

People experiencing depression are often discouraged from finding a therapist or counselor because of perceived barriers like travel time, social stigma, or difficulty finding a provider. Teletherapy can help to reduce these perceived barriers by

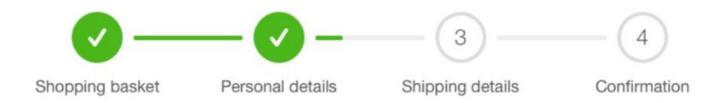
allowing patients to attend therapy sessions at home or in another comfortable environment.

- Identify what perceived barriers might be for different users throughout your desian.
- Provide reassurance for users through messaging and design patterns.
- Incentivize users through gamified patterns like completeness meters.
- Assist or help users by including popovers and clear directions.
 - Do not misinform users by hiding or skewing information.

Health Belief Model

Reduce perceived barriers to encourage engagement

Progress wizards and completeness meters can be used to both reassure and incentivize users as they complete long tasks that could be perceived as a barrier.





This strategy could lead to designers misinforming users by using dark design patterns such as hiding information, using confusing language, and limiting transparency, in order to benefit their own goals.

Author: Rachel Dyer

References

Champion, V. L., & Skinner, C. S. (2008). *The health belief model.* In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behavior and health education: Theory, research, and practice* (p. 45–65). Jossey-Bass.

Image credit. https://dam.northwell.edu/m/1c5305abeafd64ea/Drupal-web_telehealth-

image.ipg

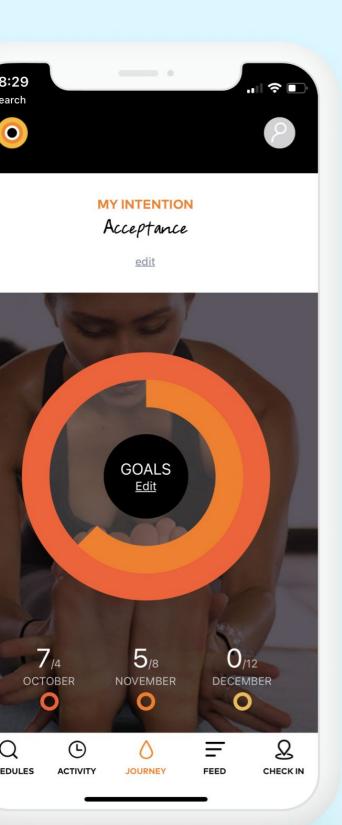
Use progressive goal setting

People are more likely to change behavior when they feel confident that they will be successful in their situation.

Archery targets create a progression of goals from easier (outer rings) to harder (inner rings). A beginner archer can start by aiming for the outer rings, and move their goal toward the inner rings as their aim improves, building confidence.



- Offer users a progression of goals instead of one fixed goal
- Give flexibility for users to set their own goals based on their context
- Provide verbal reinforcement and/or examples of realistic goals



SELF-EFFICACY

Use progressive goal setting

In this example, the CorePower Yoga App interface lets the user set goals for class attendance so they can choose goals they feel are realistic for each month and make progress over time. This design could be even more effective if it included verbal reinforcement and/or examples of realistic goals.

Ethical considerations

Goals can motivate not only positive behavior change, but also unethical behavior. How might users be tempted to cut corners or cheat to meet goals?

References

"The Health Belief Model", *Health Behavior and Health Education*, Chapter 3
Cover art based on <u>dribbble.com/shots/2774994</u>

Authors

Victoria L. Champion Celette Sugg Skinner

Perception shapes real health choices.



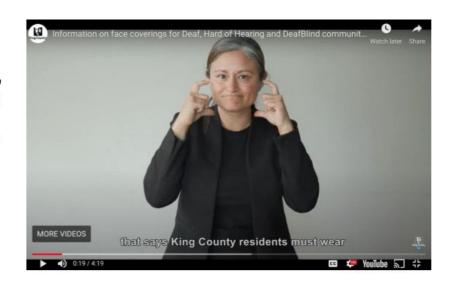
Public health guidance outlined specific threats of COVID-19, leading many to adopt the simple solution of wearing a mask. Perception among anti-maskers opposed this preventative act and cast doubt on the real risk of the virus.

