Microwork: An Introduction

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Introduction: The Amazon Alexa (Joler & Crawford, 2018)

- Joler & Crawford analyze this network (the *AI System*) using Marxian dialectic of object (means of production) and subject (labour power)

- They also stress the importance of the environment in sustaining—and being affected— by the *AI system*

- "Each small moment of convenience – be it answering a question, turning on a light, or playing a song – requires a vast planetary network, fueled by the extraction of **non-renewable materials, labor, and data**."

Anatomy of an AI system

An anatomical case study of the Amazon echo as a artificial intelligence system made of human labor
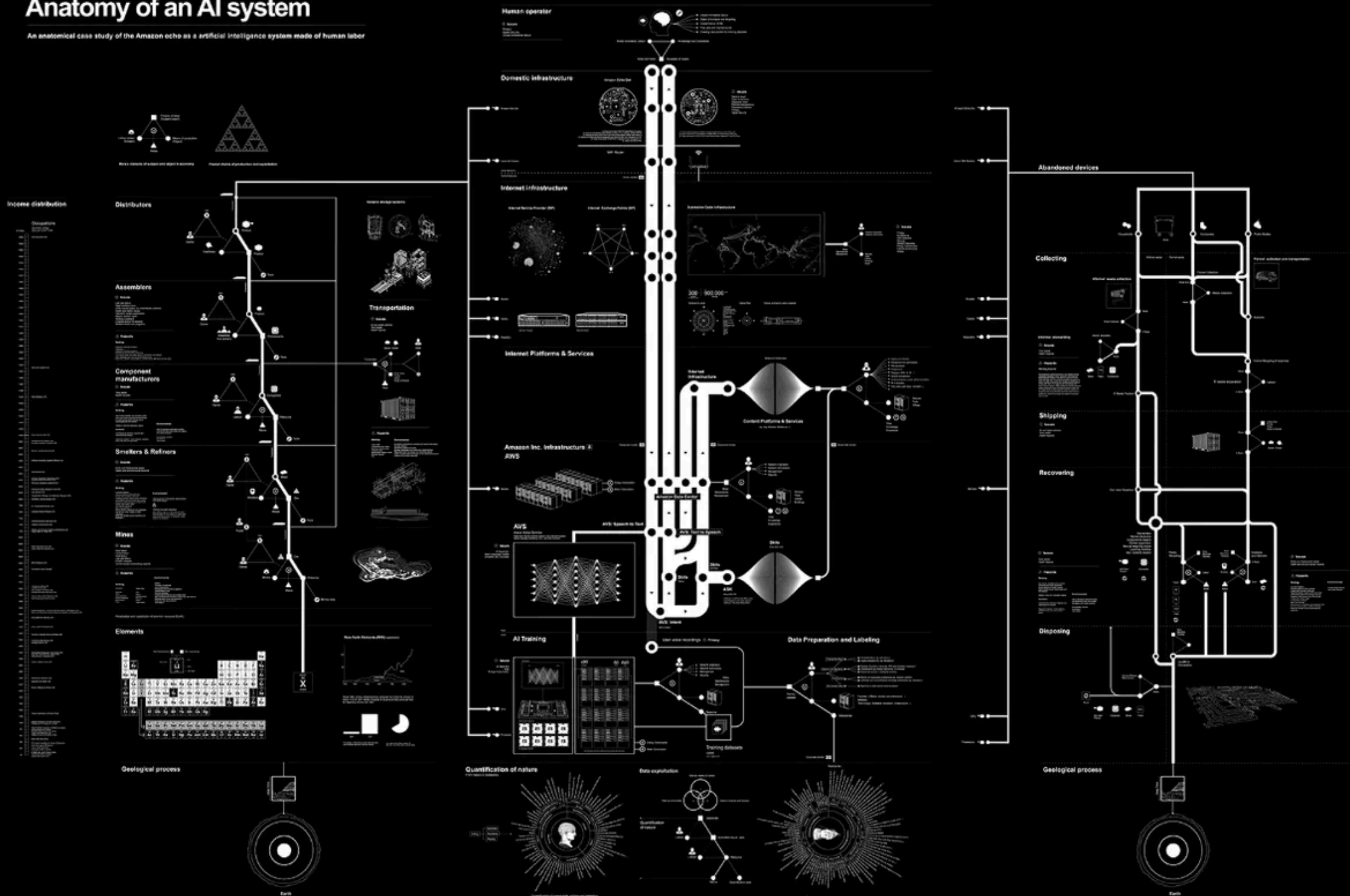
Introduction: The Amazon Alexa (Joler & Crawford, 2018)

- "[The system] becomes a complex structure of *supply chains within supply chains*, a zooming fractal of tens of thousands of suppliers, millions of kilometers of shipped materials and **hundreds of thousands of workers** included within the process even before the product is assembled on the line."

