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Chapter 10 - Moving a higher education school online: Florence School of Regulation's all-around online-ization

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INTRODUCTION

Florence School of Regulation was founded at the European University Institute more than a decade ago to bring together academics and practitioners working on the topic of EU energy regulation and policy. In what follows we will describe how the School progressively developed and put into practice an online strategy for its three core activities (executive education, research and policy dialogue, see Figure 10.1). This move online carried forward the School's development to become one of the leading European academic thinking hubs on energy regulation and policy as it allowed the school to deeply connect the world of the academy with the world of practitioners.

Indeed, the biggest challenge for the School had been to create an academically *robust* and practically *relevant* bridge between academic thinking and the world of professionals.[1] While the European focus and the magnitude of involvement of practitioners in the School's activities had been exceptional for an academic project since its foundation (see also Box 10.1), at no time the School could take for granted that it would meet its declared objective 'to function as a bridge between the world of academic thinking and the world of practitioners'. The activities of the School followed academic routines, schedules and approaches which were not always easy for practitioners to access: Academics and practitioners used different languages, valued different approaches and outputs, and were exposed to different working logics and constraints.

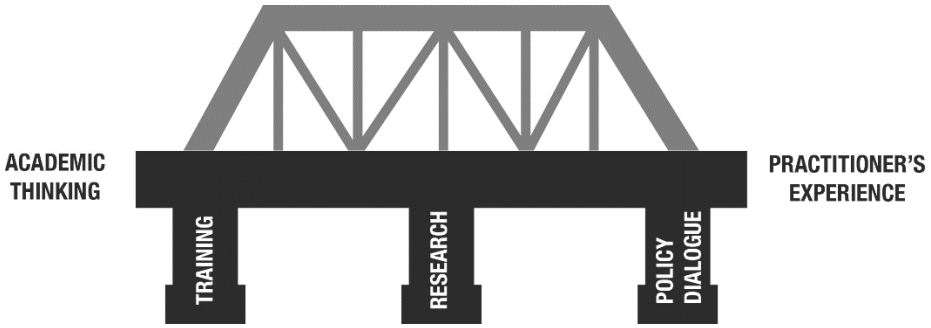
For example, while the young researchers of the School needed their work to be published in academic journals – using the style, specialized vocabulary and concepts of the discipline and bowing to a publication process in which research finding were made available after several months or even years – policy makers at the European Commission were desperate for clear-cut research findings that would provide guidance in their immediate decision-making, and formulated in a language that was accessible to a range of colleagues with different backgrounds and experience and the wider public.

As we had the ambition to create a true exchange, over the years, we had to question repeatedly our academic practices so as not to unnecessarily disrupt the dialogue between these two worlds. How might we ensure there was a real exchange of ideas instead of a talking past each other? How could

[1] Academically robust, as the research of the School had to be subject to established academic quality checks to gain academic credibility, such as publications in peer-reviewed journals, thus ensuring the recognition of the work within the academic community. Practically relevant as the research process, from the definitions of the research questions to the communication of the research, had to be accurate and timely and thus needed to be constantly exposed to informal discussions and formal debates with professionals working in EU institutions, national regulatory authorities, or regulated energy companies and the like.

we know that the training designed by academics for young practitioners was relevant for their professional development? And most importantly, how should we build a bridge that would provide access to anybody interested in EU energy regulation and allow for a constant and timely exchange of ideas, people, and knowledge both ways? As it turned out, the online-ization did play a key role to respond to these challenges.

We will start the chapter by describing how the school's core activities Source: Authors. Figure 10.1 Creating a bridge between academic thinking and practitioner's experience built on three activities were moved online in three subsequent steps. Each step is characterized by a different level of engagement with those outside the School or the academy (as, for example, global learners, policy makers, practitioners, private sector professionals or the wider public) and consequently a different understanding of how knowledge is to be created and shared in the 21st century. We will then review these three steps of moving the school online as to describe the opportunities these provided to the school to make knowledge more open, accessible, collaborative and timely. The chapter concludes by looking at those factors that are assumed to have been decisive for moving the School online.



Source: Authors.

Figure 10.1 Three pillars of activities to bridge academic thinking and practitioners' experience: training, research and policy dialogue

THE THREE STEPS OF MOVING THE SCHOOL ONLINE

Over the past years the School has progressively integrated a wide array of different online activities. This online-ization of the School triggered a process that has deeply transformed the way the School organizes its 'knowledge transfer to learners', the way the School communicates its research output within and outside the academic community (research communication), and the way it carries out research (research design).[2] Today, a comprehensive digital agenda is part of the School's core strategy.

