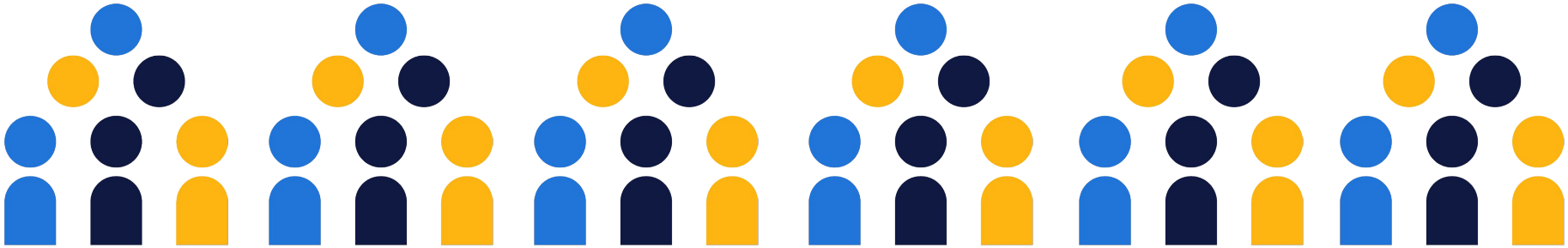
responsible AI for Labour Market Matching

