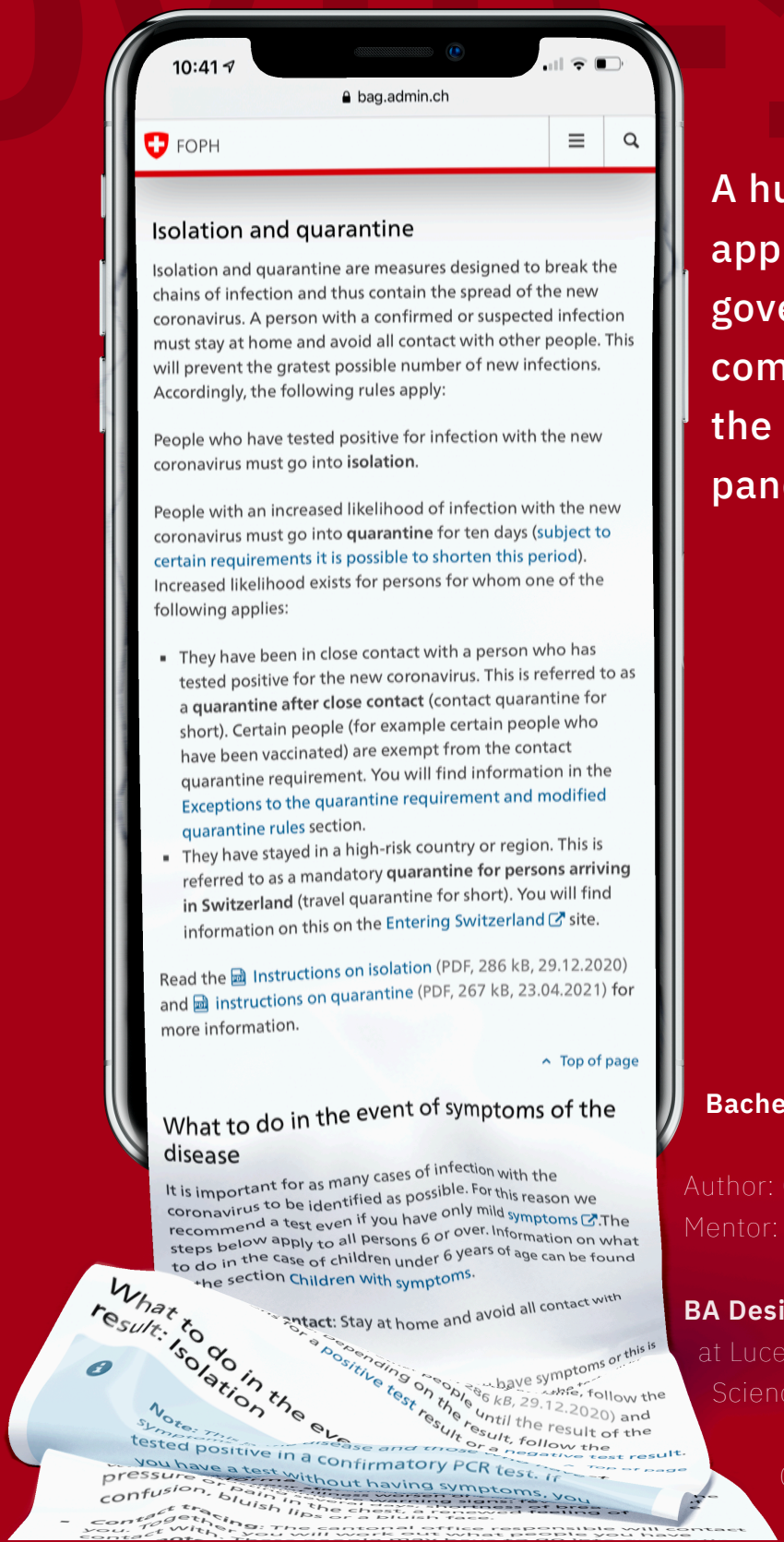
#Digital

Government Crisis Communication

COVID-19



A human-centered approach to digital government communication in the COVID-19 pandemic

Bachelor's Thesis 2021

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I. Abstract

This thesis takes a close look at how human-centered design could benefit government communication during times of crisis and uses a revised design thinking model to develop a concept around the citizen's needs. The area of intervention lies in the digital communication of the Swiss federal government, which is, through a number of research methods, closely examined and analyzed in the first part of the paper. After synthesizing the research, three different directions are being explored, as one of which is going into an iterative process of prototyping and testing before being developed into a final concept. The proposed intervention forms a contemporary and comprehensive method of reaching the vast target group of the Swiss government and answers to the initial intention of improving government crisis communication to raise consensus among Swiss citizens.

Bachlor's Thesis
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III. List of Words and Abbreviations

CEO	Chief Empathy Officer
Comm.	Communication
COVID-19	Coronavirus Disease 2019
D	Desirability
Dept.	Department
F	Feasibility
FAQs	Frequently Asked Questions
FOPH	Federal Office of Public Health (also known as Bundesamt für Gesundheit BAG)
Gov.	Government
SRG	Swiss Broadcasting Company
UI	User Interface (Design)
UX	User Experience (Design)
V	Viability
Citizens	Inhabitants (of Switzerland)
Crisis	The COVID-19 Pandemic
Pandemic	The COVID-19 Pandemic
Public	Citizens/Inhabitants
User	Person using a service

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0. Introduction

0.1. Setting

0.1.1. Author

Gian R. Grob, born in 1994 in Wattwil, Switzerland, is a student in Design Management, International at the Lucerne University of Applied Sciences and Arts. Before and during his studies, he has gathered experience in design, architecture and logistics, and worked on projects with different international universities. His main fields of interest comprise social development, public services and diplomacy, and in a design management context, mainly service design, human-centeredness and social design.

0.1.2. Field of Study

Design Management is a multidisciplinary field that uses design processes and concepts from areas such as management or the social sciences to address organizational and societal challenges. It aims to gain profound understanding of situations and people, and builds on collaboration to intervene with innovative, human-centered solutions to incorporate change (HSLU, n.d.).

0.1.3. Pandemic

Despite the global pandemic, which has shaken up the world and changed various aspects of life and studies, this work largely went according to plan and has not been negatively affected by these circumstances. As the topic suggests, it could even be leveraged and created an interesting situation for this thesis. Observation could be conducted in various ways and settings, and conversations could partially be shifted to online channels without impairment.

The main challenge throughout this paper was to reach the key stakeholder of the federal government, which was evaluated in advance and taken into account in the planning. Various efforts of reaching the authorities through different contact channels finally resulted in unexpected success, when an interview could be conducted towards the end of the process.

0.2. Problem

The following problem statement and main research question have been reframed from the initial statement and are overarching the thesis as a whole. The starting point of this thesis, together with the progressive reframing along the way, can be seen and observed in this paper's pre-definition and research parts.

0.2.1. Problem Statement

All around the COVID-19 pandemic, there is a lot of misunderstandings, confusion and uncertainty among citizens in Switzerland, who have to cope with an overflow of seemingly ever-changing information. This discord can not only be observed in everyday conversations and discussions around the topic but is reflected in the difficulties one faces in the retrieval of information through governmental communication services in the digital realm.

This thesis aims to examine the current state of digital communication of the Swiss federal government in the COVID-19 pandemic and its influence on citizens, and, in a second phase, to identify areas of improvement in digital communication and information services, intending to reduce misunderstandings and confusion, and raise consensus around the topic among citizens.

Figure 1
Keep your distance.
(So schützen wir uns, n.d.)

0.2.2. Problem Map

This mapping of the problem around COVID-19 measures points out the power of effective government communication, with the capability to turn the reinforcing (R) downwards spiral into a balancing (B) loop with positive effects on the mood in society and the epidemiological situation. See the system map on Figure 2.

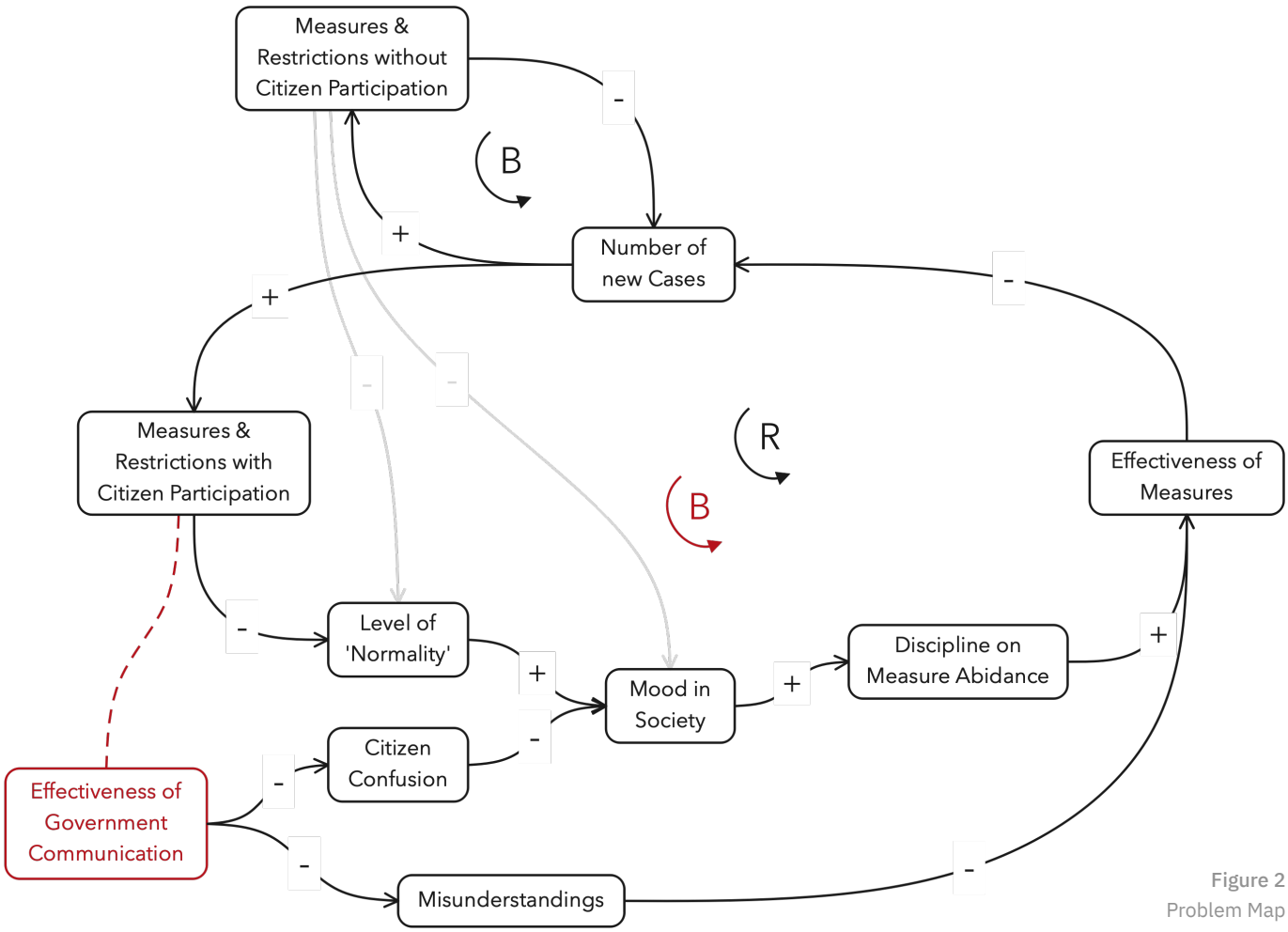


Figure 2
Problem Map

0.2.3. Research Questions

Main Research Question

How could human-centeredness help federal authorities in Switzerland improve their digital communication and information services around the COVID-19 pandemic in order to foster clear government crisis communication and minimize confusion and misunderstandings among Swiss citizens?

Sub-Questions

Situational Assessment	Solution-Oriented
How does the public perceive the government and its communication during this pandemic?	What defines effective communication, and what should governments focus on in their communication in times of crisis?
What does the government crisis communication in Switzerland currently look like, and what possible areas of improvement can be identified?	What are best examples of government crisis communication in this pandemic, and what is done differently by those countries?
How are the government's communication sectors structured?	What, in digital communication, is especially important in a governmental context?
How effective is government crisis communication in Switzerland today?	
Where, within federal communication and information services, lies the problem?	

Table 1
Research Sub-Questions

0.3. Process

The problem is approached with different **research methods**, which result in **findings** that are then transformed into **criteria**, forming the basis for **concepts** to explore where one of which is refined into a **final concept** and **implementation** plan.

0.3.1. Human-Centeredness

This thesis is based on the principles of human-centeredness and human-centered design and therefore aims to empathize with the humans, or in this case the citizens or users, and address the core needs of those who are experiencing the problem. This is being done using the gathered insights on their view, beliefs and needs, and forming innovative interventions or solutions around them. Therefore, the human is always at the core of the process and in mind when creating or designing, and is an active participant on the path to intervening.

0.3.2. Design Thinking Loop

A well-established way of approaching human-centered design is the methodology behind *design thinking*. The design thinking approach incorporates human-centeredness and forms an agile process that allows adapting to the user's needs. While there exist different design thinking processes, this thesis uses an altered approach to tackling challenges with the fundamentals of design thinking. The optimized model, herein called Design Thinking Loop, framed the basis for this thesis, which was structured after the different phases of the process.

The Design Thinking Loop consists of four main phases and each a pre- and succeeding phase and integrates the human in active and passive form throughout the process. The main alterations to conventional design thinking processes can be found in the structure of the phases and the general shape of the process. The non-linear shape of this model not only imagines iterativeness but, in fact, reflects this idea visually to allow a distinct and comprehensive view over the iterative nature of the process. On the side of phases, a precedent definition phase and the implementation phase towards the end of the process were integrated, and prototyping and testing were combined into one phase due to its rapid iterations.

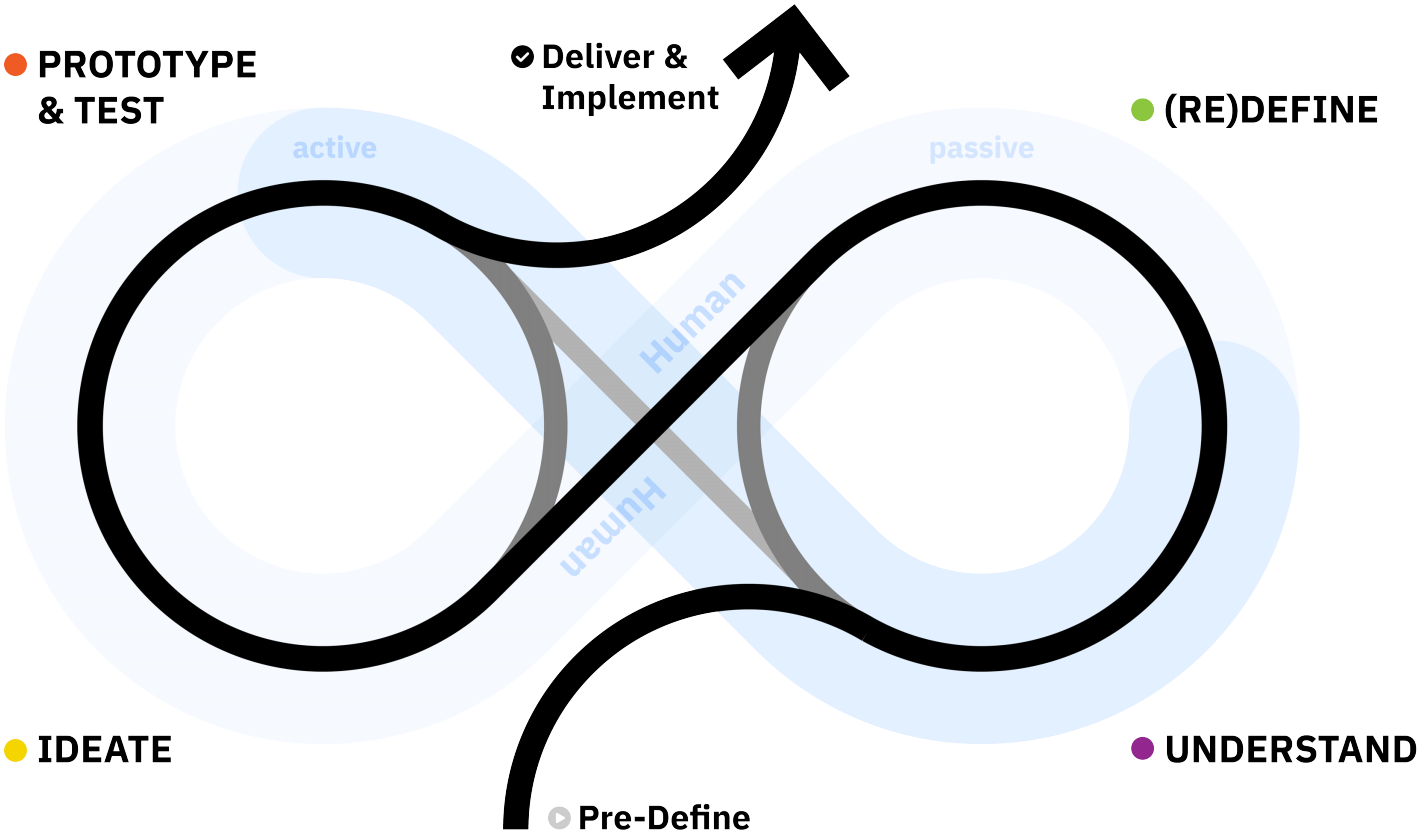


Figure 3
Design Thinking Loop

Pre-Define

Figure 4
FOPH Poster
(So schützen wir uns, n.d.; adapted from Mockup by Forss, n.d.)

1.1. Problem Area

1.1.1. Initial Problem Area

Government (Crisis) Communication - designing restrictions and addressing the public in Switzerland during times of COVID-19

The research project started out with the initial idea of examining the government's crisis communication in this pandemic, and the processes behind the forming of measures and restrictions. It aimed to look at how a human-centered approach could help the government better design restrictions and address the public during this crisis. The twofold research idea intended to comprehensively study the areas around government crisis communication and was meant as an answer to the observed increased discord and, to some extent, civil unrest in the country.

Early on in initial research for the pre-definition, it was realized, however, that the two topics of addressing the public and forming restrictions are in great contrast to one another and that, for further consideration, the two would be too sparsely linked and, together, be too wide-ranging for a thesis of the given scope. Therefore, the focus was narrowed down to a closer look at the Swiss government's way of addressing and informing the public while putting the thought of optimized restrictions through human-centeredness into the background.

1.1.2. Revised Problem Area

Government (Crisis) Communication - addressing and informing the public in Switzerland during times of COVID-19

UNDERSTAND

Figure 5
Press Conference
(Klaunzer, n.d.; adapted from Mockup by Boyd, n.d.)

2

2.0. Approach

2.0.1. Research Process

In order to thoroughly understand the problem, primary and secondary research within and around different topics has been conducted. The close link to the topical subject of the COVID-19 pandemic required a multi-method approach which was divided into the following four steps, joined by an additional step due to the progressive reframing along the way:

Step 1	**Understanding the Public**
Step 2	**Understanding the Government**
Step 3	**Understanding Effective Communication**
Step 4	**Understanding the Problem**
Additional	**Understanding Digital Government**

The first and second steps allowed to explore the two main sides of government crisis communication, and therefore the situation which frames the problem. The third step then helped understand what effective communication entails and what best examples of government crisis communication in this pandemic look like, followed by the final step, devoted to getting to the bottom of the problem itself. In an additional step, digital communication in governments was being examined.

2.0.2. Research Methods

Within this research process, the following primary and secondary research methods were applied:

- **Secondary Data Analysis**
- **Online Research**
- 2 forms of **Participant Observation**
- **Direct Observation**
- **Literature Review**
- **Interviews** (semi-structured)
- **Focus Group** incl. Self-Observation

Slightly atypical for research papers of this sort, literature was not reviewed separately ahead of the process but was being done as an integral part of the research strategy, which, again, goes back to the contemporary nature of the addressed problem, which required a different start into the *understand* phase.

2.1. Step 1 - Understanding the Public

2.1.1. Sub-Question

How does the public perceive the government and its communication during this pandemic?

2.1.2. Objective

The first step in the research process was to understand the side on the receiving end of government communication: the public. Hereby aiming to gain insight into this vast target group that government communication is geared toward, including understanding their views and emotions and ultimately testing the original hypothesis which has been made in the problem statement, stating that around the COVID-19 pandemic, a lot of confusion and uncertainty were prevailing among citizens in Switzerland.