- "At this moment in the 21st century, we see a new form of extractivism that is well underway: one that reaches into the furthest corners of the biosphere and **the deepest layers of human cognitive and affective being**."

What is "Micro-Work"?

- The type of work performed in web-based & crowd-based platforms

- Outsourced tasks are fragmented into the smallest possible unit (a click) hence the name: *micro-work*

- These platforms allow for AI to be **trained**, **corrected**, and **impersonated**

- Example: **Amazon Mechanical Turk,** the *Artificial Artificial Intelligence*

amazon mechanical turk
Artificial Artificial Intelligence
beta

Your Account | HITs | Qualifications

367,700 HITs available now
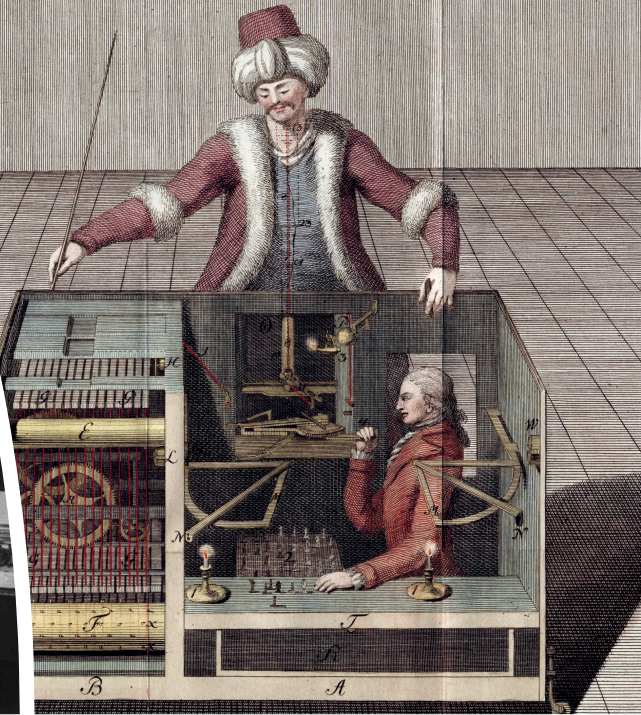
All HITs | HITs Available To You | HITs Assigned To You

☐ for which you are qualified

Find [HITs ▼] containing [_____] that pay at least $ [0.00] ☐ require Master Qualification (GO)
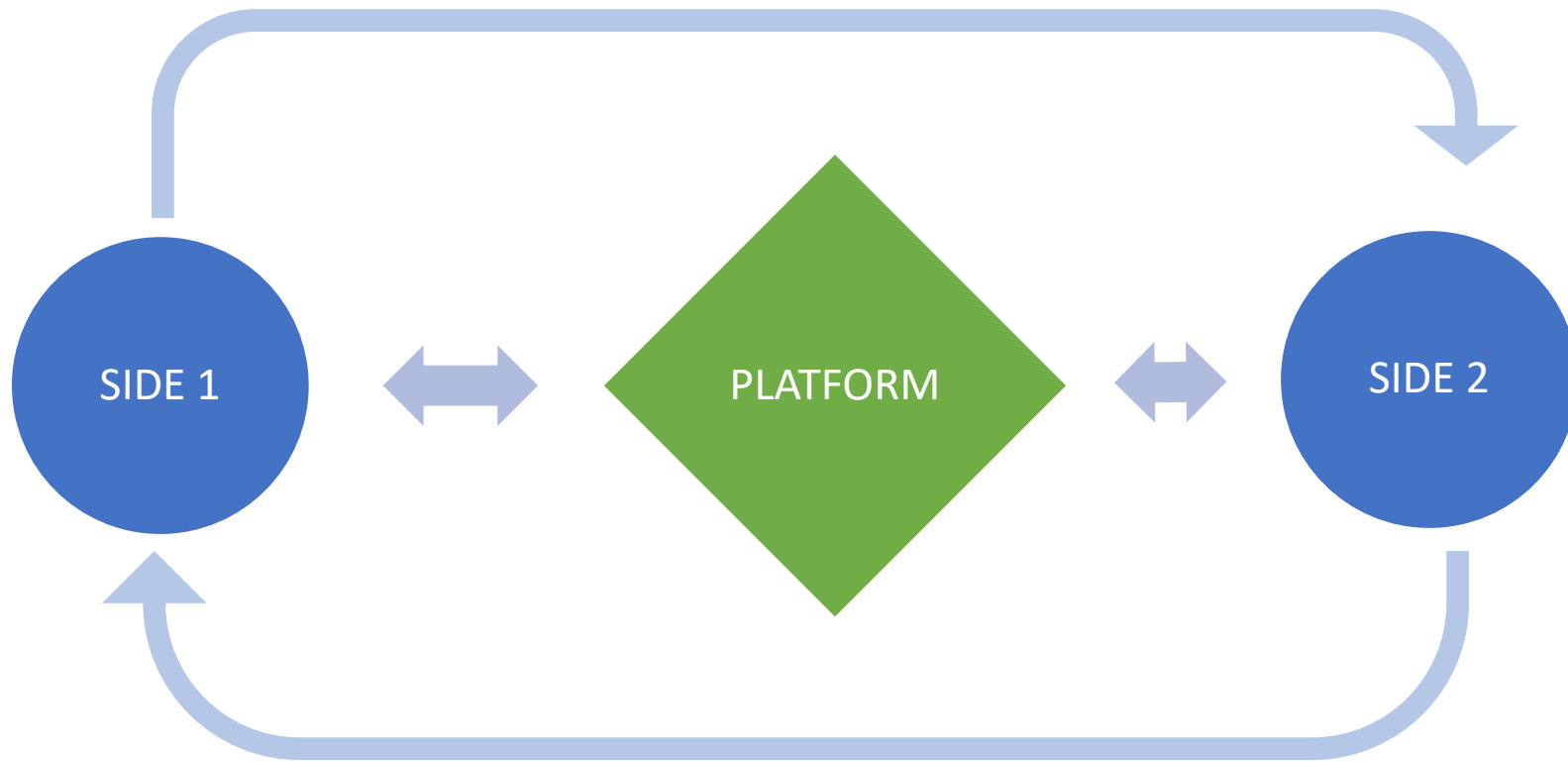
All HITs

