

COVID-19 Crisis - AWARENESS AND R/S

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V2.4.2

May 29th 2020

COVID-19 Crisis – 0x00 Disclaimer

DISCLAIMER and Prologue

Due to the global COVID-19 crisis, we are all in a special situation. However, you have the chance to prepare yourself, and on the following pages, I try to communicate some things to consider while doing so.

As a researcher from the computer and network security community, concepts from a „perspective of paranoia“ consisting of different scenarios make sense to anticipate and allow one to think of potential issues before they occur. **However, please do not understand the following content as a reason to have a negative view or bad perspective for yourself.** Read it, see if it can help you, and do what you can get out of it. **Most importantly, STAY HOME and practice hygiene.**

This whole document reflects my personal views and experiences, and I do not guarantee for anything. Please check for yourself if the content might be appropriate or inappropriate for your personal situation, for example b/c of allergies or other medical conditions that somehow limit or otherwise impact your ability to follow the proposed / mentioned proceedings.

It consists of quite some research results done by me very recently, includes some images and is far from being complete (yet) or perfect. However, I felt the urge to communicate my findings at least to friends and family (and their friends and family). **WARNING: Might include some sarcasm and ironic comments as well :-)**



COVID-19 Crisis – 0x01 **Keep Calm**

First of all, keeping calm (and organized) and **STAYING AT HOME** is by far the most important central element of succeeding in fighting the CORONA virus. So here are some basic overall rules:

A) DO NOT UNDERESTIMATE POTENTIAL ISSUES

You might be well organized and in control, but there are things which might be rather out of your control, like other ppl requiring attention or help, other ppl panicking, in a worst case scenario violence or other from your actual perspective unpredictable events. Also, you might run into medical conditions which you did not expect, more on that later.

B) DO NOT PANIC AND STAY AT HOME

You might already know it from your work: It is by far the worst thing to be hectic and to panic b/c you now urgently need to get s/t done. There will be ppl proceeding that way, and it will be inevitable to occur to somebody. However, do your best to just prepare yourself, so that you can stay rather relaxed which may also enable you to be in a position to support and/or help others.

C) CHECK STATISTICAL NEWS AND UPDATES

There is a good statistical site which I have been regularly checking since 30012020:

<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html>

As of April 7th 2020, the site looks like the first screenshot, and the second screenshot reflects the situation of yesterday, May 28th:

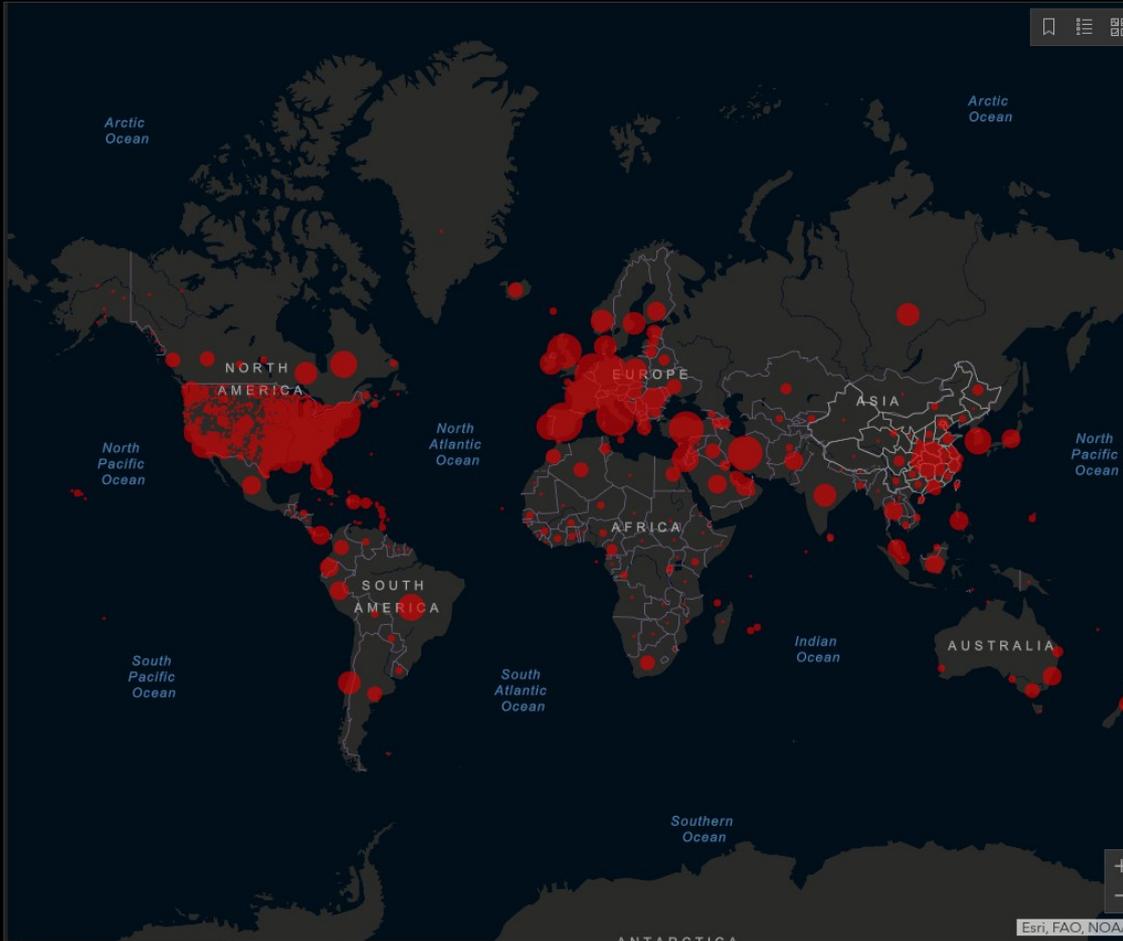
COVID-19 Crisis – 0x02 Statistics

Coronavirus COVID-19 Global Cases by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

Total Confirmed
1.350.523

Confirmed Cases by
Country/Region/Sovereignty

368.449	US
136.675	Spain
132.547	Italy
103.375	Germany
98.984	France
82.697	China
60.500	Iran
52.279	United Kingdom
30.217	Turkey
21.657	Switzerland
20.814	Belgium
18.926	Netherlands
16.667	Canada
12.386	Austria
12.232	Brazil
11.730	Portugal
10.331	Korea, South
9.006	Israel
7.497	Russia
7.206	Sweden
5.895	Australia



Cumulative Confirmed Cases Active Cases

184

countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#). Visualization: JHU CSSE. Automation Support: Esri Living Atlas team and JHU APL. Contact US, FAO.

Data sources: WHO, CDC, ECDC, NHC, DXY, 1point3acres, Worldometers.info, BNO, state and national government health departments, and local media reports. Read more in this [blog](#).

Downloadable database: GitHub: [Here](#). Feature layer: [Here](#).

Confirmed cases include **presumptive positive** cases.

