

COMMUNICATION BASICS: HISTORY, KNOWLEDGE, STRUCTURES AND STRATEGIES

Dr. Nicola Simone PhD – CBRNe Expert

University of Rome Tor Vergata

INTRODUCTION

I am Dr. Nicola Simone and I am a biologist, PhD and CBRNe Expert.

In these pages, I tried to resume all the basics of communication before introducing “emergency communication”, “fake news” fighting and some case studies related to COVID19 pandemic in Italy. Many mistakes were done, many more will be done. We must learn from our mistakes to avoid future ones. To do this, we must acquire new skills, we have to improve our ability to communicate but, most of all, we have to think different.

Let’s try together.

COMMUNICATION

Communication (from Latin *communicare*, meaning "to share") is the act of conveying meanings from one entity or group to another by mutually understood signs, symbols, and semiotic rules.

The channel of communication can be visual, auditory, tactile/haptic (e.g. Braille or other physical means), olfactory, electromagnetic, or biochemical.

We will speak about “Human communication”, because almost every animal use communication in different ways, and it’s easy to create misunderstandings.

Human communication is usually divided into parts:

- VERBAL communication
- NONVERBAL communication

Verbal communication is “the language”, divided in two parts: “**symbols**” (also called “**Lexemes**”) and “**rules**” (the grammar). The properties of language are governed by rules. Language follows **phonological rules** (sounds that appear in a language), **syntactic rules** (arrangement of words and punctuation in a sentence), **semantic rules** (the agreed upon meaning of words), and **pragmatic rules** (meaning derived upon context). The meanings that are attached to words can be literal, or otherwise known as denotative; relating to the topic being discussed, or, the meanings take context and relationships into account, otherwise known as connotative; relating to the feelings, history, and power dynamics of the communicators.

Nonverbal communication describes the processes of conveying a type of information in a form of non-linguistic representations. Examples of nonverbal communication include haptic communication, chronemic communication, gestures, body language, facial expressions, eye contact etc. Nonverbal communication also relates to the intent of a message. Examples of intent are voluntary, intentional movements like shaking a

hand or winking, as well as involuntary, such as sweating. Speech also contains nonverbal elements known as “**paralanguage**”: rhythm, intonation, tempo, and stress. It affects communication most at the subconscious level and establishes trust. Likewise, written texts include nonverbal elements such as handwriting style, the spatial arrangement of words and the use of emoticons to convey emotion.

“You cannot not communicate” (Paul Watzlawick).

Once proximity has formed awareness, living creatures begin interpreting any signals received. Some of the functions of nonverbal communication in humans are to complement and illustrate, to reinforce and emphasize, to replace and substitute, to control and regulate, and to contradict the denotative message. Nonverbal cues are heavily relied on to express communication and to interpret others' communication and can replace or substitute verbal messages.

However, non-verbal communication is ambiguous. When verbal messages contradict non-verbal messages, observation of non-verbal behavior is relied on to judge another's attitudes and feelings, rather than assuming the truth of the verbal message alone.

There are several reasons why non-verbal communication plays a vital role in communication:

- 1- "Non-verbal communication is omnipresent." - They are included in every single communication act. To have total communication, all non-verbal channels such as the body, face, voice, appearance, touch, distance, timing, and other environmental forces must be engaged during face-to-face interaction. Written communication can also have non-verbal attributes. E-mails and web chats have options to change text font colors, stationary, emoticons, and capitalization in order to capture non-verbal cues into a verbal medium.
- 2- "Non-verbal behaviors are multifunctional." - Many different non-verbal channels are engaged at the same time in communication acts and allow the chance for simultaneous messages to be sent and received.
- 3- "Non-verbal behaviors may form a universal language system." - Smiling, crying, pointing, caressing, and glaring are non-verbal behaviors that are used and understood by people regardless of nationality. Such non-verbal signals allow the most basic form of communication when verbal communication is not effective due to language barriers.

CULTURAL ASPECTS OF NONVERBAL COMMUNICATION

Nonverbal communication takes following forms:

- **Paralinguistics** are the voice involved in communication other than actual language and involves tones, pitch, vocal cues etc. It also includes sounds from throat and all these are greatly influenced by cultural differences across borders.
- **Proxemics** deals with the concept of the space element in communication. Proxemics explains four zones of spaces:
 - intimate
 - personal
 - social
 - public.

