The Internet as a Motivational Tool: Helping People to Achieve Positive Outcomes

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Abstract

This literature review gives an overview of several factors that contribute to people making a positive change in their lives using resources available over the Internet. The Internet can be a motivational tool, giving people a feeling of empowerment and support to make lifestyle changes. Noticeable in culture today and reflected online is a feeling that if a person is unhappy, they can make positive changes, and that things will get better, to borrow a basic phrase of a popular video series. Even if these messages are apparent, what makes a given person susceptible to these messages and take steps to make personal changes? The literature review focuses on four areas: the underlining psychology of users on the Internet, with a brief sketch of susceptible personality traits; the role that social support plays in well-being and quality of life; motivation and goal setting, and what makes people follow through and act; and the emerging scholarship on positive technologies, which are technologies designed to support positive behaviors. These are all viewed through the prism of positive psychology, the growing movement to focus on a person's strength and quality of life, rather than deficiencies, the traditional mode of psychology. This paper explicitly focuses on the positive aspects of the Internet as a tool, used to provide social support and encouragement.

Introduction

Does the Internet really help empower individuals? Over the past few years, a number of things have converged to make inspiration so widespread on the Internet. One, the technological infrastructure of the Internet has grown, and more people, with divergent interests, backgrounds, and life stories, now have access to free or low-cost sites like Tumblr, Wordpress, Facebook and YouTube to connect to others and carve out their own passions. Two, the global economy has faltered, and for many Americans, the world has changed so fast they have a hard time keeping up. Skills necessary for certain jobs have become out of reach for some, ill-defined for others. With the world "flat," as *New York Times* columnist Thomas Friedman popularized with his 2005 book *The World is Flat*, people are able to view lives and hardships in an intimate way not previously available. Three, positive psychology has become a phenomenon, not just among psychologists and industry professionals but across the mainstream, with positive psychology principles apparent in many disciplines and outlets. Four, with the rise of technologically mediated forms of communication, many people do not interact with others in the way that they want to, or in the forms that people have previously. Recent research indicates that more Americans live alone than in previous generations (Klinenberg, 2012). As such, people need reinforcement, friendships and support, and if people live further away and/or do not get to speak to their friends as often, tools like the Internet gain greater prominence and so people use it to support one another.

In studying the landscape of this particular section of the Internet, research has shown that technology use (of which the Internet is a part), coupled with a strong support group and the right tools, can help people achieve their goals, provided those goals are very specific (Burke and Settles, 2011). Even within that small framework, once the person has identified an area he wants

to change, including the steps he wants to take, that change can be helped by having the social support and the right tools to help motivate and even monitor him. Motivation without specific goals doesn't go anywhere, and specific goals without support and motivation will die. The Internet is merely a large tool that facilitates this process; within the Internet are other structures that can help an individual succeed.

This literature review will provide an overview of research on several areas and will delve into the psychology of the Internet, the growing field of technology as a psychological tool that can be used to develop positive change and foster relationships, and how social support and goal setting affect an individual. This can not only be used to explain how individuals can use the Internet to better themselves, and precisely what makes certain individuals more "susceptible" to online influence, but how certain communities or companies can foster a nurturing, empowering and productive environment.

Personality

Amichai-Hamburger (2005) gives an overview of the main psychological characteristics that characterize different behaviors online. At root are the personality traits of introversion/extraversion and neuroticism, with an introvert being more inner-focused and an extravert getting strength from large gatherings and groups. Neurotic individuals are those who are susceptible to negative mood states like anxiety, fear, envy, anger, and can be self-conscious.

Those that are introverted and/or neurotic often are the ones most susceptible to the lure of connecting online, because the Internet gives them a way to experience anonymity, freeing them from social norms and reducing personal inhibitions that might hinder them in another setting (Amichai-Hamburger & Barak, 2009). The Internet can be a "protected space" (Amichai-

Hamburger, 2005, p. 29), where the user feels he or she has complete control over the environment (Amichai-Hamburger & Barak, 2009), without physical proximity.

