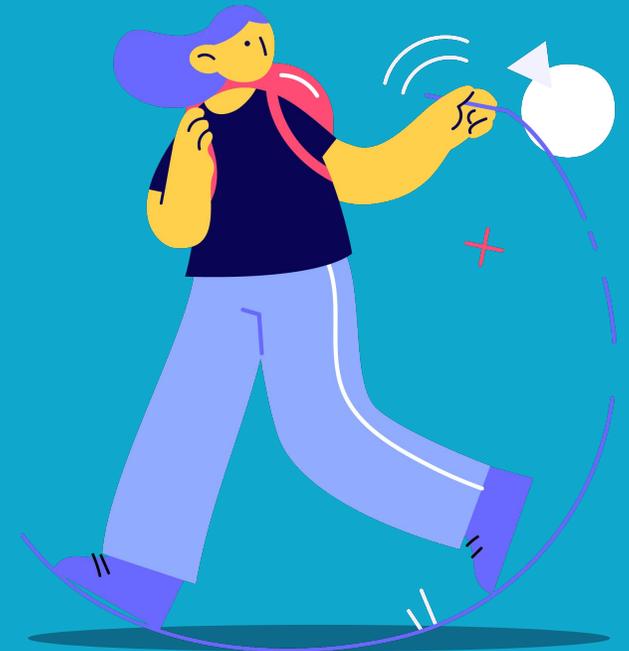




Dalberg Design

HCD & Behavioral Science
Integration Primer

May 2020





01

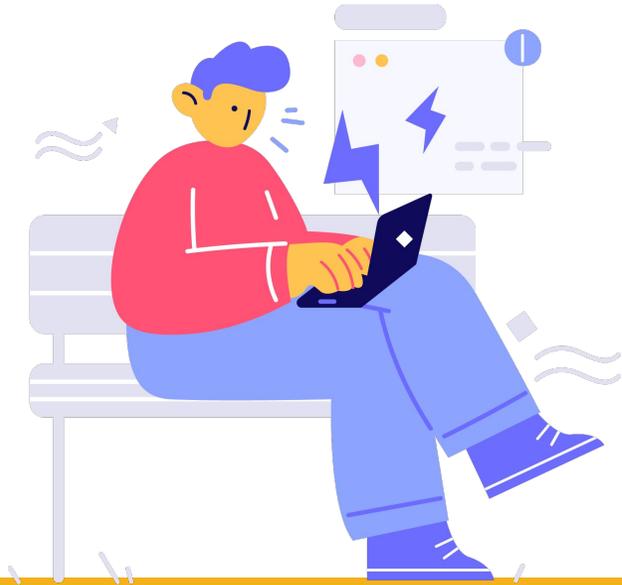
Behavioral Science &
Human Centered Design

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How do we integrate Behavioral
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01 Behavioral Science & Human Centered Design

What is Behavioral Science, and how does it work?

Behavioral Science is a scientific study of human behaviour that draws on academic research in cognitive neuroscience, psychology and behavioral economics.

BSci is rigorous: It offers empirical insights into how people interact with the environment based on subconscious and automatic processes in brain and behaviour, rather than subjective insights into how we think individuals interact.

BSci is robust: It relies heavily on measurement and evaluation techniques such as randomized control trials to determine whether a solution works in the long-term.

BSci tries very hard to control for bias: Through rigid quantitative experimental test - in either a lab or a real-world setting (often called “experimental design”) - BSci attempts to avoid the limitations of qualitative research, such as social desirability bias where people feel compelled to give the “right answer” or embarrassed to answer certain questions.

BSci seeks to understand and shape people’s individual behaviors: BSci isolates specific behavioral problems and grounds its diagnostic approach in academic theory and scientific

evidence. As a result, practitioners believe their solutions are less likely to fail at the last mile due to specific behaviors or the gap between people’s intentions and actions.

BSci is a hot topic in development and impact: Practitioners are using BSci for product design, policy and organizational work. However, few organizations have successfully deployed Behavioral Science as a systematic process.

