iMchanging: Spiraling Through Holistic Nutrition Change One Click at a Time

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Abstract

This paper describes an Internet/mobile software application that will make it possible for a nutritional consultant to help clients accelerate nutrition change, create richer consultant/client relationships, and potentially increase practice size. The “iMchanging” application ascertains the current stage of change, and identifies how the client defines meaning, in order to create a customized framework that supports a personalized nutritionist/client relationship. Because we live and work in a world that is increasingly Internet and wireless enabled, we have the obligation to explore how technology can assist practitioners in enabling the change process for their clients. The iMchanging software is a web based program that includes key components which are enabled via mobile device applications. Exploiting the ubiquity and instant accessibility of mobile technology allows in-the-moment tracking of emotions and thoughts, access to motivational media, and connection to social networks for peer review and affirmation. Key conceptual principles underlying this program include understanding the stage of change, as defined by Prochaska, leveraging the meaning orientation quadrant as defined by Divine, and utilizing the power of customizable configurations and social networking to create unique Internet experiences with a common set of tools.

Keywords: nutrition, Internet, mobile, Facebook, YouTube, Twitter, blog, change, Prochaska, Divine, social networking
Benjamin Franklin once said “When you’re finished changing, you’re finished.” Considering that change is a constant in our lives, one might think that as we get older we would become masters of the ability to change. Yet, based on the percentage of failed attempts to modify lifestyle habits – quitting smoking, reducing alcohol consumption, adopting healthier eating habits – it is apparent that change is something we need help with. In today’s fast-paced, and increasingly complex society, mastering change is more critical than ever. Our personal behaviors have an immediate, sometimes devastating, impact on our communities, our nation, and our planet. Modifying how we eat is the starting point for major lifestyle changes in an individual, and those changes can have profound positive ripple effects in many dimensions.

Accordingly, many people will seek the help of a holistic nutritionist for help with making changes in how they eat. Unfortunately, most holistic nutritional approaches suffer from at least four deficiencies: lack of attention to the stages of change; misunderstanding a client’s meaning orientation; underestimating the importance of the client’s social network; and failing to leverage technology as a tool for change. The reasons an individual will seek the support of a holistic nutritionist vary. They can range from weight loss to health improvement. Regardless of the reason, the path ends in the same spot - with the client sitting across from the nutritionist engaging in an intake conversation about health goals. At this point, most nutrition approaches assume everyone is ready to take action the minute they sit down for the first consultation.

Appearances can be deceiving. Frequently the stages of change are not understood at all, and if they are, are not actively applied to the new client. The reasons underlying the desire to see a nutritionist are very important to understand, especially the meaning from which they are derive. Each individual derives meaning from a specific point of view. These points of view are quite varied and do not mix well. Misunderstanding a client’s meaning orientation can lead to
communication challenges later in the program. A current deficiency in the holistic nutrition model is a failure to combine the stage of change with the meaning orientation viewpoint into a tool a nutritionist can use to deeply understand the client and deliver a customized relationship and program. Two additional deficiencies seen in the holistic nutrition model are the lack of recognition and utilization of a client's broad social network, and the lack of a technology presence that enables the holistic support model needed. The former of these deficiencies diminishes the positive and negative effects a social network can have on a client’s progress, while the latter deficiency does not take advantage of the power and reach of today’s technology platforms.

All of these deficiencies point to a gap in the tools holistic nutritionists have to support their clients. Holistic nutritionists need an automated way of fully connecting with a client in all of their uniqueness, which in turn, helps to accelerate the individual change process. This paper introduces "iMchanging," a new set of software tools that take advantage of mobile and web technologies to create this new automated support model. With this tool, holistic nutritionists will be able to support clients in ways that are not physically possible today.

**The Dynamics of Health Change in a Changing World**

As individuals seek to change, the world around them is changing too. One of the biggest transformations we are experiencing is in the way we use technology. Over 76% of the U.S. population is Internet enabled and the number is growing every year (World Bank, 2010). Nearly 23% of all children and adults in the United States live in households that rely exclusively on wireless telephone service (Blumberg & Luke, 2009, para. 17). In less than two months, Apple Inc. sold two million iPads, a unique mobile tool (Harrison & Pope, 2010, para. 1). With the advent of mobile computing, communication between individuals and groups, using supporting
applications, is becoming easier. Ever more sophisticated applications are integrating many of the mainstream community building tools that keep people connected and informed. Clearly, holistic nutritionists have a tremendous opportunity to leverage the Internet and mobile technologies to reach a wider audience. It is possible to evolve this trend to the next level, offering a personalized application that engages clients where they are both in the change process and in how they make meaning of the change. New tools make it possible for clients to connect with their practitioner more than a few hours per month. The ability to use technology to foster a more understanding and supportive relationship will result in more effective and rapid change.

The holistic health model moves beyond the focus on symptoms, offering a perspective which allows individuals to look at all aspects of their lives, thereby enabling them to understand what might have caused the symptoms to appear (Dacher, 2006, p. 35). A holistic nutritionist looks at a client’s lifestyle behaviors, the norms and mores of her culture, her associations with other individuals and systems, and her beliefs, emotions, and meanings surrounding food. One of the most powerful components of this model is its personalized approach, which allows the practitioner to identify and meet the needs of the individual where she is. Improved accessibility is also important. While the one-on-one relationship between client and practitioner is central to empowering change, the time the two spend together is generally only one to two hours per month, perhaps four if they meet on a weekly basis. Even with a limited amount of time, great change is possible. What if it were possible to accelerate the change process and enable holistic health benefits to grow more rapidly? Is it possible to create a system or model that allows the client and practitioner to spend more time “together” without it costing more or having longer/more frequent appointments? By leveraging the power of technology coupled with a

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1 Throughout this paper, the singular representation of a client or individual will be referred to in the feminine (she, her, hers).
holistic nutrition program I believe that it is possible to facilitate sustainable change that is truly personalized and effective.

One of the challenges facing any health practitioner is determining how effectively to enable an individual to change in the shortest amount of time. According to research, it takes anywhere from 28-101 days of consecutive action for new behaviors to begin becoming a habit (Singleton, 2008, p. 9). The key word in this statement is “consecutive.” When a relapse to previous behavior occurs, the countdown begins again.