This concept differs from culture to culture as the permissible space varies in different countries.

- **Artifacts** studies the nonverbal signals or communication which emerges from personal accessories such as the dress or fashion accessories worn, and it varies with culture as people of different countries follow different dressing codes.

- **Chronemics** deals with the time aspects of communication and also includes the importance given to time. Some issues explaining this concept are pauses, silences and response lag during an interaction. This aspect of communication is also influenced by cultural differences as it is well known that there is a great difference in the value given by different cultures to time.
- **Kinesics** mainly deals with body language such as postures, gestures, head nods, leg movements, etc. In different countries, the same gestures and postures are used to convey different messages. Sometimes even a particular kinesic indicating something good in a country may have a negative meaning in another culture.

WRITTEN COMMUNICATION – brief history

The progression of written communication can be divided into three "information communication revolutions":

- a. Written communication first emerged through the use of pictographs. The pictograms were made in stone, hence written communication was not yet mobile. Pictograms began to develop standardized and simplified forms.
- b. The next step occurred when writing began to appear on paper, papyrus, clay, wax, and other media with commonly shared writing systems, leading to adaptable alphabets. Communication became mobile.
- c. The final stage is characterized by the transfer of information through controlled waves of electromagnetic radiation (i.e., radio, microwave, infrared) and other electronic signals.

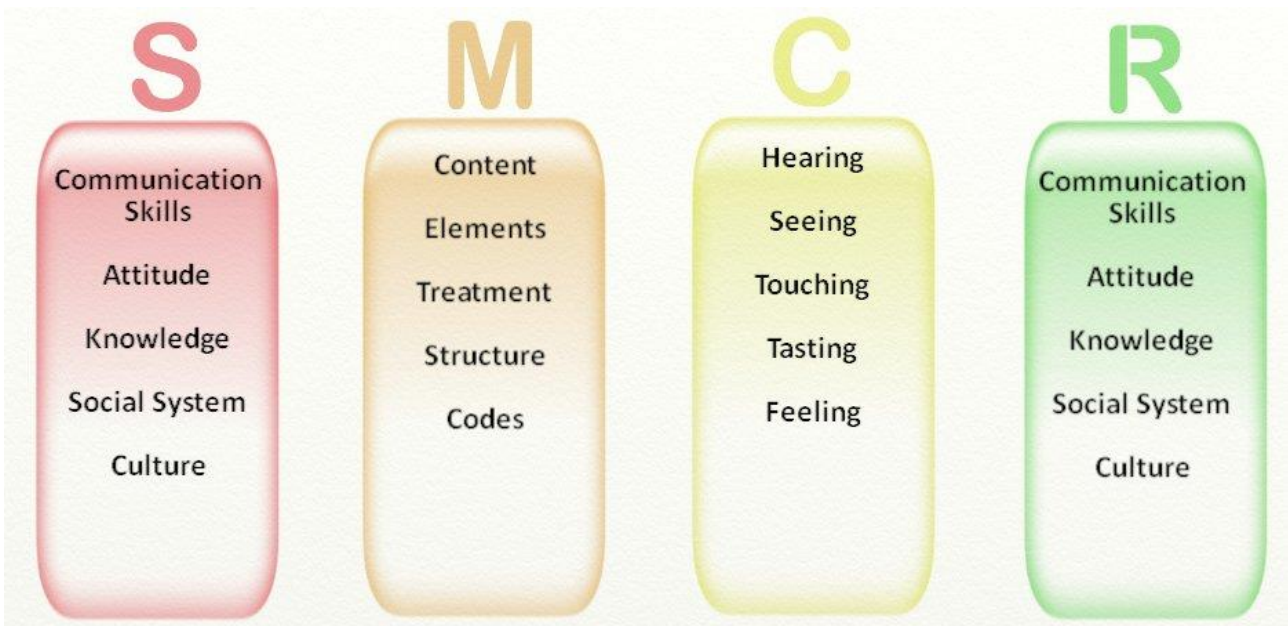
Some authors add a fourth step (between B and C) occurred with the beginning of printing press, that made communication not only "mobile" but also "cheaper", and that made information spread all over the population, giving access to knowledge for all.

