



SHARCS

WP4: Effective user empowerment for personal data



Research questions

How do **users evaluate the use of a data vault during the job application process** (compared to other data vault applications)?

How can **the user experience be optimized?**

Methodology



Survey

HR

Data vault help career platforms **match job seekers with positions** by sharing qualifications and interests, allowing companies to contact suitable candidates.

Media

Data vault enables sharing of media preferences across platforms, enhancing **personalized recommendations**.

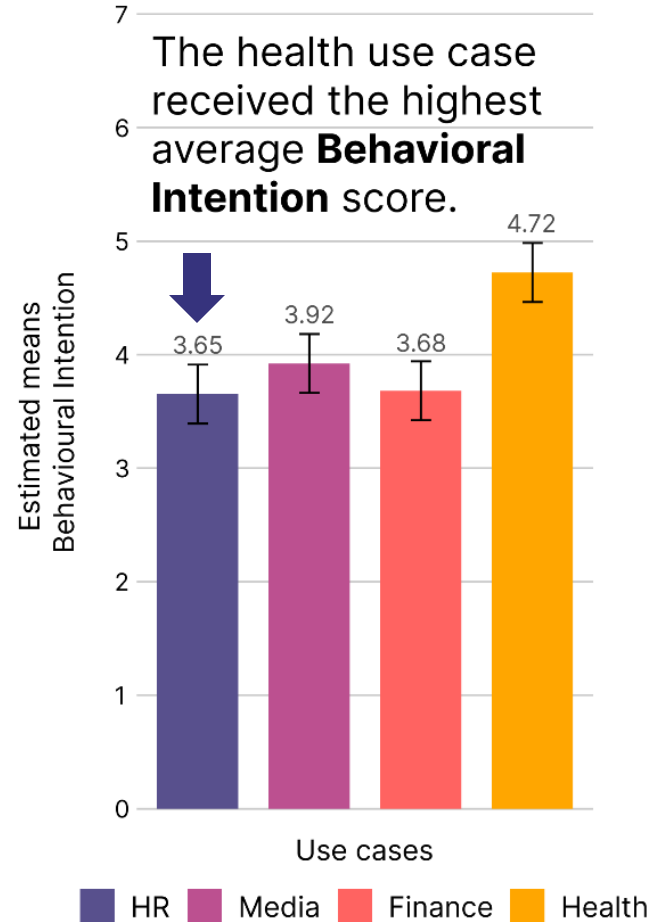
Finance

Data vault **consolidates financial data**, offering insights into income, expenses, and assets.

Health

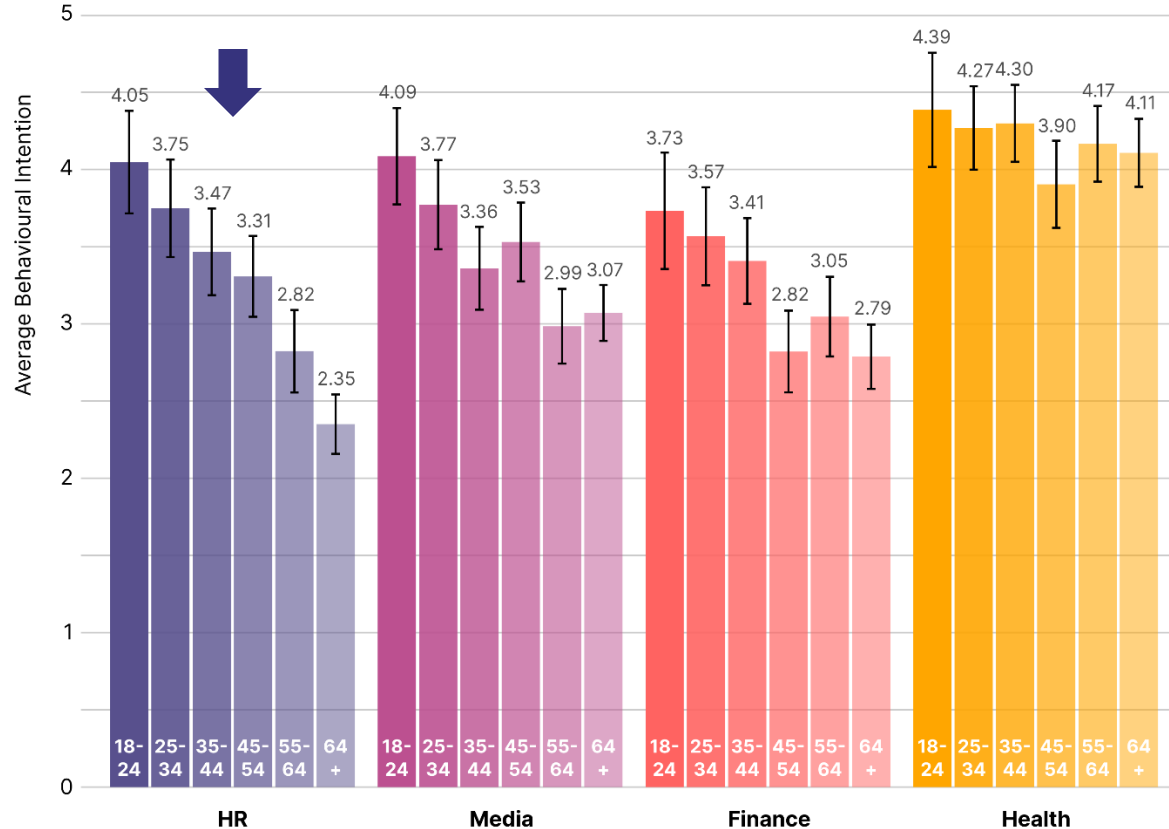
Data vault stores medical, fitness and wearable data which can be shared with a doctor for more **personalized health monitoring**.