In psychology, there is a "real me" concept of the self, which is actually made up of several different selves: the perception of a given person by the individual himself; the real "unfulfilled self" and the "ideal self," who the person would like to be (Amichai-Hamburger 2005, p. 33-34). It is common on the Internet now to find exhortations for people to become "actualized," to find their "real self," notably on spiritual websites. But that parlance carries over to more mainstream areas; the wider the gap among these selves, the more distress an individual has (Amichai-Hamburger, 2005). Since the Internet can involve role-playing or identity-shifting, it could be used to help those who have felt stigmatized. In fact those who were closely involved in online communities dealing with niche or "stigmatized" topics (like political affiliation or sexual behavior) reported greater well-being, confidence, and belonging (Amichai-Hamburger, 2005; Tosun & Lajunen, 2010).

Studies of chat users have found that those considered neurotic and introverted have found their "real selves" online, while those who are extroverted and non-neurotic tend to feel they are their "real selves" through traditional face-to-face communication (Amichai-Hamburger & Barak, 2009, p. 38). Tellingly, those who feel more "comfortable" using online channels often include that as a large portion of their lives, and it can be where they first, or primarily, look for information and support. This goes for people exploring different identities. For people who are in a transitional phase of their lives, at whatever age, having an online portal allows them to explore their interests, without necessarily committing to or even having a big presence in that area. For those who feel marginalized in society, the Internet can be a powerful place to meet like-minded people (Tosun & Lajunen, 2010).

It also helps those who are confused or worried about a specific issue. This is often translated to health or medical conditions, but it can be applied to social and personal problems, like personal finance. To discover that what a person is facing is considered "normal," "common," or "universal," can help soothe them, making them feel less alone and even be a first step in fixing the problem (Amichai-Hamburger & Barak, 2009, p. 41).

However, it's important to note that despite having a "real self," multiple identities – for example, based upon job, relationship definitions (mother, daughter), hobbies, interests – are necessary for creating a well-rounded person. Amichai-Hamburger and Barak (2009) suggest that the Internet's ability for users to explore multiple identities in different contexts can be helpful therapeutically, "resulting in more coherent and comprehensive self-identity" (p.38). For people struggling in a transitional part of their lives – necessitated by changes in relationships, locations, or work – exploring different identities online before making a big change can help them figure out who they want to be or who they are. Job seekers can discover other career paths; potential students can try to envision who they will be in a particular program, what they will learn, what they will do. People are inherently multifaceted; the Internet has the promise of letting them grow, change and explore.

Tosun & Lajunen (2010) studied personality differences and how they related to two forms of Internet use: as an extension of their offline relationships, and those that used it as a substitution for needs that were not being met offline. Generally, corroborating previous literature, extraverted individuals use the Internet to extend their offline relationships, while those considered to be neurotic and introverted use it as a "social substitute." They point out, however, that the "real me" often expressed is also very dependent with whom that user communicates with online.

It is impossible, when reading literature on psychological effects of the Internet, to avoid any references to loneliness with Internet use. There is a whole section of literature devoted to pathological Internet use, which categorizes loneliness and obsessive and destructive behaviors. Although this paper must by design reference this, I am not focusing on those using the Internet for harmful behavior, but rather those using it for positive reasons. Although this can very much be a chicken-or-the-egg problem, in that lonely individuals can spend a lot of time online seeking rewards they crave from the outside world, thereby exacerbating their problems, the Internet also provides a means for them to improve themselves by connecting with others.

This is also referred to as "The Rich Get Richer" phenomenon (Kim, LaRose & Peng, 2009; Amichai-Hamburger, 2005): those who are extroverted and have many offline friends tend to have more online friends. While the Internet benefits both introverts and extroverts with regard to social interaction, introverts are more likely to experience loneliness and difficulty in the area; however, the Internet gives those who are "poor" in this context the ability to get richer (Amichai-Hamburger, 2005).

Social Support

No one is an island. No matter how independent a person is, she cannot exist in a vacuum; everyone gets some form of help to grow and learn and change. People need to feel as if they have social support; as Leung & Lee (2005) define it, it's feeling loved, respected and cared for, as well as having interpersonal relationships that involve mutual feelings of the same, with affirmation, aid and encouragement. Social support can also be instrumental, in that it is a transactional relationship, involving aid or assistance through tasks, or can be informational, offering guidance and feedback.

