

Regulatory Challenges for Robo-Advice

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Erasmus**



What is a Robo-Advisor?

Types of Robo-Advisors

1. Interface between financial services provider and consumer

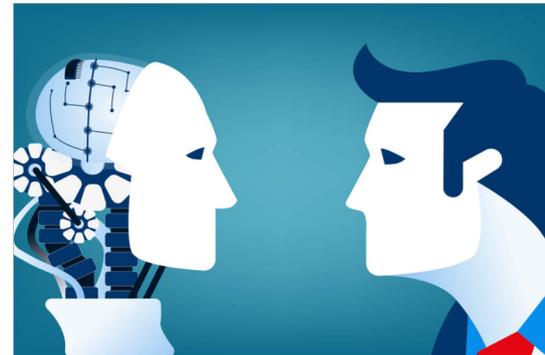
- a. Purchase
- b. Service
- c. Claims mgt



"Hello, I am Chloe. I am here to help."

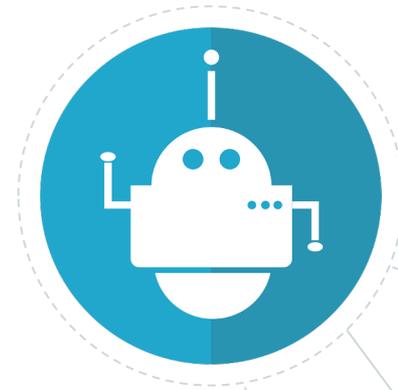
2. Tool matching a consumer to a financial product

Price comparison site or a more sophisticated decision support tool



1.

Interface between Provider and Consumer

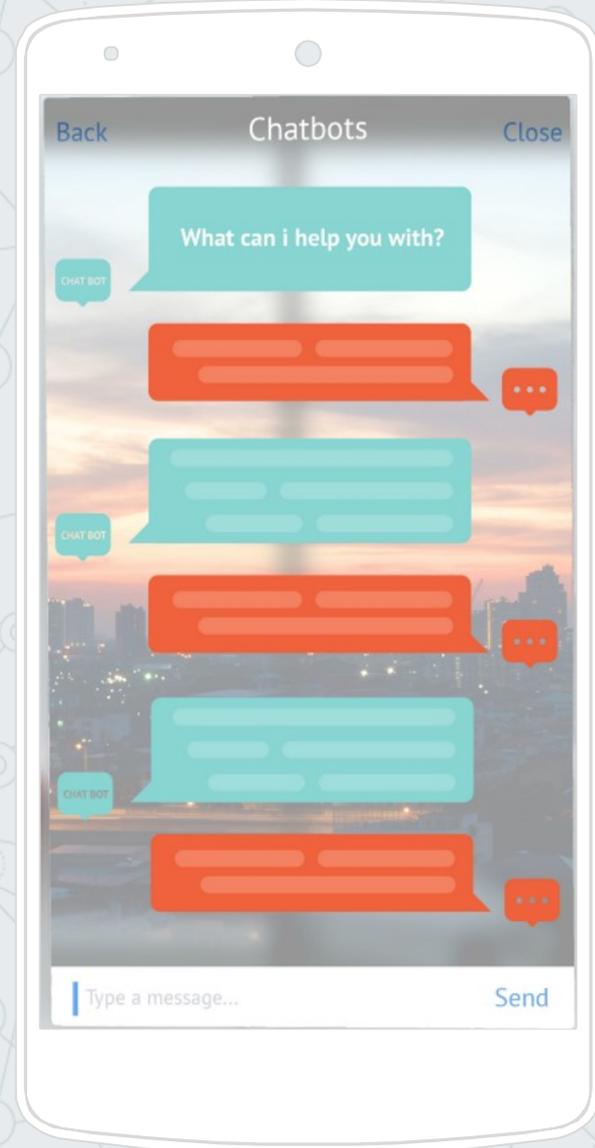


Software Wizards

Fixed sequence of dialogues to facilitate form filling.