(n=2335, Flanders)



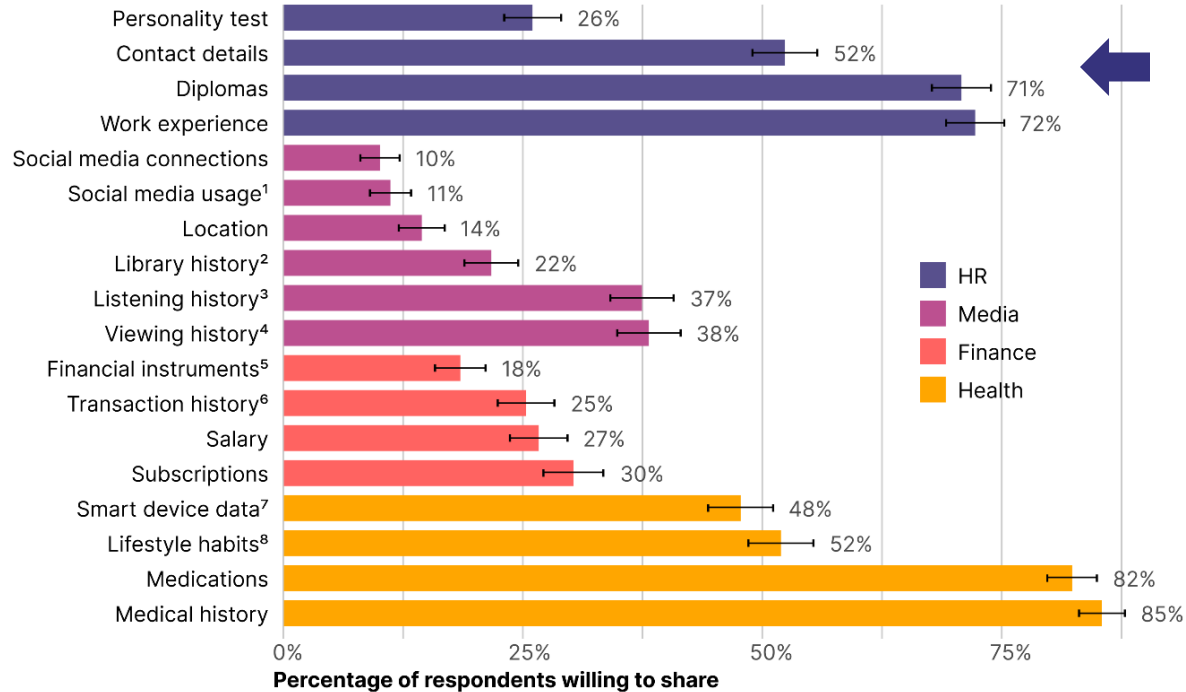
Survey

Average **behavioural intention** across use cases **decreases with age**



Survey

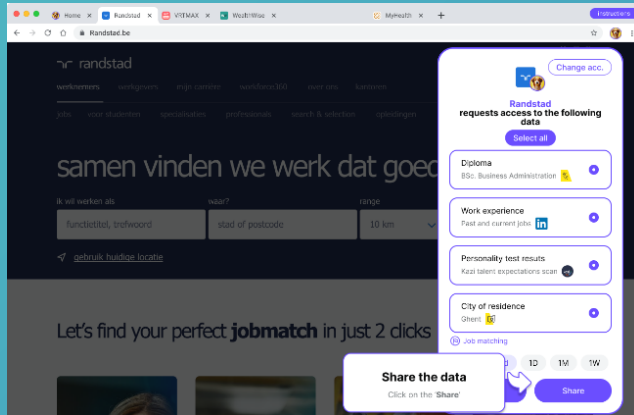
Willingness to share data varies significantly across different use cases.