Carr (2004) defines perceived social support as the "the perception that others are available to provide emotional or instrumental assistance if it is required" (p. 218). Instrumental assistance is having someone who can help with tasks, even if as simple as unloading the car when it is packed with groceries, while emotional support – feeling cared for and loved – is linked with feeling less stressed and better coping skills (Leung, 2007). Those without social support often feel lonely, isolated and even disconnected from the world. The Internet can help lonely individuals by providing a space where they can share their feelings and frustrations, and often receive feedback to help them in their problems.

Many of the studies on social support in online spaces tend to be very specific, concentrating on healthcare, education, or teenagers, for example. Some of them focus on the method, like blogging or instant messaging or chatting. However, in order for people to feel they have a strong social support network, a few things are necessary. Self-disclosure, as defined by Jang & Stefanone (2011), is "the process by which people provide personal information about their thoughts, feelings, and/or needs to others" (p. 1042); it breeds personal trust (Ko and Kuo (2009). Self-disclosure is very popular in blogs, where even in the most professional settings bloggers will often divulge personal details in the interest of connecting with others. Self-disclosure, which involves revealing personal thoughts, experiences and information, helps form acquaintanceships, develop intimate relationships, and shape social capital.

Social capital, as defined by Robert Putnam, is the ''connections among individuals— social networks and the norms of reciprocity and trustworthiness that arise from them'' (as cited in Beaudoin, 2008). Social capital is often connected with positive societal factors like education, good governance, economic progress, and public health (Beaudoin, 2008). It has two forms: bonding and bridging. Bonding social capital refers to interactions among similar groups, while

bridging social capital refers to dissimilar groups. A key component of social capital is interpersonal trust; without forming interpersonal trust, relationships between groups cannot work positively (Beaudoin, 2008).

Ko & Kuo (2009) found in their study of Taiwanese bloggers that self-disclosure significantly and directly affects both their bonding and bridging social capital. It expanded their networks (bridging) and strengthened ties (bonding), which promoted positive well-being. Almost all of the participants mentioned that they shared their experiences and feelings. In fact, the more the bloggers disclosed, the closer the bloggers were to each other. Since many of those involved in this study knew each other in a real-world context, it was also reported that blogging helped strengthen their existing relationships, as well as helped those expand their networks through lurkers and those with weaker associations. Blogging became a form of emotional support, building community and improving quality of life.

Jung, Soong & Vorderer's (2012) study of South Korean bloggers supported Ko & Kuo's findings, writing, "personal blogs have successfully provided users with a virtual space where they strategically construct their desired identities" (p.1632), giving them an area where they can be "validated" by other people (those reading and commenting). Users who are active have greater perceived social support from the blogs, decreasing feelings of loneliness and supporting a sense of belonging and well-being. It's important to note also, as Park (2012) found, that it's the interpersonal trust that is the key in these relationships, not the size of the network.

Social support, of course, does not have to be online for people to benefit, but it can be viewed as an additional source of support or a replacement if it doesn't exist in offline relationships. For people looking to change their life, if they aren't finding the proper support in

their offline world, then seeking it out and especially participating in a community of like-minded people can offer them the encouragement and support they need to move forward.

Quality of life is strongly correlated with social support. Those who score high on quality of life measures always have a strong support or social network from which to draw emotional assistance. Leung & Lee (2005), in their study on Internet activities, social support and quality of life, showed that as long as people had some type of strong social support they had a higher quality of life, which generally means they are healthier and live longer. Since Leung & Lee (2005) studied several different types of Internet use and their relationship to quality of life issues, their study found that those who relied "heavily on the Internet for advice and information to help them understand personal problems are those who often receive guidance and assistance in times of crisis" (p. 174), which aligned with the same offline behavior. However, despite all the positive associations with online support, the authors found that online communication was not ideal for close social communication, especially when it replaced face-to-face or telephone conversations (this study did not measure Skype or other types of video-chatting, nor did it track text messaging). They caution that decrease in quality of life can be seen if the online relationships are less rich than those in the offline world, and that computer-mediated relationships can be a poor channel for deep and sustaining bonds. Weak social ties supported via online communication methods – think of Facebook friends, rarely seen or spoken to, who wish you a happy birthday – can be limiting, especially when compared to those in physical proximity. Linking people to information and social resources – like support groups for cancer – is where online relationships can be beneficial.