2.1.3. Methods

Secondary Data Analysis

Among surveys from different research institutions and media houses in Switzerland, the so-called *SRG-Corona-Monitor*, a series of surveys on different aspects of the pandemic, was selected for this research. The series consists of seven consecutive surveys, conducted over the course of one year, aiming to sense the general mood among citizens and their views on different topics around the COVID-19 pandemic. The survey was commissioned by the partially government-mandated *Swiss Broadcasting Corporation (SRG)* and conducted by *sotomo*, a Zurich-based research agency, and reached almost 50'000 respondents in the 7th round (Bühler et al., 2021).

Observation 1: Participant Observation on Conversations

Despite the, due to government measures, significantly reduced number of possibilities in public gatherings, small groups of people (up to 5 in total) were traced in city parks, public transportation and skiing areas, where, in a first step, discussions on the highly topical subject of *Government Measures* were inconspicuously observed and listened to, before the conversation was personally joined, to inquire further information on personal opinions on the subject.

Observation 2: Participant Observation on Protest Movements

Nothing reflects the civil discord in this crisis quite as well as the groupings who are raising their voice against government measures, some of whom questioning the virus itself and attending the notorious 'Anti-Corona' demonstrations, which are regularly taking place in Switzerland, as well as other places around Europe and the world. As part of this observatory research, online communication channels of groups related to such demonstrations have been traced and joined (mostly in the form of chat groups on the messaging application Telegram) in an attempt to understand the thinking and actions of individuals and given groups of people, who can predominantly be described as *government-critics* or *opponents of government measures*. This integration into the environment then led to the possibility of attending one of the permitted 'Anti-Corona' demonstrations mentioned above to conduct field research in the form of participant observation. At the *Protestmarsch* in Liestal, Switzerland, a protest with around 8'000 demonstrators attending (Santoro, 2021), the scene, including speeches, conversations and association activities, was observed, and attendees and spectators were informally talked to. (see photos in Appendix A)

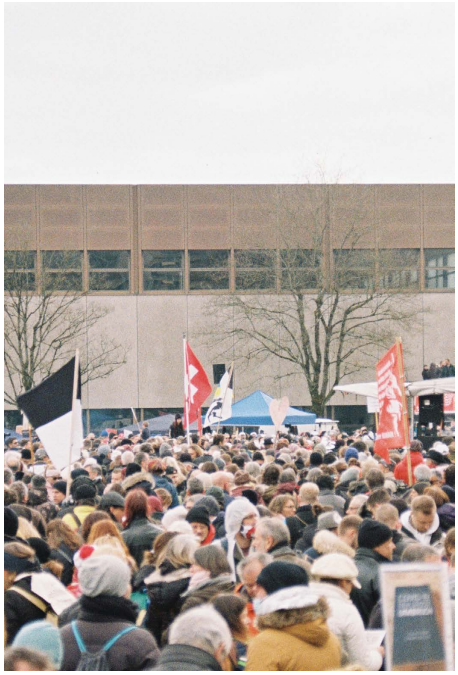


Figure 6
'Anti-Corona' Demonstration in Liestal
Photo by Author

2.1.4. Results & Evidence

The Secondary Data Analysis provided valuable insight into how the public perceived the government in the respective period during this crisis, including public trust in the government and citizens' views on government communication.

The results of the survey series showed that, in terms of trust, after an early high when the pandemic arrived in Switzerland, numbers dropped over the following months, revealing that parts of the society lost trust in the government and how they handled the crisis. Just in the last round, and therefore in early 2021, the government could turn the trend around and gain back some ground. Particularly interesting in the context of the research problem are the results of the question on how the respondents evaluate the government's communication in this pandemic. Especially with some months passing by, and therefore for the later part of the given year, respondents rated the communication with a lean toward the negative (see Figure 7). Looking at the trend since the initial round, an apparent decline in the rating for the most part of the pandemic (to date) is visible, revealing similar numbers as the question on public trust (Bühler et al., 2021).

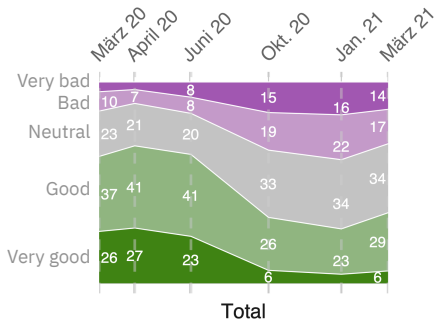


Figure 7
Survey results on gov. communication
Note; "How do you rate the government's communication?"
(Adapted from Bühler et al., 2021)

Not only the opinions reflected in the surveys but also the voices 'on the street' rate the government rather critically when talking about their communication during this crisis. During participatory observations, a widely prevalent state of confusion and disagreement around what has been decided and ultimately communicated by the government was observed. A factor that might be fueling this discord is that the received communication in the form of statements or comments is often misinterpreted, as the observation showed. All this, not only in the setting of the demonstration, where one might find rather one-sided views and opinions, but also in 'normal' settings where people are having a discussion over a beverage or during leisure activities.

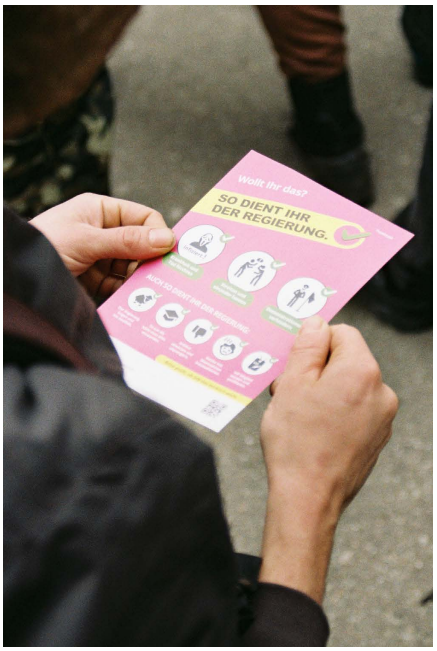


Figure 8
Demonstration Attendee with Flyer in Liestal
Photo by Author

One revealing insight that derived from both forms of field research was that people seem to experience difficulty when trying to understand the reasoning behind governmental decisions. Why schools would be closed, while brothels remain open, or the reason behind having to wear a mask outside, despite the picture of unlikely infections painted by science, are both examples of incomprehensible government measures to parts of the groups observed.

On another note, when asking about their perception of the government and their relationship with the authorities, many described a feeling of detachment, figuratively feeling far away from the place where decisions are being made.

Stakeholder Map 1st Version

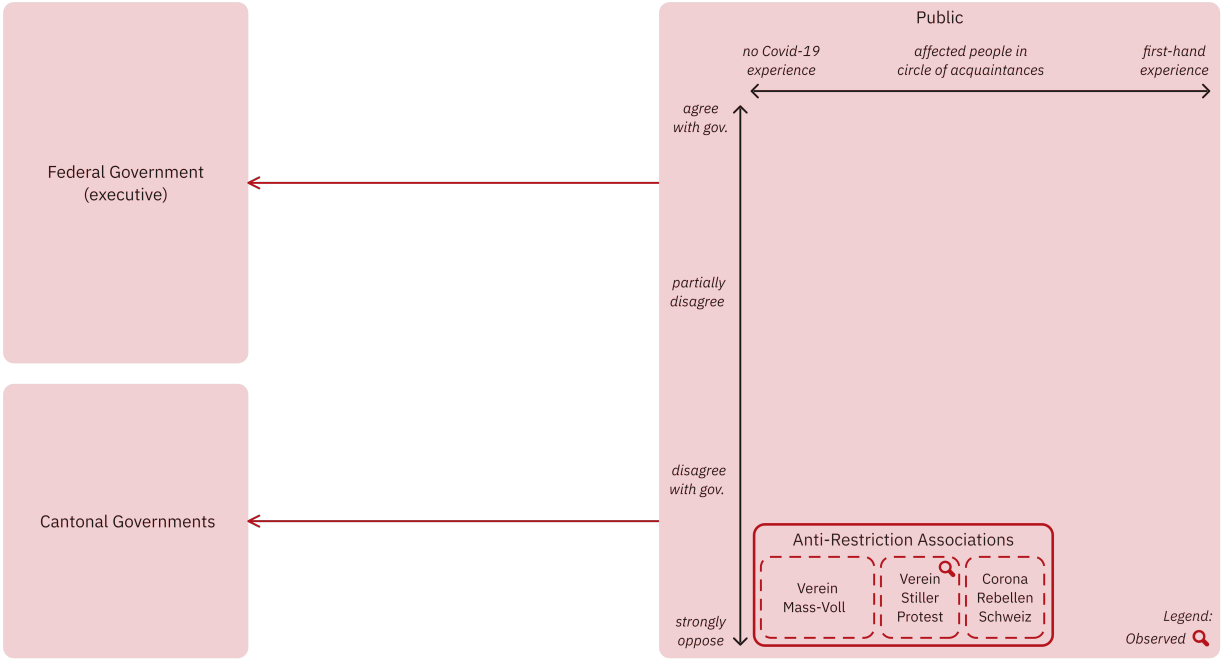


Figure 9
Stakeholder Map; 1st Version

2.1.5. Findings

S1-1 Ratings on **how citizens evaluate government communication** have been **leaning negative** and **mostly declining** over the course of the pandemic (to date)

S1-2 **Public trust** in the government was on the decline for the most part of the pandemic (to date)

S1-3 **Confusion** around government measures among citizens widely prevails

S1-4 Statements and comments of government officials are often being **misinterpreted**

S1-5 Many citizens find it difficult to **understand the logic behind** certain measures

S1-6 The public seems **detached from the government** and describes a **large power distance** between government officials and the average citizen

2.2. Step 2 - Understanding the Government

2.2.1. Sub-Questions

What does the government crisis communication in Switzerland currently look like, and what possible areas of improvement can be identified?

How are the government's communication sectors structured?

2.2.2. Objective

The second step's objective was to get an understanding of the current government crisis communication in Switzerland, assess the landscape of communication and information services that the government has put in place in this pandemic, and detect areas where government communication encounters difficulties in the perception of the public. Beyond the nature of the communication, governmental structures were also being examined to understand which internal branches and offices are responsible for what type of communication.

2.2.3. Method

Online Research: Analysis of Government Communication

In this form of Online Research, the government's communication channels were identified and examined in an attempt to empathize with users of such, understand their points of confusion, and analyze their user journeys on the search for pandemic-related information. These channels included federal and cantonal websites, smartphone applications, social media channels, media coverage, and press conferences of the Federal Council and the FOPH (Federal Office of Public Health). To see how government structures behind the communication are being set up and to understand what information is being communicated by whom, further Online Research in the form of the examination of governmental information pages has been conducted.

2.2.4. Results & Evidence

The evidence on the analysis of communication services can be split into two groups: The passive receiving of information and the active retrieving of information, both from a user's perspective.

On the receiving end, the government mainly reaches the public through public service broadcasting, including streamed press conferences and news updates. Within this form of communication, it was observed that measures are at times being communicated indistinctly and could lead to confusion. This, for example, when the Federal Council, together with the FOPH, changed the indicators they use to measure the epidemiological situation and justify changes in restrictions without communicating them to the public (Thelitz, 2021). Another example that led to confusion among wider parts of the public was the decision to advise against wearing the much-praised FFP2 masks (Kressbach, 2021). Asides from sometimes indistinct communication, there was a lack of providing explanation and clarification, mainly observed in press conferences. There is not only often no reasoning behind measures explained, but officials are at times also not able to explain after being asked by journalists (SRF News Spezial, 2021).

When actively retrieving information from official platforms or channels, the phenomenon of missing explanations of measures, or the difficulty of finding them, was also visible. The analysis of communication services has shown that on the official information website of the federal government, users encounter large amounts of textual information with little guidance. With test runs on searching particular pieces of information, it has been found difficult to navigate through the subpages and FAQs, often taking long to finally get to the desired information (FOPH, n.d.).

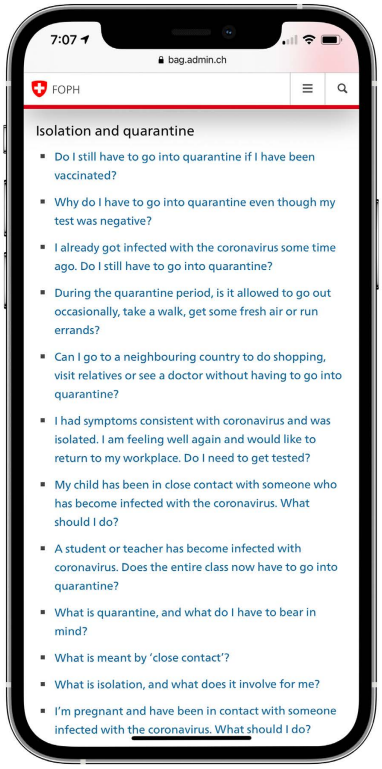


Figure 10
Screenshot; FOPH FAQs (FOPH, n.d.; Adapted from Mockup by ls.graphics, n.d.)

The results on government structures provided valuable insight into the federal government's roles and the cantons, how federal structures are set up, and where communication responsibilities are situated (The Federal Council, n.d.; Steiger, 2020).

Stakeholder Map 2nd Version

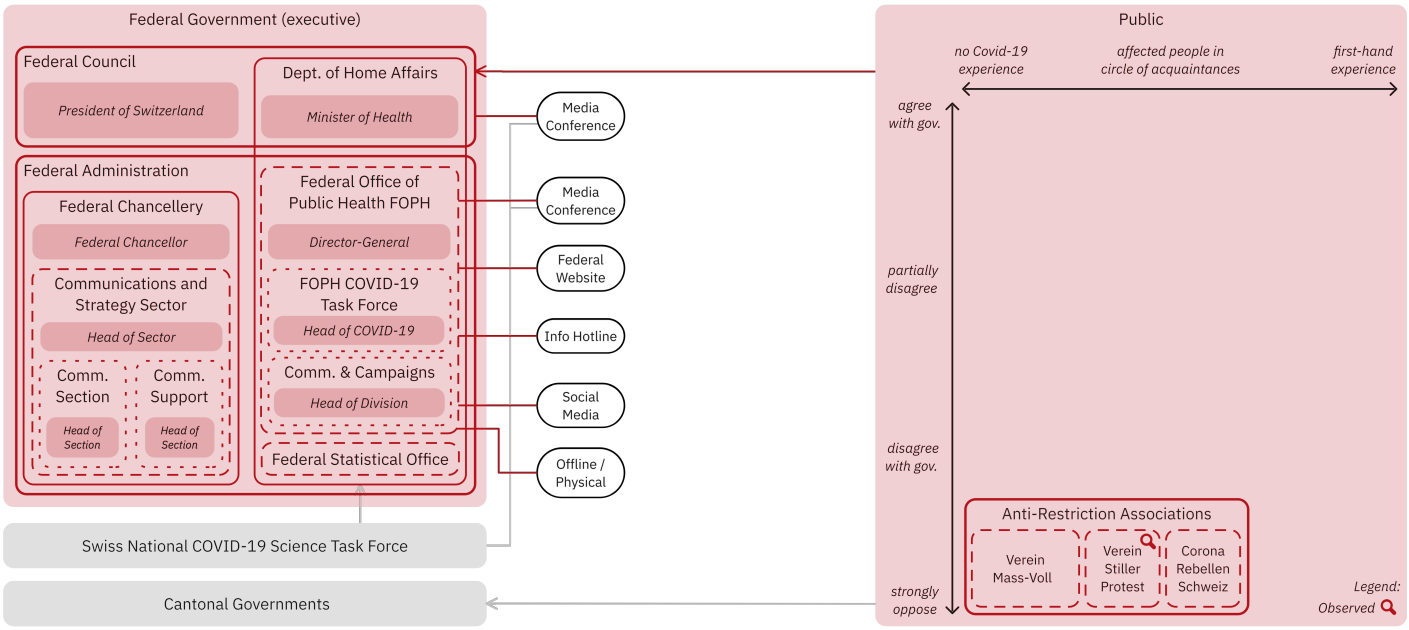


Figure 11
Stakeholder Map; 2nd Version

2.2.5. Findings

S2-1 **Indistinctness** in the communication of measures

S2-2 **Lack of reasoning and explanation** behind measures

S2-3 Generally **difficult to find information** on specific topics

S2-4 **Complicated user journeys**: Challenging to navigate through communication services due to **inadequate information- and interface design**

S2-5 **Long user journeys**: Lengthy redirection processes to finding information, due to inefficient **user flow** and missing **user guidance**

S2-6 Main areas of improvement are found on the **federal level**

Reframing Info-Box

The first two steps of the research process **supported the thesis topic** in a way that it revealed that there is in fact a gap to be filled. It has also been realized that the larger areas of improvement lie on **the federal level**, as the Swiss governance in this crisis has been fairly centralized and most information is provided by federal offices. Therefore, the initial statements have been reframed and **the focus from this point forward will be on the federal level of the Swiss government**.

2.3. Step 3 - Understanding Effective Communication

2.3.1. Sub-Questions

What defines effective communication, and what should governments focus on in their communication in times of crisis?

What are best examples of government crisis communication in this pandemic, and what is done differently by those countries?

2.3.2. Objective

This step aimed to acquire knowledge about effective communication, what principles lie behind it and what governments need to look out for in crisis mode in order to communicate with the desired efficacy and impact. Therefore, it involves going into detail about *Crisis Communication*, *Government Communication* and communication in relation to the COVID-19 pandemic, all of which, both separately and combined. In this context, countries with exemplary communication strategies and relatively successful handling of the pandemic were being analyzed.

2.3.3. Methods

Literature Review

To meet the objective from above, literature on the topics related to effective communication was being reviewed. The moderate duration of the pandemic by the time that the research has been conducted meant that an already good amount of articles and papers around the subject of COVID-19 were published to date. This also provided a first idea of countries that positively stood out in the handling of the pandemic and communication. Other articles on related topics and the review of two books of significance in the field, one on government communication and one on crisis communication, completed this part of the third research step.

Online Research: Analysis of Communication Services

Building upon the literature review, where countries of outstanding performance in this pandemic were identified, the communication and information services of the countries of New Zealand and Senegal were examined closer in order to further understand their success and identify potential gaps between them and the Swiss case.

2.3.4. Results & Evidence

The reviewed literature revealed the importance of three fundamental characteristics in effective communication: *clarity*, *transparency* and *trust*.

On clarity in communication, it was found that early on in the COVID-19 pandemic, US authorities had, instead of communicating with clear information, provided inconsistent and misleading statements, which then translated into confusion and frustration among citizens (Kim & Kreps, 2020). To prevent suchlike from happening and potentially reduce anxiety and maintain order, focal points particularly crucial in crises, it is recommended to clearly communicate public messages of all sorts, especially with frequently changing measures (Kim & Kreps, 2020; Hyland-Wood, 2021).

On the other hand, two separate articles analyzing Taiwan's handling of the COVID-19 pandemic identified openness and transparency as key aspects of effective communication. In the particular case of Taiwan, these values helped the public make sense out of the crisis situation and enhanced the legitimacy of the government altogether (Yen, 2020). The country's digital ministry, for example, provided the public with a map of real-time mask supplies, which helped avoid panic buying in this crisis (Tworek, 2020).

According to the first article of the two above, Wei-Ting Yen, transparency also helped Taiwan gain public trust in the government (Yen, 2020). As laid down in the book *Public Sector Communication* by *Canel and Luoma-aho* (2019), trust is a value organizations depend upon and even require for survival. It found that public trust can directly benefit the implementation of policies or, in this case, measures and restrictions, with potentially direct effects on citizens' willingness to follow. Ultimately, communication can be used as a powerful tool to build trust in society (Canel & Luoma-aho, 2019). How trust can be on the line in crises became visible in the case of Hong Kong during the SARS epidemic in the early 2000s, where inconsistency and

interruptions in communication, which reflected inadequate crisis management, fueled mistrust in the public (Lee, 2018).

Beyond those three values, it has been found that there is great importance in focussing on stakeholders in crisis management. Yago de la Cierva's (2018) book *Leading Companies through Storms and Crises* entails, despite its focus on private organizations, some valuable insights that are well applicable to the governmental context. In his book, De la Cierva (2018) states that knowing who one's stakeholders are and what expectations, fears and especially perceptions they share is of crucial value in times of crisis. The reason why perceptions are particularly relevant in this context lies in society's opinion, which is not formed by reality but rather the perceived reality. It is, therefore, of great importance to take those perceptions into account and operate in communication and crisis management not solely on a fact-based level (De la Cierva, 2018).

