Behavior-Centered Design

A USER'S JOURNEY & WORKBOOK



WELCOME!

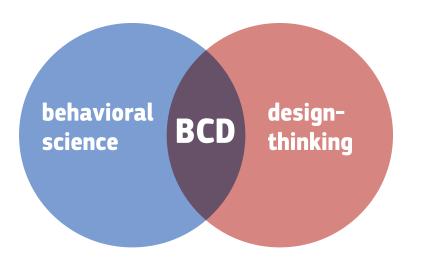
Welcome to Rare's Behavior-Centered Design (BCD) guide and workbook for environmental practitioners. We believe that to achieve desired results, we need to better understand people and their behavior. We've compiled a series of steps that will help you apply behavioral science, create innovative solutions, and motivate change among the people and in the places you care about the most. We've designed this guide to serve as a reference point as you travel through your BCD journey. We know that choosing to put behavior front and center in your work is difficult and rewarding. We hope you'll notice the difference in the results.

Good luck!

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What is Behavior-Centered Design (BCD)?

Behavior-Centered Design (BCD) is an approach that blends insights, methods, and tools from behavioral science and design thinking to build breakthrough solutions to environmental challenges.



Starting Your Journey

HOW TO USE THIS GUIDE

Assess your starting point

We've designed a checklist on page 7 with the BCD steps and outcomes to help you decide where is best to begin.

Follow the steps

For each step, we describe the main goal (what), importance (why), example activities (tools), and indicators of when to move to the next step.

Use the tools

Each step is paired with a list of example activities and tools to help you complete your journey.

Take your time!

We understand that you may have time constraints and encourage you to fully complete and reflect on each step before moving to the next.

Want more?

Visit our website, <u>behavior.rare.org</u>, for additional resources on Behavior-Centered Design.

Levers of Behavior Change

There are many ways of understanding the motivations and barriers to behavior change. Rare's Center for Behavior & the Environment has a behavior change framework that is comprised of six behavioral levers. Each lever represents a category of intervention strategies based on evidence-based principles and case studies from behavioral and social science. The levers are discrete and able to be pulled in different combinations for different effects. You'll find more details in the Appendix.



MATERIAL INCENTIVES:

Increasing or decreasing costs, time, or effort for doing a behavior

CHOICE ARCHITECTURE:

Changing the context in which choices are made

RULES & REGULATIONS: Enacting rules that promote or restrict a behavior

SOCIAL INFLUENCES:

Leveraging the behavior, beliefs, and expectations of others

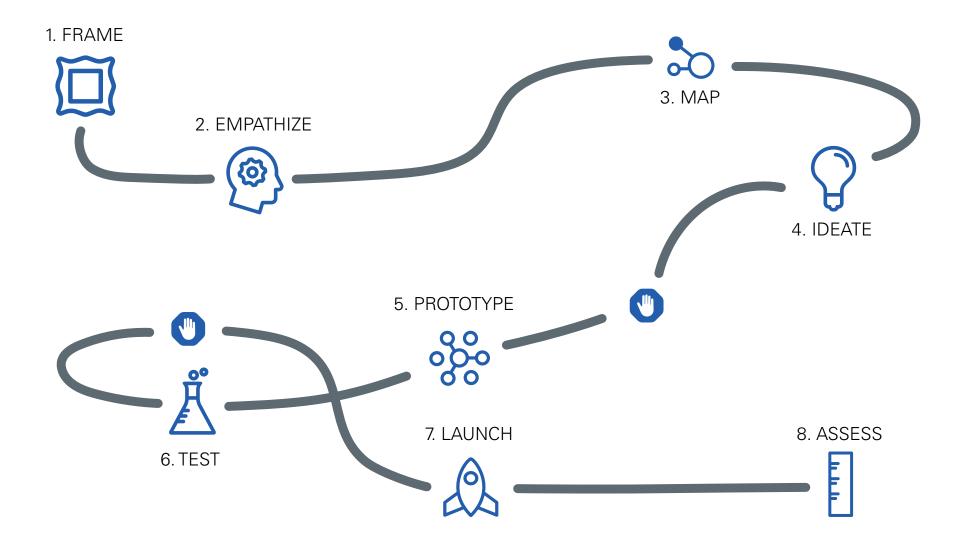
INFORMATION:

Providing information about what the desired behavior is, why it matters, and how to do it

EMOTIONAL APPEALS:

Using emotional messages to drive behavior

The Behavior-Centered Design Journey



Where to Begin?