BOX 10.1 FLORENCE SCHOOL OF REGULATION

[2] Different from many other academic projects or institutions, a move online was not primarily considered as an exercise to move teaching and learning online (see Chapter 4), but as we will illustrate, deeply changed the whole set of academic practices within the School. Yet, while the School's academic practices have changed, a move online has not necessarily replaced them. We will instead argue that the School today integrates the 'best of two possible worlds': The team, instructors, researchers and learners meeting and discussing on the ground as well as the community build around the School outside of the bricks and mortar of the School in the clouds.

Florence School of Regulation (Energy) was founded at the European University Institute (EUI) in 2004. The idea proposed by the three founders of the School was to provide a space for a dialogue between regulators, companies and scholars on EU energy policy making and regulatory practice. The understanding was that the European and neutral academic setting of the EUI would foster the creation of a common European regulatory language and, most of all, allow for a critical, independent and evidence-based discussion. Since its foundation in 2004 the School has undertaken different activities. First, the School has organized policy debates and workshops bringing together the various stakeholders and academics from across Europe where topics could be discussed in-depth and outside the daily routines. Second, since the very beginning the School has organized training on the legal, economic and technical dimensions of energy regulation, for young regulators and staff from regulated companies (see Chapter 4). Third, after some years, and to complement its activities as an academic project, the School started to undertake applied research, including a major research project that advised the European Commission on EU energy policy. Florence School of Regulation was thus built on three activities; policy dialogue, executive training, and applied research, in a core area of EU policy making (see also Glachant and Zorn, 2011).

In the following, we will distinguish three steps which describe the progressive online-ization of the School and the level and depths of knowledge creation and sharing it allows for. The three steps are inspired by Irwin's (2008) three orders of communication and engagement. Looking at the field of science communication[3] (with a focus on risk communication), Irwin distinguishes three orders of communication, each characterized by a different depths and level of engagement with the wider public (Table 10.1).

First order	**Second order**	**Third order**
Public is perceived as ignorant or uninformed (top down and one-way communication) Communication of scientific certainty Answers given by science are central to tackle the problem	Public is perceived as diverse and knowledgeable, with valuable contributions to make (two-way communication) Scientific process is perceived as a messy process with no certain answers Science communication is open and transparent	Nurtures meta-reflection of the relationship between science and society (first and second order) Different forms of expertise and understanding represent an important resource for change
Possible limits: Limits the exploration of a topic	Possible limits: Topics are selected and framed by public or academic institutions Input by citizens is not considered as evidence on which to act	Possible limits: Far reaching implication for how political decisions are taken and research is designed/governed

Source: Authors, based on Irwin (2008).

Table 10.1 Simplified summary of Irwin's (2008) first-, second- and third order thinking on risk communication by the authors

For example, the first order of science communication starts from the assumption that the public is ignorant or uninformed about a topic, and that with enough effort from academics 'the public can be brought to greater knowledge' (Irwin, 2008: 201). It is an example for a top-down and one-way communication that 'takes little account of the diversity, nor the possible knowledgeability, of publics'

[3] That is, the communication of scientific results to the wider society or stakeholders, in difference to scientific communication that targets the academic community, see also Bonfadelli et al. (2017

(Irwin, 2008: 202). A second order would instead describe the communication effort of an academic to get into a dialogue with external stakeholders, the general public, or interested non-academic experts. A second-order thinking is, however, still limited in its understanding of the 'weight' of non-academic expertise. A third order communication and engagement would describe a situation in which there is an open and transparent public dialogue on a topic with no pre-defined legitimate speaker, and where the contributions of various speakers is considered indispensable for social and political change. Third order communication may question the way decisions are taken, and thus may request a re-design of decision-making institutions.

Describing the main feature of each order with just one action verb, one could say Irwin's first order communication is best described as lecturing, the second order is listening, and the third order is collaborating. Building on Irwin's idea of a different relationship with, and a different role of, those outside the academic community, in the following we propose to distinguish three steps to describe the online-ization of the School (Table 10.2).

First step – Knowledge sharing	**Second step – Knowledge editing**	**Third step – Co-creation of knowledge**
Making knowledge open and accessible through language, channels, formats	Edited knowledge for self-directed learning and contribution to the building of expertise outside academia	Blurring the boundaries of expert/instructor and learner/public

Source: Authors.

Table 10.2 Three steps of online-ization of knowledge sharing and creation at Florence School of Regulation

The three steps describe the level and depths by which knowledge is not only communicated to those outside (as well as inside) the academic community, but the extent to which multiple non-academic audiences (including students and a wider set of learners from within the academic institution) are perceived as valuable or indispensable actors in the knowledge creation process. While non-academic audiences are assumed to have a passive role in the first step, in the second step these are perceived as self-directed learners, and in the third step they are considered indispensable contributors to the process of knowledge creation.

In contrast to Irwin's model, whose focus is on the role of knowledge for decision-making processes, the three steps we propose limit the focus on the way knowledge is created and shared by an academic project. In further contrast to Irwin, the three steps proposed here take a broader view of academic practices, as we focus on all three academic core activities discussed in this book's Introduction, that is, teaching and learning activities, knowledge exchange and research practices (see Figure 0.1 in the Introduction).