- Be specific about what's at risk.
- Make it personal.
- Share easy actions a person can take. (Emphasis on the easy.)
- Bust myths!

Health Belief Model

Perception shapes real health choices.

King County Public Health
made personal the
messaging around COVID-19,
sharing real risks and simple
solutions in the language of
communities. Here, the Deaf
and Hard of Hearing
community learns how they
might prevent the serious
effects of catching
and spreading the virus.





References

Have users make a commitment ahead of time

Prepare users for action!
Have users plan ahead and make a firm commitment to act in the future.



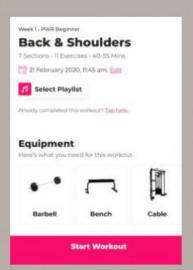
People use calendars or reminders to set goals and plans ahead of time. The most confident even write in pen!

- Provide users with an option to make a commitment. (It's not compulsory!)
- Communicate the benefits of making a commitment.
- Remind users of their commitment.
- Do not shame users if they don't achieve it. Give them another opportunity.

Have users make a commitment ahead of time

Netflix gives users the option to "Add to My List." Users commit to watch the show later. Then, Netflix positions users' lists at the top of their dashboards.







The SWEAT app asks users to schedule their workouts and allows users to reschedule, no questions asked.

Considerations

Don't shame users if they don't achieve their commitment, and don't tie conditional benefits to user achievement.



Creating commitments should improve self-efficacy, not demoralize users. Give them an option to recommit.

Counterconditioning

Provide positive alternatives to problem behaviors.



Puppy training can be immensly benefical for all dogs to improve their behaviors, confidence, relationships, and overall quality of life. Regardless if your dog is food, play, or love motivated by counterconditioning the negative triggers and behaviors with positive subsitutes like treats, puzzles, affection, or play time, dogs begin to make steps towards more positive outcomes.

- Identify the users goals and their problem behaviors
- · Find subsitutes that are attractive to the user and will motivate them
- Provide the user with timely reminders to perform the new behaviors
- Don't overwhelem or annoy the users with too many reminders

Counterconditioning

Provide positive alternatives to problem behaviors.



Ethical Considerations

Be transparent in why you are introducing the new behaviors, when you will introduce them, and why they are beneficial

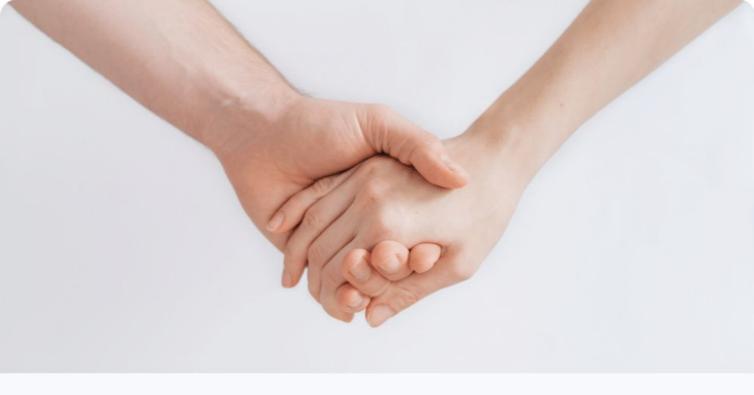
Don't Try this too Early

Applying counterconditioning to people that haven't reached self-liberation won't work as they haven't decied to make changes

Refrences

Use Apple watch to breathe mindfully. Apple. https://support.apple.com/guide/watch/breathe-apd371dfe3d7/watchos Prochaska, James O., Colleen A. Redding, and Kerry E. Evers. "The transtheoretical model and stages of change." Health behavior: Theory, research, and practice (2015).

Photos: https://twitter.com/Memles/status/1043329453592600581/photo/1 https://unsplash.com/photos/RSZsLKXrWjA



People build habits easier with support.

When people are trying to get a habit to stick, positive external relationships can help them find enough motivation to stay on track.