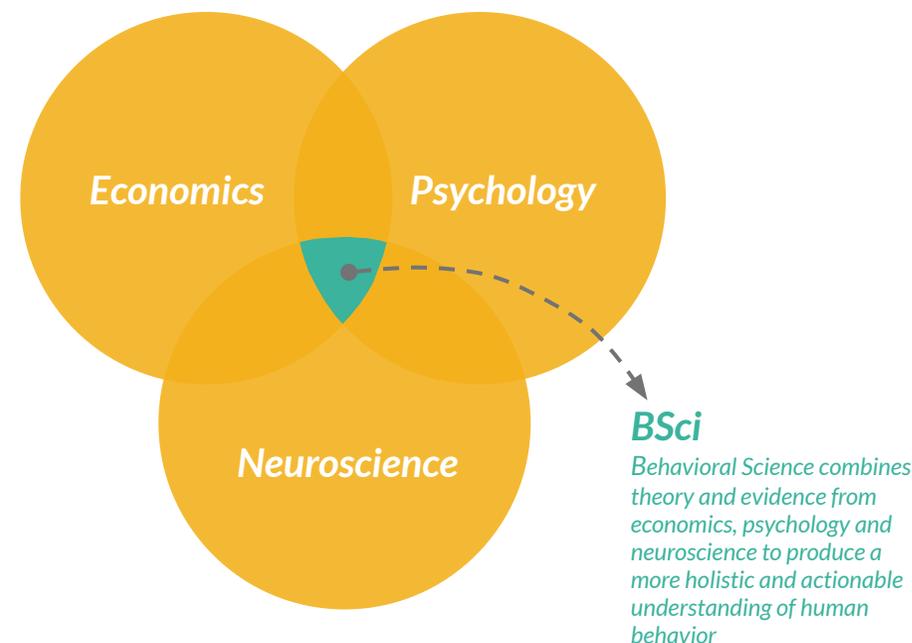
HCD differs from BSci in a number of ways:

HCD looks at people and design holistically, rather than through isolated behaviors.

HCD does not often ground insight or design in academic theories and frameworks.

HCD does not frame behaviors simply as “problems”, but also looks at them neutrally and as opportunities

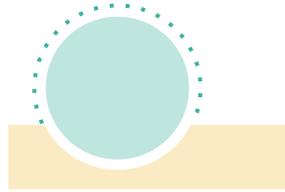
HCD seeks to meet people where they’re at, minimizing need for behavior change; it rarely seeks to nudge but sometimes seeks to transform systems and behavior.



Why integrate BSCI and HCD in one approach?

At Dalberg, we seek to drive positive change in underserved communities by working with, not for people. We use human centred design methodologies to tap into this creative potential and shift the mindset of decision makers to the day to day experiences of the communities we serve. As we are driven by a strong desire to continually experiment and evolve, we integrate best practices from synergistic disciplines including strategy, design, data analytics and behavioral science, amongst others. We've found that integrated approaches lead to more innovative and impactful outcomes on the complex challenges and opportunities we work on.

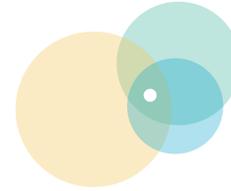
As a part of our commitment to constantly improve, we have integrated behavioral science into our human-centered design (HCD) practice, enabling us to create new approaches, methods, tools, and offerings that enhance the impact of programmes, policies and services and drive social change.



1. Deepen understanding of people's behavior and motivations

Despite people's intentions, people often fail to make choices or take action due to the influence of biases, habits, motivations and norms. An approach that applies insights from scientific frameworks ensures we deepen our understanding of how people actually behave. For example, when addressing a complex challenge, we draw on theoretical frameworks to understand and anticipate the specific psychological drivers that give rise to key behaviours and the barriers that may hinder them.

To supplement this focused approach, we leverage human-centred design methods and tools that dive deeper and tease apart the wider ecosystem in which these drivers operate. This in turn, deepens our understanding of users' perspectives and experiences, and together, provides both a holistic and scientifically-led understanding of human behaviour in action.



