



# Energy and Sustainable Communication

Wim J. L. Elving

## Abstract

In this chapter communicative interventions on the energy transition will be presented according to the research model, from A to Sustainability, that includes the following steps, urgency, awareness, action & collective action, public support and in dialogue with society. The research model is discussed as well as various points interesting for communication researchers and professionals. At the end of the chapter some discussion points are issued.

---

This chapter is partly based on my inaugural speech, given on January 24, 2019, Duurzaamheidscommunicatie, Hanze University of Applied Sciences.

Wim Elving is professor (lector) Sustainable Communication at the Hanze University of Applied Sciences, and part of the Centre of Expertise – Energy, EnTrance (Energy Transition Centre). At EnTrance we study and develop communicative interventions to accelerate the Energy Transition and to establish the Sustainable Society. Previous he worked at Twente University (PhD, 1999) and University of Amsterdam/Amsterdam School of Communications Research (ASCoR; 2000–2018), and as guest professor at various European Universities. He has been editor in chief of Corporate Communications an International Journal (2006–2016) and published a variety of articles, chapters, blogs, editorials etcetera on change communication, employer branding, csr communications, and sustainable communication. At Hanze he is (co-)leading a group of researchers (lectorate).

---

W. J. L. Elving (✉)

Professor Sustainable Communication, Hanze University of Applied Sciences, Groningen, Netherlands

E-Mail: [w.j.l.elving@pl.hanze.nl](mailto:w.j.l.elving@pl.hanze.nl)

## 1 Introduction

In this contribution several insights will be given, gives examples of projects that combine communicative and behavioral interventions in helping individuals and organizations in embracing clean energy and present methods for communication practitioners to adopt and for communication researchers to consider.

Within the Sustainable Development Goals of the United Nations (UN 2015) SDG 7, affordable and clean energy is really at the heart of many of the other SDG's, maybe with SDG 4 (quality education) and SDG 5 (gender equality) as exceptions, though one might argue that there is a link between clean and affordable energy with those two as well. If society at large is able to provide everyone with clean and affordable energy, especially if small communities are able to have solar panels, or wind power, this will affect climate change, provides opportunities for producing food, etcetera. Affordable and renewable energy is extremely important for us as a global society to reach the United Nations Sustainable Development Goals (SDG).

Energy is a technical term and extensive defined. As humans we need, just as other living organisms' energy to stay alive, obtained by food and water. Our society needs energy for functioning, in which we differ between energy sources obtained by fossil fuels, nuclear fuel or renewable sources. In order to prevent further rise of temperatures and to prevent the climate crisis we need to limit the amount of greenhouse gasses and make the transition from fossil fuels to renewable energy.

Though differences exist worldwide, the common view is that all fossil fuels lead to an increase of levels of carbon or greenhouse gasses in the atmosphere and that by reducing greenhouse gases we will limit the temperature rise and climate crisis. Were some regions are transferring to natural gas; other regions are limiting natural gas, see the Groningen case in the following:

### **Box 1: The Groningen Case**

The region of Groningen, in the North East part of the Netherlands is mainly a rural area. In the fifties of last century an enormous amount of natural gas was found and subsequently used. Within a few years' time all equipment for cooking and heating were adjusted to the specific natural gas. Though some earthquakes did occur in the seventies and eighties of the last century, only a few big ones, combined with several small ones in the beginning of this century leads to big turmoil. The Dutch mining company (NAM)

which is a joint venture of Royal Dutch Shell, Exxon Mobile and the Dutch government, refused to admit the direct link between gas extraction and the earthquakes till 2017, leading to extra earthquakes and more turmoil and damage to houses and other constructions in local communities in Groningen. Dutch government decided in 2018 to cut down to gas extinction from the Groningen area to zero in 2030 (from more than 30 billion m<sup>3</sup> are extinct every year; Elving et al. 2018).

Another reason to abandon fossil fuels are the risky operations in order to mine it, as is portrayed in box 1 as well. The case of the BP oil disaster in the Gulf of Mexico, is the most recent big one we all do remember, but various examples like the Exxon Valdez in 1986 and Shells' operations in Niger-Delta, Nigeria are only a few examples of the risk involved with the fossil industry. Also fracking techniques, in which water, sand and chemical substances are used to extract shale gas, receive more and more critique, also leading to environmental pollution, and possible earthquakes. Besides that, for fracking methane is released in the fracking process, and it is estimated that 4% of it escapes into the atmosphere during extraction. Because methane is 25 times stronger than carbon dioxide in terms of trapping heat, the release of this gas is detrimental to the air quality of surrounding fracking sites (Horton 2019).

