

Meditations on YouTube

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ABSTRACT

This paper reports findings from a study of meditation videos posted on YouTube. It reports on both the features they offer and the kinds of comments posted. The most-viewed one hundred videos referenced faith-based traditions, “new age” spirituality, and entirely secular meditation practices. A convenience sample of comments was taken as a snapshot of responses. Comments were sorted into three main groups: remarks about the video, reports of subjective experience and responses to other comments. The paper presents examples and discussion of the comments and relates them to Seligman’s theory of well-being, in particular the difference between pleasure and gratification. It argues that although the value of “found data” is limited, these data indicate some of the ways that YouTube is being used to create gratifying and meaningful as well as pleasurable experiences.

Author Keywords

meditation; YouTube; user experience; social media; online communities; user-generated content.

ACM Classification Keywords

H.5.1. Multimedia Information Systems.

General Terms

Design; Human Factors.

INTRODUCTION

In the beginning, the field of human-computer interaction (HCI) focused on work and productivity, ignoring pleasure altogether except as it related to satisfaction. As computers moved out of the office and into the home, the field became more concerned with fun, pleasure and enjoyment (e.g., 5, 16). For many years HCI proceeded as a dialogue between computer scientists and psychologists. As long as the context of computing was the workplace, this was a good partnership. Advances in cognitive psychology meant that learning and memory were better understood than ever before. Insights from lab-based tests measuring ease of use and ease of learning could directly inform design. But cognitive psychology had little to say

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about pleasure. Indeed, when the “Funology” collection [5] appeared, the only cognitive psychology theory of pleasure available was Csikszentmihalyi’s “flow” [10] — a peak state of total absorption in an activity. Examples of flow include being “in the zone” during a sporting activity, feeling at one with the music when playing an instrument, losing oneself in work or a book. Flow occurs “between boredom and anxiety”: if an activity is too easy it is boring and if too difficult it may produce anxiety. The concept was immediately useful for game design, but flow had little application to other forms of pleasure — fun, delight, enchantment, frivolity, playfulness and so on.

Over the last decade and a half, cognitive psychology has contributed much more to understandings of pleasure. In 1998 Martin Seligman became president of the American Psychological Association. During his tenure he called for a radical change in the discipline. Until then, psychology had been primarily concerned with illness — neurosis, anxiety and psychosis. Almost nothing was known about good mental health. Very quickly the field of “Positive Psychology” emerged. In 2011 Seligman encapsulated several years of study in his book “Flourish” [19], which outlined a theory of well-being that accounted for a range of pleasures. The PERMA theory comprises Positive emotion, Engagement, Relationships, Meaning and Achievement. It includes flow (in Engagement) but also less obvious kinds of pleasure such as meaning making. For Seligman, meaning involves an individual’s belonging to and serving something larger than themselves. This can be a faith tradition but might also be working towards a socialist future, feeling like an integral part of Nature or contributing to the march of science.

This paper considers the engagement of meditation via YouTube. Although meditation might not be considered a pleasure in a narrow sense, it lies in close alignment with Seligman’s broad framework of well-being. This study aimed to identify themes in users’ reactions to meditative videos, in order to explore ways in which technologies such as YouTube can support meditation practices.

RELATED WORK

User-generated video content on sites such as YouTube and Vimeo offers researchers immediate access to huge amounts of primary data. Often the videos uploaded to these sites receive thousands of comments, providing a source of easily collected user data. As of 21 July 2013, a search of the ACM Digital Library returned more than

7500 works for “youtube” and 65 for “youtube comments”. Video websites are becoming an important resource for researchers in computing and HCI (e.g., [6]).

Such enthusiastic engagement with new data sources raises a number of methodological, ethical and legal questions. Ang et al. [1] point out that Article 8 of the European Convention on Human Rights guarantees respect for private and family life. If an individual’s posts to a social media site are harvested without their consent or even knowledge, this could be seen as an abuse of their rights (*ibid.*). These authors raise such concerns to call for a workable framework of guidelines. In the absence of such a framework, we argue that researchers must first consider the likelihood of harm. We believe there is little to no likelihood of harm in this study, and we have in any case anonymised all data.

Aside from ethical and legal considerations, serious methodological concerns exist in the use of found data. As Ang et al. note, researchers very often know very little about the people posting comments — e.g. age, gender or race. It is clear that researchers must be very careful about the nature of the claims made about found data sets and their method. But caution should not become inertia.

In a keynote at the CHI 2010 conference, Genevieve Bell [2] urged the HCI community to consider three “underexplored” areas: sex, sport and spirituality. Despite keynote exhortations, the field has still conducted very little work on these topics. A small number of studies have looked at technology and meditation. For example, Hlubinka et al. [14] developed and studied AltarNation, an interactive environment that uses telepresence to help physically isolated people meditate with others online; and Sterling and Zimmerman [22] created Shared Moments, a mobile app that “supports those who cannot be in the same location, but desire to meditate with other Sangha members to...support individual practice through regular meditation” (p. 492).

