

Why Social in the Digital World Is Not Necessarily Social Support: Implications for Experience Design

By Steven M. Schwartz, PhD and Brigid Byrd, PhD



individuALLytics



Humans are social creatures by design. Whether it is the attachment work of Harry Harlow and his monkeys, Bowlby and his work with attachment and loss, or Bandura and his work on the social determinants of aggression, Behavioral Science has a long-held interest in the social nature of human nature.

The preponderance of this evidence indicates that interpersonal relationships impact our physical and psychological wellbeing for better and/or worse depending on the quality of the relationship in general and the character and timing of a given interaction in specific¹.

¹ Fenney, BC & Collins, NL (2015). *A New Look at Social Support: A Theoretical Perspective on Thriving Through Relationships*. *Personality and Social Psychology Review*. 19(2), 113-147.

Well established, caring, and supportive relationships have consistently been shown to “buffer” against a host of risk factors (e.g. depression, substance abuse, arrhythmia, irritable bowel etc.) while social alienation (a lack of social connections) is an equally well-established risk factor for many of our most common and costly health conditions². However even established relationships can produce risk when such relationships are highly dysfunctional, abusive, co-dependent, create relational/role conflict, extreme role obligations, or provide unwanted, ill-timed or insensitive advice.

Social for better or worse permeates every aspect of our lives.

In this whitepaper, we will examine closely the social nature of human beings and translate that nature into a user experience design heuristic that can create either positive or negative social experiences with a focus on the best way to facilitate social support via digital interactions. We believe that thoughtful design can better provide digitally delivered social support and that one critical step toward thoughtful design is to offer the design, development and research community a design heuristic for those charged with developing high quality social experiences for supporting end users via digital technology.

Social Played Out in a Digital World



Interpersonal relationships by are nature complex. The digital age has brought with it, a host of new social interactional possibilities adding unique complexities and challenges for the social intercourse of everyday users both in terms of what these networks provide and what they do not. The question is not only are these social networks beneficial or not, but more importantly, what about the user experience design makes them so?

To understand digital social network design in terms of provision of support, let us begin with a simple, straightforward set of definitions for social support types³ (i.e., assistance/help) that people commonly receive from others:

1. **Emotional Support.** Emotional support would include thinks like non-judgmental listening, displays of empathy and/or kindness and understanding. Emotional authenticity demonstration of true caring. Hot emotional language.

² Cacioppo, JT & Cacioppo, S. (2014). *Social Relationships and Health: The Toxic Effects of Perceived Social Isolation*. Soc Personal Psychol Compass 8(2), 58-72.

³ <http://www.macses.ucsf.edu/research/psychosocial/socsupp.php>

2. **Instrumental Support.** Instrumental support is primarily the provision of support through “doing” for others and is comprised of a host of various acts of kindness. Facilitation of material support. Ease of use and reliability. Instructional design.
3. **Informational Support.** Informational support concerns the provision of sound information, facts or instructions with the intent of increasing knowledge or skill. Informational credibility and authority as subject matter expert. Cool emotional language. Providing evidence based information in right dose to right people. Possibly using TTM to decide where the patient is in terms of information needs.

In addition to the types of social support noted above, the need for social support and the type of support needed is dynamic and therefore by definition requires both personalization and contextualization over time to be maximally effective.

Relationship by nature are complex. Digitally enabled social networks add further complexities and challenges for the everyday consumer. Whether existing in a more broadly connected relationship (one with known identities interacting in a real-time context) or exclusively digital, it serves us to understand what digital can and cannot provide in terms of support.

Not surprisingly digital technology has radically changed when and how we connect and communicate with one another. Interpersonal touchpoints now occur in synchronous and asynchronous time, across geographic and geo-political boundaries, facilitated by multiple communication channels and using increasingly unique language forms (e.g. emojis).

Recent years have seen a significant rise in digitally enabled social technologies that include a diversity of online health support (e.g. PatientsLikeMe, Cancer Centers of America, Baby Center, nearly all patient advocacy groups). But if we are to leverage technology to better support others by way of digital technology that promote physical and psychological wellbeing, we need to better understand and consider the design and delivery elements that best meet the user’s needs and increase the likelihood of buffering others against the slings and arrows of changing or compromised health⁴.