---

## 2 Energy Transition

The energy transition from fossil fuels to renewable energy is a major challenge for society. We are currently using fossil fuels for transport, for heating, for production and all aspects of modern life and for our economy. Developing countries are in the upswing and economic growth and development make that more people can afford a car or other forms of transport, whereas saving the planet makes that we should limit more greenhouse gases, so we should limit the use of fossil fuels for cars and other forms of transport. The internet gave us the opportunities for global trade, we can easily buy items from all over the world, but transport of these items, most of the times is done with fossil fuels. How can we limit our use of fossil fuels without limiting prosperity in developing countries?

On global level we need the Intergovernmental Panel on Climate Change (IPCC 2020) and ultimately the national governments to act. This is a process in itself and will not be discussed in detail in this chapter. Our focus is on how

we can use communication to help individuals lowering their carbon footprint? The best part is that increasing your sustainable lifestyle and limit your footprint also probably helps you in saving money.

---

### 3 Communication

Communication is a container term, that includes information, persuasion, dialogue and many other terms. Many definitions of communication have been given, most have is the process of passing information and understanding from one person to another. In simple words it is a process of transmitting and sharing ideas, opinions, facts, values etcetera from one person to another or one organization to another. Communication and behaviour are interlinked and behaviour cannot change without communication. The basis of change is information, preferable high quality, scientific based information, as this is also the basis of a successful organizational change (Elving 2005), it is also the basis for the Energy transition and the dialogue for our future society. Information needs to be correct, on time, and needs to include the main questions and worries of the receivers (Elving 2005).

In organizational change and transition, like the energy transition, it is important to repeat the main reason for the change, sometimes this is forgotten in the complexity of the change or transition. In our case: we need to limit our carbon footprint to limit the consequences of climate change is the phrase we need to repeat. Sustainability communication is in our view the communication needed to persuade, convince and inform publics to adopt a sustainable lifestyle (Elving 2019). I am taking a very practical standpoint on communication in this chapter. Without ignoring theory, we need to apply theoretical insights in communication, and explore applied research in accelerating the energy transition and establish the sustainable society. In applying the lessons from organizational, corporate communication and PR and marketing communication for these goals we help society at large and individuals in this.

For our purpose it is important to distinguish different kinds of media. Of course, there is a difference in rich and lean media (Daft and Lengel 1986), but also, we need to distinguish between Paid, Earned, Shared or Social and Owned media (Peso-model, Dittrich 2014; see latest version in Fig. 1).

The Peso model helps us in distinguishing between controlled media like earned media (there is always an editor and/or journalist that checks the story) and uncontrolled media (paid, shared/social and owned media).

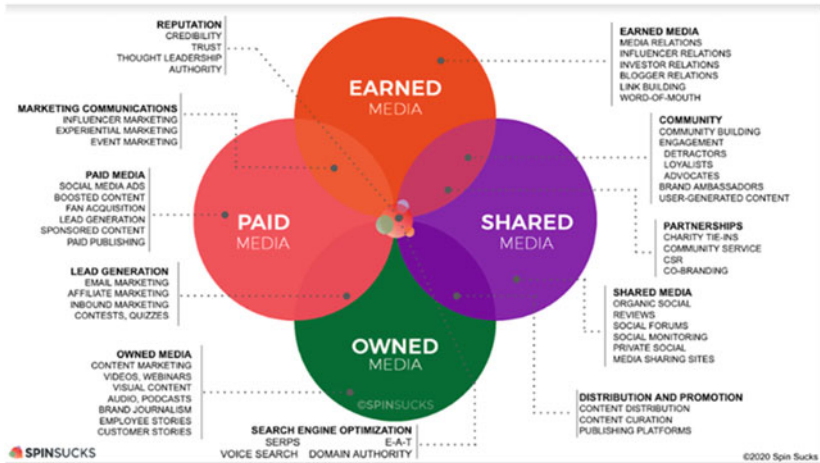


Fig. 1 The Peso model, Dittrich (2020)

#### 4 The Research Model

The research model (see Fig. 2), which has been labelled as from A to Sustainability, gives various opportunities for communication professionals and communication scholars.

In the following section we will discuss the various stages of the research model.

