

The Digital Fiduciary: Online Behavior and Retirement Success



*UCLA Anderson School of Management
Senior Academic Advisor at The Voya Behavioral
Finance Institute for Innovation*

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Digital design and
retirement outcomes

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How digital design might dictate retirement success

- Richard Thaler and I conducted an experiment on Morningstar.com
- There were two groups of Morningstar subscribers
- Each group could allocate their retirement savings among eight different funds
- One of the groups needed one extra click to add more than four funds

Based on Benartzi, Shlomo, and Richard H. Thaler. "Heuristics and biases in retirement savings behavior." *The Journal of Economic Perspectives* (2007): 81-104.

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Screen 1

Please indicate how you would allocate your retirement contributions. You may choose up to four funds. If you would like to elect more than four funds, please click [here](#).

	Fund Name	% Allocation
Fund 1	<input type="text"/>	<input type="text"/>
Fund 2	<input type="text"/>	<input type="text"/>
Fund 3	<input type="text"/>	<input type="text"/>
Fund 4	<input type="text"/>	<input type="text"/>
Allocations must equal 100%		0%

Based on Benartzi, Shlomo, and Richard H. Thaler. "Heuristics and biases in retirement savings behavior." *The Journal of Economic Perspectives* (2007): 81-104.

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Screen 2

Please indicate how you would allocate your retirement contributions.

	Fund Name	% Allocation
Fund 1	<input type="text"/>	<input type="text"/>
Fund 2	<input type="text"/>	<input type="text"/>
Fund 3	<input type="text"/>	<input type="text"/>
Fund 4	<input type="text"/>	<input type="text"/>
Fund 5	<input type="text"/>	<input type="text"/>
Fund 6	<input type="text"/>	<input type="text"/>
Fund 7	<input type="text"/>	<input type="text"/>
Fund 8	<input type="text"/>	<input type="text"/>
Allocations must equal 100%		0%

Based on Benartzi, Shlomo, and Richard H. Thaler. "Heuristics and biases in retirement savings behavior." *The Journal of Economic Perspectives* (2007): 81-104.

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Digital design dramatically affects diversification

- Only 10 percent of people shown four lines selected more than four funds
- That number quadrupled among subjects shown eight lines
- Portfolio diversification was highly affected by digital design
- The implications of the digital age mean that many people in this room have now become "digital fiduciaries"

Based on Benartzi, Shlomo, and Richard H. Thaler. "Heuristics and biases in retirement savings behavior." *The Journal of Economic Perspectives* (2007): 81-104.

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“The Digital Fiduciary”

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The Digital Fiduciary

- Are you one of the following?
 - Plan fiduciary helping participants in the digital age
 - Service provider supporting a plan sponsor (e.g., advisor, recordkeeper)

- What should you do?
 - Help people achieve a successful retirement in the 21st century
 - Bring the same oversight and diligence to our digital platforms that we currently bring to investment selection and monitoring
 - This deck includes 7 action items for The Digital Fiduciary

Source: Voya Financial whitepaper, “The Digital Fiduciary: Overseeing Retirement Plans in the Digital Age” by Shlomo Benartzi (2018)

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Actionable steps for plan sponsors and advisors



1. Digital policy statement



2. Incorporate digital design knowledge on the plan committee

3. Test, test, retest

4. Evidence based innovation

5. Follow the science

6. Make the right thing easy

7. Think of 21st century risks

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Experimenting with
digital nudging:
Example #1

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Online Enrollment Architecture

- To what extent does variation in the design of an online 401(k) enrollment interface affect savings?
- To study the potential impact of design, we varied the use of colors, language used to describe each option, and the presence of additional information about plan details.
- We looked at the choices of employees across several hundred auto-enroll plans to either personalize plan elections, accept auto-enroll defaults, or decline enrollment.

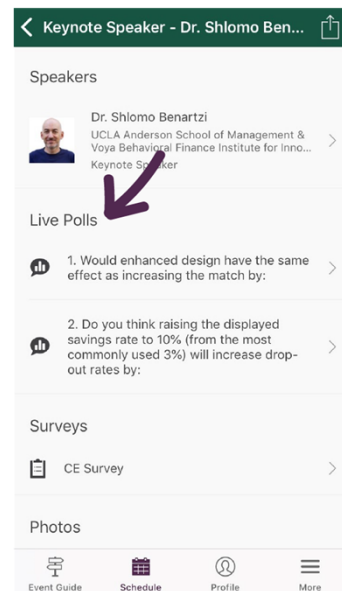
Source: Bhargava, Conell-Price, Mason, Benartzi. "Save(d) by Design" Working Paper (August 2018).