2. Inspire design and tie it to specific behaviors, biases, and prior experiments

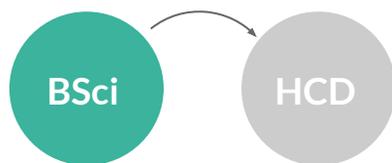
In human-centred design research, we employ a creative and generative perspective to identify new solutions to complex problems. With an integrated approach, we can draw on a deeper understanding of behaviour generated through user research and prior research to ideate rigorous, proven, behaviourally-informed solutions. For example, we build solutions that address pre-identified cognitive biases, behaviours and attitudes, such as nudges that can integrate into specific features, messaging principles or channel strategies. This evidence-based approach adds efficiency in reaching an MVP, and ensures we help our partners have greater confidence in the findings, insights and solution concepts, even if developed with small samples.



3. Rapidly test key components of designs for quick iteration

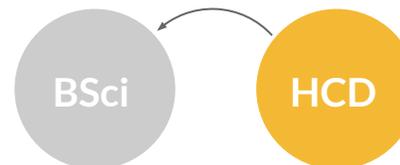
When testing solutions, we strengthen our rapid prototyping methodology by bringing greater focus to the behaviors we are trying to drive with our solutions, such as the attitudes and biases that act as levers and barriers. We can add greater rigour to the testing process by integrating experimental and data-driven approaches such as quantitative surveys and randomised control trials, as well as maintaining the efficiency and agility associated with a human-centred design approach.

BSCI and HCD work better together



What value does Behavioral Science add to HCD?

- Improves the rigour of design research leading to more powerful insights that we can be more confident in
- Inspires creativity and enhances evidence-based confidence in our design outputs
- Extends the design throughout product life-cycle beyond the initial research and design phase to ongoing testing and optimization
- Extends design offering to policy where rigor and measurement are emphasized over agility and iteration
- Improves the measurability and evaluative component of HCD



What value does HCD add to Behavioral Science?

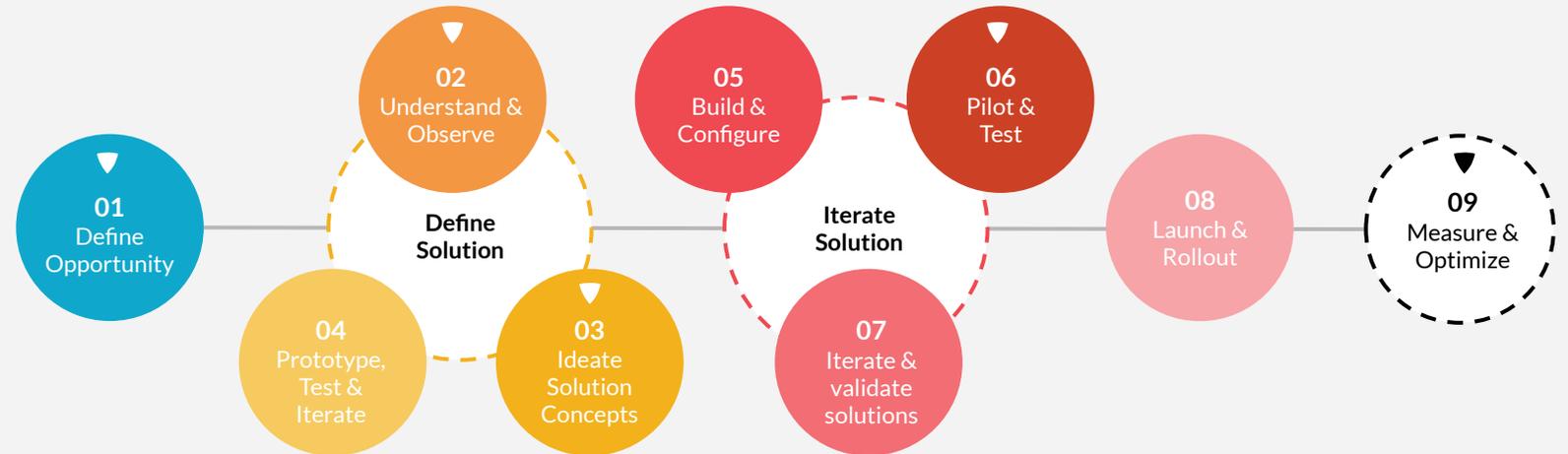
- Adds bespoke tools and methods for user-research that focus on understanding context, behavior and mindsets
- Focuses on developing an in-depth and broader understanding of users context and drivers of their behavior behavior
- Inspires open and creative ideation of solutions
- Designs sustainable user-driven solutions
- Overcomes an over-reliance on prior evidence as a basis to ideate solutions
- Enables rapid prototyping and testing of solutions reducing reliance on long and expensive RCTs



02 How do we integrate Behavioral Science & HCD?

Our integrated HCD & BSci approach to research and design

At Dalberg Design, we use a combined HCD and behavioural sciences approach to balance a generative, creative approach with robust evidence and rigour.