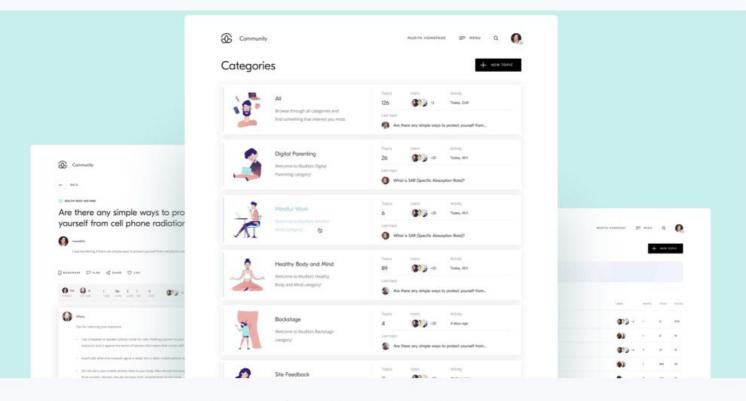
The Image Above

Sometimes, all people need is a helping hand to get them through a sticking point. Having open, caring, trusting, and accepting relationships provides the necessary support to take or continue with healthy behavior change.

- Expose possible communication streams that are available to the user.
- Provide users with ways to connect with others that can provide a helpful, supportive relationship.
- Don't use this method when users have yet to take action.

Transtheoretical Model

People build habits easier with support.



Forums are a great example of how support systems are used in digital interfaces. Segmentation by the desired behavior change can link people from across the world and provide an always-available network.

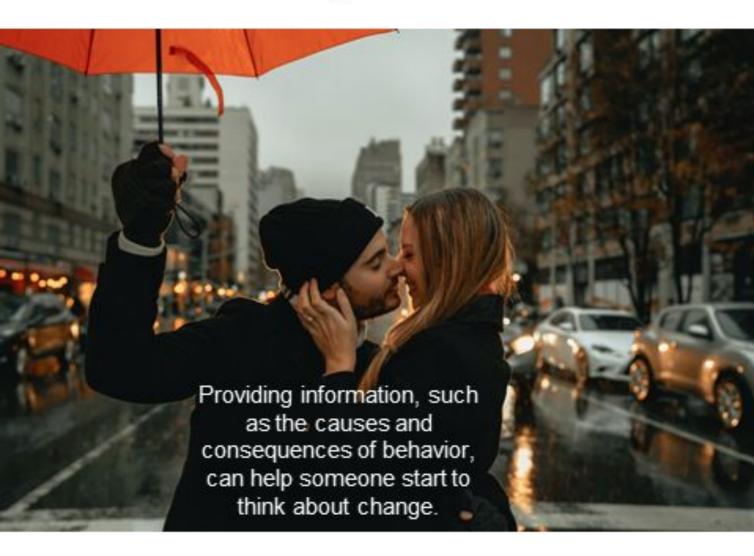
Ethical Considerations

Support systems are great as motivation and encouragement, but it's important to use this as one tool among many. Users could easily become over-dependent on a support system or be exposed to new negative habits.

REFERENCES & AUTHORS

Know the facts. It can help people change.

Raising awareness can help promote behavior change for those who might not have otherwise thought about it.



RECOMMENDATIONS

- Present facts and tips.
- Personalize when possible.
- Convey messages through suggested readings or social media campaigns to help learn more about the topic.
- Use judgmental messages
- Push too hard for change or make it look too easy

Transtheoretical Model Consciousness Raising Know the facts. It can help people change.

Personalize information to more directly target those who might need to change.

What about ethics?

Be sure to use this strategy to promote positive change. This is meant to improve people's lives, not make them feel worse about it.

Hey Sarah!

Did you know that you can get tested for STIs in the privacy of your own home?



Visit our website to learn more about this free and confidential resource.

Correct perceptions of norms

Describe how people relevant to the user (friends, family, role models, etc) perform the desired behavior.