A detailed report analyzing the communication of countries with relatively effective handling of the COVID-19 pandemic identified communication as a crucial factor in the respective strategies and showed that in all of the cases, communication was seen and used as a powerful tool to manage the crisis (Beacock et al., 2020). Comparing the countries from the report with the COVID Global Response Index showed a direct correlation between relative success in handling the pandemic and the effectiveness of a government's communication (Foreign Policy, 2020).

New Zealand and the Republic of Senegal are two countries that stood out with their communication strategies in the Communications Report (Beacock et al., 2020) and were further examined. An argument of De la Cierva (2018), which demonstrates that using empathy and compassion is essential when communicating in times of crisis, is clearly reflected in those two exemplary countries. New Zealand's prime minister Jacinda Ardern, for instance, regularly met with people over a conversation, which could be watched or listened to over social media or podcast platforms, and was therein able to reach

Figure 12
Screenshot; Covid Conversation with Jacinda Ardern
Note; Guest sharing personal lockdown experience
(Retrieved via Facebook from Ardern, 2020)

the country's citizens on a personal level with great compassion (Ardern, 2020). The empathetic and unifying tone in the use of language on online communication platforms of New Zealand round the picture of this COVID-19 success story (New Zealand, n.d.). Other creative ways of reaching the public were applied in Senegal, where the authorities reached out to musicians, inviting them to help reach younger citizens with their policies and recommendations (Gueye, 2020). This incited them to write songs and shoot music videos supporting the government's message (Y en a Marre, 2020; Ngaaka Blinde, 2020). Apart from local rappers, the government also reached out to religious leaders to encourage their communities to comply with hygiene recommendations and other rules (Ministère, n.d.).

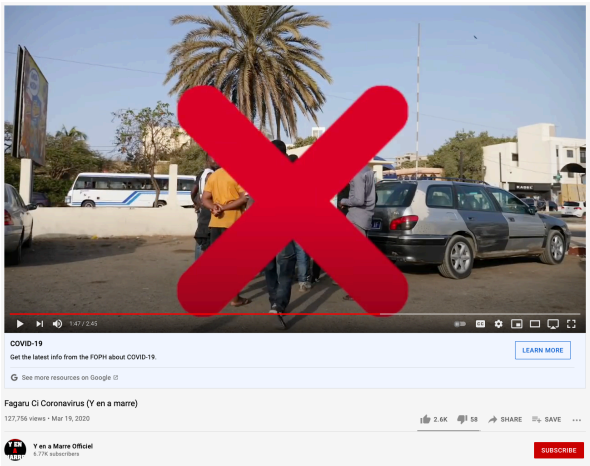


Figure 13
Screenshot; Music Video from Y en a Marre
(Retrieved via YouTube from Y en a Marre, 2020)

2.3.5. Findings

S3-1 Importance of **clear communication and transparency** during crises

S3-2 **Trust of citizens** is a key factor in effective communication in times of crisis

S3-3 Effective communication puts the **stakeholders** and their perceptions **at the center**

S3-4 Countries that handle the crisis relatively successful use **communication as a key factor** in their strategy

S3-5 **Effective crisis communication** is usually reflected in **effective handling of the pandemic**, and vice versa

S3-6 Exemplary countries **communicate with empathy and compassion**, rather than solely on a scientific level

S3-7 Exemplary countries often use **creative ways** to reach all demographic groups of the population

2.4. Step 4 - Understanding the Problem

2.4.1. Sub-Questions

How effective is government crisis communication in Switzerland today?

Where, within federal communication and information services, lies the problem?

2.4.2. Objective

After having gotten a thorough idea of the situation, some first insights into the problem area, and knowledge on what can make communication successful, this step aims to get to the bottom of it and identify the underlying problem and areas of improvement within.

2.4.3. Methods

Interviews (Semi-Structured)

The first research method in this part was the conduct of four interviews that have been carried out with citizens of different age groups and different views on the pandemic, as seen in the stakeholder map. The interviews were held semi-structured and included the following four persons:

Interviewee 1	**71 y/o Retiree** (f)
Interviewee 2	**52 y/o Health Worker** (f)
Interviewee 3	**25 y/o Student** (f)
Interviewee 4	**28 y/o Co-President of Anti-Restriction Association** (m)

Questions around their way of informing themselves, the availability of information, their view on the government and its communication, and control questions for comparison have been asked in the primarily digitally conducted conversations. Some of the interviews included additional or different questions due to their natural unfolding. All content can be found in Appendix B.

Focus Group

As chance would have it, midway through the research process, the author was in close contact with a positively tested person in the family, which led to a first-hand experience of governmental communication, as well as undergoing testing and quarantine. This allowed self-observation and the spontaneous formation of a focus group, with two households and five people involved. The households consisted of the following persons:

Household one

Situation:	Family home of the newly infected person (and the author)	
Persons:	Participant 1	**20 y/o Bartender** (m, infected)
	Participant 2	**62 y/o Entrepreneur** (m, in close contact)
	Family member	59 y/o Salesperson (f, in close contact)

Household two

Situation:	Co-living flat (and home of the author), visited by the newly infected person in the days prior to the illness	
Persons:	Facilitator	**26 y/o Student** (author, in close contact)
	Participant 3	**26 y/o Physiotherapist** (m, in close contact)
	Participant 4	**28 y/o Receptionist** (m, in close contact)

Besides the collective and individual self-observing of the user journey to gather information, the focus group involved group discussions and separate interviews conducted in a similar fashion to the ones explained above (see Appendix C).

Observation 3: Direct Observation on Information Retrieval

To further understand their user journeys and the difficulties that citizens face, some of the interviewees were given the task/asked to fulfill the task of looking up certain information while being silently observed. The tasks consisted of the following three instructions:

1. Looking up how many people are allowed to meet inside and outdoors
2. Looking up which COVID-19 tests are free of charge and which are not
3. Looking up what tests are valid to allow early leave of quarantine or isolation

2.4.4. Results & Evidence

The first clear result of the research in this part is that people across different age groups predominantly inform themselves online. Whether it is about pandemic-related topics or on the search of other information, people usually start online and take it from there. However, because it turned out to be rather difficult for the interviewees to successfully find the desired information online, many go around to reach personal contact, either through info lines or friends and family or colleagues. The difficulties that users face became visible with a closer look into the user journeys as, for instance, through observation. Together with the observation, parts of the interviews showed that the first and most prevailing issue is that users are uncertain where to go when trying to retrieve information. As a result, they find their sources in very varied and rather unusual places, often leading to long and inefficient user paths. This difficulty is very well reflected in the user journey of one observed participant, who finds himself in on a news website, going to the news ticker on pandemic updates and daily new cases, scrolls down to the bottom of given ticker, where he knows to be finding a federal website, leading him on to obtain information on the subpage of the FOPH. Comments in interviews and focus group discussions further supported the call for a more centralized source of information and fewer fronts of communication (see Appendices B & C).

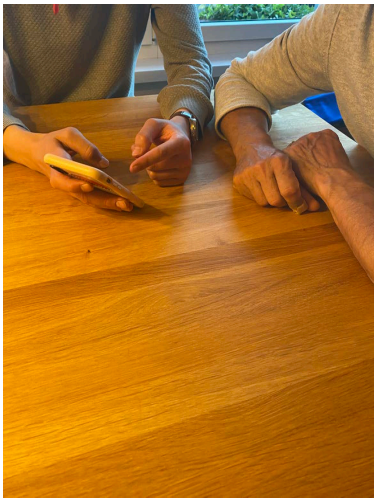
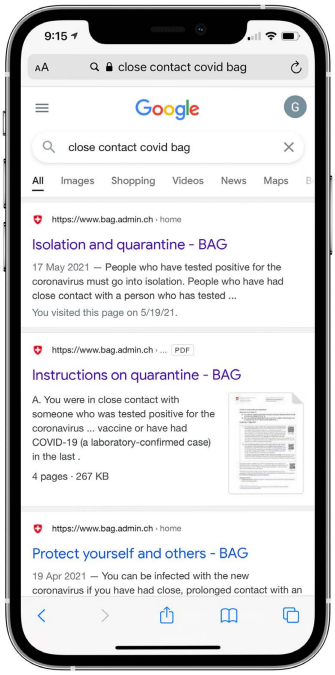


Figure 14
Focus Group Discussion
Photo by Author

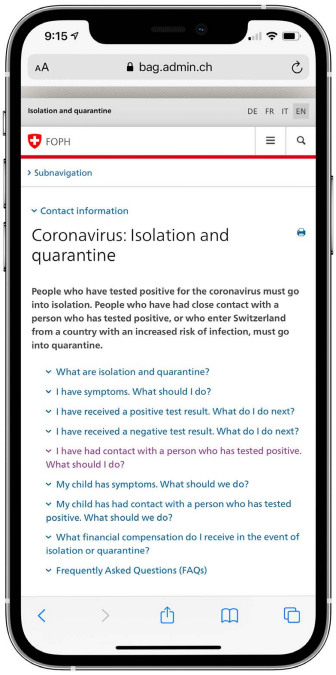
Furthermore, it was discovered that the inconsistency of information, which has already been partially seen in the second research step, extends well throughout the process one goes through before anticipating quarantine. This was being repeatedly reported out of the focus group and revealed itself in the self-observation, when there were two very different tones in messages around quarantining from governmental sources: One of which, a tool derived from the SwissCovid App (Swiss contact tracing application), recommended the person to quarantine with the possibility to test on the fifth day after the contact date, while the other, the website of the FOPH, ordered to quarantine for ten days with testing on day seven and the subsequent possibility to leave quarantine (see Appendix D).

User Journey

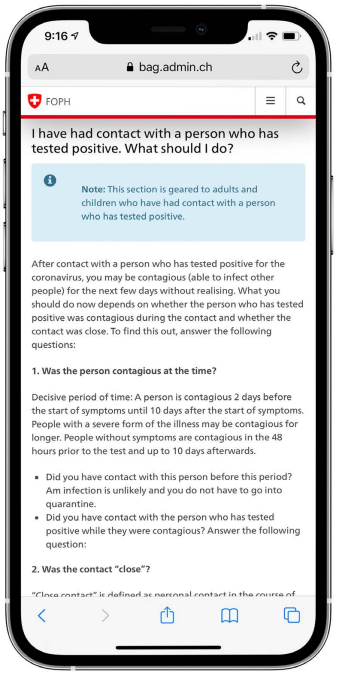
To better understand the difficulties one faces on the journey to finding information, the user path around the self-observed difficulty from above encapsulates the situation of inquiring information after having been in contact with a person who has tested positive:



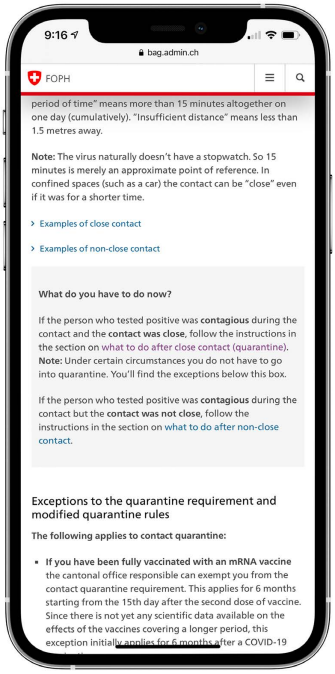
1st Step
Person finds FOPH Website 'Isolation and quarantine' via Google



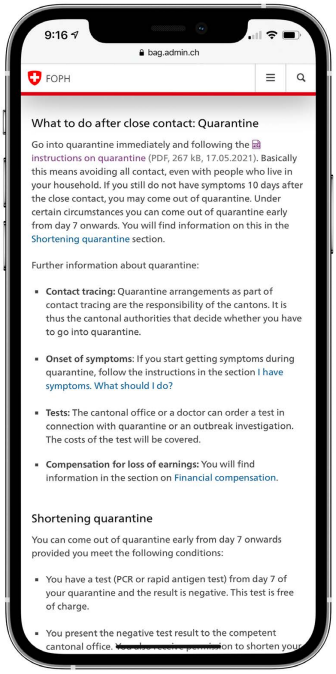
2nd Step
Overview over the most important questions; the 'What to do after contact'-link has been found



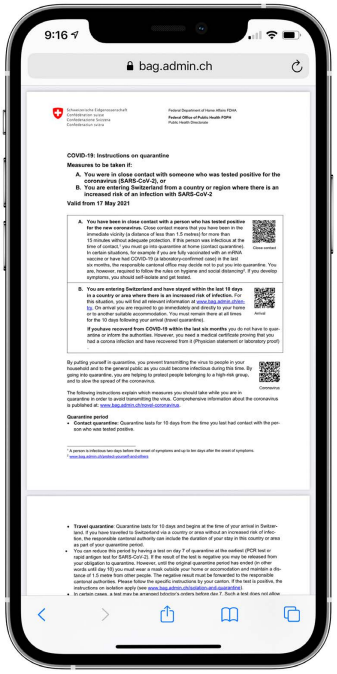
3rd Step
Website led user to the section, where contagiousness and closeness of contact are explained



4th Step
Scrolling through the text, user finds a 'What to do now' info-box, leading to another link that, however, does not work



5th Step
After further exploration, info text about procedure after close contact has been found, with another link, leading to a PDF



6th Step
Finally, information is found in a 4-page PDF document, providing explanations and instructions for further proceeding

Figure 15
Screenshots; User Journey on FOPH Website; (FOPH, n.d.; Adapted from Mockups by ls.graphics, n.d.)

Apart from the difficulties with indistinct information sourcing, especially younger interviewees reported not to feel that the government was using appropriate communication methods compared to how these generations usually stay informed. Providing long texts of information to read through would not be in keeping with the times and would be too time-consuming.

Stakeholder Map Final Version

Figure 16 shows the final version of the stakeholder map that has been filled throughout the research process. It shows the two main stakeholder groups on each side and the main touch points between. This version of the map in more detailed form can be found in the Appendix E.

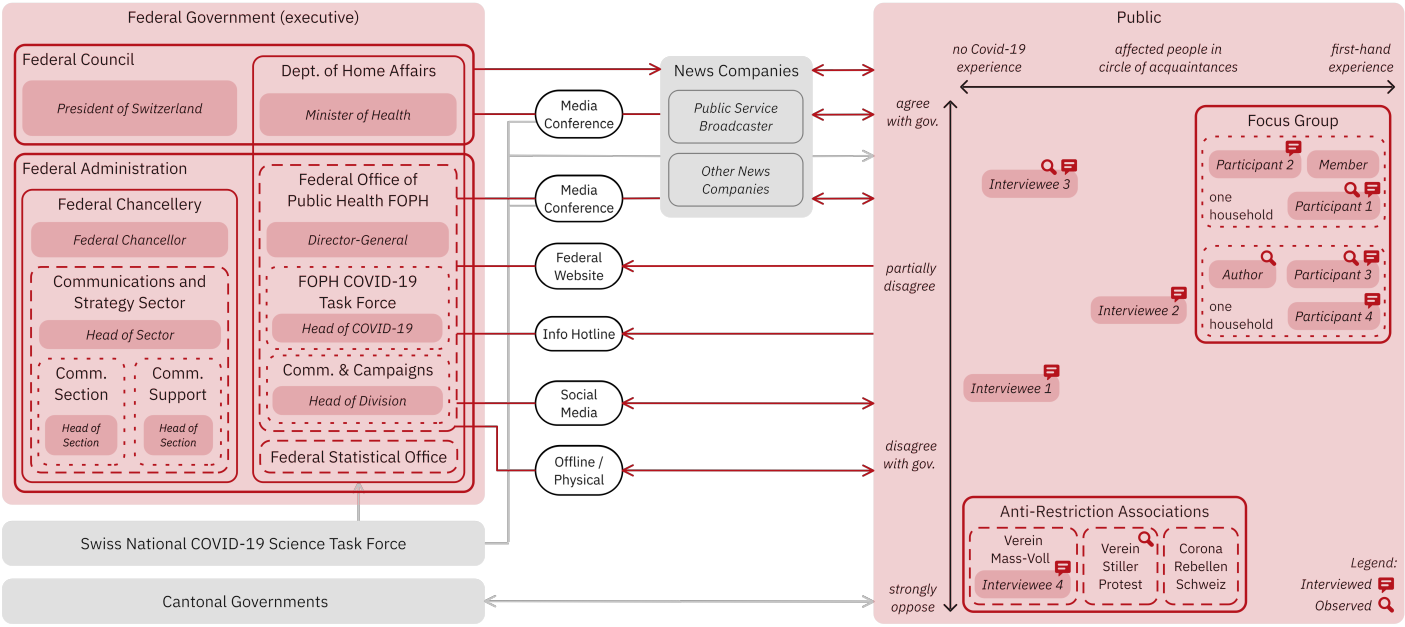


Figure 16
Stakeholder Map; Final Version

2.4.5. Findings

S4-1 Citizens predominantly **inform themselves online**, and most **difficulties appear in online communication** and information search

S4-2 To users, it is often unclear **where they can find information** about measures or other pandemic related topics, which further reduces **user journey efficiency**

S4-3 **Inconsistency** in the communication of information and measures **across different platforms and channels**

S4-4 The government's communication methods **do not seem up-to-date enough**, and especially younger generations **do not feel appropriately approached**

Reframing Info-Box

After four research steps and a more thorough understanding of the situation and the problem, the **largest area for improvement** has been identified **within the digital forms of government communication**. Apart from media coverage, press conferences and hotlines, most potential is seen in the federal government's online services, where an intervention could have **the most significant impact**. Therefore, the focus of this thesis has been further narrowed down, to **digital government communication in this crisis**.

2.5. Additional - Understanding Digital Government

2.5.1. Sub-Question

What, in digital communication, is especially important in a governmental context?

2.5.2. Objective

As the problem area could be narrowed down throughout the research process and has been directed more toward digital communication, an additional step has been deemed beneficial. Therefore, the objective was to gain additional knowledge on digital government and learn what communication practices to keep an eye on.

2.5.3. Method

Literature Review

One of the experts in the field of digital government and public sector communication is Joanne Sweeney (2019), who wrote a book on these topics called *Public Sector Marketing*. Therefore, literature research in the form of a book review was conducted, and the most relevant aspects in this context were drawn out.

2.5.4. Results & Evidence

The book strongly considers target groups and contemporary communication, which is geared toward them, once more underlining the importance of human-centeredness. Looking at target groups of a government, which are imaginably among the most varied, it has been highlighted by Sweeney (2019) how visually oriented most of them are and hence, how important it is to consider visual aspects in government communication. Including graphical elements in digital communication can be a great and effective way to visually support information (Sweeney, 2019).

Sweeney (2019) also urges governments to use communication methods and media appropriate to this day and age. Social media, for instance, should be considered a core communications tool, as per the likeliness of having large parts of society represented on

platforms of this kind. Even older generations potentially do not use social media platforms to a lesser extent but rather use it in other ways, she explains. According to the book, the rise of social media, among other factors, also helped shape the on-demand society we currently live in, leaving linear communication patterns well behind. It underlines the fact that content is desired to be rapidly available at all times. Furthermore, content shall be formed short and concise due to the limited screen space that a lot of digital communication is presented on, considering that much of the consumed content is retrieved through small hand-held devices like smartphones (Sweeney, 2019).

Lastly, Sweeney (2019) also advises governments to have expert communicators handling communication and describes the agility of such an absolute necessity. In the digital age, governments should internally be having strong communication experts whose core skills are, especially in times of crisis, of vital significance. She further mentions that, in crisis communication, it takes parallel handling of media and the public, which requires clearly defined roles and the right people in place (Sweeney, 2019).

2.5.5. Findings

AD-1 Importance of **visually appealing content** in digital communication

AD-2 Ideally, communication is **supported by graphical elements**

AD-3 Governments make use of **contemporary communication methods**, such as social media

AD-4 We live in an **on-demand** society where content should be available rapidly

AD-5 Digital content is kept **short and concise**, video content often with time-limits on their upload

AD-6 Communicating should be done by **communication specialists**

(RE)DEFINE

Figure 17

Smartphones with different information sources (Adapted from Mockup by ls.graphics, n.d.)

3.0. Approach

To assess the findings and synthesize the research, four categories were created to cluster the total of findings from all research steps, paving the way for the subsequent insight summaries and providing the basis for creating intervention criteria later on. Additionally, personas were formed to help further understand user jobs, which the intervention requires to fulfill.