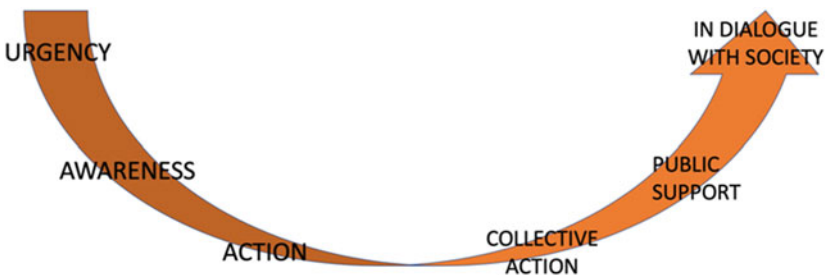


Fig. 2 From A to Sustainability, Research model, Elving (2019)

## 5 Urgency

As been listed above, the why of the energy transition is that we need to stop climate change, for instance by limiting our personal carbon footprint. There are still a lot of climate sceptics, which numbers seem to be higher among politicians and lawmakers who do not believe climate change is real, despite the fact that IPCC supported by almost 100% of climate scientists did proof that the increase of levels of carbon dioxide (CO<sub>2</sub>) / greenhouse gasses is coming from human activity and especially the burning of fossil fuels. Among the most prominent ‘climate deniers’, is the US president (2016–2020) Donald Trump, who uses Twitter for his skeptical view (see Fig. 3).

The only opportunity scientists in general have is to still proof the scientific materials. With the rising influence of social media, sceptics did find a way to spread their disbelieve. A recent study reported in the Guardian found that 25% of all climate denying tweets in the US were coming from bots, that is automatically generated content by computers and algorithms (Guardian 2020).

It stays important to share scientific and other information to opposite the views of the skeptics and maybe use the same tactics as they do: relentlessly send (new) information that shows that skeptics and deniers are wrong and, despite the fact that you might feel tired and stressed upon the messages, keep on sharing information on the scientific proof.



**In the beautiful Midwest, windchill temperatures are reaching minus 60 degrees, the coldest ever recorded. In coming days, expected to get even colder. People can't last outside even for minutes. What the hell is going on with Global Warming? Please come back fast, we need you!**

3:28 AM · Jan 29, 2019 · [Twitter for iPhone](#)

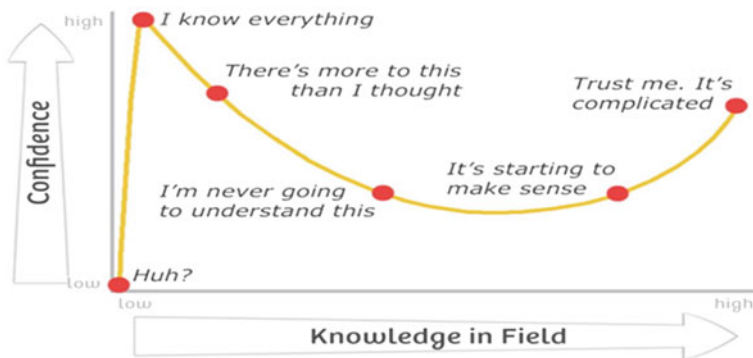
**Fig. 3** Tweet from Donald J. Trump, president of the United States of America on January 29, 2019

Why are skeptics able to spread their false information and why they are so convinced about their own position? This is partly related to uncertainty. As humans we want to reduce uncertainty, because that is an unsatisfying condition (Elving 2005). As we feel uncertain, we will try to explain what makes us feel uncertain and consciously or unconsciously apply in cognitive processes in creating own stories, own truths, that reduce uncertainty. For instance, during organizational change, in many cases very uncertain processes employees create their own stories to be able to cope with the uncertainty or with the change because of a lack of information (Elving 2005). Translated to the climate crisis, we as scientists should not stop in spreading the information on the urgency of the crisis in order to prevent that alternative views that deny the climate crisis to dominate.

The phenomenon that individuals who do not know a lot about a subject but claim to know a lot is described in the literature as the Dunning-Kruger effect (Kruger and Dunning 1999; see Fig. 4).

Individuals that seem to be high in confidence about their own opinion are not always, as the effect shows, the individuals that know most about the subject. It is for these people most of the times an oversimplification of the facts, maybe to reduce own uncertainties, maybe to be able to reduce cognitive dissonance (*'why am I still driving a car, where I know that this contributes to the climate crisis'*). This is also known as 'mount stupid'.

There might be a second reason why politicians fail to take action and that is their concern of losing groups of voters due to economic uncertainties involved



**Fig. 4** The Dunningkruger effect (Kruger and Dunning 1999)

with the energy transition. President Trump wants to stop the Energy Transition, because of the votes of the mineworkers in the US (despite the fact a sharp decline in coal production in the latest years). Also the fact that for instance in the current political landscape it is for certain parties interesting to create confusion, polarization and protest, the fake social media accounts (trolls) are in large efforts to feed climate sceptics with false information, as that it is proven that large oil companies like Shell and Exxon heavily invested (estimated \$201 million in 2019; McCarthy 2019) in lobbying against climate action.