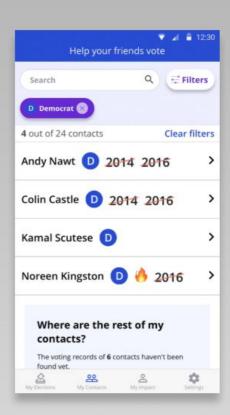
Social media might give a user a skewed understanding of the prevelence of some behavior. Give accurate information about what's really happening and what other people are really doing.

- Identify who is relevant to the user demographics, social network, etc.
- Report on which desirable behaviors they perform
- If known, also relate the social expecations of this group

Social/Subjective Norms

Correct perceptions of norms

This app encourages voting by making it clear that the user's social group is alos voting.





Be careful when sharing behavior about sensitive topics such as health concerns. Do not disclose private information.

References

Crowd Image credit. unsplash.com/@belchev
App screenshot. VoteWithMe.us
Ajzen, I. (2012). The theory of planned behavior. In P. A. Van LangeA.
W. Kruglanski, & E. T. Higgins Handbook of theories of social
psychology: volume 1 (Vol. 1, pp. 438-459). SAGE Publications Ltd,
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The theory of planned behavior helps us understand how the behavior of people can change. It is the descendant of a similar mdel known as the TRA(theory of Reasoned Action) by adding the perceived behavioral control. There are four theory constructs that build the Theory of Planned Behavior:

- 1. Intentions
- 2. Attitude
- 3. Subjective Norm
- 4. Perceived Behavior Control

Convert your plan to real actions

- Design to raise users' the amount of perceived control they have over the behavior
- Show promising consequences of the practiced behavior to users
- Utilize beliefs about the normative expectations of other people to encourage actions
- Reduce the users' worries about the presence of factors that may enable or obstruct the performance

Recommendations

· increase enjoyment · propose an organized training with a specifically-qualified coach · increase knowledge regarding EX benefits in cancer · ensure personal security during training · consider prior EX experiences · include training in natural · give the possibility to train and clean environment with other cancer patients · involve family, friends and · propose a flexible running program physician † Adherence to running program † Compliance to running program

The illustration indicates that showing benefits of running is one of the strategies to encourage users to join the running program. According to the theory of planned behavior, the **intentions** of the individual largely reflects his personal attitudes. The benefits shown in the illustration helps raise users' intentions to achieve his/her planned behavior.

Theory of Planned Behavior •

Convert your plan to real actions

Redesign challenges Notification of Aqualert

Problem: design a notification on the sleeping screen to remind user to keep drinking habit.



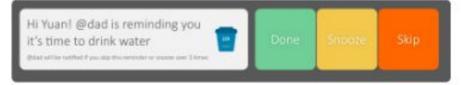


Notification

The notification is linked with family members, so they can help remind each other. This uses social subjective norms to encourage users' actions

Widget

Use the countdown number and the heart healthy score to show promising consequences to users if drinking water



Ethical concerns: Designers should ask users for their permission before displaying their social contacts onto the notifications. The body data is obtained through wearable devices, so there is a risk of abuse of the data.

Reference

Noar, Seth M. "Transtheoretical Model and Stages of Change in Health and Risk Messaging." Oxford Research Encyclopedia of Communication, 2017, doi:10.1093/acrefore/9780190228613.013.324.

Author

Paul A. M. Van Lange, Arie W. Kruglanski & E. Tory Higgins

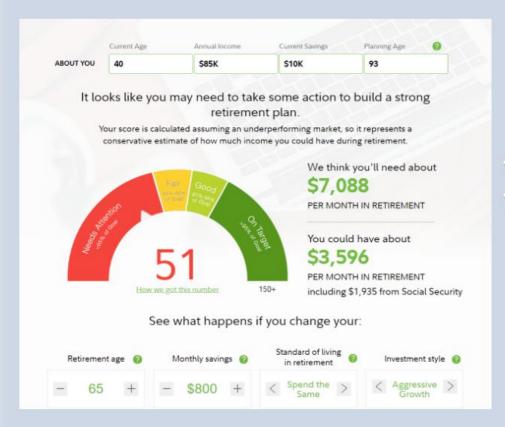




People have a hard time envisioning their future selves, and yet focus on long-term benefits can predict success with a behavior change. When people can envision the consequences, it influences their attitude.

