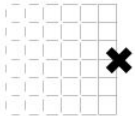


**BIG  
YELLOW  
CAB**

# LOOKING AT THE CLIENT'S DECISION MAKING PROCESS FOR CLUES ABOUT THE MARKET

TOTAL CO<sub>2</sub> EMISSIONS

EMISSIONS FROM  
BUILDINGS



**BACKGROUND**

# HERE'S WHAT WE DID

We looked at the market through the lens of

**MARKET  
ANALYST**



**BEHAVIORIST**



**LOOKING AT THE CLIENT'S DECISION-MAKING PROCESS  
FOR CLUES ABOUT THE MARKET**

## WHEN PEOPLE SAY THIS ABOUT CONVENTIONAL HOUSES...

“Those houses are **way too expensive.**”

“**Why would anyone** ever want to live in one of those houses or work in one either?”

“Those buildings are **bad news.**”

## WHAT IT MEANS TO PASSIVE ARCHITECTS & BUILDERS

An sharp **increase in the demand** for the services of architects who design passive buildings

**A higher value** placed on those services by customers

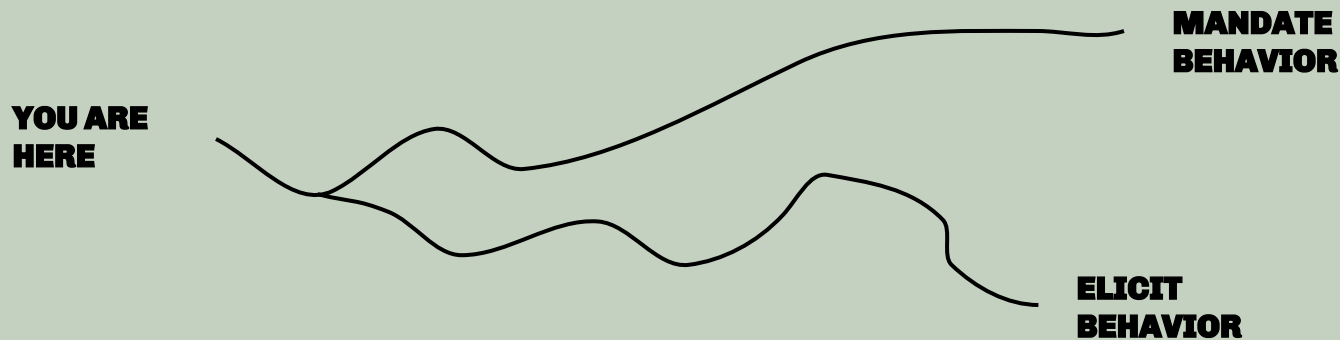
**A significant reduction** in the number of hours architect spend with prospects who don't go to contract



**0.1%** market share  **10%** market share = **100x** customers

# SO HOW DO WE GET THERE?

We can get there via policy or the market.  
One mandates a certain behavior. **The other elicits it.**

