

Abstract

Status of This Memo

This document is a draft.

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1. Original Message

I am a secondary school student from Shanghai, China. This email discusses the problems I discovered in the Chinese educational system, in terms of students' right to freedom in computing and options to control the COVID-19 pandemic from the standpoint of a person living in China.

When COVID-19 broke out in 2020, students were required to watch lecture videos produced by the city's education department for twenty minutes, then join the Tencent Meetings room to discuss in their own class for 10--15 minutes.

Watching the videos wasn't an issue for me. Our apartment has cable TV, where the videos are broadcast; there was also a website that played the livestream without JavaScript. However, Tencent Meetings presented a problem to me.

At the time, I run Arch Linux. (Currently, I run Hyperbola GNU/Linux-libre, a Free Software-only distribution, which would have made this even harder.) Tencnet Meetings, claiming to support "all operating systems and platforms", only supports Windows and macOS. (I wonder how they passed the resolution to display that statement, I believe that they have many programmers who use GNU/Linux.) (As of October 2021, a classmate noted that there is a "Linux versuon".) School required Tencent Meetings, therefore I went through a hard proccess to setup QEMU running a Windows 7 virtural machine---I believed that 7 would be slightly better than 10 in terms of privacy, though as always with nonfree software, I can't really know for sure. It was slightly unstable, which is an annoyance, for example the connection from the Windows audio server to pulseaudio would stop working from time to time, but it was acceptable. Though my setup was okay (in the perspective of my school), it left me in a psycological crisis about education and freedom. More on that later.

Offline classes resumed in May 2020, as most of China has minimal cases of COVID-19. This freed me from using a proprietary non-privacy-respecting bloated piece of software in a virtual machine, but it did not free me from teachers' requirement to use WeChat (think of it as the equiv of WhatsApp in China), Xiaoheiban (A proprietary classroom information distribution system), or other pieces of nonfree software.

Similar to the beliefs stated in the GNU Education project, I believe that schools and educaion are a means of sharing information and knowledge. I understand that meeting software and lesson management software are used as means of distributing knowledge, rather than the knowledge being distributed themselves. However, I believe this doesn't lead to the argument that the mandate of proprietary software usage is just, for three reasons as below.

1. There are always going to be curious students who wonder how the trchnology works. Proprietary software denies them this right.
2. The usage of proprietary software when young may implant dependence on it in the future.
3. Education is a right and a responsility. Mandating nonfree software in education adds unjust responsibilities on students.

Point 1 and 2 are explained well in the Education section of the GNU website, therefore I am not going to focus on them. Focusing on the third point:

Under laws of almost all countries, citizens have the right to an education. Traditionally, this involves going to school, meeting teachers and classmates, listening to classes, taking notes, passing exams (I have strong opinions that exam systems ought to change to better represent individual talents, but this is out of scope of this memo.) and finishing homework. Students lose a slight bit of their time and freedom of movement (as in, it's not easy to move to a house 100 miles away from school), in exchange for being educated.

However, with schools requiring the use of nonfree software, in effect students are required to give up their privacy, and digital freedom, both crucial rights in modern society, as the effect of needing to use nonfree software. The right to education has effectively turned into an exchange for other basic rights. This is not acceptable.

Furthermore, in countries like China, 9 years of education is mandatory for children. I understand this law as a means to the goal of creating a knowledgeable and educated society, which is good. However, when mandatory education mandates nonfree software, it deduces to "children are required to use nonfree software". So, being a child here is pretty unlucky, because there goes your right to privacy, your independence, and your freedom, because of a law that's supposed to help society.

We need to stop using nonfree software in education.

In the beginning of this email, I mentioned COVID-19. You might be wondering how China fully put the pandemic under control in just 5 months, which is seemingly impossible if all you know is how the US dealt with this situation.

The answer is that China is implementing strict contact tracing. This is extremely easy because of the prevalence of surveillance. Many would argue that this is a benefit of surveillance, which I believe to be true. However, no comparisons were given between losing privacy and increasing the risk of infection. Briefly inspecting this idea in my head, it's really hard to think about---privacy and freedom is important in the long term, at the cost of many lives in the pandemic. The lives of these dead are gone---they lose not only privacy and computing freedom, they lose their lives, which costs them their opportunity to pursue their dreams in this world, and they have no freedom of choice, speech, etc as they aren't alive. Once again, this is hard to wrap my mind around, therefore I would especially like to invite the community to discuss this.