Total Deaths
74.856

16.523 deaths
Italy

13.341 deaths
Spain

8.911 deaths
France

5.373 deaths
United Kingdom

3.739 deaths
Iran

3.485 deaths
New York City New York US

3.212 deaths
Hubei China

1.867 deaths
Netherlands

1.810 deaths
Germany

1.632 deaths
Belgium

765 deaths
Switzerland

Total Recovered
285.327

77.410 recovered
China

40.437 recovered
Spain

36.081 recovered
Germany

24.236 recovered
Iran

22.837 recovered
Italy

19.919 recovered
US

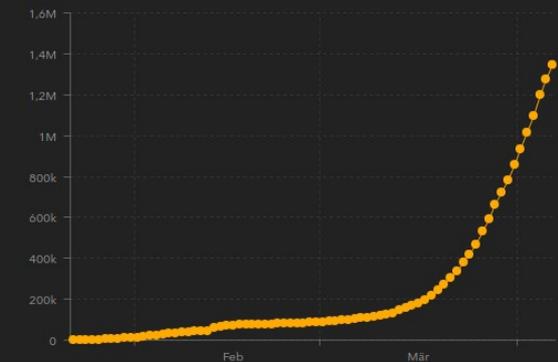
17.429 recovered
France

8.056 recovered
Switzerland

6.694 recovered
Korea, South

3.986 recovered
Belgium

3.613 recovered
Canada



Confirmed Logarithmic Daily Increase

Last Updated at (M/D/YYYY)
4/7/2020, 9:45:46 vorm.

Admin0 Admin1 Admin2

COVID-19 Crisis – 0x03 Research

You can spare some time, as I already did quite some research when I had the time over the last two weeks. Some of it might be a mixture of german and english, but i guess it is on one hand better than nothing and on the other hand can certainly a base for your own research.

Let me structure the following into these sections:

R.1 Disinfectants

R.2 Nutrients, Micronutrients and Vitamines

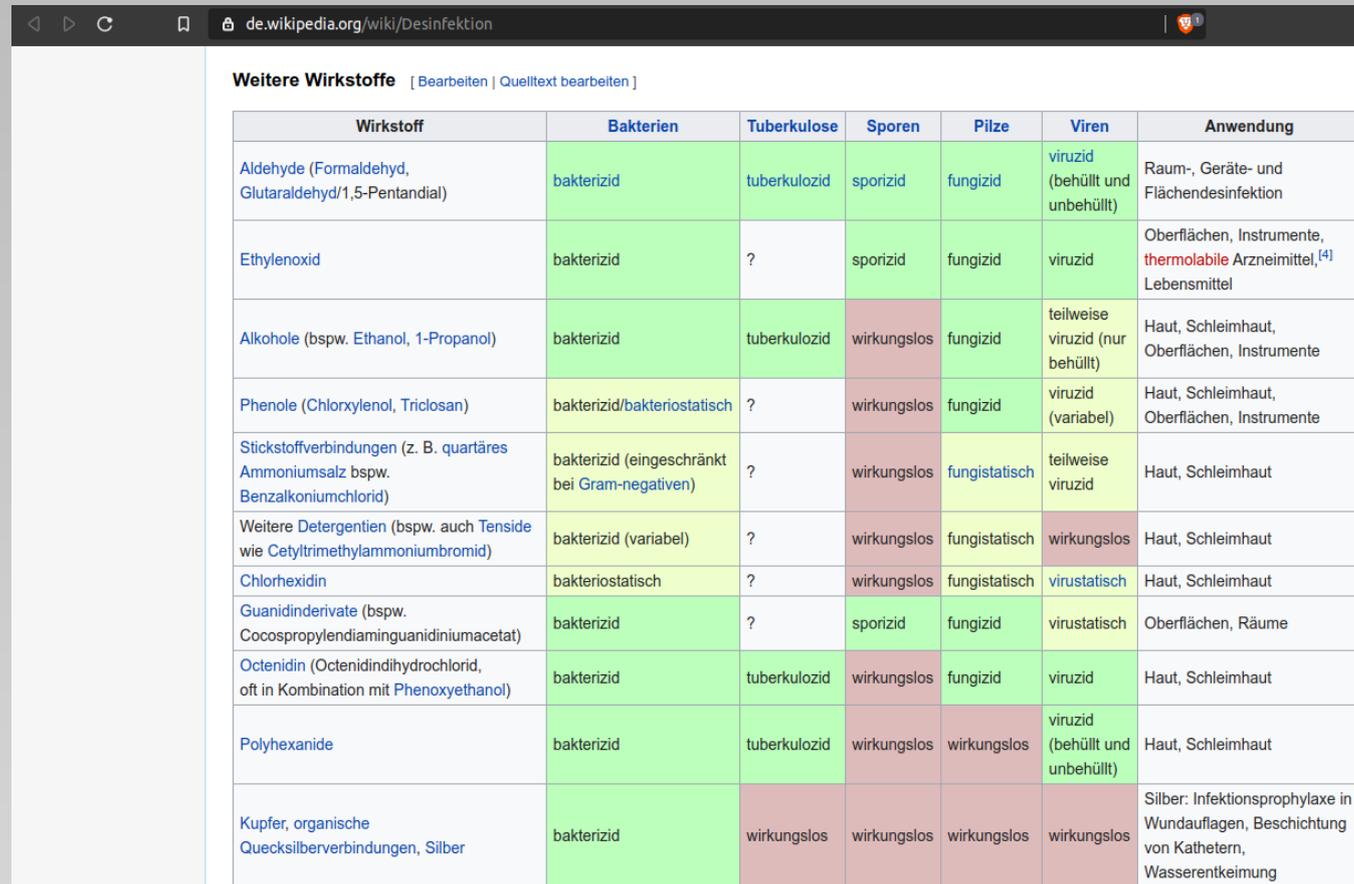
R.3 Hygiene

R.4 Notes on Psychological and Physical Interdependence

R.x Most References

COVID-19 – 0x04 R.1 Disinfectants

There seems to be already a run for disinfectants since a while (which might also reflect panicking ppl), and there are different classifications for the purpose and efficiency of disinfectants:



Wirkstoff	Bakterien	Tuberkulose	Sporen	Pilze	Viren	Anwendung
Aldehyde (Formaldehyd, Glutaraldehyd/1,5-Pentandial)	bakterizid	tuberkulozid	sporizid	fungizid	viruzid (behüllt und unbehüllt)	Raum-, Geräte- und Flächendesinfektion
Ethylenoxid	bakterizid	?	sporizid	fungizid	viruzid	Oberflächen, Instrumente, thermolabile Arzneimittel, ^[4] Lebensmittel
Alkohole (bspw. Ethanol, 1-Propanol)	bakterizid	tuberkulozid	wirkungslos	fungizid	teilweise viruzid (nur behüllt)	Haut, Schleimhaut, Oberflächen, Instrumente
Phenole (Chlorxylenol, Triclosan)	bakterizid/bakteriostatisch	?	wirkungslos	fungizid	viruzid (variabel)	Haut, Schleimhaut, Oberflächen, Instrumente
Stickstoffverbindungen (z. B. quartäres Ammoniumsalz bspw. Benzalkoniumchlorid)	bakterizid (eingeschränkt bei Gram-negativen)	?	wirkungslos	fungistatisch	teilweise viruzid	Haut, Schleimhaut
Weitere Detergentien (bspw. auch Tenside wie Cetyltrimethylammoniumbromid)	bakterizid (variabel)	?	wirkungslos	fungistatisch	wirkungslos	Haut, Schleimhaut
Chlorhexidin	bakteriostatisch	?	wirkungslos	fungistatisch	virustatisch	Haut, Schleimhaut
Guanidinderivate (bspw. Cocospropyldiaminguanidiniumacetat)	bakterizid	?	sporizid	fungizid	virustatisch	Oberflächen, Räume
Octenidin (Octenidindihydrochlorid, oft in Kombination mit Phenoxyethanol)	bakterizid	tuberkulozid	wirkungslos	fungizid	viruzid	Haut, Schleimhaut
Polyhexanide	bakterizid	tuberkulozid	wirkungslos	wirkungslos	viruzid (behüllt und unbehüllt)	Haut, Schleimhaut
Kupfer, organische Quecksilberverbindungen, Silber	bakterizid	wirkungslos	wirkungslos	wirkungslos	wirkungslos	Silber: Infektionsprophylaxe in Wundauflagen, Beschichtung von Kathetern, Wasserentkeimung

You can see that there is hardly any single substance that can be used against any potential threat (bacteria, tuberculosis, spore, fungus and virus) and which is at the same time suited for multiple areas. However, if you look @ ethyl alcohol or spirit, it is pretty effective in many areas and can at the same time be used as a combustibile, and that is what I have besides some ~ 20ml of Propanol-2, some hand disinfectant gel and of course [regular soap](#).

