

# PAN-EU PANDEMIC INFORMING, EDUCATING AND TRACKING CHATBOT SYSTEM FOR COVID19 AND BEYOND



EUROPEAN OPEN  
SCIENCE CLOUD



EOSC SUPPORTED COVID-19  
PREVENTION ACTIVITY

REPORT BY NURSEBEAM



INCLUDING 6-STEP  
FRAMEWORK FOR  
EFFECTIVE PANDEMIC  
COMMUNICATION



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# THE CHALLENGE

During the emergence of COVID19 in early 2020, the biggest challenge was how to share information effectively between various communities across the countries.

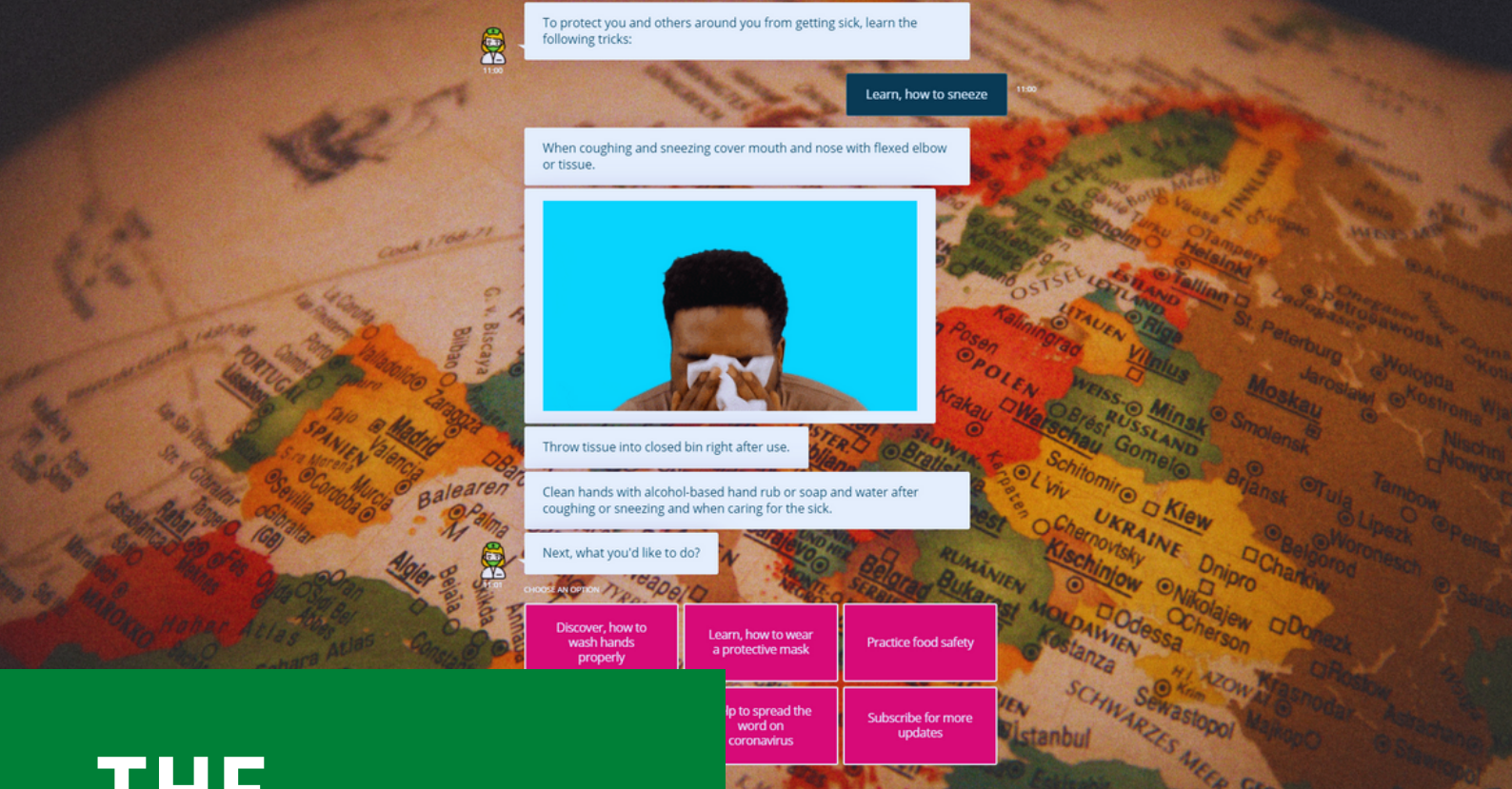
While the available scientific information was being shared openly in the international scientific community. There were often more questions than answers, some of which have remained without a concrete answer until today.

Furthermore, people in their everyday lives have to make practical decisions – how to interact with other people at home, workplaces, schools and other public spaces.

Key to curbing the spread of infections, especially in the times of pandemic, is **early detection and early response**, which is only possible when people are informed and educated in the language they understand.

**Thus the challenge to combat COVID19 is to find the right way to talk, for people to follow your walk.**

It is not only a matter of language as such, English, French or German, per se, but to also we need to consider that different groups of people – clinical scientists, medical doctors, politicians and the general public – might not understand each other due to complexity of the words used.



# THE SOLUTION

One of the best ways for educating people is making information available in a consistent, bite-sized easy to understand format in the medium most frequently used by the target audience.

While researchers are used to reading long pdf documents, most of the general public has been actively using instant messaging solutions, incl. WhatsApp, Telegram, Signal, Facebook Messenger and others.

Chatbots enable communicating with many people in a familiar instant messaging format via short, easy-to-understand messages. In the right language and 24/7 without any wait.

Furthermore, differently from pdf communications, which seems to be the preferred medium for the scientific community and many government agencies, chatbots can be fully interactive, utilizing also audio/video clips as part of communication flow.