BCD STEPS AND OUTCOMES

1. Frame

I have identified my target behavior and target audience within a larger context.

2. Empathize

I have collected data about my target audience's motivations, barriers, and context for the target behavior.

3. Map

I have developed a hypothesis about what motivates my target audience to do the target behavior.

4. Ideate

I have created a prioritized list of solutions for my target behavior.

5. Prototype

I have made a prototype with the essential features of my behavioral solution.

6. Test

I have tested my prototyped solution and incorporated feedback from my target audience.

7. Launch

I can describe how, when, and where I launched my solution at scale.

8. Assess

I have results from my intervention and a plan to monitor behavior change over time or ideas for enhancing my solution.

step 1: **Frame**

What:

Identify the actors, behaviors, and context for your environmental challenge.

Why?

To focus your efforts on behaviors and audiences that will have a meaningful impact on your environmental goals.

Tools:

- Problem-behavior-actor mapping
- Stakeholder mapping
- Community walks

When to move to the next step:

You have clearly defined a target or desired behavior and a target audience within a greater context.



The environmental problem I'm trying to solve is: _____ *Ex: Ocean plastic pollution*

Use the space below to frame the problem and identify key actors and behaviors. Moving from left to right, 1) State <u>what</u> the problem is. 2) Identify actors <u>who</u> are responsible for this problem. 3) List the behaviors of <u>what</u> these actors are doing/not doing now that contributes to the problem. 4) Identify the desired/target behavior of what you want them to do.

What is the problem?	Who is contributing (who are the actors)?	What are they doing or not doing now?	What do you want them to do?
	Households	Buying single-use plastic items	Buying reusable items
		Using single-use plastic bags when shopping	Using reusable bags when shopping*
Ocean plastic pollution Businesses		Throwing away plastic in the trash	Recycling plastic
	Businesses	Selling products in individually- wrapped packaging	Selling products in bulk or no-waste packaging
	Industrial fishers	Dumping plastic waste in the ocean	Recycling plastic waste on shore



The environmental problem I'm trying to solve is: _____

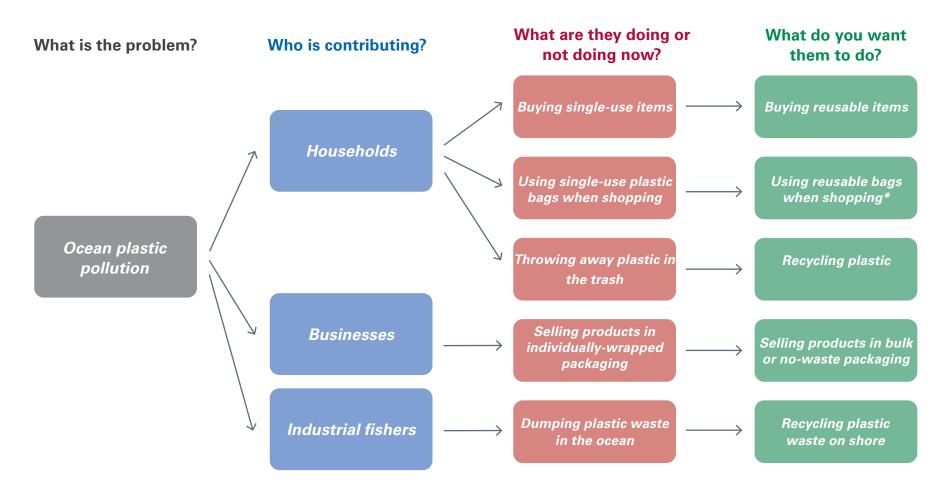
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What is the problem?	Who is contributing (who are the actors)?	What are they doing or not doing now?	What do you want them to do?