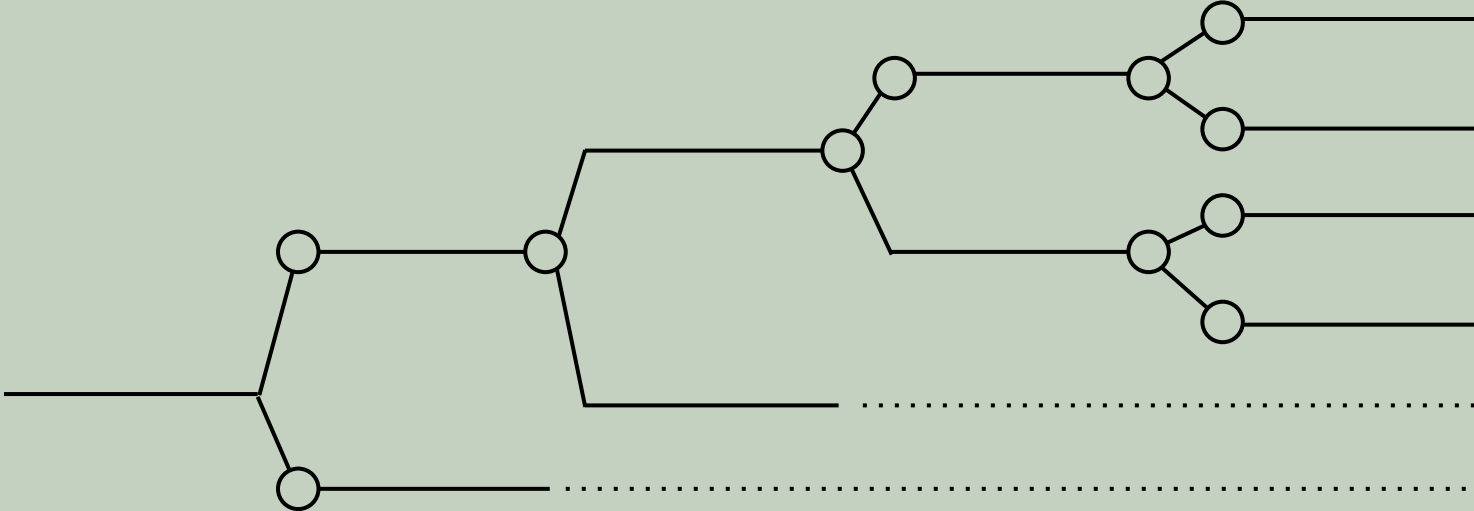


Our interest is in what can be achieved without  
the help of policy interventions.



# LOOKING FOR CLUES TO THE MARKET

Understanding what's behind an individual's choice  
is understanding the market.



# HOW MARKETS RESPOND TO NEW PRODUCTS

Small improvements in a product are **not enough** to transform a market.

**People have a bias** toward the familiar which can prevent us from opting for the new...

“You need to have the product be **an order of magnitude improvement over what currently exists...** Anything less than an order of magnitude better will probably be perceived as a marginal improvement and will be hard to sell...”

**even when** the new is better than the old and small improvements might not be enough overcome this bias.



Peter Thiel  
**Paypal**, Founder





# SO ARE PASSIVE BUILDINGS AN ORDER OF MAGNITUDE BETTER?

This depends on how people **measure value**.

## IF THE ANSWER IS...

**YES**

then we can expect a rapid transformation of the market.

**NO**

we can expect the market to shift more slowly.



**SURVEY**

*When buying a house, how important to you is **indoor air quality** from 1 to 10?*

# THE TWO BOBS

To show the role in behavior in how people value the attributes of passive  
let's look at a hypothetical single-family home buyer.

We'll call this person Bob Smith.

