**Introduction**

Health communication is arguably one of the more complicated fields because of the dynamics of health, and the sensitivity of the topic, which causes researchers to struggle to research specific trends and get interaction from specific populations. Health communication strives to reach their target audience where they are and impact them to make positive changes to their health and health related behaviors. New communications technologies could bring health communicators much closer to their goal, and make the potential impact of these campaigns that much bigger, but it does not come without risks. With the invention of the internet, our society continues to develop new technologies to communicate. We now have a variety of ways to interact through text, talk, video, picture and even virtual reality. These new communication technologies can take the form of social media sites, blogs, virtual reality, online community-based video games (such as World of Warcraft or Second Life), skype and zoom, and many more. But they all come down to similar elements such as interactivity, customizability, personalization, multimodality, and a few others. Each new technology that society creates has both the potential to improve health communication as well as the ability to hinder it. It is up to the communicator to decide in what situations this communication technology would be useful.

*Impacting people in new ways*

In the last decade, remote and virtual positions at companies have grown due to the improvement of our new communication technologies. Businesses are now leveraging virtual reality technologies in order to bring employees into a meeting together, no matter where they are located. We are more then ever aware of how to properly communicate in a variety of settings, to know when it is acceptable to send a text message, and when you need to place a phone call. New media technologies have made many careers possible that could not have happened even 10 years ago, and it is also changing the way we communicate with the public. Companies are tweeting out important information to their employees. Teachers are setting up Facebook Groups for their students to get advice and help outside of the classroom. Health communication is also benefiting from these new developments and are able to use them to reach many populations that other channels, such as radios or bus bench ads, would not impact. Our new health campaigns are levering the new technologies and their elements like interactivity, customizability, personalization, multimodality, and much more to grab their audience and get them involved in making health related changes.

***Using Interactivity & Customizability***

*Interactivity*

Interactivity is a new technology that has become almost one with our online media today. It would be very rare to find a website that is not in some way interactive today, even if that interactivity is limited to the bar that lets you share the content, tweet it, pin it or post about it on Facebook. We are engrained in the ideas of interactivity because it gives the user the ability of choice. You can modify the content you are engaging with to meet your specific needs, and you can choose to activate whatever number of senses you choose. Scholars do disagree on whether interactivity resides in the site itself, or if it’s interactive because that is how the user perceives it, but we know that interactivity is a big piece is new communication technologies and is being used to make health campaigns more interactive and successful.

*Customizability*

Customizability is an emerging communication technology which allows the message creator to aim messages at an individual user. Each user is unique and an audience of one, so there is a sense of individualized communication because each user is distinct from the next one and each message is crafted for them alone. This time-consuming process allows a message to directly impact that one user, and hopefully get them to do the desired behavior. Much of customizability comes down to the crafting of the message, and the integration of items like cookies, which get the data of an individual on the internet. If you are searching for a cruise to Hawaii, you may notice you start to see advertisement for cruises, swimsuits, plane tickets and other items popping up on your social media, and your email browser. The important thing to note with customizability is that it requires interactive tools and the ability of user control in order to be successful. Customization includes layers such as perceived relevance, involvement, sense of community, and interactivity. It is important to note there is a difference between customizability and personalization. Personalization is system-driven an does not require the user control that customizability does. Much of what cookies do fall under this specific media technology, and that is what can cause a lot of the issues that people face online.