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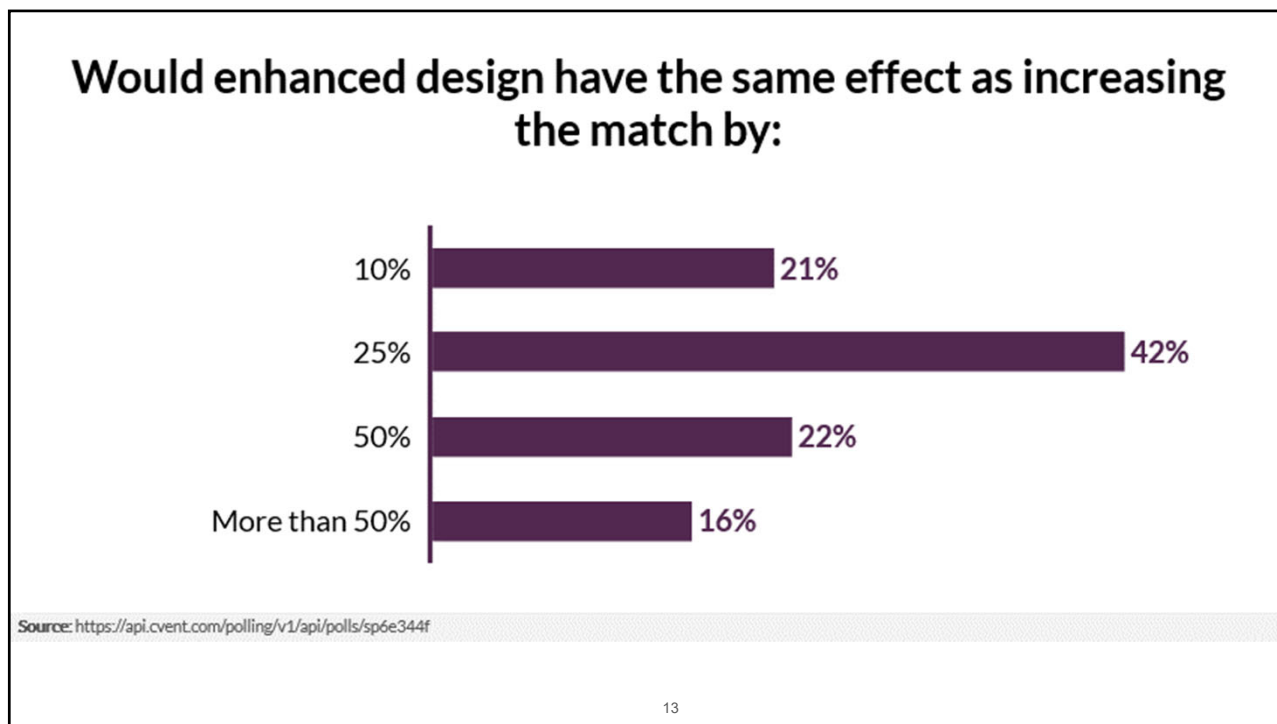
Let's take a poll

1. Select this session from the agenda.
2. Scroll down to Live Polls.
3. Select the question, select your answer, and tap finish to submit.
4. Exit poll.