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What is the problem?

Who is contributing?

What are they doing?

What do you want them to do?

STEP 2: Empathize



What:

Collect data about the target audience for the target behavior.

Why?

Successful solutions depend on your ability to understand the motivations, barriers, and context for people's behavior.

Tools:

- Behavioral journeys
- Participant observation
- Interviews and focus groups
- Surveys
- Participatory photography

When to move to the next step:

You have collected data on your target audience's motivations, barriers, and context for the target behavior.



Interview

Record insights about your target audience's behavioral barriers and motivations below. See if you can answer the following:

- 1. What are this person's values, goals, concerns, interests? What emotions are related to this behavior?
- 2. Who matters to this person? With whom do they interact for this behavior? Which social groups or identities are important?
- 3. How is this person affected by cost and/or convenience?
- 4. What does this person know about the behavior? Why it matters? How to do it?

Examples:

- Likes to use plastic bags from stores as trash bags and does not want to keep track of other bags while shopping
- Believes that friends, family, and other shoppers are using reusable bags while shopping



Observation

Use this sheet to capture as many observations as possible from your trip to the field. Draw and/or take pictures of what you see.

With whom are people interacting as they make decisions about this behavior? (Ex: Other shoppers, store employees)

What information is available or not available about the behavior? (Ex: Signs at store registers about bringing your own bag)

What are the steps a person goes through in order to do this behavior? What is the context of choices for this behavior? *(Ex: Keeps reusable bags by the front door as a reminder when going shopping)*

STEP 3: Map

What:

Draw causal links between your data and behavioral insights.

Why?

Analyzing your data with a behavioral lens will lead to more effective solutions.

Tools:

- Consensus
 workshops
- Data analysis
- Writing hypotheses
- Audience personas

When to move to the next step:

You have written at least one hypothesis about what motivates your target audience to do the target behavior.



DOERS: What motivations and/or barriers are influential for the people who are **already doing the target behavior**? Reflect on unique patterns of behavior you noticed, important cues in the environment, or things that people said or emphasized. Record and categorize those factors in the space below.

Emotional Appeals

What are this person's values, goals, concerns, interests? What emotions are important?

Ex: Cares about the environment and reducing waste

Social Influences

Who matters to this person? With whom do they interact for this behavior? Which social groups or identities are important?

Ex: Believes that friends, family, and other shoppers are using reusable bags while shopping

Material Incentives

How is this person affected by cost and/or convenience?

Ex: Has benefited from reusable bag credits at the store

Choice Architecture

What is the context of choices for this behavior (e.g., something is the default, more visible, prompted, described more simply)?

Ex: Keeps reusable bags by the front door as a reminder when going shopping

Rules & Regulations

What regulations (mandates/prohibitions) are in place for this behavior?

Ex: Aware that some stores have banned plastic bag use

Information

What does this person know about the behavior? Why it matters? How to do it?

Ex: Knows that using reusable bags reduces plastic bag waste



NON-DOERS: What motivations and/or barriers are influential for your target audience of people **NOT doing the target behavior?** Reflect on differences you observed between groups, unique patterns of behavior you noticed, important cues in the environment, or things that people said or emphasized. Record and categorize those factors in the space below.

Emotional Appeals

What are this person's values, goals, concerns, interests? What emotions are important?

Ex: Most concerned about buying family-favorite food and items when shopping

Social Influences

Who matters to this person? With whom do they interact for this behavior? Which social groups or identities are important?

Ex: Does not notice a lot of other people using reusable bags when shopping

Material Incentives

How is this person affected by cost and/or convenience?

Ex: Likes to use plastic bags from stores as trash bags and does not want to keep track of other bags while shopping

Choice Architecture

What is the context of choices for this behavior (e.g., something is the default, more visible, prompted, described more simply)?

Ex: Sometimes has a couple of leftover plastic bags in the car trunk but forgets to bring them

Rules & Regulations

What regulations (mandates/prohibitions) are/ are not in place for this behavior?

Ex: Not aware of any stores that have bans on plastic bag use

Information

What does this person know about the behavior? Why it matters? How to do it?

