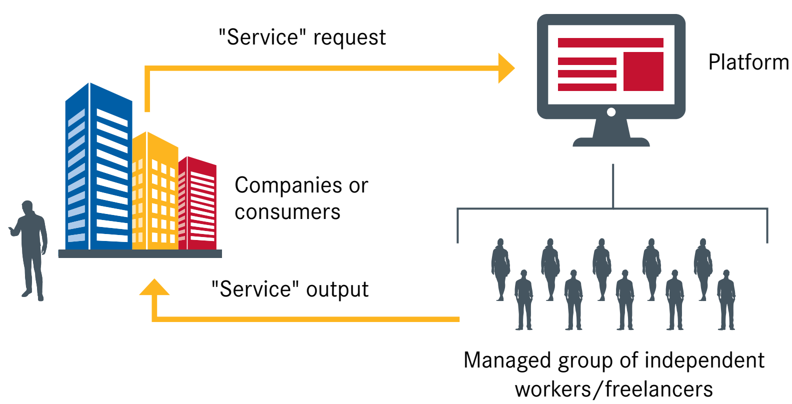
Matches the two parties through searchable database; result is direct labor relationship. Facilitates rest of transaction through to payment of worker(s).

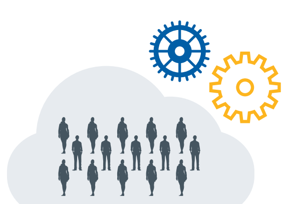
Managers (businesses/consumers)

Businesses or individuals who need work done. May be looking for project-based workers or hourly workers, local or remote, etc.

THE ONLINE STAFFING SEGMENT GENERATED AN ESTIMATED **$5.2 BILLION** IN SPEND IN 2017

Online work services platform model





ONLINE WORK SERVICES FIRMS PROCESSED **$76.5 BILLION** WORLDWIDE IN ESTIMATED SPEND IN 2017

This was largely driven by the on-demand ride sharing firms Uber and Didi-Chuxing.

Crowdsourcing

A sub-segment of the Human Cloud, Crowdsourcing is an online platform model that enables work assignments to get parsed out and performed (often as disaggregated "microtasks") by a far-flung "crowd" of independent workers who perform (paid or otherwise compensated/incented) work at will*. Typically, the client of a "crowdsourcing" platform is purchasing "an outcome" (as a service output, not a labor relationship). Crowdsourcing also includes work arrangements where a "crowd" of workers compete or bid against one another to solve problems or tasks, with winner(s) selected and compensated based on the merit of their submissions.**

CROWDSOURCING COMPANIES GENERATED AN ESTIMATED

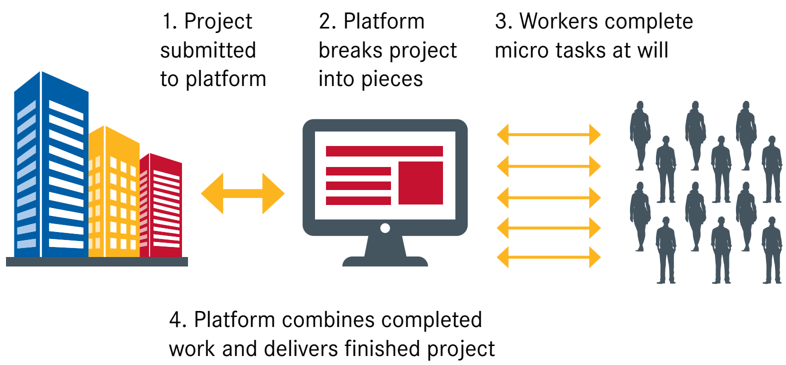
$800 MILLION

GLOBALLY IN 2017

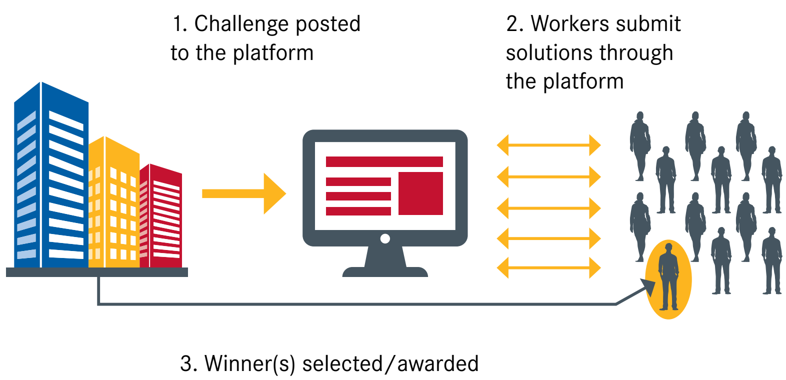
*See Crowdsourcing distributed micro-task model below