What is it about change that makes this so difficult? All intentional personal change has two things in common which are the largest factors in determining whether change will be successful or not: the meaning the individual associates with the change, and her readiness for change. Given the importance of these factors in establishing the appropriate context for the change process, the sooner the nutritionist can map a client in relationship to these factors, the quicker a bond can be established. If the nutritionist is off the mark, the client may not come back, or may not fully embrace the recommendations suggested. As a result, it will ultimately take longer to build trust that the partnership will be beneficial enough to help clients meet their goals.

**Technology to the Rescue**

Creating a system that offers a personalized approach to working with clients - one that understands the stage of change they are in as well as how they derive meaning around the change - can strengthen the relationship in a way that allows the practitioner to embody the role of the compassionate ally as described by Robison & Carrier (2004). They describe a compassionate ally as someone who knows “how to authentically care and listen” (p.195). Knowing as much as possible about the client, and her daily challenges and triumphs in -between
appointments, provides the nutritionist with a depth of understanding that will make the consultation powerful and improve the likelihood that the recommendations co-created with the client will be more readily accepted and acted upon.

It is unfortunate that many health practitioners are not well-versed in technology and therefore, do not understand the benefits it can bring. Currently, for most nutritionists, the web is used to create static “brochure” websites. These types of websites are marketing-based, not support-oriented. Inside the company, technology is normally viewed as a tool for office support and is typically used for billing, client records, and inventory control. In today’s world, not having a website presence can make it difficult to get business. In tomorrow’s world, not providing continuous client access in a personalized way via the Internet, web, and mobile devices is likely to be a business killer.

The software program being proposed, “iMchanging,” consists of a web-based application synched with one or more mobile devices. The web application can be customized based on the client’s answers to questions regarding the stage of change she is in, and how she derives meaning with regard to change. These two concepts are at the core of the conceptual framework for iMchanging and will be fully explored later in this paper. Implementing processes appropriate to a specific stage of change − using web and mobile application capabilities and framing them within the meaning orientation of a client − lays the foundation for a unique, versatile, and powerful software program that will support a client and nutritionist in between visits.

**Meeting and Motivating**

Most practitioners, no matter what their discipline, focus on one-on-one interaction with their clients. Nutritionists generally provide their clients with a set of instructions about food
intake (type and quantity) and supplementation as needed to achieve health goals. A good holistic nutritionist will also inquire into a client’s lifestyle in order to better understand where she is in respect to her challenge, her behaviors, the community she belongs to (family, friends, work, etc.), and the support systems available to her (grocery stores, health facilities, home kitchen, etc.). With this information, the holistic nutritionist will be able to design nutrition programs for the individual that are beyond just dietary recommendations. In this way she can begin to address all the factors that are critical for whole person nourishment changes.

A typical intake session with a holistic nutritional consultant lasts 1.5 to 2 hours. The majority of the time is spent understanding a client and her health goals. A commonly used tool is the Metabolic Assessment Profile created by Datis Kharrazian (2006, p. 9-14). This very comprehensive form elicits the following: a client’s five major health concerns in priority order, her assessment of her current physical condition for various organs and their functions, and basic information on the normal pattern of foods she eats, stress and activity levels, and the medications and supplements she takes. Part of the intake is spent understanding the client’s goals and using motivational interviewing techniques to assess her readiness to take on a nutrition program. The client may be asked to provide recent results of any lab work or medical information the nutritionist feels is pertinent to the situation.

Motivational interviewing is a key tool to help a nutritionist assess a client’s readiness for change. Using open-ended questions, the nutritionist can explore what the client has done so far to prepare for change, what her areas of challenge have been to date, and what she sees as the ultimate goal in undertaking this program. During this induction interview, reflective listening techniques are used to provide the client a different view of what she is saying. This, in turn,

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2 These lifestyle changes can include exercise, relaxation, and meditation. Dacher (2006) focuses on four areas - psychospiritual, biological, interpersonal and worldly (pp. 39-46). Activities related to each of these areas would be considered as part of lifestyle change.
helps the nutritionist understand whether she is correctly interpreting the client’s responses. The nutritionist acts as an ally for the client, supporting her for all the work she has done to date. Near the conclusion of the session, the nutritionist summarizes what she has heard and the client provides feedback. Together, they ensure the client’s needs and perspectives have been accurately captured (Snetselaar, 2007, pp. 58-59). The final step is the creation of an action plan for holistic nutrition change. This generally includes a new model of eating, potentially nutritional supplementation, and specific directions on increasing exercise and/or relaxation techniques as needed.

Technology can perhaps be of greatest use in empowering an individual to take action. iMchanging can serve as a virtual nutritionist and help a client every day, in a variety of ways, to achieve her health goals. To understand how this is possible, two items need to be considered: the process of change, and how an individual’s way of finding meaning can modify how the nutritionist approaches change.

**Ch-ch-ch-ch-changes, Turn and Face the Pain**

Change is a personal process, yet it impacts everything around an individual as well. Singleton (2008) uses the image of a web with “intersecting thoughts, feelings, and actions that impact others’ actions and so on” (p. 10). She notes that “we influence and are influenced by everything around us” (p. 11). Most people focus on the behaviors people demonstrate to determine if they are changing. The smoker needs to be seen smoking less and substituting healthier activities. The client seeing a nutritionist needs to be eating more organic whole unprocessed foods, adding more movement into her daily life, and possibly utilizing nutritional

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3 Adapted from the lyrics of “Changes”, a song by David Bowie (1972). Lyrics for the original song can be found here: [http://www.lyrics007.com/David%20Bowie%20Lyrics/Changes%20Lyrics.html](http://www.lyrics007.com/David%20Bowie%20Lyrics/Changes%20Lyrics.html)
supplements. Like an iceberg, however, there is much more going on below the surface. It is the non-visible stages and interactions that can buoy up or sink a change effort.

At the outset, we need to understand that the process of change is cyclical in nature, not linear. In our goal oriented society it is easy to feel like a failure and give up on a desired goal if we do not see results quickly or we relapse to our old behavior. Prochaska (1994) liked the term “recycle” instead of “relapse” as it better describes the spiral nature of the change process (p. 48). Times of relapse actually provide the greatest opportunity for growth because they are key trigger points for accelerated change in a following cycle. Gently supporting and honoring a client through these critical junctures is pivotal for successful change to occur. "People who take action and fail in the next month are twice as likely to succeed over the next six months than those who don’t take any action at all" (p. 50). Figure 1 is a visual of the change spiral.