Framing

Research and design

Implementation

Optimization

Design	Assessing and defining the challenge or opportunity from the user's perspective that a client or partner seeks to address or leverage.	Developing an in-depth understanding of people's attitudes, behaviors, needs, desires and aspirations, to inspire and develop innovative design concepts that increase in fidelity as they resonate more with users during testing.	Building an MVP of the product, service, or program to pilot with a subset of end users; based on pilot results, develop and execute a roadmap for full implementation , supporting internal teams and systems, as well as external partners through launch and rollout .	Tracking and evaluating the performance of a product on the the market to identify opportunities for improvement .
BSci	Defining the users' contextual landscape and identifying the challenge/problem as behavioral to a high degree of specificity.	Drawing on scientifically validated theories, biases and effects to carefully diagnose the factors contributing to the challenge , and generating ideas for behaviorally-informed solutions drawing on previous research, hypotheses, and tested solutions.	Testing scalable and concrete solutions through experimental design (survey, randomised control trials) to determine what works best.	Collecting evidence and measuring using rigorous statistical methods to tweak the design and implementation to get better results

Tools & Resources



[Behavioral Science 101 & 201](#)

The Behavioral Science 101 deck provides an intro to BSci and explores the value proposition of an integrating it into an agile human-centered research and design approach. Click [this link](#) to access the Behavioral Science 101 deck.

The Behavioral Science 201 is designed to equip you with the language and a few practical examples of BSci in action. Click [this link](#) to access the Behavioral Science 201 deck.



[HCD & BSci Integration Guide](#)

A guided resource that can help all of us understand, apply and integrate Behavioral Science (BSci) into an agile Human Centered Research and Design (HCD) approach.

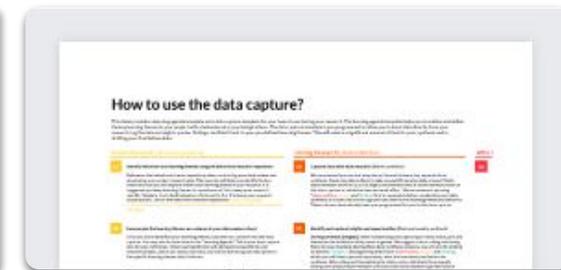
Think of this as a step-by-step guidebook with techniques, processes and tools that can help us bring a stronger behavioral and psychological lens into our Human Centered research and design process.



[Behavioral Repository](#)

A list of behaviors, cognitive biases, nudges, incentives, rewards, etc. to inspire your research design, synthesis, and prototype creation. After the playbook, this is the first step in getting familiar with behavioral theories and approaches.