Written communication is usually less sensitive to misunderstandings, because words are chosen usually with more attention than in verbal communication, except for instant messaging, social media and sometimes e-mails, which are considered "written communication" (as channel) but that are much closer to "verbal communication" (concerning structure and codes). We could say it is "a verbal communication in a written form". Instant messaging and social media communication requires specific skills and attention.

STRUCTURE OF COMMUNICATION

Communication is thus a process by which meaning is assigned and conveyed to create shared understanding. This process, which requires a vast repertoire of skills in interpersonal processing, listening, observing, speaking, questioning, analyzing, gestures, and evaluating enables collaboration and cooperation. There are many “models” used to explain how communication works. We will analyze only one for our purposes: the “Berlo Model”.

In 1960, **David Berlo** expanded the “Shannon and Weaver’s linear model of communication” (1949) and created the **SMCR Model of Communication**, which is the one I prefer to explain in an easier mode how communication works. The Sender-Message-Channel-Receiver Model of communication separated the model into clear parts, as shown in figure1 below.



As shown, the structure (from left to right) starts from the “Sender” (S), which deploy and send a “Message” (M) through a “Channel” (C) that finally comes to the “Receiver” (R). As you can see, each part of the process is influenced by several critical aspects. Sender and Receiver have the same critical aspects that are strictly individual, while Message and Channel have their critical aspects that are mostly standardized by rules (i.e. Hearing: “loud/soft/mild”; Tasting: “sweet/salted/sour/bitter”)

“NOISE”

In any communication model, noise is interference with the decoding of messages sent over the channel by an encoder. There are many examples of noise:

- **Environmental noise.** Noise that physically disrupts communication, such as standing next to loud speakers at a party, or the noise from a construction site next to a classroom making it difficult to hear the professor.
- **Physiological-impairment noise.** Physical maladies that prevent effective communication, such as actual deafness or blindness preventing messages from being received as they were intended.
- **Semantic noise.** Different interpretations of the meanings of certain words. For example, the word "weed" can be interpreted as an **undesirable plant in a yard**, or as a euphemism for **marijuana**

- **Syntactical noise.** Mistakes in grammar can disrupt communication, such as abrupt changes in verb tense during a sentence.
- **Organizational noise.** Poorly structured communication can prevent the receiver from accurate interpretation. For example, unclear and badly stated directions can make the receiver even more lost.
- **Cultural noise.** Stereotypical assumptions can cause misunderstandings, such as unintentionally offending a non-Christian person by wishing them a "Merry Christmas".
- **Psychological noise.** Certain attitudes can also make communication difficult. For instance, great anger or sadness may cause someone to lose focus on the present moment. Disorders such as autism may also severely hamper effective communication.

To face communication noise, redundancy and acknowledgement must often be used. Acknowledgements are messages from the addressee informing the originator that his/her communication has been received and is understood.

Message repetition and feedback about message received are necessary in the presence of noise to reduce the probability of misunderstanding. The act of disambiguation regards the attempt of reducing noise and wrong interpretations, when the semantic value or meaning of a sign can be subject to noise, or in presence of multiple meanings, which makes the sense-making difficult.

COGNITIVE BIASES AND SOCIAL LEVERS

The message itself often is contaminated not only by "noise" as shown above, but also by "cognitive biases". A cognitive bias is a systematic pattern of deviation from norm or rationality. The list of biases is quite long and it doesn't fit our purposes properly; it is important to note that individuals create their own "subjective reality" from their perception of the input, so an individual's construction of reality, not the objective input, may dictate their behavior in the world. Thus, cognitive biases may sometimes lead to perceptual distortion, inaccurate judgment, illogical interpretation, or what is broadly called irrationality. Concerning communication, most social levers that lead to believe and/or spread fake news, plots and conspiracy theories are based on cognitive biases. These social levers can be resumed as follow:

- Information Cascade – it happens when a certain number of people seem to believe a rumor, then others start to believe it. Most of these rumors are related to topics on which common people don't have personal or direct knowledge, so it's easy to follow the opinion of the majority
- Conformistic Cascade – linked often to information cascade, and very common in social networks. Social media groups made of people tied by strong links or strong interests in relation to certain beliefs, individuals adapt to the group's ideas, so that others can retain a good opinion about them.
- Group Polarization – the comparison between people who share the same ideas often produces the reinforcement of those ideas
- Prejudices – they are mental shortcuts based on people beliefs to generalize and cluster facts or news or behaviors, mostly in a negative form
- Pre-existing beliefs and confidence – it's easier to believe in news that somehow confirm our beliefs, and it's easier to reject the others
- Emotions – disgust, anger, indignation and other strong emotions are often used to engage people and spread tendentious or false news or political ideas

INFORMATION

In terms of communication, information is expressed either as the content of a message or through direct or indirect observation. That which is perceived can be construed as a message, and in that sense, information is always conveyed as the content of a message. In a more general way, information can be thought of as the resolution of uncertainty; it is that which answers the question of "what an entity is" and thus defines both its essence and nature of its characteristics. The concept of information has different meanings in different contexts. Thus the concept becomes related to notions of constraint, communication, control, data, form, education, knowledge, meaning, understanding, mental stimuli, pattern, perception, representation, and entropy.

The processing and communication of information is conditioned by the choices and perceptive and communicative skills of the issuing subject, as well as by the selective, analysis and distinction skills of the receiving subject: all these elements modify and integrate the final vision of reality. The information, thus understood, does not acquire the value of knowledge until it is correlated with the experiences and the relational model of the reality of the individual subject. In fact, knowledge is that set of information processed and reorganized by the individual in relation to their experience, understanding, skills and modeling of reality. So the recipient can increase his knowledge if he is able to process and analyze the information received to obtain critical implications related to the experiences and skills developed in the past. In the modern "information society", the flow of information flows at high speed from different sources (new media), without leaving the individual time and space for reflection to understand and analyze it. This does not allow the perception of information within the receiving individual to relate and modify one's knowledge system. Therefore modern man finds himself immersed in a society in which the excess of information reduces the spaces to devote to understanding and looking for meaning, resulting in the increase in the volume of information received, instead of allowing the individual a greater critical extension of knowledge, configures a condition of difficulty for the deepening of knowledge. The increase in the extension and quantity of information turns into a loss of depth. It is essential that the information contained in the message must be the clearest possible before going through the channel(s) and reach the receivers. We can work to reduce noises, we can work to reduce our cognitive biases, but if the information is corrupted or incomplete, the message will probably fail its scope or be misunderstood. So, it's a responsibility of the sender to have all the information needed before sending the message. Of course, we perfectly know that in some cases it's almost impossible to have "every" information about a certain thing, yet we have to do our best to get all the information, given the situation, before composing the message.

In order not to trivialize the information, adequate technicality and professionalism is necessary and therefore a process of research, innovation and continuous and effective training because the communication method cannot be improvised, as the vehicle and the way of transmitting the message determines its content and therefore the understanding of the public. Currently, the wide spectrum of communication conveyed through the mass media and the web is intended for an audience not expressly "focused" and the message, in order to be caught, must be immediate, simple and understandable. Also, it has been shown that an oversimplification of the message leads to errors in the transmission of the message, while simplifying doesn't necessarily mean making the message simpler: it means adapt the message to the recipient's skills, minimizing ambiguities. This simplification in addition to clarity produces communicative efficiency. To give the correct information and convey it in an appropriate way, especially if the issue is Health, skills and openness to multidisciplinary are necessary, that is, if you need to target a communicative message in favor of citizen empowerment, you need to adapt the language, the methodology and the communication strategy also with suitable and effective tools (colors, layout, etc.).

So, what are the characteristics of effective communication? Besides all the basic requirements shown above, in "the Effective Public Relations" (1953) manual, Professor Scott M. Cutlip of the University of Wisconsin identified seven, which are now known as "7 C's of Communication". Let's find out together.