Yet there is rapid and broad technological take-up “in the wild”. This paper considers meditation on YouTube. The view counts of the most viewed videos are astonishing: the most viewed video in our corpus has almost twenty million views. Such data resources cannot be ignored.

METHOD

This study began with a search on YouTube for videos tagged with the keyword “meditation”. We sorted the search results in descending order by number of views, which enabled the retrieval of viewer data from the videos with the greatest exposure to the public. We considered these videos likely to have received more comments than those with fewer views, and thus to offer richer data.

Discovery of Videos

The YouTube site is highly dynamic, its continual content changes making it impossible for researchers to keep “up to date” with data captured from it. Thus, this study used

the “snapshot” of the 100 most-watched videos as of the date of the search (3 May 2013) and made no attempt to update the list later on. We saved the search results pages to Adobe Portable Document Format (PDF) files, to record the titles and thumbnail images of the videos in the search results and help us ensure that we had the right ones when we went back to watch the videos and capture their metadata and comments and list their features.

Capture of Metadata

For each video we captured the title, URL, date uploaded, number of views, number of “likes”, number of “dislikes”, number of “favorites” and number of comments. The numbers of likes and favorites varied widely across our corpus, rendering those variables useless as a measure of overall satisfaction. Thus, for each video we calculated the like-to-dislike ratio — the number of likes for every dislike. In some cases, the video’s owner/creator had disabled the display of one or more of the metadata items, and we were not able to capture them.

Capture of Comments

For each video that had usable comments, we captured the available “top comments”. (Top comments are the comments — at most two — that receive the most “likes” from other YouTube members.) Some of the videos in our corpus had no top comments, and some had only one.

Subsequently, we used a convenience sampling [9] approach to collect further comments. We worked to obtain a rich variety of content and tone in the comments captured, and we skipped comments that essentially duplicated ones we had already documented for the same video (such as “Good night from [name of place]”). We did, however, record duplicate or near-duplicate comments that were posted to different videos:

- “i love it” (posted on two videos)
- “it’s amazing!!!” / “just amazing !”

We did this to explore further the breadth and richness of the comments rather than to construct a representative account of the full data set. This way we retrieved the most recent viewer comments until we had a total of 12-14 comments for each video (including the top comments, if any).

When we encountered comments that related to the video or the viewer’s experience at best indirectly — such as spam, racist diatribes, hate speech, good-night messages — we recorded the type but did not record any content. For example, for the video that presented a Native American meditation, one comment read as follows:

This is hypocritical. The biggest fan of Native American music ,the US is also the greatest killer of this beautiful culture. Over 200 milion amerindians were killed during American holocaust.

This comment generated a large number of responses, including several that urged the killing of all white people¹. We documented the original comment and a response that spoke of the music — they addressed the video directly — but instead of any of the diatribes we merely made a note that there were a lot of racially oriented diatribes. We did the same for comments that promoted the preservation of “white nations”.

Capture of Video Attributes

Finally, we went back to each video and documented what we determined to be its primary focus of meaning (religious, New Age [18] or secular²) and the important auditory and visual features of its presentation. This occurred a few days after our original search.

Qualitative Data Analysis

We analysed the comments using inductive content analysis as described by Elo & Kyngäs [12]. This method involves “open coding, creating categories and abstraction” (p. 109) and grouping data “to reduce the number of categories by collapsing those that are similar or dissimilar into broader higher order categories” (p. 111). We coded each comment according to its primary content by creating a summary code, and we documented whether it indicated a positive, negative or neutral view of the video. We classified ambiguous comments with the neutral ones, to avoid incorrectly influencing the positive/negative balance. When comments were negative in tone but positive toward the video (e.g., criticism of negative comments made by other viewers), we classified them as positive. When a comment had two themes, we assigned it a sub-code in addition to the primary code, and for analysis purposes we counted it as two comments. As we had done for the videos, we grouped the categories.

VIDEO CONTENT

Our final corpus comprised 89 videos and 1144 comments. Of the 100 videos that appeared in the search results list, 11 could not be used because meaningful comments were unavailable: either the authors had disabled comments or the comments were unusable (e.g., they were all spam or were almost all in a language we do not speak). An additional two videos are absent from the content analysis because by the time we went back to explore the video content, YouTube had removed those two for copyright infringement. When we discovered this, we had already recorded and begun analysing their comments, so those comments do appear in the results.

¹ We suspect that these were all from the same person, but since we did not document the account names associated with the comments, we are not certain of this.