1-10 of 2317 Results

Sort by: [HIT Creation Date (newest first) ▼] (GO!)

Show all details | Hide all details

1 2 3 4 5 › Next » Last

CTRP: Type name, date and total of a receipt   Request Qualification (Why?) | View a HIT in this group

| Requester: | CopyText Inc. | HIT Expiration Date: | Jul 10, 2015 (9 minutes 52 seconds) | Reward: | $0.01 |
| | | Time Allotted: | 4 minutes | HITs Available: | 35 |

Where are you? (2 second HIT) -- USA   Not Qualified to work on this HIT (Why?) | View a HIT in this group

| Requester: | techlist | HIT Expiration Date: | Jul 10, 2015 (9 minutes 52 seconds) | Reward: | $0.02 |
| | | Time Allotted: | 1 minute 30 seconds | HITs Available: | 1067 |

Where are you? (2 second HIT) -- Not USA or India   View a HIT in this group

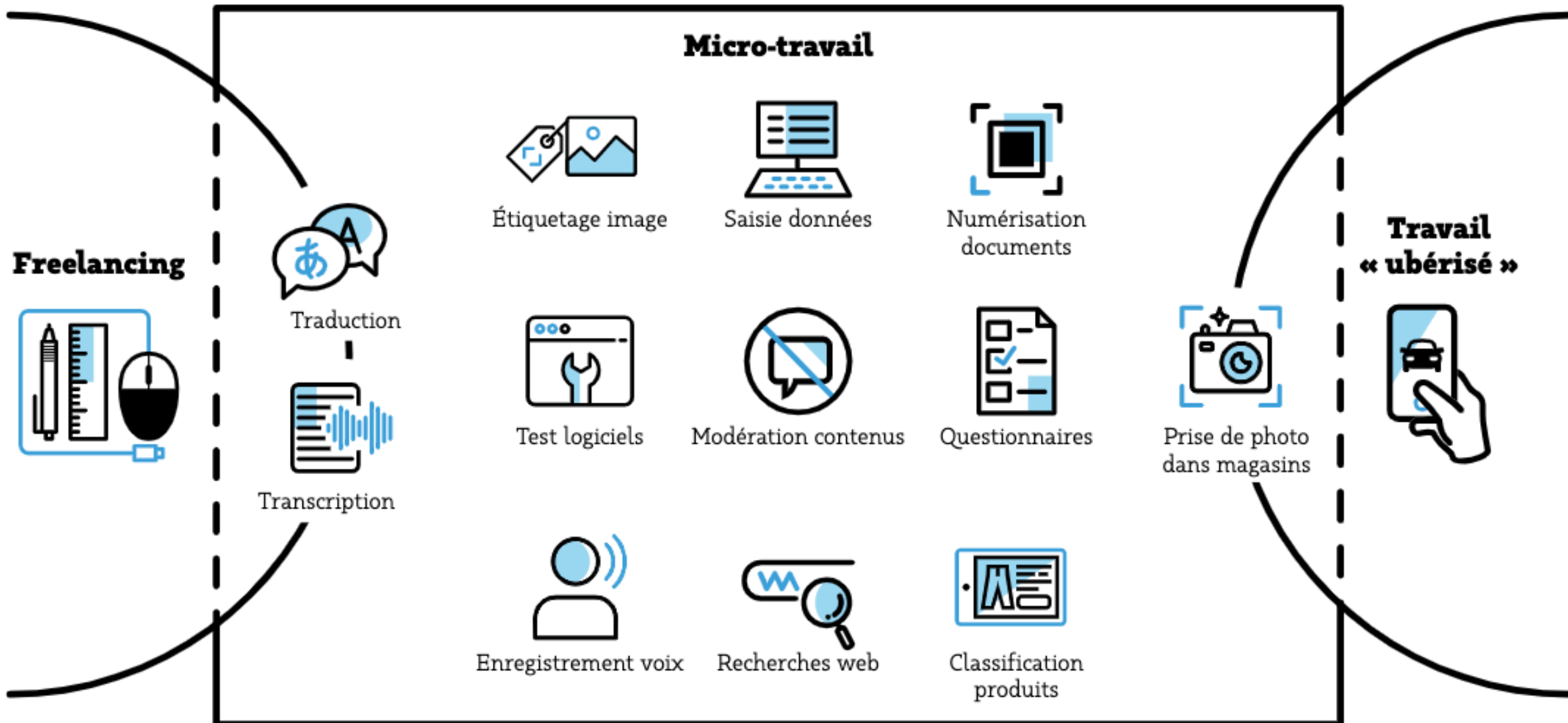| Requester: | techlist | HIT Expiration Date: | Jul 10, 2015 (9 minutes 52 seconds) | Reward: | $0.02 |
| | | Time Allotted: | 1 minute 30 seconds | HITs Available: | 1073 |