COVID-19 – 0x04 R.1 Disinfectants

So, if you have the possibility, and nothing else is available, I would recommend to get at least the following:

Spirit a.k.a. Ethyl Alcohol

- a) great as an aerosol to be able to **disinfect items and your hands**.
- b) by soaking clean tissue w/ it, it is very suited to disinfect certain items like thermometers, instruments, door knobs / door handles and so on
- c) for emergency disinfection of somehow contaminated items, you can just fill a small bowl w/ spirit and put the item in, or you can comprehensively spray its complete surface from all sides
- d) multi purpose: **spirit is a great combustible** and can be used for outdoor cooking.

SOAP

is also a very powerful and largely available item to possess and use regularly. Let me quote what I found online:

„Soap destroys the integrity of cell membranes, which consist of a lipid bilayer of polarized molecules. Regular **soap kills bacteria, fungi, protists** (such as single-celled amoeba).

The coronavirus is enveloped by a lipid bilayer hull and can thus can effectively be destroyed or dissolved by soap.

When using soap, you should wash your hands for 20-30 seconds w/ hot water and soap foam.

COVID-19 – 0x05 R.2 Nutrients

If you rely on canned food, are unable to buy fresh food, and/or already have a past of not eating too healthy, **or if you are a not too experienced vegetarian or vegan**, issues might arise that can quickly become threatening, especially on low levels of [vitamin B12](#) and [B9 a.k.a. folic acid](#).

Please remember: It is always best to just eat food that is healthy and contains what you and your body need rather than to regularly take dietary supplements of substances which might be highly overdosed and thus create other potential issues.

That being said, food containing natural folic acid along w/ vitamins and quite some nutrients as well as minerals are for example [walnuts](#), [peanuts](#), [eggs](#), and [green salads](#).

If you experience a lack of folic acid and vitamin B12 over some time, there can be serious impacts to your health, and that is b/c of a substance called homocysteine. It is toxic and your body **HAS TO GET RID OF IT** (and does so when you are healthy and eat healthy) but is not able to do so any longer. Below is a list of potential effects (right now in german, sorry):

Folsäure ist ein besonders wichtiges B-Vitamin. Da Folsäure für viele verschiedene Prozesse im Körper notwendig ist, beispielsweise Zellteilung und Blutbildung, sind die möglichen Symptome eines Folsäuremangels sehr vielfältig:

- Blässe
- Leistungseinschränkung
- Müdigkeit
- Konzentrationsschwäche
- depressive Verstimmungen
- Schlaflosigkeit
- Reizbarkeit
- Vergesslichkeit
- Atembeschwerden
- vermehrte Blutungsneigung mit Schleimhautblutungen
- punktförmige Blutungen in der Haut und Blutergüsse (Hämatome)
- erhöhte Infektanfälligkeit
- Veränderungen der Mundschleimhaut
- entzündete, gerötete Zunge
- Magenschleimhautentzündungen
- Darmschleimhautentzündungen
- Durchfall
- Gewichtsabnahme infolge gestörter Nährstoffaufnahme

