

A woman with dark hair tied back is sitting in a meditative lotus position on a pink yoga mat. She is wearing a light pink tank top and patterned leggings. She is holding a black smartphone in her right hand and looking at the screen with a slight smile. Her left hand is resting on her knee in a mudra. The background is a blurred outdoor setting with green plants and a brick wall.

**The burgeoning impact
of technology on user
psychology and
forming habits**

Organizations across the globe spend millions of dollars in trying to understand the psychology of their employees and consumers, and influence them to be 'hooked' to their products or services. This article attempts to understand the science behind these behavioral changes, like the science of addiction. We explore if the same concepts can be applied in the mental wellness industry to create healthy habits among consumers.

The science of addiction

British freelance journalist Hattie Gladwell had millions of followers on Tumblr, a leading American microblogging and social networking website. The shares and reposts of her blogs on Tumblr gave her a sense of confidence, at least in the online world. In reality she was insecure, alone at home, and unwell. She found solace in the virtual triumph and started spending more than 14 hours a day on the website, drifting further away from reality that led to a vicious cycle of social media addiction.

Social media addiction is the most common and widely accepted cause of mental illness by the medical fraternity. There are numerous

reports on a positive correlation between social media adoption and an increase in suicide cases in different cohorts. For example, a survey conducted on 700-plus people by WeUnlearn found that 552 admitted they had a chance of being addicted to social media, 42.6% spent more than 3 hours per day on it, and 33% spent more than 5 hours.

So how do people get addicted to these platforms when its consequences are so widely known?

To know the answer, let us reverse the question and analyze how new age companies create a plethora of habit forming products. These habits often end up being so strong that consumers are hooked to the product. The crux lies in Maslow's hierarchy of needs, wants, and desire, and various leaders have tried to capture this by creating the 'Hooked Model'. As per this model, if a consumer continuously passes through multiple cycles of the four stages mentioned below, he/she subconsciously becomes habituated to the product.

1. Trigger



It is a trigger to initiate a desired behavior in the consumer. This could be an email, a notification, or just an app icon on your phone. For example when XYZ, a 30-year-old software engineer from Bangalore, is notified that she has been tagged in someone's Instagram post, it becomes a trigger to click the notification and check what the post is.

2. Action



It is the act, which follows the trigger, in anticipation of a reward. In the earlier example, the simple act of clicking the notification in anticipation of seeing an image or a video is the action.

3. Variable Reward



This is the most crucial stage of the entire cycle. If the reward is predictable, it is not interesting enough to form a habit. A conditioning schedule in which a reward or punishment is unpredictable every time an action is performed is called intermittent reinforcement. Going back to the previous example, if people always post similar photos, XYZ would never feel the urge to check it urgently. But the fact that it is possible she's been tagged in either an impressive post, or an embarrassing one, creates an urge to click the notification. It is also interesting to note that the fear of losing a reward acts as an even stronger actuator to perform an action. For example, the fear of being tagged in a not so good post is a stronger motivation for XYZ to click the notification.

4. Investment



It is the contribution made by the consumer on the product. The higher the contribution, the greater is the probability that the consumer will repeat the cycle. Returning to the same example, XYZ contributes to social media by liking or commenting on the post, which acts as a trigger for others.

When a consumer goes through this cycle repeatedly, he or she starts getting habituated to the process. Let us understand this by decoding how the human brain functions. Psychologists and neurologists split the brain function into two types of systems. One is automatic and intuitive, and the other is rational and reflective. By constantly repeating the cycle, the use of a product shifts from rational and reflective thinking to intuitive and automatic. For example, when XYZ starts using Instagram for the first time, she uses the rational system of the brain. At this point, the decision to click on notifications is rationalized by the brain and the action of clicking happens. By repeatedly going through the cycle of clicking on notifications to see posts, the action shifts from the rational system to the automatic and intuitive system of the brain. If one analyzes all the successful products around us, we find that many use this concept effectively to form consumer habits.