![The spiral of change](http://archiv.ub.uni-marburg.de/diss/z1998/0303/html/SPIRAL.gif)

Central to successful change is consideration of thoughts, beliefs, and emotions about the change as well as a solid understanding of the current situation surrounding the change.
Consideration of the impact to family and friends, co-workers, and others in the community will help prepare us for the kinds of external social challenges that might be faced. Our ability to change is almost always influenced by our ability to leverage the environments we operate in. Finally, the actions undertaken need to be examined – do they enhance or detract from the desired goal?

Even when a change seems the same from individual to individual (e.g., smoking cessation), the actual approach to change is very individualized. Despite this, all personal change moves through predictable stages, and each stage is supported by various processes. Without completing a stage, one cannot successfully progress to the next stage and is therefore less likely to be successful (p. 39). Most nutritionists are inclined to move directly into action, but we will see that there are three preliminary stages prior to the action stage that must be negotiated. Moving into action too quickly can cause a relapse to occur and when this happens - without understanding the underlying framework for change - it often feels like failure.

**Six Stages of Change**

There are six well-defined stages of change. Each stage occurs in a specific place in the change cycle and is based on a series of tasks that need to be completed before moving to the next stage. Table 1 describes the stages of change and the implications for the nutritionist.

iMchanging will fully support contemplation, preparation, action and maintenance stages. The pre-contemplation stage is not supported since it generally requires a different kind of intervention, such as psychotherapy or some other form of counseling, which is more than a nutritionist can or should undertake. Likewise, the software will not be needed for the termination stage since, at that point, the change is complete. It is important to note that there is a danger in moving a client too quickly into the action stage. It is the previous stages -
contemplation and preparation - that need the most attention from the nutritionist, as these are the stages clients can cycle around in for a long period of time. Helping move an individual through these stages of change can be very rewarding for all involved, yet many nutritionists cannot be bothered with people who are not ready for action. It is clients, who are not yet in the action stage, that a supportive software program can help most.

Table 1

*Description of Prochaska’s stages of change*

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation</td>
<td>Individuals have no intention of changing their behavior, and typically deny having a problem. Others are painfully aware a problem exists.</td>
<td>Generally seen when one person “drags” another person to a nutritionist stating “you need help”.</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Individuals acknowledge they want to change and take steps to address to do so. Contemplators struggle to understand their issue, see the causes, and identify next steps.</td>
<td>Clients may be largely seeking advice on next steps. They may not be ready for a full action plan.</td>
</tr>
<tr>
<td>Preparation</td>
<td>Individuals are planning to take action within a very short period of time and are making final adjustments before taking action. Commitment is a key component of this stage.</td>
<td>Clients may announce commitment to change and actions will support this commitment. Examples are supplements being purchased, and identifying healthy restaurants.</td>
</tr>
<tr>
<td>Action</td>
<td>Individuals most overtly change their behaviors and surroundings. This stage gets most attention because it is the most visible stage of change.</td>
<td>Progress is seen at each visit. Plans are executed as defined by client and nutritionist. Client is engaged in refining plans to meet goals.</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Individuals must work to consolidate gains and prevent relapses. This stage can last as little as six months to as long as a lifetime</td>
<td>Individuals need fewer in-person visits yet still require a relationship and support.</td>
</tr>
<tr>
<td>Termination</td>
<td>Termination is when the former nutritionist/client relationship ceases.</td>
<td>The nutritionist/client relationship ceases.</td>
</tr>
</tbody>
</table>
problem no longer presents any temptation or threat, the old behavior will never return, and the individual will have complete confidence that she can cope without fear of recycle.

generally ends at this point. The client is self-sufficient at this point, yet may still be buying product from the nutritionist and at this point, becomes a great reference for new clients.

Descriptions adapted from Prochaska (1994, pp. 39-45).

Everything we have discussed thus far focuses on the nutritionist observing the behaviors of the client from the outside. The client also has her own perspective, and knowing this perspective helps a nutritionist understand what the client sees from the inside looking out.

Ken Wilber (2007) created a model he calls “The Integral Approach” which he asserts “helps you see both yourself and the world around you in more comprehensive and effective ways” (p. 18). This rich, complex model uses a wide variety of components to create a comprehensive map. One key element of the Wilber approach is his use of a quadrant model to describe the inside view of an individual, the outside view of the individual, the inside view of the group, and the outside view of the group (p. 68). These ideas can be restated and elaborated in the following way:

• The inside view of an individual encompasses the feelings, emotions and thoughts of an individual that cannot be seen by someone looking from the outside;

• The outside view of the individual encompasses the external behaviors and actions of an individual that can be observed by another;

• The inside view of the group encompasses the feelings, emotions, and thoughts of the group. These are the things that cannot be seen about a group – the culture, social norms, and societal beliefs. The group can be as small as two individuals to as large as a nation; and

• The outside view of the group encompasses all of the external systems used by a group and those group behaviors that can be observed by another.
Looking From the Inside Out

Leveraging the Wilber model, Divine (2009) discovered that individuals orient themselves according to how they relate to the change they are undertaking. Divine’s model includes a lens called “Looking AS” a client. This lens allows a nutritionist “as best as an ‘other’ can, to deeply understand the view from which the client sees, acts, speaks, and looks for results or consequences” (p. 23). This approach to working with a client adds an extra dimension of holistic support not seen in previous models. By understanding how clients make meaning about a change, communication with the client can be enhanced, and the types of activities given to the client to perform will be more in line with how they fundamentally operate in the world. Figure 2 outlines the meaning orientation framework against Wilber’s four viewpoints.

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**Figure 2.** “Looking AS” a client: ways of orienting to meaning (Divine, 2009, p. 27)
Using this model, it is apparent how differently two clients might look at implementing a nutrition program. When a client seeks to change behaviors around eating, she will approach the steps of change based on her orienting viewpoint. Understanding this viewpoint can make a critical difference in how the nutritionist and client move forward together on the change initiative. In the case of an individual who wants to get more exercise and eat better, Figure 3 shows how the orienting framework highlights different approaches based on orienting viewpoint.

Figure 3. An example of different meaning statements for the same nutritional change.

It should be obvious by now that individuals are multi-dimensional beings who are part of an interconnected web, and that each of us has a unique way of viewing the world. The person sitting before the nutritionist, talking as though she is ready to change, may not be ready at all. Even if she were, she may not resonate with the actions the nutritionist recommends if they do not fit with how she relates to her meaning about the change. Couple all of this with the power of her social network to influence her both consciously and subconsciously, and it is
surprising that she, or anyone, could change as part of a standard practitioner-to-client, action-
plan-focused, one appointment per month approach!