Where are you? (2 second HIT) -- India   Not Qualified to work on this HIT (Why?) | View a HIT in this group

| Requester: | techlist | HIT Expiration Date: | Jul 10, 2015 (9 minutes 51 seconds) | Reward: | $0.02 |
| | | Time Allotted: | 1 minute 30 seconds | HITs Available: | 1071 |

QC Reject - $0.20 per media minute   Request Qualification (Why?) | View a HIT in this group

| Requester: | Crowdsurf Support | HIT Expiration Date: | Jul 8, 2016 (51 weeks 6 days) | Reward: | $0.20 |
| | | Time Allotted: | 6 hours | HITs Available: | 7 |

Find the count of comments on a website   View a HIT in this group

| Requester: | SDG Production | HIT Expiration Date: | Jul 13, 2015 (2 days 23 hours) | Reward: | $0.02 |
| | | Time Allotted: | 10 minutes | HITs Available: | 1 |

Classify Receipt   Not Qualified to work on this HIT (Why?) | View a HIT in this group

| Requester: | Jon Brelig | HIT Expiration Date: | Jul 17, 2015 (6 days 23 hours) | Reward: | $0.02 |
| | | Time Allotted: | 20 minutes | HITs Available: | 7948 |

What is a platform?

Labour Platform Ecosystem (Schmidt, 2017)

	Web-based	Location-based
Individual-based	upwork · freelancer · fiverr	UBER · foodora · TaskRabbit
Crowd-based	amazon mechanical turk · appen · Mighty Ai (Training Data as a Service)	Streetspotr · JOBBER · roamler

Freelancing

Micro-travail

Travail « ubérisé »

Traduction

Transcription

Étiquetage image

Saisie données

Numérisation documents

Test logiciels

Modération contenus

Questionnaires

Enregistrement voix

Recherches web

Classification produits

Prise de photo dans magasins

(Casilli et al., 2019)

Microwork Platforms (Casilli et al., 2019)