WEC-Europe

May 2021

glen cathey | svp digital strategy & innovation

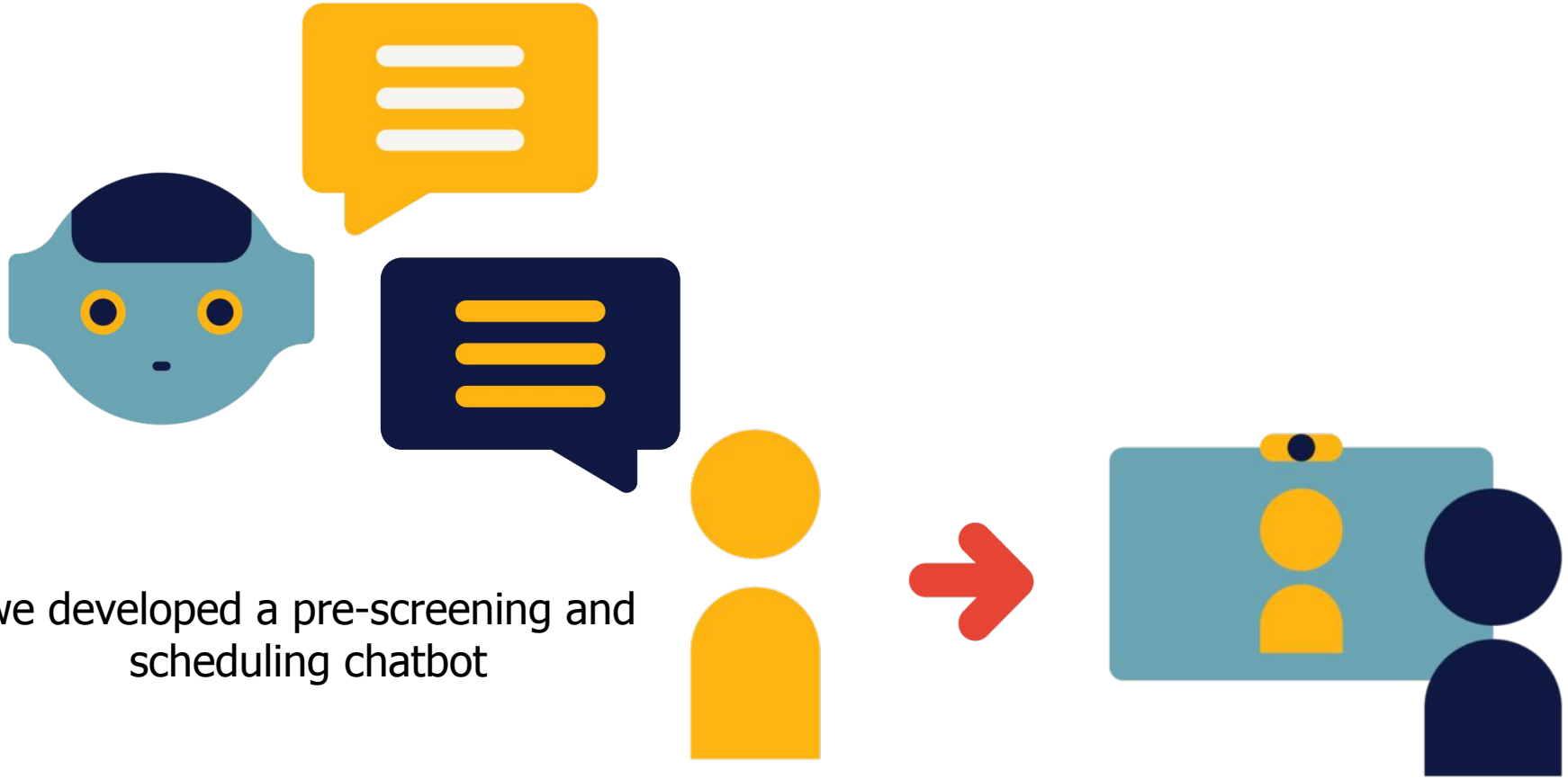
randstad



we have millions of applicants to our jobs annually

some jobs have over 200 applicants

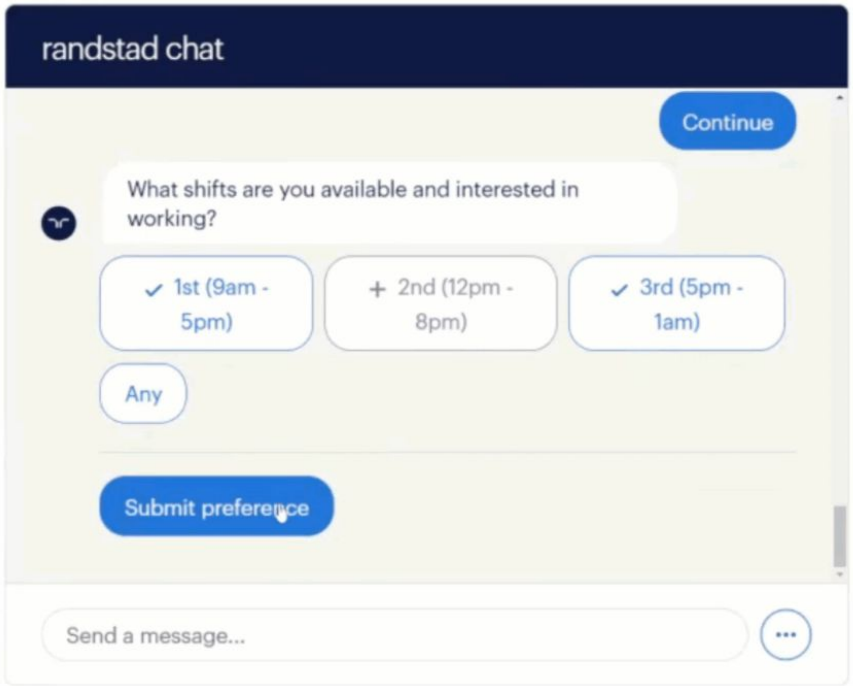
how can we respond to 100% of applicants 24X7
and provide an excellent mobile experience?