Let us consider another example :

A UPI payment platform in India, which entered the market much later than its competitors did, and recently used the concept of variable reward, in the form of scratch cards. This strategy helped them become the market leader in UPI transactions.

The irony is that, while on the one side people are seeing their mental health deteriorate due to their addiction to products designed to hook consumers, on the other side, the same concepts of behavioral science can be used by the wellness industry to create healthy habits among users.

Impact of technology on human psychology

Let us take an example of Peloton, an American exercise equipment and media company that has developed a spin bike with a 22 inch tablet attached to it, to get customers habituated to exercise.

- In order to create a trigger in the mind of their customers, Peloton purposely designed the product to be sleek and small, so that it can be easily placed in a prominent area of the house, like the living room or bedroom. This is called the mere exposure effect. The more the number of times one sees the bike, the higher the chances that one will use it.

- Simplicity effect is used to make the action of getting on the bike easier for consumers. In his behavior change model, Professor B.J Fogg from Stanford University concludes that the simpler a task, the greater the ability to perform it. Peloton has an offline library of prerecorded classes on its tablet, and also offers live classes round the clock. This makes the action of getting on the bike easier and convenient.
- Peloton has an irresistible reward system in which the customers are shown how much more they need to exercise to get the reward, instead of how many calories they have burnt. Also, every time a consumer uses the bike, he creates competition for the community of about 2 million users. This is his investment in the product. Peloton has thus achieved an impossible target of making millions of users addicted to exercise. The company's huge active user base and growth is a testament of its success.

Studies also show that a loss incentive strategy works best to create an exercise habit among employees. In an experiment, **3** strategies were tested among employees who were asked to achieve a goal of completing **7000** steps :

- A fixed incentive of **\$1.4** per day.
- A daily lottery with a mean incentive of **\$1.4** per employee, per day.
- Loss incentive: An advance of **\$42** was given to the employees in an account from which **\$1.4** was deducted for each day they missed their goals.

The study concluded that a loss incentive strategy increased the percentage of employees completing the task from 30% to 45%.

The Global Wellness economy is a \$4.5 trillion market today. It has seen a mushrooming of online sessions for improving mental state, that cost anywhere between \$30 to \$60 per hour.



Figure 1. Global Wellness Economy : \$ 4.5 Trillion Market

Wearable device companies, which make up largest segment of the wellness industry, are continuously working to improve their habit forming models. Be it receiving a badge along with a Fitbit device, completing the KiQplan on Fitbug, or smashing a goal in Jawbone UP24, the rewards aim to influence consumer habits by gamifying the experience.

Conclusion

Today, the technology barrier needed to create new products is lower than ever before, especially for the wellness industry, that has seen dramatic transformation since the COVID19 pandemic (Feb'20 & onwards).

1. Therefore, technology is not the only differentiator between successful and unsuccessful products. Instead, the success of products is dependent on how well the makers use the science of consumer behavior to get their users habituated to their products.

2. The wellness transformation industry, which has witnessed gigantic strides in the way healthy habits have been created by end users and customers, has not only seen concepts such as Neuro Linguistics Programming (NLP), but also digital transformation driven by artificial intelligence (AI) and machine learning (ML), that is being replicated by bots across business operations. AI and ML create an impact by building AI-ML based algorithms that can be referenced as a databaseto not only change end user behavior, but also predict behaviors before they happen.

3. This can be replicated across the 16 Myers Briggs Type Personalities (MBTI), i.e. a combination of extrovert/introvert, sensing/intuition, thinking/feeling, perception/judgement.

4. The algorithms are built in such a way that understanding this science could keep end users away from forming unhealthy habits. Unhealthy habit formation can be arrested by bots or technology before it becomes too late. This can become crucial in ensuring good health, and at the same time, presents a plethora of opportunities for wellness providers to embed them into the journey of human psychology, and earn millions in revenue as well.



Reference

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