

# Boredom, routine activities, and cybercrime during the pandemic

Ben Collier

28 July 2020

## Executive summary

CCC COVID Briefing Papers are an ongoing series of short-form, open access reports aimed at academics, policymakers, and practitioners, which aim to provide an accessible summary of our ongoing research into the effects which the coronavirus pandemic (and government responses) are having on cybercrime.

Increases in activity on cybercrime forums appear to be linked to increased levels of boredom and free time in lockdown, with many schools and workplaces closed. Although the spike in posting appears to have been fairly short-lived, coinciding with the beginning of lockdown, underneath this lies a clear and sustained change to patterns of activity, with a large increase in the proportion of posts made during working hours.

## Boredom, free time, and routine activities

Our previous briefings have focused on the evidence for changes to activity in a range of online illicit markets, including drugs cryptomarkets, the trade on cybercrime forums, and booter services. We now consider in more depth some of the broader factors underlying the online illicit economy, which may be particularly useful for predicting how things may change in the future.

The initial peak of lockdown coincided with a sharp rise in many forms of cybercrime. From analysis of our forum collections, we observe that use of a major cybercrime forum (which we focus on in this briefing) increased substantially over this period (Figure 1). Although this seems to have been relatively short-lived, this increase in posting activity, which aligns closely with the beginning of lockdown in many countries, bears further investigation. We find that many threads mention a large increase in both free time spent online and boredom as a result of lockdown:

*“Hi, With that situation with covid-19 I also got into quarantine and it is so f\*cking boring. I have a experience and knowledge in programming, developing, marketing, business... If you need anything let me know, willing to work on long term projects too.”*

So there is some qualitative evidence that, within cybercrime communities, the boredom of lockdown (and a change to the daily routines of these communities) may be behind increased posting volume and activity. To establish this as a wider phenomenon, we analyse the frequency of discussions of boredom over time on this cybercrime forum (Figures 2 and 4). As can be observed, there is a spike in posts using the words ‘boredom’, ‘boring’, and ‘bored’ among the user community of this forum which coincided with the beginning of lockdown, and which appears to have tailed off.

Despite the relatively short-lived nature of the spike in posts, and in posts referencing boredom, the conditions of lockdown largely still remain in place – although countries are opening back up, most children remain home from school, holiday travel and local leisure opportunities are severely curtailed, and many remain unemployed, furloughed, or working from home. Thus, a more long-lasting change to routines of activity might be expected.

Studying patterns of posting provides robust evidence for such a change. Although active discussions of boredom may have died down, Figure 3 shows that posting during the working day (or the school hours)