3.0.1. Clustering

EMPATHY	CLARITY	METHODOLOGY	UX/UI
S1-2 **Public trust** in the government was on the decline for the most part of the pandemic (to date) **S1-6** The public seems **detached from the government** and describes a **large power distance** between government officials and the average citizen **S3-2** **Trust of citizens** is a key factor in effective communication in times of crisis **S3-3** Effective communication puts the **stakeholders** and their perceptions **at the center** **S3-6** Exemplary countries **communicate with empathy and compassion**, rather than solely on a scientific level	**S1-3** **Confusion** around government measures among citizens widely prevails **S1-4** Statements and comments of government officials are often being **misinterpreted** **S1-5** Many citizens find it difficult to **understand the logic behind** certain measures **S2-1** **Indistinctness** in the communication of measures **S2-2** **Lack of reasoning and explanation** behind measures **S3-1** Importance of **clear communication and transparency** during crises **S4-2** To users, it is often unclear **where they can find information** about measures or other pandemic related topics, which further reduces **user journey efficiency** **S4-3** **Inconsistency** in the communication of information and measures **across different platforms and channels**	**S3-7** Exemplary countries often use **creative ways** to reach all demographic groups of the population **S4-4** The government's communication methods **do not seem up-to-date enough,** and especially younger generations **do not feel appropriately approached** **AD-3** Governments make use of **contemporary communication methods**, such as social media **AD-4** We live in an **on-demand** society where content should be available rapidly **AD-6** Communicating should be done by **communication specialists**	**S2-3** Generally **difficult to find information** on specific topics **S2-4** **Complicated user journeys**: Challenging to navigate through communication services due to **inadequate information- and interface design** **S2-5** **Long user journeys**: Lengthy redirection processes to finding information due to inefficient **user flow** and missing **user guidance** **AD-1** Importance of **visually appealing content** in digital communication **AD-2** Ideally, communication is **supported by graphical elements** **AD-5** Digital content is kept **short and concise**, video content often with time-limits on their upload

Table 2
Clustered & categorized research findings A

Apart from the findings included in the arrangement in Table 2, the findings in Table 3 were either in support of the thesis topic and the problem statement itself or benefitted the reframing process along the way:

SUPPORT	REFRAMING
S1-1 Ratings on **how citizens evaluate government communication** have been **leaning negative** and **mostly declining** over the course of the pandemic (to date) **S3-4** Countries that handle the crisis relatively successful use **communication as a key factor** in their strategy **S3-5** **Effective crisis communication** is usually reflected in **effective handling of the pandemic**, and vice versa	**S2-6** Main areas of improvement are found on the **federal level** **S4-1** Citizens predominantly **inform themselves online**, and most **difficulties appear in online communication** and information search IV

Table 3
Clustered & categorized research findings B

3.1. Synthesis

3.1.1. Insights

Insight Summary EMPATHY

Not only in human-centered design in general, but especially in government communication, it is crucial to empathize with the user or the target group of the communication. As the example of New Zealand showed, empathy and compassion in communication can go a long way in creating sympathy and trust, and ultimately be used in a successful communication strategy, where, in the case of Switzerland, information and facts largely seemed to be communicated very science-based (Ardern, 2020; New Zealand, n.d.; FOPH, n.d.). Building communication services around the target persons can be of crucial importance in times of crisis, as the success of a governmental communication strategy can be strongly dependent on how communication is perceived.

As seen in the secondary data analysis early on, communication and trust can be closely correlated, and looking into effective communication confirmed the importance of trust during crises, to begin with. The study of step one even suggested that communication has the power to foster trust, while trust, in turn, is particularly important in successful communication

(Bühler, 2021). This shows yet again how focus areas are ideally rather oriented toward humane aspects and eye levelness.

Insight Summary CLARITY

Funnily enough, the findings in the *Clarity* category convey a rather clear and consistent message. It all points toward more distinctness and clearly understandable communication, and less room for misinterpretation and unanswered questions. Across the board, it became visible that many citizens are having difficulties understanding the information provided to them or finding information in the first place.

Insight Summary METHODOLOGY

All around the methodological approach, a successful communication strategy makes use of contemporary communication methods and potentially considers out-of-the-ordinary methods to reach different demographic segments. An aspect included in human-centeredness, and what was mentioned in the *Empathy* paragraph, is to look at how those diverse stakeholders inform themselves and what forms of media they use. On a broader perspective/level, the fact that we are living in an on-demand society has, once more, pointed out the importance of accessibility, making content and information universally and inclusively available.

Insight Summary UX/UI

On a more applied note, many of the difficulties one faces on federal communication platforms go back to information design and the design of user interfaces. The user journeys represented in the research process revealed inefficiency and complexity along a wide front and translate into user experiences with considerable potential for improvement. This demands better usability through increased efficiency and more user guidance in information finding, inevitably supported by more conciseness in information or content creation. Additionally, the suggestion for digital communication to be visually represented and joined by graphical elements would further improve a user's experience.

3.1.2. Criteria

In order to move on in the process, the insights and preceding findings have been converted into intervention criteria, which serve as a foundation for moving into the ideation phase. Three criteria directly derive from each category, specifying requirements that the concepts are later evaluated upon:

Criteria EMPATHY

The concept should...

- **E-1** Empathize with the user and form services around the user's needs
- **E-2** Foster trust in government and show full transparency
- **E-3** Reach all demographic groups and be universally understandable

Criteria CLARITY

The concept should...

- **C-1** Provide a centralized source of information
- **C-2** State why certain measures were put in place and explain the logic behind
- **C-3** Clearly communicate with full consistency and alignment across all channels

Criteria METHODOLOGY

The concept should...

- **M-1** Make use of contemporary communication methods
- **M-2** Have up-to-date information always and easily accessible
- **M-3** Incorporate communication expertise with equal importance as scientific expertise

Criteria UX/UI

The concept should...

- **U-1** Focus on short and efficient user journeys, with clear guidance
- **U-2** Deliver and provide information in a concise manner
- **U-3** Use visually appealing content to support communication efforts

3.1.3. Personas

To better empathize with the target group of this case and grasp the situation citizens find themselves in more thoroughly, the following personas have been created (Table 4, 5 & 6). Inspired by the research process and typical user journeys on the government's platforms, these personas also served as an additional foundation to build concepts upon. They describe how the persona typically informs him/herself, what their situations look like and what the user jobs relating to their situations entail.

Persona VACCINE

VACCINE

Persona	73 year old retiree, living in the suburbs of Lucerne
Informs himself via	Computer, friends
His situation	Is hesitant about getting vaccinated because of health concerns due to his age
User job	Finding information about vaccination

Table 4
Persona VACCINE
(Icon adapted from Flaticon, n.d.)

Persona CONTACT

CONTACT

Persona	38 year old office worker, living in the city of Geneva
Informs himself via	Smartphone, news platforms
Her situation	Has been in close contact with a person that has just tested positive
User job	Finding information on quarantine procedures

Table 5
Persona CONTACT
(Icon adapted from Flaticon, n.d.)

Persona TRAVEL

TRAVEL

Persona	23 year old student, living on the countryside in Saint Gall
Informs himself via	Smartphone, social media
His situation	Wants to visit family abroad
User job	Finding information about travel restrictions and potential testing

Table 6
Persona TRAVEL
(Icon adapted from Flaticon, n.d.)

IDEATE

4

Figure 18
Smartphone Sketch
(Adapted from Mockup by Kipet, n.d.; Vector via VectorStock, n.d.)

4.0. Approach

After all the research that has been conducted and the findings which provided valuable insights into the situation and problem, the stage was set to develop concepts for the design intervention. From a process perspective, that, after initial brainstorming sessions, entailed framing the respective concepts with subsequent performance evaluation according to the intervention criteria and personas from the previous phase.

4.0.1. Framework

Additionally, the Desirability-Feasibility-Viability Framework has been conducted for further narrowing down. These IDEO circles, in a governmental context, require extra attention to some key specifics in the process of evaluating interventions. Within *Desirability*, it is important to note that, other than in many branches of the private sector, a service or product for this purpose demands universal desirability. Even though the government does not operate profit-oriented, financial viability still plays an important role, as concepts would have to be financed, and, more particularly, funding often undergoes a process of justification because of it being a matter of public expenditure (IDEO U, n.d.).

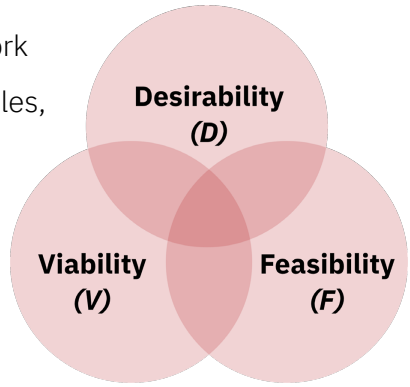


Figure 19
Desirability-Feasibility-Viability Framework
(Adapted from IDEOU, n.d.; illustrated by author)

4.1. Concept A Info Site

4.1.1. Concept

Improving the FOPH's information website by creating a centralized information page and application, with user guidance and filters to narrow the search

Systems-Level

The concept of the info site focuses on improving the website of the FOPH, the main channel of the federal information services, and a noticeable communication platform throughout the research. The idea would be to have a centralized information source, which can be accessed through various digital devices, coming in the form of a webpage and a

mobile application, and potentially joined by social media accounts and even chat support or a helpline. The importance is for it to be going under a single and distinct name, which benefits the user for remembering the source and the government in terms of marketing and 'brand' recognition. It is also relevant that the information is presented in a highly concise fashion, leaving the user with options to gather more information on request.

Applied Level

On a more applied level, the info site would consist of a starting screen welcoming the user on the page and asking what topic (e.g. vaccination) one would like to have information about. After the first filter, instead of presenting the user with all information on given topic, one finds a second question, asking to describe their situation concerning the specific topic (e.g. their vaccination status). Through this step, information can be narrowed down, and the user is presented with subtopics, specifically for his situation. Apart from the basic information search, the info site would also provide quick redirection to health facilities, cantonal services (e.g. vaccination registration), and provide simple access to a point of contact.

4.1.2. Performance

Figure 20
Criteria Performance Concept A
Note; Full-opacity = fulfills
half-opacity = potential

Regarding the intervention criteria, this concept performs fairly well, with half the criteria met and half with the possibility in the concept to be fulfilled as well. The main strength of this concept lies in the centralization of the source, the accessibility, and the focus on effective user journeys. On the other side, many of the criteria are not covered directly and need extra attention.

When looking at the personas, this form of communication would provide a suitable option for all three, and coverage of all user jobs would be doable. The only point to keep an eye on is within the *Travel* persona, who would possibly rely on information from other governments as well. This, however, could provide an opportunity area for the info site, as it could be included in the service, and redirection to external information sources could be provided.

On the three IDEO circles, the concept performs due to its human-centered nature very well on *Desirability* and should lie within the bounds of possibility in the *Feasibility* circle, as it does not differ too much from existing tools, from a technological point of view. Looking at existing services, there might only be a slight deficiency in UX expertise. In terms of *Viability*, again, it should be within the possibilities of the federal government, with an eye on potential campaign costs that could, however, be balanced through savings in hotline expenditures, as the reduction in uncertainty should lead to higher satisfaction and fewer requests to federal contact points (see Figure 21).

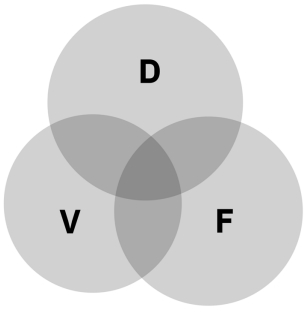


Figure 21
Framework Concept A

4.2. Concept B CEO (Chief Empathy Officer)

4.2.1. Concept

A communications expert which publicly communicates all information and is supported by social media representation, serving as a central point of contact

Systems-Level

In the second concept, the centralized aspect would be impersonated, and a special communications position would be created in the federal government. Publicly, the Chief Empathy Officer (concept name) would, in fact, be a single person, providing a central point of information for the citizens to rely on. Internally, on the other hand, the position would be embodied by a communications team, which holds a key position, connected to all the fronts in this crisis (e.g. politicians and experts from sciences or economics), and serves as a government mouthpiece to communicate through. For the CEO itself, this would mean communicating at press conferences and in interviews but would also include appearances in video footage (e.g. on social media). In terms of communication channels, this point of information would include social media profiles on different platforms and an 'office' to call or write to.

Applied Level

In practice, citizens would encounter the Chief Empathy Officer as the person who communicates new measures or restrictions while also being the communicator when announcing the easing of regulations. For example, on social media, citizens would have a person communicating the benefits of getting vaccinated through a video on Instagram or interviewing epidemiologists over a Facebook live stream. People with direct questions might also call in at this CEO's office and come across one of their communication personnel.

4.2.2. Performance

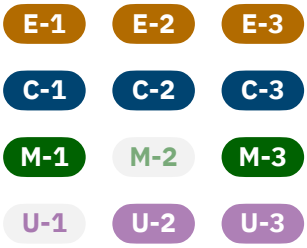


Figure 22
Criteria Performance Concept B
Note; Full-opacity = fulfills
half-opacity = potential
inverted = does not fulfill

This concept performs considerably well within the first two categories, where, as the title of Chief Empathy Officer already suggests, the first of the four in particular, has covered the criteria very well. Through the nature of the position, exceptional benefits could arise in fostering trust among citizens. When looking at the on-demand accessibility of information or user guidance, however, this concept in this form does not cover all the aspects of *Methodology* and *UX/UI*.

Comparing personas in this situation shows that the concept could theoretically work with all of the listed in terms of retrieving information on those specific topics. However, there could be missing aspects in the on-demand accessibility, as mentioned above. In general, for the younger generations, the concept could prove advantageous nevertheless.

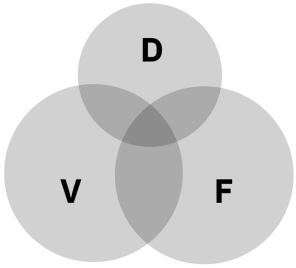


Figure 23
Framework Concept B

This concept could, in theory, be greatly fitting the public desirability. In practice, however, a concern could be that this strongly centralized way of communicating could counteract open communication practices in a strongly democratic society such as Switzerland - despite the advantages of effective communication. This was seen in an example in early 2021, where a wish for silencing the Swiss COVID-19 Science Task Force came from the parliament, while the public, on the other hand, largely opposed such a decision, as the survey series of *sotomo* showed (Glogger, 2021; Bühler, 2021). The *Feasibility* and *Viability* of this concept depend on internal staffing, which could, but does not have to be related to costs.

4.3. Concept C Video & Audio

4.3.1. Concept

Visual and audio formats, such as update or information videos and podcasts, as a means to communicate in a contemporary way

Systems-Level

This concept would aim to inform the public via visual and audio material, created around all topics related to the pandemic. Videos and podcasts, or other audio formats, could help citizens understand information in a way appropriate to today's communication standards and trends. A recent study on video marketing portrayed video as a popular media and reported successes in content understanding of viewers (Wyzowl, 2021). This appealing form of conveying information would be used to provide short explanations using animated graphics and human connection through the appearance of experts or other narrators. The audio formats could make an additional form of communication, increasing options to choose from and enhancing inclusiveness and accessibility. Many of the channels for such media allow the government to get feedback on their content and interact with citizens through comments, messaging, or rating mechanisms (Sweeney, 2019).

Applied Level

The video and audio material could be shared via several popular social media and streaming channels, such as YouTube, Facebook and Spotify, to name a few. There, users could always find the newest update on measures and restrictions or come across explanation videos around the topics of vaccination or testing, for example. Beyond the consumption of content, users would have the ability to interact with the government and each other and use sharing options to spread the information and perhaps send it to friends and family.

4.3.2. Performance

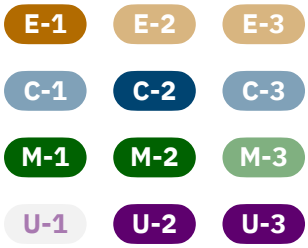


Figure 24
Criteria Performance Concept C
Note; Full-opacity = fulfills
half-opacity = potential
inverted = does not fulfill

Performance-wise, this concept shows good coverage as well, especially in providing visual content in a concise manner and making use of time-appropriate media. The centralization of the source is somewhat unlikely with this form of communication, however, and the reach of all age groups should be evaluated and could fall short as well (see Figure 24).

The first persona of the retiree reflects that potential shortcoming very well, as it is assumed that such content might not find its way to a 73-year-old retiree, depending on platform and media. Otherwise, the concept could suit those personas reasonably well. Some content, such as travel information which can be changing somewhat frequently, could face regular updating.

Even though the desirability of this concept is very well suitable to this day and age, it might not be universal with the exclusive use of modern media. On a *Feasibility* level, it should lie within the capabilities of the Swiss federal government and its affiliates, whereas on the side of *Viability*, efforts and expenditures should not be underestimated, second of which could be counter-argued with a potential reduction in other expenses due to more clarity among citizens.

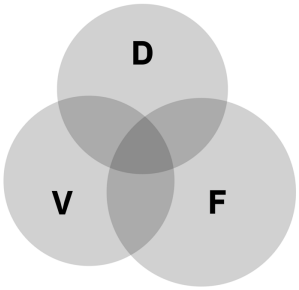
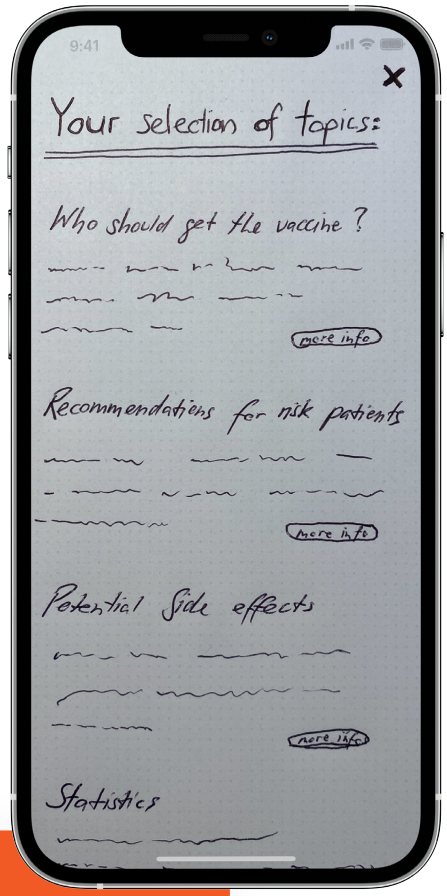


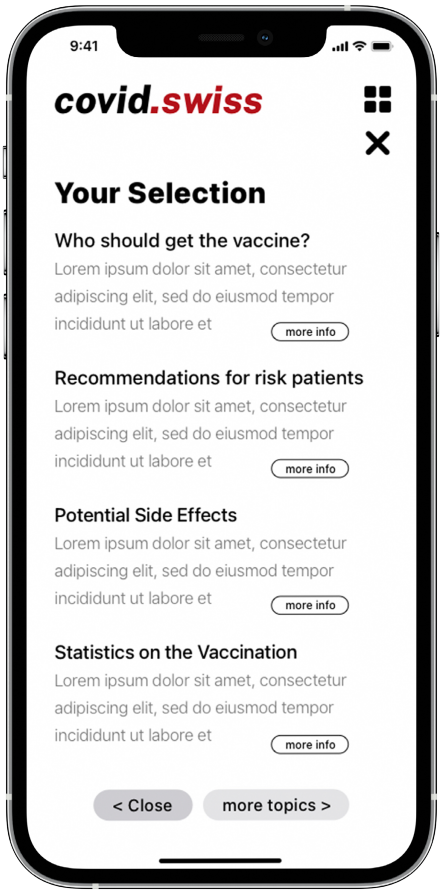
Figure 25
Framework Concept C

4.4. Decision

The performance evaluations of the three concepts have depicted that despite the potential in all of the three, the first one stands out as the most universally desirable and accessible and covers all of the criteria, either with potential or fully. Moreover, it should be doable in its entirety and lies within the capabilities of the current governmental structures. The concept of the info site has therefore been chosen for further development.

PROTOTYPE & TEST





5

Figure 26
Prototypes from 1st & 2nd Iteration
(Adapted from Mockups by ls.graphics, n.d.)

5.0. Approach

5.0.1. Procedure

For the further development of the selected concept, prototyping and testing were conducted in three iterations, each building on the other and entailing its focus for ideal progression into a finalized draft.