The contact tracing system used is not Free Software. At first I didn't understand why (except for the explanation that they want to profit from harming citizens), but I noticed that the authenticity and accuracy of the system may be affected if users are allowed to modify their software. This seems to be the core of some problems with regards to software freedom---here, the user is not running software to complete their tasks. Rather, it's the government's way to maintain public safety, therefore I believe that whether users should be able to modify software in these conditions is up to discussion. Back to the point, since a green-code proof from the system is needed to get in a lot of places, a person basically needs to use proprietary software to live a normal life (to get into coffee shops, for example).

In America and other countries, things aren't that good either. For one the pandemic isn't controlled well. As a consequence, a lot of places require negative COVID tests to do stuff. A thread on the LibrePlanet mailing list discusses this issue, as a lot of these tests require nonfree software on users' phones. Note that this thread spans several months long, as it is a hot discussion, so look in the september and october archives too. The thread explains the implications clearly, thus I am not discussing it here.

(<https://lists.gnu.org/archive/html/libreplanet-discuss/2021-08/msg00008.html>. (<https://lists.gnu.org/archive/html/libreplanet-discuss/2021-08/msg00008.html>))

Additionally, I heard that some US courts require ZOOM for online cases, therefore it seems that a person's right to judicial justice comes at the cost of digital freedom. I can't confirm this, but if that's true, I'm truly disappointed at the judicial system, even though I'm not a US citizen.

I am looking forward to a freer society, or at least one where the above problems get solved.

Sincerely, Andrew Yu

2. Reply from jahoti

Thank you for your very interesting and insightful piece on the topic! It's nice to hear the personal perspective of someone inside China too, being the unfortunate rarity it is.

You're unfortunately not alone in this; the way educational institutions (and no doubt corporations) the world over made such sudden changes, even if it was understandable, is doubly traumatic for those of us whose perspectives were never considered. The only option I could come up with for my classes was to not go- and I took a whole year off just trying to reverse engineer the necessary software!

I completely agree- the fact that non-free software is required to meet legal obligations, let alone standard expectations, is completely unacceptable!

However, speaking more broadly, using software in education is itself up for debate. That's not to say computers should be banned from classrooms or that schools shouldn't teach computing skills; rather, some uses seem to be less about genuine evidence of educational value and more about schools' (or governments', or technology companies') lust for novelty. Some prudence might improve education, save money, and make using free software a more viable option for students (and even teachers).

For that matter (as a slightly off-topic personal grievance), using software well would be a huge improvement. Digital signatures have been around for more than 20 years, yet they have still not made it into mainstream use, and in fact some websites implement support for written signatures!

Indeed, any weighting of freedom against death is going to be a deeply uneasy one.

For what it's worth, I would eschew a simple dichotomy to introduce a third option: providing tools and encouraging citizens to log location data for themselves, which then helps them help contact tracers. In countries where authorities are trusted and can easily reach their citizens, this seems like a very fair balance; civil liberties are respected without significantly hampering disease control efforts.

Of course, if distrust is widespread or mass media are ineffective, this doesn't work, and in that case I'd argue limited surveillance requirements would be warranted. The key word, however, if limited: under absolutely no circumstances must even a single data entry be available to the police, or marketers, or the venue a person entered, or anyone except contact tracers working with the individual whose record it is if they are confirmed to be infected. It must also not include any data except that which can reliably be used to significantly improve tracing efforts- simply the fact that something could be mildly useful is not, in my opinion, an excuse for capturing it and putting it in a database. Of course, it must also be deleted once it is no longer potentially useful.

It's worth noting the irony that those areas were violating civil liberties would be least acceptable are also the kind that would have been more willing to do so.

This is indeed a double injustice- as well as proprietary software, constant possession of a digital device (probably a tracking one) is made a prerequisite for many common activities as well.

In relation to the right to modify contact tracing software, there is definitely a discussion to be had! Personally I see no reason to restrict that right; relying heavily on the validity of the data such systems produce seems doomed to fail for other reasons anyway, and fabricating a plausible dataset is far harder than just "forgetting your phone at home".

Definitely- let us hope that these measures die with the emergency they were a response to, and the others can be fought off successfully.

3. Epilogue

4. Conclusion

To be written.

5. Government Considerations

To be written.

6. Informative References

[THREAD] Yu, A., "On Free Software, Education in China and the COVID-19 Pandemic", October 2021, <<https://lists.gnu.org/archive/html/libreplanet-discuss/2021-10/msg00011.html>>.

Acknowledgements

To be written.

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