² Secular videos are those that appear not to be associated with any spiritual orientation or faith tradition.

Uploaded between 23 October 2006 and 16 November 2012, the 89 videos we studied had received 802,056 to 18,203,585 views (mean 2,490,951) and 56 to 8,298 comments (mean 1,499). The 87 that we were able to view ranged in length from two to 600 minutes, averaging 49.6 minutes, and advertisements appeared in front of 35 of them (40.2%). (These ads are inserted by YouTube and do not form part of the video itself nor have their content controlled by the video’s owner [23], although the owner may disable advertising for a video [15].)

Table 1 shows the range and median of the number of favorites, likes and dislikes that viewers gave the videos in our corpus. The ratio of likes to dislikes, our indicator of overall satisfaction, varied by an order of magnitude — from 8.1 to 70.4 (although the second highest was only 54.5) — and had a median of 23.22. Table 1 gives some indication of the pleasure taken in these videos; the majority of responses to the videos were positive. As a group, these videos had 21.9 likes for every dislike.

Variable	Min	Max	Median
Favorites	2,138	35,687	5,978
Likes	618	52,789	3,719
Dislikes	30	2,209	145
Likes per Dislike	8.1	70.4	23.22

Table 1. Statistics on User Ratings of Videos Captured

The following section breaks down the kinds of videos returned for the search “meditation.”

Video Contents

The 87 videos that contributed to the content analysis fall into three main groups of meaning: religious, New Age and secular. We separated the New Age videos from the purely secular videos because the former appear to have an explicitly spiritual orientation whilst the latter tend to focus on relaxation, sleep or instruction.

The religious group comprises 20 videos associated with established faith traditions — nine Hindu, eight Buddhist, two Sikh and one Native American. It might be surprising to learn that no videos from the major religions of Christianity, Islam and Judaism appeared in our corpus. Although a recent search of the iTunes App Store revealed Christian meditation apps among the ones with high customer ratings, no Christian videos appeared among the 100 most-viewed meditation videos on YouTube. Meditation is an integral part of the Hindu and Buddhist faith traditions, however, and we were not surprised that those religions dominated this group of videos. Christian meditation videos do exist on YouTube but they did not fall within the 100 most viewed ones.

The New Age videos, numbering 15, take one or both of two approaches: (1) sound-wave brain stimulation

(“solfeggio” [21], “blisscoding” [4] and/or “binaural beats” [1]); and (2) Western-style chakra [8] meditation or yoga, which are not clearly associated with either the Hindu or the Buddhist approach. The New Age approaches can be combined: some of these videos, for example, use sound waves in chakra meditation.

That left 53 secular videos, mostly focussed on relaxation. Table 2 shows the distribution of videos by meaning.

Group / Subgroup	Videos	Like/Dislike Ratio
Religious	20	33.8
Hindu	9	32.2
Buddhist	8	38.4
Sikh	2	11.4
Native American	1	54.5
New Age	15	24.5
Secular	52	23.2

Table 2. Meditation Videos by Meaning

Auditory Features

The religious videos had almost 34 likes for every dislike; the New Age and secular videos had fewer.

In addition to the differences in meaning, the videos varied according to the types of auditory and visual content they contained. The analysis revealed seven auditory features: nature sounds (primarily rain and birdsong); electronic or computer-generated sounds; gongs or Tibetan “singing bowls” (treated separately because they have a special meaning in Tibetan and Nepalese meditation [8]); other musical instruments; human singing or chanting; human speech; melodic line (vs. monotonic or other non-melodic).

The auditory features are in no way mutually exclusive; most of the videos in our corpus offer more than one. Sixteen of them have three or four of these features and just 27 have only one. Fully half of them have two. Table 3 shows the number of videos that have each of the auditory features and the number that combine that feature with other auditory features.

Visual Features

Six visual features emerged from our analysis: text; photographs or paintings; computer graphics; still images; still images that move (via panning and/or zooming); videos and animations other than panning and zooming.

Unlike the auditory features, which may exist in isolation, the visual features exist in combination: all of the videos have at least one of the first three *and* at least one of the second three. Nineteen of them have three to five of these features; fully 80% have two. Table 4 shows the number

of videos that have each of the visual features. This table does not show combinations because every feature is combined with at least one other.