---

## 6 Awareness

Awareness is defined as the ability to directly know and perceive, to feel, or to be cognizant of events (Chalmers 1997) and seems to be one of the crucial elements in changing behavior (Elving 2019). More broadly, awareness is the state of being conscious of something. Another definition describes it as a state wherein a subject is aware of some information when that information is directly available to bring to bear in the direction of a wide range of behavioral processes. The concept is often synonymous to consciousness and is also understood as being consciousness itself (Hussain et al. 2009). Awareness is crucial regarding the energy transition and the establishment of a sustainable society. If you are unaware of the damages to the environment or climate your actions are doing, you will not alter your behavior.

An example of raising awareness that we are using in different programs are energy plugs. These devices can be used to measure the amount of energy that is used by an electrical device, like televisions, fridges, freezers, kitchen machines etcetera. It will show the amount of energy (Watt) the device is using, and the amount of money involved. For most individuals the amount of energy used is an unknown amount, contrary to for instance a liter (or gallon), that can be shown, and most people can make an estimation about volume.

Energy use in Watt or kWh is however a hard to imagine property. We overcome that by creating opportunities for comparison with others (neighbors, classmates, friends and/or colleagues). If your fridge is using on a yearly basis 400 kWh and you learn that a peer which who you compare your electricity usage has a fridge that uses only 150 kWh, you know that your fridge is not energy efficient. Based on various factors you either to rush to the shop to buy a more energy efficient one, or at least realize that there are more efficient fridges possible, so the chance will increase that your next fridge is more energy efficient. Raising awareness is key in understanding what it takes to act and/or change the





**Fig. 5** Picture of an energy cost meter

behavior of individuals. An application of this in a project can be found in the box *Bedrijfkracht*.

### **Bedrijfkracht**

*Bedrijfkracht* (best translated as company-power) is a project we started in 2018 and is aimed at raising awareness on energy use within teams within organizations. Organizations pay a fee to join in the program and like to join roughly through three reasons. The first is that joining they can show the project within their CSR policies, because of joining they show that they are aware of the climate crisis and help their employees in making their homes more sustainable. The second reason for them to join in the project is because of Employer Branding, showing their current and future employees that they care about their employees and help them to make their homes more sustainable. The third reason mentioned is that because of ongoing digitalization employees interact less and less together. With joining *Bedrijfkracht*, in which teams interact to compare their results, interactions within the company increase which has a positive influence on engagement within the organization. We currently are using *Bedrijfkracht* as a jumpstart project to make innovations and changes in organizations more likely to succeed.

Within *Bedrijfkracht* the contracted organizations form different teams, that join in the project. Participants will join in in an inspiration session and we supply some members with suitcases in which we have energy plugins and/or heat (infrared) cameras. The energy plugins are for measuring the amount of energy equipment in the household is using, the infrared cameras are for detecting heat leaks in the house. Teams consists of approximately eight to ten employees and we provide them with two or three suitcases with the devices. After around a week the suitcase is pass over to another teammate, so in a month time all team members have used the plugins and/or camera and can start comparing the results. We organize an end presentation for which we also bring in an expert who helps with interpreting the results, especially on the heatmaps.

The project is combined with a pre-posttest research, in which participants list what measures they have been taken because of the project and how it changed their attitudes and behavior.

### **Results**

A total of more than 2400 people, from 25 different organizations forming 200 teams have participated in *Bedrijfkracht* from November 2017 to

the summer of 2019. They reported a total of 3074 measures to make their homes more sustainable and energy efficient. At the start of the project, the assumptions were made that 70% of the participants would take a measure. We found that this was a too low estimation and found at least 80% (81.7%) of the participants who did this.

Also, at the start of the project, a rather conservative measure of 1.2 average measure per participant was estimated, we actually found 2.15 measure per participant. Based on this, we come to a total of 3.9 (2.58–5.28) million kg of CO<sub>2</sub> saved. The variety of measures makes it very hard to make this estimation harder. The list of measures goes from weather-strips for doors and windows, and mailbox brushes, to complete insolation of floors and roofs, buying solar panels or heat pumps.

Another remarkable result within Bedrijfkracht is that 70% of the participants indicate that they spontaneously talked with friends, neighbors and family about what they found in the project (word-of-mouth). Another impression we had was that the participants in general already were very active with making their homes more sustainable and energy efficient and were looking for confirmation of the measures they already took before joining in the project. Of the participants more than 20% indicated that they already had solar panels installed, took insolation measures or were in possession of a heat pump at the start of the project. We are now finding ways in attracting the individuals who did not started yet with making their home more energy efficient to take part in Bedrijfkracht as well.