Ex: Thinks that plastic bags are recyclable



1.

Based on the differences between doers and non-doers, write some hypotheses about what motivations or barriers you could change to influence your target audience to do the target behavior. Then, identify the lever(s) and behavioral principle(s) that could be useful. Hint: The Appendix at the end of this workbook may be helpful here!

Ex: If I change the belief that other people shop with reusable bags then I expect a change in bringing reusable bags when shopping among households.

Which levers(s) could be	e useful (check below)?	Which behavioral principle(s) could help to change behavior?	
🌸 Emotional Appeals	Haterial Incentives	Make engaging in the desired behavior observable	
Social Influences	ntering Rules and Regulations	Make the desired behavior the perceived norm	
☆ Choice Architecture	Information		
1. If I change	[motivation/barrie	er]	
then I expect a change in r	ny target behavior among my targe	t audience.	
Which levers(s) could be	e useful (check below)?	Which behavioral principle(s) could help to change behavior?	
🞲 Emotional Appeals	Haterial Incentives		
Social Influences	dimensional Regulations		
Choice Architecture	Information		
2. If I change	[motivation/barrie	er]	
then I expect a change in my target behavior among my target audience.			
Which levers(s) could be useful (check below)?		Which behavioral principle(s) could help to change behavior?	
structional Appeals	Haterial Incentives		
Social Influences	Rules and Regulations		
+ Choice Architecture	Information		



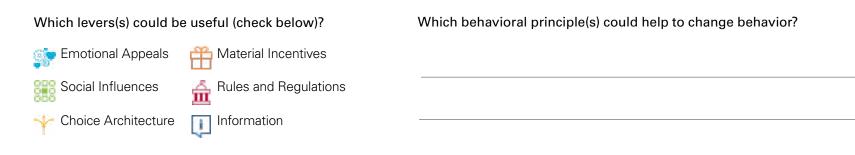
3. If I change _____ then I expect a change in my target behavior among my target audience. Which behavioral principle(s) could help to change behavior? Which levers(s) could be useful (check below)? Emotional Appeals Aterial Incentives 撞 Rules and Regulations Social Influences Choice Architecture Information 1 If I change _____ 4. then I expect a change in my target behavior among my target audience. Which levers(s) could be useful (check below)? Which behavioral principle(s) could help to change behavior?

stational Appeals	Haterial Incentives	
Social Influences	Rules and Regulations	
Choice Architecture	Information -	

5. If I change _____

[motivation/barrie

then I expect a change in my target behavior among my target audience.



step 4: **Ideate**



What:

Brainstorm, combine, and prioritize solution ideas

Why?

Expanding the realm of possible ideas will help you think more creatively.

Tools:

• Brainstorming

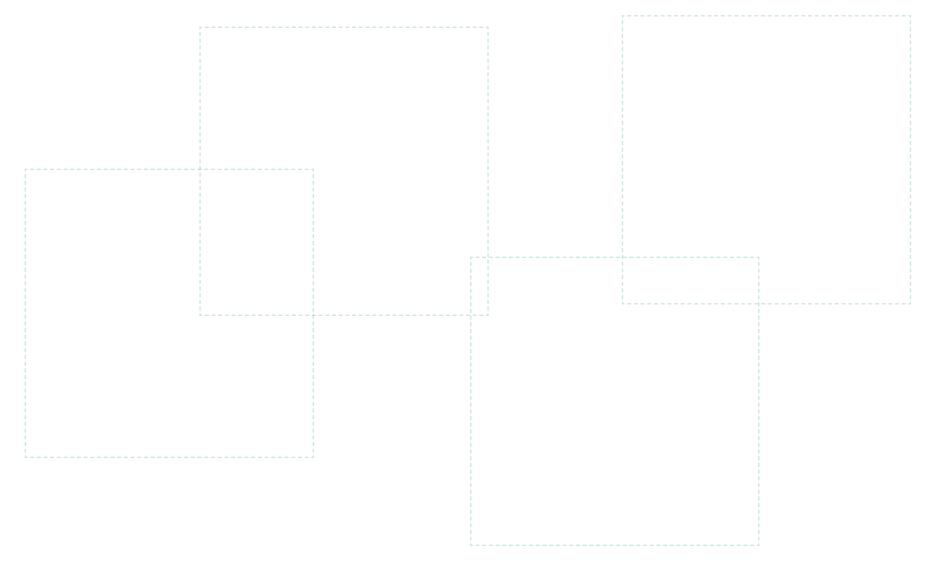
• Playing a solutions game

When to move to the next step:

You have a prioritized list of solutions related to your target behavior.