Social support often falls to women. This is seen online, too, in another affirmation that online behavior usually mirrors offline behavior. Despite technology and the Internet as being

perceived as a man's domain, it's actually women who use social networking sites, GPS, mobile and healthcare devices more, along with a host of other technology-related communication styles, features and devices (Waldman, 2012; Madrigal, 2012). Women are the ones who tend to relationships, and often form the spaces and relationships online where discussion and sharing is prevalent.

Healthcare especially is one area that is growing, both as an industry and in an online sense. A study comparing female cancer patients in online support groups found that those who used online support groups felt more in control of their health and less distressed about the disease (Seckin, 2011). It was extremely beneficial for older women to be involved in online support groups; in fact, as the severity of symptoms increased, Seckin (2011) found that older women joined more support groups, while younger women just spent more time online. It was hypothesized that older women generally had less of a robust social networking than younger women and thus had less opportunities offline to connect with others in a similar situation. Peer-to-peer support benefited those in the groups because it helped empower them, gave them hope, information, and opportunities to share and learn about others' experiences, all of which helped them cope. Online social support, in fact, in the form of peer-to-peer support, was the second biggest factor, after depression, in predicting how well patients were able to cope.

The same thing was found true in a study on rural residents in Texas. Rural residents tend to have tighter familial bonds than urbanites due to their isolation, and so when family moves away, they tend to feel lonely when they lose this support system. The Internet helps eliminate the burden of maintaining a long-distance relationship, and the rewards of using the Internet to communicate with far-away friends enhances well-being. Those who make the effort to interact socially online, as long as there is already a positive relationship, tend to be happier (Park, 2012).

There are also noticeable gender differences in studying personalities and social support online – Amichai-Hamburger (2005) notes that despite the fact that women tend to be more self-aware and use their network for social support, introverted and neurotic males eventually realize the "benefits" of using the Internet to meet their social needs – but that there have not been studies comparing the two. Further research is needed to see how different personality types, as divided by gender, use social support resources in an online setting, as well as how that can be manipulated to help users become motivated so they can achieve their goals. These goals can be as simple as developing coping strategies or increasing one area of well-being.

Motivation and Goal Setting

The previous sections discussed personality differences and how certain people are more susceptible to using the Internet as a social medium and the social support they can receive. Social support is vital for humans; without it, or a perceived lack of it, quality of life decreases. Individuals who feel lonely or depressed – who feel they don't have a strong social support network – don't have the wherewithal to carry through, especially when faced with obstacles. One of the reasons loneliness is correlated so much with the Internet is that it is easy to view the Internet as an escapist tool.

One new area of research evaluates motivation specifically in the context of mediated environments; e.g., what makes a person use the Internet (or applications such as computer-mediated communication) versus another medium like television, which is where this theory originated (Vas & Gombor, 2009). Research has found that motivations for using the Internet fall under a few categories: information-seeking and fulfilling interpersonal needs, which divide further into entertainment and social interaction. Relaxation and escape are also two primary reasons people go online, and research has suggested that going on the Internet is especially

useful for those who want to change their mood, even more so for those who are eager to shed negative feelings (Vas & Gombor, 2009). Companionship, too, is also a primary reason; staying in touch with others, no matter how far away, is one of the biggest benefits of the Internet.

Among the many interesting conclusions reached in Vas and Gombor's (2009) study comparing Israeli and Hungarian medical students use of the Internet was that the higher life satisfaction is, the less likely a particular student would use the Internet for companionship purposes. They theorized that using the Internet for companionship is connected to loneliness, and lonely individuals feel less satisfied with life. Those who were happier with life also used the Internet less as an escapist tool. The Israeli students also used the Internet more across every spectrum; this was theorized as they needed to use the Internet more to find information and resources since they were living in Hungary.

A similar study was undertaken with Chinese students living in South Korea. Lee, Lee and Jang (2011) tracked how Internet use helped or hindered immigrants acclimate themselves to a new country. International college students were used because they would have regular access to the Internet, the Internet is a large part of college students' lives, and because lots of similar studies have used college students. They tracked use motivations divided into a few categories: homeland orientation (keeping in touch with Chinese family, friends and news), local social interaction (building a support network in Korea), entertainment, and local information seeking. Those who used the Internet to build a local social network – in essence, a life in Korea – reported greater satisfaction than those who spent more time on homeland orientation activities. This study reinforced that the Internet is merely another tool. As Lee, et al. (2011) wrote, "the Internet does not uniformly facilitate or impede international students' adaptation, but rather serves as an additional means by which they can pursue different goals that may or may not

contribute to a smoother transition" (p. 436). Those who used it to form a local social network reported adjusting better, while those who were more oriented to using it primarily as a way to stay connected to China hindered their adaptation to their new country. By using the Internet to stay connected to their homeland, they could also inadvertently invite further isolation, theorized Lee, et al. (2011), leading to greater emotional challenges and a lowered sense of life satisfaction.