1st Iteration:	**Functionality**
2nd Iteration:	**User Interface**
3rd Iteration:	**Refinement**

Likewise to the concept development in the ideation phase, the testing contains a systems-level and an applied level. The systems-level, in this phase, was formed descriptively, while the applied level consists of a tangible prototype. For the testing, the described systems part of the concept was conveyed narratively, and the prototyped service provided a hands-on experience of the concept. Each iteration of prototyping and testing, is followed by an adaptation to the concept to complete the iteration.

5.0.2. Participants

Each round of testing was carried out with five participants from different age groups. Three of whom were brought in again from the focus group in the research process, whereas two additional individuals participated as testing persons with an unbiased perspective to the concept prototypes.

Focus Group:	Participant 1	**20 y/o Bartender** (m)
	Participant 2	**62 y/o Entrepreneur** (m)
	Participant 3	**26 y/o Physiotherapist** (m)
Newly joined:	Participant 4	**39 y/o Substitute Teacher** (f)
	Participant 5	**28 y/o Instructor** (m)

The rounds of testing were conducted in-person with participants 1, 2 and 5 and for participants 3 and 4 via video chat.

5.1. 1st Iteration Functionality

5.1.1. Prototyping

In the fundamental manner of design thinking, the first iteration comprises a low-fidelity prototype of the info site. To build upon an observation that has been made in the research phase, where all of the observed participants used their smartphones as an information device, the prototype of the info site concept comes in the form of a mobile application. This prototype serves to test the initial idea and to learn whether the concept idea would be the right approach to a human-centered intervention.

The prototype consists of 7 sketched wireframes, leading the testing persons through an imaginable journey of finding information on a specific topic (see Figure 27 & Appendix F). Those drawn screen interfaces were then linked in a prototyping application (POP) for better usability for the testing persons. The *Vaccine* persona from earlier served as an inspiration to the user journey on this app prototype.

Figure 27
1st Prototype; 3 wireframe sketches
(Sketched by Author; adapted from Mockups by ls.graphics, n.d.)

5.1.2. Testing

The two-fold testing process makes up an initial explanation of the concept and the systems-level, including discussing the concept idea with the participant, followed by the applied testing of the prototyped application. For the prototype, the participants were given the task to imagine themselves in the position of a risk patient who was insecure about getting a COVID-19 vaccine in the near future.

Figure 28
Testing of 1st Prototype
Photo by Author

Concept Feedback (Systems-Level)

On the systems-level, the participants pointed out the benefits of having a centralized source of information and found the idea around a distinct address or domain advantageous. Additionally, the benefit of having the service available on different platforms and devices was expressed positively. Suggestions were formed in questions around how such social media representation would look like, and whether the name should be staying *corona.swiss* or rather be transformed to the more concise and 'fresh' *covid.swiss*, as described by a participant.

Prototype Feedback (Applied Level)

The initial testing has proven successful, and the structure of the application prototype generally seemed appealing to the user. The feedback in three categories can be summarized in the following points:

Positive feedback	Suggested improvement	Ideas & Comments
- Simple and easy-to-use - Big difference to FOPH website - Well-structured information search	- Having the option to go directly to an overview of all subtopics - Always having the possibility to go a step back - Generally to have options to choose from	- Sitemap - Chat option or a chat-like design to be guided through

Table 7
Prototype Feedback 1st Iteration

5.1.3. Adaptation

Following up on the feedback, the concept's social media idea was further thought through, and having social media accounts fully dedicated to the Swiss COVID-19 situation, could bring benefits, especially in the communication of new measures and restrictions or the easing of such. Sharing platforms could also be used as a marketing tool for the web- and mobile-based communication service and provide examples or tips on how to use the newly acquired information from the info site. Additionally, the name suggestion was evaluated and deemed reasonable, as *covid.swiss* could come across smoother and form a more universal and scientifically correct name.

According to the iteration plan, the prototype itself would transform from sketched wireframes to digitally designed interfaces and incorporate suggestions with providing options for better navigation throughout the service. Those include the possibility to skip or forward, go back at any time in the application, and directly go to an unfiltered overview of the topic's sub-themes.

5.2. 2nd Iteration User Interface

5.2.1. Prototyping

Taking the previous adaptations into the second iteration, a significant change is the digitalization of the user interfaces with the intention to create a visually more realistic and testing-friendly prototype. A plain design, primarily black and white, is joined by large fonts and clear wording to simplify the user experience and potentially reach users on a more personal level.

The other suggestions were incorporated as pushbuttons at the bottom half of the interfaces, within close reach of the user's thumb or fingers. Differences in sizing and coloring were used to indicate likely paths for the user to take and put less important buttons in the background. (see Figure 29 & Appendix G)

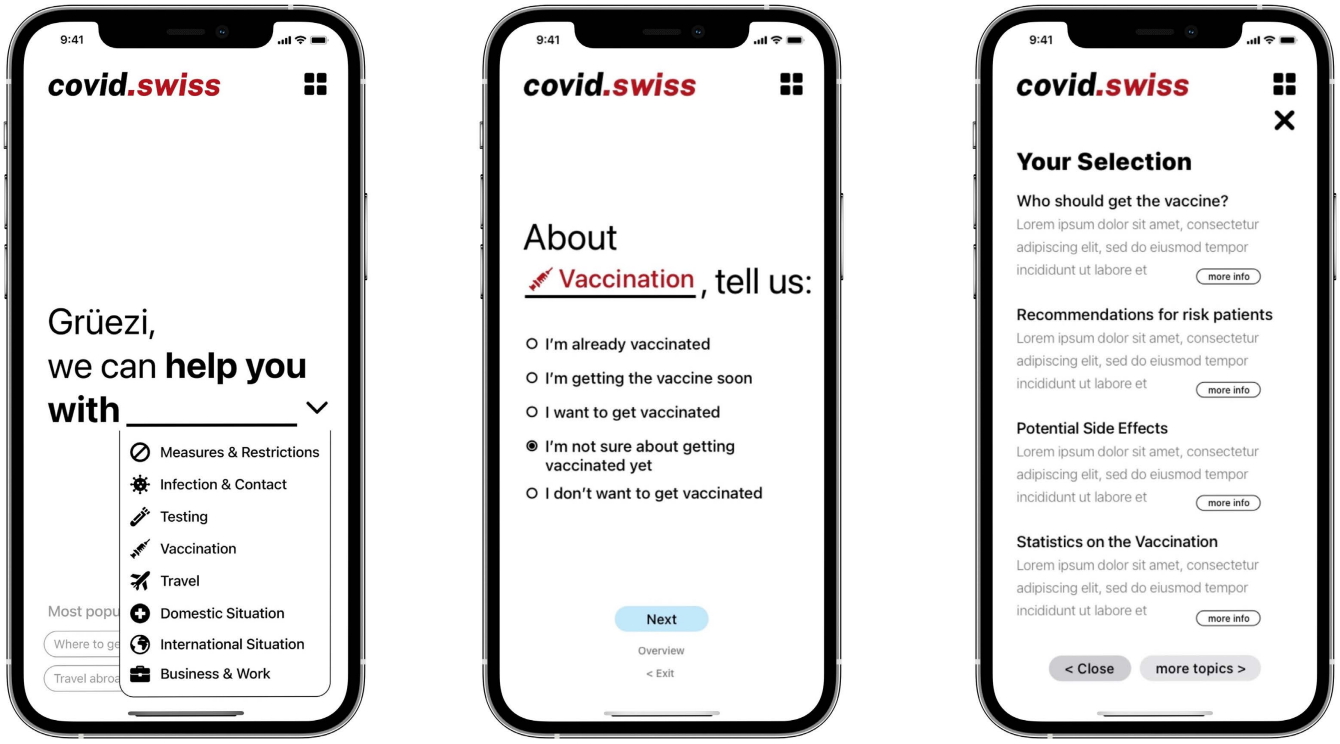


Figure 29
2nd Prototype; 3 wireframe drafts
(Drafted by Author; adapted from Mockups by ls.graphics, n.d.)

5.2.2. Testing

The testing round of the second iteration was structured the same way, having a two-fold discussion with hands-on experiencing the prototype on the participant's own smartphone. The prototyping application POP provided, again, a suitable platform for the user testing.

Concept Feedback (Systems-Level)

The social media idea mainly came across well, with some hesitation showed by one participant, pointing out the different languages in Switzerland and how that would be handled in an online account, that should go under a distinct name. As an example, Instagram was mentioned, where *covid.swiss* would form the ideal username, with no option to customize content to a certain language. This reflects the current situation of the FOPH account on the platform, which uploads content simultaneously in up to 5 languages (BAG, 2021). The change of names in the concept appeared as well-chosen by all participants.

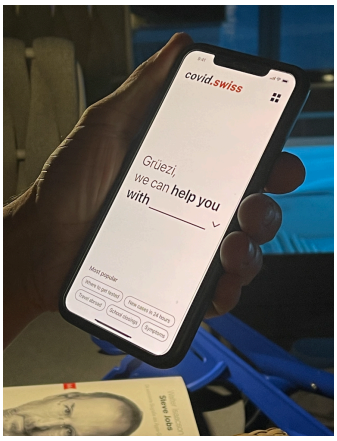


Figure 30
Testing of 2nd Prototype
Photo by Author

Prototype Feedback (Applied Level)

The prototype in its new livery was, on a first impression, very well received by the participants, who provided valuable feedback after a closer look at its UI design and functions.

Positive feedback	Suggested improvement	Ideas & Comments
- Big difference to current FOPH website, described as a highly positive change - Plain design appreciated	- Search option - Seeing and changing what has previously been chosen - The buttons create an extra step between choices, unnecessarily extending the user journey (seemingly like a click-through experience) - Direct jump into classic topic overview would be desired	- Multiple choices, instead of just one, could be evaluated - Filter overview or history option of what was being selected

Table 8
Prototype Feedback 2nd Iteration

5.2.3. Adaptation

On a systems-level, integrating different languages on one social media account should be avoided, as providing the same information x-fold with different languages may be perceived as confusing or an overload of content, rather than the desired conciseness and clarity. This could be avoided by evaluating a central account in the English language, which is widely popular in the world of social media or creating individual language-specific accounts for the respective linguistic areas of Switzerland.

The applied prototype has been iterated to suit additional features like the search option and a classic topic overview, which requires a separate window, accessible with a slider to switch between the two modes of a personalized view and conventional or classical view. The extra steps between choosing an answer and moving forward have been dropped, reducing the length of the user journeys and therefore improving the user experience, as demanded. The possibility to see and change what one has chosen in previous steps has been provided all along, meaning that this feedback exposed a weak point in the interaction design,

as it was not visible well enough. This shall be changed by moving toward a more button-like design of the choices in the guidance of the app.

5.3. 3rd Iteration Refinement

5.3.1. Prototyping

The prototype mainly transformed through button design, aiming to emphasize areas of choice and highlight with clearer distinction, and the addition of another interface with a more conventional type of information list. The slider for this change has been placed centrally at the top and has been designed in accordance with the highlighted buttons across the application. (see Figure 31 & Appendix H)

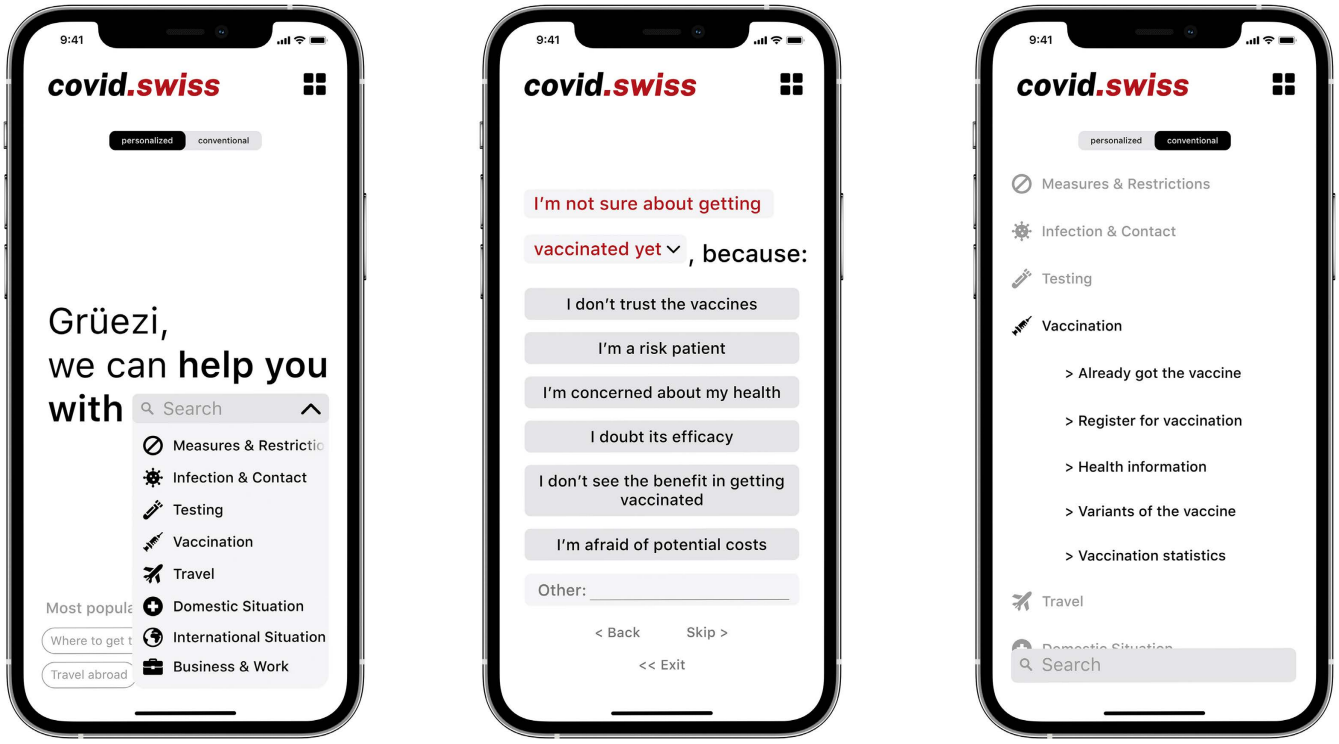


Figure 31
3rd Prototype; 3 wireframe drafts
(Drafted by Author; adapted from Mockups by ls.graphics, n.d.)

5.3.2. Testing

The third round of testing left the participants with more freedom to explore the application prototype, due to its added functions and the test person's experience with previous prototypes, by that time. Moreover, they were asked to rethink the concept on both levels once again and put themselves in the shoes of a person using that service in its entirety.

Concept Feedback (Systems-Level)

The incentive to reevaluate the concept resulted in some more ideas around the *covid.swiss* info service at this point. Participants suggested, on a systems-level, that such a service could be combined with current efforts on coming up with vaccination certificates or passes, where especially the application could come in handy. Other voices mentioned the possibilities in having a service that gets to know the user, learning about their age, canton to live in, or status around vaccination or testing. This could reduce the need for the service to ask about information over and over again. Data privacy would play a pivotal role to consider in this case, however.

Prototype Feedback (Applied Level)

The last rounds of feedback transformed the prototype in the direction of the participants' imaginations, which helped them take it one step further and imagine new ways and features to include.

Positive feedback	Suggested improvement	Ideas & Comments
- Button design more clear and distinct - Classical overview well perceived and might be a topic of personal preferences	- Showing the path which is ahead with indicators (e.g. “3 questions” or a progress bar) - Including vaccination statistics as live numbers on the screen - Ability to save the chosen path for another time	- Introduction page, when first using the app, which asks about some basic information (locally stored) to help narrow down - Including ‘positive’ news around the pandemic

Table 9
Prototype Feedback 3rd Iteration

5.3.3. Adaptation

In the third iteration of refinement, the suggested services form a great closure to the prototyping and testing phase, paving the way for further development in the finalization. Suggested service inclusions, such as the vaccination or test certificate, and the ability for the service to use user information to improve the experience and shorten user journeys, have been implemented to further improve the concept toward a centralized information tool. However, the delicate situation with personal information and health data requires careful consideration on a systematic level.

The situation around the paths of questions had changed when it became apparent that one of the steps could be erased altogether, as a simplification of the user journey would be more beneficial than the benefit of that single step. Therefore, ideas around indicators or a history of questions became redundant. Having an introduction page together with the idea of being able to save information, however, would be of great advantage to the user and the service itself.

Deliver & Implement

6

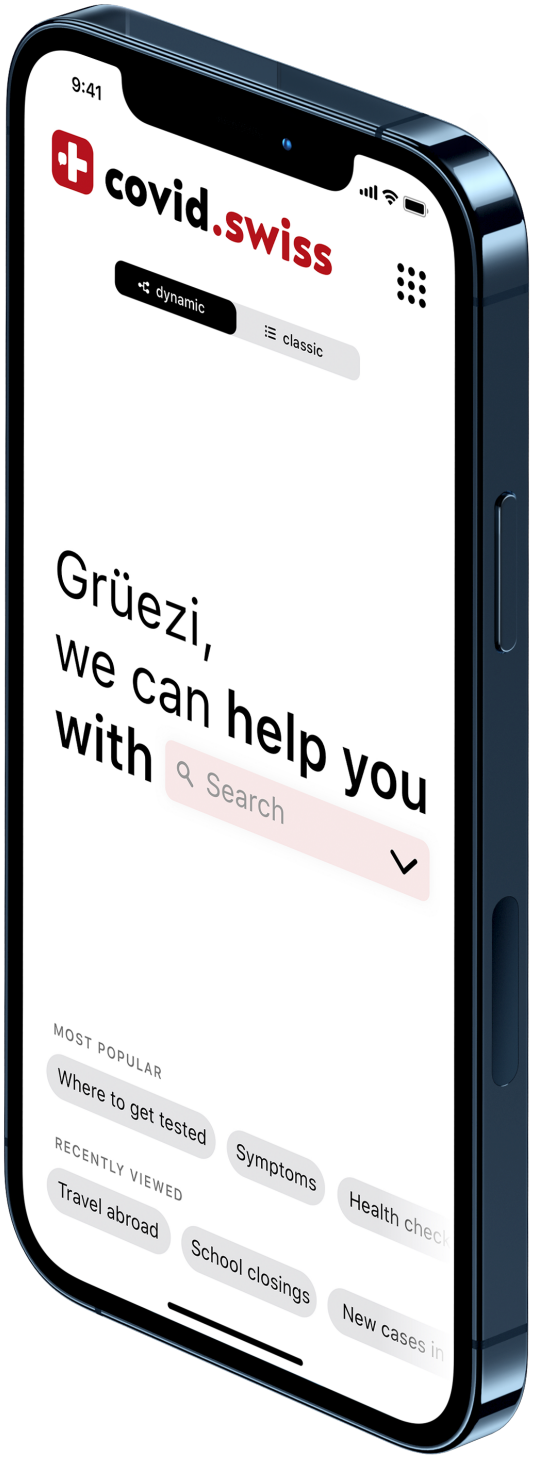


Figure 32
Final Application Prototype FLOAT; (Adapted from Mockups by ls.graphics, n.d.)

6.1. Final Concept

The *covid.swiss* information service has been further developed into a finalized version of the concept, containing the previously discussed aspects and features, and additional specifications that complete the final concept. The two, by now familiar levels in which the concept has been initially described and later tested, also served as a structure to summarize this design management intervention.

6.1.1. Systems-Level

Purpose

The main purpose of this communication and information service is the provision of information at a centralized source, universally accessible to the public. It serves as a means to communicate policies, updates and other information around regulations, health topics, measures & restrictions, the epidemiological situation, updates on new infections, vaccination & testing statistics, and more. Asides from information availability, this intervention incorporates other federal services around the pandemic, such as contact tracing or vaccination and testing certificates, and provides a connection to outside services of cantonal governments or other countries.

Channels

On the systems-level, the proposed service forms a comprehensive communication and information package with a wide variety of channels included. At its core, it contains a central information platform, adapted to and available from a broad range of end-user devices. Apart from web-based access through the distinct internet domain *www.covid.swiss*, or simply *covid.swiss*, the service shall also be available through an application for smartphone users from different providers. *Covid.swiss* would also be represented on social media platforms, like Instagram and Facebook, granting access through various communication channels. The service also includes contact points in the form of an information hotline and chat-based options (e.g. WhatsApp Business, Signal, etc.), all of which preferably using a distinct and easy-to-remember phone number.