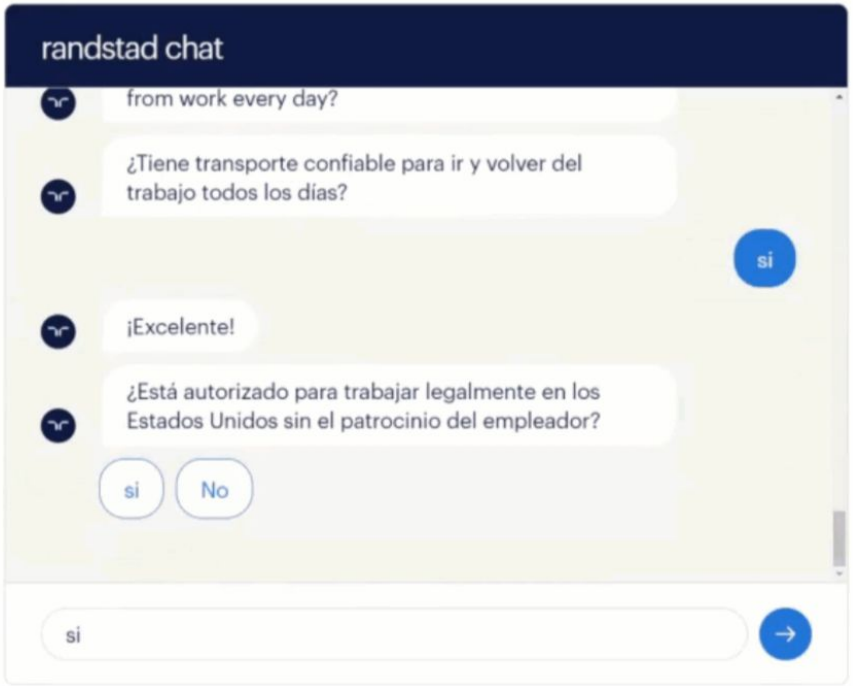
we developed a pre-screening and scheduling chatbot