Another way of raising awareness is using infrared cameras, that give an indication of the heat leakages and the status of insolation of your home. By using the camera, you will see heatmaps, that indicate where ‘heat is leaking’ and where action is needed (for instance replacing windows, placing weather strips, and so on. For electricity there are several other ways to provide feedback. People who possess solar panels usually have a system that indicates how much energy the panels are producing, combined with how much energy the home is using. Sophisticated Energy Management Systems (EMS) work with sensors that indicate how much energy is used through that plug, or through that group of plugs. This allows individuals to monitor their energy use and manage this. The disadvantage of such systems is that it requires a certain extent of knowledge and perseverance in using this. From research it shows that after initial enthusiasm, the number of people

using it, drops dramatically (Wiekens 2016). We need to make these energy management systems become more attractive, by using insights of human-machine interactions and ways of presenting the data, so it becomes more suitable for a larger group of consumers.

But also, sensor technique to monitor and limit energy use might be very attractive. An example is the monitoring of office buildings and plants or factories. By measuring the presence, or absence of employees in rooms and buildings, it showed that more than 60% of the energy use can be saved. In one example of a city hall, the heating was automatically turned on very early in the morning (5.30), that makes that the building had a comfortable temperature as of 7 o'clock in the morning, whereas the first employees arrive was later than 8.30. Feedback of data helps in establishing energy savings, and in that manner, saves the emission of greenhouse gasses. Energy efficiency and insulation might have lost attention in the past few decades, but are relatively easy to achieve and save money, but also greenhouse gasses.

---

## **7 Action & Collective Action**

If awareness is a fact and individuals are willing to take steps to reduce their own ecological footprint, it is important that sufficient information is available about possible measures. This is a question of the transfer of information and knowledge, and therefore of information and public education.

Collective action, on the other hand, is somewhat more complex, because collective action presupposes a consensus on the measures to be taken. Collective action is also often organized by the (local) government. Public education is of importance here, because it is needed to take action on the basis of the right information and the conviction that the sender of this information can be trusted and is credible. The unilateral imposition of measures is often counterproductive; it is important to involve people as much as possible in measures, which is of course a complex task.

A special form of collective action is the Local Energy Cooperation's/Local Energy Initiatives (LEI's) that emerge. These LEI's produce their own energy by solar farms or on shore windmills, have no commercial goals and most of the time are run by volunteers. By participation in these kinds of cooperatives, resistance is decreasing, whereas other commercially driven initiatives sometimes are confronted with resistance of people living in the neighborhood of a windmill, solar farm and/or biogas installation.

It is important to take concerns, resistance and objections seriously and not ignore them. For example, by combining renovation and the necessary insulation of rental homes it is important to include adjustments to the house that the occupant would like to have, which might lead to less resistance and more willingness to accept the renovation. Action and collective action in that sense is most of the time a process of participation. A wise lesson is not top-down approaches, but tailored bottom-up initiatives (DePonte et al. 2017).

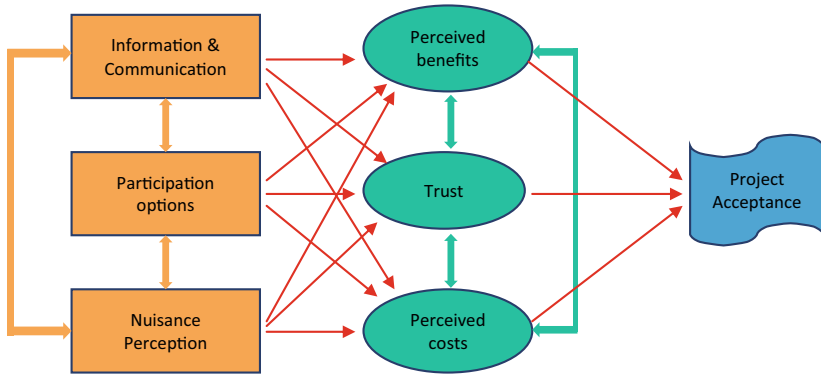
---

## 8 Public Support

Public support is necessary for the energy transition. It is important that normal democratic principles are adhered to and that a decision of a (sub)municipal council, Provincial Council, House of Representatives or European Parliament can be implemented. We now know that a decision in democratic chambers alone is not enough, because there are often different interests and stakeholders and not every decision can count on popular support. For energy projects such as *onshore* wind turbines, it is important to involve local residents in the decision-making process. The NIMBY (*not in my backyard*) principle often applies here: nobody wants a windmill or solar park in their immediate vicinity. However, by sharing the profits of the wind turbine(s) or solar park with these residents, they become more favorable.

The model presented by Soland (2013) see Fig. 5 helps us in understanding public support and how to increase public support. The model is aimed at a specific project, but can be applied to more general questions (Fig. 6).