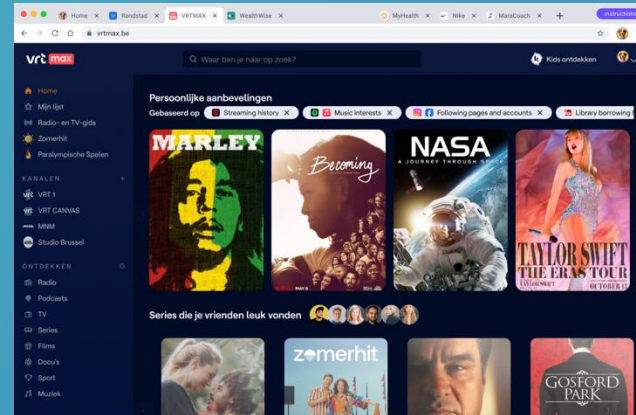
¹following pages and saved posts; ²books borrowed; ³music and podcasts listened to; ⁴series/films watched online; ⁵stocks, funds, crypto, etc.; ⁶purchases, expenses; ⁷heart rate, weight, sleep measurements; ⁸workouts, smoking, alcohol consumption

Prototype v1

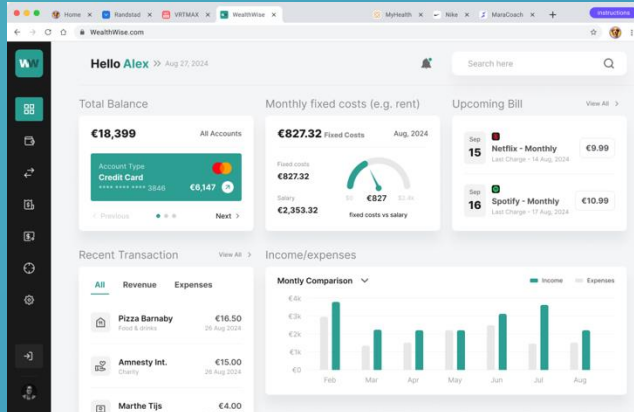
HR



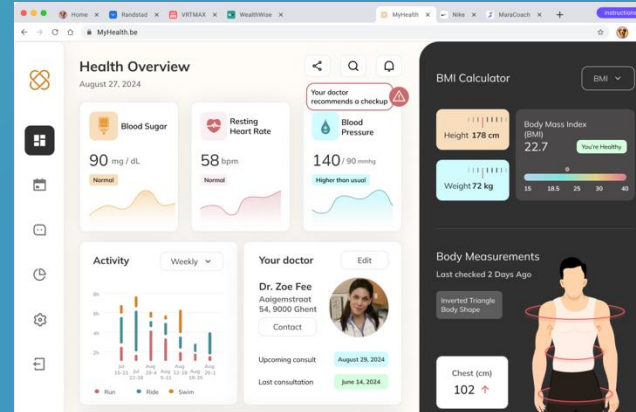
MEDIA



FINANCE



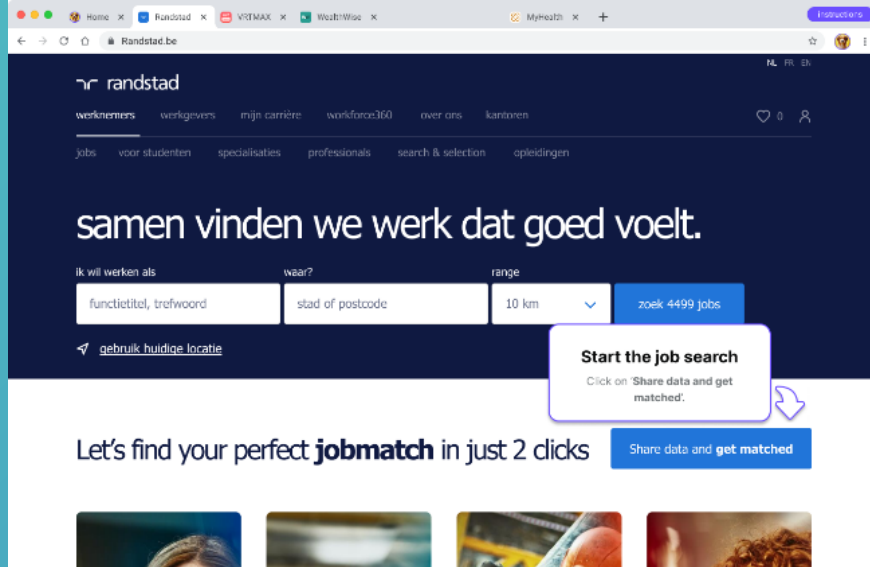
HEALTH



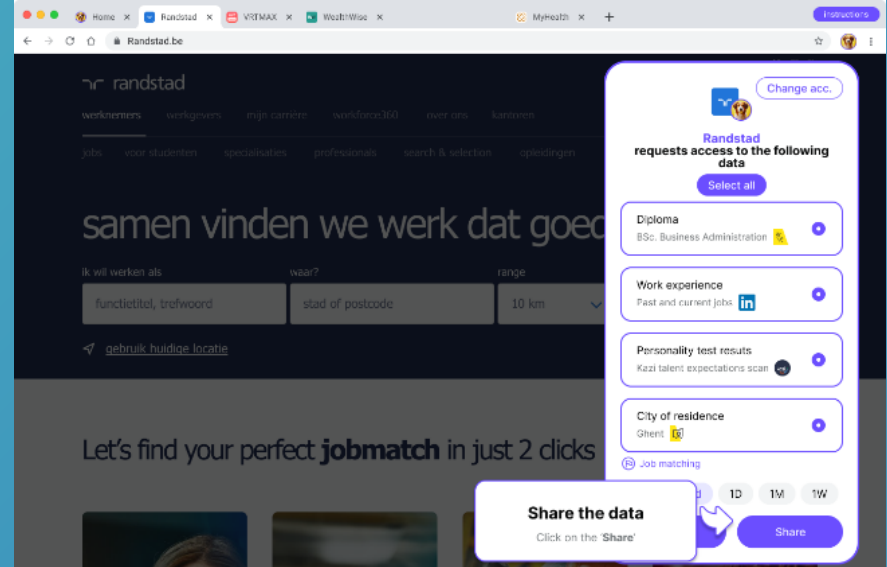
Expert review

Expert number	Field of expertise	Professional experience with personal data stores	Goal of the review
1	Product design	No	Optimizing the UI/UX of the prototype.
2	UX design	Yes	
3	Data visualisation	No	
4	Legal	Yes	Evaluating legal compliance of the data requests with European law.