COVID-19 – 0x05 R.2 Nutrients

Now in exactly that emergency situation and only if you have nothing else available, it might be good to have a dietary supplement of B6, B12 and folic acid at your hands. On the the other hand, vitamin levels are so high that if you take this over a longer period, you might get sick from the overdose as well. To be in a bit better situation, I made a table containing some common products and/or food and their respective levels of nutrients, micronutrients and vitamins compared to one DE/EU standard and one university which has its own (but similar) recommended quantities/amounts:

```
1 +-----+
2 +-----+
3 . . . : ..:: NuSEC Research: Nutrient, Micronutrient, Vitamines ::.. 08/09,03,2020 : : . .
4 +-----+
5 +-----+
6 Nährstoff: B1 B2 B6 B9/Folsäure B12 C D3 E Calcium Eisen Zink Jod Fluorid
7 +-----+
8 Referenzwert UNI HH: 1.2mg 1.4mg 1.5mg 400µg ? 100mg 14mg 100mg 10mg 10mg 200µg
9 +-----+
10 Menge: 1.42mg 200µg 4µg 5µg 11.25mg 800mg 14mg 10mg 148µg 3.4mg
11 Referenzwert LMIV (errechnet): 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%
12 +-----+
13 FolPlus: 4mg 400µg 30µg
14 % LMIV: 280% 200% 1200% <<<
15 +-----+
16 FolPlus+D3: 4mg 400µg 30µg 20µg
17 % LMIV: 280% 200% 1200% <<< 400% <<<
18 +-----+
19 Mivolis Vitamin C: 240mg
20 % NRV: 300% <<<
21 +-----+
22 Mivolis Eisen+Vit. C: 67mg 7mg
23 % NRV: 84% 50%
24 +-----+
25 Vegetarier Vitamine: 2.2mg 2.8mg 1.4mg 5µg 5µg 400mg 10mg 5.0mg 100µg
26 % NRV: 200% 200% 100% 200% 50% 71% 50% 67%
27 +-----+
28 1x Ei roh/gekocht: 100µg 408µg 77µg 74µg 1.9µg
29 % UNI HH: 8.3% 3.43% 19% 18.5%
30 +-----+
31 4x Ei roh/gekocht: 400µg 1.6mg 308µg 296µg 7.6µg
32 % UNI HH: 33% 114% 20% 74%
33 % NRV: 21% 148% 190%
34 +-----+
35 Portion Jodsalz+F (2g): 40µg 0.62mg
36 % NRV: 27% 18%
37 +-----+
38 alpro Kokosnuss (100ml): 0.38µg 0.75µg 120mg
39 % NRV: 15% 15% 15%
40 +-----+
41 alpro Mandel (100ml): 0.21mg 0.38µg 0.75µg 1.80mg 120mg
42 % NRV: 15% 15% 15% 15%
43 +-----+
44 Sanatur Bio Spirulina (3x4 Tabletten): Vitamin A: 320µg (40% LMW) 6.24mg
45 % NRV: 44.5%
46 +-----+
47 NRV: Nährstoffbezugswerte gemäß Lebensmittelinformationsverordnung (LMIV)
48 UNI HH: Uni Hohenheim (URL: https://projekte.uni-hohenheim.de/wwwini140/info/sonstiges/zufuhr/m_25_50.htm)
49 +-----+
50 Still Missing: Natrium, Magnesium, Kalium, Phosphor => Mineralwasser
51 +-----+
52 +-----+
```

COVID-19 – 0x06 R.3: Hygiene

Hygiene is essential, not only when you have to stay at home for some while, but also in everyday life. However, I also have to admit that I was not an expert and I guess many are not. So what I did over the last two weeks is check for potential issues, and adjust behavior and cleanliness in many areas.

a) General Cleanliness

Imagine that **mold-produced mycotoxine** exists in your apartment or in your house, especially in combination w/ this years weather being

- not really cold or freezing
- not really warm, hot or sunny
- not really dry but wet and rainy over a long period

Mycotoxines can have very negative health effects, e.g. produce allergies, and should be strictly kept away from your personal living space.

P.S.: Remember: Ethanol / Spirit is also a fungicide

b) Public Safety and Hygiene Rules

It is now no longer a recommendation but rather mandatory – at least in Germany – to wear a facemask at least when

- * visiting a grocery store
- * using public transportation

I would also recommend to have a small amount of disinfectant available to practice hand disinfection right after your visit at the store, touching „public“ doorknobs etc.