human-forward design

low friction UI

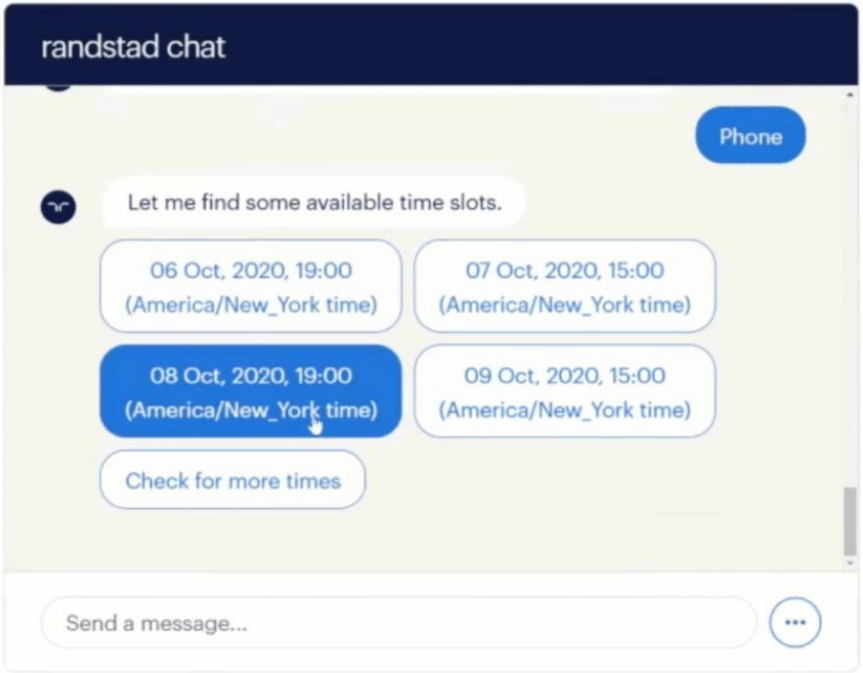


multiple languages

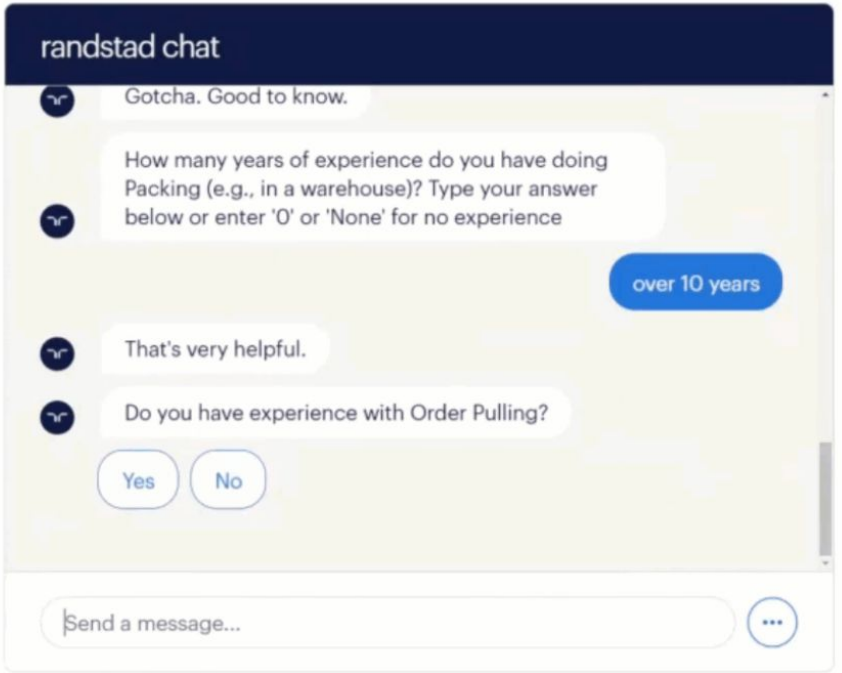


human-forward design

easy interview scheduling



quick reply and free text input



key solution elements

1	2	3	4	5
human forward	human oversight	transparency	fair & inclusive	private & secure
beneficial outcomes for society	no automated decision making	identified as a bot	by design	compliant, resilient, and secure

AI?

- AI is only used to reduce complex, colloquial language to structured information. “Do you know the Java programming language”? “Yeah, I have over two decades of experience, still using it” -> {experience: true, duration: 20 years, current: true}

- It’s not on autopilot. We keep detailed records of everything that is being said, how it is interpreted by the AI, and have a system in place where conversation design specialists review conversations at random and focus on those where AI was not confident about its comprehension. Hundreds of conversations are reviewed every week and every week we improve the comprehension skills to reduce chances of misinterpretation.

- Actual decisions are made without the use of AI; the decision to offer an interview or not is based only on the candidate’s meeting objective job-relevant requirements (e.g., is at least 18 years of age, holds a valid driver’s license, etc.), and those are applied uniformly across all candidates. The details of the decision making process are also logged and preserved for review/explainability.

- Note: conversations are only kept for those purposes for ~14 days after which they are purged for security reasons.

translating US implementation to EU regulation proposal

for use in the recruitment process requirements for high risk AI applicable

risk management	apply legal & security & privacy risk management process
data & data governance	apply training data unbiased, data governance model
technical documentation	have documentation in place and maintain to show compliance
record keeping	maintain logs for traceability and risk during life cycle flagged
transparency and info to users	clarify to end users that chatbot uses AI and potential implications
human oversight	conversation logs are continuously reviewed by humans to improve responses and understanding
Accuracy, robustness & cyber security	via security & privacy risk management
Automated decision making (art22 GDPR)	the system does not decide, but asks for additional information which also can be shared via other channels.

impact

impact
conversation engine

1.3M+

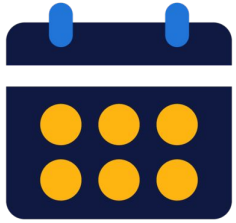
conversations

conversations **completed**
last-30 daily average of ~3600

90%

completion rate

percentage of conversations started via the randstad conversation engine that reached finished status



487K+

interviews

interviews **scheduled**
last-30 daily average of ~1300

impact
conversation engine

76.4%

interviews

percentage increase in interviews scheduled between April 2020 to April 2021

4.6

satisfaction

average talent rating of experience on a scale of 1 to 5

17%

talent satisfaction increase

percentage increase in overall talent satisfaction

impact
conversation engine

76%

within 72hrs

percentage of interview events scheduled within 72hrs of the engagement, with 22% for the same day