Free brainstorm! Take a moment to write down ideas that come to mind based on the insights you have gathered. Focus on quantity of ideas, not quality (try not to limit or judge what's possible). Post sticky notes here or write in the space below.





Choose a motivation or barrier you want to change based on the hypotheses you developed in Map.	Choose a behavioral principle based on the behavior lever that could be useful for changing behavior.	Choose a behavioral strategy based on the principle you chose that you want to apply.
<i>Ex:</i> Belief that other people shop with reusable bags	Ex: Make engaging in the desired behavior observable	Ex: Provide a way for people to show they are doing the desired behavior
1.		
2.		
3.		
		22



Now, using the strategies you chose, **brainstorm (draw! write!)** how you might apply each strategy to your specific behavior. *Ex: Provide a way for people to show they are doing the desired behavior --> Create a separate checkout line for people who have reusable bags*

1.

PAUSE

Before moving on to Prototype, reflect on whether your solution ideas align with what you learned about your audience in Steps 1-3.

STEP 5: Prototype

What:

Develop a prototype (small-scale version) that captures your solution's essential features.

Why?

Prototypes help you make your idea tangible without investing considerable resources that you can test.

Tools:

- Prototyping competitions
- Designing a low-cost user experience
- Drawing
- Modeling

When to move to the next step:

You have a prototype with the essential features of your solution.



A prototype is a small-scale version of your solution idea that captures its essential features. It is something that you could test with your target audience.

Describe your prototype.

What is it (e.g., an object, an experience, an activity)? *Ex: A designated checkout line for grocery store shoppers who bring reusable bags*

List your assumptions to test and how you'll validate them.

What do you want to learn through testing your prototype? Based on your hypotheses and solutions from the Map and Ideate steps, list the assumptions that are crucial for this solution to be effective in creating behavior change.

Assumption Ex: People with reusable bags will use the designated line more than other lines	What to look for while testing Ex: Proportion of people in regular vs. designated lines
1.	
2.	
3.	

Prototype

Now, it's time to think through how you will bring this idea to life. You might consider:

- Where and when will it take place?
- Who will implement it? Are there different roles?
- Who will receive/experience it?
- What objects or props will you need?
- What are the steps from start to finish?
- What do you want people to feel or do as a result of receiving/experiencing it?

Draw, write about, or build a small-scale version of your solution. Get creative and imagine your idea on and off the page using the materials provided.

STEP 6: **Test**



What:

Test your prototype and make revisions. You might need to do this more than once!

Why?

It's important to validate or invalidate your hypotheses about what motivates behavior and gain feedback to improve your solution.

Tools:

 Conducting focus groups/simulations with your target audience

When to move to the next step:

You have tested your prototype and incorporated feedback from your target audience.



When testing your prototype, it's helpful to get specific feedback about what's working and not working about your idea.

Here are some questions you might consider when asking for feedback and/or doing observation:

- Comprehension: Is your solution easy or intuitive to understand? (Ex: Was it easy to understand there was a different line for people with reusable bags and where to go?)
- Attention-Getting: Does your solution draw attention or interest? (*Ex: Do people see the designated line right away? What do they notice about it?*)
- Attractiveness: What do people like or not like about your solution? (*Ex:* What do people like about the designated line? What do they not like about it?)
- Relevancy: To whom does the solution seem to appeal most and least? (*Ex: Who are the people that use or do not use the line and why?*)
- Believability and Credibility: Who do people think developed this solution and why? (*Ex: Who do people think came up with the idea for this designated line and the motivations behind it?*)
- Acceptability: How do people feel about your solution? (Ex: How do people who have reusable bags feel about the designated line? How do those with single-use bags feel?)
- Persuasiveness: What is convincing or persuasive about your solution? (*Ex: Why are people saying they used the designated line or not?*)
- Usefulness: What information does your solution provide? (Ex: What do people learn as a result of there being a designated line?)