- Help users imagine their future selves using a series of questions or prompts
- Identify long term benefits of the behavior
- Create tools that help people set long-term goals
- Show comparisons of peers' goals to the user's goals to emphasize social norms of the behavior

Attitude Toward The Behavior Theory of Planned Behavior



Financial
planning
tools help
people
think about
themselves
in the
future at
retirement
to change
current
savings
behavior.

In it for the Long Haul

If the goal is too unattainable it can demotivate. Especially if the change must be sustained for a long time to achieve the goal. Sharing goals amongst peers could be a violation of privacy.

References



The more you try, the more you achieve mastery.

According to SCT, self efficacy is a strong factor in driving behavioral change. To increase self-efficacy, seek out small ways to get started, remember to count your past achievements, and keep repeating until you've achieved the bigger goal.

Athletes such as those who train for marathons know this well. No one is able to run 26 miles on day 1.

However, you have to show up day after day and keep putting in the miles. Every milestone increases your sense of control over your body, and makes you feel like you can unlock the next milestone.

Recommendations

Do break down into smaller tasks that are easier to accomplish Do track how you're progressing Practice, practice, practice. Practice in itself achieves the goal of behavior change

Social Cognitive Theory

The more you try, the more you achieve mastery.





Nike+ Run app is designed to increase sense of selfefficacy. From the homepage, it encourages you to get started with small milestones like a 1 mile run. As you put more miles in, it tracks every run for you. And the "Achievements" section gamifies and celebrates every milestone by reminding you how far you've come and rewarding you with badges.

Be cautious of overwhelming your users. You can unintentionally decrease self-efficacy if you present them with too many unachievable milestones.

References

Luszczynska, Aleksandra & Schwarzer, Ralf. (2015). Social Cognitive Theory. Predicting Health Behaviour. 127-169.

Image credit: Unsplash.com

Authors

Luszczynska, Aleksandra & Schwarzer, Ralf

Show successful peer activity

People are more likely to succeed in a difficult situation when they see a 'model person' successfully doing it.

Monkey See, Monkey Do

In the children's TV program, Curious George is a monkey who lives with the "Man in the Yellow Hat" and behaves with personified actions. In watching George overcome his challenges, young children may have a vicarious experience, increasing their self-efficacy in similar situations.



- Highlight success of peers (people who are similar to the user)
- Give users ways to share their successes with their peers
- Use rich media
 (e.g. interactive
 elements, photo/
 video, motion) to
 be more visceral



VICARIOUS EXPERIENCE

Show successful peer activity

In this example, Instagram users can add an "I got vaccinated" sticker to their story, which then gets promoted to their friends' home page feed. Viewers of this story who have not yet gotten the COVID-19 vaccine may have a vicarious experience that increases their self-efficacy in getting vaccinated themselves.

Ethical considerations

In showing a user successful peer activity, their peers' privacy may be violated. Designers should ensure that their peers are aware and consent to share their successful activity.

References

"Social Cognitive Theory"

Cover image from StickPNG

Authors

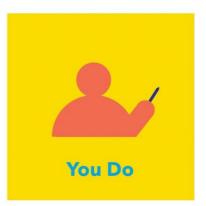
Aleksandra Luszczynska Ralf Schwarzer

Model Appropriate Behaviors

Theory shows that when a 'model person', that is similar to the individual, successfully masters a difficult situation, it enhances self-efficacy belief and leads to desired behavior.







In a math classroom, the teacher solves a new problem first in front of the whole class. This helps the student feel like they can do it too. Eventually they are willing and able to attempt solving the problem themselves.

- · Model the as much as the task as possible
- Make sure the model behavior is successful
- Emphasize similarity between the model and the user

Model Appropriate Behaviors



The Wix ad models the desire behavior by featuring non web development professionals saying "I just created my own wesbite, let me show you how I did it".



Think thrice before modeling risky behaviors or anything that could cause harm to your target audience.

DO NOT minimize the required skills needed to achieve success when failure is dangerous or costly.



Self Efficacy

Celebrate Goal Achievement!

