



Lightning Sign Ups

Less than 1 minute account creation using computer vision

W x TKS

A Brief Overview of Recommendation #1

Executive Summary



Problem

Wealthsimple account creation time on average is 8 minutes.

Because of the length of account creation, 71% of people we tested quit Wealthsimple sign up part way through.



Recommendation

Add a optional computer vision component to Wealthsimple sign up that scans a filled out tax form.

Sign up information gets prefilled, and only has to be confirmed by user.



Outcome

Computer vision sign ups will take less than 1 minute, significantly decreasing user quit rate for Wealthsimple sign ups.

Wealthsimple sign up takes 8 minutes, which leads to high quit rates

We ran experiments with 14 low income parents, telling them they could get \$500 from the Canada Learning Bond in just a few minutes if they signed up to Wealthsimple

Sign up takes 8 minutes

4 out of 14 of the people who participated completed Wealthsimple sign up.

The average time to complete signup for these people was 8 minutes.

People lose trust over time

The longer sign up takes, the more likely people were to ask why the app needed specific information, such as SIN or amount they'll save each month.

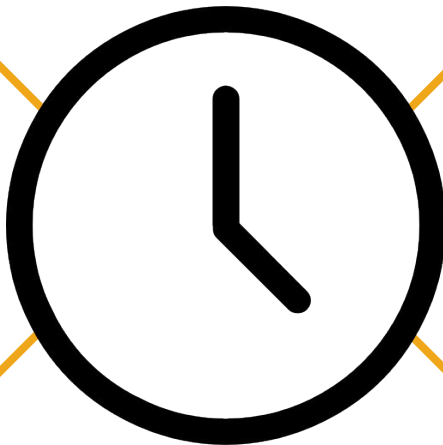
Users quit sign up

10 out of 14 of people quit part way through sign up, many said they would finish later, but never did.

When asked why, every single person cited reasons related to lack of time.

Opportunity to streamline

If the Wealthsimple sign up process is streamlined and made very quick, user quit rate will drop significantly.



Use computer vision to make sign up lightning fast

Information extraction

Using computer vision and OCR, all the information from the tax form is extracted.

Streamlined sign up

The extracted information is placed in the Wealthsimple sign up process. All the user has to do is confirm their info.

Canada Revenue Agency
Agence des Revenus
du Canada

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2018

Income Tax and Benefit Return

Step 1 – Identification and other information

Identification

Print your name and address below.

First name and initial
Last name

123 Main St
Toronto, ON M5K 1K9

Province/territory
City

Postal code

Information about you

Enter your social insurance number (SIN)

Enter your date of birth

Your language of correspondence

English
French

Is this return for a deceased person?

If this return is for a deceased person, enter the date of death

Marital status

Tick the box that applies to your marital status on December 31, 2018

1 ☐ Married 2 ☐ Living common-law 3 ☐ Widowed
4 ☐ Divorced 5 ☐ Separated 6 ☐ Single

Information about your spouse or common-law partner (if you ticked box 1 or 2 above)

Enter their SIN

Enter their first name

Enter their net income for 2018 to claim certain credits

Enter the amount of universal child care benefit (UCCB) from line 117 of their return

Enter the amount of UCCB repayment from line 213 of their return

Tick this box if they were self-employed in 2018

Do not use this area

Elections Canada (For more information, see "Elections Canada" under Step 1, in the guide.)

A) Do you have Canadian citizenship? Yes ☐ No ☐

If yes, go to question B. If no, skip question B.

B) As a Canadian citizen, do you authorize the Canada Revenue Agency to give your name, address, date of birth, and citizenship to Elections Canada to update the National Register of Electors? Yes ☐ No ☐

Your authorization is valid until you file your next tax return. Your information will only be used for purposes permitted under the Canada Elections Act, which include sharing the information with provincial/territorial election agencies, members of Parliament, registered political parties, and candidates at election time.

Do not use this area

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Less than 1 minute sign up

All the sign up information required is included in a tax form. All the user has to do is confirm their information and answer questions from the chat bot.

