Science Communication as a Creative Endeavor

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Abstract: CONNECT 2025 was a conference for students and lecturers in the Western Balkans to connect and improve scientific cooperation between their countries. Students were given a chance to work on group projects where they would learn how to present and communicate their scientific research. In this article, I describe my experiences at CONNECT 2025 with a focus on the group project I participated in. I emphasise the creative process behind science communication and the structured approach to artistic creation.

Keywords: science communication; creative process; student engagement; interdisciplinary teamwork; social media outreach

1. Introduction

In late August of 2025, I got a chance to travel to Neum and participate in Connect 2025. This was my first time participating in a conference and one of the first times I left home on my own. I met many great and interesting people there, students and lecturers alike, and got to hear many interesting things I never heard before.

The only trouble that CONNECT 2025 gives me is when I want to describe it to other people. It isn't a scientific conference like most people know them; it's not a string of research papers read out to other researchers that would only confuse the uninitiated bystander. The lectures discuss what happens outside the laboratories, how research gets funded, scientific cooperation, science communication, and so on.

More than the lectures and the subsequent discussions, however, it's an opportunity for somebody who has never stepped out of their comfort zone to see what being at a conference is like and how connecting with others isn't just beneficial for your career, but also great fun and a wonderful experience.

It is somewhat surprising, then, that the part of my stay I remember the most is the time I remained alone in my hotel room for hours, sitting at my computer. While I wasn't connecting with other people at the time, I was working on a group project meant to connect ordinary people with scientific research.

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2. The Project

Our project [1] was to make a video meant to be shared on social media, promoting new scientific research. We decided to make a video on a novel approach to recycling plastic by using it as a building material. Environmental concerns are widespread today, and people are eager to hear of ways to improve the world they live in. However, social media is full of calls for eco-friendliness and care for the environment, and people are overwhelmed, and some are even desensitized to such messaging. Thus, our video needed to stand out and regain the interest of the average person.

This is where the creative process begins. We wanted to make something original that viewers would not have seen often before and would continue thinking about after the video ended. This is very much unlike scientific research. If we have sampled already existing videos and measured their success and reach, we would have made something that people have seen already and gotten tired of. We needed to take the opposite approach, make something new and mold it along the way.

This isn't to say that the process wasn't structured. We began with a simpler project, a social media post featuring multiple slides, mostly consisting of text. The text itself was later used as narration in the final video. The text was divided into two thematic parts. The first part focused on the issue of microplastics and how widespread they are in the world around us. It focused on things people do every day and how microplastic pollution affects them.

The second part focused on the solution to the raised problem. It had a much more optimistic tone, in contrast to the first part and most environmental campaigns. We felt that it was important to have that contrast, not just because it would make the video unique but because people would engage more if we were constructive in our messaging. Like with the first part, the focus was on things close to an average person, the kinds of useful things that could be built out of recycled microplastics. This division remained and was the main feature of the finished work.

Work was divided among the members of the group, and I agreed to do the sound design and music composition. I worked closely with the maker of the video to fit the music and sounds with the events in the video. I made the music using Sonic Pi [2–4], a programming environment for making music through code, which has been shown to support interdisciplinary learning at the intersection of music, programming, and computational thinking [5,6]. It would be out of the scope of this article to discuss the workings of Sonic Pi or describe my approach to composing music. I will instead briefly show a few aspects that might interest the reader, especially those who are familiar with programming or aren't aware of how systematic and structural development could be

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applied in making art. Code 1 shows a block of Sonic Pi code, named `problem`, which generates the music for the first part of the video.

```
1. define :problem do
2.   2.times do
3.     m1
4.   end
5.   m2
6.   m1
7.   p :c3, 2
8. end
```

Code 1. Sonic Pi function used to generate the musical theme for the first part of the video

In this code, `m1` and `m2` are names of other blocks of code already defined, and `p` is a shorthand that plays a note for a certain number of beats, and waits for it to finish. With that in mind, the above block of code reads almost like English. First, the melody `m1` is played twice, then `m2`, then `m1` again, and finally, this portion ends with a 2-beat-long c3 note.

Programmers would notice some industry best practices used in that code. In particular, as is often done in more conventional applications of programming, a certain part like `m1` could be played and tested independently, and details of it could be changed without major disruptions to the rest of the code. Code 2 illustrates how the individual musical components are combined to form the complete composition.

```
1.  use_synth :tri
2.  problem
3.  sleep 3
4.
5.  use_synth :rhodey
6.  sollution
7.  ppt [:b, :gs, :fs, :e, :d, :fs, :a, :b], 0.25
8.  use_octave 1
9.  sollution
10. p [:c, :e, :g], 1
```

Code 2. Final Sonic Pi code assembling the complete composition

Note how most of the code doesn't concern itself with what synth (instrument) is used, just with the notes and their duration. The rest of the sound design was relatively trivial. Another member of our group did the narration, and used AI to improve her accent. I mixed the music, the voice and some sound effects together into an audio track, which finally got merged into the video.

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3. Conclusion

It's difficult to understate the importance of science communication. Non-scientists learn about science not through scientific papers and lectures, but through dense, easily shareable social media posts and impactful videos and stories.

These non-scientists aren't just ordinary people, they are also our lawmakers and influencers. It's important to remember that science communication doesn't propagate in a vacuum, and that just like all other kinds of media, it needs to be original, well-made and speak to its audience. In the case of science communication, the goal is to inform and, more importantly, to make the audience think, to critically engage with the subject and make well-educated decisions in the future thanks to what they learned.

I remember when our video was presented at CONNECT 2025, and once it was done, one of the audience members criticised the promoted scientific research since turning plastic into bricks doesn't make it go away, it just kicks the can down the road. Given that he and other people in the audience were paying attention to what we had to say, I'd consider that we communicated science very well.

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