50.8%

faster

percentage increase in the speed of presenting talent to hiring managers

22%

retention increase

average increase in length of assignment

> by screening immediate matches we are **filling jobs faster** and **improving the quality** of candidate

randstad client

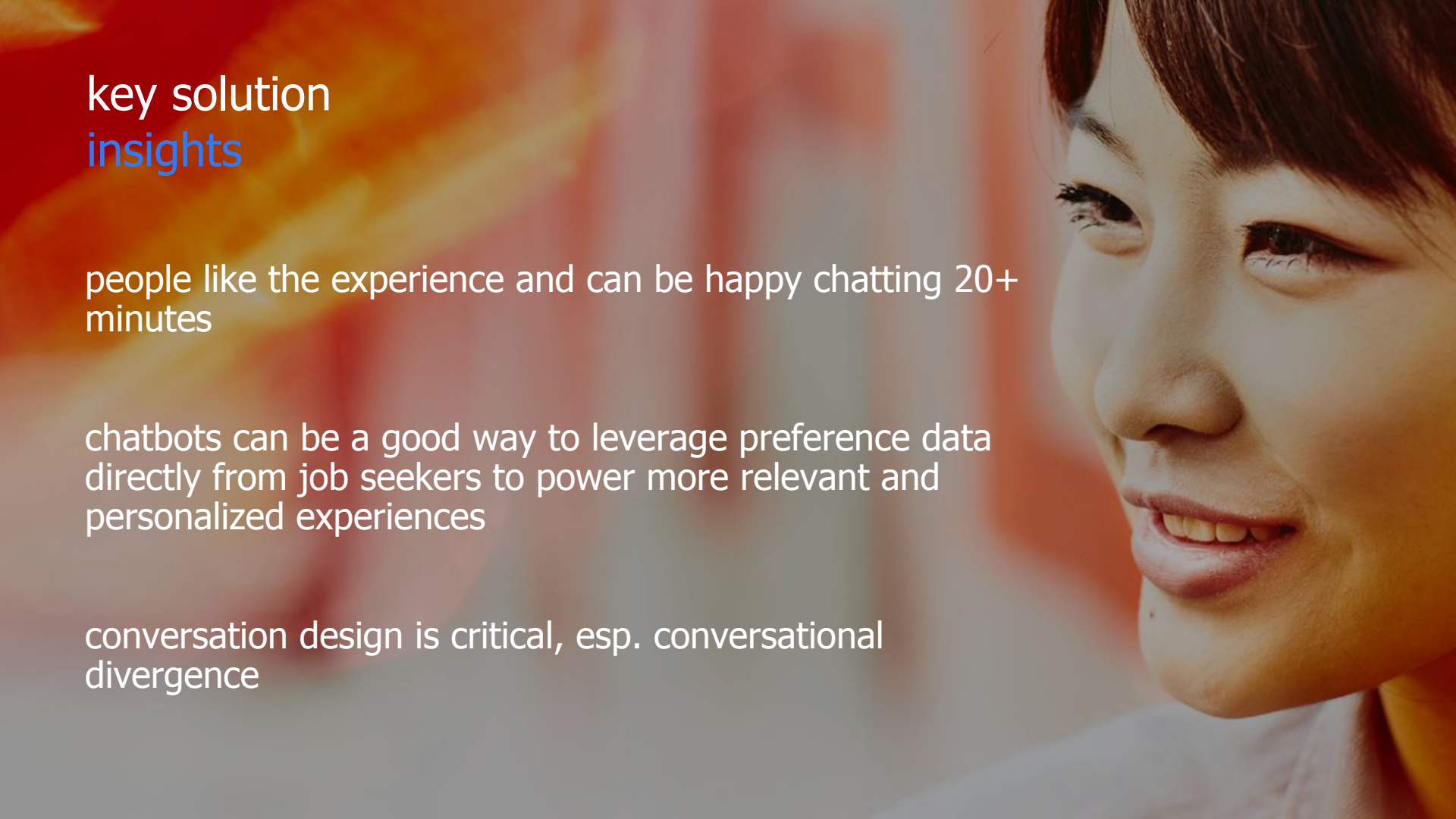
(global delivery services company)

key solution insights

people like the experience and can be happy chatting 20+ minutes

chatbots can be a good way to leverage preference data directly from job seekers to power more relevant and personalized experiences

conversation design is critical, esp. conversational divergence



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human forward