Design Example: Apple
Fitness has rings that
represent daily activity
goals (move, exercise,
stand) when you close all
three rings you see a
celebratory animation on
your Apple Watch!



(Ethics) Putting Power in People's Hands: Rather than pushing which goals we think the user should strive for, we should instead empower users to customize and set their own goals.



Offer a diverse range of incentives.

Offering incentive options accommodates the wide range of potential user values, increasing both quality and quantity of user engagment.

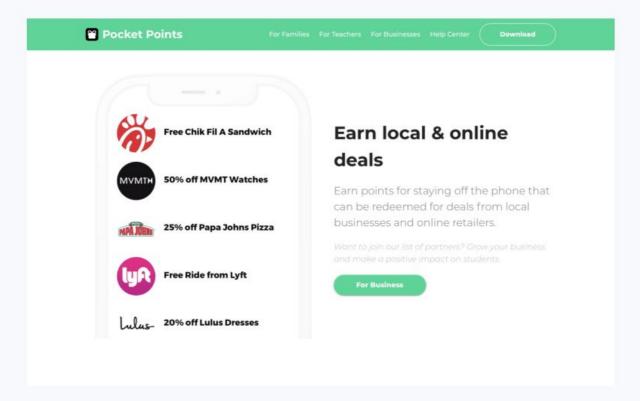
The Image Above

People will choose cupcake flavors based on what they prefer. Similarly, people have different life values and needs and will therefore percieve incentives accordingly. Giving options increases the chance that users find an attractive offer that will improve task completion and/or performance.

- If you want a specific type of user, tailoring incentives based on their values will help you target them.
- A mix of creative, charity, fixed, and achievement rewards are a good set to start with.
- Explore the frequency of incentive dissemination for maximum effect.

Incentives & Values

Offer a diverse range of incentives.



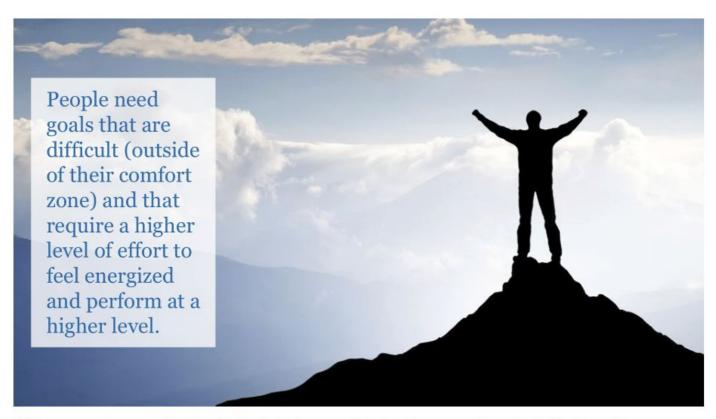
Reward systems give agency to users by allowing them to select from a wide range of options. Pocket Points allows users to pick their reward once they've earned a certain number of points. This drastically increased engagement and supported the desire behavior of staying off the phone for longer periods of time.

Ethical Considerations

Users can become over-reliant on incentives. This places them in a vulnerable state, as the amount, frequency, or type of reward can be used to manipulate the user into performing actions or behaviors that they may not have originally wanted to.

REFERENCES & AUTHORS

IF IT DOESN'T CHALLENGE YOU, IT DOESN'T CHANGE YOU



When people summit a hard climb, it is a result of an increased level of effort and leaves them feeling energized by the accomplishment.

RECOMMENDATIONS

- Use historical data to establish baseline and push user to set goals above it
- Give a suggestion of goals, but allow user input to achieve greater commitment to the goal
- Set a floor so the user isn't encouraged to set a goal that's too easy

GOAL SETTING, DIFFICULTY

If it doesn't challenge you, it doesn't change you



Apple Watch tracks your movement each day when wearing the watch. It suggests new movement goals each week based on the prior week's movement to challenge the user to move more.



Don't set unachievable or unrealistic goals as it could result in the user giving up on the goal and becoming discouraged. It could also lead to users to change their behavior and lifestyle in a way that is detrimental to their health in order to achieve these goals.

References

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. American psychologist, 57(9), 705.