5	Privacy	Yes	Evaluating the implemented privacy controls.
6	Privacy	Yes	
7	Privacy	Yes	
8	Technical development	Yes	Evaluating the technical feasibility of the prototype.
9	Technical development	Yes	
10	Governance	Yes	Evaluating the feasibility of with the existing governance frameworks.

Prototype v2

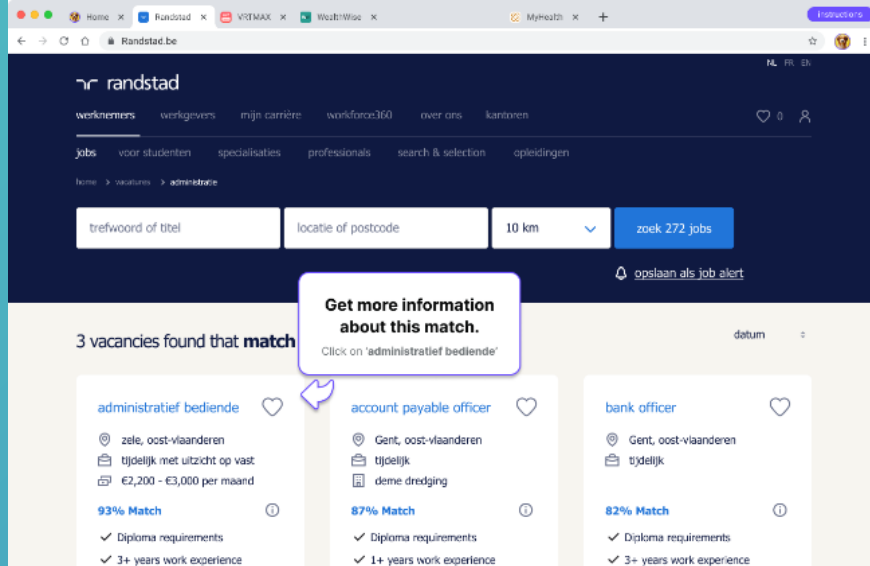


1. Homepage Randstad

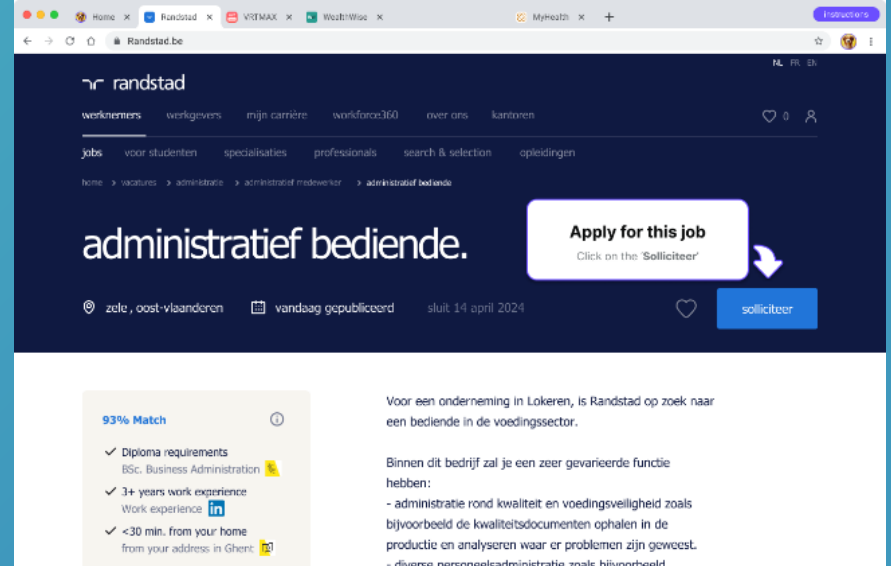


2. Data request matching

Prototype v2



3. Matching results



4. Job details

Prototype v2

randstad

werknemers werkgevers mijn carrière workforce360 over ons kantoren

jobs voor studenten specialisaties professionals search & selection opleidingen

home > vacatures > solliciteer

je gaat solliciteren voor:
administratief bediende

aanmelden om te solliciteren
Vul onderstaande gegevens aan om te sollicitatie te kunnen vervolledigen.