Naming & Branding

The name *covid.swiss* has been chosen for the following advantages: Firstly, it can serve as a direct domain name, which users can type into their browsers in this exact form, while it can also be used as a username on most social media platforms. On a second note, *covid.swiss* forms a distinct and easy-to-remember name with explanatory wording, giving the users an idea of what it could be about, as it makes use of two key aspects (*COVID-19* and *Switzerland*) for narrowing it down.

Figure 33
covid.swiss Logo; drafted by Author

From a branding perspective, a logo has been created, further building on that distinct foundation from its name. This, using the cross from the Swiss flag, with a square separated from the core on the side and forming a speech bubble, to imply conversation and help. This logo serves as a branding tool, an app icon, and for online usage on social media platforms.

Figure 34
covid.swiss Icon and
test-icon with federal signet (f.l.t.r.)
drafted by Author

Internal Structure

Inside the federal government, this concept is best incorporated into the Federal Office of Public Health, as it currently serves as the center for information in this pandemic. This service requires a team of experts in the fields of Communication, User Experience Design and the Information Sciences, while many of which are expected to be internally existing already. The FOPH also has internal marketing and campaigning divisions at hand, simplifying the process of incorporation.

6.1.2. Applied Level

Webpage and Application

In the applied form and shape, the info site comes across as a guided platform, with options provided for the user to chose one's own path to the information or other services. The final concept includes a starting page, which one encounters at the first use of the service. Apart from welcoming the person in the application or on the website, it suggests filling in

options that help customize the user's experience on the platform. For example, the age could provide a valuable filter for the user, as information for other age groups could automatically be excluded or shown with lower priority. While this feature might seem more application-appropriate, with the help of website data storing (cookies), it could be technologically feasible on the web-based option too. Apart from the provided data from the user, the platform could, with the user's permission, also be enabled to learn from the information gathered and the answers in the narrowing filter.

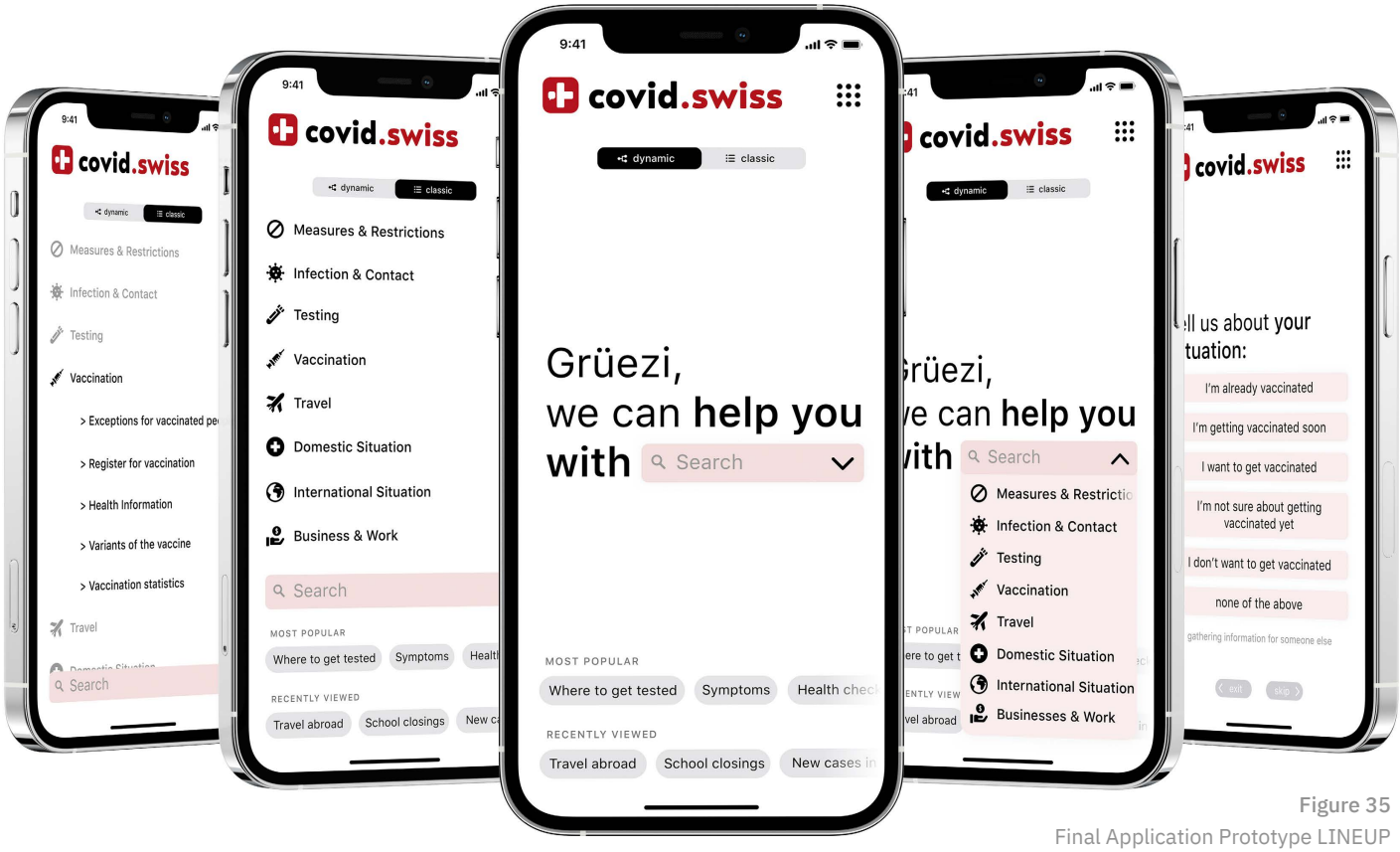


Figure 35
Final Application Prototype LINEUP
(Drafted by Author, adapted from Mockups by ls.graphics, n.d.)

Further into the user journey, the user encounters the core tool of the website, the two-step filter, which helps narrow the topics down to the user's needs. In a first step, one of the main topics can be chosen (e.g. Testing, Vaccination, Travel, etc.), with a subsequent follow-up question asking about one's situation regarding the chosen topic. In the case of a user's choice of *Testing*, for example, the follow-up options could be around whether one is experiencing symptoms, wishes information about travel-related testing, or wants to be informed about testing in companies and institutions. All of those would result in a different overview and order of subtopics on testing. The second step of the 'dynamic' filter includes an option to gather information for someone else without intervening with the application's learning mechanism.

If one chooses the more classical scheme to retrieve information, a slider at the top of the page or screen provides the option. Thereby, the user can browse through a simple list, created likewise to conventional sitemaps, which leads to a similar overview of subtopics, however, with a possibly less user optimized thread and order.

Lastly, the top right corner of the page or application opens up additional tools and features asides from information retrieval. The main interface gives an overview of contact options, symptoms check, press conferences and news updates, and grants access to integrated options like contact tracing. It also shows a summary of a COVID Certificate with a code to scan directly, enabling easy accessibility. (see all interfaces in Appendix I)

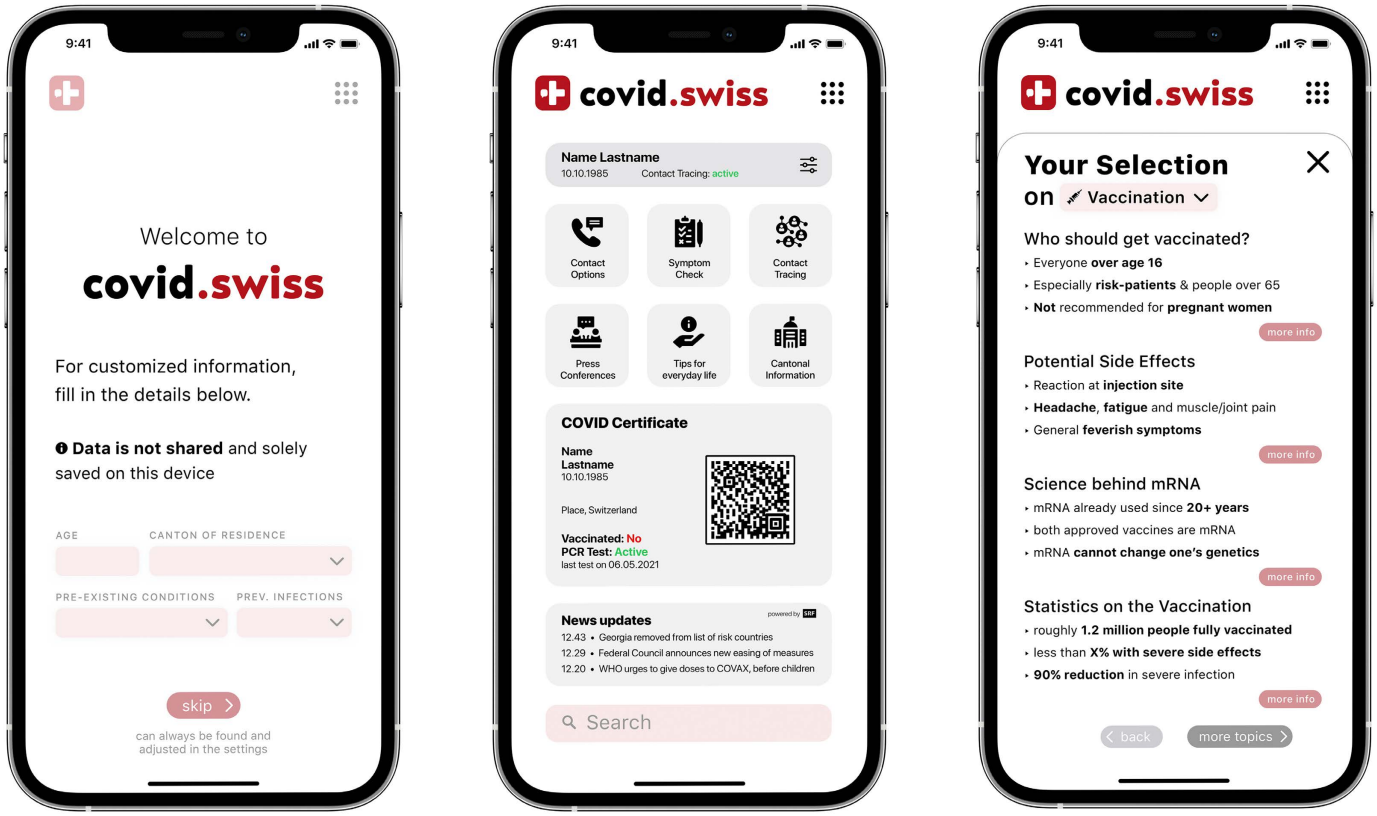


Figure 36
Final Application Prototype; 3 interfaces
Note; f.l.t.r. welcome page, additional tools & features, filtered selection
(Drafted by Author; adapted from Mockups by ls.graphics, n.d.)

Social Media

Social media accounts shall be available on several platforms to cover the largest possible audience. Instagram, Facebook, TikTok, Twitter, and so forth can be used to communicate information that is updated over time, such as government decisions on measures and restrictions, numbers and figures on new cases, vaccination and testing, and the situation around borders and traveling. A *covid.swiss* presence on social media channels in this form allows the FOPH to provide tailored content of recommendations and stories around the pandemic in Switzerland. Furthermore, the concept also involves social media marketing as a powerful tool to reach younger generations with the *covid.swiss* service.

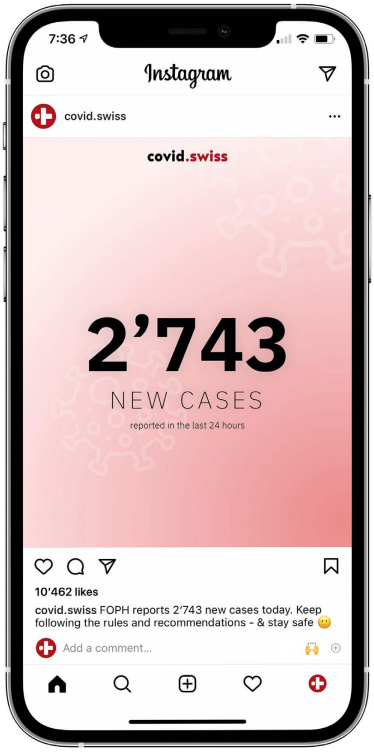


Figure 37
covid.swiss Instagram Appearance
(Drafted by Author; Inspired by @potus;
adapted from Mockups by ls.graphics, n.d.)

6.1.3. Performance

A look at the board of criteria shows that the concept has evolved into an intervention, covering all the requirements. The following list of criteria shows the performance evaluation of this concept proposal:

This concept...

E-1 Empathizes with the user and forms the service around the user's needs ✔
E-2 Has the potential to foster trust in government and show full transparency ✔
E-3 Reaches all demographic groups and is universally understandable ✔

C-1 Provides a centralized source of information ✔
C-2 States why certain measures were put in place and explains the logic behind ✔
C-3 Clearly communicates with full consistency and alignment across all channels ✔

M-1 Makes use of contemporary communication methods ✔
M-2 Has up-to-date information always and easily accessible ✔
M-3 Incorporates communication expertise with equal importance as scientific expertise ✔

U-1 Focuses on short and efficient user journeys, with clear guidance ✔

U-2 Delivers and provides information in a concise manner ✔

U-3 Uses visually appealing content to support communication efforts ✔

Regarding the personas and the IDEO framework, looking back at the evaluation of the initial concept idea shows that all the points of concern have been addressed and integrated into the developed final, and therefore been resolved. These concerns included the integration of linkages to external information sources, the internal incorporation of UX expertise, and campaign costs, which will be addressed in the implementation plan below.

6.2. Implementation

For questions regarding the implementation and related risks and obstacles to consider, a Communication Lead at the Federal Office of Public Health offered to meet for a video call. This resulted in a 50-minute long conversation about the role of the FOPH in this pandemic, its internal COVID-19 Task Force, criticism around the handling of the pandemic, and especially matters to keep in mind and the mentioned risks and obstacles (see Appendix J). The insights from this conversation could be incorporated into the implementation plan and risk analysis, adding to previously established plans and gathered aspects through the process and development.

6.2.1. Strategy

When implementing the proposed concept, the first step is internal, within the FOPH, where it would initially be proposed to the higher management. If the concept would be deemed reasonable, the concept idea could be presented to different internal committees, which, according to the interviewed Communication Lead of the FOPH, consists of the following three: A steering committee is in charge of strategic questions, the technical committee for technological points, and, finally, a committee for the important section of communications, consisting of representatives from different administrative bodies and external experts. After passing thorough evaluation of those committees, the concept might face other administrative hurdles within the federal government, as it requires examination on different levels and approval from various administrative bodies.

Once the concept makes it through the governmental processes, the concept would be taken into further development within the internal structures and, possibly, outsourced development in some areas. At that point, a small team within the COVID-19 Task Force of the FOPH could be implemented, which then would closely work with the already existing communications teams: The main team is currently responsible for the webpage and news affairs, while the team for communications and media is, among other, in charge of social media, according to the interviewee. These internally set up structures would set the stage for the implementation of the communication service. After its final development and the establishment of all communication channels, the last step of the implementation strategy would lie in a large-scale marketing campaign to get the platform to take hold. (see Appendix J)

6.2.2. Campaign

Campaigning is a well-established form of marketing within the FOPH and an essential factor of crisis communication altogether. The *covid.swiss* campaign, in this case, would be broadly conceived and mainly focus on poster marketing, as it is well known from the FOPH and has shown its effectiveness. The poster campaign should follow suit to the simplicity and distinctness around which the concept has been developed in the first place. This would mean sending out a clear message with the name *covid.swiss* boldly portrayed and repeated in different settings. With this form of marketing, the 'brand' or name recognition would be given extra weight, which is the main strength of the concept's naming strategy.

For the implementation of *covid.swiss*, a set of posters has been drafted, representing different aspects of this pandemic and using them as part of the message. Those include urging people to wear a mask, wash their hands, and getting vaccinated. Asides from this, the main message is for them to stay informed, using the service of *covid.swiss*. All campaign posters can be found in the Appendix K.

Figure 38
covid.swiss Campaign Poster 1
(Drafted by Author; adapted from Mockups by Veselovski, n.d.)

Figure 39
covid.swiss Campaign Posters 2, 3 & 4 (in compliance with FOPH, n.d.)

The poster campaign shall be joined by extensive social media marketing, using the same content and messaging. Those two primary forms of marketing would be completed with the general presence and communication of the service name through other federal communication channels, such as press conferences and news statements.

6.3. Evaluation

6.3.1. Risks & Considerations

Societal

On a societal level, the main point of consideration is accessibility. This is a topic that the government puts much emphasis on and always has to bear in mind, as the interview showed (see Appendix J). Ensuring that nobody is excluded or disadvantaged with the intervention is crucial for its success in the implementation. Especially in times of crisis, a government has to address its communication services towards every citizen in the country, which makes a highly diverse target group. To have communication and information services in place, which are universally understandable, is therefore a necessity. According to the interviewee from the FOPH, this risk is approached with wide-ranging language availability and measures like subtitles in videos.

Another point to consider is the topic of data privacy and protection. Users might be hesitant to be providing personal data, which could lead to an obstacle in the implementation. While existing services like contact tracing have their own data policies in place, concept-internal information gathering requires additional consideration of data protection. This is best tackled by the previously suggested local storing of data and limiting the amount of data to share to a minimum. In combination with good communication of such facts and measures, could lead to overcoming that risk to some extent.

Organizational

Within the organizational sphere, the two main risks are interlinked and in some way contradict each other. One of which being *time*, which is a valuable good in times of crisis. Crises ask for governments to act rapidly, and there is not the time for the usual processes, as mentioned by the interviewee (see Appendix J). This contradicts the governmental structures and regulations that are in place, requiring new concepts to undergo lengthy evaluation processes. Providing such a service to the public could be of great benefit, and time can be a decisive factor in the success and the impact of the concept.

6.3.2. Value & Impact

Social

The main benefit of this design management intervention has been made visible throughout the whole process of this work and is well reflected in the intervention criteria. Providing the public with clear and emphatic communication can go a long way among citizens, as it could lead to more understanding and consensus. Effective communication from the public authorities can also be an impactful tool against the threat of fake news, especially during crises.

Another potential of this concept is that it can help build trust in the government. As seen in the examples in the research step on effective communication, the applied principles can support trust relationships between the public and authorities, a tie that governments are dependent on in times of crisis (Canel & Luoma-aho, 2019).

Organizational

From an organizational point of view, the developed intervention has the potential to reduce the large number of inquiries that the FOPH is handling every day, as it has been pointed out in the interview. Greater understanding and less unclarity among citizens would directly affect the number of inquiries by phone or mail, as many of the observed and interviewed users in the *understand* phase pointed out, to be going around to reach direct contact due to uncertainty. This reduction in other costly services also provides the economic justification of the *covid.swiss* intervention. Having a centralized service solution in place helps pool forces and combine resources, which adds to the benefit of clarification and consensus.

Lastly, the underlying concept of *covid.swiss* and its human-centered approach and structures could be adaptable to other matters of government communication. Not only in the context of other crises but also as a general form of public sector communication.