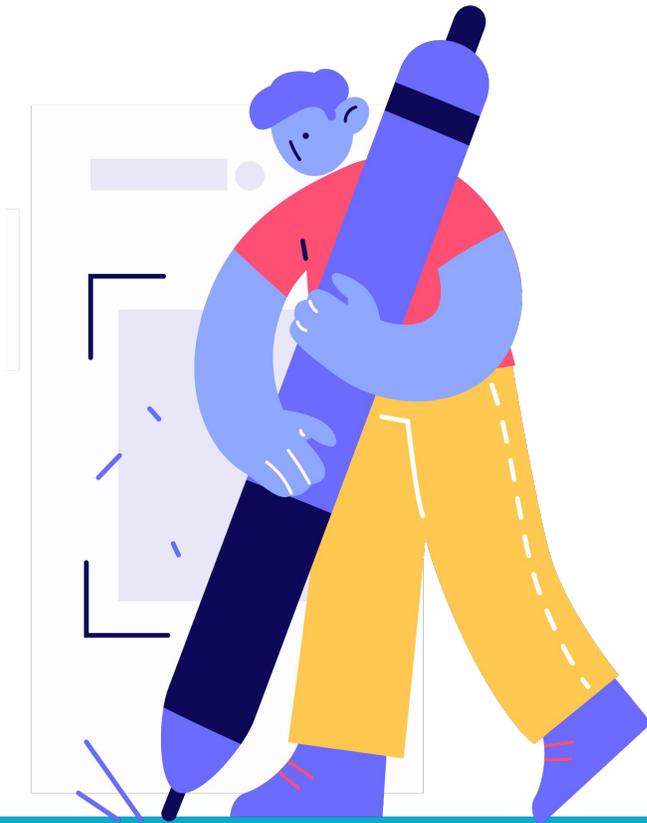
You will find information from prior behavioral research conducted by DD and other practitioners across a number of sectors. However, it is not sector exhaustive, so we hope that as apply BSci to your projects, you can grow this resource for the benefit of the broader DD team. To add to the behavioral library, click [this link](#) and we will organize the information for you.



[Data Capture & Synthesis Tool](#)

A spreadsheet based tool to support teams to capture and tag sufficiently detailed data to inform behavioral design.

The tool has detailed, step-by-step instructions on how to incorporate your project learning themes before research and how to tag your data points during synthesis. After a free flowing ideation session, refer back to the behavioral repository to get a sense of how to enhance some of your ideas using a theoretical lens.



03 Case studies of integrated Behavioral Science and HCD



Halotel Agent Model

Together with Mercy Corps, Halotel and Dalberg Advisors, Dalberg Design used an integrated HCD and strategy approach to support Halotel in enhancing the structure, service, and incentives of their existing agent model.

The goal of this engagement was to support Halotel in its efforts to drive greater adoption and engagement of its mobile money products by rural communities, especially smallholder farmers.

We conducted human-centered design research to generate insights on the needs and pain points of Halotel's agent network and opportunities to drive mobile money transactions across the full smallholder farmer ecosystem. We designed a card sorting research activity to understand what types of incentives/compensation agents valued the most in business/service delivery.

To design this tool we used incentives referenced in the existing scientific literature from the Behavioral Science Repository. We learned that financial incentives are effective but are prone to wearing off. Variable rewards

and non-financial incentives are important to use in combination with traditional incentives.

The goal of this tool was to help us answer: How do we ensure that financial incentives for agents remain durable and continue to motivate them over time? What are other incentives that can motivate agents? We asked participants to sort the cards according to what was most important to them. Cards included tried and tested incentives from research literature from non-financial incentives such as awards and training to variable rewards such as airtime and merchandise.

We also used rapid prototyping focused on lightweight solutions that can be rapidly brought to the market. We identified a series of recommendations that were presented to the client, supported by a financial model tailored to their operational plan.

[Link to final deliverable.](#)





KASH

Together with the Bill & Melinda Gates Foundation and Ashoka Centre of Social and Behavioural Change, and Dalberg Design leveraged [THA](#) segmentation data and human-centered design, Behavioral Science and strategy to design a set of financial products to meet the deeper needs of different types of consumers.

Using the behavioral and psychological segmentation data for India, we developed segment-specific prototypes using Human Centred Design principles and evidence-based and behaviorally-informed nudges.

During the ideation phase, our analysis of the [THA](#) data and behavioral and psychographic insights from the segmentation led us to ideate product concepts.

For example, The team developed a flexible, goal-based savings scheme for a female majority segment. This segment's financial behavior was centered on low, infrequent savings due to reliance on husbands for income, and their psychological profile was characterized by low trust in institutions, low conscientiousness, and low planning ability.

Leveraging these behavioral and psychographic insights, the team designed a prototype of an envelope, goal-based saving scheme delivered by postal agents to incentivize women to build a savings habit. Due to low trust in institutions, the envelope savings scheme operates through the postal agent who is a trusted family authority figure and allows for private doorstep collection. The postal agent collects the envelopes and deposits the money to a bank.

We tested and refined key value propositions, benefit statements and product/service innovation opportunities for target segments of the un/underbanked that are a high priority for each FSP's business. The final prototypes included a goal-based digital savings product, health insurance, and a home business starter kit for women.