COVID-19 – 0x06 R.3: Hygiene

When returning from shopping, I recommend proceeding as follows:

- * wash your hands extensively w/ soap for 20-30 seconds
- * take out and put into storage what you bought
- * when done, wash your hands again w/ soap for 20-30 seconds

It seems that the risk of infection is especially high if you are in small and/or crowded rooms, where airborne particles containing the virus might accumulate, and in which you reside for a pretty long period.

It might sound weird, but recently there have been new infection waves especially in churches – w/ ppl singing and practically emitting lots of airborne particles - as well as in restaurants and bars and under exactly the circumstances mentioned.

c) Quarantine

If you show rather light symptoms, you should compare them to the following table, inform your doctor for a checkup and subsequently isolate yourself for 14 days:

Symptome	Coronavirus	Erkältung	Grippe
Fieber	häufig	selten	häufig
Müdigkeit	manchmal	manchmal	häufig
Husten	häufig*	wenig	häufig*
Niesen	nein	häufig	nein
Gliederschmerzen	manchmal	häufig	häufig
Schnupfen	selten	häufig	manchmal
Halsschmerzen	manchmal	häufig	manchmal
Kopfweg	manchmal	selten	häufig
Kurzatmigkeit	manchmal	nein	nein

*trocken, Quelle: APA/WHO, CDC, WELT

COVID-19 – 0x07 R.4: Dependency

This section is about the rather philosophical area of psychological and physical interdependencies which might nonetheless greatly influence your overall success.

For example, if you are used to live a certain lifestyle for a certain amount of years, it is in the human nature to get used to it, accept it as being normal and not further deal w/ daily questions of „(how) can I make this better?“ or „can I do this in a different way“. **However, everybody should from time to time at least try to hack his way out or into this fixed behavioural disease in order to gain a different perspective on things** and not act like a blind and unthinking follower, being a victim of consume, marketing and (primitive) mainstream media.

In short: **Please try to be a (self-)reflective person and support others in doing so.** There are many good examples of co-working projects (like the DE/FR arte media station), in which this general attitude develops and in which high quality information, base for reflection and an overall feeling of „doing the right thing“ not only for yourself but also for others (friends, family, even random ppl) will be the fruit of you efforts.

Right now is the time for cooperation, for support and to help people that might see themselves in a by their own understanding hopeless and desperate situation.

From my experience, it is important to **be in the right position before trying to help others.** For me, this means that you have to be healthy, in a good condition and most importantly in control of your own life. The internet is not at all times a good source to seek for help, as it is prone to being influenced by anybody willing to do so. Please chose your sources wisely, a good starting point is to compare different news sources in different countries and summarize the common truth. Also, there are official organisations that can be trusted (e.g. in germany the Robert Koch Institut @ www.rki.de).

If you have enough financial assets, please **consider making a donation**, e.g. by visiting <https://covid19responsefund.org/>.

COVID-19 – 0x08: References

These are most references which served as a base for my own research. However, I also had access to some information and comments of a neighbour's friend who is a nutritionist for a short discussion about vitamin levels and amounts in dietary supplements.

Statistics

<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>
<https://npgeo-corona-npgeo-de.hub.arcgis.com/>

Video: Scientific Approach on Simulating an Epidemic

<https://www.youtube.com/watch?v=gxAa02rsdIs>

R.1: Desinfection

<https://de.wikipedia.org/wiki/Desinfektion>
<https://de.wikipedia.org/wiki/Ethanol>
<https://de.wikipedia.org/wiki/Mykotoxin>
<https://www.welt.de/gesundheit/article147807051/So-krank-macht-uns-versteckter-Schimmel.html>
<https://www.quora.com/Does-soap-kill-bacteria-or-just-clean-off-bacteria-and-viruses-How-does-the-hand-washing-process-really-work>
https://de.wikipedia.org/wiki/Kernseife#Eigenschaften_und_Verwendung