Mountain Image credit. https://www.bbc.com/future/article/20140703-the-

Authors

Edwin A. Locke Gary P. Latham

Goal Moderator: Feedback

Give Users Feedback to Increase their Motivation

GOAL SETTING THEORIES

Goals with feeback can provide more direction and improve performance.

According to goal setting theory, people need feedback that reveals their progress in relation to their goals. If they don't know how far they've gone or how they're performing, it will difficult for them to adjust their effort to match what the goal requires.

Clearly articualted goals can be serve as a compass when trying to make decisions. Having feedback and a strong, clear goal can positivlely affect the direction of their effort and which performance strategies they choose to employ.

Reccomendations

Use SMART goals as a strong foundation for your users to acheive their main goals.

- · Specific (simple, sensible, significant).
- Measurable (meaningful, motivating).
- · Achievable (agreed, attainable).
- Relevant (reasonable, results-based).
- Time bound (time-based, time limited, time/cost limited, timely, time-sensitive).

Once you have these measurables goals set, find relevant ways to inform your users of their progress in relation to their goals.





Goal Moderator: Feedback

Give Users Feedback to Increase their Motivation

CASESTUDY

Hinge Health

Hinge Health is a musculoskeletal pain prevention program. Each member gets a free Kindle and a set of body motion sensors. With the sensors, the app is able to provide both summary progress and live kinetic feedback on each movement, impoving technique and self-efficacy over time.

Ethical Considerations

- · Provide accurate and non-misleading feedback
- Only provide feedback that is helpful, timley and relevent to their goals.
- Avoid penalizing or making users feel bad for their lack of progress.
- Use motivational expression to encurage at the key moments for your users.

References

- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. American Psychologist, 57(9), 705–717. https://doi.org/10.1037/0003-066x.57.9.705
- · https://www.mindtools.com/pages/article/smart-goals.htm



Set deadlines to accelerate user speed

Want something done fast? Tight deadlines may motivate users to complete activities more rapidly than looser deadlines.

When in possession of the ball, basketball players have 24 seconds to attempt a goal. The shot clock, a countdown timer, is positioned at the top of each hoop. Players and the crowd alike know that when the clock drops into single digits, they have to put up a shot quickly.



- Use time-based deadlines.
 Provide your user with a timeline for which to complete an activity.
- Use capacity-based limits.
 Provide your user with a set
 number of participants who
 can complete an activity.
- Limit the amount of exploration or tangents a user can take that distract from completion of the activity.
- Provide a reasonable, but not demoralizing, consequence for not completing the activity by the deadline.

PERSISTENCE Goal Setting
Users will intensify effort to achieve challenging goals.

Set deadlines to accelerate user speed

OpenTable[®] You're almost done!



Terra Plata



Sat, May 8



(8:45 pm

We're holding this table for you for 4:55 minutes

You can still try to complete your reservation, but this table may no longer be available.

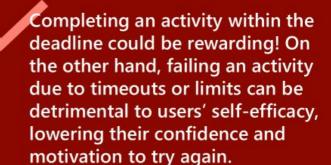
On OpenTable, once a user chooses a reservation at a restaurant, they have 5 minutes to complete the reservation with their contact and credit card details.

OpenTable shows the timer and rationale to the user. They place the timer in small text in a pale blue box, calling the user's attention but not using stress-inducing visualizations.

If a user does not complete the reservation, they turn the box pale red, allow the user to attempt the reservation without losing progress, and communicate the possible consequence.

Considerations

No one likes to be rushed. Adding pressure to your user could create feelings of anxiety, distrust, and loss of loyalty to your brand. If you're going to create a deadline, have a meaningful rationale for it and share that with your user.



Hand over the keys and let them "drive"

Creating a sense of control could enhance intrinsic motivation towards performing an action.

