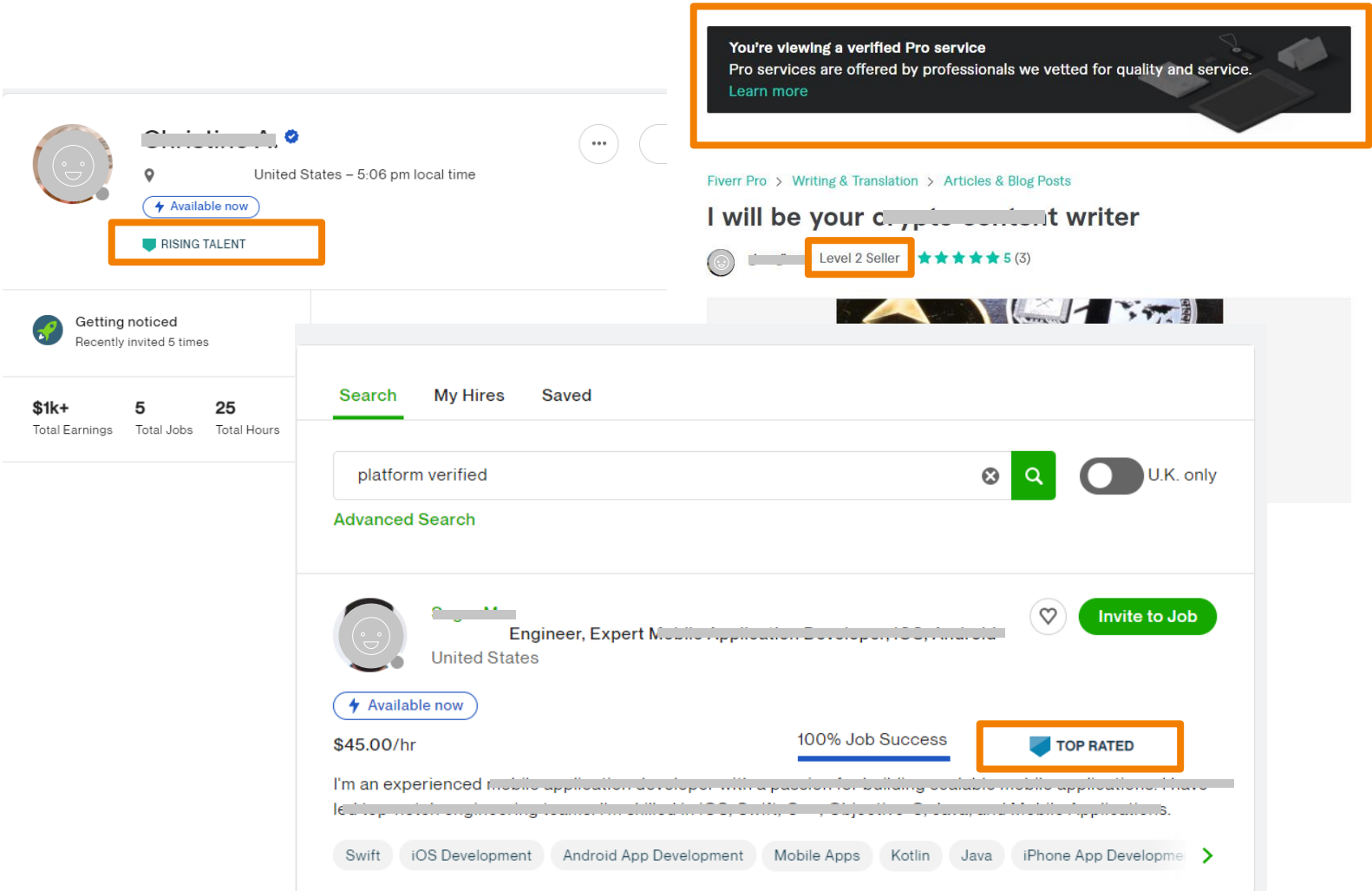# Platform-Certified: On the Role of Badges in Online Labour Markets

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Platform firms use badges or certificates to promote specific workers or services

*How and to what effect do platform firms certify worker quality?*

What implications can we draw for European skills and education policy?

