

Improving Job Search

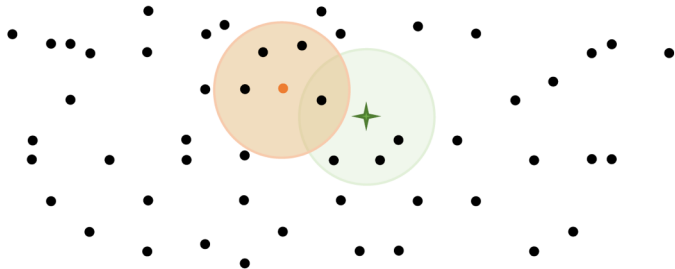
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AI & Employment - AMLD EPFL
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The team: a multidisciplinary project

- ▶ Mauro Cherubini and Lucas Rodrigues
 - ▶ Information System
- ▶ Matthias Kliegel and Doriana Tinello
 - ▶ Cognitive Psychology
- ▶ Michele Pellizzari, Rafael Lalive and H el ene Benghalem
 - ▶ Labor Economics
- ▶ FNS Project «Improving Job Search»

Job search in occupation space



● Métiers

● Métier recherché

★ Compétences et manière de travailler

Improving job search

- ▶ Can we help in finding good matches? Does this work better with improved cognition?
- ▶ Randomized Controlled Trial with treatments:
 - ▶ Jobs for you (J4U) : novel tool that provides tailored advice at low cost
 - ▶ Cognitive training (COG)
- ▶ Exhaustive dictionary of occupations (O*NET):
 - ▶ O*NET lists what capabilities a person needs, and how important those qualifications are for the occupation.
- ▶ J4U:
 - ▶ Assessment: Uses new information on person's skills and work styles
 - ▶ Matching algorithm: Proposes new occupations that better match the person


Job for you (J4U) : Assessment

- ▶ J4U re-calibrates jobs to job seekers.
- ▶ Job seekers take a questionnaire on:
 - ▶ Work Styles: Adaptability/Flexibility, Stress Tolerance, Leadership, Self Control.
 - ▶ Skills and Abilities: Reading Comprehension, Fluency of Ideas, Inductive Reasoning, Memorization, Time Management, Category Flexibility, Monitoring, and Perceptual Speed.
 - ▶ These 12 items discriminate best among occupations.

Job for you (J4U) : Matching

- ▶ J4U matches job seeker to occupations :
 - ▶ New information on the job seeker (assessment), and information on the previous occupation.
 - ▶ J4U looks for best matches in O*NET .
 - ▶ J4U provides job seekers with list of 20 best matching occupations .
- ▶ Thanks to J4U :
 - ▶ Job seekers learn about the offers for those occupations.
 - ▶ Job seekers can print a certificate for the position targeted.
 - ▶ Job seekers receive regular reminders.

Job for you (J4U)

☰ J4U  Prénom Nom

RECOMMANDATIONS PROFESSIONNELLES SE DÉCONNECTER

Taper votre profession antérieure

Statisticien

Importance de mon poste antérieur : 1.00

Importance de mon profil personnel : 1.00

Neuchâtel (NE)

RECOMMANDER

Vos recommandations

- Rang 1 Mathématiciens, actuaires et statisticiens
- Rang 2 Concepteurs et analystes de logiciels, et concepteurs de multimédia non classés ailleurs
- Rang 3 Spécialistes des bases de données et des réseaux d'ordinateurs non classés ailleurs
- Rang 4 Spécialistes en finances

Cognitive Training (COG)

- ▶ COG aims to improve cognition :
 - ▶ Cognition refers to a subjects' ability to plan activities, work on multiple tasks in parallel, be flexible, make decisions, control inappropriate reactions.
- ▶ The follow-up for COG :
 - ▶ Home-based exercises received via email.

Implementation

- ▶ Target group : all job seekers in Canton of Neuchâtel.
- ▶ Pilot : the employment agency (ORP) randomly sample 400 job seekers, i.e. 100 per groups:
 - ▶ Job for you (J4U)
 - ▶ Cognitive training (COG)
 - ▶ Job for you (J4U) + Cognitive training (COG)
 - ▶ Control group
- ▶ Job seekers are fully autonomous and go through the following stages:
 - ▶ Recruitment email from the employment agency with a link to register.
 - ▶ Online assessment.
 - ▶ Online tool.
 - ▶ Follow-up emails.

Thanks for your attention!