Step 1: Knowledge Sharing at the School. Giving Access to Research Output and Discussions

When the School set up its research strand in 2008 and attracted a team of researchers to join the School, it started to produce research outputs in the form of working papers, research reports and peer-reviewed journal publications. These were the common formats and ways of sharing research output within academia and certainly did prove the academic robustness of the School's research. With a relatively small team of researchers, in the first five years after its research strand had been set-up the School had published more than 60 peer-reviewed journal articles, published 14 books and edited six issues of academic journals (Florence School of Regulation, 2013) (Figure 10.2).

Yet, as the School was set up as a space to communicate with a wider set of experts and policy makers, instead of forming a closed and exclusively academic dialogue, there was an interest in making the research outputs accessible to a wider audience. That is, instead of feeding the research outputs only into the usual academic channels (through, for example, academic conferences and peer reviewed journals), we discussed at the School what could be done about the often *inaccessible academic language,* the *lengthy formats, limited dissemination channels* and the *slow-paced delivery of outputs* that made the knowledge inaccessible or untimely for many interested professionals. Some articles were not even accessible to many of the School's own stakeholders, as research results were published in journals for which an institutional or personal subscription was needed.

Source: Authors.

Figure 10.2 Number and range of academic publications (2010–2017)

The School thus started to discuss its own practices, involving all the different team members (researchers, management, project assistants, and a new team of multi-media professionals and knowledge workers) looking for additional and alternative ways to better share its research output.

For example, so as to encourage the School's researchers to make their academic publications available to experts without access to journals with paywalls, a series of discussions on open-access was organized. Researchers of the School investigated the pros and cons of publishing academic articles in open-access journals, at the start most of them not even aware of the open-access movement and the various options available.

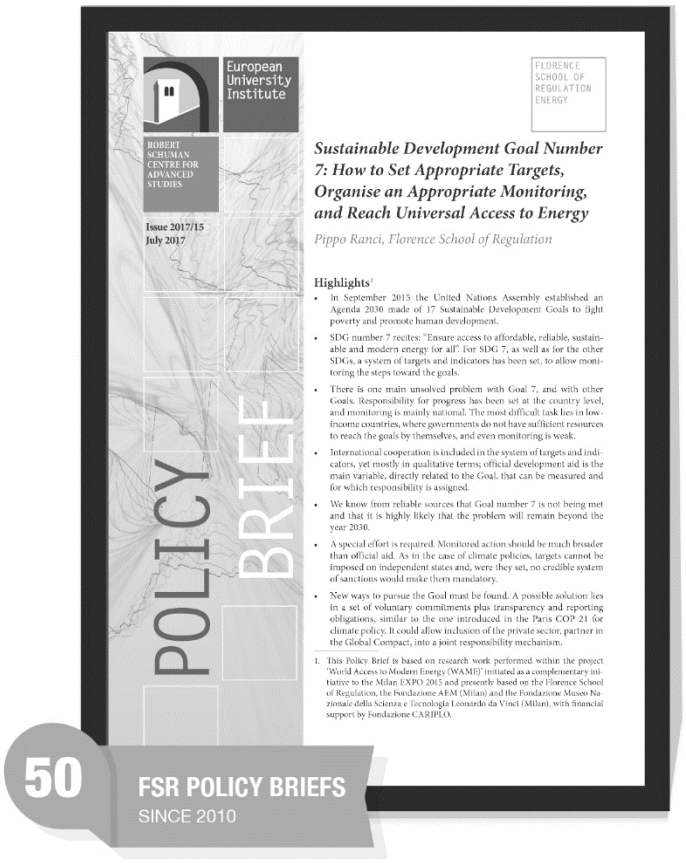
Around the same time, the School took advice from a senior policy maker saying that it would be unlikely in his professional routine to have the time to read through a 50-page research report (or for that matter a 15-page open-access peer-reviewed journal article), no matter how important the topic dealt with might be for his area of expertise.

We learned that it would make the life of any decision-maker much easier to get a short summary in the form of policy briefs of the main take-away messages – even without necessarily containing directly implementable policy recommendations (Figure 10.3). Policy briefs were short formats, written in an accessible language and freely available on the School's website, and widely distributed in its digital format to the School's stakeholders and interested experts. The policy brief, apart from its more accessible language and format, also had the advantage (compared to a journal article) of making research findings available in a relatively short time span – usually a few days after a research report had been published. The briefs provided digital links to the longer research reports for those interested in getting an in-depth discussion of the subject.

Roughly at the same time as we started to discuss open-access publications and policy briefs, we started to run one-hour live online seminars (or webinars) during which researchers presented their research outputs. These were usually attended by 80–150 professionals and academics and provided

a possibility to share the School's latest research outputs. It allowed participants to update their knowledge on a topic without having to leave their offices in Brussels or Ljubljana (seat of the EU Agency for Energy) and to get in touch with the researchers who had carried out the research.