Two-Sided

Client

Micro-travailleurs

Appariement travailleur/tâche

Contractualisation

Exécution du travail

Deep Labour

Micro-travailleurs

Plateformes d'appariement

Plateformes de contractualisation

Plateformes d'éxécution

Client

(Sous-traitant)
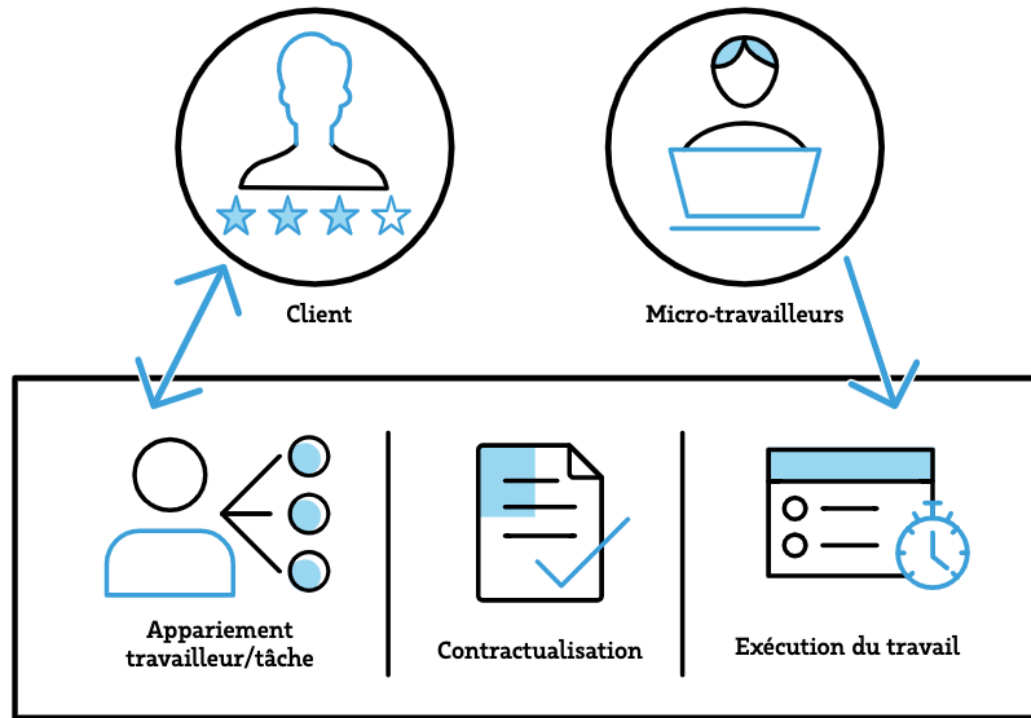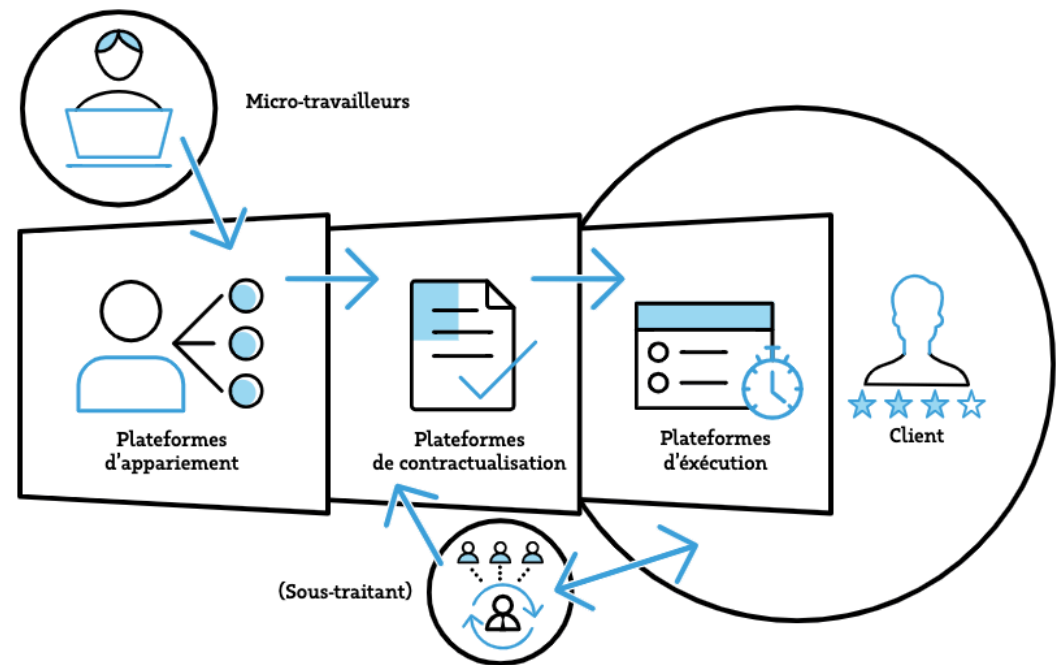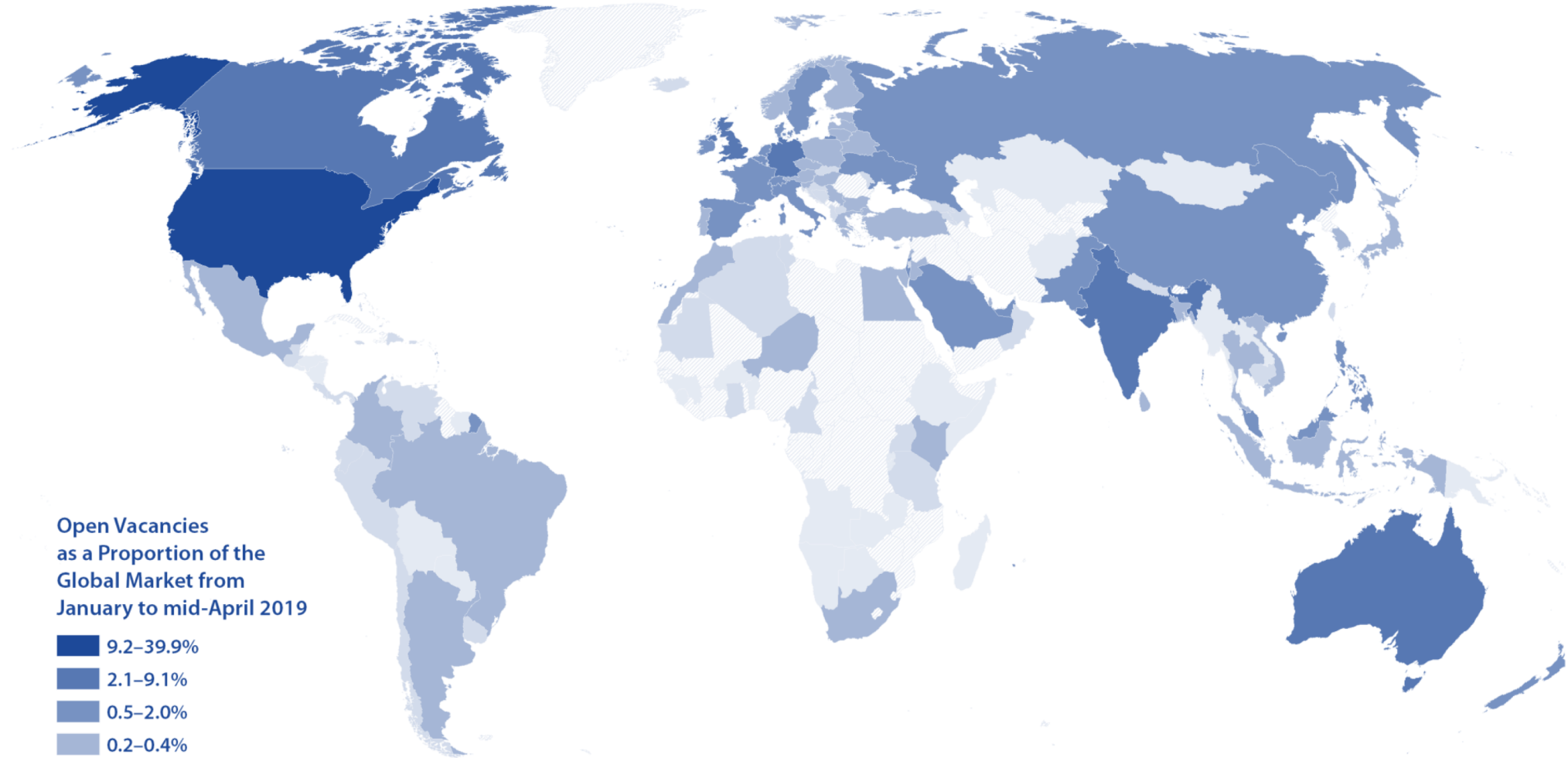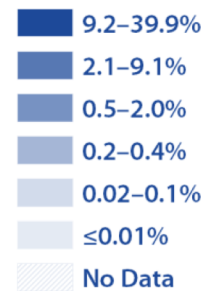
The Availability of Online Work