Now, think about the assumptions you wanted to test and reflect on what you learned. What changes would you make?

Prototyped solution: _____

What did you learn about your assumptions for your prototype based on your test experience?

Assumption Ex: People with reusable bags will use the designated line more than other lines	Result (What happened?) <i>Ex: People with reusable bags used the designated 20% more than other lines</i>

What else did you observe, hear, or feel while testing? What might you change or revise about your prototype?

PAUSE

Before moving on to Launch, reflect on whether your prototype is ready to go to scale based on what you learned in the Test step. Does it show signs of success? You might need to conduct a few tests before moving on.

step 7: Launch



What:

Plan and launch your solution at scale.

Why?

See how your solution performs in the real world.

Tools:

- Completing an assessment plan
- Completing a launch plan and budget
- Planning interventions at scale

When to move to the next step:

You can describe how, when, and where you launched your solution at scale.



Ready for take-off? **Record the details** of your launch plan in the space below.

The basics: Where will it be? (Ex: Grocery store)	Measuring behavior change: Identify a control condition or pre- intervention stage as well as an experimental condition or post- intervention stage.
	Control condition or 'pre-intervention' stage: <i>Ex: % people using reusable bags during two weeks without any changes to line</i>
When will it be: day(s)/time(s)? (Ex: Business hours for 2 weeks)	designations at the store
Who will implement it? (Ex: Grocery store staff/management)	
Who will receive/experience it? (Ex: Grocery store customers)	Experimental condition or 'post-intervention' stage:
What materials are needed? (Ex: Signage)	Ex: % people using reusable bags during two weeks with designated checkour line at the store
How much will it cost? (Ex: \$50 USD)	



Now, use the space below to **draw a timeline** of your launch plan and the key steps along the way. Remember to record your different conditions and/or when you are starting and stopping measurement.

STEP 8:

What:

Measure the impact of your solution and monitor change over time.

Why?

Observe if behavior change is happening and to what degree.

Tools:

- Conducting postintervention surveys and interviews
- Reflecting on and sharing what you learned

When you have completed this step:

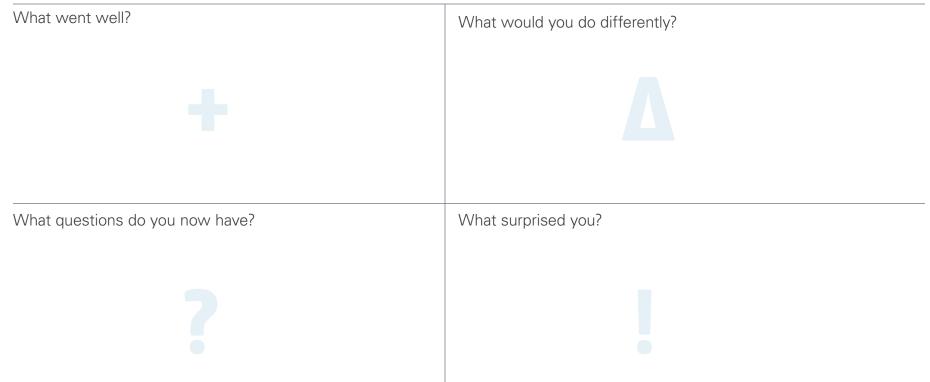
You have results from your intervention and plans to monitor change over time or ideas for how to enhance your solution.



Record the results from your solution launch as well as reflections on the experience below.

Results: Control/Pre-intervention *Ex: 25% people using reusable bags in the store* Experiment/Post-intervention Ex: 40% people using reusable bags in the store

Reflections



You Did It! What Now?

Congratulations! You have worked hard to get to this point, so take a moment to celebrate all that you have accomplished. Of course, the real goal of behavior change is not just seeing behavior adoption now or as a result of your intervention, but seeing adoption that lasts into the future.