# THREE PERIODS



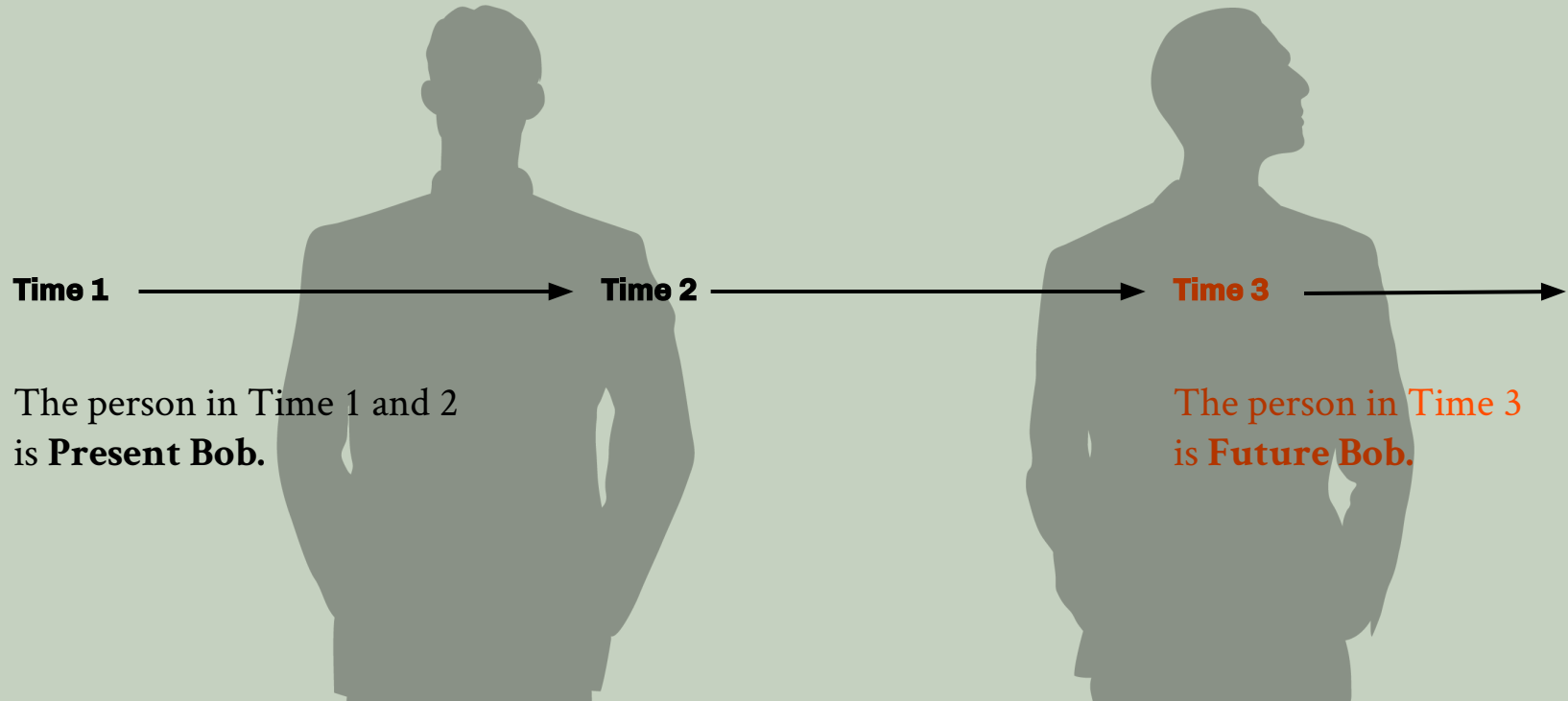
**The beginning of the process** Bob begins the search for a home.

**The purchase decision** Bob and his wife decide to purchase a conventional house.

**Five or ten years later** Bob and his wife think about the implications of that decision.



# PRESENT BOB VERSUS FUTURE BOB



# ABOUT FUTURE BOB

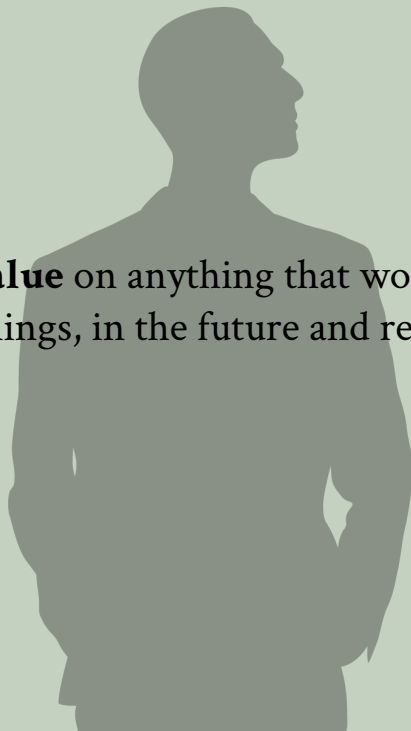
He's paid heating and cooling bills **month after month**.

He's filled humidifiers up at the sink **countless times**, broken them, cleaned them.