Auditory Feature	No. of Videos With	Combined With Other Features
Nature	16	9
Electronic	15	10
Bowls / Gongs	8	7
Instruments	56	45
Singing / Chanting	28	26
Speech	12	9
Melodic	30	30

Table 3. Videos with Auditory Features and Combinations

Visual Feature	No. of Videos With Feature
Text	8
Photograph or Painting	59
Computer Graphics	32
Still Images	46
Static Images that Move	9
Videos	41

Table 4. Videos with Visual Features

Figure 1 shows examples of thumbnails taken from our search results. The most viewed meditation video, with over 18 million views, features instrumental and vocal music accompanying images such as floating bubbles in a tank of water, stars in space, crop circles, mystical symbols and beaches. The next most viewed video, with

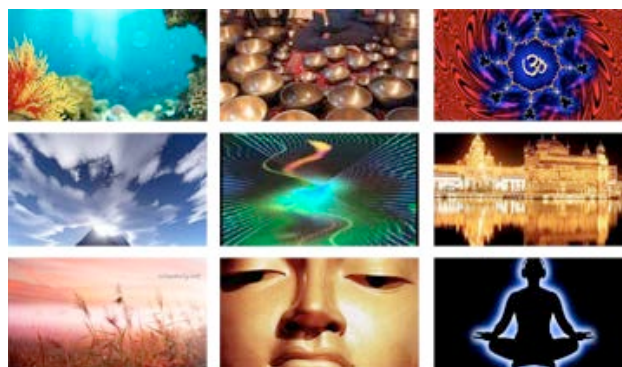


Figure 1. Example Thumbnails from Most-Viewed Meditation Videos

almost 15 million views, features ambient music with cloudscapes. Beaches, sunsets, clouds, Buddhas, lights, star fields, waterfalls, dolphins, bowls, mandalas — all feature heavily in the thumbnails accompanying the titles.

The following section reports on the kinds of comments posted to the videos. (We quote the comments verbatim, without corrections to spelling, grammar or punctuation, so as not to distort the data.)

COMMENTS

The 1145 posted comments yielded 1354 comments total, after we double-coded the ones with multiple themes. Approximately 70% reflect positive responses to the videos. Roughly 20% indicate negative responses and 10% are neutral or ambiguous.

The comments fall into three basic types:

- Remarks about the videos
- Reports of subjective experiences and feelings
- Responses to other comments

The comment analysis is organised around these types.

Remarks About the Videos Themselves

Many of the comments involved observations or questions about the video itself.

Overall Impression

The largest category (192 comments) simply remark on the video as a whole. This category includes many simple sentiments and variations of same — for example, “That was beautiful”, “Whoa that is beautiful!!” and “beautiful! amazingly done....thank you...”

Almost all of the comments in the Overall Quality category are positive. Some of these mention an aspect of the video, such as music, visuals or meditation technique, without going into detail about what makes that aspect wonderful. (The ones that do so, appear under “Specifics”.) They call the videos “stirring”, “exquisitely, poignantly lovely”, “absolutely gorgeous meditation” and express other general statements of appreciation.

Negative comments merely call the video “boring”, “lame” or “gibberish” as a whole, and do not say what about it (music, images, setting, technique, etc.) the commenter dislikes. Perhaps these videos did not provoke enough interest to induce these commenters to say more.

Thanks and Blessings

We captured 100 comments thanking or blessing the video maker for providing the video. Most of them include thanks as addenda to other comments, but some of them offer the thank-you as the primary focus of the comment. Some of them are very general (e.g., “thank you for sharing ! Namaste” and “Oneness blessing , thank you”); others are fairly specific about the reason for the thanks (e.g., “Thank you, may you rest in heaven. You

have helped me further develop my third eye” and “I find it really awesome that you're putting the whole 60mn CD in free download, I think it's really generous and I wanted to just thank you :)”). As might be expected, the comments in this category are all positive.

Specifics

In contrast to the comments about overall experience, a smaller but still substantial number of comments (68) state specifically what the viewer likes or dislikes about the video. Roughly half are positive and half negative.

The positive comments in this category mention details such as colours, setting, language and quotations, singing or speaking voices, meditation technique, and technical aspects such as audio quality. They use adjectives similar to those in the “Overall” category, but they apply them to specific characteristics. Here is an example:

Your voice carries a beautiful tone and your words are inspired. I especially enjoyed what you said while visualizing the heart chakra, "Loving ourselves in the foundation of good health and happiness."

About half of the comments on specific aspects of the videos constitute criticisms. They indicate dissatisfaction with the same kinds of details that other commenters like (mostly in different videos, though); and in addition they criticise grammar, video names and descriptions, and advertisements inserted by YouTube. Additionally, a few object to inconsistencies between aspects of a video — for example, one writes of being unable to sleep knowing that a video that describes itself as “heavy rain” is actually a light waterfall, and another says that “the sound of crashing waves & a static river don't make sense.”

Many of the commenters softened their criticism by including a positive remark: “His voice just doesn't work for me, a good message though” and “Good intentions but real bad English. Love to you in any case.”

Sounds Like / Looks Like

We captured 28 remarks that the video sounded like or looked like something else. Many of them connect sounds or images to something that the viewer likes or finds pleasant. These include “the waves of the ocean crashing onto the shore”, for example, “what we could hear when we were in the womb” and a beloved part of the world.