The School also started to open a crack in the doors of the dozen closed door workshops taking place in Florence. Each academic year hundreds of academics, regulators, private sector professionals and policy makers come to Florence to discuss and update their knowledge at one of the School's many activities (e.g. conferences, policy workshops). To let other interested people know what was being discussed in Florence, short statements of the speakers on what was their main contribution to the workshop were video recorded. Thus, anybody interested in getting a glimpse of, for example, the latest development on organizing the internal energy market, could do so easily shortly after the workshop (usually 1–2 days) by watching these five- to ten-minute workshop highlights.



Source: Authors.

Figure 10.3 Policy Briefs[4]

[4] In 2011 the School started to publish short summaries of the research outputs in the form of open-access policy briefs. To do so, the School hired a part-time researcher who investigated the language, formats and style of policy briefs and then translated the research reports into four to six pages summaries. The policy briefs were finalized in a close forth and back between the author of the brief and the researchers who had carried out the research, as to ensure no major finding got 'lost in translation', and both, the editor of the brief and the researchers were recognized as authors of the policy brief. Since then, the School has published more than 50 Policy Briefs.

Also, conferences or events that were not held under Chatham House rules[5] were live-streamed and the recording made available after the event. Ideally these were offered in various lengths (thus again offering a summary of the discussion points) as seminars or conferences are rarely watched in full length online.

The School, however, not only opened the doors to what was happening in Florence. The director of the School spent at least half of his time speaking at academic conferences, contributing to policy discussions, attending high-level meetings, or discussing new projects elsewhere. To share what the experts he was meeting around the globe had to say, he started to record short audio interviews feeding into the School's podcast series (see Box 10.2). With the workshop highlights, conference streaming and podcasts, the School was therefore able to share timely insights and contributions of academics, policy makers, regulators or other professionals.

The School thus had started to experiment over the years with a series of formats and different dissemination practices, which spanned blogs and policy briefs, online seminars, video highlights, video interviews, podcasts and video lectures, just to name a few. After a few years, the School's YouTube channel (thus one of the many new dissemination channels used) had gathered more than 170,000 views and more than a 1000 people had subscribed to the channel as to get alerted when a new video was uploaded. The School was thus reaching out to many more people than what would have been possible with its activities in Florence, making content more easily accessible, open and timely (Figure 10.4).

Each format responded to the different preferences of professionals as to how they wanted to access the School's debates at any moment in time. To do all this the School had hired a team of communication professionals (graphic designer, multi-media specialist, film editor) guided by a knowledge editor (an academically trained professional with an understanding of the topic). The team constantly experimented with new and more engaging formats (such as, for example, infographics to visually provide condensed information), language and channels to better share what was discussed and produced at the School. For example, the School elaborated different ways that would allow a listener or learner to quickly and easily decipher information based on insights from cognitive science on how attention is raised and how information is most easily accessed and stored.

BOX 10.2 PODCASTS AT FLORENCE SCHOOL OF REGULATION

Even though the School had invested a substantial amount of resources in a multimedia team, shipping a filmmaker with equipment to every conference venue the School's director was attending as to record discussion highlights was not an option. The multi-media team then came up with the idea of starting a podcast series. The one-minute conversation and ten-minute training went somehow like this: 'Jean-Michel, why don't you simply use your phone to record interviews with people you are meeting?' 'My phone? What do you mean? What could I do with just a phone?' 'You could use an app to record interviews, use the camera to take photos, send all to us via email with one click and we can make a podcast series!' 'Mmmm. Me, producing podcasts . . . on my own? Why not, we can try!' 'I'll show you how it works, it is very easy! . . .' It took a few minutes to test the technical aspects and even less to make it work for real a few days later when the director was meeting a high-level civil servant at the European Commission. Today all researchers at the School are trained to produce podcasts from the events they attend. They even started to take selfies for the podcast cover and to analyze the metrics. The

[5] 'When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed', Chatham House, the Royal Institute of International Affairs, retrieved March 2018 from https://www.chathamhouse.org/about/chatham-house-rule

School's playlists feature speakers from the European Commission, Nobel Prize winners and CEOs of energy companies. Rapidly the School became an on-demand energy web radio to feed the current debate.

The experimentation with new ways to share its research output and what was discussed at the School also fed into the development of the School's online course, such as the new video lectures formats and a variety of tools to engage learners in online events (see also Chapter 4).

Source: Authors.

Figure 10.4 The School's efforts to share its activities and output and engage with multiple audiences (since 2011)[6]

Step 2: Editing of Knowledge. Florence School's Role as Guarantee of High-Quality Knowledge

The School had thus started to develop numerous information 'bricks' that could now be accessed by a variety of interested experts who were not participating in the regular on-site activities of the School. As these 'bricks' were stored online, many more practitioners and academics could access what was done at the School from wherever they were and when they wanted, in the form they wanted.