## We built chatbot to educate people across the EU on COVID19.

Going beyond the standard guidelines from WHO, ECDC and national governments, we compiled the essential information in different EU languages into an interactive chatbot, to guide EU citizens, residents and visitors in taking the best prevention and preparedness measures for COVID19.



# MAIN TAKEAWAYS

After deploying our COVID19 chatbot, what did we find? What were Europeans curious about in the COVID19 context? Initially, the bot was offering guidance on:

- Discovering what is COVID19
- Identifying if it can impact you
- Learning how to wash hands
- Learning how to wear a mask
- Learning how to sneeze
- Learning food safety measures
- Learning social distancing

During the summer months as certain intra-EU travel options opened up and bot added travel restrictions as a topic as well, which turned out to be very popular.

Upon getting closer to vaccine roll-out, vaccine-related topics came to focus and they are still a topic of discussion to this date.

**While learning self-protection was important, chats revealed the biggest curiosity on ever-changing restrictions.**

Considering that restrictions are still ongoing as of early 2021 and that Europeans are not fully vaccinated yet, it is essential to keep on informing and educating.

For this, we see the need of extending the chatbot activity with extra financing at least until Dec 2022.

# WHAT ARE THE RESTRICTIONS?

EU states have been implementing different COVID19 measures, including travel restrictions. While there is <https://reopen.europa.eu> website, users prefer chatbot interface to understand them.

78%

users were interested in current intra-EU cross-border travel restrictions

61%

of users in December were curious to find more on soon to be rolled out COVID19 vaccines

# WHAT ABOUT VACCINES?

Are vaccines safe? Which one to prefer? Where to get vaccinated? Does vaccine give full protection against COVID19? Do I need to vaccinate if I had COVID19 already?

# DOES MASK MATTER?

... has been a heated question in many EU states. For some, it has been a political question, in the context of human rights, medically it is very relevant to curb the spread of infection.

27%

chatbot users wanted to know more on mask wearing related information



# ENGINEERING FOR FUTURE

COVID19 type pandemic showed how ill-prepared the EU, as well as the member states, were for this scale of public health threat. Yet, this should not have been an unexpected surprise. "A World at Risk: Annual report on global preparedness for health emergencies 2019" by Global Preparedness Monitoring Board pointed out **"For too long, we have allowed a cycle of panic and neglect when it comes to pandemics: we ramp up efforts when there is a serious threat, then quickly forget about them when the threat subsides. It is well past time to act."**

Keeping this in mind, we can be prepared much better for the next public health emergencies.

Using already available technologies, we can build active response systems and keep them on standby for the next possible emergency. The EU and national governments have their risk assessments plans already, now it is time to build scalable response systems to address those risks.

**Chatbots can be pre-defined and quickly deployed, to serve people in the EU at scale during public emergencies.**

This way, in the next emerging pandemic, public health authorities can just quickly customise and then activate appropriate chatbots. This cost-effective way would provide clear and consistent information to all required target groups.

# FRAMEWORK FOR EFFECTIVE AND SCALEABLE HEALTH EMERGENCIES COMMUNICATION

6

steps to get prepared for the  
next possible public health  
emergency

This 6-step guide is created to help decision-makers in the EU and national states to plan and prepare for the next public health health emergency.

## **Step 1: Map all possible public health risks that could impact your community**

// Look into already existing national, regional and local risk assessment plans to get the required input. Also, consider future threats listed in climate change research.

## **Step 2: Shortlist the risks with the biggest disruption potential**

// While different emergencies can happen, it is essential to respond early to risks, which can scale quickly and grow from local to regional, national and cross-border emergency.

## **Step 3: Identify, what kind of information the public would seek in that type of emergencies**

// Consider different stakeholder groups and their sensitive needs. For example, the needs of parents are different from young or elderly community members. Schools might require different information than businesses; the needs of office managers might differ from the needs of transportation or grocery workers.

## **Step 4: Create unified communication templates for different communication channels**

// Templates make responding easy in the case of need. To be effective, they have to be responsive to the context and have an option to incorporate feedback from affected groups. Differently from radio, TV, newspaper or mere online post communications, chatbots can incorporate integrated analytics and feedback systems. Also, templates can be prepared in all relevant languages, in the EU, the best is if in all official EU languages.

## **Step 5: Appoint and train person(s), who would customise and activate the communication templates in the case of emergency**

// This is helping to be ready for communication deployment, including public health emergencies chatbot deployment at already the early stage of emergency.

## **Step 6: Be ready for re-adjusting your communication, including chatbots, based on feedback from affected groups.**

// The information needs are likely to change during the course of an ongoing public health emergency. Thus, it is important to consider the feedback from affected community groups and re-adjust your communication messages to fully meet their needs.



# ROAD AHEAD

While in early 2020 we expected COVID19 to be over by the end of the year, then now, a year later we still see that it's a long road ahead. We have millions of Europeans waiting to be vaccinated. Various restrictions to be lifted, including for intra-European travel as well as with 3rd countries.

Full transition to post-pandemic life likely takes at least another year. For this, Nursebeam is looking forward to continued co-operation with the EOSC community, EIT Health community and other EU healthtech innovators to inform and educate the public on the latest COVID19 related guidelines and regulations.

In 2021/2022 it still essential to help people in the EU to navigate COVID19 related health and regulatory guidelines. Looking ahead, however, we need to build robust digital healthcare systems, to provide scaleable care across the member states.

**At Nursebeam we believe in borderless digital healthcare, in the EU and beyond.**

Are you curious to collaborate for building better healthcare communications? Reach us at [hello@nursebeam.com](mailto:hello@nursebeam.com) and discover more about us at our website <https://nursebeam.com>