Let us look at what functional attributes of the digital environment provides for the social support experience. It is important to keep in mind that many of these attributes cut both ways in terms of providing both advantages (benefits) and disadvantages (risks) via the same functionality.

⁴ Cohen & Wills (1985) Stress, Social Support and the Buffering Hypothesis. Psychological Bulletin, 98(2), 310-357.
file:///C:/Users/smsmc/Downloads/Cohen_Wills_1985_PsyBull.pdf

Design Imperatives for Digital Social Support

How then can this digital social medium create a true and effective social support experience through its design?



1. **Informational Source. The Who:** Informational source concerns the supplier of the communication? For the audience to take a given communication seriously several things need to be considered about the information source.

- Credibility of Source – Is the source able to provide legitimate support based on background, access, skills, pedigree or other demonstrable qualifications (including endorsements from credible sources)?
- Authenticity – Does the support offered convey the motivation or intent for helping is or perceived to be genuine and caring?
- Anonymity – Is the source identifiable? Anonymity can protect regardless of the underlying intent (good or bad) of the source.
- Existing relationship – Does the functionality enhance the ability to leverage existing relationship and social support networks?

2. **Communication Structure. The Who:** The intention of the audience or recipients for resources can dictate the nature of the communication community. This intention supports how are they reached and information exchanged? Is the audience a passive recipient or is there active exchange?

- 1 to 1 – Best suited for intimate or private communications.
- 1 to Many – Best suited dissemination of broadly applicable communications such as market messaging and general education.
- Many to 1 – Best suited for crowd sourcing input or problem solving to an individual, (i.e. collective advice).
- Many to Many – Best suited for mobilization of a crowd, generating social action.

3. **Support Structure & Quality. The What:** Support structure and quality concerns the primary type of social support needed. This represent a balance between our 3 basic types defined above of instrumental, informational and emotional support) and the quality of that support/assistance itself.

- Collective efficacy – The group members' perceptions that this digital support group will be successful at providing support to themselves and the group.

4. **Message Intent (context). The What** - This is the value exchange between social parties that represents the “give and get” between information source and the audience (end user). Concepts of reciprocity are typically at work here. Fundamentally the exchange must provide and answer, solve a problem or otherwise provide focused value for the consumer. It is helpful to consider this *informational currency* with the intension of providing a significant informational return on investment.

Types of informational exchange:

- Solve a problem
- Make a process easier
- Give me the correct accurate information
- Hear me out, let me express myself
- Give me stuff (rebates, coupons, raffles, access, freebees) loyalty programming



Interaction Motives

- Chat – brief connection typically somewhat trivial or superficial and intended mostly just to connect.
 - Collaborate – shared work towards a common endpoint typically of a creative nature).
 - Cooperate - shared work towards a common endpoint typically of a more practical nature).
 - Celebrate – shared recognition for and activities around an achievement.
 - Commiserate - shared recognition of and activities around a shared negative event or loss.
 - Companionship – regular connections of both deep and superficial quality (e.g. chat) where the goal is simply being in the company of another person. Builds longitudinally.
 - Real world community development – create awareness of real world events
5. **Content Quality** – does the content have a basis in fact, best practices, evidence-based etc. This is about the quality of the information itself. Credibility here too plays a role and this also loosely includes lay concepts of access, validity (e.g. face validity), reliability (delivers what it delivers consistently) and ultimately utility (provides some form of value/reward). The notion of content credibility will depend on the type of content (and support) being provided (emotional, instrumental, informational). Accuracy of information, currency of information
- Consumability (one form of access) – is it easy to understand (particularly next steps). This includes things like literacy, numeracy, visualization, instructional design etc.

- EBM Guidelines – use of evidence-based information is critical to provision of informational support within healthcare
 - Best Practices (content and delivery) – how best to display and disseminate content based on the communications medium (and related constraints) in ways that are readable, motivational and compelling.
6. **Relationship Facilitators** For any relationship to develop in health and depth there must be some form of sharing including shared experiences as part of the give/get exchange between participant that strengthens social ties.
- Shared Activities
 - Shared Goals
 - Shared Experiences
 - Shared Challenges
 - Shared Enemies
 - Shared Friends/Family

The Where and When

These two aspects of the heuristic work closely together and therefore should be considered closely together and are about timing and amount of content deliver. Therefore, the foci here is about contextualization and dosing. When should content be delivered, what are the circumstances in which the information will be consumed. This has requirements that include the ability of end users to make a request for information needed, get triage to the right experience path (cumbersome phone triage systems are the worst example of this), mechanism for providing feedback (e.g. thumbs up button).