Public support is an important condition for the energy transition. What is the public support for a particular measure? By measuring the values, fears and ideas of the population, we can make public education tailor-made (Davies and Selin 2012). An example of this is hydrogen. The word hydrogen might bring up images and stories of a Zeppelin (the Hindenburg) that crashed on fire or images and stories of the hydrogen bomb. If we want to make full use of hydrogen, we need to provide information (public education), so that everyone can make their own well-considered decision as to whether to use hydrogen heating to heat their homes or to drive a hydrogen car. Which characteristics are most appealing? How can we recalibrate the current images of hydrogen and load them with new, scientific knowledge? Support research enables us to know the opinions and attitudes of the general public and to create tailor-made information that can alleviate the concerns of the public. This is, by the way, different from propaganda. The lack of knowledge about a subject is leading in this respect. Even if you do have



**Fig. 6** Public support on a specific project (based upon Soland 2013)

sufficient knowledge, you can oppose hydrogen, but that is an educated choice, and every choice preferably would be an educated one.

In the model, a central position is for trust (Mayer et al. 1995). Definitions of trust typically refer to a situation characterized by the following aspects: one party (trustor) is willing to rely on the actions of another party (trustee); the situation is directed to the future. In addition, the trustor (voluntarily or forcedly) abandons control over the actions performed by the trustee. Trust leads to reputation, especially with online systems an important topic these days (Leyland 2005).

In the energy transition, we must ensure that we can have discussions at the same level of knowledge. So that's why public education is important. Especially since public education became under scrutiny of the public opinion, at least the Dutch government is very cautious in this, because (especially in the right wing Infowars) public education is seen as normative and should not be part of the tasks of government. Maybe knowledge institutions like Universities should fill in this gap, especially since they are knowledge producers and scientific research on innovations, their task should also educate and inform the public on these innovations.

With the results of support research, we can also feed administrators and others with insights into the general public's attitude towards innovation. They will then be able to enter the discussion, the discussion and the debate in a more focused and efficient way. And those insights can be used to set up campaign(s). We also have to pay attention to the fact that knowledge can sink quickly and that we have to keep repeating messages (perhaps to the point of boredom). That is what has

always been said about advertising, but that also applies to public education and information: repetition is the strength!

Especially in setting up campaigns, communication scholars and professionals have a long-lasting experience to offer help to inform the general public, for instance for elections, health issues, but also environmental goals (green marketing; Ottman 2011). Campaigning by organizations however, as we see also in CSR communication might have the risk of greenwashing or another form of window dressing putting the organisation greener, or better than it actually is; Elving 2012).

---

## 9 Dialogue

Another important condition for the success of the energy transition and the creation of a sustainable society is the social dialogue. Social dialogue is a precondition in a democratic and developed country, and we should not be deceived by people who prefer to see something else. In the past, the opinions that were not very agreeable often remained invisible. They were expressed in the privacy of the pub or living room and because different groups did not speak to each other, there was little knowledge of dissatisfaction and gut feelings. With the advent of social media, these opinions come into the public domain more often, making the debate seem rougher. Once again, it is not the media that are to blame, but the individuals who use social media. It is not Twitter that is crushing the debate, but Twitter's users who are causing the cruelty. Despite the fact that these social media platforms did promise various steps in limiting racial, unscientific and other damaging posts, they have not succeeded in making the platforms safe and have not stopped misinformation campaigns, or the use of bots that feed the public discussion, with false information, claims or threats. Probably the fact that Twitter does not want to block president Trump, he and other servants of false information still have opportunities to spread their false and toxic information.

Contrary to what is happening on social platforms, dialogue in nature is the richest way of exchanging information and views. It is important to distinguish the dialogue from the conversation. The dialogue is a spoken or written conversation between two or more people, but it goes beyond a conversation. The Socratic method (Altorf 2016) is still used in our time to find out through dialogue how a problem could be made up. In a dialogue, clarity is obtained about the different opinions and feelings, about motivations and presuppositions.

It is important to realize what a dialogue is and what the difference is between negotiating and having conversations. So, it must be clear what the dialogue is

about. Dialogue is often presented as an ideal way to achieve results, but in fact the aim of the dialogue is, at most, to increase mutual understanding. We must not, therefore, use dialogue in an inappropriate way. There are many situations in which dialogue is not desirable or not possible. In those situations, it is better to limit yourself to giving information or to try to be right. Dialogue is only one of the strategies for good communication (Van Ruler 2015). In order to be able to take steps in the field of the sustainable society and the energy transition, the social dialogue is very useful. According to Van Ruler (2015), a good dialogue meets seven requirements (see Table 1).

Our challenge as communication professionals is to find ways to increase awareness on energy use, but also on the state of our sustainability. Important research questions are whether it will help in changing behavior if we give feedback to the individual user. Will it help for instance if we give feedback on the amount of plastic an individual is using, will it help if we give the individual feedback on his carbon footprint? If we are able to show alternatives on an attractive way that we will be able to make a difference. That means that we have to put effort in creating communication products that help individuals to find alternative ways, or on other ways limiting their footprint.