About as many connect sounds or images to something that the viewer dislikes or finds distracting. These include “a flight to Bangkok”, “the transformation room of my local electricity provider”, or a speaker who “sounds JUST like Eric Idle³!”

³ Eric Idle is a British actor, comedian and writer who is best known for being in the former British surreal comedy group Monty Python.

Questions

The comments include 43 questions. The positive ones most commonly ask the name of a specific piece of music that was used in the video, how to buy or download the music or the video, or how something was accomplished (e.g., recording rain without soaking the microphone).

Also common are questions that reveal curiosity rather than scepticism or criticism. Most of these ask about the message or meaning of the video (“Is this for a particular religion?”), the purpose of the meditation or some part of the technique (“What do visualizing the colors of chakra do?”), or why they are experiencing something in particular from viewing the video (“why am i crying?”).

Humour

We recorded 28 jokes and other expressions of humour. Some make puns on the language of the meditation — e.g., “OM SWEET OM” and “hahaha i accidentally typed in YouTube.com and it sent me to this o.O⁴ hahaha”. Some are just laughing: “ahahahahahah oh youtube” and some contain *non sequitur* statements: “Coincidentally, I find that I have the most incredibly lucid dreams after eating pizza.” None are clearly positive.

Our favorite is this one:

Makes me wanna poop slowly and peacefully...

A few of the joking comments are sexual and even quite crude, and we do not describe or quote them here.

Reports of Subjective Experience

By far the largest overall category of comments we captured describe subjective experiences — mental, emotional, physical, and spiritual — that the commenter underwent while viewing the video.

Relaxation, Calming and Sleep

The largest number of subjective-experience comments (184) regard relaxation, calm and sleep. The positive nature of 90% of these comments suggests that these relaxation videos may be fairly effective. The viewers speak of how it calms them and helps them relax or sleep: “This music calms me down to a meditating mood. ... I use this when I just need to relax after a frustrating day” and “Perfect for those who suffer from a cluttered and disorganized mind. This helped calm my thoughts and drift of into a blissful sleep...”

A few viewers stated that a video increased their mental activity or that they found it to be too fast to relax them.

Health, Well-Being and Inner Peace

The second-largest number of subjective-experience comments that we captured (124) relate to health, well-being and inner peace. We classified inner peace with

health and well-being rather than with relaxation and calm because the comments that mention it seem to stress its role in spiritual and mental well-being rather than the more physical relaxation effects.

The large majority of the well-being comments speak of pain relief (from recent injuries and chronic conditions), restoration of muscle flexibility, soul healing, cleansing, headache relief, help with mood (“This helped me a lot when i was heavily depressed, it still does.”), and peace of mind. Some commenters said the video gave them a headache; a few described feeling worse, getting a nosebleed and even becoming ill.

Physical Reactions and Sensations

Some viewers reported experiencing physical effects and bodily sensations while viewing the videos. Most common among these 56 reports were tingling, numbness and movement. More than half of these commenters seemed to enjoy the movements (“Great.....my body responded the vibrations. Head started moving.... I enjoyed the state of my being.”) and the tingling (“Felt my spine tingle during it! Amazing ♥”). Some reported being pleasantly surprised by the physical effects (“who knew relaxation of the mind was so physical...”).

The most common complaint we documented was that the video created a need to urinate; other physical reactions that commenters disliked were twitching, becoming overheated and feeling as if drowning.

Focus and Activities

Our corpus contains 34 comments that describe the video’s effects on the viewer’s ability to focus or perform activities. Most describe how well the video helps the viewers study, exercise, draw and paint, avoid becoming distracted, and feel good while they’re working.

A very small number of these comments appear negative on the surface: they all say that the video is not helping them study. One of the commenters, however, adds that it’s “hard not to sleep”; and another, after remarking that “this song didn't help me complete my homework at all”, goes on to say:

It just opened up my imagination door and I was dragged into the land of creativity.

When I returned, an hour had already passed!!

Great video, great instrumental. 10/10.

These additional remarks hint that those videos might be having the relaxation effect that their creators intended. (All four videos in these “negative” comments have “relaxation” or “sleep” in their title.)

Feeling of Being “Elsewhere”

We collected 31 comments that describe feelings of being elsewhere — either “out of the body” or in another place, real or imaginary. Most indicate that the viewer enjoyed the feeling and found it valuable. They say that the sound “transports me to another world”, that the music “makes

⁴ “o.O” is Internet code for confusion or puzzlement. See <http://www.urbandictionary.com/define.php?term=o.O>

me feel like i am travelling at speeds faster than the speed of light, emptiness of the space and reach a planet that's very spacious and anything you imagine is possible", and that "i literally thought i was in china or something".