[6] We would like to thank Matt Langthorne, multi-media specialist at FSR who has been an innovative and indispensable colleague in our effort to better share the School's output over all these years.

Yet, while the School regularly informed its audience about the latest discussions through well-designed dissemination efforts, the knowledge 'bricks' were in the end no more than an untidy pile of disconnected pieces. Simply giving access to the information did not necessarily allow interested experts to find what they were looking for, to learn about topics they were potentially interested in, or to be able to feed the knowledge created at the School into their work.

After some time and experience in developing different formats of communicating its research, the School then had to tackle another challenge: How to find your way through the enormous amount of pieces of information by combining it into coherent sets of knowledge? Similar to the policy maker who would not have the time to find her way through a 50-page report, how was it possible for anyone to find what they were looking for in hundreds of pieces stored on a website or spread across a series of social media channels? What was the incentive for someone to look through an enormous amount of disconnected pieces, potentially interesting but where most of the material was not of immediate interest? The *technical* and *cognitive* access to stored information was not sufficient to learn about a topic, to gather the key dimensions of a problem, and to find the relevant evidence when working on a policy proposal, for example.

Indeed, one of the main ambitions of the School as an academic project was to challenge taken-for-granted conceptions and definitions of problems in the energy sector, not simply to provide information on energy regulation. The organization and editing of knowledge in the field was thus considered as – or eventually more – important as the provision of the information.

To do so, the School firstly published an online encyclopedia. This online encyclopedia provided a short one to two page introduction to dozens of concepts in energy regulation and policy. In the bibliography of the encyclopedia entry the reader could then find core academic readings from the various disciplines, as well as all knowledge 'bricks' produced at the School. The articles were written by researchers at the School and peer-reviewed by other experts in the respective field. The online provision of these articles made it possible to update the content relatively easily and to add any relevant additional material produced at the School.[7] These articles offered an organized access to a variety of key concepts and could be accessed on the website of the School, but instructors of the School could also use these articles when assembling their reading material, and course participants could use it to look up terms or concepts they were not yet familiar with. The encyclopedia was introduced at all training courses of the School as a free online learning resource, and was also presented at the policy events of the School as a tool that could be used by practitioners to get access to key terminology and the latest research in that area.

Further, and most importantly, the School organized its web content around a set of keywords and tagged content. All activities, such as training courses, policy events, publications and the wide array of multi-media content of the School were organized around six core areas of energy regulation stored within the same database or repository, allowing people with a specific interest in one area to find all other outputs or activities of the School (Figure 10.5).

[7] Even though it looked similar to the Wikipedia, the project was authored only by scholars of the School.

Source: Authors.

Figure 10.5 Areas organizing all activities and output of the school

The School also developed its dissemination strategy around organized items that would already offer a selection of connected knowledge 'bricks' to the readers.

Third, the School designed online courses around specific research topics to guide learners through a set of outputs and discussions produced at the school. Researchers translated projects into several week-lasting online courses where participants were led through a variety of activities, online material and also attended live events (see more in Chapter 4).

The dissemination strategy of the School was thus designed to not simply share the latest thinking on a topic, but it selected, edited and organized the knowledge in the field. It provided a comprehensive database containing everything from classic academic (open-access) publications to the whole range of multi-media material output and all sorts of activities done at the School (including online courses). Further, the School offered organized access to this content, as a 'ready-to-use' container within an email or on specific topic pages so as to give readers the possibility to 'trip over' items that are potentially interesting to them.

Not only did this organized access within a knowledge gallery allow experts all over the world to quickly find what they were looking for, but it also made it possible for the instructors and researchers of the School to access and use the content for the various activities of the School. That is, for example, instructors could easily compose learning material, or researchers could make sure they were on top of the latest discussion on a topic. The School thus made its knowledge storable and accessible but also became a knowledge editor on EU energy regulation and policy. If you wanted to dig deeper into a topic you could do so easily on your own by getting access to organized knowledge lasting from few minutes of reading (policy brief), or watching video series (5–20 minutes), or attending several week-long online courses.

Step 3: Knowledge Creation at The School

When the School started changing its practice of sharing its research findings (language, formats, channels, organization of access to knowledge), as well as the way in which this knowledge was 'transferred' and edited, soon the model of how the research process was designed (as well as how

its executive education was designed, see Chapter 4) was questioned as well. The research model at the School was originally based on a traditional linear design, starting from the research question and ending with the final research finding and its publication and dissemination. The traditional model was composed of periods when researchers engaged with colleagues to discuss their research (for example reactions to research proposals at the start of the research process, or presentation of findings at conferences at the end of the research process), and longer periods of retreat when evidence was collected or during the write-up phase (see also Bonfadelli et al., 2017).