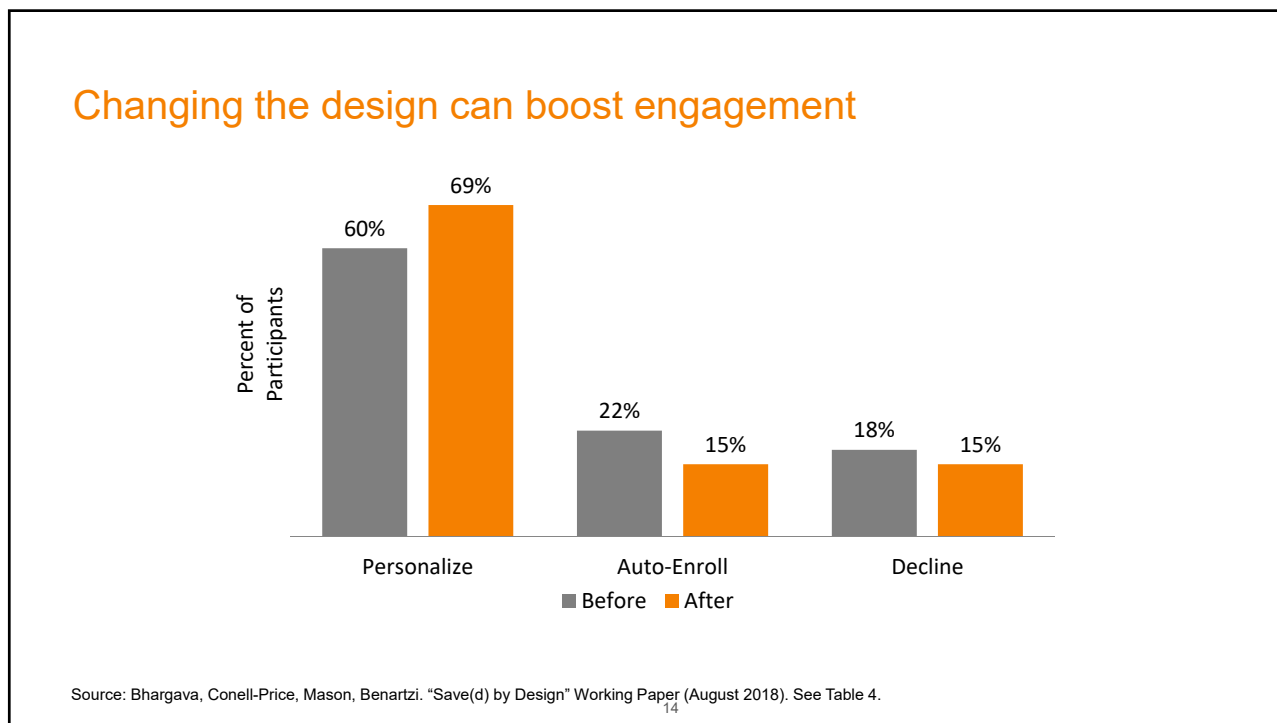


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Enhanced design also boosts savings

- Enhanced design leads to a 9 percentage point increase in people shifting to personalize.
- The average savings rate for personalizers is 7.8%, auto-enrollers is 3.4%, and decliners is 0.0%.
- Most plan administrators, fiduciaries and HR executives didn't predict how changes to the design of the enrollment screen would affect savings.

Source: Bhargava, Conell-Price, Mason, Benartzi. "Save(d) by Design" Working Paper (August 2018).
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Actionable steps for plan sponsors and advisors

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Experimenting with digital nudging: Example #2

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What Are the Effects of Displayed Defaults?

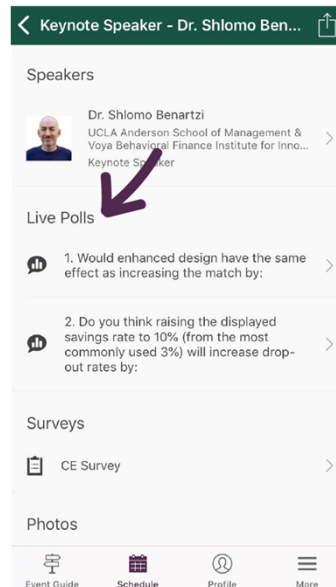
- Are people influenced by the savings rate displayed on the landing page?
- Will higher displayed rates lead to increased savings?
- Suppose we vary the displayed rates between 6% and 11%.
- What would happen to both dropout and savings rates?

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Let's take a poll

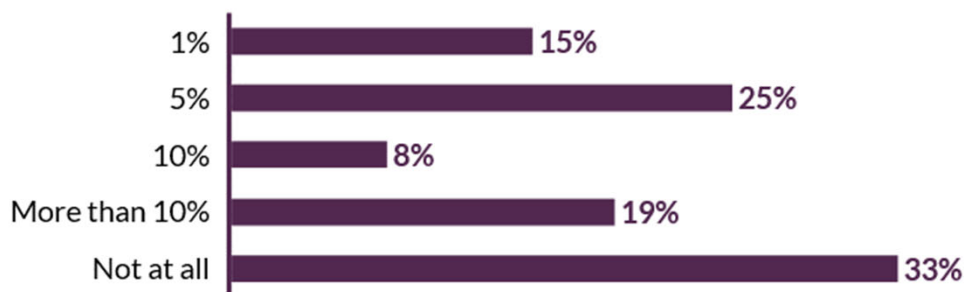
1. Select this session from the agenda.
2. Scroll down to Live Polls.
3. Select the question, select your answer, and tap finish to submit.
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Do you think raising the displayed savings rate to 10% (from the most commonly used 3%) will increase drop-out rates by:



Source: <https://api.cvent.com/polling/v1/api/polls/sp-4u9t2y>

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Example Screen 1

Need Help? | ¿Necesitas Ayuda? | Steps to Save | About My Plan | Important Information

ABOUT ME | SET A GOAL | **ENROLLMENT CHOICES** | REVIEW & CONFIRM

Here's what your monthly income in retirement could look like.
Your estimate is based on your goals and the savings amount selected below.