Nutrition consultations are, by their nature, one-on-one. Even so, the nutritionist should be aware that she is not dealing with a single individual. She is actually dealing with a very large group. Every individual is part of a complex social network that is constantly influencing his/her beliefs, actions, and behaviors. This social network is incredibly powerful both in fostering and hindering change. A social community that is engaged in the same change process as the client can provide an army of “assistants” to help the nutritionist in-between appointments. Leveraging the social network can also accelerate change.

The Power of Social Networks

Social networks may exert the biggest influence on the client’s ability to change. Group members influence our thinking, friendships impact our behaviors, and “three layers⁴ deep” connections extend the influence of the network (Christakis & Fowler, 2009, pp. 20-21). With regard to nutritional changes, friends can and do influence what and how much an individual eats. In fact, even strangers can influence eating habits. Studies have shown that an individual seated next to someone who eats a lot is subconsciously influenced to do the same (p. 106).

The power of networks over individual behavior should not be underestimated. It may be easy to minimize their importance if we only look at eating habits, however, studies have shown that networks literally have the power of life and death. As Christakis & Fowler (2009) point out, “suicide contagion is perhaps the most devastating illustration of the power of social networks” (p. 121). Corroborating this, a recent study on Palestinian suicide bombers showed that networks play a more influential role on suicide activity than do hierarchical organizations

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⁴ The layers of influence are 1) my friends, 2) the friends of my friends, and 3) the friends of the friends of my friends. If we looked at this with a genealogical lens for comparison it would be equivalent to my siblings, my parents and my grandparents.
A key component of suicide contagion, whether it is happening to teens or terrorists, is an emotional story shared about the person committing suicide. The more poignant and compelling the story, the greater likelihood that others will find value in taking their lives. Also at play in this example are the shifting attitudes and norms that make the “cause” of suicide acceptable. Increased suicide activity seems to occur “via a spreading of ideas rather than by shared behaviors” (Christakis & Fowler, p. 127). If a network can have this much influence on the very core of an individual’s existence, does it not seem likely that it would have the same effect on health and lifestyle habits?

Food and body image are very emotional issues that are heavily influenced by ideas about what is acceptable and what is not. If a client’s social network, three layers of influence deep, does not engage in healthy lifestyle behaviors, she is swimming against a tide of influence over which she has little control. Couple that with the fact that the influence of the nutritionist may be, at best, two hours every four weeks, and moving through the stages of change becomes even more difficult.

How can we use virtual networks and emerging technologies to influence change and deliver support? The Internet has been cited as a useful medium for behavior-change interactions since it can deliver individualized, tailored connections at any time and place (Brouwer et al., 2010, p. 461). A recent study demonstrated a definite behavioral change with regard to fruit and vegetable intake. It showed that a well-designed Internet-based program can increase their consumption (Alexander et al., 2010, p. 325). These studies are suggestive, because they indicate our use of technology is increasing in sophistication. Our ability to interact with new technologies for more than playing games and performing specific tasks suggests that
sustainable change can be fostered leveraging these tools, especially when powered by the force of a social network.

Social networks are fundamentally about people connecting with people. There are many technology tools we can use to connect with others about health topics. We are seeing increased usage across a wide spectrum of individuals. From January 2009 to June 2009, 51% of adults 18-64 years old used the Internet to find health related information in the past 12 months. Of those, three percent had used an online chat group (Cohen & Stussman, 2010, p. 1). Doctors are beginning to embrace social media as well. Physicians have started seeking out social networks to share information with other physicians, get opinions on cases, and acquire insight into where to look for more information (Messina, 2009, p. 1). Now is the time for the holistic health community to help make the model even better.

Since its inception in the early 1980s, the Internet has evolved from a collection of static web pages geared towards sharing information, to highly sophisticated and interconnected community tools such as Facebook, Twitter, and YouTube. More recently we are seeing applications being made available via mobile devices.

There are many applications for health change but few, if any of them, derive from an integrated model tailored to the client and her needs. As an example, imagine a client ready to take action on a nutrition program. If she had an application that knew what foods she could eat, knew she wanted to focus on organic as much as possible, and knew her physical location, she could use this information to determine which organic food stores and restaurants were nearby. She could make a healthy choice in an instant. This would make sticking to a program much easier than if she had to go to the trouble of finding new places to shop and eat when she is hungry and standing in front of Taco Bell!
iMchanging: An Online Way to Support Nutrition Change

iMchanging implements an integral framework and application suite based on the stages of change, leveraging the power of social networks and a client’s meaning orientation. This integration results in a tool that: enables nutritionists to meet clients where they are, and is ubiquitous and easy to use.

iMchanging supports clients through the contemplation, preparation, action and maintenance stages, and accelerates change in the direction of a healthy lifestyle. Nutritionists are empowered to create individualized programs for clients and can easily maintain contact with clients in-between sessions. In the following pages, I will use mockups of web pages and mobile device views to illustrate how the application works. Since this product is still in development, the final release may change significantly in look and feel. The central concept of fluid movement and access between web and mobile devices will not change, however. Additionally, while the software will support many program related activities, this paper will focus on those elements that support accelerated nutritional change.

The Nutritionist’s View

iMchanging allows nutritionists to easily and intuitively add and manage clients, and administer their business. Figure 4 shows the various components the software program can contain.
Figure 4: iMchanging nutritionist home page

The home page mock-up provides the framework for the overall software program. Figure 4, item A shows the main functions available in the system: overview, clients, support, outreach, community, videos. (For color versions of the web pages proposed in this paper, please see Appendixes A through F.) A brief description of each main function follows.

• Overview – the main page the nutritionist will use. It provides an overview of their calendar with easy links to client pages, a view of what is being discussed in various networking forums, and a section that can be customized to contain an inspirational picture and quote, logo, or to-do list.

• Clients – this section contains client profile information and is where the nutritionist will establish the new client profile, including stage of change and meaning orientation. This is also where the various tools that support the stage of change will be selected.
• Support – this area is where the nutritionist can access key research links, handouts and flyers, recipes, protocols, links to nutritional supplement catalogs and ordering sites, and other useful links.

• Outreach – marketing is a key component of a successful business. This area of the website is for tracking newsletters, educational videos the nutritionist may make, and a personal blog. This page may be exposed to the general public as well.

• Community – a key component of iMchanging is the creation and support of social networks focused on healthy lifestyles and positive nutritional change. This section of the website will contain access to Twitter, Facebook, and any other social networking sites the nutritionist may belong to or sponsor.