However, using the new practices described above to share their findings, researchers increasingly had started to open-up the end-of the research and one-way dissemination. For example, when presenting their research findings in the School's online seminars to dozens of academics and experts working on EU energy regulation across Europe, researchers got useful questions, feedback and ideas. Instead of disseminating their research one-way (from the academic to a wider interested audience) researchers had started to engage with their audience and communication had started to flow both ways (European Commission, 2017, 2014).

This two-way communication was appreciated by both researchers as well as the energy regulatory experts. One the one hand, it gave researchers recognition, feedback and visibility for their work. They could experience first-hand the meaning (and possibly the impact) their research had for other professionals working in their area and could test their findings with a critical audience composed of academics and practitioners. On the other hand it gave experts a say on the relevance, accuracy or timeliness of the research findings.

With the move away from one-way dissemination to two-way communication the research process was, however, transformed in other ways as well. Indeed, the whole research path was opened up to other experts from the early stages of the definition of a research question to the questioning of 'final' findings. Using online seminars or virtual meetings one could engage with experts easily at various stages of the research process in a relatively short time span and with relatively little resources (compared to, for example, organizing a workshop with people travelling to Florence from all over Europe). This allowed researchers to invite experts during the early stages of the research process to get input and advice as, for example, to check the accuracy of the information, or the timeliness or relevance of their research question. Online seminars were indeed starting to be used not at the end of the research process but during the whole cycle of the research process. As it was online, even high-level experts were easily convinced to contribute to these online meetings, as it did not require them to travel or being away from the office for several days.

Also, policy briefs that had initially been published towards the end of the research process as to summarize the outputs from a longer report were now used as a short briefing during a first phase of the research process. These policy briefs were discussed with a group of stakeholders during a high-level expert meeting composed of academics, policy makers, regulators, and regulated companies. A process of communication loops had started where researchers engaged with potential users or interested experts, also questioning what previously had been considered 'final' findings that would then lead to a continuation of research in the form of new research projects.

Another important tool for the research practice of the School was the fact that the School's Director had started to use Twitter. Encouraged by his young team members, he started setting-up an account (albeit initially half-heartedly) to soon discover the potential of Twitter and becoming an enthusiastic and most active tweeter at his university, being followed by thousands of academics, policy makers,

regulators and other professionals from around the globe. Not only did he start to connect to, and discuss with, other experts across Europe, he was also able to enhance his own academic practice[8]:

> Twitter really is how we spontaneously think and interact in academia: you typically do this at conferences where you have no time to discuss at length with your neighbour and you ask about a recent paper and the two to three most important ideas [to get you colleagues evaluations and insights]... Also, all information is stored in Twitter, it is very similar to keywords and abstract we use in academia. (Interview with Jean-Michel Glachant, Director Florence School of Regulation October 2016)

Twitter can also be used to screen whether a topic is of interest, the same way abstracts or references are used, screening a topic and, in a case of potential interest, digging deeper into the content provided (links to papers, to conference slides, and so on):

> You first check whether there is a possible interest, the likelihood of interest, you can very quickly check, then you can dig in deeper and deeper as there are hundreds of stored documents you can access via Twitter. (Interview with Jean-Michel Glachant, Director Florence School of Regulation October 2016)

Most importantly though, it allowed the director of the School to constantly monitor the policy landscape, following emerging topics and discussions:

> ... You enter into things you did not know five seconds before, the core of Twitter is that everything is posted ... it's a fantastic tool to discover and monitor [potential research questions]. (Interview with Jean-Michel Glachant, Director Florence School of Regulation October 2016)

One the one hand, the School's research agenda could thus be inspired by the ongoing discussions on Twitter. On the other hand, research questions and findings could also be tested for their relevance and accuracy by feeding them into the discussions and receiving feedback from a community of experts build around the Director's Twitter account. The sometimes fast-paced development of how a topic was tackled in the policy context, thus allowed researchers to stay at the forefront of thinking. Being connected with this community, and the debates happening within that social media community, allowed the School on the one hand to screen potential topics for investigation, and on the other hand to test assumptions or the relevance of a topic.[9]

Twitter was also used at the School's (live streamed) conferences. Researchers of the School summarized the main discussion points in Twitter feeds and participants (in the room or attending from elsewhere) intervened in the discussion, shared their views and provided additional information (arguments, papers, evidence), thus allowing for a parallel debate online, accessible and open for anybody to contribute.

At the School, we also reached a point where the boundaries of research communication or the sharing of knowledge, research activities, and teaching and learning activities at the School (delivered in the form of executive education) became fuzzy. This happened, for example, when ongoing

[8] Knowing that websites are usually not the primary tool to give access to information any more (The New York Times, 2014) but that tools were needed to direct people to the School's website, the Director's personal Twitter account was an excellent tool to guide people to the School's website.