Dialogue has been prominent in CSR communications, also labeled as engagement. Early CSR initiatives had a high PR value (Frankental 2001), but when NGO's asked about proof organizations really need to clarify and come forward with proof (Morsing and Schultz 2006). In line with the classic PR-model of Grunig and Hunt (1984) where it is labeled as two-way symmetrical model, the stakeholder involvement model was to prefer above the common stakeholder informing strategies. The main question however was how to involve stakeholders, how can you engage your stakeholders in what you are offering back to society. The recent trend on the purpose economy (Hurst 2014) is the next step of CSR. Not only with some projects supporting society, but proofing what your company has to offer to society and what society will miss if your company does not exist anymore.



**Table 1** Elements of good dialogue (van Ruler 2015)

1. Suspend judgment	Participants must agree to suspend any judgement for the duration of the dialogue. In practice, this means that you are not allowed to make any evaluative or normative remarks during the dialogue. The only thing that can be asked for is clarification
2. Identification and postponement of own prejudices	Not using judgements during the dialogue also assumes that you are aware of your own judgements. The difference between prejudice and judgment is very small. It helps if you are able to identify your own prejudices. That's not the same as taking part in the conversation in a neutral way - you can't - but it's important that you're aware of your own prejudices
3. Listen	Listening is the most important characteristic. A dialogue should also be much more focused as a method of learning to listen well. We often don't listen in order to hear someone else's opinion, but in order to prepare for our reaction. Listening is one of the most important features of a dialogue. The truth usually does not exist or at least everyone respects differences of opinion and is the strength of the dialogue that you are able to listen well
4. Research and reflection	Asking the right questions is important not only within science, but also in conducting a good dialogue. It reflects the fundamental curiosity about the opinions of others and is a thorough reflection to find out what is really important

(continued)

Social media has been discussed before, but in engaging stakeholders these direct media can offer help in establishing engagement for organizations. In a few studies however (Elving 2019) we showed that digital engagement still is in its premature stages for most organizations, and also for governmental organizations they still are struggling with the application of social media. Most of the

**Table 1** (continued)

5. Non-verbal communication	The posture, body and facial expressions and movement, are often more informative than the verbal, which is said. This is all informative for someone else and often looks different than you think. Becoming aware of your own non-verbal communication can help you to become better as a communicator
6. Conversion guidelines	A good dialogue requires that there is a pleasant physical space in which the hustle and bustle of everyday life is kept at bay
7. Good dialogue management	The discussion leader discusses which topics will be discussed, ensures peace and variety, is the host and director of the process, keeps the participants to the requirements and their responsibilities and ensures discipline. The moderator does not interfere with the content, only with the process. In that respect, he resembles the scrum master

times, organizations are using social media as another marketing or message sending channel, without fully exploring the opportunities social media might give. In the energy transition (Dam et al. 2019) we found no examples of organizations, NGO's or governmental bodies that successfully engaged millennials in the Energy Transition.

---

## 10 No Time to Waste

The younger generation, with Greta Thunberg as prominent representative shows the way forward. Instead of using a plane to be able to speak to the United Nations in New York, she took a sailing boat. Despite the fact that many (especially man of middle age) are furious on her and her claims, she is setting an example for the rest of the world. We are seeing more positive actions, like Norway banning all fossil fuel cars. Let us remind that the big oil companies spend more money on extensive lobbying to prevent more serious climate action than on their marketing claims of becoming more sustainable (McCarthy 2019).

We have the power to beat skepticism and the power to beat complacency by showing individuals options for themselves. You do not have to become vegetarian per se, but information on the bio industry, animal welfare and inventing alternatives for meat can help in reducing meat consumption. As academics we should wonder whether conferences should not be organized more online, of course missing the real social and network opportunities with colleagues, but preventing more greenhouse gasses because of the flights necessary for getting to the conference.

Various countries and the EU are making policies with so called green deals. These seem to be the start of new economic realities, also combined with the realization that the state of the economy is not the only predictor of wellbeing and welfare, but that the ecology should be (Raworth 2017). As communication professionals and scholar's, we should take a leading role in helping translating innovations to communicative interventions that change human behavior. Of course, new green deals are needed, the industry is needed, but they need to alter their existence into purpose driven entities that help to save the world and ecology, or have no future reason for existence. It is time to act collectively.

---

## 11 Reflective Questions:

1. Climate skepticism, what could be other possible explanations of skepticism and how could we study this phenomenon in more detail?
  - Would raising information on sceptics and how they are active online (bots, automated tweets) help to raise climate awareness?
2. Think of ways to increase awareness on for instance the use of plastic and the amount of waste. How can we find communicative interventions to increase awareness?
3. Dialogue and social media: what is needed, according to the elements of a good dialogue to design and apply a 'good' dialogue on social media?