**See Crowdsourcing contest-based model below

Crowdsourcing distributed micro-task model



Crowdsourcing contest-based model



Human Cloud companies are distinguished by the fact that they generally:

1. Facilitate peer-to-peer transactions through the internet or internet-enabled devices (e.g. smartphone apps)
2. Rely on user-based ratings
3. Offer workers flexibility in deciding working hours or times
4. Typically expect workers to supply their own equipment to complete work (e.g. computer, software, car, tools, etc).
5. Manage the relationship from sourcing through payment via the platform

Key Insights

Market Size & Features of the Global Gig Economy & the Human Cloud

By our estimates, total human cloud revenue worldwide reached **$82 billion** in 2017. A rapidly growing segment of the gig economy, the human cloud is making a significant impact globally as organizations look for more efficient ways to engage workers. With technology driving transformation across industries and continents, the workforce solutions ecosystem is finding new, innovative ways to automate the connection to talent.

The Gig Economy in Perspective

The global gig economy consists of independent contractors, temporary agency workers, temporary workers sourced directly by companies, SOW consultants and human cloud workers.

THE GLOBAL GIG ECONOMY:

$3.7 trillion

B2C Human Cloud

In 2017, just three ride-sharing firms generated nearly 75% of human cloud revenue.

B2C HUMAN CLOUD COMPANIES:

$76 billion

B2B Human Cloud

The largest 5 business-related human cloud firms currently control 42% of the B2B market.

B2B HUMAN CLOUD COMPANIES:

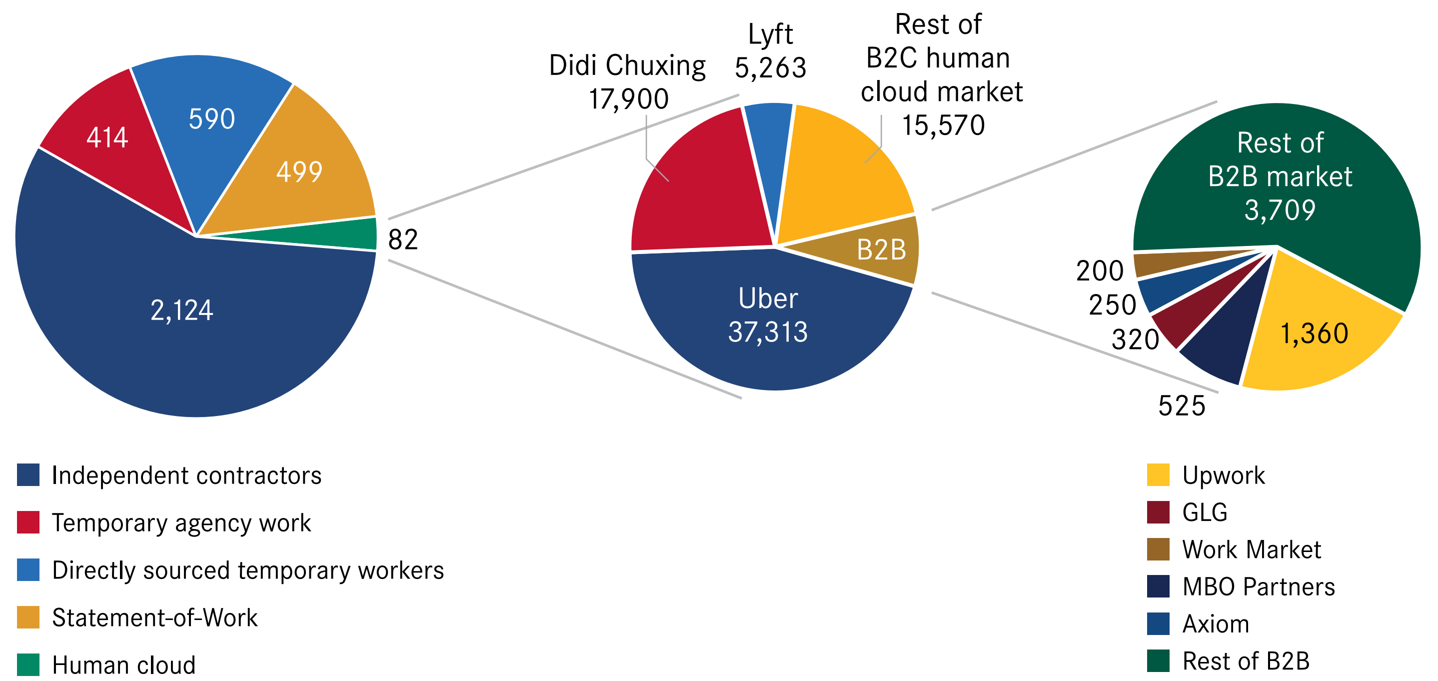
$6.4 billion

Market size and features of the Gig Economy and the Human Cloud

Global 2017 gig economy revenue by category (USD Billions)[1]

Global 2017 human cloud revenue (USD Millions)

Global 2017 B2B human cloud revenue (USD Millions)



B2B Human Cloud Revenue Growth and Trends

The B2B segment of the human cloud grew **19%** in 2017, reaching **$6.4 billion**.

Online staffing platforms specializing in specific niches and the higher end of the skill spectrum performed particularly well. Upwork, the largest online staffing firm by revenue, grew by double digits y/y in 2017 by our estimates. At the same time, **a record number of firms generated more than $100 million** in revenue 2017, suggesting segment growth is broad based.

Though online labor marketplaces tend to tout the number of workers available via their platform, in practice, firms that intentionally limit supply (the number of candidates) or use other mechanisms to enhance marketplace quality generally performed better than those that had open, entirely self-service marketplaces.

Business-related online work services companies generally had a good year, though performance by firm was likely more due to secular drivers in the underlying industry served/solution offered (e.g. legal services, call center, etc.) than by the fact these firms use a distributed network of independent workers to deliver their services.

The crowdsourcing model has not grown significantly in recent years, as in practice there are only so many kinds of work that can be micro-tasked and solved via contest. One bright spot is a new generation of service businesses that have been built on the top of crowdsourcing companies such as robotic process automation (RPA), market research firms and customer service platforms.

[1] Source: SIA's estimate of the global gig economy based on 2017 spend.

Key Insights (cont.)

Where Work Happens

The below estimated global gross revenue for work facilitated by human cloud platforms in 2017, segmented by primary business model, B2B versus B2C transactions, and whether work was performed remotely (at a location of the worker's choosing) or onsite (at a location specified by the client), provides a breakdown of where talent works. One of the much-touted benefits of the human cloud is geography– ostensibly, **talent has the flexibility to work from whatever location best suits them**.

	Online Staffing	Crowdsourcing	Online Work Services	Total
B2B	**4,864**	**773**	**727**	**6,364**
Onsite	958	189	290	1,438
Remote	3,906	584	436	4,926
B2C	**316**	**7**	**75,723**	**76,046**
Onsite	291	1	75,678	75,970
Remote	25	6	45	76
Total	**5,180**	**780**	**76,450**	**82,410**