R.2: Nutrition

<https://de.wikipedia.org/wiki/Homocystein>
<https://en.wikipedia.org/wiki/Homocysteine>
<https://de.wikipedia.org/wiki/Fols%C3%A4ure>
<https://www.netdokter.de/ernaehrung/folsaeure/folsaeuremangel/>
https://projekte.uni-hohenheim.de/wwwin140/info/sonstiges/zufuhr/m_25_50.htm

R.3: Hygiene

<https://de.wikipedia.org/wiki/Mykotoxin>
<https://en.wikipedia.org/wiki/Mycotoxin>
<https://www.welt.de/gesundheit/article147807051/So-krank-macht-uns-versteckter-Schimmel.html>
<https://www.lungenaerzte-im-netz.de/krankheiten/covid-19/schutz-vor-ansteckung/>
<https://www.lungenaerzte-im-netz.de/krankheiten/covid-19/adressen-hotlines/>

Documents

<https://geeksec.de/0.pdf> A link to the most recent version of this document (mentioned in earlier tweets and/or posts)
<https://geeksec.de/1.pdf> Public Informational Document from a doctor in germany from 21.03.2020
<https://geeksec.de/2.pdf> This document (also mentioned in earlier tweets/or posts)

COVID-19 – 0x09: Communications

A. VOIP Telco

Since quite a while, I have been using a FreeSwitch/FusionPBX based setup for the mapping of voicemail, fax and telco landline numbers, the former two forwarding all content via E-Mail. However, now I feel that it could possible make sense to have a bunch of telcos ready for people that have to organize themselves and their stuff. That is why i just created 5 telcos w/ a maximum of 8 participants each. Below you find the relevant data:

VOIP TELCO #1: +49 2633 2992440 PIN: 1000 Participants max.: 8
VOIP TELCO #2: +49 2633 2992440 PIN: 2000 Participants max.: 8
VOIP TELCO #3: +49 2633 2992440 PIN: 3000 Participants max.: 8
VOIP TELCO #4: +49 2633 2992440 PIN: 4000 Participants max.: 8
VOIP TELCO #5: +49 2633 2992440 PIN: 5000 Participants max.: 8

Short Howto

What you have to do to enter a telco, is to dial the number above, then enter the relevant PIN via your phone keyboard (and by using DTMF), and then you will be rerouted into the specific telco room. Now if you make an appointment w/ somebody else, you can tell him „lets meet @ xx:xx at the telco w/ PIN yyyy.“

* It might be important to implement a sort of latency into your communication flow as if you were using a radio. That is b/c there will be short delays b/c different telco providers at different places will be involved and also different headsets / mobile phones might introduce different latencies.

* Talking at the same time e.g. will most probably not really work. So stay calm, say what you wanna say, and ideally announce that you are finished now and ask somebody else to talk.

* Please do not occupy the telco for too long. Be social and let others take the chance to use this infrastructure.

* In special cases, you may write an e-mail to info@nwsec.de and I can set a very specific PIN that nobody besides you and your communication partner knows.

B. Video Conferencing

I recently setup and tested 3 Jitsi instances which are publicly available @ <https://jitsi1.geeksec.de>, <https://jitsi2.geeksec.de> and <https://jitsi3.geeksec.de>. Please consider using these instead Zoom or Cisco WebEx, both of them having high severity security issues as well as at least in the case of Zoom lacking End-to-End encryption and high-strength algorithms (see below).

https://www.theregister.co.uk/2020/04/03/dont_use_zoom_if_privacy/

<https://news.hitb.org/content/attackers-can-use-zoom-steal-users-windows-credentials-no-warning>

<https://yro.slashdot.org/story/20/04/15/2129249/hackers-are-selling-a-critical-zoom-zero-day-exploit-for-500000>