- Completeness

To be effective, the communication must be complete - that is, contain all the information necessary for the recipient to evaluate an offer / situation or to solve a problem. Communicating completely allows you to reach your goals more quickly, as the recipient already has all the data available to make his or her decisions. This improves the transparency of the message and reduces the amount of questions and doubts in the recipient.

- Conciseness

A short message and a concise message are not the same thing. Being concise means communicating only information relevant to the content of the message. Even a short message can be incomplete or too flowery.

Concision allows both the issuer and the recipient to focus only on essential information. It reduces the risk of distractions and promotes the immediacy of communication.

- Consideration

To communicate effectively, the issuer must take into account the recipient's point of view, his needs and his mood. By modulating the communication on the basis of the other, the issuer can transmit information and concepts more effectively, since it will be able to use arguments and examples closer to the recipient's experience. And, consequently, more easily assimilated and understood.

- Concreteness

Effective communication is concrete, that is, it is based on data and facts to support the contents of the message. Communicating in a concrete way also means answering questions promptly - or developing your own arguments starting from the specific case under examination rather than from theories and general cases. Being concrete allows the recipient to understand the message more deeply.

- Courtesy

Communicating politely, without attacking the interlocutor and without wanting to force a response, improves the climate of communication and predisposes the sender and receiver to a positive and constructive conversation. Courtesy in communication also implies respect for the other's values and culture, as well as the use of a linguistic register suitable for the target audience.

- Clarity

One of the characteristics of effective communication is clarity, or the specificity of the message. Communicating clearly means focusing on one goal, thus emphasizing its importance and making it easier for the recipient to assimilate the message. Another important element for the clarity of the message is the use of appropriate terminology, which reduces the possibility of confusion and the ambiguity of the message.

- Correctness

To be effective, finally, communication must be carried out correctly. The absence of grammatical or syntactic errors increases the impact of the message, also positively affecting the impression that the recipient gets of the issuer during communication. By communicating correctly, the issuer acquires credibility and, consequently, the credibility of the message it wants to convey increases. (Cutlip et al., 2009)

CRISIS COMMUNICATION

As said, people “need” information to fight the sense of uncertainty, but they do need particularly during crises, because the uncertainty rises to intolerable levels and they also want to feel the sensation of “recovered control on their lives” (Parrilla, 2020). But “people” is made by a huge variety of different individuals with different cultural level, different needs, different opinions: build up a communication plan that will fit for all, giving information in a widely understandable way is not easy and needs great care in the preparation and dissemination, which must comply with some basic requirements, according to NATO “Public affair handbook” (NATO, 2020). Many unskilled, improvised or extemporary communicators send messages contaminated by all the factors listed above, not being aware of the most basic communication techniques. This happens often on the Internet, when messages are sent and shared on social media personal profiles, but must be avoided at any cost by official, institutional or government speakers or profiles.

Crisis communication occurs at several layers, providing:

- operational information to first responders,
- logistic information to healthcare personnel and security operations (behind the first line)
- internal healthcare/research information (i.e. for vaccine/antidote researches)
- information inside the chain of command,
- political/decision making information
- information to media
- direct information to public

These are only the most relevant layers but, depending on the nature and dimension of crisis can vary or other layers will be added, like international information exchange in case of an international crisis, like this pandemic sadly pointed out to us.

Every aspect of communication at each layer must be planned and seriously considered, yet the plan can fail, because the nature of the crisis itself as an “unpredictable event” can easily spoil also the most skilled and perfect emergency plan. That’s why it is important to have the right people in the communication team: there’s a need of people with multidisciplinary skills that can react to changes “in time” and modify the plan if necessary or find alternative solutions to problems that would prevent the plan from being properly applied.