• Videos – as will be seen later, leveraging videos to support emotional arousal that drives client change is a powerful component in the early stages of change. This section of the site is a repository of nutritionist-selected videos sorted by health condition and health goal.

A large part of the nutritionist’s day is spent meeting one-on-one with clients. Figure 4, item B gives an example of an at-a-glance calendar that provides the appointments for today and tomorrow. The client names for each appointment are clickable and will take the nutritionist to the client profile page. Here the nutritionist is able to quickly review progress the client has made since the last visit.

Monitoring community action real-time and periodically during the day enables the nutritionist to see what the community is interested in. Figure 4, item C shows how the nutritionist can contribute real-time to the community dialogue and also arms her with potential topics of interest for clients she is meeting that day.
The software will be flexible enough to accommodate changes in stage, meaning and understanding. This tool does not replace the nutritionist but rather augments her, so that the face-to-face client meetings can be very rich and productive.

Figure 5 depicts the flow the nutritionist and client experience as they work together to create a personalized system. There are three main activities that iMchanging focuses on: setting up a new client including identification of change stage and meaning orientation; recommending client tasks as created by iMchanging parameters, nutritionist input, and client input and feedback; and leveraging the information the client has entered into iMchanging in-between appointments.

![Flowchart](image)

**Figure 5**: Flowchart of core processes to establish client profile and review progress.
Setting Up a New Client

At the heart of the iMchanging application is a personalized experience for clients that meet them where they are and provide them with support through all phases of the change cycle. All interactions between the nutritionist and her client start are structured to honor the stage of change and unique client orientation throughout the course of the relationship. Here is where we see the holistic nature of activities that support nutritional change. We begin to understand that it is about much more than a meal plan, a list of supplements, and an exercise regime. Figure 6 is the mock-up of the iMchanging new client profile page used by a nutritionist. The client profile is established through a series of questions, and once completed, sets the framework for the client home page which will be discussed later.

Figure 6. Client setup page used by nutritionist.
The components associated with successful change include: meeting a client where she is in the change process, providing her with the right support tools, identifying opportunities for repetition and immersion into the new way of being, and arranging for community support as she changes. Surrounding this is the unique view the client brings to the picture. All of these factors are addressed when setting up a new client.

The key elements on the client setup page are: the stage of change questions, the meaning orientation set of questions, and the tool selection panel. Figure 6, item A is a simple example of the stage of change set of questions (outlined below in Table 2). These questions enable the nutritionist to understand what stage of change a client is in. This information will be used to identify the appropriate tools for the client.

Figure 6, item B is an example of the meaning orientation set of questions (outlined later in the paper). These questions enable the nutritionist to understand how the client makes meaning for the change. This is a critical component for communication and helps the client feel heard and understood.

Figure 6, item C is an example of the tools that can be selected, and that correlate to each stage of change. Having them available online and via mobile devices allows clients to immerse themselves in the change stage processes and techniques on a daily basis. A key tool that will be leveraged is online social networks. These will provide the community support the client needs throughout the change process.

**Meeting clients where they are.** The basic principle followed by all holistic health practitioners is to meet clients where they are. As discussed earlier, there is no one program that will accommodate all clients. Frequently practitioners may believe a client is in the action stage and derives meaning from action. This may not turn out to be the case. The contemplation and
preparation stages may look like action, but the processes that need to take place to ensure the success of these stages are very different. Pushing someone into action when they have not yet decided they want to change can stop the entire program in its tracks. Similarly, without understanding how a client finds meaning in the world, a practitioner may give the client an action plan that just does not resonate with them. In this situation, a client may leave the relationship, as actions recommended do not seem to be effective. She may believe that there is something wrong with her if she cannot seem to do the process “right”.

Two simple questionnaires have been created to determine both stage and meaning orientation. The answers to these questions are the basis for the customization of the client views for the web and mobile applications. With this information, we can tailor the application to the client prior to leaving her appointment. We can confirm that the activities selected are ones that she will resonate with.

Table 2 is the list of questions that will be implemented in the stage of change section of the New Client Setup page (Figure 6, A). These questions, grouped by change stage, enable a nutritionist to clearly understand the readiness of the client to take action in the nutrition program. This set of questions will also help determine which processes would be most supportive to the client as she progresses through the stage.

Table 2

<table>
<thead>
<tr>
<th>Stage</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contemplation</td>
<td>- Are you certain you are ready to change? (yes indicates preparation or action stage)</td>
</tr>
<tr>
<td></td>
<td>- When do you believe you will be ready for change? (clarity indicates preparation or action stage)</td>
</tr>
<tr>
<td></td>
<td>- Are you engaged in wishful thinking? (yes indicates contemplation)</td>
</tr>
<tr>
<td></td>
<td>- Have you tried to make this change before? (premature)</td>
</tr>
</tbody>
</table>
Preparation

- Have you taken any steps to prepare for this change? (clear answers that indicate client has a realistic plan indicates preparation)
- Have you shared your plans with anyone else? (answers that appear to be commitment indicate preparation)
- What steps have you been taking to achieve your goals? (clear steps that indicate the change is a priority and client is moving away from old behavior indicates preparation)
- Do you understand the consequences of continuing your old behavior vs. changing? (clear, realistic answers indicate preparation)

Action

- What are you doing to eliminate your old behavior from reoccurring? (changing environments, changing thinking, trying new approaches all indicate action)
- Do you reward yourself for changing your behavior? (if client is actively acknowledging her changes, she is most likely in action stage)

Maintenance

- Do you find times when you feel the tug of the old behavior and does it surprise you? (client is likely in maintenance if she has been able to adhere to the new behavior a majority of the time and occasionally relapses or considers relapsing)

*Note: Adapted from Prochaska (1994, Chapters 5-8)*

Table 3 is the list of questions that will be implemented in the meaning orientation section of the New Client Setup page (Figure 5, B). These questions, grouped by orienting quadrant, enable a nutritionist to clearly understand how a client sees and reacts to the change being proposed. Knowing this allows for richer, more meaningful conversations as the nutritionist can “speak the language” that the client can understand. Based on answers selected, the software will select the most likely orienting quadrant for the client. This will need to be confirmed by the client before completing the new client setup.
Table 3