A few comments express discomfort with the feeling (e.g., "when i do it ... i can't find a way to my body so i do not do it :/"), and one commenter felt frustrated with being unable to return to a feeling that he or she had experienced in the past ("All the way into the light... and for the physical life of me - no matter how much I meditate I can not get there").

Drugs, Alcohol and Herbs

We captured 32 comments about drugs (legal and illegal), alcohol and psychoactive herbs. Some of these observe that watching the video evokes a feeling of using these substances; others remark that the substance would go well with the video. A few claim to be high already.

Approximately two-thirds of these comments are positive: "Awesome video to relax with a glass of red wine or sensestamps!" or "Feeling really good xD happy for no reasons its as good as pot". The small number of negative comments in this group indicate discomfort with the feeling associated with the combination of the video and the substance in question. One commenter writes, for example, about feeling "a little bit dizzy after listening to this" and adds, "Probably I should stop watching it under sensestamps, lol." Another says it is "like a very bad trip".

Anger, Annoyance and Fear

We captured 64 comments that expressed anger, annoyance, irritation or fear. Some convey a general feeling; others describe reactions to specific features. A very small number describe the video's effectiveness in helping reduce or release these emotions: "the power of waterfalls washes away fear" and "I was just listening to this to make myself less angry". Most, however, are negative: either people become angry ("I'd rather die than listen to that for an hour") or fearful ("I'm afraid to go to sleep... because I think she might just brainwash me with her creepy voice, great now I'm paranoid") as a result of the video, or they believe it will not help them calm those feelings ("My anger is too powerful").

Several of the angry comments referred to advertisements that came before the video and in some cases interrupted it. We found the most interesting example to be this one:

*There's nothing like starting the road to mindfulness, than with a f***ing commercial.*

The content of YouTube advertisements falls outside the control of video owners, for the most part, although they do have the option to disable ads for a video [15]. The comment quoted above illustrates the extent to which advertisements can be disruptive to a video that is meant to support mindfulness and meditation.

Responses to Other Comments

The other major group of comments relate to other comments. The two types are supportive and reflective.

Advice, Explanations and Support

We captured 114 comments that offer information, suggestions or empathy to other commenters. These comments convey respect for others, regardless of the views they reflect concerning the videos themselves.

These comments do many things: answer questions about the video's language or meaning ("waheguru is what sikhs call god"), explain the technique ("This sound helps us reach your higher self. Our minds can be so powerful that it intimidates us"), reassure questioners that their experience is normal ("what you are feeling spiritually are causing these goosebumps on your physical self") or that the video is safe ("You are smart to be concerned, but no - brain damage is not possible with [this technique]"), and urge others to enjoy the video ("Put headphones on all day on a free day and not a single negative thought will come near you" and "look deep, you are god").

One commenter expressed suicidal thoughts because of the death of a loved one, and others expressed empathy and encouragement ("You are very loved by those around you. The loss of people you love always takes an emotional toll that only time can mend. But time will come, and it will mend."). One described how much meditation had helped him or her in a similar situation.

More than one commenter hinted that "real life" is better for spiritual growth than using videos. One person wrote, for example, "I recommend using a singing bowl yourself in person. It is so much better", and another wrote of leaving Facebook and urged the other commenter to "be strong my friend ... get away from the computer and experience the wonderful rise in consciousness that permeates through the universe".

Reflection

The other major group of responses to other comments is not as large (15 comments), but it is important because it reveals viewers' experience of reading the comments. Many of these disparage the arguments ("your arguing on a meditation song?" and "XD⁵ Arguing? Seriously? You guys have a funny way of meditating!") and some say they damage the experience of the video ("...anyone else read the comments that ruined the song?" and "...The religious debates kill the mood, I fear...").

One of these comments took an entirely different tone:

It's amazing that there are so many wonderful comments here, instead of YouTube wars. (: The love is spreading.

⁵ "XD" is an Internet symbol for a laughing face. See <http://www.urbandictionary.com/define.php?term=XD>

This commenter appears to be giving the video at least partial credit for the general tone of the comments.

“Other” Comments

Our corpus of comments includes 19 themes that contain too few comments to merit exploration here. For completeness, they are as follows: angels, demons, satan and aliens; animals; contact requests; crying and sadness; dreams and visions; favorites; greetings; hopes and desires; insults; meditation; memories; permission and copyright; quotations; religion; spam; technical; wanting more; world peace; and “unclear” (comments whose meaning we did not understand).

We do want to mention the “greetings” category, however. Two of the videos had long strings of comments (hundreds in the two weeks right before data collection), all of which said “good night from [x place]” (presumably the commenter’s location). Although we did not record these redundant comments because they would have clogged the data and prevented us from capturing richer comments, we note their existence with interest, as they seem to indicate both a camaraderie among the viewers and a positive response to the video’s soporific nature.