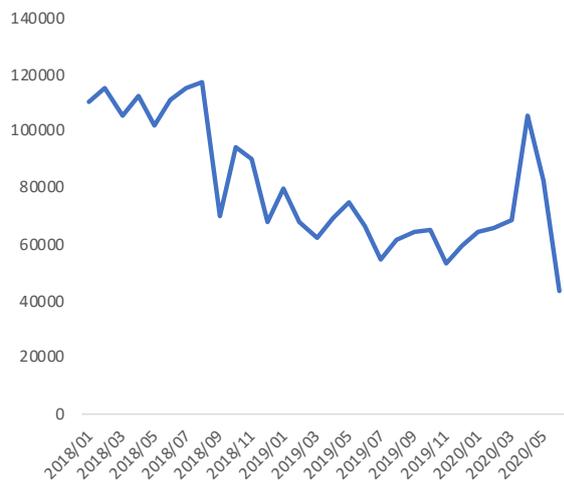


Figure 1: Total posts per month to a popular cyber-crime forum

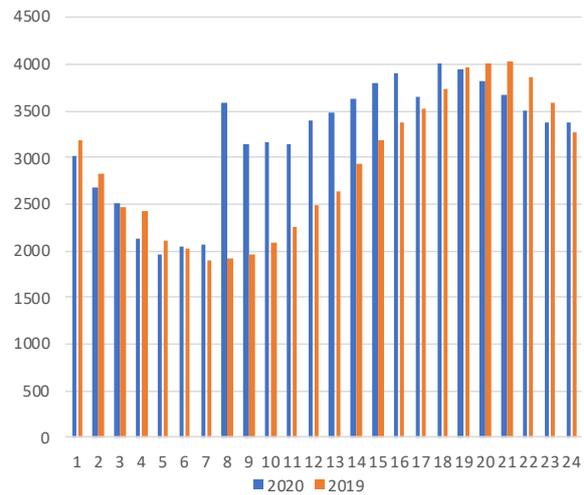


Figure 3: Average no. posts by hour for the months April, May, June – 2020 vs 2019

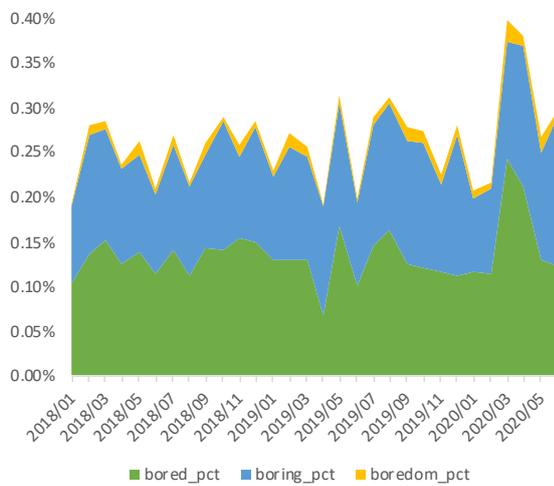


Figure 2: Percentage of posts containing words related to boredom over time

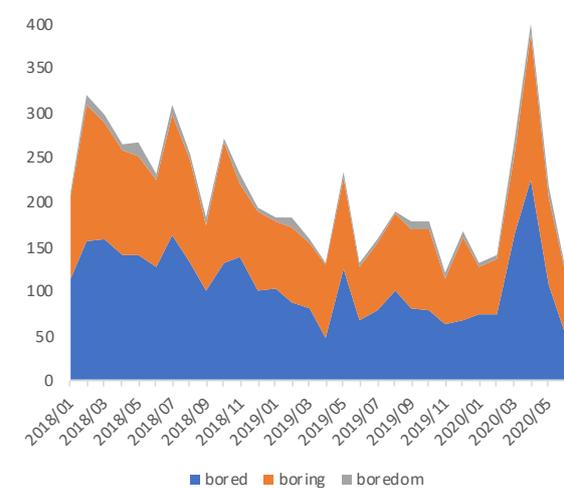


Figure 4: Number of posts containing words related to boredom over time

of the users has remained at greatly increased levels, with the characteristic curve of posts per hour now substantially flattened off. In fact, the sustained increase in posts over the same period the previous year is almost entirely accounted for by increased posting during working hours.

## Conclusions

There is a clear change to activity patterns on cybercrime forums, with increased posting linked to activity being spread into working and school hours. This indicates that lockdown, and the associated increases in boredom and free time, are having significant effects on the routine activities of the users of cybercrime forums. We suggest this explains some of the macro-level changes in cybercrime rates we observe.

---

*At the Cambridge Cybercrime Centre we make our research data available to other academics, sometimes before we have looked at it ourselves! Researchers can be provided access to our 'CrimeBB' dataset of (26 and counting) underground cybercrime forums, our extensive collections of chat channel data, and our new collections of forums relating to online right-wing extremism and radicalisation. We can also share email spam and sensor data related to DDoS and IoT malware. All these collections are regularly updated and can be rapidly provided under license – for full details see: <https://cambridgecybercrime.uk>*

---

The full set of CCC COVID Briefing Papers can be found at: <https://cambridgecybercrime.uk/COVID>

This work is licensed under CC BY 4.0. To view a copy of this license visit: <https://creativecommons.org/licenses/by/4.0>