***The Dangers of Interactivity and Customizability***

*Privacy concerns & Trustworthiness*

As Lupton (2012) stated, “excessive customization (in particular personalization, the machine-generated kind) may trigger negative responses to personalization due to privacy concerns. They may feel that their online activity was heavily monitored, and their personal information stolen.” This is a major risk when using customizability, but interactivity as well, because for a health campaign to succeed, you need to have the trust of your audience. One of the major components in a campaign is the trustworthiness and credibility of the message sender, and if the individuals what are being targeted with customized messages begin to feel like their privacy is being violated, they will begin to stop trusting the organization. If the CDC was putting together a campaign to promote vaccinations, and started customizing the messages to address specific concerns individuals have voiced online, the people may end up continuing to stand firm in their decision to not vaccinate because they felt that the CDC was not a trustworthy organization and would immediately do the opposite of what the campaign was promoting. This is true for any campaign, but especially those that deal with topics that are very polarizing. Losing trust means you lose the audience, and your campaign will not be successful. Noar & Head (2011) address the fact that an additional communication technology of multimodality and multimedia could also play a hand in the credibility and trustworthiness of a site for a health campaign, because “technological affordances can function as cues that trigger certain mental shortcuts in making quality and credibility assessments.” This could mean that if the interactivity elements are high quality, it could mean the website is credible, but also cool and exciting. It’s important to make sure you are customizing only to the extent needed to help the target audience but not crossing the line into causing them to feel violated. *Making Health Communication Programs Work* (2004) addressed the concern of credibility by saying “using interactive digital media is not without challenges, if you choose to do so consider credibility…Anyone can put information on the Internet, and it may or may not be accurate thus it is important to demonstrate the credibility of your organization when you use this channel to disseminate health information.” Without the knowledge of how credible your organization is, the audience may be unwilling to trust, and therefore unwilling to make change.

*Behavioral implications*

Another major concern comes down to sensitive topics. For example, if you are doing a health campaign on suicide prevention among teenagers and use customizability and targeting to make sure that if a young adult who searches for suicide methods sees ads for counseling and mental health clinics, you could be creating the unwanted behavior. An individual who thinks that people are aware of their mental health struggles could be perceived by other people in their social circles since the internet seems to be aware of it. You must weigh weather the campaign subject matter is the best type to use the new media technologies. A campaign to promote exercise may be easier to begin implementing customization then a teen suicide prevention campaign. As stated with the first potential danger, the success of a campaign hangs on certain elements like the target audience’s perception of the credibility of the message, as well as choosing the right channel to get the message across. Mental health still has a lot of stigma attached to it and may not be the best topic to engage the audience with interactive elements like blogs and tweeting about their activity. As Carnor, et. al. mentioned, internet uses are more likely to provide information when they’re not identified. When dealing with these sensitive topics, an online portal that protects the identity and keeps them private may have more success then public blogs and Twitter. Sensitive populations require a closer look at what is being implemented and their protections, because the wrong message, or approach could prompt the population to engage in the non-desirable behavior instead of helping them avoid it.

*Time Concerns*

As we discussion, customizability means that the message is tailored to one person, and that person only. When building a health campaign, a consideration is how much time the campaign building itself will take because the longer it stays in the stages of building and pre-testing, the longer it takes to actually make changes in the target audience. If you are crafting a campaign to raise awareness for the link between lack of activity and heart attacks, building customized messages can slow that campaign from coming out to the general public and making an impact. Once study did many small focus groups throughout the creation process of the campaign, and that kept the campaign from going live for multiple years, which then kept the impacted population from getting help for all those years. Depending on the campaign, the time involved in crafting customized messages could be counter-productive to the mission of the campaign itself.

*User Engagement*

One of the core pieces that makes both customizability and interactivity successful tools of communication technology is user engagement. Without the willingness of the user to engagement with the media, both would be unsuccessful. This makes a big potential danger for a health campaign that may rely to heavily on these techniques, if the audience does not engage with them, your campaigns core channel of promotion is completely invalidated. You will not be able to impact your audience because you are lacking in their willingness to participate in the campaign. When you take the risk to use the internet as your channel, and focus on the ideas of customizability and interactivity to get the message to resonate with people personally, you have to account for the possibility that the audience will choose not to engage, or if your target population was not selected correctly, they may not have the access or understanding needed to interact with the campaign in a digital frontier and would have been better reached by a television advertising channel.