*Questions to identify a client’s meaning orientation*

<table>
<thead>
<tr>
<th>Meaning Orientation Quadrant</th>
<th>Questions</th>
</tr>
</thead>
</table>
| Internal Individual               | - Do you need to be clear on your inner sense of meaning before you are willing and interested in knowing what to do?  
                                       - Do you question whether relationships or conversations will be meaningful to you?  
                                       - Do you know how the things that matter to you fit in your life?  
|                                  |                                                                                                                                             |
| External Individual               | - Do you focus on what to do and how to do it?  
                                       - Are you aware of how much energy relationships and activities add or drain from you?  
                                       - Do you seek out connections with individuals who appear to get a lot done?  
|                                  |                                                                                                                                             |
| Internal Group                    | - Are your priorities defined and motivated by the group’s priorities?  
                                       - Do you frequently ask “what do you think?” before making a decision?  
                                       - Do you find that what is important to you becomes clear once you understand the vision of the group?  
                                       - Do you see systems as frameworks as useful only if they help the group work better?  
|                                  |                                                                                                                                             |
| External Group                    | - Do you like maps, manuals, and frameworks that you help you orient?  
                                       - Do you frequently want to know the big picture before you can proceed to do something?  
                                       - Are you interested in people who can help advance your own understanding of things?  
|                                  |                                                                                                                                             |

*Note:* Adapted from Divine (2010, pp. 29-34)

Once the stage is identified, the processes that are best suited to support an individual through the stage become clear. “Each process involves a broad strategy that may employ any number of techniques” (Prochaska, 1994, p. 32). Some of the techniques can be supported both manually and with technology, however a few cannot. Leveraging the technology options
creates the centralized and common interface that both client and nutritionist can use. It provides convenience for the client and gives the nutritionist the ability to receive feedback in real-time. The next section identifies the technology best suited to enable each process, and for any user of the system, it is highly recommended to leverage these tools for greatest effectiveness.

**Providing the right tools.** The right processes need to be used for the right stage of change in order to successfully and quickly move through the change process (Prochaska, 1994, p. 27). The techniques used to support the process are well-supported by various “iMchanging” web and mobile device applications. Table 4 describes each process, the goal of the process, the techniques to support the process, the stage the process supports, and the technology used to enable the technique within iMchanging. The table highlights which tools are web only or are available as a mobile application as well. If the latter, the web and mobile applications can synch with each other so both platforms are consistently current.

Table 4

<table>
<thead>
<tr>
<th>Process</th>
<th>Goal</th>
<th>Techniques</th>
<th>Tools</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consciousness raising</td>
<td>Increasing information about self and problem.</td>
<td>- Journaling</td>
<td>- Blog (web)</td>
<td>Contemplation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Meditation</td>
<td>- Notes (web &amp; mobile)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- watching educational videos on change topic</td>
<td>- Audio guided meditation (web &amp; mobile)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Be aware of motivations for actions</td>
<td>- YouTube (web &amp; mobile)</td>
<td></td>
</tr>
<tr>
<td>Social Liberation</td>
<td>Increasing social alternatives for rights</td>
<td>- Advocating for rights</td>
<td>- Links to advocacy groups (web)</td>
<td>Contemplation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Action</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Tools/Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behaviors that are not problematic</td>
<td>- Empowering by finding others who are also changing</td>
<td>- Meetup.com (web) - Facebook group pages (web &amp; mobile)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional arousal</td>
<td>Experiencing and expressing the feelings about one’s problems and solutions</td>
<td>- Watching inspirational videos or movies on your topic - Inspirational photos and quotes - Upload photos and text to iMchanging (web &amp; mobile)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-reevaluation</td>
<td>Assessing feelings and thoughts about self with respect to a problem</td>
<td>- Think before acting - MoodChecker (web &amp; mobile)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>Choosing and committing to act, or belief in ability to change</td>
<td>- Go public with commitment - Create an action plan - Facebook - Twitter - Online task list (web &amp; mobile)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countering</td>
<td>Substituting alternatives for problem behaviors</td>
<td>- Relaxation - Audio guided imagery (web &amp; mobile) - Soothing music (web &amp; mobile) - online substitution lists (web and mobile)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment Control</td>
<td>Avoiding stimuli that elicit problem behaviors</td>
<td>- Reminders - tasks on calendar with audio alarm (web &amp; mobile)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reward</td>
<td>Rewarding self, or being rewarded by others, for</td>
<td>- Metrics to show progress - Sharing - online dashboard (web &amp; mobile) - Facebook (web)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helping relationships</td>
<td>Enlisting the help of someone who cares</td>
<td>Networking with like-minded individuals and groups</td>
<td>Facebook (web &amp; mobile)</td>
<td>Twitter (web &amp; mobile)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------------------</td>
<td>--------------------------------------------------</td>
<td>------------------------</td>
<td>-----------------------</td>
</tr>
</tbody>
</table>

Note: Adapted from Prochaska (1994, p.33, 54, Chapters. 3-8)

**Technology and other considerations.**

There are some additional considerations that must be taken into account when designing the various technology tools. Journaling can be a very private activity, so blogs and notes need to have the ability to be viewed by others on an invitation-only basis. There is a huge value to the client/nutritionist relationship if the nutritionist can view entries or key words to see certain trends that can be helped with new actions or food modifications. Journaling is a great activity for “Internal Individual” orientation.

A simple graphic based note-taking application can be useful for quick documentation of emotions. MoodChecker is a unique feature of iMchanging and provides an example of the power of mobile applications to accelerate change. Figure 7 is a mockup of an iPhone version of MoodChecker. The icons will be replaced with pictures of faces exhibiting different emotions. One click is all it will take to capture how someone is feeling, although it can be supplemented by a brief note. This information is synched with the web application, allowing both client and nutritionist to see patterns in emotions correlated with different activities and situations. This is a great tool for those who orient from an “External Individual” perspective.
Video is a powerful tool for arousing emotions and causing behavior change (Harris, Barg, & Brownell, 2009, pp. 405, 410). iMchanging is flexible enough to allow the client to choose her own videos and to select videos with the help of the nutritionist. Having such videos available at all times is a powerful component of iMchanging.

Another powerful force for change is behavioral imitation. Christakis & Fowler (2009) noted that when observing an activity, as would happen when watching videos, mirror neurons fire in the same part of the brain that would be activated if an individual were actually performing the activity. If our brains can practice and learn an activity just by watching, this makes it easier for us to influence behavior using visual media. Video media and behavioral imitation are key components in stimulating the emotional arousal change process (p. 35, 37, 39 and 40).