Top Comments

Of the 1145 comments posted by viewers, 145 of them (12.7%) were “top comments” — i.e., those comments (at most two per video) that were “liked” by the largest number of other viewers. Although our convenience sampling of other comments prevents us from drawing any inferences from comparing their numbers with those of the top comments, we find it striking that 15.9% of the top comments (23) fall into the Advice, Explanation and Support category whilst only 8.4% of the regular comments (114) fall into that group. We are confident that this sizeable difference is not due entirely to convenience sampling, and we suspect that the viewers of these videos may place a higher value on comments that build community than they do on other types of comments.

Table 5 shows the differences between the percentages of top comments and ordinary comments in the four largest groups of top comments. It also indicates the order of each category in both groups. The table shows clearly the importance of comments providing advice, explanations and support among viewers of these meditation videos. Also, it indicates that these viewers may value humorous comments disproportionately as well: their percentage among top comments is thrice that in the whole corpus.

The table lists these comment categories by frequency. As previously noted, this was a convenience sample and we make no claims for generalisability. A representative sample of comments might yield quite different proportions of comments and even different categories. We include these data merely as a snapshot of the sample.

Category Comment Type	Number	Percent
Advice, Explanations and Support		
Top Comments (1)	23	15.9%
Ordinary Comments (5)	114	8.4%
Overall Impression		
Top Comments (2)	11	7.6%
Ordinary Comments (1)	187	13.8%
Health, Well-Being and Inner Peace		
Top Comments (3)	10	6.9%
Ordinary Comments (3)	125	9.2%
Humour, Joke and Laughing		
Top Comments (4)	9	6.2%
Ordinary Comments (13)	29	2.1%

Table 5. Top Comments vs. Ordinary Comments

DISCUSSION

Figure 2 shows the numbers of positive, negative, and neutral or ambiguous comments for the categories with 25 comments or more, as discussed above. As with any cultural artefact, some people liked these videos and others did not. Davis [11] accounts for such opposed views by pointing out that any response is a “gestalt” [13] formed by the artefact and what the viewers bring to it. The user experience literature generally agrees that no experience can be guaranteed, and acknowledges the importance of anticipation and reflection. McCarthy and Wright [17] point out that the experience of using an Apple computer begins long before the user plugs it in. Advertisements, shopping experiences and indeed opening the box are all important parts of the experience. Conversations and reflections after use are also, for McCarthy and Wright, an integral part of the experience.

YouTube frames many videos with advertisements. Some of the comments indicate that this is problematic, particularly when the topic of the video is in some way spiritual — “nothing like starting the road to mindfulness, with a ... commercial.” Alan Dix once remarked that sometimes usability does not matter, using advertising as an example (A. Dix, personal communication, March 2005). Similarly, sometimes user experience doesn’t matter, at least for Google. The way that the form of a YouTube video framed the experience sometimes provided a barrier to engagement; so too did the comments. Some users complained that comments had “ruined it”. In contrast, the help- and advice-based comments indicate a value of the boards as a space for reflection and support. Commenters here offer advice on