---

## References

- Altorf HM (2016) Dialogue and discussion: reflection on a Socratic method. *Arts Humanit High Educ* 18(1):60–75
- Chalmers, D. (1997). *The conscious mind: in search of a fundamental theory*. Oxford University Press, Oxford (p 225, ISBN 978-0195105537)
- Daft RL, Lengel RH (1986) Organizational information requirements, media richness and structural design. *Manage Sci* 32(5):554–571. <https://doi.org/10.1287/mnsc.32.5.554>

- Dam R, Elving WJL, Veen V (2019) Engaging millennials in the energy transition. In: Frandsen F, Johansen W, Tench R, Romenti S (eds) *Big ideas in Public Relations research and practice*. Emerald publishing company, Leeds
- DelPonte I, Pittaluga I, Schenone C (2017) Monitoring and evaluation of sustainable energy action plan: practice and perspective. *Energy Policy* 100:9–17. <https://doi.org/10.1016/j.enpol.2016.10.003>
- Dittrich G (2014) *Spin sucks*. Pearson Education, New York
- Dittrich G (2020) The newly refreshed Peso model, graphics and process. Retrieved on March 30, 2020 from <https://spinsucks.com/communication/refreshed-peso-model/>
- Elving WJL (2005) Communication and organisational change. *Corpor Commun Int J* 10(2):129–138
- Elving WJL (2012) Scepticism and corporate social responsibility communications: the influence of fit and reputation. *Journal of Marketing Communication* 19(4):277–292
- Elving WJL, van Veen R, Jansz J, Wiekens C (2018) The Groningen nightmare; Loosing the social license to operate. Paper presented at Bled.com, Bled, Slovenia, July 5–8, 2018.
- Elving WJL (2019) *Duurzaamheidscommunicatie*. Inaugural speech. Hanze University of Applied Sciences, Groningen
- Frankental P (2001) Corporate Social Responsibility—a PR invention? *Corp Commun Int J* 6(1):18–23
- Grunig J, Hunt T (1984) *Managing public relations*. Holt, Rhinehart & Winston, New York
- Guardian (2020) Revealed: quarter of all tweets about climate crisis produced by bots. Retrieved, Febr. 28, 2020 from <https://www.theguardian.com/technology/2020/feb/21/climate-tweets-twitter-bots-analysis>).
- Hussain A, Aleksander I, Smith L, Barros A, Chrisley R, Cutsuridis V (2009) *Brain inspired cognitive systems*. Springer Science+Business Media, New York, p 298
- Horton M (2019) What are the effects of Fracking on the Environment. Retrieved on Jan. 9, 2020 from (<https://www.investopedia.com/ask/answers/011915/what-are-effects-fracking-environment.asp>).
- Hurst A (2014) *The purpose economy*. Elevate publishers, Boise, Indiana
- Kruger J, Dunning D (1999) unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *J Pers Soc Psychol* 77(6):1121–1134. <https://doi.org/10.1037/0022-3514.77.6.1121>
- Leyland LM (2005) The impact of trust and reputation on the transfer of best practices. *J Knowl Manag* 9(4):87–101
- Mayer RC, Davis JH, Schoorman FD (1995) An integrative model of organizational trust. *Acad Manag Rev* 20(3):709–734. <https://doi.org/10.5465/amr.1995.9508080335>
- McCarthy N. (2019) Oil and gas giants spend millions lobbying to block climate change policies [Infographic]. In *Forbes*, March 25.
- Morsing M, Schultz M (2006) Corporate social responsibility communication: stakeholder information, response and involvement strategies. *Bus Ethics Eur Rev* 15:323–338
- Ottman J (2011) *The new rules for green marketing: strategies, tools and inspiration*. Berret-Koehler publishers, New York
- Raworth K (2017) *Doughnut economics*. Random House, UK

- Soland M, Steimer N, Götz W (2013) Local acceptance of existing biogas plants in Switzerland. *Energy Policies* 61:802–810
- United Nations (2015) The Sustainable Development Goals. Retrieved on January 6, 2020 from <https://sustainabledevelopment.un.org/?menu=1300>
- Van Ruler B (2015) Dit zijn de 7 regels voor een geslaagde dialoog. Adformatie. <https://www.adformatie.nl/programmatic/dit-zijn-de-7-regels-voor-eengeslaagde-dialog>
- Wiekens CJ (2016) End-user research in PowerMatching City. In: Beaulieu A, de Wilde J, Scherpen JMA (Eds) *smart grids from a global perspective: bridging old and new energy systems*. Switzerland, Springer