Motivation is implicitly tied in with goal-setting. Online communities have often formed around a specific goal, with the community used to offer support and resources to those taking part in it. Burke and Settles (2011) studied whether or not these communities actually helped goal performance. These sites are used to help individuals with individual goals (like losing a specific number of pounds or running a faster mile), rather than group-oriented goals (raising a certain amount of money for charity collectively). This is important to note for two factors: one, the Internet facilitates greater tracking of individual goals, with the ability to share, compare and encourage milestones, and that one's success is not contingent on another's. Those whose goals are made "public," in that they have someone to report to, perform better because they are more likely to stick with it due to the social pressure to be accountable. Comparisons also spur competition, which can lead to greater confidence and motivation to continue.

Many goal-setting websites offer some form of social capability. The social functions not only connect users with others who have similar goals but provide feedback, which helps people perform better. Burke and Settles (2011) found that those who used the social features in a goal-setting site made greater progress on their goals than those who weren't social. Those who collaborated, who felt part of a community, not only did better – and often accomplished their goals – but helped promote community-centric behaviors, and were more successful over the

long term. Social features did not distract from the goal; rather they enhanced it, increasing persistence and trust. This study shows that those who are serious about making changes in their lives should try to find a supportive community, especially online where it is likely that one can find someone with similar goals to help keep them on track.

People's needs drive their motivation (Sun, Rubin & Haridakis, 2008). Motivation is often assessed from an expectancy theory, explain Liao, Liu & Pi (2011) in their survey of what makes bloggers motivated to blog. Expectancy theory suggests "that expenditure of an individual's effort will be determined by expected outcomes and the value placed on such outcomes in a person's mind" (p. 252). It focuses on behavioral outcomes and how likely it is that a certain outcome will happen. The amount of effort is based upon the value of the reward expected from the outcome, how likely it is that this particular outcome will happen based on the behavior, and how attainable the goal is based upon actions and efforts.

Intentions primarily determine behavior. However, intentions can change based upon other factors. Liao, Liu & Pi (2011) identify these as usefulness and utility, "personal outcome expectations" (p. 253), self-expression, and subjective norms. Since their study focuses on bloggers and blogging, they found that women were motivated by self-expression (sharing and connecting with others; otherwise known as social support), while men were influenced by their own personal expectations of what they wanted to gain ("personal outcome expectations"). Knowledge sharing (which is a form of utility and social support), as well as ease of use, also correlated to positive attitudes toward blogging, which led participants to continue blogging.

There are two types of rewards that motivate people: intrinsic and extrinsic. Rewards for a given task can be either/or or a combination of both, and depend upon the task. Intrinsic rewards are self-directed; they are positive feelings, like confidence, happiness and self-esteem,

while extrinsic are things like money or food. In Liao, et al. (2011)'s survey, they counted

extrinsic rewards as "looking forward to others' responses," "regularly connecting with people I

know," "understanding others," "meeting new friends," while intrinsic rewards included

"pouring out my thoughts and feelings," and "sharing my life with others" (p. 254). Those who

had greater total motivation between the two types were more likely to blog. There was no

significant difference between the value the bloggers' placed on intrinsic and extrinsic rewards,

but they tended to feel driven mainly by intrinsic rewards, and that the higher intrinsic rewards

were, the greater probability a person would blog (Liao, Liu & Pi, 2011). The study shows that

even if a person had a great intention to blog, she would be less likely to continue blogging if she

didn't receive a form of feedback, like connecting with others. Basically, intrinsic motivation

only goes so far; it is not sustainable unless there are extrinsic rewards to help bolster someone

when motivation is low.