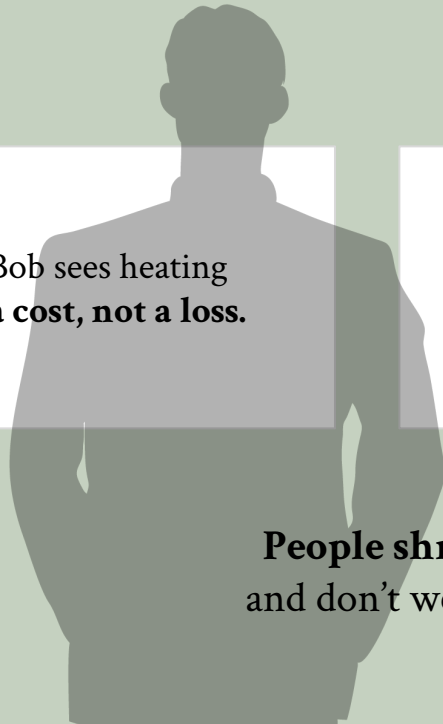
He places a **high value** on anything that would allow him to escape these things, in the future and retroactively.

**He's starting to think** about how much savings he has in the bank and what kind of security it gives him.

His daughter has asthma and he's watched what happens to her when her conditions are aggravated, the mediations, the lack of sleep.



# ABOUT PRESENT BOB



Present Bob sees heating bills as a cost, **not a loss.**

For Future Bob the value of not paying past and future heating bills is high.

For Present Bob the value of not paying heating bills is low.

**People shrug off costs.** We underestimate them and don't weigh them very heavily in our decisions.



# REWARDS IN THE FUTURE VERSUS REWARDS NOW

One of the reasons for the difference in perception is **future discounting**.

**REWARDS NOW!**



This is **the bias people have** in favor of immediate rewards over distant ones.





# A SUITCASE FULL OF CASH

So how significant is Present Bob's **distortion of reality**?

Imagine someone giving you **\$100,000**—the money now belongs to you—but then a day or two later someone else taking it from you.



What is **your degree of unhappiness** from 1 to 10, with 10 being the most unhappy?

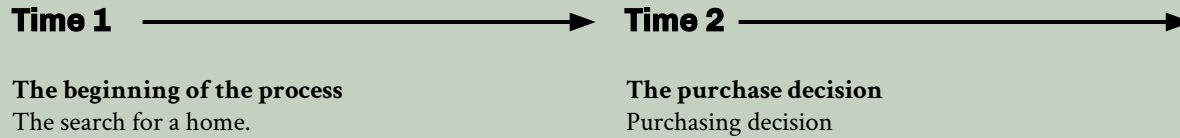
And **how long** with this event stay in your memory? Weeks? Years? All of your life?



**SO IS THERE  
ANYTHING WE CAN DO?**

# BETWEEN TIME 1 & 2

The period between Time 1 and Time 2  
point to a number of opportunities.



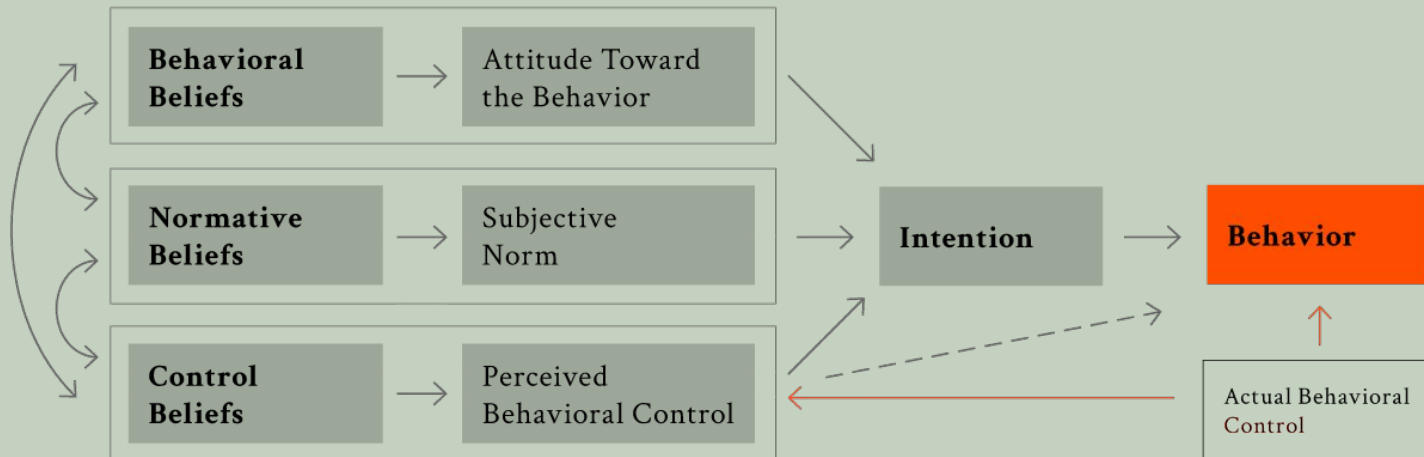
**A decision is not a flash** but a more like a train that follows a track and is diverted one way or another by switches along the way. Looking at those tracks and the switches along the way will show us what we need to do.



