## The New york Times Reprints

This copy is for your personal, noncommercial use only. You can order presentation-ready copies for distribution to your colleagues, clients or customers here or use the "Reprints" tool that appears next to any article. Visit www.nytreprints.com for samples and additional information. Order a reprint of this article now.



September 30, 2011

## You Love Your iPhone. Literally.

By MARTIN LINDSTROM

WITH Apple widely expected to release its iPhone 5 on Tuesday, Apple addicts across the world are getting ready for their latest fix.

But should we really characterize the intense consumer devotion to the iPhone as an addiction? A recent experiment that I carried out using neuroimaging technology suggests that drug-related terms like "addiction" and "fix" aren't as scientifically accurate as a word we use to describe our most cherished personal relationships. That word is "love."

As a branding consultant, I have followed Apple from its early days as a cult brand to its position today as one of the most valuable, widely admired companies on earth. A few years back, I conducted an experiment to examine the similarities between some of the world's strongest brands and the world's greatest religions. Using functional magnetic resonance imaging (fMRI) tests, my team looked at subjects' brain activity as they viewed consumer images involving brands like Apple and Harley-Davidson and religious images like rosary beads and a photo of the pope. We found that the brain activity was uncannily similar when viewing both types of imagery.

This past summer, I gathered a group of 20 babies between the ages of 14 and 20 months. I handed each one a BlackBerry. No sooner had the babies grasped the phones than they swiped their little fingers across the screens as if they were iPhones, seemingly expecting the screens to come to life. It appears that a whole new generation is being primed to navigate the world of electronics in a ritualized, Apple-approved way.

Friends who have accidentally left home without their iPhones tell me they feel stressed-out, cut off and somehow un-whole. That sounds a lot like separation anxiety to me. Not long ago, I headed an effort to identify the 10 most powerful, affecting sounds in the world: I found that a vibrating phone came in third, behind only the Intel chime and the sound of a baby giggling. Phantom vibration syndrome is the term I use to describe our habit of scrambling for a cellphone we feel rippling in our pocket, only to find out we are mistaken. Similar to pressing an elevator button repeatedly in the belief that the elevator will descend sooner, we check our phones for e-mails and

texts countless times a day, almost as if we can will others to text, call, e-mail or Skype us.

So are our smartphones addictive, medically speaking? Some psychologists suggest that using our iPhones and BlackBerrys may tap into the same associative learning pathways in the brain that make other compulsive behaviors — like gambling — so addictive. As with addiction to drugs or cigarettes or food, the chemical driver of this process is the feel-good neurotransmitter dopamine.

Earlier this year, I carried out an fMRI experiment to find out whether iPhones were really, truly addictive, no less so than alcohol, cocaine, shopping or video games. In conjunction with the San Diego-based firm MindSign Neuromarketing, I enlisted eight men and eight women between the ages of 18 and 25. Our 16 subjects were exposed separately to audio and to video of a ringing and vibrating iPhone.

In each instance, the results showed activation in *both* the audio and visual cortices of the subjects' brains. In other words, when they were exposed to the video, our subjects' brains didn't just see the vibrating iPhone, they "heard" it, too; and when they were exposed to the audio, they also "saw" it. This powerful cross-sensory phenomenon is known as synesthesia.

But most striking of all was the flurry of activation in the insular cortex of the brain, which is associated with feelings of love and compassion. The subjects' brains responded to the sound of their phones as they would respond to the presence or proximity of a girlfriend, boyfriend or family member.

In short, the subjects didn't demonstrate the classic brain-based signs of addiction. Instead, they *loved* their iPhones.

As we embrace new technology that does everything but kiss us on the mouth, we risk cutting ourselves off from human interaction. For many, the iPhone has become a best friend, partner, lifeline, companion and, yes, even a Valentine. The man or woman we love most may be seated across from us in a romantic Paris bistro, but his or her 8GB, 16GB or 32GB rival lies in wait inside our pockets and purses.

My best advice? Shut off your iPhone, order some good Champagne and find love and compassion the old-fashioned way.

Martin Lindstrom is the author of "Brandwashed: Tricks Companies Use to Manipulate Our Minds and Persuade Us to Buy."

MORE IN OPINION (1 OF 24 ARTICLES)

Campaign Stops: Don't Mind the Gap

Read More »