Automatically collect data

of

profielinformatie

e-mail

password

Skip the form and have your data collected automatically
Click on 'Automatically collect data'

5. Application form

randstad

werknemers werkgevers mijn carrière sw

jobs voor studenten specialisaties profess

home > vacatures > solliciteer

je gaat solliciteren voor:
administratief be

aanmelden om te solliciteren
Vul onderstaande gegevens aan om te sollicitatie te kunnen vervolledigen.

Gegevens automatisch ophalen

Randstad requests access to the following data
Select all

Personal email
alexwilder@gmail.com

Mobile number
484 46 50 99

BSc. Business Administration
Provided by LED database

Digital ID
Provided by Mijn Burgerprof...

Name Given names
Alex Wilder

Sex Nationality Date of birth
V BEL 25/11/1988

National register N°
25.11.88-293.28

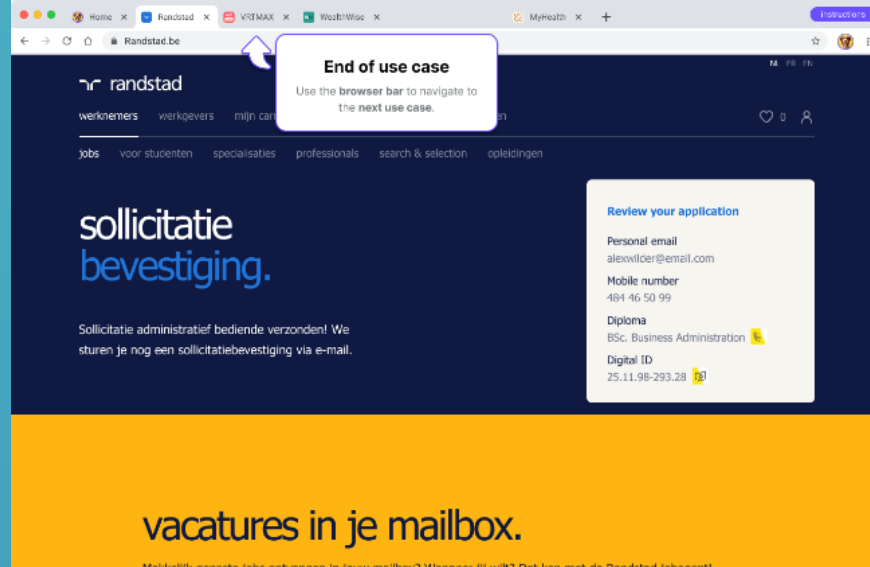
Change account

Until revoked 1D 1M 1W 1Y

Cancel Share

6. Data request to autocomplete form

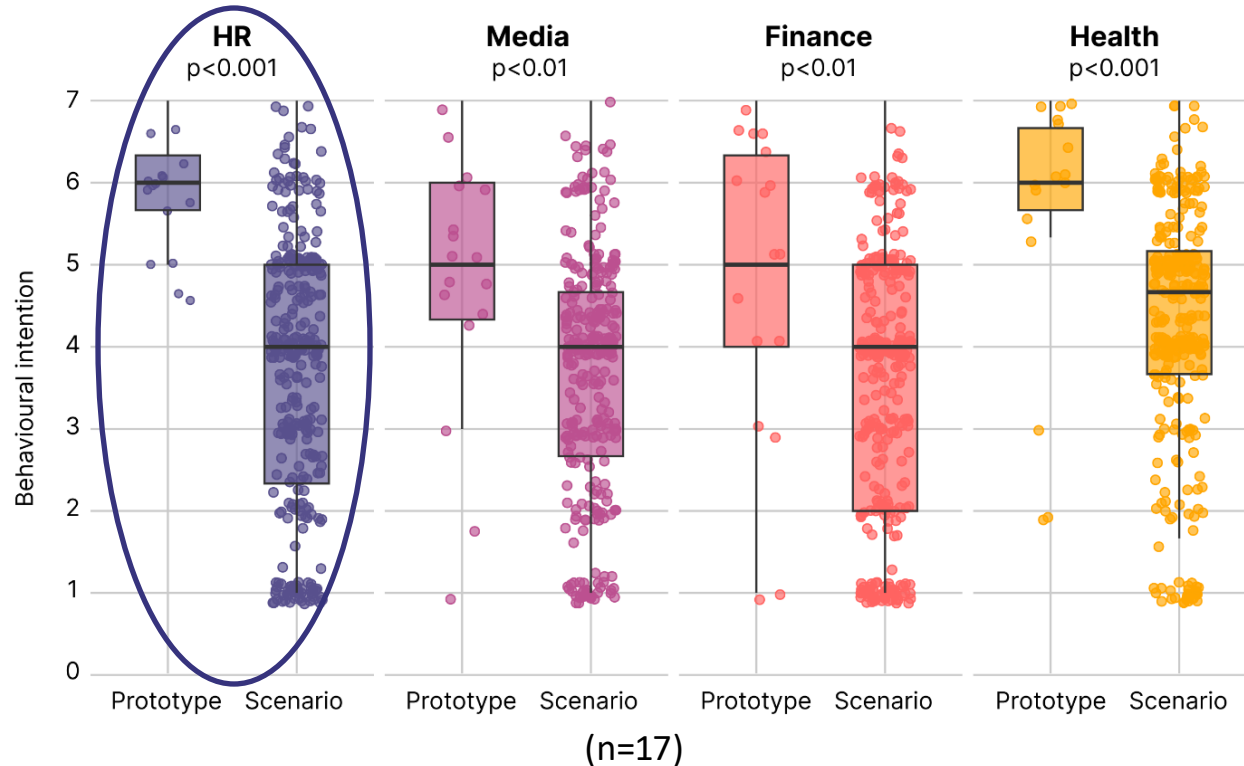
Prototype v2



7. Successful application confirmation

Prototype evaluation