Chatbots

Variable dialogue systems, potentially using AI



Lemonade Maya

Instant Everything

90 seconds to start, 3 minutes to file a claim



GET STARTED

Lemonade

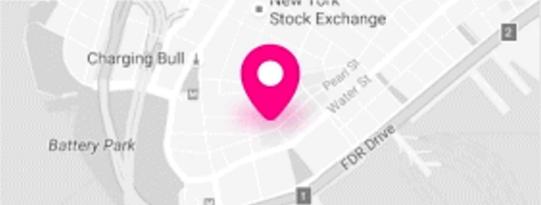
★★★★★

Personal Insurance Assistant

Hey Gal, I'm Maya. Let's get you some great insurance

What's your home address?

85 Broad St, New York, NY



Do you own or rent it?

OWN RENT

Lemonade Jim

Did someone get hurt?

No

What was stolen or damaged?

MY STUFF

STUFF THAT I BORROW

SOMEONE ELSE'S STUFF

MY LANDLORD'S PROPERTY/STUFF

OTHER, I'LL EXPLAIN LATER

Pledge of Honesty

I understand that I'm a part of a community of people who trust each other to be honest.

I promise to only claim what I truly deserve.

Shai Wininger

Shai Wininger, 22 Nov 2016

I SWEAR I'LL BE HONEST

Any other items you'd like to report?

No, I'm done

April 28, 2016



CLAIM APPROVED
We reviewed your claim and found it valid. A payment will be sent to you right away.