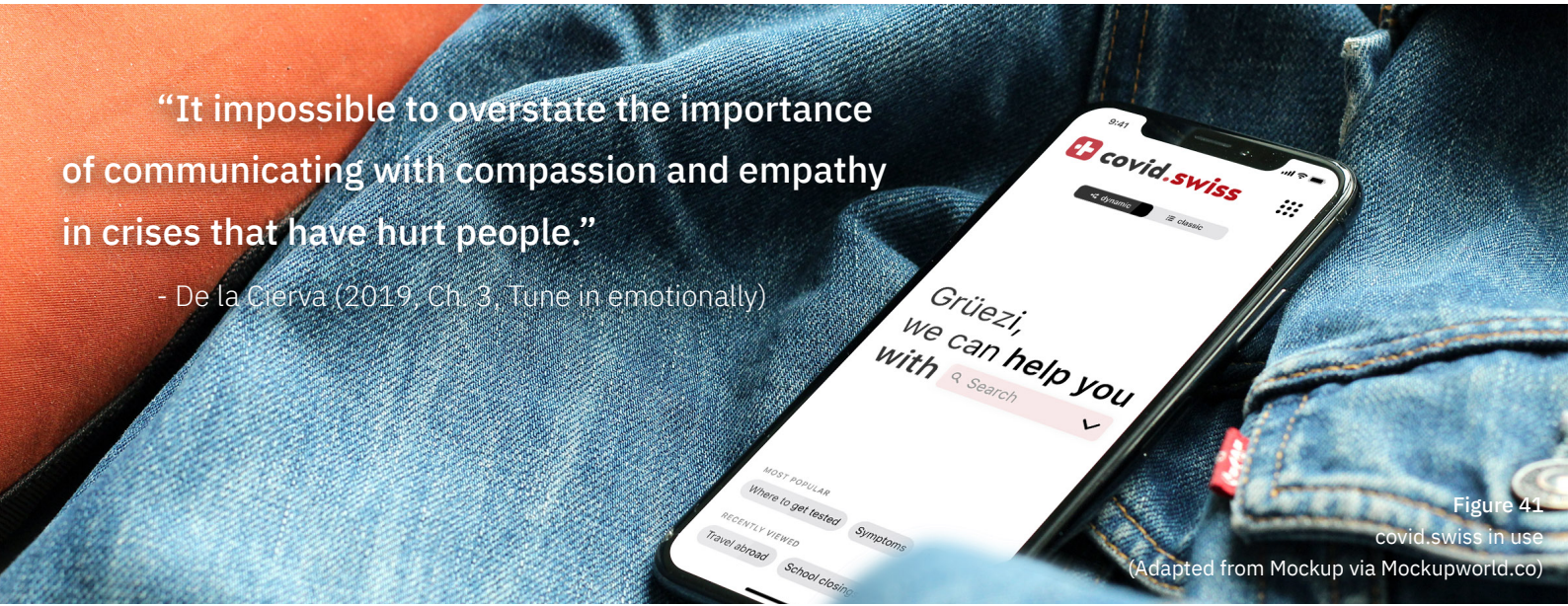
Figure 40
covid.swiss Campaign Poster 5
(Drafted by Author; adapted from Mockups by Veselovski, n.d.)

7. Conclusion

Ever since the COVID-19 pandemic took hold, all eyes are focused on governments, who are facing stern voices and opinions from the public and are challenged in their mode of practice. Communication is the connection between authorities and the public, and can be a decisive factor in the handling of a crisis. As the research in this paper has shown, the current situation demands improvement, and design thinking can be of great value in such circumstances.

However, as simple as it might sound to a design management student to reinvent governmental communication structures with the use of an agile process, the context in which governments operate can be greatly underestimated. Topics like *inclusiveness* and the frequently mentioned *universal accessibility*, create challenges which do not compare to many other areas of intervening. Designing in a governmental context means operating in an environment where it is not about selling a product or satisfying customer's needs, but it is about providing public services and information around topics that affect people's lives in the most fundamental way. A close examination of the risks involved, the consideration of all citizens, and implications of such communication method is a necessity, in order to achieve universality and build on inclusiveness.

This thesis revealed insights into those people's views and their way of approaching communication during a crisis of this nature, and serves with a possible way of approaching crisis communication and taking those views into consideration when creating such a public service. The incorporation of rather innovative communication methods could go a long way in preventing discord among citizens in difficult times like these.



"It impossible to overstate the importance of communicating with compassion and empathy in crises that have hurt people."

- De la Cierva (2019, Ch. 3, Tune in emotionally)

Figure 41
covid.swiss in use
(Adapted from Mockup via Mockupworld.co)

VIII. Appendix

Appendix A - Photos: Demonstration Liestal, Switzerland

Appendix B Part 1 - Interviews 1 + 2 (German)

Talking about...	Specific Question	Interviewee 1 - Retiree (f), 71y	Interviewee 2 - Health Worker (f), 52y
Aktiv vs. Passiv informieren	Informierst du dich aktiv (nachschauen, suchen, usw.) oder eher passiv (tv, online taucht es auf, etc.) über Massnahmen?	Meistens passiv über andere Leute	"Passiv, da hört man ja genug davon"
Wie informieren	Wie informierst du dich über neue Massnahmen, Einschränkungen oder mögliche Lockerungen?	Man hört davon von anderen Leuten, manchmal im Radio oder durch die Tagesschau	"Bei der Arbeit hört man natürlich sehr viel davon und es wird über das aktuellste gesprochen"; "In spezifischen Fällen vielleicht via Internet"
Testfrage über Informationsfindung	Weisst du, welche Test gratis sind und für welche man selbst aufkommen muss?	"Nein das weiss ich nicht"	"Ja die sind gratis, ausser man will damit ins Ausland. Aber mit Symptomen übernimmt das die Krankenkasse und der Staat"
Vorgehen bei Informationsfindung	Wenn du jetzt nachschauen müsstest, welche Tests genau gratis sind oder wie viele Menschen sich drinnen treffen dürfen, wie würdest du vorgehen?	"Ich würde wahrscheinlich jemanden fragen oder beim Bund anrufen"	"Dann ginge ich ins Internet und suche auf der Webseite vom Bund, oder ich frage jemanden auf der Arbeit"
Sprachverfügbarkeit	Wie empfindest du die Sprachverfügbarkeit von Informationen?	-	-
Einstufung und Beurteilung der Kommunikation	Wie würdest du die Kommunikation der Regierung einstufen oder beurteilen?	"Da wird man nie richtig schlau, mal sagen sie das eine und dann kommt wieder was anderes. Bin ich nicht sehr zufrieden"	"Oftmals ist es schon etwas verwirrend oder man wird nicht ganz schlau daraus, aber da ich viele Informationen von der Arbeit mitbekomme interessiert mich das ganze gar nicht mehr so ganz."
Verständnis von Gründen hinter Massnahmen	Verstehst du die Gründe der Massnahmen?	"Nein das macht doch alles keinen Sinn, ich kann schon seit Wochen nicht ein mal in ein Cafe sitzen, da steckt man sich doch nicht an"	"Manchmal schon aber oft ist es schon etwas komisch, mit was für Regeln die aufkommen. Das eine kann man ohne Probleme weiter machen aber in manchen Situationen sind sie sehr pingelig"
Angemessenheit der Kommunikation für die Altersgruppe	Empfindest du die Kommanikation angemessen für Altersgruppe?	Ja	"Das kann ich nicht richtig beurteilen"; "Vielleicht schon, ja"
Social Media Vertretung	Bis du dir bewusst, dass das BAG auf Instagram und TikTok vertreten ist?	-	-
Kontrollfrage 1 über sich informieren	Wie informierst du dich über Initiativen und Abstimmungen?	Immer übers Abstimmungsbüchlein	"Über das Abstimmungsbüchlein oder in der Zeitung liest man auch viel darüber"
Kontrollfrage 2 über sich informieren	Wie informierst du dich zum Beispiel über Reiseinformationen wie das Wetter oder die lokale Sicherheit an der Destination?	"Ich reise doch nicht mehr"	"Vermutlich würde ich das im Internet suchen"
Special for Interviewee 4: **Stimmung im Volk**	Wie schätzt du die aktuelle Stimmung im Schweizer Volk ein? / Was denkst du, trägt zur aktuellen Stimmung bei oder führte allenfalls dazu?	-	-
Special for Interviewee 4: **Entwicklung der Beziehung zur Regierung**	Wie hat sich deine Beziehung zur Schweizer Regierung seit einem Jahr entwickelt? (du bewegst dich ja in der Politik)	-	-

Appendix B Part 2 - Interviews 3 + 4 (German)

Talking about...	Specific Question	Interviewee 3 - Student (f), 25y	Interviewee 4 - Co-President of Anti-Restriction Association (m), 28y
Aktiv vs. Passiv informieren	Informierst du dich aktiv (nachschauen, suchen, usw.) oder eher passiv (tv, online taucht es auf, etc.) über Massnahmen?	Mal aktiv mal passiv	Beides
Wie informieren	Wie informierst du dich über neue Massnahmen, Einschränkungen oder mögliche Lockerungen?	"Mittlerweile schaue ich mich da gar nicht mehr so rein, man hört viel von Freunden"; "Einzig bezüglich reisen informiere ich mich jeweils via Hotlines, da rufe ich einfach mal an"	Direkt via Livestream von Medienkonferenz; Oder via Kontakte im Parlament
Testfrage über Informationsfindung	Weisst du, welche Test gratis sind und für welche man selbst aufkommen muss?	"Ja man muss bezahlen für die PCR Tests die man fürs Reisen manchmal braucht. Das weiss ich weil ich gerade eben einen gemacht habe"	-
Vorgehen bei Informationsfindung	Wenn du jetzt nachschauen müsstest, welche Tests genau gratis sind oder wie viele Menschen sich drinnen treffen dürfen, wie würdest du vorgehen?	"Um generell eine Übersicht zu bekommen wahrscheinlich via Google aber ich habe damals beim Bund angerufen wegen dem Test fürs reisen"	-
Sprachverfügbarkeit	Wie empfindest du die Sprachverfügbarkeit von Informationen?	-	-
Einstufung und Beurteilung der Kommunikation	Wie würdest du die Kommunikation der Regierung einstufen oder beurteilen?	"Geht so"	Oben-herab, Bundesrat dirigiert; "Ähnlichkeiten zur KP China, welche vermutlich als Inspiration des Bundesrats dient"; "Bundesrat behauptet für das Volk da zu sein, was aber sehr fern vor Realität ist"; "Sehr distanziert, es wird Distanz geschaffen"; "Hochglanz Instagram Accounts & Videos macht es nicht besser -> auf den Inhalt kommt es an"; Texas als Beispiel, geöffnet und Fallzahlen sinken angeblich; "Man kann die Schweizer Politik zurzeit fast mit der DDR vergleichen"; "Regierung ist stur auf ihrem weg und zeigt absolut keine Einsicht"
Verständnis von Gründen hinter Massnahmen	Verstehst du die Gründe der Massnahmen?	"Mehrheitlich schon aber einige Massnahmen sind für mich nicht ganz logisch"	(General mood visible in other answers)
Angemessenheit der Kommunikation für die Altersgruppe	Empfindest du die Kommanikation angemessen für Altersgruppe?	"Es geht, eigentlich sollte das schon ein bisschen mehr Jungen-tauglich sein"	-
Social Media Vertretung	Bis du dir bewusst, dass das BAG auf Instagram und TikTok vertreten ist?	"Nein das wusste ich nicht"	(Answer partially visible below)
Kontrollfrage 1 über sich informieren	Wie informierst du dich über Initiativen und Abstimmungen?	"Ich stimme selten ab"	-
Kontrollfrage 2 über sich informieren	Wie informierst du dich zum Beispiel über Reiseinformationen wie das Wetter oder die lokale Sicherheit an der Destination?	"Über Wetter apps und Reiseblogs die auch als Apps auf meinem Handy sind"	-
Special for Interviewee 4: **Stimmung im Volk**	Wie schätzt du die aktuelle Stimmung im Schweizer Volk ein? / Was denkst du, trägt zur aktuellen Stimmung bei oder führte allenfalls dazu?	-	"Unverständnis, Unzufriedenheit, Enttäuschung"; Zukunft nicht planbar; "Chaos in der Kommunikation - maximale Verwirrung & Distanziertheit"; "Inkompetenz und Überforderung im Bundesrat"; "Das Volk ist verwirrt, die Kommunikation ändert sich immer und wirkt willkürlich"; "Psychische Probleme speziell bei Jugendlichen (Existenzängste), Verlust von Jobs usw."; "Jugendkriminalität und -Gewalt steigt drastisch an"; "Langfristige Folgen (vieles kommt noch) - Domino Effekt"; "Pressekonferenz wirkt wie Information über Weltuntergang"; "Wir können uns selber schützen, dazu braucht man keine Gesetzte und Regeln"
Special for Interviewee 4: **Entwicklung der Beziehung zur Regierung**	Wie hat sich deine Beziehung zur Schweizer Regierung seit einem Jahr entwickelt? (du bewegst dich ja in der Politik)	-	"Etwas schockiert und enttäuscht in die Regierung - Vertrauen in die Regierung auf Null"; Anfangs grundsätzlich okay; Hat sich aber schon früh mit Petition für sofortige Auflösung der Massnahmen eingesetzt

Appendix C Part 1 - Focus Group Interviews 1 + 2 (German)

Talking about...	Specific Question	Participant 1 - Bartender (m), 20y	Participant 2 - Entrepreneur (m), 62y
Aktiv vs. Passiv informieren	Informierst du dich aktiv (nachschauen, suchen, usw.) oder eher passiv (tv, online taucht es auf, etc.) über Massnahmen?	Eher passiv aber auch aktiv wenn spezifisch gesucht	Eher passiv, seltener aktiv
Wie informieren	Wie informierst du dich über neue Massnahmen, Einschränkungen oder mögliche Lockerungen?	Meist über SRF News oder ähnlich oder viel auch via Freunde und andere Personen ("man hört davon"); BAG Webseite wird als sehr kompliziert aufgenommen, riesige Artikel die unübersichtlich gestaltet sind (zu viele Infos)	News Portale (zB SRF) auf dem Handy mehrheitlich per App (evtl. auch Covid App)
Testfrage über Informationsfindung	Weisst du, welche Test gratis sind und für welche man selbst aufkommen muss?	So-so, aufgrund kürzlicher Infektion schon	Nein, nicht wirklich. So-so evtl. ein wenig wegen kürzlicher Quarantäne
Vorgehen bei Informationsfindung	Wenn du jetzt nachschauen müsstest, welche Tests genau gratis sind oder wie viele Menschen sich drinnen treffen dürfen, wie würdest du vorgehen?	"Google, ganz einfach"	Im Covid App schauen oder googeln, bei Misserfolg via Kanton auf Infoline anrufen
Sprachverfügbarkeit	Wie empfindest du die Sprachverfügbarkeit von Informationen?	-	-
Einstufung und Beurteilung der Kommunikation	Wie würdest du die Kommunikation der Regierung einstufen oder beurteilen?	Die Kommunikation ist relativ unklar, sehr viele infos und schwierig einzuschätzen was stimmt und was nicht; Generelle Einstufung nicht so gut, zu viel Unklarheiten, Regeln mal hier und mal da; Der eine sagt das, der ander was anderes (von der Regierung)	"Es wird klar zu viel kommuniziert, BR müsste einzige Quelle von Informationen sein (am besten zentral eine Person oder zwei)"; Weniger Experten an der Front für die Kommunikation; Klare Kommunikation nötig; "Verwirrung und Wiedersprüche werden geschaffen"; Kanton St. Gallen macht es gut, zwei Personen übermitteln Informationen
Verständnis von Gründen hinter Massnahmen	Verstehst du die Gründe der Massnahmen?	Meistens sind die Verständlich	"Soweit ja, mehrheitlich"
Angemessenheit der Kommunikation für die Altersgruppe	Empfindest du die Kommanikation angemessen für Altersgruppe?	"Auch so-so, nicht gerade top aber habe mich damit abgefunden - ich glaube viele von meiner Generation sind aber nicht ganz happy damit"	"Für meine Altersgruppe, ja."
Social Media Vertretung	Bis du dir bewusst, dass das BAG auf Instagram und TikTok vertreten ist?	Nein, war nicht bekannt (nutzt aber auch kein TikTok)	-
Kontrollfrage 1 über sich informieren	Wie informierst du dich über Initiativen und Abstimmungen?	Abstimmbüchlein und manchmal über zugesendete Videos oder Informationen, zudem via Familie	Ebenfalls via News Plattformen; Auch via Papier oder VoteInfo App; Dann auch selten über das per Post zugesendete Abstimmungsbüchlein
Kontrollfrage 2 über sich informieren	Wie informierst du dich zum Beispiel über Reiseinformationen wie das Wetter oder die lokale Sicherheit an der Destination?	"Google, oder auf Platformen die mir bekannt und vertraut sind"	Googeln am Handy (oder evtl. via eine App vom Bund 'Travel Admin', welche gut sei)
Vorgehen und Beurteilung von Informationssuche bezüglich Quarantäne	Wie bist du vorgegangen bei der Suche nach Informationen nach der Infektion/dem engen Kontakt und wie würdest du sie beurteilen?	"Zusammen mit Familie online gegoogelt und gesucht, verschiedene Stellen angerufen, ein sehr schwieriger und komplizierter Prozess mit vielen Unklarheiten"	Meldepflicht generierte Unsicherheit, verschiedenes gehört von verschiedenen Ecken; Sehr schwieriger Prozess um auf Informationssuche zu sein; BAG angerufen, dort bereits im Vorspann weitergeleitet auf SECO, dort angerufen und kaum durchgekommen; "Nach Bern telefonieren ist nichts schönes"; Onlinesuche und Informationssammlung sehr schwierig; Informationen durch kantonales Contact Tracing was sehr gut (Info Mails & SMS, Sheets zum herunterladen); Meldeportal funktionierte auch gut und einfach (per SMS erinnert); Verschiedene Infos von überall, verwirrend; Schwierig zu erinnern was wo angegeben worden war (von ihm selbst) sehr schwierig die Übersicht zu behalten (also auch im Nachhinein)

Appendix C Part 2 - Focus Group Interviews 3 + 4 (English)

Talking about...	Specific Question	Participant 3 - Physiotherapist (m), 26y	Participant 4 - Receptionist (m), 28y
Aktiv vs. Passiv informieren	Informierst du dich aktiv (nachschauen, suchen, usw.) oder eher passiv (tv, online taucht es auf, etc.) über Massnahmen?	Mostly passive early on, after about half a year more and more actively	Both a bit
Wie informieren	Wie informierst du dich über neue Massnahmen, Einschränkungen oder mögliche Lockerungen?	Early via the Press Livestreams, afterwards via News portal 20min.ch, or hear it from other people at work or so -> everyone talks about it	In the beginning through WHO but now directly to the BAG Website
Testfrage über Informationsfindung	Weisst du, welche Test gratis sind und für welche man selbst aufkommen muss?	No	No
Vorgehen bei Informationsfindung	Wenn du jetzt nachschauen müsstest, welche Tests genau gratis sind oder wie viele Menschen sich drinnen treffen dürfen, wie würdest du vorgehen?	"I go on 20min.ch to the live ticker and the page with new cases today, scroll to the bottom where I know that I can find a link that leads me to some federal website with information on it"	"I would google the BAG website and find the information there I guess"
Sprachverfügbarkeit	Wie empfindest du die Sprachverfügbarkeit von Informationen?	"I usually inform myself in German because the language availability in English is fairly poor. The live streams however are too fast for me to understand all of it in German"	"Its okay, but a bit of a mess for me as I stitch together information from english in Switzerland and then also from Italy"
Einstufung und Beurteilung der Kommunikation	Wie würdest du die Kommunikation der Regierung einstufen oder beurteilen?	"It seems like they (the government) don't put a lot of effort into getting the message across, like they don't really care or like it would be non-important information"	"Its not too good, seems like a bit of a mess and there is a lot of unclarity"
Verständnis von Gründen hinter Massnahmen	Verstehst du die Gründe der Massnahmen?	"Makes total sense to me, I'm aware of health and some of the science behind it"	"For many things, no. Also I observe a lot of different measures in Switzerland compared to other countries, doesn't make a lot of sense"
Angemessenheit der Kommunikation für die Altersgruppe	Empfindest du die Kommanikation angemessen für Altersgruppe?	"Not really appropriate, no. Seems very old-fashioned; they should know that nowadays people don't want to spend time reading through lots of information; Haven't found a short & efficient way to be informed; I always have to put a lot of effort into it to get the information, which is not really the way people live in the 21st century"	"Nothing special, I think it could be done better"
Social Media Vertretung	Bis du dir bewusst, dass das BAG auf Instagram und TikTok vertreten ist?	"No, I didn't know that"	"I saw it on Instagram"
Kontrollfrage 1 über sich informieren	Wie informierst du dich über Initiativen und Abstimmungen?	"They have a cool comparison website in the Netherlands where I can get informed quickly"	"I don't vote"
Kontrollfrage 2 über sich informieren	Wie informierst du dich zum Beispiel über Reiseinformationen wie das Wetter oder die lokale Sicherheit an der Destination?	"Travel blogs or websites where people share stuff about Destinations"	"Normally I go to google or I have my weather app (international)"
Vorgehen und Beurteilung von Informationssuche bezüglich Quarantäne	Wie bist du vorgegangen bei der Suche nach Informationen nach der Infektion/dem engen Kontakt und wie würdest du sie beurteilen?	"I knew that Quarantine was needed for me but not how long and how it would work with my workplace"; "It was very very unclear, and still after 5 days in quarantine there is a lot of uncertainty"; "Called the hotline and got there some infos"; "I would rate them (the government/BAG) with a 3 out of 10, it would/ could be so easy but its made hard"; "Would be great to have centralized information which is easy to understand, so there is no room left for unclarity"	"I talked to my flatmates and we tried to figure it out and then because of my work I also talked to my boss but didn't get far. Some information I tried to get from the website but then there was no way around calling the Infoline."

