

Quarantined world through SoundCloud hashtags network

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1 Introduction

In March and April all the world was involved in a pandemic lockdown due to the Covid-19 emergency. During that period, people used social networks not only as entertainment channels, but above all as a place for expressing moods, collecting news and sharing passions through ‘hashtags’. The research is aimed to verify, by examining the hashtags network of the online music platform ‘SoundCloud’¹, whether the ‘hashtag’ is not only an index of the track, but a real form of communication between users. To achieve this target, DEMON [1] was used as a Community Discovery (e.g., CD) algorithm; the choice is based on the sociological hypothesis that a node can belong to different communities [2], accurately reproducing the multiple scenario in which the quarantined world was divided and united at the same time and hashtags can have the explanatory power of covering a number of semantic areas.

The network on which the analysis was carried out consists of 29862 nodes and 406651 edges, where the latter are given by the co-presence of two hashtags within a track. The CD was started on it and at first parameters ε and κ have been set: the value $\kappa = 10$ was set in order to have a minimum size of the communities not too high ensuring a proper level of coverage, the value $\varepsilon = 0.4$ has been set for several reasons: first, to guarantee an accurated semantic study of them and then to bring out more than one aspect of the same phenomenon. Therefore, DEMON found 152 communities and we selected and analyzed those containing the hashtag ‘quarantine’ to verify their ability to reflect the multiple realities, in terms of interests, passions, moods, that the quarantine was able to put together.

2 Results

The algorithm found 152 communities containing the hashtag ‘quarantine’, among which thirteen categories have been discovered from a more in-depth study of community partition. All the categories found are shown in Fig. 1 but we are analyzing the most interesting ones.

¹An online audio distribution platform and music sharing that enables its users to upload, promote, and share audio, <https://soundcloud.com/>

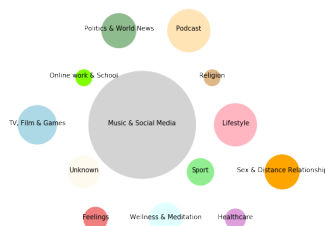


Fig. 1. Categories of communities

Music & Social Media. As expected, this is the most frequent category, with 72 communities. Music has always been said to break down many barriers and this is exactly what happened during the lockdown period. The CD highlighted the hashtags ‘Travisscott’ and ‘Fortnite’, the first a famous American rapper who during the quarantine shared with his fans a concert on the gaming platform ‘Fortnite’, recording a world record and becoming one of the possible future scenario for music. Among hashtags concerning musical genres and artists, the hashtags ‘GetMorePlays’ and ‘SCxiamOTHER’ stand out. SoundCloud launched these two promotional activity for users, linked to these hashtags, in order to give more visibility to emerging and unknown artists. The company, together with the well-known singer Pharrell Williams, decided to publish a compilation in aid of charity, through the hashtag ‘SCxiamOTHER’, the entire proceeds of which have been donated to some musician organizations.

Lifestyle. Another interesting aspect that emerged from CD concerns everyday life. The lockdown period has forced people to change their habits and lifestyles. Many of them took the opportunity to rediscover the pleasures of family life, and this has been shared on digital platforms. Hashtags in related communities include words such as ‘daughter’, ‘mum’, ‘stay home’, ‘family’, ‘netflix’, ‘workingfromhome’, ‘coloring’, ‘cooking together’, ‘drawing’, ‘home and family’, ‘sleep’, ‘keeping kids engaged’, ‘nature walks’, ‘student life’, ‘unemployment’, and ‘thingstodo’ that effectively sums up their purpose. Obviously, mixed feelings also come out: ‘boredathome’, ‘isolation’, ‘funny’, ‘positivity’ etc. In an emergency like the current COVID-19 pandemic, the fear of the new and unexpected situation and its potential impact on health, combined with the need for social isolation, causes an inevitable feeling of desolation with time running slowly, but can help people regain control of their lives, increasing the capacity to respond in a positive way at distress caused and to ‘fill the gaps’ left by the hectic life to which they were accustomed.

Podcast. During the Lockdown, the world of podcasting recorded an increase in ratings of 53% across Europe [3]. The topics most listened to were mainly family, politics and health and hashtags like ‘family’, ‘epidemic’ and ‘conversation’ were the most shared in this category of communities. On the other hand, there has been an opposite trend in the USA, where podcasting is mainly linked to commuting, stopped due to the pandemic. However, one argument that affected many communities was the discussion about Microsoft’s founder, Bill Gates, with hashtags like ‘BillGatesDidIt’, ‘5G’, ‘conspiracy’ and ‘QAnon’.

Sex & Distance Relationship. The category ‘Sex & Distance Relationships’ highlights new and safe ways that people found to reconnect intimately and sexually using digital technologies, due to forced isolation. In fact, hashtags like ‘tinder’, ‘online dating’, ‘facetime’, ‘Facebook’, ‘zoom’, ‘bumble’, reflect exactly this new virtual reality. Also ‘online dating’, ‘virtualdating’, ‘sex uninterrupted’, ‘socialdistancing’, ‘love lost’, ‘safe sex’, ‘acceptance’, ‘physicalhealth’, put in evidence that in times of technological advancement, the lockdown has not prevented from forming romantic and platonic connections with other people, albeit virtually. Paradoxically, this period has shortened the emotional distances at the cost of the real physical distance.

Feelings. Several are the communities identified that enclose a set of emotions and moods, even very contrasting with each other, which faithfully reflect the tumult of feelings from which the world community was invaded suddenly. The hashtags themselves, such as ‘emotions’, ‘anxiety’, ‘happiness’, ‘frustrated’, ‘courage’, ‘sad’ and ‘fun’ emphasize the nature. Not surprisingly feelings such as ‘hope’, the externalization of well-being, ‘stress’ and ‘vulnerability’, but also more challenging issues such as ‘suffering’, ‘support’ and ‘depression’ were strongly felt and shared by users, through the numerous presence of the respective hashtags.

Online work & School. The closure of schools and offices due to the pandemic has revolutionized the way we work and teach all over the world. Some companies already knew smart working and distance learning, others were unprepared for this kind of work and had to adapt quickly: it has a strong presence of hashtags such as ‘remoteworking’, ‘working remote’, ‘onlinelearning’, ‘homeschooling’ and ‘distancelearning’ and slogan as ‘DoBusinessBetter’.

3 Conclusion

The research is only the first step of a larger study of the role of hashtags within musical tracks. However, as noted at least in part, DEMON’s communities partition, and the categories identified starting from this, exactly reflects the quarantined people’s lives and feelings all over the world. Therefore, given the use that users make of hashtags on social platforms, as a further means of moods expression and ways of living, the analysis could be considered an alternative way to investigate society, increasing the target sample and deepening the identified thematic categories.

References

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