The Internet's use as a tool, and its ability to encompass other tools like blogging and

self-tracking, can help individuals track a pattern of behavior and share their progress. The

feedback loops, the reinforcement given both by seeing the raw data (the numbers or

progression) and, if used, the social support aided through these tools, helps individuals with

their own goals, whether to form new friends in a new environment or just to continue away at a

personal project. Those who are most successful combine robust social support with a way to see

their progress.

Technology

The Internet's sociality – think of it as possibly the largest gathering place, but splintered

into different and overlapping groups – is well known, and most individuals and organizations

take advantage of this feature to varying degrees. However, the specific tools used and how they

can be used is still being explored. One emerging area of research is in the field of positive technologies, which Riva, Baños, Botella, Wiederhold & Gaggioli (2012) define as "the scientific and applied approach to the use of technology for improving the quality of our personal experience through its structuring, augmentation, and/or replacement" (p. 69) – basically designing technology so that it promotes adaptive behaviors and positive functioning through what they term affective quality, engagement/actualization and connectedness. Otherwise known as "positive computing," they see this as the future of human-computer interaction (HCI) in the next decade, now that the field has, for the most part, addressed the most basic of needs and goals for users. Rooted in the growing science of positive psychology – which focuses on life satisfaction and well-being, along with "optimal" behaviors, instead of a disease or pathological state (Riva, et. al 2012) – positive technology is designed to "induce positive and pleasant experiences," "support individuals in reaching engaging and self-actualizing experiences" (otherwise known as "flow"), and "used to support and improve social integration and connectedness" (p. 71). It's not intended to do things for people, but rather engages them actively in activities they already do.

Botella et al. (2012) suggest that this can happen through three ways: structuring (through a feedback system), augmentation (allowing multisensory experiences), and replacement, which is usually discussed within the context of virtual reality. Virtual reality, due to its anonymous nature and the ability for a person to become someone else, can be a very supportive environment for those that feel stigmatized, marginalized or otherwise without the social support they need, since they don't have to worry about judgment and social pressure they could possibly receive in a face-to-face interaction (High & Solomon, 2008; Amichai-Hamburger, 2005, p. 43).

Depending upon how computer-mediated communication is structured (as in instant message or chat boards, for instance, although that includes the rules and norms of a particular site), a given site or medium can offer more or less "incentive" or encouragement for a given user to interact. High and Solomon (2008) found that customization enhanced support within online social groups; the ability to make decisions regarding avatars and what they prefer to "show" or "tell" the others in a given community affects how useful the support the community provides. As they put it, "the quality of emotional and esteem support conveyed on mediated social networks is largely determined by both the available technological features and the decisions people make in designing their profiles."

Customization, also known as tailoring, is one such way to promote positive functioning. Tunneling is another. Fogg (2003) describes tunneling technology as a form of "guided persuasion," where users are guided through a series of steps. They go through a process intended to reach a certain outcome. Many technological tools intended to change a user's behavior use a combination of conditioning practices (positive reinforcement/feedback), tailoring and tunneling.

Conditioning practices are also inherent in one growing use of self-monitoring tools, a type of positive technology. These tools allow "people to monitor themselves to modify their attitude or behaviors to achieve a predetermined goal or outcome" (Fogg, 2003, p. 44). Using self-tracking tools can take the tedium out of what is seen as a laborious process and can shift how a user perceives either her own habits or a topic as a whole. The feedback given by the technology, often stored by the device and/or given in a real-time fashion, bolsters motivation to continue to use the technology. Periodic reinforcement, either as a standalone feature or integrated with other tools, must be used judiciously for it to be effective. Fogg (2003) explains

that this is most effective when feedback is unpredictable; when it is constant, it loses its effectiveness.

Changing behavior often requires, unconsciously, a change of identity for the user. The nature of many forms of computer-mediated communication, like blogging and chatting, give the user the ability to "control messages … more deliberately" than through face-to-face communication, enabling them to "exaggerate intended characteristics and diminish unwanted ones" (Walther et al., 2011, 4). This practice is called selective self-presentation. Walther et al. (2011) found that people who posted messages in a public forum like a blog emphasizing certain personality characteristics later described themselves that way, highlighting their growth in that area. Reciprocal interactions online also led users to identify themselves using that term.