 Details	You may have \$2,634 Include Social Security Retirement Income	You may need \$2,917	You might be short \$283 How do we come up with your number? Change my retirement goals
--	--	---------------------------------------	--

You can keep these numbers and enroll now, or adjust them below to get closer to your goal.

Select an amount from your paycheck:

People like you on track for retirement save 10%

6%

While \$125 in PRETAX dollars goes into your account per pay period, only \$94 comes out of your take-home pay after taxes!

Select an investment option:

A single investment that's professionally managed and aligns with a retirement age of around 65.

Solution 2055 Portfolio Adv

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Example Screen 2

Need Help? | ¿Necesitas Ayuda? | Steps to Save | About My Plan | Important Information

ABOUT ME | SET A GOAL | **ENROLLMENT CHOICES** | REVIEW & CONFIRM

Here's what your monthly income in retirement could look like.
Your estimate is based on your goals and the savings amount selected below.

 Details	You may have \$2,901 Include Social Security Retirement Income	You may need \$2,917	You might be short \$15 How do we come up with your number? Change my retirement goals
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You can keep these numbers and enroll now, or adjust them below to get closer to your goal.

Select an amount from your paycheck:

People like you on track for retirement save 10%

8%

While \$167 in PRETAX dollars goes into your account per pay period, only \$125 comes out of your take-home pay after taxes!

Select an investment option:

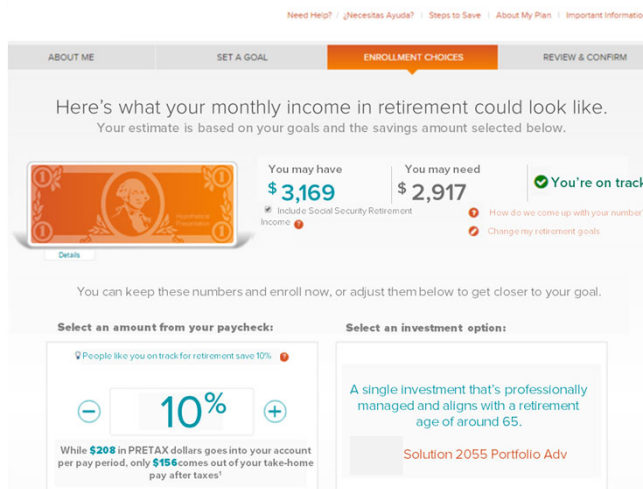
A single investment that's professionally managed and aligns with a retirement age of around 65.

Solution 2055 Portfolio Adv

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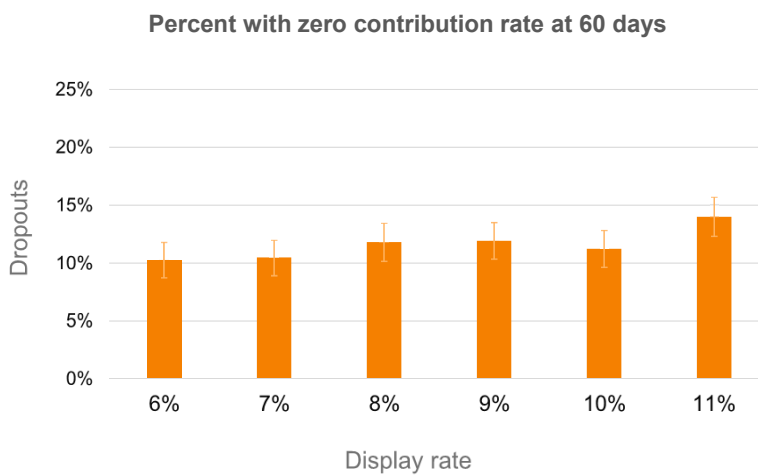
Example Screen 3



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Dropout rates look nearly flat across display rates

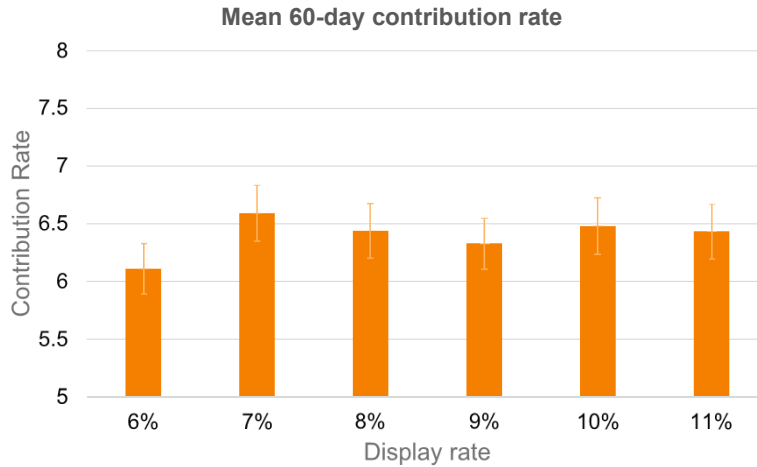


Source: Beshears, Benartzi, Mason, and Milkman. "How Do Consumers Respond When Default Options Push the Envelope?" Working Paper (October 7, 2017).