However, while building a communication plan, we have to focus that times are changing constantly, and the various forms of media are now considered by their duty (for now). Thus, in a summarized way we can say: (Smith, 2011)

- my mobile to alert me
- the Internet to tell me
- TV to show me, and
- Print to explain it, give it context and tell me what it really means

This was indeed true when Smith in 2011 wrote his book “Using social media in Public Relations (PR)” but in these last 9 years, things are rapidly changed, with an increased use of social media, instant messaging and Internet to the detriment of tv and printed paper. That’s why almost every government agency have at least a Twitter® official profile and even the smallest municipality keep its citizens informed through WhatsApp® or Telegram® official profiles. Internet is a huge source of information but, as said, most people are unable to filter what is useful from what is useless, for many reasons (see 2.1., 2.2., 2.3.) and this is why many people falls into the trap of fake news, hoaxes, or start to believe in conspiracy theories. Also WHO, with the words of its president Tedros Adhanom Ghebreyesus speaks about “Infodemic” referring to the storm of news (true and fake) that is present on the web, and warns the governments to fight it with any necessary mean, as will be explained in paragraph 2.6. Parrilla (2020) perfectly described the “standard identikit” of a person that could easily fall in the trap of conspiracy, with some characteristics shown below in tab.1

CONSPIRACIST IDENTIKIT

- Low level of education
- Desire to feel special and unique
- Sense of powerlessness
- Need for certainties

This identikit could fit a large slice of Italian population, according with the Organization for Economic Co-operation and Development (OECD – in Italian “OCSE”) report 2019 about functional analphabetism. The report says that 7 adults on 10 (and 28% of population between 16 and 65 years old) suffers, at different grades, of functional analphabetism: that means they can read a message but they do not understand what it means. So, in case of an emergency like this pandemic, many people can fit the 4 characteristics shown above. It will be our duty to educate and inform those people as well as the others, and that is another important reason to plan carefully an emergency communication campaign. Moreover, a proper set of countermeasures against fake news and hoaxes must be taken into consideration while developing the emergency communication plan, because they can do harm to people in some cases, like in example:

- “Gargling with bleach, taking acetic acid or steroids, using essential oils and salt water protects against new coronavirus infection”
- the virus cannot survive in the hot weather
- taking a high dose of chloroquine medication can protect you
- consuming large quantities of ginger and garlic can prevent the virus

In other cases, they can distract essential resources in the search for a cure, as indeed happened in Italy with “Avigan© medicine to cure COVID19”. We must take into account also that the crisis of interpersonal relationships, replaced by an exponential increase in communication through social and instant messengers and sometimes the institutions that for too long underestimated the importance of transparent and proactive communication with users, have generated significant gaps that have been progressively filled by those who have seized the opportunities of wavering trust relationships. The collapse of institutional credibility and accredited sources, the advancement of influencers who have the ability to direct choices, without being required to demonstrate their skills regarding the content they convey, are the characteristic

features we have to contrast. Scientific knowledge must strive to approach a "secular" public too often "in defense" and unwilling to commit itself to rethinking in a coherent way all the facets of the communication dynamics that involve the inside and outside of healthcare facilities. The change of course must be directed towards participatory models, the effectiveness of which is determined by two-way communication processes. The participation process sometimes produces "short circuits": the information flow sometimes is not able to consistently involve all parts of the system. An adequate relationship with citizenship can only be supported by an administration whose internal communication is effective, and yet we get back to an accurate planning of emergency communication, because if this assumption of organizational coherence fails, public health communication fails its "accountability" objectives, and the system of relations between citizen, user, and institution becomes the result of an ephemeral maquillage effect. (Dionisio, 2009)

There is a lot more to say about planning emergency communication, but this few points are essentials to go deeper inside such a huge field as crisis communication.

"INFODEMIC"

"We're not just fighting an epidemic; we're fighting an infodemic," are the words of Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization (WHO) at a gathering of foreign policy and security experts in Munich, Germany, in mid- February. He refers to fake news that "spreads faster and more easily than this virus." WHO explains that infodemics are an excessive amount of information about a problem, which makes it difficult to identify a solution. They can spread misinformation, disinformation and rumors during a health emergency. Infodemics can hamper an effective public health response and create confusion and distrust among people. In response, a team of WHO "mythbusters" are working with search and media companies like Facebook, Google, Pinterest, Tencent, Twitter, TikTok, YouTube and others to counter the spread of rumors. United Nations (UN) too expressed concern about the matter and on 13th March 2020, Antonio Guterres, General Secretary of the UN twitted from his personal profile: < Our common enemy is #COVID19, but our enemy is also an "infodemic" of misinformation. To overcome the #coronavirus, we need to urgently promote facts & science, hope & solidarity over despair & division.> (Twitter.com/antonioguterres, 2020) We need no other evidence to realize that this pandemic is something completely new, not just concerning the virus itself and its effects, but also the huge amount of fake news and opinions that literally is storming the web and that can potentially do great damage to global response and to citizens' behavior during this pandemic. WHO launched a worldwide program to manage this and future infodemics, and results are yet to be seen; however, international experts and volunteers are working on it since the first consultation, occurred on 6-7 April 2020 and many ideas are being discussed, as shown in the next pages.