***The Benefits of Interactivity and Customizability***

*Greater Impact*

Research in this area has proved a positive impact on the behavioral change when using customizability, especially related weight loss, mammogram screenings, reducing fat in your diet and getting exercise. Health promotors the real-time feedback that these technologies can provide creates a greater impact for many of these campaigns. As Sundar, et. Al (2003) studied the impact of interactivity in the affinity of a group towards a political candidate, this concept can be applied to a health campaign about mammogram screenings. The more interactivity the site has the greater the individual’s opinion of this topic becomes, and the more importance that the intended target may place on adding this behavior to their lifestyle. Kreuter, et. Al (2003) reminds us that health campaigns and interventions are more effective when they are culturally appropriate for the populations they are aiming to serve.

*Going to where the audience is*

The internet is where we are as a culture now. Since the invention of blogs, people have been spending more and more time online. When Facebook and MySpace came into existence, people of all ages started spending their free time online. With the addition of our mobile phones which act as portable computers and TVs in one, we are an internet savvy population, so much so we are now facing issues around internet withdrawal, especially among our younger generations who grew up with this technology. But, a core P in the Marketing Mix is place, and the invention of these new communication technologies means we know exactly the place many of our intended audiences spend their time. We can find out the statistics but each of the social platforms has a core age group that mainly frequents that platform. Whether you’re looking to target middle-school kids, middle-aged women, or teenage girls, you could find the perfect platform where this target population spends their time. By getting ahold of them in their favorite place to spend time, you have a greater likelihood of interaction with your campaign, especially if you apply the interactivity and customizability elements to your campaign. As a great example, Lupton (2012) addressed the Australian “Swap It, Don’t Swap It” campaign and the American “Let’s Move” campaign as two very successful campaigns that leveraged elements of both interactivity and customizability. They were both focused on increased activity and weight loss, and they included online support, blogs, ability to log information and activity on Twitter and Facebook. Both campaigns are considered successful and really found the perfect amount of new technologies to incorporate without risking any of the potential dangers. The audience felt engaged, supported, and actively involved in the mission of the campaign and made positive changes because of it. This is a great example of how the campaign hit people right where they were already spending their time.

*Avoiding the feelings of otherness and isolation*

One of the major benefits of these emerging communication technologies is that they build a community, as the name social network may suggestion. A health campaign that includes an online or virtual reality support group for people dealing with anxiety may have positive benefits as it will begin to foster the ideas of community and understanding among a group of people. Many health considerations, especially those like sexually transmitted diseases, can feel very isolating for the individual and would prevent them from seeking help because they feel as though they are not normal and would be judged. As Petty, Barden and Wheeler (2002) discussed the benefit to a customized message is the idea of one’s self. Whether the wording is specific or the content, the message targets the needed emotional tone and caters to their specific needs. Customizing messages has the potential to spread the messages of community, inclusion and support to specific groups that are dealing with extreme feelings of social isolation, otherness and fear of being judged. As in the example of “Let’s Move” above, they had an online support community. This community gave those who engaged with it the support and resources to make the change more sustainable for themselves and their families because they did not feel alone. Making changes, especially health, fitness and diet related ones, succeed much more often when there is support. Many target populations do not have this support system at home so the internet can create this support for them to change their behavior.

**Conclusion**

New communication technologies hold immeasurable power in terms of health communication, but as Stan Lee reminds us, “With great power comes great responsibility.” This new technology can make a major impact in how we can disseminate health information and how to connect with our target audience in a more personally relevant way, but when used incorrectly can do more damage to our already vulnerable populations then before the campaign was implemented. It is up to the health communication professional to understand the rewards and risks involved in each of these approaches, and to truly understand their target audience before they choose this route. Therefore, research and education are important, as well are rally understanding the ethical implications of decisions. As we’ve seen, there are documented risks and success stories with this technology and there will be more to come as the technology continues to advance.

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