Participants who interacted with the **prototype** report **higher behavioral intention** scores across all use cases compared to those who evaluated the written scenarios.



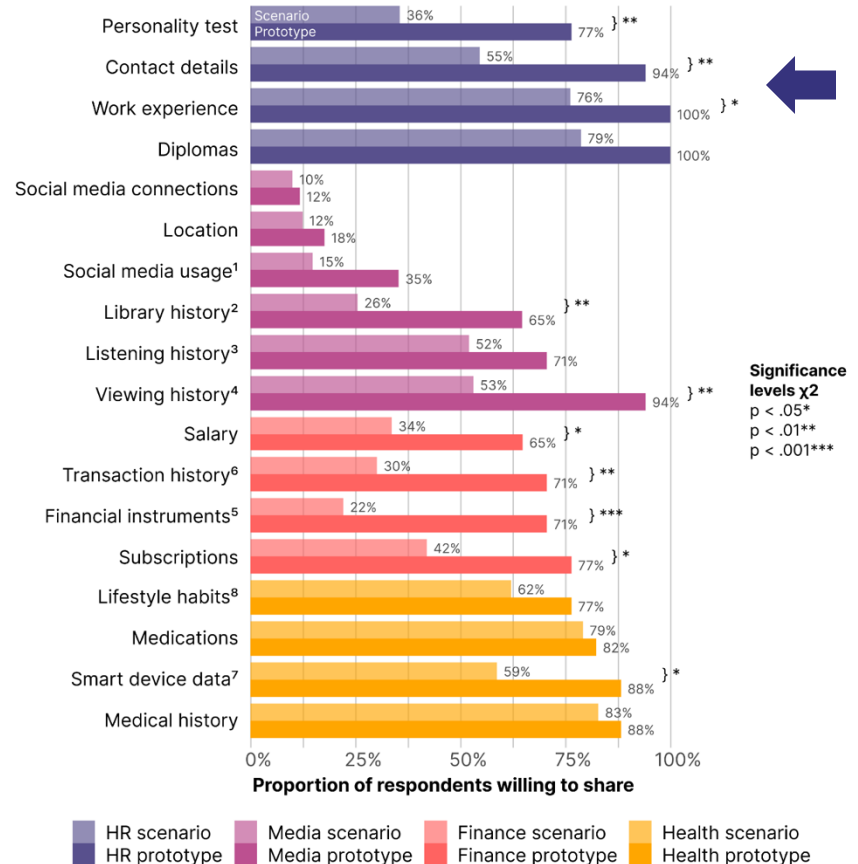
Prototype evaluation

Participants who **interacted with the prototype** generally report a **higher willingness to share data** compared to those who evaluated the written scenarios.

“Misschien **twijfel bij die persoonlijkheidstest**, maar. Ja, nee, eigenlijk **alles** wat hierop staat zou ik wel kunnen **delen**.”

“Als je **vroeger** naar een **interim bureau** ging, moest je **gewoon op papier** **schrijven**.”

“Ja, ik vind alles ook trouwens **prima om te delen**. Ja, en dat is ook vooral omdat **Randstad** en **VRT makers** dat zijn ook **wel sites die ik vaak gebruik** en **die ik wel enigszins vertrouw**.”





Prototype evaluation



Time saving

Ease of use

Relevant job openings

Demand for additional filter options

“Het **grootste voordeel**? Dat je **niet alles zelf hoeft in te geven**.”

“Vooral het zien van **is die job geschikt of niet** en dat dat zo al filtert lijkt mij wel praktisch. En ook ja, **gegevens invullen**. **Niemand doet dat graag hè**.”