In OLMs, badging and certification have been conceptualized as *quality signals* and *algorithmic management*

Online labour markets

- **Employer uncertainty**
  (Pavlou et al, 2007)
  - Quality of workers (**hidden information**)
  - Post-contract behaviour (**hidden actions**)
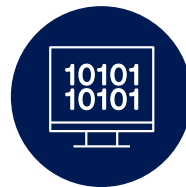
Platform

Workers   *Clients*
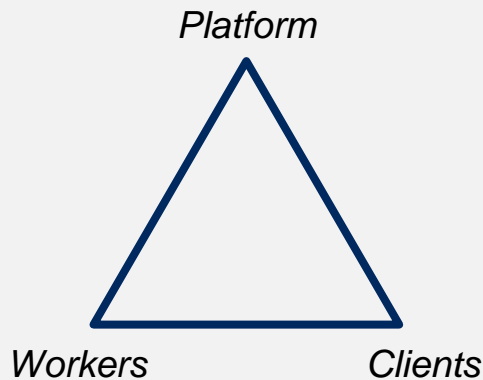
- **Triangular relationship** affords new solutions to **order market**
  (Ahrne et al, 2015; Kirchner & Schüßler, 2019 ; Vallas & Schor, 2020)

Solutions discussed in the literature

Signalling
as response to **hidden information**
(Pallais, 2014; Agrawal et al., 2016; Lehdonvirta et al., 2019; Kässi & Lehdonvirta, 2022)

Algorithmic management
as response to **hidden actions**
(Wood et al, 2019; Stark & Pais, 2020; Bucher et al, 2020 ; Jarrahi et al, 2021)

How is **uncertainty at a more fundamental level** accounted for (e.g., constitution of preferences, quality, and competition)?
(Beckert, 2009)

Quality as outcome of **qualification** by workers, clients, and platform firm?
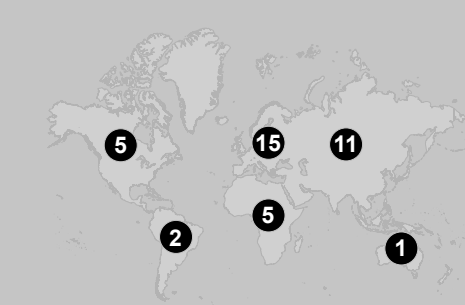(Callon et al, 2002)

I rely on a mixed-method design drawing on worker input from survey responses, profile data, and semi-structured interviews

Mixed-methods for 'negotiated account' of phenomenon (Bryman, 2007)

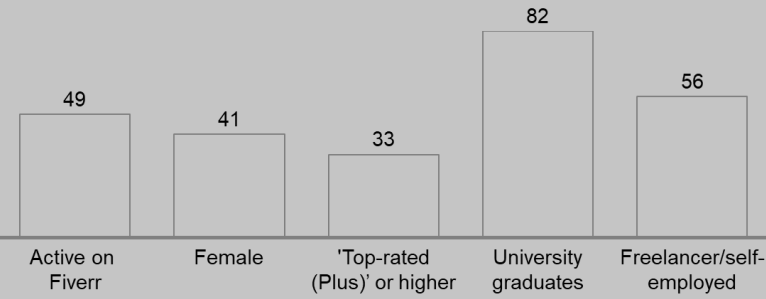## Semi-structured worker interviews (n=39)
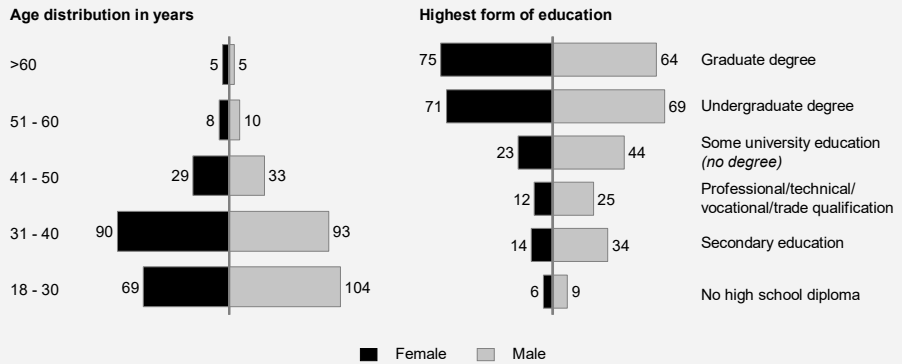
Nationality, no. interviews

Primary project category, no. interviews

Software Dev & Tech	7
Creative & Multimedia	9
Professional Services	7
Marketing & Sales	8
Writing & Translation	6
Clerical & Data Entry	2

Variables of interest, %

Active on Fiverr	Female	'Top-rated (Plus)' or higher	University graduates	Freelancer/self-employed
49	41	33	82	56