[Link to final deliverable](#) | [Case study link](#)

HCD INSIGHT

"If the postman delivers my money from a bank, it's better than me going to the bank. I trust him."

DESIGN FEATURE

Emphasize privacy and build in opportunities with agents perceived as 'safe' by the family





DigiFarm Women

Together with MercyCorps AgriFin Accelerate, the World Bank, and Safaricom, Dalberg Design conducted a behavioral and psychometric segmentation of women farmers in Kenya using data from [THA](#), identified four Kenyan women farmer segments and together with primary research and prototyping sprints, tested and refined targeted savings tools to build into MPESA & DigiFarm.

Our analysis of [THA](#) data allowed us to identify opportunity areas, we tested these in the field and tagged each of our new HCD insights as either cognitive drivers or barriers. This way, we were able to tease apart the behavioral insights from the more contextual insights, narrowing down our focus for ideation.

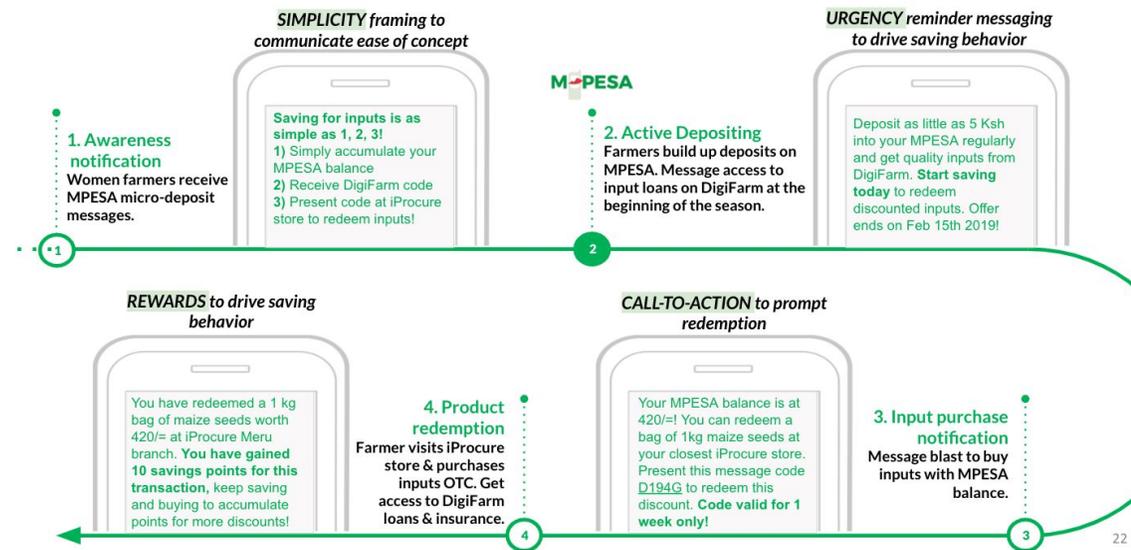
We then drew from the BSci repository, and made linkages between the HCD and relevant theories and applications. This approach led us to a prototype of a layaway savings and top-up loans product that enables women, farmers, to better prepare for the season. It enables them to build investment capital through layaway savings for inputs, while also building and securing top-up credit in case they fall short of their goal.

While we designed the savings feature to appeal to the broadest range of target users possible, we tailored messaging to the unique psychological characteristics of specific segments, and channel strategy to the segments' unique and information seeking and financial management behaviors, thereby maximizing the chances adoption across segments. We also designed behavioral nudges integrated into the features to increase user engagement and improve the chances of successful savings and investment outcomes. By adding these savings features into MPESA and DigiFarm, Safaricom hopes to increase the relevance of their mobile wallets to women farmers and ultimately increase their rates of adoption and use.

[Link to final deliverable](#) | [Case study link](#)



MPESA GENERAL WALLET // USER JOURNEY



Thank you!

For collaboration / information contact

michael.mori@dalberg.com

sharon.njavika@dalberg.com

robert.fabricant@dalberg.com

ravi.chhatpar@dalberg.com