Open Vacancies as a Proportion of the Global Market from January to mid-April 2019

- 9.2–39.9%
- 2.1–9.1%
- 0.5–2.0%
- 0.2–0.4%
- 0.02–0.1%
- ≤0.01%
- No Data

Visualisation by Sanna Ojanperä @sanna.ojanpera and Mark Graham @geoplace (geonet.oii.ox.ac.uk).
The visualization uses data from Natural Earth and the Online Labour Index (Kässi, O., & Lehdonvirta, V. (2018) Online labour index: Measuring the online gig economy for policy and research, Technological Forecasting and Social Change, 137, pp. 241-248).

The Availability of Online Workers

Online Workers as a Proportion of the Global Market from January to mid-April 2019

- 6.04–25.5%
- 1.43–6.03%
- 0.34–1.42%
- 0.08–0.33%
- 0.02–0.07%
- ≤0.01%
- No Data
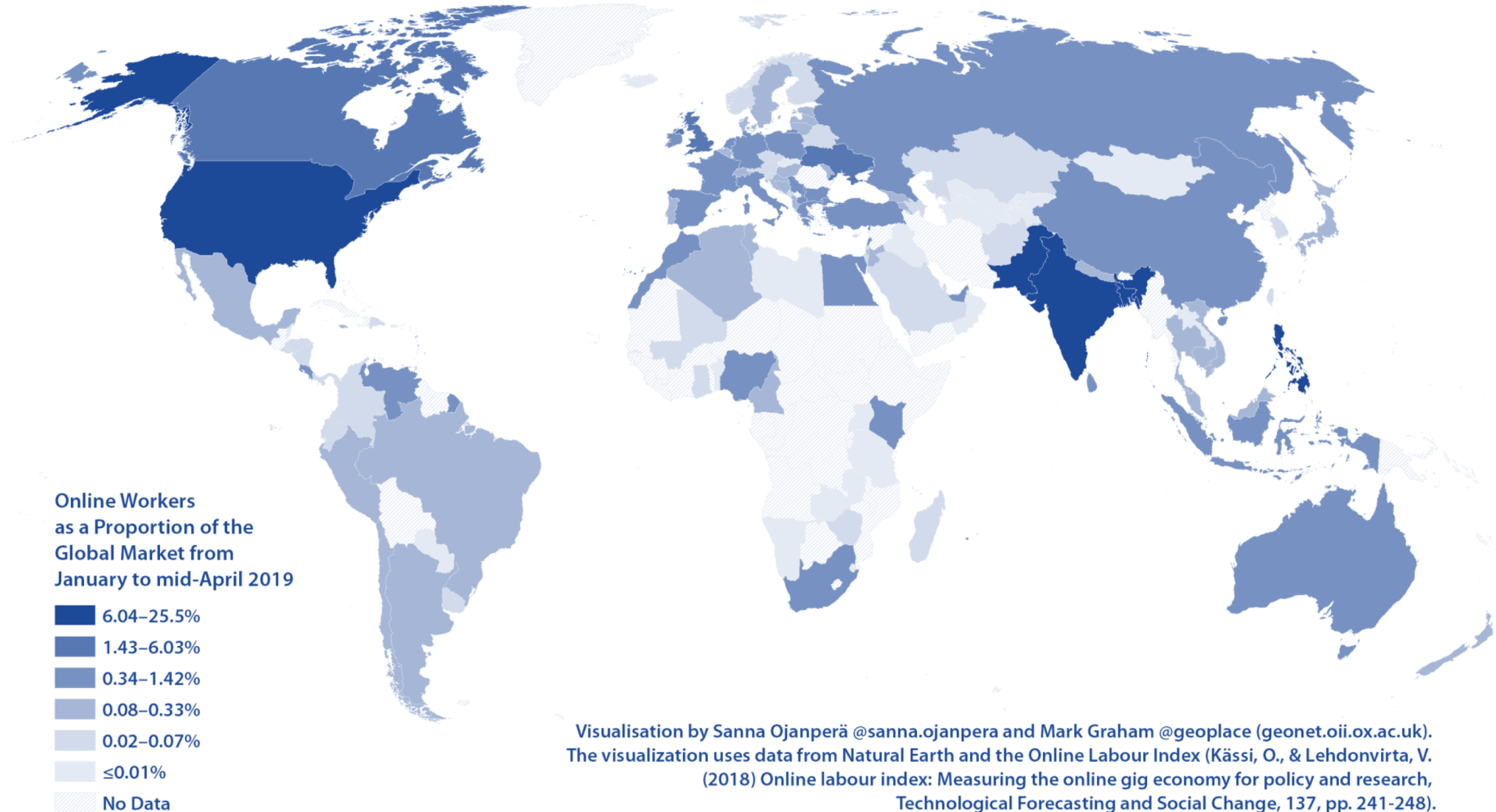
Working conditions
(Graham et al., 2017a; 2018)

- In most cases, **workers are not considered** employees, therefore they lack the social protections often tied with employment

- The revenues from micro-work are **essential** in most cases, either as a principal source of income or secondary

- Workers value the degree of **flexibility** that platforms provide
    - "You have the freedom of choice. Who you want to work with, when you want to work, and how you want to work". — Victor, Nigeria

Working conditions (Graham et al., 2017a; 2018)

- Workers feel they are easily **replaceable**. Platforms stress this by telling workers they can be **fired at any time**

- Many workers suffer from **social isolation** due to working from their homes. Since most clients are in North America, many work on unsocial hours

- The majority of workers have to work at **high speed** and many work between **70-80 hours per week**

Oversupply of Labour (Graham et al., 2017a)

Table 1. Labour oversupply on one major platform.[1]

Country	Potential workforce[2]	Successful workers[3]	Over-supply[4]
Global	1,775,500	198,900	1,576,600
Philippines	221,100	32,800	188,300
Malaysia	11,900	500	11,400
Vietnam	7,700	1000	6,700
Kenya	21,700	1,500	20,200
Nigeria	7000	200	6800
South Africa	10,200	800	9400

[1]Shown are the countries studied for this report. Data from 7 April 2016, not seasonally adjusted.
[2]Total searchable worker profiles on 7 April 2016.
[3]Searchable worker profiles with at least one hour billed or $1 earned.
[4]Potential workforce minus successful workers.