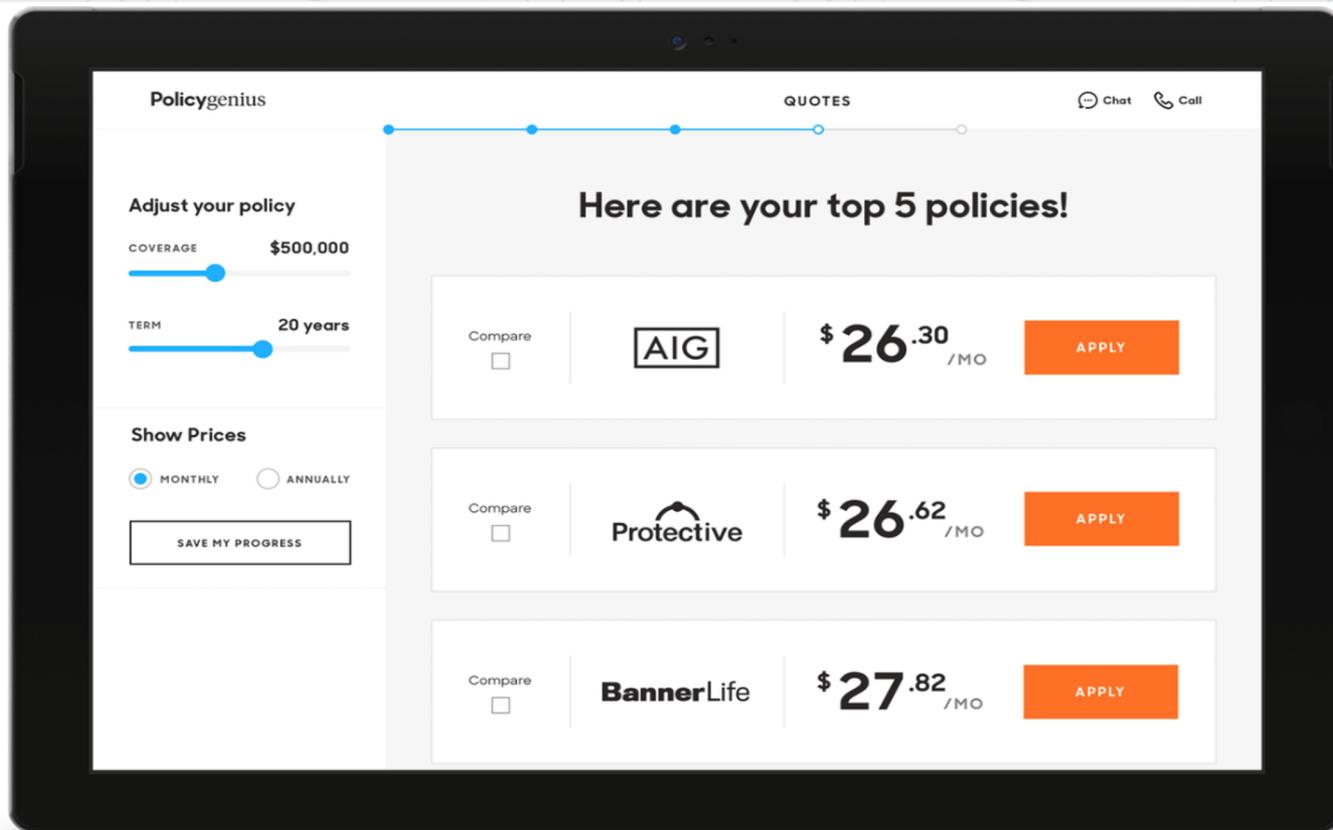
\$900
WIRED FUNDS

4.6 Sec
HANDLING TIME

2.

Tool matching consumers to financial products





Policygenius

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Compare Mortgage Rates and Home Loans

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Enter your home loan details to get personalized quotes with today's current mortgage rates.

Loan purpose

Purchase Refinance

ZIP code

97229

Purchase price

\$ 300,000

Down payment

\$ 60,000 20 %

Credit score ?

720-739

Military/Veteran?

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HERE

It's fast and easy!

To get rates for your own situation:

- Fill out these fields
- See results in seconds

Filter ▾

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4.071% APR

4.000% Rate · \$1,146/mo · \$3,281 in fees

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[Lender website](#)

30 year fixed

4.186% APR

4.125% Rate · \$1,163/mo · \$1,740 in fees

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30 year fixed

3.778% APR

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Answer a few questions and we will identify plans that fit your needs. It's quick & easy!



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How It Works



Quick & Easy Process

Three short steps to collect the medications, doctors and other information used to determine plan "fit".



Your Score

Your Plan Score (100 being the highest), determined on a number of dimensions, identifies how well each plan fits your needs.



Utilize our detailed cost estimations and benefit descriptions to make the right, educated decision for you.