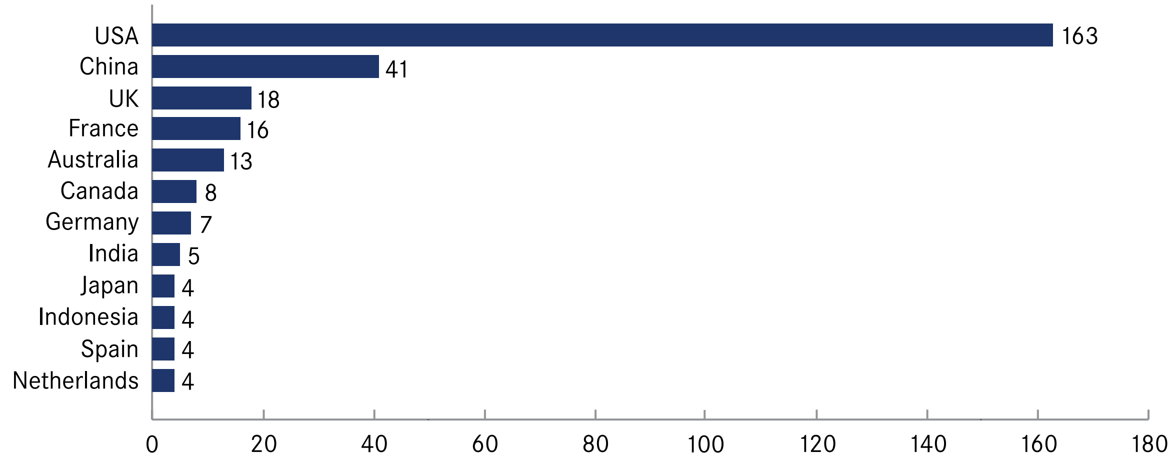
Remote work arrangements are the norm among online staffing platforms, accounting for 80% that category's revenue. Jobs that are more readily performed remotely are natural occupational targets for firms that specialize in facilitating online work, eg software programming, design, content marketing, data validation, transcription, translation and knowledge work in general.

A Global Phenomena

Since remote workers can, in principle, complete work from virtually any location with online capability, a platform's headquarters does not necessarily dictate the location of supply or demand. While human cloud companies handling remote work tend to be headquartered in countries with large economies (as are human cloud companies in general), they create avenues for people to perform work from almost anywhere, especially countries with cheaper labor but the skills required to complete a given task.

More than **30 countries** were home to one or more human cloud platform headquarters in 2017. The two largest economies in the world by GDP (USA and China) are also home to the most human cloud companies.

Countries with the Most Human Cloud Headquarters



Utilizing the Human Cloud

Human Cloud Solutions: Usage at Large CW programs

While small to medium-size businesses continue to comprise the majority of demand in the B2B segment, interest and **adoption at large enterprise clients is outpacing that of smaller firms**, a favorable sign for B2B-focused firms.

And inside these large contingent workforce programs usage is growing, with 13% of buyers currently utilizing human cloud talent. While the percent of companies reporting use of online staffing has not changed much over the last three years, the percent of firms considering use within two years (21%) suggests future opportunity for this service.

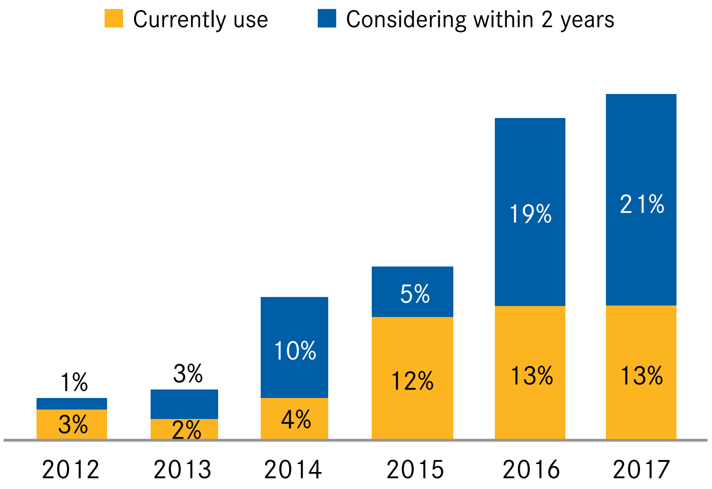
Given the uptake around other workforce solutions technologies and given the profile of the gig economy in media along with the interest and visibility from both the private and public sectors, it is interesting to note adoption is not growing faster. This may be due to a lack of comfort or confusion around managing remote work; unresolved questions around worker classification (independent contractor vs freelancer vs temporary worker); marketplace perception in terms of what human cloud companies can offer; and friction in the hiring process.

What's Driving Use?

A variety of reasons were cited in a recent SIA survey in which companies with more than 1,000 employees were asked "What are the primary reason(s) your organization uses online staffing platforms?"

The most common reason for using online staffing platforms was **greater access to talent** (63%), suggesting that human cloud companies are being considered as another type of supplier for talent. **Reducing cost**s (50%) was the second most frequently cited item, while **expanding skills** coverage (46%) was third.