Working conditions
(Graham et al., 2017a; 2018)

- Workers suffer from **alienation**: some don't know who their employers are and the majority don't know what their work is for

- A third of interviewed workers don't pay any **taxes** on their income

- While platforms cut intermediaries, the **reputation scores** make workers with higher scores outsource their jobs to newcomers
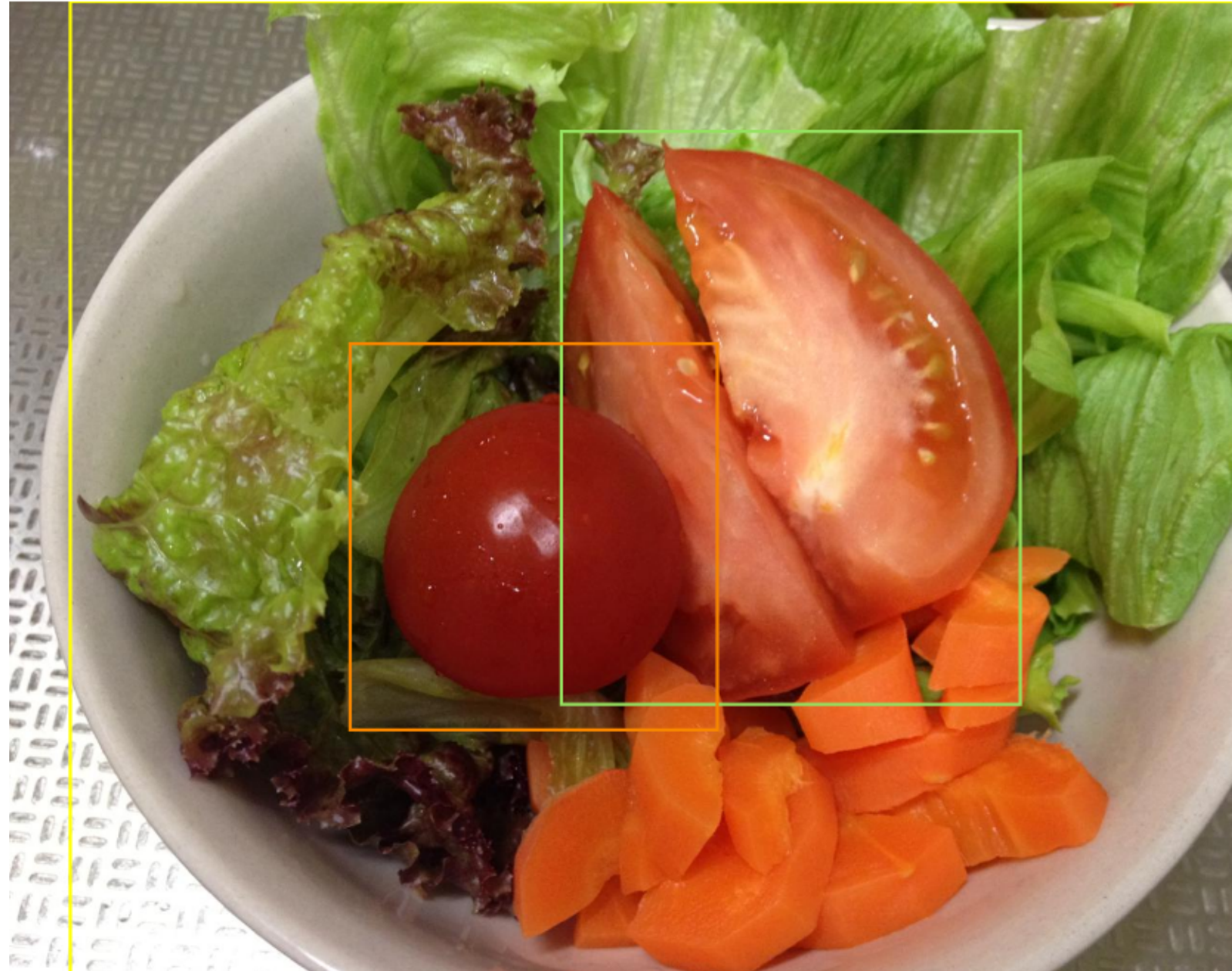
Regulation

- Governments and policymakers in developing countries welcome online platforms as a means to reduce unemployment (Graham et al., 2017b)

- Due to the <u>transnational</u> and <u>digital</u> nature of this work, **effective regulation remains a challenge**
  - Most of the labour supply and demand comes from a handful of countries, but there is little political desire for regulation
  - Moreover, the development of *deep labour* platforms make effective regulation difficult

- Regulation of platforms has targeted location-based ones (e.g. Uber) but not web-based (Prassl, 2018)

Worker Activism

- Due to geographical dispersion and lack of communication, achieving <u>collective organization</u>—and <u>unionization</u>—remains difficult (Wood et al., 2018)

- Micro-workers have to rely mainly on **online communication**. For instance, 90% use forums (Yin et al., 2016)

- The best example of this is **Turkopticon**, which allows *turkers* to rate their *requesters* (Irani & Silberman, 2013)

Alternatives

- The **Platform Co-Operativism** movement promotes the creation of platforms where the workers <u>own</u> the infrastructure under co-operative principles (Scholz & Schneider, 2016)

- The **FairWork Foundation** (Graham & Woodcock, 2018) is a non-profit that ranks platforms according to <u>ethical labour principles</u>, including fair:
  - Pay
  - Conditions (worker protection)
  - Contracts
  - Management
  - Representation

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