The public nature of these actions – even if it is to a blog or forum that only a few people will see – "leads people to internalize that behavior to a greater extent than its private counterpart," explain Walther et al. (2011). When a person is behaving privately, she can disregard her actions, but behaving publicly forces a person to be accountable for her actions. Identity is linked to self-presentation. Another reason many sites give users social options for sharing information on their behavior is to keep them on track; friends can provide a sounding board and a motivating force for users working through a difficult task, and the user herself often does not want to disappoint her friends or have her identity "shift" in a negative light.

Computers can act as social actors by providing the feedback itself, rather than a human on the other side. In order to act as social actors, computers adopt social roles and social dynamics in order to persuade and provide valuable feedback (Fogg, 2003). Reciprocity, feedback and cues are all ways computers can reinforce behavior. Computer-aided therapy is one approach being taken by some healthcare professionals to help people work on healthy

behaviors, like smoking cessation or self-care. Using a combination of conditioning practices like personalization (tailored emails and content), positive behavior can be modeled or reinforced, or serve as a reminder.

Many mobile applications are using alerts as reminders, to reinforce awareness of a particular habit. The future of positive technologies is looked at by many to be mobile, due to the growth in smartphones and the convenience factor. Motivational tools, or applications designed expressively to help a user change behavior will continue to be very specialized (Fogg, 2003), both for the user and for the specific behavior – e.g., applications like Nike+, designed for runners. They will be cross-platform, integrating mobile with computer-aided applications and communication, like emails. Tactics and strategies for influence and persuasion will also get more sophisticated, as will the tools that power them. Gamification is one such strategy, fostering competition and accountability.

Conclusion

In order for individuals to feel in control of their life, they need to have a sense of agency, that they can effect change; social support, friends and family to talk to and encourage them; and a sense of belonging, engagement and connectedness to others and to work. The Internet has long been a haven for those who feel they do not have any of those systems in place in life, yet it is also a place where people can congregate to change some aspect of their life that is unsatisfying. For individuals who express certain personality traits, like introversion and neuroticism, the Internet can offer solace and a way to maintain or develop relationships outside of their offline lives. This can especially be helpful when in a situation where specific social support and guidance is necessary, like in navigating cancer, or when moving to a new city. People in their offline lives may not be able to offer the social support or the resources that

others online can; online social support can be a replacement or a supplement to traditional offline support.

Social support and motivation go hand-in-hand. Social support online is fostered by self-disclosure, which strengthens ties, both weak and strong. This promotes positive well-being. Both types of motivation – intrinsic and extrinsic – are needed for a person to become successful at a given task. Extrinsic motivation, encouragement and support from others, bolsters and reinforces goals when motivation is lacking. A person cannot make change by herself. She needs the outside social support, which can be technologically driven, to help her.

Many technological applications offer social features. Underlying these applications is the understanding that sharing and communicating with others helps a person achieve goals and leads to positive outcomes. If the tools are successful, users will continue to use them, but that is also contingent upon the community around them – bloggers might find the blogging tool easy to use, but if no one is reading or commenting on their posts, they are less likely to continue blogging.

Reciprocity and feedback are also necessary in motivation, and the new field of positive computing makes sure to use these concepts. Positive technologies are technologies designed expressively for users to achieve positive outcomes, and they are developed with specific strategies so users are persuaded to change behavior. While they often use traditional psychological theories like feedback and reinforcement, they are also personalized for an individual and/or a behavior. Taking advantage of the psychology of computer-mediated communication and the interactive nature of the Internet, positive technology uses a number of strategies to motivate users.

This topic is very rich in both theory and applications. Further research on specific applications and strategies in positive technology will be done in the next few years, especially as tracking applications become more commonplace with the continued adoption of smartphones. Other research will be on gender differences and differences in the context of using specific applications. Despite the common view that men are more technologically adept, it is women who tend to be more social, and use many online applications moreso than men. How this will be viewed in the context of personal technologies and motivations is yet to be seen.

As the culture continues to offer messages of hope and encouragement, necessary for people stuck in negative states due to the economy or other factors, the Internet is increasingly being used as an inspirational tool, a place where people can go to seek solace and encouragement, which can enable them to make changes. And once the desire to make changes is strong, a person can also use the Internet to help him or her stick with the resolution and actually achieve a goal. For people who want to make a change in their lives, using the Internet for social support and accountability, combined with the tracking tools and motivational strategies enlisted by positive computing technologies, will help them be successful in their endeavors.

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