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Invest

Save

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GET STARTED

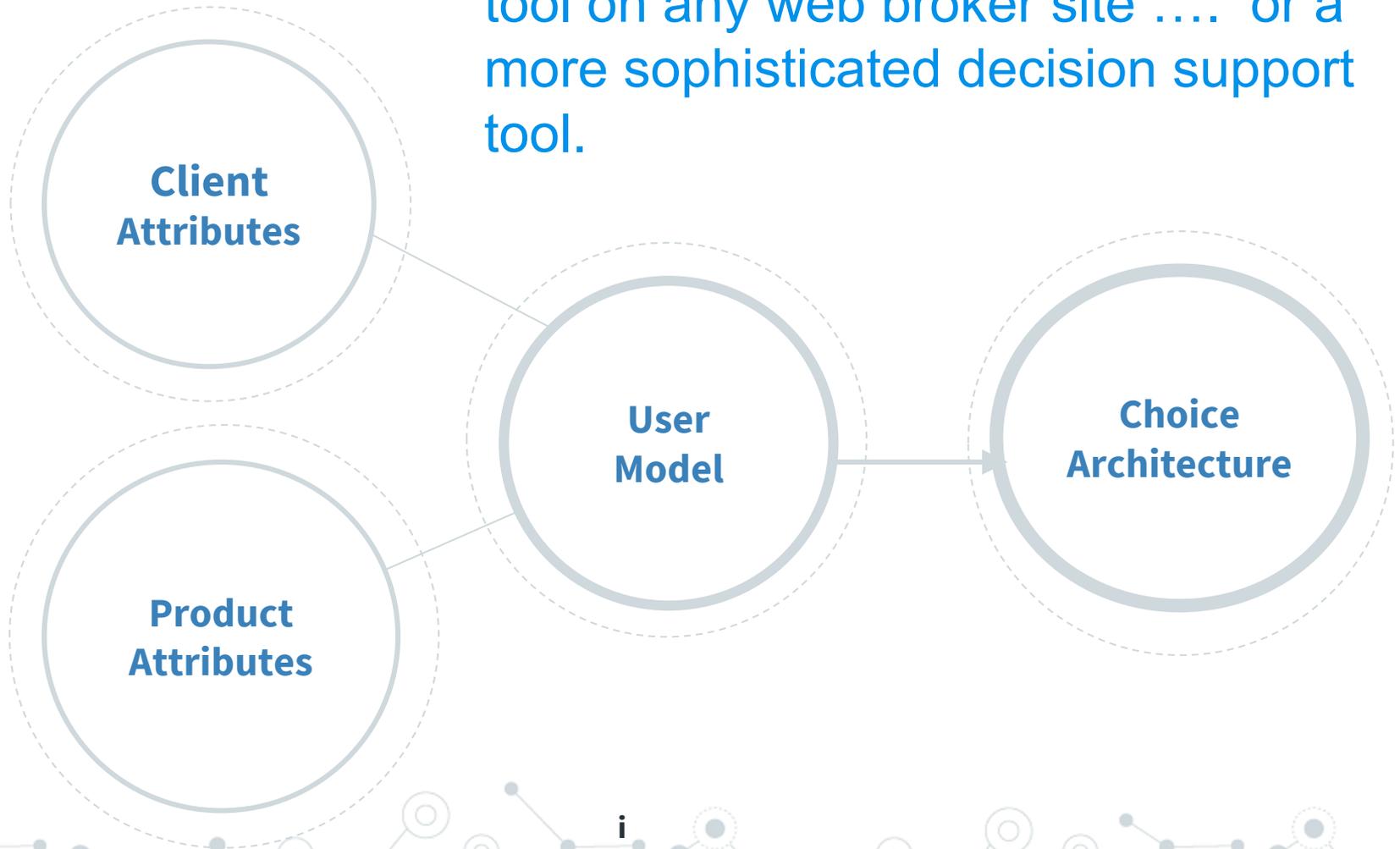
Meet our team of experts.

The PhDs on our research team work hard to implement time-tested investment strategies and develop a data-driven planning experience that's personalized for you.

Our software applies their best thinking to the moves we make in your account. **Automated planning and investing** is how we deliver all their expertise in your pocket.



As simple as the price comparison tool on any web broker site or a more sophisticated decision support tool.



3.

Regulatory Considerations

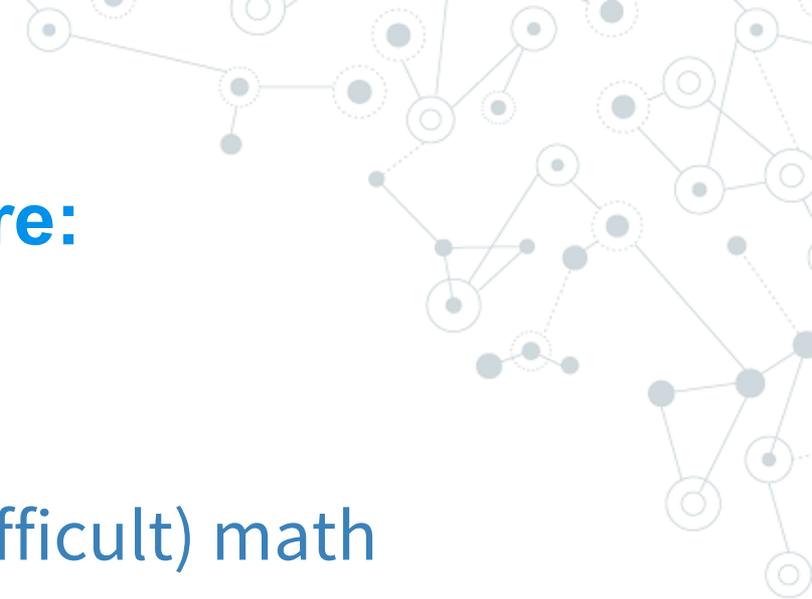




© **What is the proper role of government in:**

1. Monitoring the quality of robo advice (as a 21st century analog to regulation of human intermediaries' competence and honesty)?
2. Making data available to facilitate robo advice?
3. Promoting values such as autonomy?