Social norms can promote or inhibit change in powerful ways. A norm is a shared expectation of what is appropriate. While expectations of what is considered normal may be the
same among members of a community, the behaviors manifested by individuals in that community may not. As an example, if it’s a norm that being sedentary is acceptable, one person may feel it’s ok to plan social activities around watching television, while another person may see it as a reason to stop participating in an exercise program. The end result is the same – reduced cardiovascular health (pp. 112-114).

Social networking tools, such as Facebook, MySpace, or Twitter, provide excellent forums for connecting with others going through the same change process. The nutritionist can use Facebook to create group sites where her clients can meet together and discuss issues and challenges they are facing. One of the challenges in using social networking tools during the contemplation stage, is that it is very easy to find groups who support the current lifestyle a client is trying to move away from. Therefore, the nutritionist needs to identify the point in the process of change when a client is ready to leverage networking tools.

The form of personal support required will be different for each stage of the change process. In contemplation, expressing empathy, warmth, and promoting dialogue will help the client through the early phases of change where more personal support is needed. The preparation stage requires a client to advise others how they can be of most help. Since the preparation stage results in visible action, people are more likely to want to help, and it may be in ways that do not feel supportive to the client. In the action stage, personal support can take the form of exercising with a friend, learning to cook healthy recipes with a new group, and finding group support to work through challenges. In maintenance, personal support is still very valuable. Supportive friends can help an individual deal with temptations in a safe way, and they can be on-call in case of a crisis. Now the client can become a “helper” for someone else going through the same change. The connection with others is essential for successful change. The
potential reach of social networking tools is vast. They can be used to enable others to easily connect in ways that were not been possible before (Prochaska, 1994, pp.142-143, 161-162, 195-198, 216-219).

**Putting It All Together – the Client’s Experience**

While iMchanging is a tool that can support a nutritionist, its core purpose is to provide meaningful and effective support to clients while they are involved in nutritional change. Once all of the questions have been asked and the tools selected, clients need to have an easy-to-use framework that is unobtrusive yet easily accessible from anywhere they are. The goal of iMchanging is for the client to feel that the nutritionist is constantly by her side supporting her through the change.

While the client home page will generally have the same look and feel for each client, the contents will change based on customization undertaken to meet the client’s specific requirements. The figures that follow illustrate two examples of how different the system may look for two different clients, both of whom want to feel better in their bodies, adopt healthier eating patterns, and become healthier.

Figure 8 is a mock-up of the client home page for someone in the contemplation stage with a meaning orientation of Internal Individual.

- The MoodChecker will help the client identify and communicate her emotions regarding when and what she eats.
- The journaling tool will enable the client to explore what this change means to her.
- The videos will help keep her engaged and wanting to continue moving forward.
- The easy connection to social networking tools will help her interact with others who are going – or have already gone through – the same change.
• The action list does not force a strict regimen. The activities allow the client to try on new behaviors in a non-threatening way and she has the tools to journal about how they felt and what doing them means to her.

• Lastly, if she is making this change because she wants more energy to play with her kids, she can put a picture of her kids on her site and write what making this change will do for her relationship with them.

The client only has to go to one page and all the tools are available. As mentioned above, these same tools will be available on the mobile device so she can do the activities anytime, anywhere.

Figure 8. Mock-up of client home page for an individual in the contemplation stage and who orients as Internal Individual.

Figure 9 is a mock-up of the client home page for someone in the action stage with a meaning orientation of External Individual. The layout is essentially the same as depicted in Figure 8.
• The action plan and primary health goals are front-and-center for the client. The selected tools surround these components.

• Since the client in this example orients from External Individual, it is important to her to understanding her energy levels. The Energy Meter is a fast, easy-to-use tool for tracking energy levels.

• The journaling tool will be used to track activities done during the day.

• For an External Individual client, viewing progress is key. Various graphs and measures can be displayed to the client, allowing the client to see her daily/weekly/to-date progress. For this type of individual, progress charts are very motivational. Again, these same tools will also be available on the mobile device.

Figure 9. Mock-up of client home page for an individual in the action stage and who orients as External Individual.
Celebrating Progress – Leveraging Real-time Feedback

Each time a tool is used, a time-stamped entry will be made into a database along with any relevant information. This database will be used to create the progress charts that both the client and nutritionist see. This is how the nutritionist will be able to monitor a client’s progress against goals. iMchanging can have a set of metrics that are common for each client, that appear in the nutritionist’s home page. At a glance, the nutritionist can review her client list for the day and see, in near real-time, how each client is progressing against goals. Using the client profile page, the nutritionist can see more details about each client’s progress. In this way, the nutritionist can look for patterns that have appeared since the last client visit. These patterns allow the nutritionist to ask questions targeted to the challenges at hand. Instead of spending time in the session catching up, the client and nutritionist can focus on the challenge areas that are most relevant right now. In turn, the client feels supported and engaged, and the nutritionist feels her recommendations are fully in tune with client needs.

Conclusion

There is a significant and ongoing benefit to be had from an integrative tool specifically designed to support a holistic nutrition practice. Clearly the need is there. There are also some significant challenges. While the usage of Internet and mobile devices is high and growing, not everyone has access to these new tools. In addition, those that do have access may not be comfortable enough with new tools to fully leverage them. There will be a learning curve to overcome as clients adapt to this new model.

Since proper documentation, training, and support are critical components surrounding any successful software application, these will be created as the product is being built, and will be offered as part of the iMchanging program. Technical details, such as the database to be used,
the server architecture, and specific mobile devices that will be supported have not been discussed. It is assumed that the infrastructure will be designed in such a way that it supports a variety of mobile devices. iMchanging can be implemented in either a local mode (operating on the nutritionist’s own computer) or in a software-as-service mode (hosted through a separate data center and accessed remotely by the nutritionist). All such details will need to be defined as part of the overall software architecture. As with any software, the power of the iMchanging application is not in the technology, it is in the human change created by leveraging what the technology can provide. iMchanging provides an exciting glimpse of what is possible when holistic nutrition practices meet a supportive technology framework.

There is no question that the advent of the Internet, and the emergence of new mobile technologies, is changing not only how we communicate and exchange information, but how we think and live. One of the major challenges of the twenty-first century will be learning how to tame and use the power of rapid technological change to enhance the quality of life for everyone. Change is a fact we cannot avoid. We cannot turn back the clock. We must learn how to leverage emerging technologies to promote good outcomes for all of us.