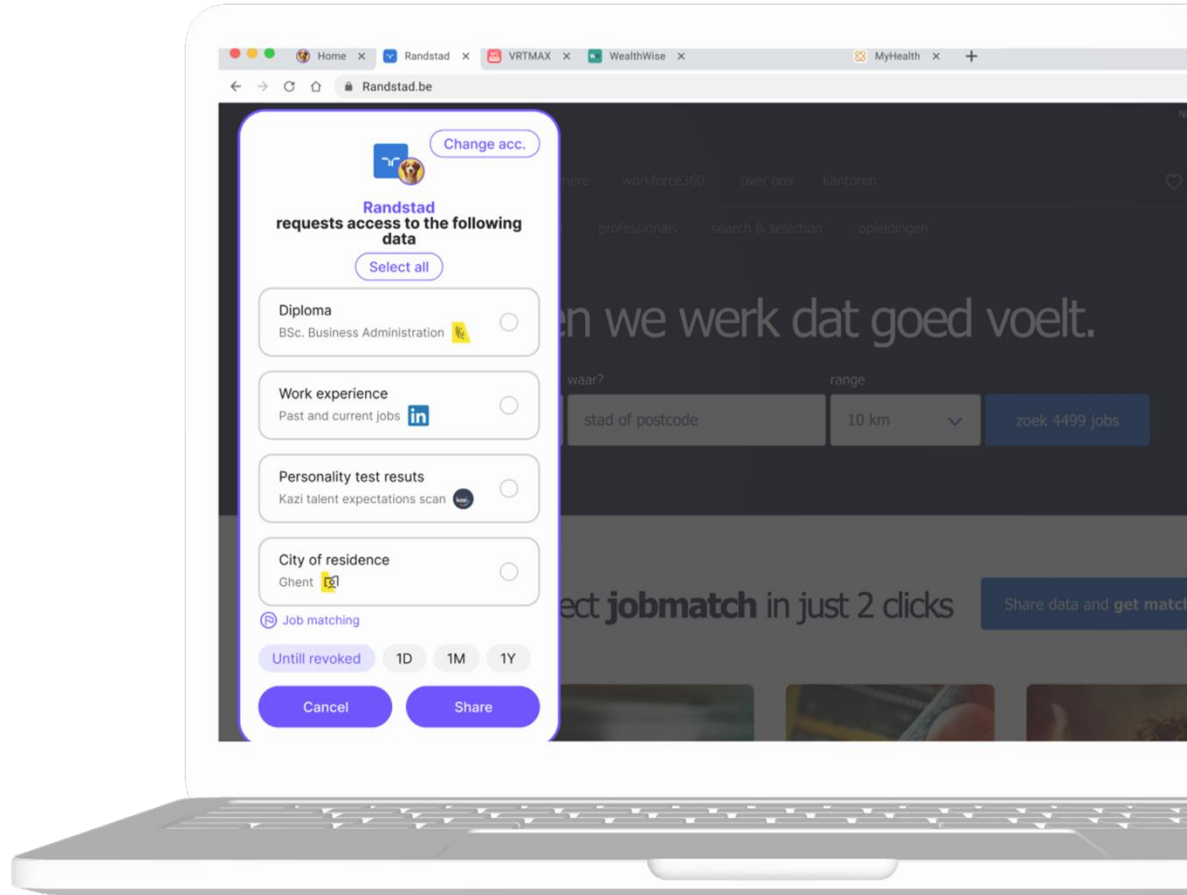
“Ik vind het gewoon **heel snel gaan** en het gaat gewoon **super simpel** zo. **Check, check, check**. Voilà. Hup. Komaan, we starten ermee en we zijn weg. [...] **Simpeler dan dit kan het volgens mij niet**.”

“Ergens zou ik er nog wel wat **persoonlijke voorkeur** of iets van misschien **trefwoorden** van ik ben graag met data bezig. [...] Ja, want ik vind ook dat **uw diploma zegt ook niet alles**. Of uw werkervaring zegt niet alles.”

Conclusion

Show don't tell

- **Data vaults** are a **complex concept** for users
- Prototypes make this concept **tangible**
- **Increases intention to use** and **willingness to share data**



Design recommendations

Clearly communicate the **purpose of each requested data type**

This mockup shows a data request interface. At the top, there is a user profile icon and a 'Change acc.' button. Below this, the text 'Randstad requests access to the following data' is displayed, followed by a 'Select all' button. Two data types are listed: 'Diploma' (BSc. Business Administration) and 'City of residence' (Ghent). A red circle with the number '1' points to a 'Job matching' label at the bottom of the list, which is the only purpose mentioned. At the bottom of the interface are 'Cancel' and 'Share' buttons.

Avoid: (1) hiding the general purpose for data sharing on the bottom of the data request where it is easily overlooked.

This mockup shows a data request interface with more detailed communication. At the top, there is a user profile icon and a 'Change acc.' button. Below this, the text 'To match you with relevant jobs Randstad requests access to the following data' is displayed, followed by a 'Select all' button. Two data types are listed: 'Diploma' (BSc. Business Administration) and 'City of residence' (Ghent). A red circle with the number '1' points to the header text. A red circle with the number '2' points to the specific purpose for each data type: 'To verify minimal job requirements' for the Diploma and 'To estimate commute times' for the City of residence. At the bottom of the interface are 'Cancel' and 'Share' buttons.