PatientsLikeMe¹ is a good example of digitally enabled social support that does many things right. Originally started by a friend and brother of a patient with ALS, the social site has come to serve over 600,000 patient-users, with individuals reporting on their experience with approximately 2,800 health conditions and related treatments. Today, the company is effectively crowdsourcing the patient experience and creating one of the largest repositories of patient-reported, cross-condition data.

But with this kind of digital traffic, what about the site makes it so compelling and specifically what makes patient-users keep coming back. There are several attributes of the patient-user experience that we believe have led to the success of PatientsLikeMe.

1. Example functionality for addressing all 3 primary forms of social support.
 - a. Examples of Emotional – Commiserate, Celebrate with other struggling with the same condition or issues
 - b. Examples of Instrumental – Review and connect to Clinical Trials suited to me and my circumstances.
 - c. Examples of Informational – Knowledge by way of data based on my own self-monitored data but also relative to my social/peer network.
2. Tracking – Like most digital mediums PatientsLikeMe provides functionality for patients to self-monitor key health related metrics which has a well-supported impact on behavior change (albeit fragile to extinction when employed in isolation).
3. Content – Informational support by definition requires information or content. PatientsLikeMe content includes the traditional health information (which we know is necessary but insufficient for change) but also adds the element of the unique or idiosyncratic information of the individual users to also drive value via shared experiences.
4. Transparency of Intention – Clearly states its intent and values relative to the site, the data, and its overall value.
5. Configuration of Communication Structure – allows users to focus their bidirectional communication as desired (e.g. 1 to many, many to many etc.).
6. Connections to those with common enemy (patients, HCPS, clinical trials etc.)



BabyCenter, LLC is another good example of digitally enabled social support that aims to provide parents with peer advice, trusted information, and support that aligns with the developmental stage of their child. A member of the Johnson & Johnson family of companies, the site is used by 8 in 10 expectant moms every month and extends to over 45 million parents monthly internationally.

With this large amount of parent-users, what makes BabyCenter so compelling and specifically what makes parent-users returning. There are several attributes of the parent-user experience that we believe have led to the success of BabyCenter.

1. Example functionality for addressing 2 of the 3 primary forms of social support.
 - a. Examples of Emotional – peer community at similar stage of pregnancy and child development
 - b. Examples of Informational – Expert Advice, My Pregnancy & Baby Today mobile app
2. Tracking – My Pregnancy & Baby Today mobile app provides tracking for expectant moms' health data and tracking for baby's development in a personalized calendar.
3. Content – Through the My Pregnancy & Baby Today mobile app parent-users receive support and advice throughout their baby's first year regarding feeding, sleep, health, activities, etc. This content is also tailored to you and your baby's development.
4. Configuration of Communication Structure – Through the mobile app parent-users can connect with other parents expecting babies in the same month in order to learn from each other and then reconnect with them post-delivery.
5. Connections to those in common stage of pregnancy and baby development.
6. Call to action through Mission Motherhood to assist mothers and babies in low-resource areas of the world.

Conclusions

Technological innovation now allows people to connect in new ways that cross temporal, geographic, and cultural boundaries that has the potential to unite people in a common cause. In the case of health care, chronic condition self-management the ability to provide additional social support those struggling to cope with health issues, optimize their response to treatment, become more effective condition self-managers and maintain or improve their health-related quality of life is very attractive and has potential value across the care spectrum (e.g. patients, practitioners, plans, pharma, ACOs, etc.). However, if we are to design digitally delivered patient support, a thoughtful approach to design is imperative. Like all other forms of delivered social support, when delivered poorly can become an additional stressor or burden. Here we have laid out a heuristic for the provision of social support though a digital medium to help the digital health design community. In a world where people with chronic health conditions can get together and share their experiences living with disease, it seems incumbent upon us to create environments of safety, trust, usability and utility.