[9] This s not to say that researchers should not and have to come up also with research questions that are not even on the horizon of the policy debate. It is probably about finding the right balance with wanting to have an impact for the better and long-term conceptions and discussions on how we want to live.

research or preliminary results were discussed during online courses, but also when research was shared so as to continue to explore new areas of investigation. As discussed in more detail in Chapter 4, an online course that discussed ongoing issues addressed by EU policy makers, allowed a variety of people to connect: Researchers willing to share their research and interested to test their reasoning or exploring new areas of investigation, learners that wanted to get a deeper insight into one aspect of the topic but were knowledgeable in another area and contributed their expertise, policy makers giving details on the policy process, but willing to get new ideas, feedback on their way of tackling an issue and so on. It sometimes was difficult to clearly distinguish who was the 'sender' and who was the 'recipient' of information. These online courses are best defined as a collaborative learning experience involving a multitude of actors.

WHAT DID THESE THREE STEPS ALLOW THE SCHOOL TO DO?

As the three steps discussed above illustrate, the School has changed its practices over the past years as to how its research is communicated outside the academic community, how the knowledge at the School was edited and organized, and how knowledge loops and collaborative learning changed the way knowledge was created at the School.

In a first step, the School made an effort to use a broad variety of available communication formats, channels and language to make its academic activities accessible to more and different professionals outside the academic community. It describes the School's efforts to share knowledge more openly and making it more accessible also by tapping into insight of how information flows and how people absorb new and complex information, and in formats that trigger and support understanding and learning. The second step describes the efforts by the School to propose a meaningful organization of the knowledge in the field of energy regulation and policy, allowing learners (here understood as anybody wishing to get additional insights on a topic) to self-guide their learning. The modular and organized knowledge could also be composed and re-organized by instructors and researchers of the School. The second step (editing of knowledge) taps into the privilege of a higher education institution to being widely recognized as the legitimate gatekeeper of reliable information and trustworthy knowledge. The third step describes how the School moved from a linear research design and 'transfer of knowledge to learners' towards experimenting with collaborative learning and co-creation of knowledge, and a research design being based on knowledge loops. In the third step, knowledge creation is understood as a collaborative process, where continuous knowledge loops between academics and non-academics, between teachers and learners, and various actors (and where boundaries between these different roles are often blurred) is perceived as a necessary condition to advance knowledge.

What do these steps describe with regard to the move online, and what did it allow the School to do? Each step describes a different level and depth of seizing the opportunities that an online-ization offered to the School. Using the four lenses offered in the Introductory chapter, a move online made the knowledge creation and sharing more accessible, open, timely and communicative:

Accessible as the School made efforts to chunk and organize its knowledge and make it available in formats that allowed learners with different preferences or styles to access the material. Putting learning material and teaching units online, such as registered webinars, recorded video lectures, and modularizing the content into pre-organized and searchable units (defined areas and tagged content), also allowed instructors of the School to access each other's material and integrate it into learning units.

Open, as the School opened the doors of what was happening at the School, for example by putting ajar the doors of closed-door workshops to share the discussion with a wider audience, by making its research more openly accessible by sharing early results and allowing feedback and input, and by moving towards open-access publishing formats, just to name a few.

The online-ization of the School also allowed information to flow **timely**, as in the case of live streamed events, or in the case of video highlights published shortly after workshops have taken place in Florence. Digital publications such as the policy briefs and blogs also meant that research outputs were available within days instead of months or years, as is typical for the academic publication process.

Finally, the online-ization allowed the School to get in touch with a wide community of experts so as to discuss its thinking. Also, the possibility of gathering people from many distant places who are happy to share an hour of their time during an online seminar, but not able to join a physical meeting in Florence or elsewhere, allowed the crowdsourcing of expertise and thus enhanced the **communicative** and **collaborative** efforts of the School to have a dialogue with a wide set of actors.

The move online allowed a bridge to be opened to the public and any interested expert, moving knowledge and expertise from one place to the other. It thus made the knowledge accessible to more people, but also more relevant and timely as more people were able, then and there, to contribute their knowledge.

MAKING ONLINE-IZATION HAPPEN

The three steps described above did not evolve in a linear or sequential path. Instead, there was a back and forth and overlap of these three dynamics, accompanied by constant discussions, pilots and steep learning curves for all involved in the activities of the School. Moving up the ladder of online-ization also did not imply abandoning the practices of the first and second steps: The first and second steps were meant to stay. Indeed, many academic institutions would benefit greatly from tapping into the potential of the first and second steps of moving knowledge online, in particular by providing an edited and modular access to their thinking.

While the School, importantly, built on pre-existing networks, and physical encounters and traditional academic practices continue to play an important role at the School, the extent to which practices have changed and allowed for the School to become a leading thinking hub in its area would not have been possible without its online-ization.