Appendix D - Screenshots from Self-Observation

8:39 4G

swisscovid.foph-coronavirus.ch

Recommendation:
Please continue to follow the quarantine instructions.

From the fifth day after the contact date displayed in the app, you can have a one-time nose and throat swab for the new coronavirus. Contact the test centre in your canton for the test offer (see below).

Should you experience symptoms, call the telephone number provided to you by the cantonal authority or ring a doctor or health centre and say that you are in quarantine and that you are exhibiting symptoms. If you are deemed to be at especially high risk, already inform the doctor accordingly upon making the call.

The canton of Lucerne offers the following services:

Call your doctor if you wish to get tested for Covid-19. If your doctor is not available, please call the cantonal emergency number: 0900 11 14 14 (charges apply, CHF 3.23 per minute).

For more information, visit the canton's official website.

Website of the FOPH

Repeat check

12:51

AA bag.admin.ch

Isolation and quarantine DE FR IT EN

FOPH

› Subnavigation

Contact information

Coronavirus: Isolation and quarantine

People who have tested positive for the coronavirus must go into isolation. People who have had close contact with a person who has tested positive, or who enter Switzerland from a country with an increased risk of infection, must go into quarantine.

- What are isolation and quarantine?
- I have symptoms. What should I do?
- I have received a positive test result. What do I do next?
- I have received a negative test result. What do I do next?
- I have had contact with a person who has tested positive. What should I do?
- My child has symptoms. What should we do?
- My child has had contact with a person who has tested positive. What should we do?
- What financial compensation do I receive in the event of isolation or quarantine?
- Frequently Asked Questions (FAQs)

5:58

bag.admin.ch

If you have recovered from COVID-19 within the last six months you do not have to quarantine or inform the authorities. However, you need a medical certificate proving that you infection and have recovered from it (Physician statement or laboratory proof)

2 of 4

By putting yourself in quarantine, you prevent transmitting the virus to people in your household and to the general public as you could become infectious during this time. By going into quarantine, you are helping to protect people belonging to a high-risk group, and to slow the spread of the coronavirus.

Coronavirus

The following instructions explain which measures you should take while you are in quarantine in order to avoid transmitting the virus. Comprehensive information about the coronavirus is published at: www.bag.admin.ch/novel-coronavirus.

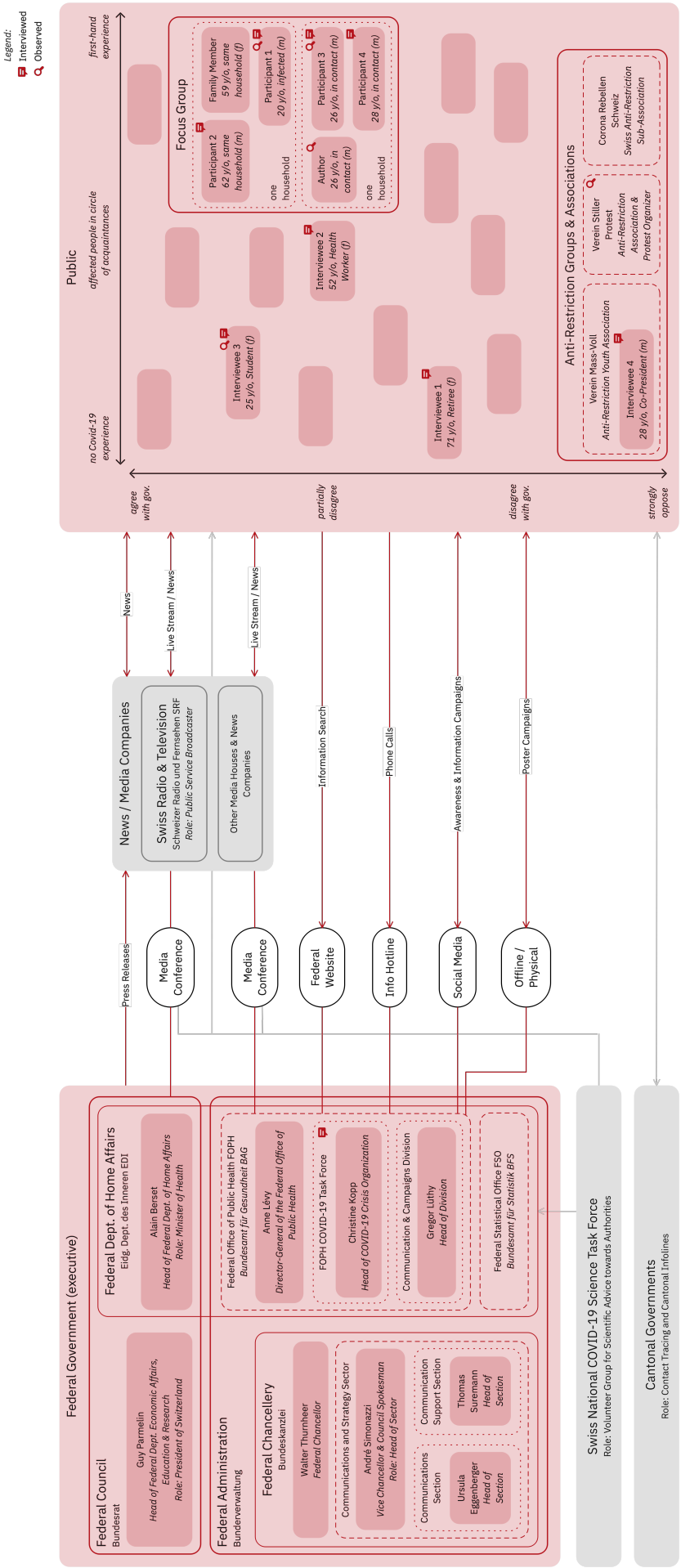
Quarantine period

- **Contact quarantine:** Quarantine lasts for 10 days from the time you last had contact with the person who was tested positive.

[1] A person is infectious two days before the onset of symptoms and up to ten days after the onset of symptoms.
[2] www.bag.admin.ch/protect-yourself-and-others

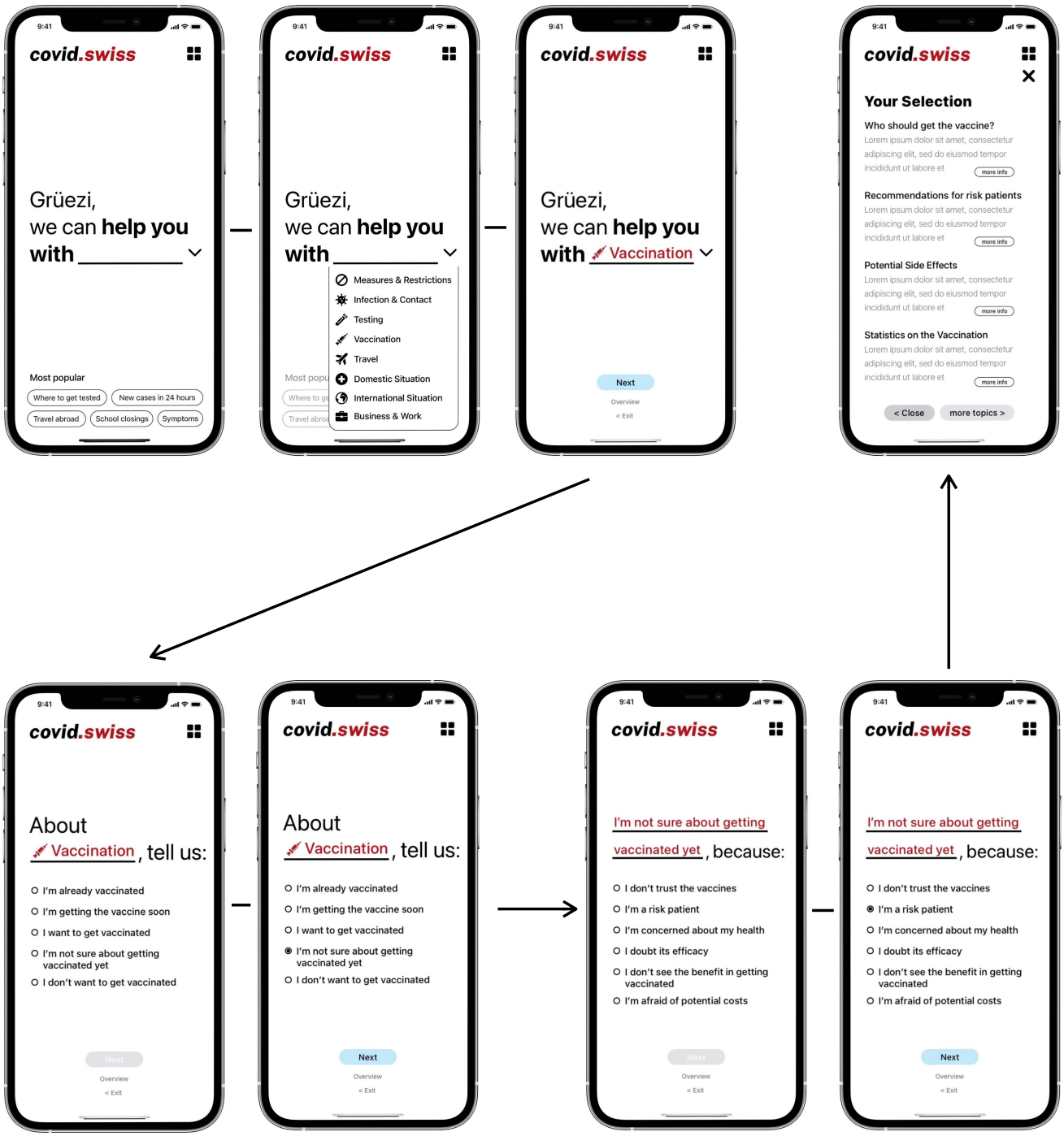
- **Travel quarantine**: Quarantine lasts for 10 days and begins at the time of your arrival in Switzerland. If you have travelled to Switzerland via a country or area without an increased risk of infection, the responsible cantonal authority can include the duration of your stay in this country or area as part of your quarantine period.
- You can reduce this period by having a test on day 7 of quarantine at the earliest (PCR test or rapid antigen test for SARS-CoV-2). If the result of the test is negative you may be released from your obligation to quarantine. However, until the original quarantine period has ended (in other words until day 10) you must wear a mask outside your home or accomodation and maintain a distance of 1.5 metre from other people. The negative result must be forwarded to the responsible cantonal authorities. Please follow the specific instructions by your canton. If the test is positive, the instructions on isolation apply (see www.bag.admin.ch/isolation-and-quarantine).
- In certain cases, a test may be arranged bdoctor's orders before day 7. Such a test does not allow you to shorten the quarantine.

Appendix E - Stakeholder Map

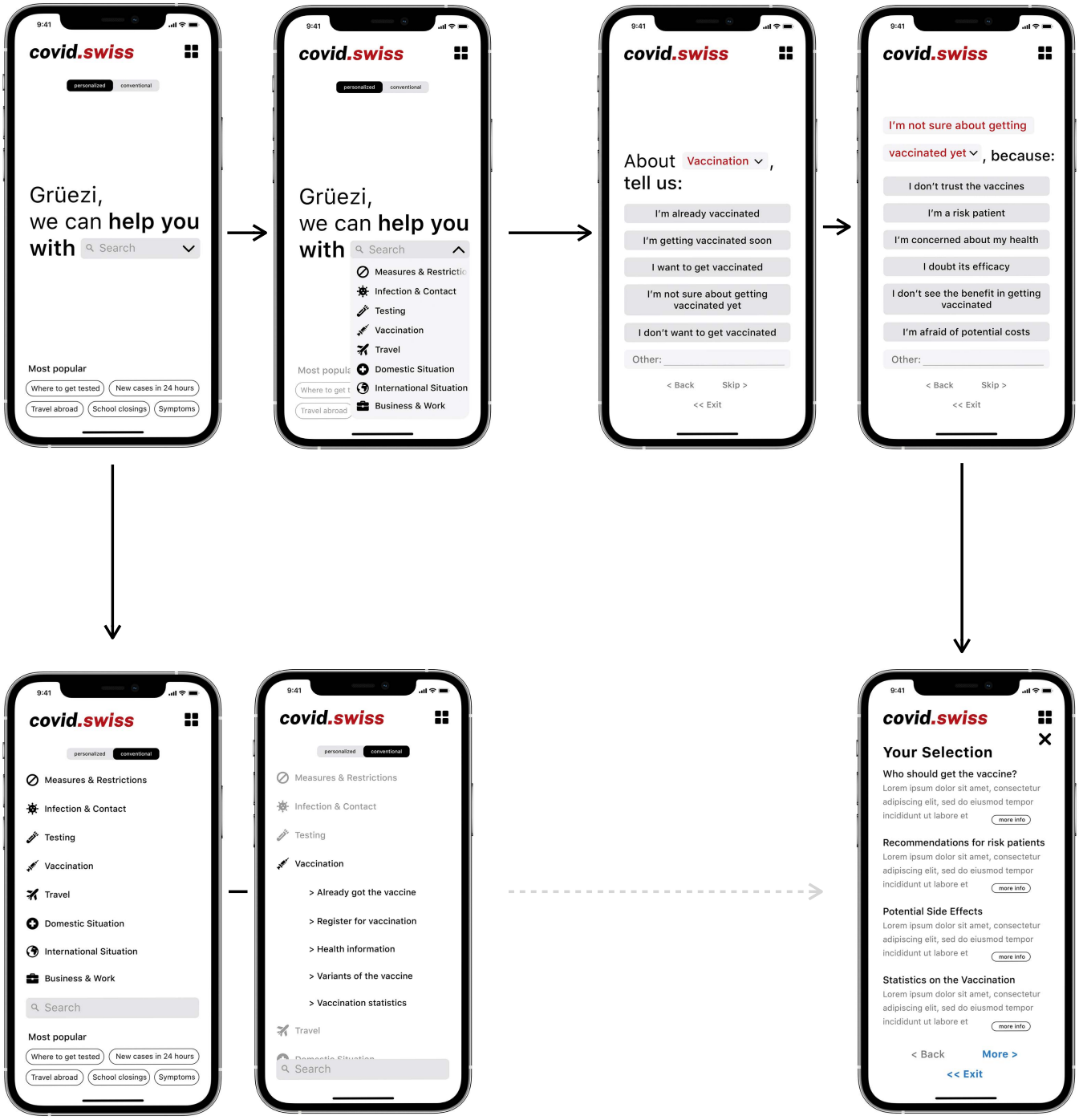


Appendix F - 1st Prototype

Appendix G - 2nd Prototype



Appendix H - 3rd Prototype



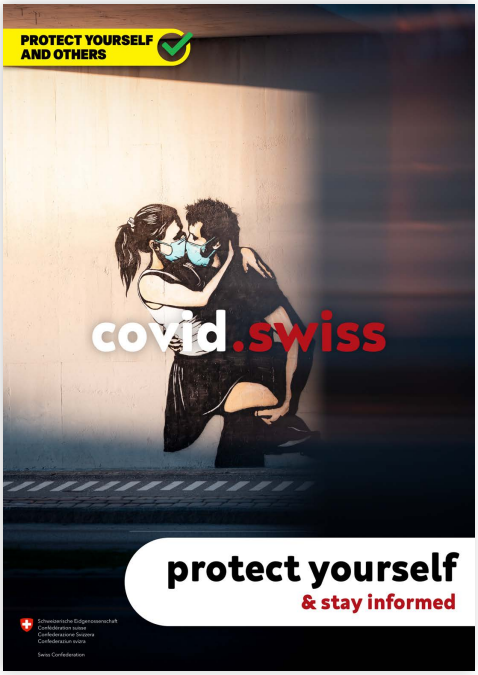
Appendix I - Final Application Prototype

Appendix J - Interview FOPH (German)

Talking about...	Communication Lead at FOPH
Organisation von BAG Covid Task Force	Kommunikation's Hauptteam für Webseite und News zuständig; Team 'Kommunikation/Medien' unterhält unter anderem Social Media Kanäle; Die BAG eigene Sektion Kampagnen ist dann für den Kampagnen Teil der Kommunikation zuständig Intern arbeitet man mit drei Gruppen: Steering Comitee ist für strategische Fragen zuständig, das technische Komitee für alles rund ums Technische, und die Kommunikationsgruppe für den wichtigen Bereich der Kommunikation. In letzterem kommen Ämter, Universität und Entwicklungsfirmen zusammen (Beispiel SwissCovid App)
zu beachten	Benachteiligungsthematik muss beachtet werden, alle müssen Zugang haben; Barrierefreiheit muss beachtet werden, man versucht viel mit Untertiteln, Sprachverfügbarkeit (Infoplakate in über 20 Sprachen verfügbar); Stabil und einheitlich kommunizieren;
Risiken und Hindernisse	Dann muss es durch viele Ämter gebracht werden; Immer ein Rennen gegen die Zeit, die Krise erfordert schnelles Handeln (für Prozesse die normalerweise lange brauchen ist die Zeit nicht da); Hohe Vorgaben intern, speziell im Datenschutz; Es gibt Gruppen die schwierig erreichbar sind, da kann man viel über Verbände oder Vereinigungen gehen um Blind Spots ausfindig zu machen und solche Gruppen zu erreichen; Grosses Risiko das man etwas Kommuniziert dass später widerlegt wird; Glaubwürdigkeit zu verlieren wäre worst-case, Leute auf inhaltlicher Ebene an andere Informationsquellen zu verlieren (Stichworte Fake News, Conspiracy, etc.);
Selbsteinschätzung BAG	BAG arbeitet sehr Evidenz-basiert und stützt sich auf Umfragen (ebenfalls via SOTOMO, mehrheitlich); Bund hat von Anfang an die Wichtigkeit der Kommunikation erkannt; Selbstverantwortung in der Bevölkerung wurde gefördert und unterstützt; Thematik hat eine sehr hohe Komplexität die stetig steigt, da mehr und mehr Themen dazukommen (Beispiel Impfung); Klare Differenzierung ist immer wichtig aber nicht immer einfach; "In einer Krise ist es nie perfekt, man ist täglich mit neuem konfrontiert und lernt jeden Tag dazu"; BAG ist selbstkritisch unterwegs; Issue Management wird betrieben; Stakeholder Management zum Beispiel mit der Reisebranche oder der Gastronomie;
Ökonomische Lage	"Geld ist generell da, speziell in Krisen, trotzdem besteht immer die Frage nach den Kosten und vor allem die Frage ob die Steuergelder so sinnvoll eingesetzt sind oder ob sie woanders besser im Einsatz wären"; Immer ein Abwägen von Kosten und Effekt, Projekte die es den finanziellen Aufwand nicht wert sind oder der Ertrag (Wirkung) nicht gross genug ist werden gekippt;
Wie man Bevölkerung erreicht (Kanäle)	Kein Kanal steht heraus; Anfangs grosse Gewichtung auf Pressekonferenzen, darauf hat man auch gesetzt; Social Media Kanäle sind stark gewachsen (zur Zeit ein Total von 500k Follower, was einem rechten Teil der Bevölkerung entspricht); Man fährt breit gefächert um alle demographischen Gruppen abzudecken;
Hotlines & Anfragen	Bund hat täglich sehr viele Anfragen, und dass wird alles auch vom BAG abgewickelt; ca. 400 Anfragen pro Tag; Kürzlich Millionster Anruf eingegangen; Zudem 60-80 Medienanfragen pro Tag; Sehr hohe Anzahl aber man antwortet jedem und bemüht sich auf alles einzugehen (Beispiel auch dieses Interview)

Appendix K Part 1 - Poster Campaign Variations

Appendix K Part 2 - Poster Campaign Variations



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XI. Affidavit of Authorship

I, Gian R. Grob, hereby certify that the attached Bachelor's Thesis, *Government Crisis Communication - A human-centered approach to digital government communication in the COVID-19 pandemic*, consisting of 13'901 words as defined in the DMI Bachelor's Thesis Guidelines, is entirely my own and that I have indicated all sources (printed, electronic, personal, etc.) that have been consulted. Any sections quoted from these sources are clearly declared and indicated and the sources are explicitly given. I further declare that I have included acknowledgment of any person consulted in the composition of the final Bachelor's Thesis. Unless explicitly stated, no parts of this work have been published before submission.

Geneva, 26 May 2021 Gian R. Grob

Figure 42
covid.swiss final
(Adapted from Mockup by ls.graphics, n.d.))