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Savings rates look like they plateau at display rate of 7%



Source: Beshears, Benartzi, Mason, and Milkman. "How Do Consumers Respond When Default Options Push the Envelope?" Working Paper (October 7, 2017).
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7% display rate was implemented at the end of 2017

Need Help? | ¿Necesitas Ayuda? | Steps to Save | About My Plan | Important Information

ABOUT ME | SET A GOAL | **ENROLLMENT CHOICES** | REVIEW & CONFIRM

Here's what your monthly income in retirement could look like.
 Your estimate is based on your goals and the savings amount selected below.

	You may have \$2,634 Include Social Security Retirement Income	You may need \$2,917 How do we come up with your number?	You might be short \$283 Change my retirement goals
--	---	---	--

You can keep these numbers and enroll now, or adjust them below to get closer to your goal.

Select an amount from your paycheck: People like you on track for retirement save 10%
 - 7% +
 While \$125 in PRETAX dollars goes into your account per pay period, only \$94 comes out of your take-home pay after taxes!

Select an investment option: A single investment that's professionally managed and aligns with a retirement age of around 65.
 Solution 2055 Portfolio Adv

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Actionable steps for plan sponsors and advisors

- ✓ 1. Digital policy statement
- ✓ 2. Incorporate digital design knowledge on the plan committee
- ✓ 3. Test, test, retest
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- ✓ 5. Follow the science
6. Make the right thing easy
7. Think of 21st century risks

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Digital nudging and
big data

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But, first a question ...

If it takes 5 machines 5 minutes to make 5 widgets,
how long would it take 100 machines to make 100 widgets?

5 minutes

Source: Frederick (2005)

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The Reflection Index

- 1 Attention**
Logged onto website or mobile app within past year
- 2 Information Gathering**
Clicked on projected retirement income to learn more
- 3 Making Tradeoffs**
Explored different savings rates, retirement age, or rates of return

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Reflection Index and projected income replacement



Source: Voya Financial whitepaper, "Using Decision Styles to Improve Financial Outcomes" by Shlomo Benartzi (2016)

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Reflection Index and retirement outcomes by plan

- 90.2% of plans are characterized by instinctive decisions (i.e., Reflection Index below 2.0) and poor retirement outcomes (i.e., below 70% income replacement)
- Make the right choice the easy choice
- Consider re-enrollment

Source: Voya Financial whitepaper, "Using Decision Styles to Improve Financial Outcomes" by Shlomo Benartzi (2016)

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Seven actionable steps for plan sponsors and advisors

- ✓ 1. Digital policy statement
- ✓ 2. Incorporate digital design knowledge on the plan committee
- ✓ 3. Test, test, retest
- ✓ 4. Evidence based innovation
- ✓ 5. Follow the science
- ✓ 6. Make the right thing easy
- ✓ 7. Think of 21st century risks

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On ERISA 1974 Versus 2018

- While ERISA went into effect before the digital age, legislation contained a crucial provision that fiduciaries must act **“with the care, skill, prudence, and diligence under the circumstances then prevailing.”**
- “Accordingly, even though no fiduciary in 1974 would have needed to consider the digital design of the plan’s web portal, the fact that a substantial percentage of participant interactions are online is a circumstance that is now prevailing.”

- Michael Hadley at Davis & Harman

Source: Voya Financial whitepaper, “Fiduciary Concerns and Digital Design” by Michael Hadley at Davis & Harman (2018)
Note: Government plans are not covered by ERISA

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How to interpret ERISA

“Appropriate for a fiduciary to take into account “whether the digital design of a plan’s service provider’s electronic portal properly seeks to encourage and facilitate good decision-making by plan participants and beneficiaries.”

- Michael Hadley at Davis & Harman

Source: Voya Financial whitepaper, "Fiduciary Concerns and Digital Design" by Michael Hadley at Davis & Harman (2018)
Note: Government plans are not covered by ERISA

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Let's not let the
digital revolution go
to waste!

THANK YOU.

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