Percent of buyers using or considering online staffing services (North America)



Source: 2017 Workforce Solutions Buyers Survey, SIA

Primary reasons companies use online staffing platforms

Company	Response %
Greater talent access	63%
Reduce costs	50%
Expand skills coverage	46%
Ease of use	38%
Centralize management/control	33%
Decrease legal risk	25%
Reduce time to deploy workers	25%
Track spend better	17%
Other (please specify)	8%

Source: 2016 Workforce Solutions Buyers Survey North America, SIA

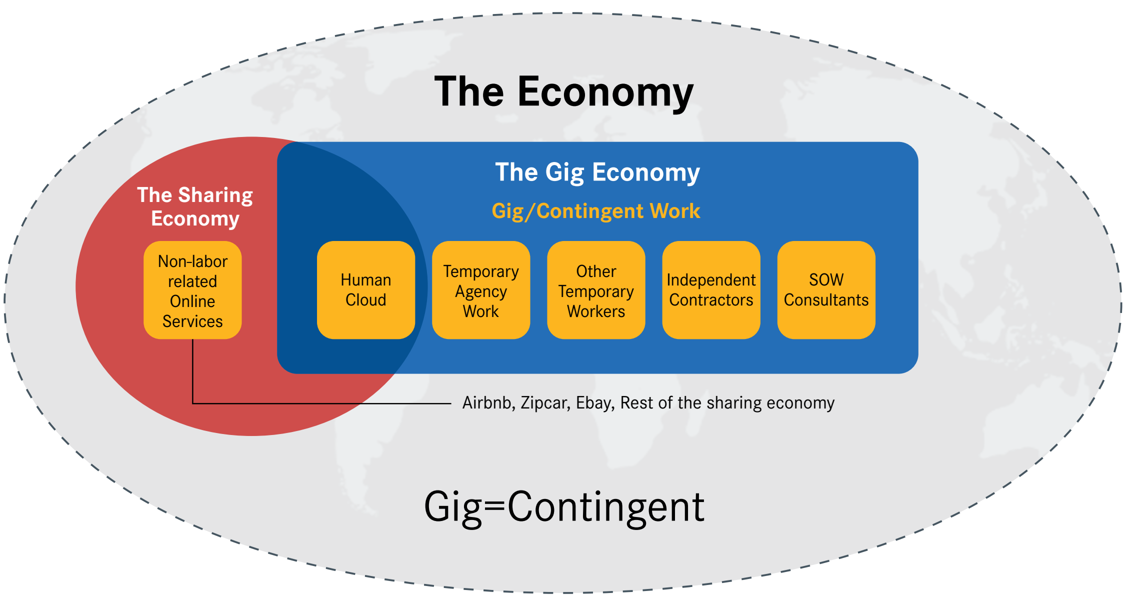
Where Does Work Go From Here?

While the human cloud still represents a small portion of contingent work overall, it also continues to grow substantially, and online labor platforms have the potential to provide significant economic opportunity for tens of millions of workers globally. In a B2B context, we have seen an increase in the number of firms and revenue associated with the just-in-time staffing model, and expect this trend to continue, particularly as more staffing companies invest in their own digital apps to deploy and connect temporary workers to work.

Additionally, we are already seeing incumbent talent intermediaries/providers from around the wider workforce solutions ecosystem, such as management consulting firms, experimenting with the human cloud, and this experimentation is likely to accelerate. A number of notable investments and partnerships have formed between providers – some public and some not– with collaboration advancing thought leadership and widening the exploration of new models for shaping and navigating the future of work. As such, we are likely see more and more hybrid models emerge as staffing firms and other intermediaries explore digital transformations toward a future where "staffing" and "online staffing" have all but converged and the talent landscape continues its dynamic evolution.

Conclusion

Driven by technology and spanning cultures, geographies, business sectors and ideologies alike, the transformation of work is well underway. It is no secret that traditional models have been disrupted. Talent is continuing to explore new ways of engaging and workers are becoming more comfortable with the increasing digitization of work. Organizations are contemplating the impact of the transformation on the talent supply chain, and more transactional data is becoming available, driving better algorithms and enabling better hiring decisions. Platform innovation, increased awareness and adoption from stakeholders, widespread proliferation in access to the internet, and deepening connections between human cloud companies and other workforce solutions providers are all likely to underpin growth in the human cloud going forward, fueling a further extension for B2B applications of human cloud solutions to meet the new demands of the growing gig economy and the global talent marketplace.