Try: (1) highlighting the general purpose in the data request header and (2) provide additional detail for each individual data type.

Design recommendations

Offer granular control

This screenshot shows a consent screen for a job matching service. At the top, there's a profile icon and a "Change acc." button. The main heading reads: "To match you with relevant jobs Randstad requests access to the following data". Below this, a red circle with the number "1" points to a toggle switch for "Diploma and City of residence", which is currently turned off. Below the toggle, it says "Provided by Mijn Burgerprofiel" with a small icon. A red circle with the number "2" points to the duration selection options: "Untill revoked", "1D", "1M", "1W", and "1Y". At the bottom are "Cancel" and "Share" buttons. A "Job matching" label with a lock icon is also visible.

Avoid: (1) Grouping different data types in one field and (2) Using ambiguous abbreviations such as "1D" and "1M".

This screenshot shows a consent screen for a job matching service. At the top, there's a "Select all" button. Below it, a red circle with the number "1" points to a toggle switch for "Diploma", which is currently turned off. Below the toggle, it says "BSc. Business Administration" with a small icon. A red circle with the number "2" points to the duration selection options: "Untill revoked", "1 Day", "1 Month", "1 Week", and "1 Year". At the bottom are "Cancel" and "Share" buttons. Two explanatory labels with lock icons are present: "To verify minimal job requirements" and "To estimate commute times".

Try: (1) Allowing users to select individual data types and (2) provide clear options for limiting data-sharing periods.

Design recommendations

Leverage **brand trust**

1

Change acc.

To match you with relevant jobs
Randstad requests access to the
following data

Select all

Diploma
BSc. Business Administration

2

To verify minimal job requirements

Use the logos of trusted partners (1) and governmental services (2) to foster trust.

Design recommendations

Minimize data requests

1

Digital ID

Provided by Mijn Burgerprof...

Name Given names
Alex Wilder

Sex Nationality Date of birth
V BEL 25/11/1998

National register N°
25.11.98-293.28

Account creation

Until revoked 1 Day 1Month

1 Year

Cancel Share

Avoid: (1) Asking detailed information that is not essential and can lead to potential discrimination.

To submit your application Randstad requests access to the following data

1

Digital ID

Provided by Mijn Burgerprof...

Name Given names
Alex Wilder

Nationality Age
BEL 18+

Account creation

Until revoked 1 Day 1Month

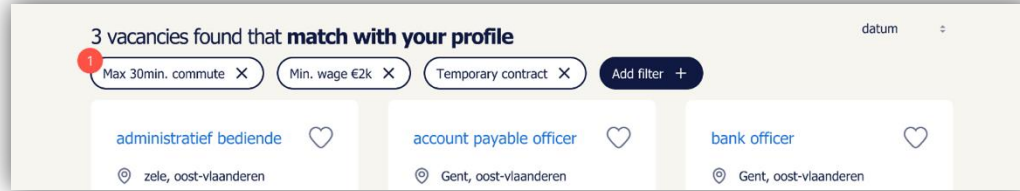
1 Year

Cancel Share

Try: (1) Limiting data request to a minimum through for example zero-knowledge proof.

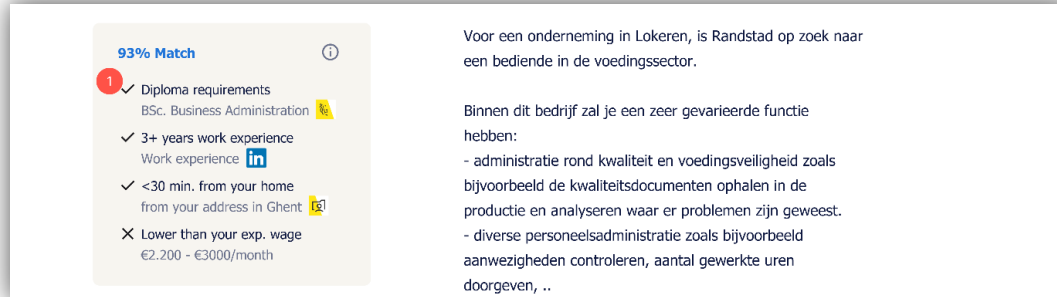
Design recommendations

Enable user control over the matching algorithm



Add customizable filters to give users more control over the job matching

Provide transparency in algorithms



Provide insight to users how a certain matching score is calculated by showing them which requirement match or do not match.

More Question?

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Try it out yourself

<https://www.figma.com/proto/89Jn0Ucdewxy47U6PEs7I/The-Solid-application?node-id=18381-29692&t=Uy9KlfrUoi51eo9-1&scaling=scale-down&content-scaling=fixed&page-id=17975%3A10116&starting-point-node-id=17907%3A4356>