© **If people had access to, and took advantage of, good quality robo advice, what could be the consequences for financial services regulation?**



In theory, robo advisors are:

- ◎ Always on
- ◎ 100% competent at the (difficult) math
- ◎ Immune to the paradox of choice
- ◎ Unbiased
- ◎ Transparent
- ◎ Scalable: marginal cost approaches \$0



Regulatory focal points for robo advisors

CORE COMPONENT



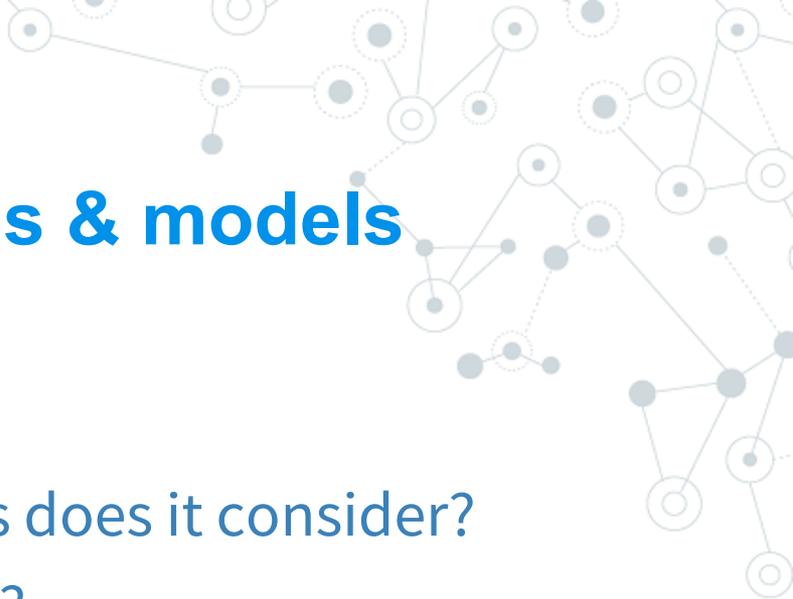
1. Algorithms/models:
2. Data:
 1. Product attributes
 2. Consumer attributes
3. Choice architecture
4. IT infrastructure

REGULATORY CONCERN



1. Bias, competence, fairness, scale
2. Access, quality,
 1. Producers won't provide
 2. Data incomplete, biased
3. Bias, competence, **autonomy**
4. Security, privacy, reliability

Should there be a license for robo-advice software?



Questions about algorithms & models

- What is the model maximizing?
- What product/consumer attributes does it consider?
- Are there other factors it considers?
- What factors did you consider and reject? Why?
- How are weights assigned to attributes?
- How do you identify edge cases? What do you do about them?
- How do you measure success & improvement over time?



Questions about data

- Where do you get your product & customer data?
- What other sources of data are there?
- What product attribute data do carriers have that you do not?
- What customer attribute data would you like to get but cannot?
- How do you check quality of the data?
 - What problems have you found and how have you overcome them?
 - What do you do about missing data?

Questions about choice architecture

- What are some of the decisions you made in constructing your choice architecture?
 - How have you tested your choice architecture?
 - Did you follow recognized best practices? What are they?
 - What do you track about progress through the choice environment? How do you use that data?
 - What patterns do you see in the variance between your recommendations and customers' choices? What do you learn from those patterns?
- Do you promote autonomy? How?

Beyond basic competence

⦿ Challenge:

- Promoting diversity and quality among robo advisors
 - ⦿ Contests (and contests of contests)
- Promoting autonomy

⦿ Opportunities:

- Greater intermediary accountability
- Greater product diversity without the paradox of choice

Thanks!

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