What were the resources on which the School could build to make this online-ization happen? In the beginning, no clear picture of where we were going existed, nor did we have a roadmap. There was simply a discomfort with the existing practice of the School, as we knew we could do better. In addition to investing roughly one-third of the School's resources into the creation of a professional multi-media team and knowledge editors, we think the nurturing of three cultures were essential to move the school online.

First, the School nurtured a **culture of constant questioning**. For example, when the first online course had just been completed (see Chapter 4), the multi-media team and course editor started pondering how the course could be further improved, for the learners, the instructors and the team. There were learning activities that did not work out the way we had anticipated (sometimes for unknown reasons), the work load for instructors or course participants had to be adjusted, expectations of both had to be managed differently, or technical features of the platform were an obstacle to certain forms of collaboration and communication. While we did not address all issues at the same time, each edition

was considered an opportunity to improve the course further. In a similar vein, dissemination practices were constantly questioned on the basis of data analytics, or by discussing the researcher's and the multi-media team's feedback of what seemed to work and what worked less well.

This constant questioning avoided new practices simply becoming institutionalized, without questioning 'why are we doing things this way and not differently'. Certainly, there were also limits as to how much we could question and improve. The culture of questioning was not necessarily a daily practice, but it was about finding the right balance between getting familiar with new practices and the set-up of regular meetings where we fundamentally questioned the way we were doing things: A form of institutionalized disruption.

Second, the School nurtured a **culture of mutual recognition of expertise**. Over the years the School had grown into a team with a diverse set of skills in addition to the academic faculty. A strong emphasis was given to creating a link between the various expertise available at the school: The content knowledge of the instructors, the experience the multi-media team had gathered from a variety of online activities, to insights into how learning and sharing of knowledge works of the knowledge workers. Importantly, while each member of the project had some ownership of his or her area of expertise, all were invited to comment or criticize each other's work and to provide support and insights at the same time. This was important, as we all faced different constraints that needed to be taken into account. For example, concerns of (young) researchers were taken into consideration when discussing the move to more open and less traditional publication forms. The concrete support and training of researchers by the multi-media team, for example, how to get more visibility for their work, was crucial here.

Third, and perhaps most importantly, the School nurtured a **culture of measured risk taking and learning**. The School's management did not only allow but encouraged anybody working for, or with, the School to experiment with new tools or to propose new ideas. With time, this became a working habit. While being constantly challenged to re-think their area of expertise, this was happening in an environment of psychological safety (Delizonna, 2017; Senge, 1990), where learning from mistakes was strongly valued and presentation of new ideas valued in common meetings attended by all members of the School.

Certainly, Florence School does not (yet) address areas of higher education where it faces some major challenges, such as mass education of young adults, transferable accreditation of (lifelong) learning, or increasing tuition fees. However, the School did respond to some typical challenges of higher education institutions by moving its activities online, such as, for example, helping to redefine the relationship between research and teaching (Fung, 2017), the pressing demand to constantly update knowledge, responding to the request to higher education to play an important role for lifelong learning, making the process of knowledge creation more open and transparent (European Union, 2017).

The School also faced many challenges on its way to online-ization. Years of trial and error, and the willingness to constantly question practices and learn from each other, were needed to make this work in practice. Not only the School's researchers needed to be trained as to acquire, for example, the necessary skills for engaged research (see for example Holliman and Warren, 2017), but also the audience and learners had to learn how to attend and participate in webinars.

One important lesson when engaging in online practices is certainly to accept that there are tensions that cannot easily be resolved. To communicate research results better, scholars have to take time away from those activities that they assume will bring them the best credentials for an academic

career (most importantly peer reviewed journal articles, but also attendance at academic conferences and so on). However, it turned out that the visibility the researchers got through the online practices, allowing them to become visible experts and getting feedback on their work and seeing the tangible impact of their work in the policy discussion, were much welcome by young scholars. Being able to rely on a team of experienced knowledge workers that would help them get acquainted with new practices, as for example, how to write a blog that sounds and looks good, was important for researchers to try out different practices for sharing their research. The extent to which online practices contribute to define meaningful academic work might be an interesting area of study here.

Briefly, the online-ization' of the School first allowed for a deep and systematic integration of the School's three core activities (policy dialogue, training and research) by making knowledge circulate among these activities and thus ensuring the accuracy and timeliness of all its thinking. Second, moving activities online allowed constant knowledge updates among academics and practitioners working in the field: on the one hand the move online has permitted the School to feed robust academic thinking into the wider expert discussions, and on the other hand it receives constant feedback on the relevance of its thinking. This chapter argued that the move online encompassing all of the School's activities and being today a core element of its strategy allowed the school to build a relevant, robust (and busy) bridge that was a necessary for it to become a leading academic thinking hub in the area of EU energy regulation and policy.

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