Subset of CrowdLearn Survey Dataset (n=448)

Age distribution in years

	Female	Male
>60	5	5
51 - 60	8	10
41 - 50	29	33
31 - 40	90	93
18 - 30	69	104

Highest form of education

	Female	Male	
Graduate degree	75	64	
Undergraduate degree	71	69	
Some university education (no degree)	23	44	
Professional/technical/ vocational/trade qualification	12	25	
Secondary education	14	34	
No high school diploma	6	9	

■ Female ▨ Male

Scraped profile data at t_0 and t_1

	n	mean	min	Max
Platform success (annualized values for $t_1 - t_0$)				
Additional reviews received [no.]	448	34	0	1380
Additional hours worked [no.]	271	204	0	2676
Additional income earned [USD]	271	4712	0	57937
Performance metrics at t_0				
Normalized success score [0:1]	448	0.93	0	1
Reviews [no.]	448	240	1	19355
Share of workers with badge [%]	448	0.52	0	1
Hourly wage [USD]	448	27	3	195

Platforms firms engage in automated *badging* and hand-vetted *certification* to order online labour markets

Action — Action

Intended effect — Intended effect

Platform

manual **certification**

automated **badging**

Worker

Hand-vetted experts
(based on work experience, services offered, & social network)

Promising talent

Platform experience levels
(based on platform metrics & adherence to rules/norms)

Gives access to market
(market construction)

Reduces employer uncertainty
(quality signalling)

Influences worker incentives
(algorithmic management)

Evidence suggests that employers use automatically-awarded badges as a tool to make hiring decisions
Quantitative findings

Independent variables	① Binary logistic regression model (DV: Prob. of gainful employment between t0 & t1)				② Multiple regression model (DV: Log of value added between t0 & t1)			
	B	SE	Wald	Exp(B)	β	SE	p-value	VIF
Platform-mediated signals								
Badge	1.006	.287	3.507	2.73***	.758***	.158	<.001	1.175
Number of reviews (ln)	.799	.155	5.169	2.22***	.707***	.081	<.001	2.91
Success score (ln)	-.061	.113	-.536	.94	.174	.091	.058	1.168
Platform controls								
Platform dummy	1.201	.355	3.383	3.32***	2.262***	.228	<.001	2.423
Platform experience (ln)	-.360	.223	-1.610	0.70	-.713***	.137	<.001	1.649
Platform dependence	.204	.271	.753	1.23	.437**	.149	.004	1.084
Hourly wage (ln)	-.388	.222	-1.748	.68	.049	.124	.691	1.127
Socio-demographic controls								
Male	.566	.262	2.157	1.76*	.076	.151	.616	1.097
University graduate	-.324	.286	-1.134	.72	-.265	.156	.090	1.139
Age (ln)	.967	.549	1.762	2.63	.720*	.306	.019	1.322
Constant	-4.471	1.877	-2.382	.01*	-6.347***	1.085	<.001	
Model Chi-squared	F (df=10)	94.154***				21.58***			
Nagelkerke R²	R²	0.286				0.394			
No. of observations	448				332				