Your task now is to continue to monitor your efforts and tweak it as new conditions arise:

- How is the community changing?
- What new barriers or opportunities are present?
- Can adopting your target behavior lead to new desired behaviors?
- How might you need to adapt your solution as more and more people adopt the target behavior?
- Are there BCD steps you might repeat in order to improve your solution?

We hope your BCD journey does not stop here and offers you the chance to make your current and future interventions even better.

Appendix

ABOUT THE FRAMEWORK

For decades, the traditional environmental toolkit has consisted of these common levers to change behavior: information, rules and regulations, and material incentives.

These levers can be effective. But information does not necessarily lead to action, incentives can backfire or send the wrong message, and rules can be difficult to enforce. Research from behavioral science tells us about other powerful insights that could drive behavior change. For example, people make decisions based on their emotions, what other people are doing and expecting them to do, and how we structure the context for decision-making.

By expanding the toolkit with additional levers, we can design solutions that reflect people's full range of behavioral motivations. These include emotional appeals, social influences, and choice architecture. Read about each of the levers here as well as principles and strategies for applying them.

Learn more at behavior.rare.org.

INFORMATION

Providing information about what the desired behavior is, why it matters, and how to do it

Provide step-by-step instructions

- Offer training on the desired behavior
- Provide materials that give instructions on how to do the desired behavior

Build awareness and understanding

- Provide informational forums, meetings, or materials that describe the desired behavior and its importance
- Communicate about the desired behavior in a clear, concrete, and unambiguous way
- Give feedback on performing the desired behavior

企 RULES & REGULATIONS

Enacting rules that promote restrict a behavior

Mandate behavior

• Enact mandates that require or encourage the desired behavior

Prohibit behavior

• Enact prohibitions that limit or forbid the undesired behavior

HATERIAL INCENTIVES

Increasing or decreasing real or perceived costs, time, or effort for doing a behavior

Make it easy or the alternative hard

- Make the desired behavior more convenient and accessible to do (e.g., remove barriers, provide substitutes)
- Make the undesired behavior more difficult to do (e.g., create friction points, barriers)

Give rewards or penalties

- Incentivize or reinforce the desired behavior
- Penalize or fine for cases of the undesired behavior

EMOTIONAL APPEALS

Using emotional messages to drive behavior

Leverage emotions

• Tap into core emotions that drive specific actions or outcomes important for the desired behavior

Personalize the message

- Put a human face on campaigns and focus on a single story over abstract statistics
- Tailor messages to make them personally relevant, relatable, and appealing

SOCIAL INFLUENCES

Leveraging the behavior, beliefs, and expectations of others

Make engaging or not engaging in the desired behavior observable

- Publicly broadcast who has and has not engaged in the desired behavior
- Provide a way for people to show they are doing the desired behavior

Make the desired behavior the perceived norm

- Highlight possibility of social sanctions for doing the undesired behavior
- Share that people are currently doing the desired behavior
- Create conversation around shared beliefs and expectations
- Promote cases of success with the desired behavior
- Leverage credible and trusted messengers doing the desired behavior
- Facilitate peer or community exchanges where others can observe and gain support for the desired behavior

Eliminate excuses for not engaging in the behavior

- Encourage public commitments or pledges to drive the desired behavior
- Provide visible indicators that signal support for the desired behavior (e.g., hats, badges)

CHOICE ARCHITECTURE

Changing the context in which choices are made

Direct attention

- Make the desired behavior the default option
- Draw attention to the desired behavior by making it salient

Simplify messages and decisions

- Streamline complex decisions to focus on key information or actions
- Provide shortcuts for a behavior with many steps or options

Use timely moments and prompts

- Target moments of transition and habit formation
- Provide prompts and reminders about the desired behavior

Facilitate planning and goal setting

- Provide support in making a plan to achieve the desired behavior
- Use commitments to bind or limit future decisions







Rare inspires change so people and nature thrive

Learn more at <u>behavior.rare.org</u> and follow us @Rare_org