# BEHAVIOR IS PREDICTABLE

The reason we use any model is because it is predictive.

**The Theory Of Planned Behavior** is an evidence-based theory designed to predict if an individual will perform a certain behavior. It also can be used to develop mechanisms to elicit a certain behavior.



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# KNOWLEDGE ≠ BEHAVIOR

It's not enough to give people information.

BEHAVIOR	Information Only Group	Intervention Group	Difference In Impact
Hospital hand washing	9%	90%	<b>10X</b>
Testicular self exam	23%	42%	<b>2X</b>
Smoking cessation	5%	15%	<b>3X</b>



# A SMALL NUMBER OF BEHAVIORS ARE PROPPING UP THE MARKET FOR CONVENTIONAL BUILDINGS

There are a limited number of behaviors and perceptions that are responsible for people's tolerance for the risks and costs of conventional buildings.

By targeting a number of behaviors we can

**ONE**

Increase the perceived costs of conventional construction

**TWO**

increase the perceived value of the attributes of passive buildings.



# CHANGE OCCURS WHEN WE GET TO 7S & 8S

## SURVEY

*When buying a home,  
how important is **indoor  
air quality** ?*

## SURVEY

*When buying a home, how  
important is it for the house to  
**not need a furnace** to heat the  
home?*

If we can change people's answers from 2s and 3s to 7s, 8s and 9s  
we'll get a **market transformation**.



# PEOPLE WHO SEE A PASSIVE HOUSE AS BEING AN ORDER OF MAGNITUDE BETTER

An expecting mother **signs a pledge** to do what she can to protect her child from indoor air pollutants.

A home buyer who feels the windowsill and an interior wall to see if they are the same temperature as they tour a home that's on the market.

A person **makes a goal** to save \$100,000 over the next 10 years before they start to look for a home





# WHO IS ON THE OTHER SIDE OF THE TABLE?

We often imagine people to be fully rational beings capable of doing an effective cost benefit analysis when making important decisions.

What should  
I say to my prospects?

How much time  
should I spend with  
this prospect?



**IN SUMMARY**

# DON'T WAIT FOR THE MARKET

## **Biases and behavior**

can cause people to undervalue the attributes of a passive building

## **Eliciting certain**

**behaviors** can cause people to place a higher value on those attributes

Increasing how people the value of the attributes is one of the most important things we can do

Reducing costs is important but will not result in full adoption



# THIS ISN'T MY THING

A thought experiment...