Secure

Using Tensorflow.js the image can be processed locally, and never has to be sent to a server.

This process is local and secure.

How to implement lightning sign ups with computer vision



Tesseract OCR

Use an existing OCR solution for handwriting, Tesseract OCR is a great choice.



TensorFlow.js is a machine learning framework that allows you to run models on mobile, without ever sending data to a server

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Canada Revenue Agency / Agence des Revenus du Canada

Income Tax and Benefit Return 2018

Step 1 – Identification and other information

Identification

Print your name and address below.

First name and initial: _____

Last name: _____

Mailing address: Apt No. – Street No. Street name: _____

PO Box: _____ R.R.: _____

City: _____ Prov./Terr.: _____ Postal code: _____

Email address

If you provide an email address, you are registering to receive email notifications from the CRA and agree to the Terms of use under Step 1 in the guide.

Enter an email address: _____

Information about your residence

Enter your province or territory of residence on December 31, 2018: _____

Enter the province or territory where you currently reside if it is not the same as your mailing address above: _____

Information about you

Enter your social insurance number (SIN): _____

Enter your date of birth: Year: _____ Month: _____ Day: _____

Your language of correspondence: English ☐ Français ☐

Votre langue de correspondance: Anglais ☐ Français ☐

Is this return for a deceased person?

If this return is for a deceased person, enter the date of death: Year: _____ Month: _____ Day: _____

Marital status

Tick the box that applies to your marital status on December 31, 2018.

☐ Married ☐ Living common-law ☐ Widowed

☐ Divorced ☐ Separated ☐ Single

Information about your spouse or common-law partner (if you ticked box 1 or 2 above)

Enter their SIN: _____

Enter their first name: _____

Enter their net income for 2018: _____

To claim certain credits: _____

Hard code where specific information will be.
Lightning sign ups only has to work for income tax forms.



Fill in user information extracted from tax form,
and ask them to confirm.

Wealthsimple Impact Fund

Create social impact funds for educational organizations and offer incentives to promote RESPs on Wealthsimple

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A Brief Overview of Recommendation #2

Executive Summary



Problem

Many Canadians do not participate in RESP because of a lack of awareness.



Recommendation

Create an Impact Investment Fund which will invest into projects with the mission of either improving or spreading education in Canada.

Use these investments for exposure of the RESP accounts through Wealthsimple.



Outcome

Through initializing the investments properly, not only can Wealthsimple take a good ROI while making a social impact, but it can also increase sign ups of RESP accounts.

Impact Investing Fund



Impact Investing combines the financial returns with social impact.



In 2017, the total Impact Investing Assets in Canada added up to \$14.75 billion, growing from only \$3.77 billion in 2012.

There are 60 Impact Investing Fund in Canada



The Canadian government is contributing \$755 million for the next 10 years for a new Social Finance Fund, with an additional \$50 million over two years for social purpose organizations.



The Wealthsimple Impact Investment Fund will focus on targeting organization that are education focused and can be used to increase awareness of RESPs.

Over time, this will drive more signups to Wealthsimple.

Example - RBC's Social Finance Initiative



RBC's \$10 million pool, demonstrates the opportunity to invest in businesses that deliver social, environmental and financial returns

The initiative supports and nurtures businesses that deliberately seek to make positive contributions to the community.

Where to start

GIIN is the largest impact investing forum, happening this October.

GIIN works with hundreds of impact investors to help them develop impact measurement and management strategies, and to identify deal opportunities.



Open Impact has lists of many impact investment opportunities in Canada. They also help Canadians source impact investment deals.



Impact Base is a searchable, online database of impact investment funds and products designed for investors. They also help connect social impact funds with interested organizations.



On a More Personal Note

Thank You

Dear Wealthsimple team,

We'd like to personally thank you for this wonderful opportunity to contribute our part to increasing RESP sign ups to Wealthsimple. Through this experience we've learned so much!

Best Regards,
Liam and Volodymyr