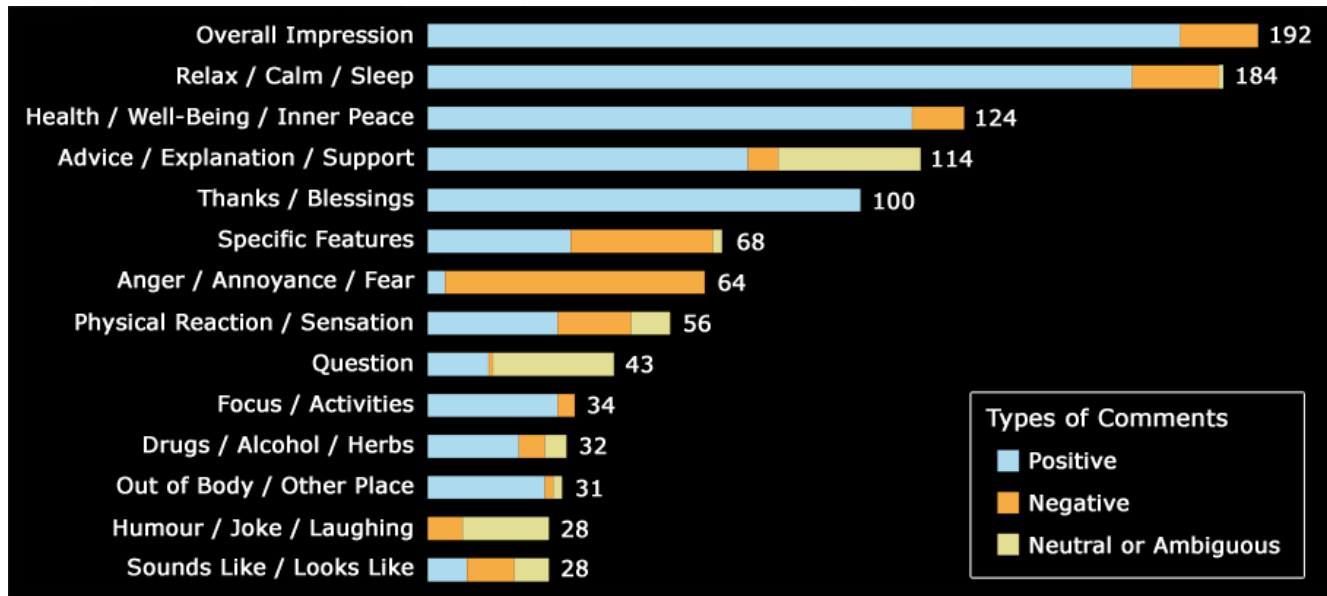


Figure 2. Positive, Negative, and Neutral/Ambiguous Comments for Themes with 25 Comments or More

technique but also express fellowship, as the repeated “good night”s indicate.

What is perhaps most striking about the comments to these videos is the infrequency of typical YouTube responses such as LOL or WTF? These abbreviations for “laugh out loud” and “what the f**k?” are so common that they almost function as textual applause or hisses. For these videos the comments are largely more thoughtful; some are deeply personal, describing episodes of pain or moments of transcendence. Especially poignant are these two:

My sister sent this to me to play during a time of intense personal hardship. This beautiful piece ... has helped me through an extremely tough time.

[my father] was experiencing pain after he had his right leg amputated due to his cancer. He is not a man to listen to classical music or relaxing music however when I played this he went quiet. He closed his eyes and became one with the music I could see from his expression he was at peace.

The high proportion of likes to dislikes indicates that people are enjoying these videos. This enjoyment, however, is not mainly of the LOL variety. Seligman’s work on positive psychology distinguishes between pleasures and gratifications. For Seligman a pleasure may be a bodily one such as masturbation, eating or getting drunk, or it may be a distraction such as watching television. Pleasures are not necessarily intense; they are unlikely to result in “flow”. Contrariwise, gratifications often induce flow and deep engagement. Gratification comes through focused work — playing an instrument well, engaging in meaningful activity, helping someone [20]. The enjoyment evident in

these comments appears closer to gratification than to pleasure: it is longer lasting and ultimately more satisfying.

Content and Context

We were struck by the strength of the effect that the context surrounding a video can have on the user experience of the video’s content. In particular, the presence of loud, disruptive advertising or of racist diatribes in the comments spoiled the mood for a number of commenters, even when the video itself was seen as relaxing or calming.

We are also interested in the relationship of these findings to other kinds of technology. It might be interesting, for example, to experiment with immersive projection environments such as data caves or sonic environments such as Vidyarthi’s “Sonic Cradle” [25, 26]. The Sonic Cradle suspends people in a harness in a sensory deprivation chamber, detects the user’s breathing and controls the soundscape being played. It would be interesting to take some of the soundscapes, meditations and images discussed here and introduce similarly intense and intimate means of interacting with them.

Finally, the mobile context may also be important. Our recent search of the US iTunes App Store [5] found some 1500 highly rated iPhone and iPad apps for spirituality and religion, including “meditation” and “mindfulness”. People may want access to electronic media that help them meditate wherever they are, without being tied to a desktop or laptop computer, or even to an Internet connection.

CONCLUSION

A study of “meditation” on YouTube indicated that the site is being used to post and view videos intended to facilitate mediation. Some of these videos had been viewed many

millions of times, and viewers for the most part liked them. The most viewed 100 videos featured content that was traditionally religious, “new age” or secular. A convenience sample of comments was taken to gain some impression of responses. These were largely positive, and they often indicated what Seligman might refer to as gratification as opposed to pleasure. Advertisements seemed to have an adverse effect for some viewers. Comments could mar the experience as well, but they also provided a resource for more information and for a sense of community.

Future work could involve focusing in on more particular videos and taking a representative sample of comments. It might also follow up with real-world contact with users. The limitations of found data make this a preliminary study, but it indicated some of the ways in which social media sites such as YouTube are being adopted to facilitate not only pleasurable but gratifying and meaningful experiences.

And finally, we are personally curious about the subjective experience of meditating with these videos. While viewing them for this study — even to the small extent necessary for identifying and documenting their features — we found ourselves drawn to some of them and wanting to view them again when we could experience them as intended. The transcendence and well-being we find in the comments only reinforces our interest.

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