The WHO took the challenge seriously, and started a "Framework for Managing the COVID-19 Infodemic": the results of an online, crowdsourced WHO technical consultation were published on Journal of Medical Internet Research cited above and involved 1483 individuals from 111 countries registered for consultation. The analysis team distilled the results into a set of 50 proposed actions for managing infodemics in health emergencies and 6 implications for governments and policy makers to consider. The whole document can be found (open access) as multimedia appendix at the address <https://www.jmir.org/2020/6/e19659/>. There are 5 "action areas" with main objectives and 50 points "to do". Below are listed the main categories with the measures resulted from the consultation. I enlisted in detail only the points that are particularly of our concern, related to Action Area 2 - "social media web and other communication channels" and Action Area 3 - "Use of communication channels" – as follow:

Action area 1: strengthening the scanning, review and verification of evidence and information

- Evidence generation and synthesis
- Evidence synthesis and knowledge translation
- Publication and dissemination of scientific evidence

Action area 2: strengthening the interpretation and explanation of what is known, fact-checking statements, and addressing misinformation

- Risk communication and infodemic management
- Development of trusted sources, factchecking, and response to misinformation
- Social media, web and other communication channels

24. Engage social media companies and other locally dominant channels of information dissemination in promoting access to trusted health information and reducing the impact of misinformation

25. Ensure that social media platforms act to support and innovate the dissemination of trusted health information and respond to the propagation of misinformation on their platforms. Actions to this effect could include:

- Improving the alignment of platforms' terms of use to local information laws in order to address disinformation/misinformation
- Implementing mechanisms for user-reported misinformation alerts, to facilitate faster review of misinformation

26. Work with domain registration companies to review any new domain registrations related to COVID-19

27. Ensure that organizations with established and functioning websites do not register new domains for the pandemic, because this makes it difficult to gain traction in search algorithms. Instead, organizations should dedicate a page or section on their already existing websites to COVID-19

28. Innovate to provide web readers with a "likelihood of fakeness" assessment of information based on machine learning and integrated repositories of misinformation and trusted content.

Action area 3: strengthening the amplification of messages and actions from trusted actors to individuals

and communities that need the information

- Coordination of information dissemination
- Localization of messages and community engagement
- Use of communication channels

33. Ensure the strategic use of all relevant communication channels to disseminate information, including social media, news, radio and/or community and other leaders. Include community mechanisms for health provision, psychosocial support, education, provision of water, sanitation and hygiene (WASH), and vaccine safety communication/promotion of immunization demand

34. Produce tools and guidance on how to engage social media platforms, and use hashtags and other practices to disseminate health information as effectively as possible

35. Collaborate with private sector communications platforms (social media, communication boards/online forums, messaging apps, etc.) to disseminate health information and engage audiences through methods including Q&As, interactive sessions and the use of bots for content dissemination

36. Ensure that social media platforms develop policies that institutionalize their support for efforts to share information from WHO, UN agencies, national authorities and other trusted sources

- Health, digital health and media literacy

Action area 4: strengthening the analysis of infodemics, including analysis of information flows, monitoring the acceptance of public health interventions, and analysis of factors affecting infodemics and behaviors at individual and population levels

- Develop monitoring of the infodemic
- Develop research on health information dissemination and uptake

Action area 5: strengthening systems for infodemic management in health emergencies

- Framework for managing infodemics in health emergencies
- Interim draft for use during the COVID-19 response

Thus, in the next weeks and months we will assist to a massive campaign of development of strategies and techniques, and every stakeholder in the World should apply to give his contribute in fighting infodemics.

Ideas submitted to **WHO virtual consultation on infodemic management**
7-8 April 2020