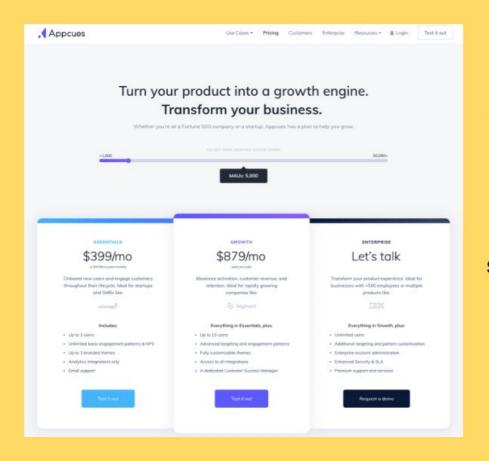


Creating a sense of autonomy is one of the key components of Self-Determination Theory's means of encouraging action via intrinsic motivation. Even if competence is the chosen means of motivation it must be accompanied by autonomy to be successful.

- ✓ Provide guided options as a way for the user to choose the desired action
- ✓ Offer tailored education for the user to arrive at the conclusion themselves
- Allow user to personalize experience to create opportunity for self-direction and selfregulation

Sense of Autonomy

Hand over the keys and let them "drive"



Providing guided options allows the user to chose an option that best suits their needs which creates a sense of autonomy.



Don't lie. Deliberate manipulation of information provided to the user in order for them to make a decision can lead to mistrust.

References

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. Contemporary educational psychology, 25(1), 54-67.

Photo by www.unsplash.com

Service options by www.Appcues.com

Authors Camila Proffitt

Help users identify personal importance of a behavior

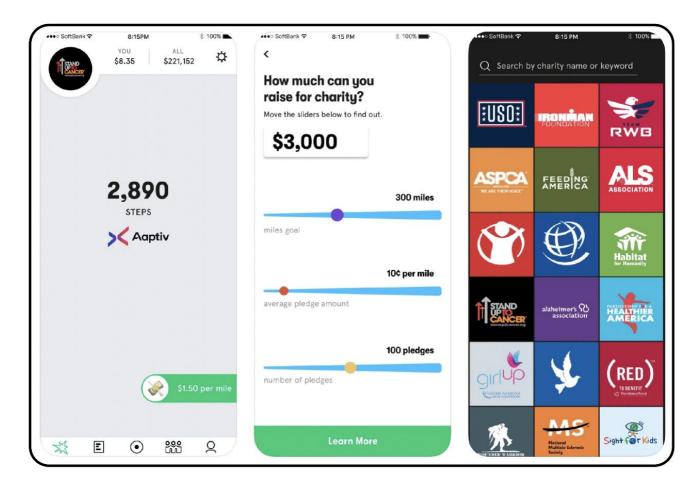
Organismic Integration Theory suggests that greater internalization of a value or regulation yields more behavioral effectiveness and greater experienced well-being.



Jane studies hard for her SAT because getting into college is personaly important to her.

- Uncover what the user currently values and connect those values to the desired task.
- Prompt users to think about how completing a task could be personally meaningful to them.
- **Don't force anything** down their throat. The user needs to understand the personal importance themselves.

Help users identify personal importance of a behavior



Charity Miles connects excersizing behavior to donating to charities of the user's choice. The users therefore are able to internalize the physical tasks as something that's personally meaningful to them.



When the subject fails to reach their goal, avoid use of guilt and shame as regulations which could make the motivation fall back to introjection (poorer experienced well-being) from identification.

Reference:

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. Contemporary educational psychology, 25(1), 54-67.

Encouraging relatedness can facilitate internalization



individual's internal value.

X Don't try to design for intrinsic

motivations.

Self Determination Theory

Encouraging relatedness can facilitate internalization

Chatbots and live messaging responses can encourage a sense of relatedness as well as competence for users interacting products that don't align with their intrinsic motivations.





This strategy might lead to a lack of motivation for users if the language used is too generic or not specific enough.

Author: Rachel Dyer

References

Ryan, Richard, M., Deci, Edward L. Intrinsic and Extrinsic Motivations: Definitions and New Directions, <u>Contemporary Educational Psychology</u>, <u>Volume 25, Issue 1</u>, January 2000, Pages 54-67, https://doi.org/10.1006/ceps.1999.1020

Image credit. https://depositphotos.com/98403336/stock-illustration-group-therapy-

illustration.html