**REGRET**



**WHAT HAPPENED**



The distance between

**THE IMAGINED ALTERNATIVE**



**ERASE40.ORG**

# ERASE40.ORG

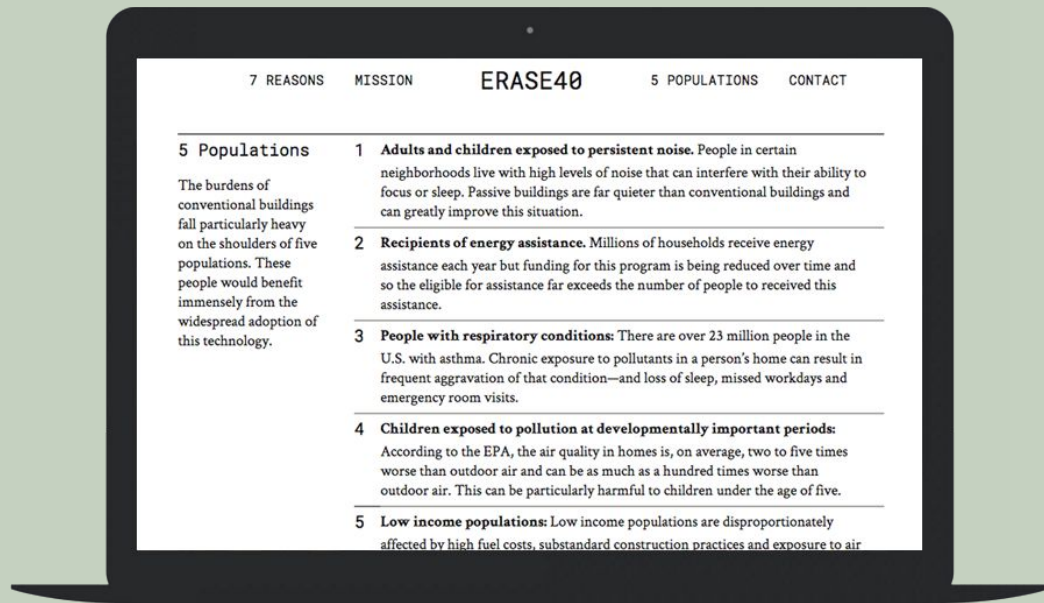
The purpose of Erase40 is to

**DRIVE** demand for passive buildings.

**DELIVER** to architects ready passive buyers and funders

**ELICIT** the behaviors the correspond to highly valuing the attribute of passive buildings

**INCREASE** the number of segments who seek out the services of architects



**LOOKING AT THE CLIENT'S DECISION-MAKING PROCESS FOR CLUES ABOUT THE MARKET**



# **BIG YELLOW CAB & ERASE 40.ORG**

## **JAMES GEPPNER**

Big Yellow Cab/ Erase40

Over the last year he conducted an analysis of the market for passive buildings and studied the client decision-making process in order to find clues as to how to increase the size of the market and how to best address the barriers to full market adoption of passive technology.

Following his years in Project Finance, where he evaluated companies and studied markets, he has applied social science (and competitive theory) to a range of issues in order to see what's shaping a market, a cause or a behavior. He founded Big Yellow Cab in order to apply social science research and the procedures of behavior change to social and environmental issues.

**[james@bigyellowcab.com](mailto:james@bigyellowcab.com)**

917-803-3888

## **SHARI SHORT**

Big Yellow Cab

A developmental psychologist, Ms. Short has researched decision-making and behaviors in fields including health care, museum administration, tourism, higher education and finance. With more than 20 years of experience in behavior change, research and planning, Ms. Short has held positions with the National Cancer Institute, Centers for Disease Control, Virginia Department of Health and Aloysius Butler and Clark. Shari received her M.A. in developmental psychology from Columbia University Teachers College.

**[shari@bigyellowcab.com](mailto:shari@bigyellowcab.com)**

## **SUZANNE TIMMER**

Erase40

Suzanne brings over 20 years of fundraising, program development, external relations, partnership building and marketing/communications experience to Erase 40. Suzanne has worked for and consulted to a variety of organizations including Brown and Columbia Universities, the second lowest performing health care system in NYS, higher education in prison, the creation of high schools for recently arrived English language learners, a sustainable agriculture movement, a land trust and as head of a recreation department. Her most recent venture involves growing a passive house/net zero pre-fabricated panelized housing initiative in collaboration with a builder previously focused on historic restoration and high energy efficient new construction.

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