Appendix

The full 53-page report of The Gig Economy and Human Cloud Landscape: 2018 Update is available to SIA's Corporate and CWS Council Members based on regional access.

- Americas: https://www2.staffingindustry.com/HumanCloudLandscape2018AM
- EMEA: https://www2.staffingindustry.com/HumanCloudLandscape2018EMEA
- APAC: https://www2.staffingindustry.com/HumanCloudLandscape2018APAC

Top 10 Largest B2B Human Cloud Companies 2017

Rank	Company	2017 gross spend ($millions)	HQ (country)	Primary business model	Primary work location	Year founded	Occupations
1	Upwork	1,360	USA	Online Staffing	Remote	1999	Multi-category freelancers
2	MBO Partners	525	USA	Online Staffing	Mix	1986	Professionals
3	Gerson Lehrman Group[1]	320	USA	Online Staffing	Remote	1998	Expert network
4	Axiom1	250	USA	Online Services	Mix	2000	Legal Services
5	WorkMarket[2]	200	USA	Online Staffing	Onsite	2010	IT/marketing
6	EnvatoStudio[3]	187	Australia	Online Staffing	Remote	2008	Design/creative
7	Fiverr[3]	180	Israel	Crowdsourcing	Remote	2010	Logos/designers
8	Freelance.com[3]	174	France	Online Staffing	Remote	1996	IT/consulting
9	LiveOps	150	USA	Online Services	Remote	2000	Call Center
10	Field Nation	145	USA	Online Staffing	Onsite	2008	IT technicians

[1] Excludes non-human cloud revenue
[2] Includes Onforce acquisition
[3] Revenue converted to USD at the average daily exchange rate from 1/1/2017 – 12/31/2017

Top 10 Largest B2C Human Cloud Companies 2017

Rank	Company	2017 gross spend ($millions)	HQ (country)	Primary business model	Primary work location	Year founded	Occupations
1	Uber	37,313	USA	Online Work Services	Onsite	2009	Drivers/Taxis
2	Didi Chuxing[1]	17,900	China	Online Work Services	Onsite	2012	Taxi drivers
3	Lyft	5,263	USA	Online Work Services	Onsite	2012	Drivers/Taxis
4	GrabTaxi[1]	2,320	Singapore	Online Work Services	Onsite	2012	Taxi drivers
5	Go-Jek[1]	995	Indonesia	Online Work Services	Onsite	2010	Bicycle rides
6	Ola 1	921	India	Online Work Services	Onsite	2010	Taxi drivers
7	Ele.me[1,2,3]	801	China	Online Work Services	Onsite	2008	Food delivery
8	Gett[1]	600	Israel	Online Work Services	Onsite	2010	Taxi drivers
9	Instacart[2]	500	USA	Online Work Services	Onsite	2012	Shopping delivery
10	DoorDash[2]	383	USA	Online Work Services	Onsite	2013	Delivery (restaurant)

[1] Revenue converted to USD at the average daily exchange rate from 1/1/2017 – 12/31/2017
[2] Excludes non-human cloud revenue
[3] Includes revenue from Baidu Waimai acquisition (2017) [Ele.me acquired by Alibaba in April 2018]

About Staffing Industry Analysts (SIA) | www.staffingindustry.com

SIA is the Global Advisor on Staffing and Workforce Solutions

Elevating the Workforce Solutions Ecosystem

Founded in 1989, SIA is the global advisor on staffing and workforce solutions. Our proprietary research covers all categories of employed and non-employed work including temporary staffing, independent contracting and other types of contingent labor. SIA's independent and objective analysis provides insights into the services and suppliers operating in the workforce solutions ecosystem including staffing firms, managed service providers, recruitment process outsourcers, payrolling/compliance firms and talent acquisition technology specialists such as vendor management systems, online staffing platforms, crowdsourcing and online work services. We also provide training and accreditation with our unique Certified Contingent Workforce Professional (CCWP) program.

Known for our award-winning content, data, support tools, publications, executive conferences and events, we help both suppliers and buyers of workforce solutions make better-informed decisions that improve business results and minimize risk. As a division of the international business media company, Crain Communications Inc., SIA is headquartered in Mountain View, California, with offices in London, England.

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