To the extent that we understand how people change, and the stages through which they pass on the way to becoming something new, we are able to shape a technology that supports positive and accelerated growth. It is more than a little challenging when we realize that the pace of technical change is accelerating, and that new technologies will be forced upon us even as we struggle to understand, embrace and control what is currently at hand.

iMchanging embraces the concept that the best way to support individual change in an ever-changing technology environment is to offer a framework that is flexible enough and powerful enough to allow us to “ride the wave.” Insofar as nutritional coaching and support
programs are concerned, iMchanging provides a foundation upon which to build a future that is better, brighter and more rewarding for the nutritionist, the client, and the human community as a whole.
References


Appendix A

iMchanging Nutritionist Home Page Sample

<table>
<thead>
<tr>
<th>home</th>
<th>clients</th>
<th>support</th>
<th>outreach</th>
<th>community</th>
<th>videos</th>
</tr>
</thead>
</table>

**Today's Calendar**

- **8:00am** Pelker, Russell
- **9:00am** McLeish, Archibald
- **9:30am** Blake, William
- **10:15am** Goldsmith, Andy
- **11:00am** Lane, Diane
- **11:30am** Carruthers, Theresa
- **12:15am** Devine, Andrew
- **1:00am** Smothers, Tommy
- **2:30am** Sprat, Jonathan
- **4:00am** Dumpy, Humpty

**Tomorrow's Calendar**

- **8:00am** Smith, Sally
- **9:00am** McLeish, Archibald
- **9:30am** Blake, William
- **10:15am** Goldsmith, Andy
- **11:00am** Lane, Diane
- **11:30am** Carruthers, Theresa
- **12:15am** Devine, Andrew
- **1:00am** Smothers, Tommy
- **2:30am** Sprat, Jonathan
- **4:00am** Dumpy, Humpty

*“On the mountains of truth you can never climb in vain; either you will reach a point higher up today, or you will be training your powers so that you will be able to climb higher tomorrow.”* Friedrich Nietzsche.
Appendix B

iMchanging Client Setup Page Sample – Nutritionist View

Stage of Change
- I know I need to change but I’m not sure how to do it.
- I’m close to committing, I just need to do a few more things.
- I’m ready to go! Just tell me what to do.
- I’ve been successful with the change. Now I want it to stick.

Orientation
- I need this to mean something first.
- I love to-do lists!
- How does it fit in to the context of everything else?
- What do you think I should do?

Primary Health Goal
From intake form dated: 02/30/2010
'I’m an athletic type of person and for the past several years, I’ve found that I can’t achieve the conditioning I’ve been used to in the past, primarily because I can’t seem to control the way I eat. I’ve gained a lot of weight recently, and my doctor tells me that I need to loose, but everything I’ve tried so far has failed. I’m hoping you can help.'
Appendix C

iMchanging Client Profile Page Sample – Nutritionist View

Russel Pelker
31 years old
6'3"
165 lbs.
Sports
Automobiles
Sailing

First Name: Russell
Middle Name: Charles
Last Name: Pelker
Prefers: Rusty, Russ

Number: 1516
Street: Gooseberry Place
City/State: Siblensburg, MD
Country: United States

Phone: 910.900.1234
Email: pelker@popeemail.com
Alternate: pelker@gmail.com
Prefers: contact by phone

Celebrate Progress
- Install Blogger
- Install Journal
- Install Mood Checker
- Install Social Networking
- Install Videos/Media

Primary Health Goal
From intake form dated: 02/03/2010
I'm an athletic type of person and for the past several years, I've found that I can't achieve the conditioning I've been used to in the past, primarily because I can't seem to control the way I eat. I've gained a lot of weight recently, and my doctor tells me that I need to loose, but everything I've tried so far has failed. I'm hoping you can help.

Metabolic Assessment Form

Action Plan
- Watch Videos
- Mood Checker
- Write in Journal
- Movement
- Supplements
- Healthy Food and Drink
- Network with Friends
- Other Actions (enter description below)
Appendix D

iMchanging Client Home Page Sample – Contemplation/Internal Individual

Primary Health Goal
From intake form dated: 02/30/2010

“I’m an athletic type of person and for the past several years, I’ve found that I can’t achieve the conditioning I’ve been used to in the past, primarily because I can’t seem to control the way I eat. I’ve gained a lot of weight recently, and my doctor tells me that I need to lose, but everything I’ve tried so far has failed. I’m hoping you can help.”

Metabolic Assessment Form

iMChanging Plan

Today’s To-Do:
- Watch Videos
- Mood Checker
- Write In Journal
- Movement
- Describe
- Supplements
- Healthy Food and Drink
- Network with Friends

iMchanging Journal

02/15/10
Great day today. I’m feeling a lot more confident about meeting my change goals. In fact, I feel downright optimistic about almost everything, which is unusual for me. This weekend I’m planning on going sailing – a trip out the Golden Gate and up to Eureka. Three days to get there and three to get back. But, I’ll be keeping up with my journal entries to my trusty laptop computer.

02/11/10
I’m sooooo mad at myself. I completely blew my eating program this morning, and I didn’t do that well this afternoon either. Something about those end of year meetings at work made me want to raid the refrigerator for things that I know aren’t good for me. This time, it was brownies. I mixed up a batch and ate the whole tray on one sitting. And that was...

“If the mountains of truth can never climb in vain; either you will reach a peak higher up today, or you will be training your powers so that you will be able to climb higher tomorrow.”

Friedrich Nietzsche
Appendix E

iMchanging Client Home Page Sample – Action/External Individual

```
<table>
<thead>
<tr>
<th>Watch Videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Checker</td>
</tr>
<tr>
<td>Write in Journal</td>
</tr>
<tr>
<td>Movement: Describe</td>
</tr>
<tr>
<td>Supplements</td>
</tr>
<tr>
<td>Healthy Food and Drink</td>
</tr>
<tr>
<td>Network with Friends</td>
</tr>
</tbody>
</table>
```

```
02/15/10
Great day today. I’m feeling a lot more confident about meeting my change goals. In fact, I feel downright optimistic about almost everything, which is unusual for me. This weekend I’m planning on going sailing – a trip out the Golden Gate and up to Eureka. Three days to get there and three to get back. But, I’ll be keeping up with my journal thanks to my trusty laptop computer.

02/11/10
I’m sooooo mad at myself. I completely blew my eating program this morning - and I didn’t do that well this afternoon either. Something about these end of year meetings at work make me want to raid the refrigerator for things that I know aren’t good for me. This time, it was brownies. I mixed up a batch and ate the whole tray on one sitting. And that was...
```
Appendix F

iMchanging Mood Checker iPhone Application Sample