Note. ***: $p < .001$; **: $p < .01$; *: $p < .05$

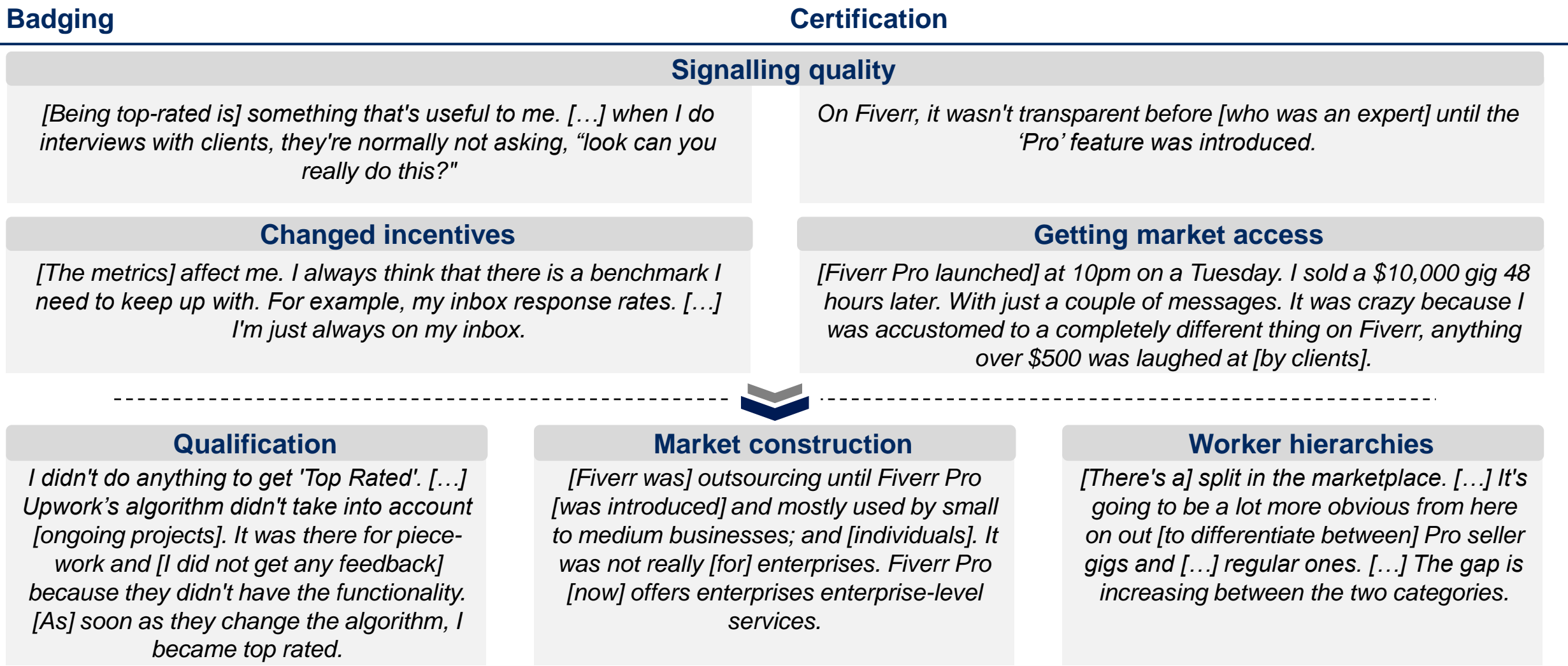A **positive, significant association** observed between holding a platform-awarded badge and an

① Increased likelihood and

② Scale of employment

over a subsequent one-year period.

Badging and certification let workers signal their quality, provide market access, and change incentive structures

Qualitative findings: Themes

Badging

Certification

Signalling quality

[Being top-rated is] something that's useful to me. […] when I do interviews with clients, they're normally not asking, "look can you really do this?"

On Fiverr, it wasn't transparent before [who was an expert] until the 'Pro' feature was introduced.

Changed incentives

[The metrics] affect me. I always think that there is a benchmark I need to keep up with. For example, my inbox response rates. […] I'm just always on my inbox.

Getting market access

[Fiverr Pro launched] at 10pm on a Tuesday. I sold a $10,000 gig 48 hours later. With just a couple of messages. It was crazy because I was accustomed to a completely different thing on Fiverr, anything over $500 was laughed at [by clients].

Qualification

I didn't do anything to get 'Top Rated'. […] Upwork's algorithm didn't take into account [ongoing projects]. It was there for piece-work and [I did not get any feedback] because they didn't have the functionality. [As] soon as they change the algorithm, I became top rated.

Market construction

[Fiverr was] outsourcing until Fiverr Pro [was introduced] and mostly used by small to medium businesses; and [individuals]. It was not really [for] enterprises. Fiverr Pro [now] offers enterprises enterprise-level services.

Worker hierarchies

[There's a] split in the marketplace. […] It's going to be a lot more obvious from here on out [to differentiate between] Pro seller gigs and […] regular ones. […] The gap is increasing between the two categories.

Implications for European skills and education policy

Discussion

- Platform firms as **self-interested market organizers**

- **Labels** as socio-technical devices that actively **constitute 'quality'**

- Social mechanism: **Quality** or **status effect** on distributional outcomes?

Policy implications

Skills matching

- Certificates **co-construct 'quality'** & shape **behaviour**
  >> *Consideration of incentive structures + multi-stakeholder approach (e.g., standards for micro-credentials)*

- Insitutional vetting as part of **market construction**
  >> *Easy-to-use, aggregated credentials for experience at EU level*

Labour market integration

- **Limits of automated** and **manual curation**
  >> *For-profit intermediary-led certification no substitute for micro-internships or similar early-career support*

Skill development

- **Good and bad news for reputation portability**
  >> *Another potential roadblock for portability versus recognition of select platform credentials (e.g., Europass)*

Thank you for listening!

WANT TO REACH OUT?
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