Working in cafés and on the move – “Electric sockets in aircraft are unbelievably useful” – Arianna Betti finds connections between her philosophy and other areas of knowledge, including languages, history, library sciences and no less important, computer science. She in no way reflects the stereotypical image of the academic in the ivory tower that philosophy might suggest. “The fact that I connect my research with absolutely everything is typical of me. I think it’s great. Philosophy is not a subject that should isolate”, she says. The prestigious Starting Grant from the European Research Council that she was awarded four years ago has really helped in her research. “You can use this kind of funding to set up your own research line. The freedom that offers helps to make you creative.”

Nowadays, funding bodies place a lot of emphasis on the relevance of scholarship to society. Betti succeeds in attracting major grants. Does this mean that her research is of major importance to society? “Yes”, says Betti. “It may not be possible to apply philosophy directly, but you need people who can think effectively at a higher level of abstraction. That abstraction helps society to evolve. Rich societies can afford to fund this kind of research.”

Rich societies can afford to fund this kind of research

NEW TOOL
In general terms, that may be the case, but Betti is no ordinary philosopher. It comes as no surprise that she attracts the attention of the funding authorities. Like any philosopher, she starts by reading texts and analysing them with the utmost scrutiny. This still forms the basis of everything she does. However, with her team she has devised a new research tool, an interpretative framework, consisting of questions that researchers ask of all the texts they analyse. “It is quite unusual for philosophers to use this kind of framework. It acts as a kind of research lens: we search for specific characteristics. Imagine you were trying to research animals on an unknown planet, where the animals are different from ours. If you want to be able to say ‘this is not an armadillo’, you need first to have defined what characteristics an animal must have in order to be an armadillo. If it does not have those, it must therefore be something else. So we use our framework to provide, for example, a description of what ‘science’ or ‘knowledge’ is, according to a specific idea. You need to have an idea of what you are looking for, or you will find nothing.”

GOOGLING THROUGH CENTURIES OF WORK
Betti aims to go even further. She would actually like to investigate all of the philosophical texts of the last two millennia in terms of the context and history of their underlying ideas. She realizes that this cannot be achieved without using computers. There are simply not enough academics with the right expertise in the world to do that. In any case, they are driven by their prejudices.

‘Imagine I am in a library full of books. Where do I start?’

“Imagine I am in a library full of books. ‘Where do I start?’ Usually, someone will tell me what is important.” Betti would prefer to leave it to the computer to say which texts are important, based on what it finds in the texts. That is why she is now working with computer scientists to develop technological solutions that she can use to process more texts. Her dream is to search for structured information, for words in their context and in relation to other words. To do this, you need much more intelligent search engines than the ones we have today, that only search for how frequently a keyword occurs. Ultimately, Betti hopes to be able to have a computer visually chart how philosophical concepts ‘travel through time’.

NURSERY SCHOOL
Betti is fascinated by the relationship between language and the world. People are able to talk about things that you cannot touch or point to, things that have no tangible form or do not even exist. Despite this, there are words that refer to them. The concept of ‘truth’ is one example. Is truth an agreement that we make about what is true? Or is truth a reflection of how things really are? At secondary school in her native country of Italy, Betti discovered that philosophy fulfils her need for abstract thought. “Even as a child, I wanted to think at the highest possible level of abstraction. I was not interested in what the concrete problem was. I wanted to identify patterns. I was always asking: how does it fit together? I wanted to identify connections. At nursery school, we played games in which you had to identify geometric patterns, the kind of games that the teachers themselves had problems with. They were the games I found most fascinating.”

TRUTH IN A SINGLE FORMULA...
After receiving an ERC grant in 2008, Betti established her interdisciplinary research team to work on the project Tarski’s Revolution. In the central Europe of the nineteenth and twentieth centuries, philosophers tried to formulate with an increasing degree of precision, as a result of which their language began to resemble mathematics. The Polish logician Alfred Tarski seemed to have reached the final stage of the process when he formulated what truth was in the 1930s as one big mathematical formula. Betti wanted to know what wealth of ideas had brought Tarski to his final mathematical result.

...OR PERHAPS NOT?
She and her team came to the conclusion that Tarski’s truth was much less general than philosophers had believed. His truth was targeted at a specific problem within a specific concept, in this case, that of mathematics.

‘You can create paradoxes. For example: The sentence that I utter now is untrue’

Tarski’s truth does apply for the formal languages – the constructed artificial languages that we use in computers, explains Betti. “If you do not stick exactly to the rules in a computer language, the computer will freeze and be unable to continue. In natural language, there are no restrictions; indeed, you can actually express too much in them. You can create paradoxes. For example: The sentence that I utter now is untrue. Formal languages can avoid these kinds of paradoxes, but natural languages cannot.” Betti studies Tarski and his predecessors in the original natural languages, because some of the meaning can be lost in translation. The texts are mainly in German and Polish, but in a total of nine different European languages altogether, in six of which Betti herself is proficient.

AGENDA CULTURE
Italian-born Betti ended up in the Netherlands after drifting through Europe. There are some things in the Netherlands that she will never get used to. “Passion and spontaneity are not typical Dutch characteristics. The Dutch do not want surprises – they like plans and certainties. Their agenda culture came as a total shock to me. It takes quite a while before you really understand it. As Italians, we are much more sociable and spontaneous with each other: in Italy you are never alone. If you are on your own, people say: ‘What are you doing there, alone? Come and eat with us.’ Italians adopt everyone. That’s really nice.”

‘Italians adopt everyone. That’s really nice’

Nevertheless, she thinks that VU University Amsterdam is the perfect place for her research, because it is home to a great deal of expertise on the digital searching of texts based on content, for example by the linguistics expert Piek Vossen and political scientist Wouter van Atteweg. Together with computer scientists, Betti has been awarded a proof-of-concept grant from the European Research Council to develop her idea.

IVORY TOWERS
Betti wants society to know all about what academic research delivers. Academics should leave their ivory towers. Indeed, she herself does this literally. “I really like working in cafés. You will often find me at Coffee Company’s Kinkerstraat location. When they see me arriving, they start making the coffee just as I like it. The staff there recently asked me what I actually do!” Betti enjoys explaining what she does, and she feels that’s the way it should be. Society spends money on the world of academia, so it is only right that society should know what knowledge has been delivered. Society needs to be able to benefit from that knowledge, as do other academics and scientists. This is why Betti is a great advocate of open access, to all books, articles, visual information and research data via the internet.

RESEARCHERS HAVE POWER
Since her own work has been online, there has been an enormous increase in the number of people quoting her and trying to contact her. If academics shut themselves off from that development, they will become invisible, fears Betti. She also does not believe that the publishers of academic journals are really opposed to it. They are already looking for ways of making open access profitable, observes Betti. In any case, researchers have power to force open access through, because they run the journals and fill them. “It’s our research. We are knowledge. If we want to, we can do it.”

As a member of the board of the Royal Netherlands Academy of Arts and Sciences’ Young Academy (De Jonge Akademie) she not only campaigns for open access, but also for academic policy in general. Since last year, she has also been one of only four members from the Netherlands of the international version of the Jonge Akademie, the Global Young Academy. Betti believes that young academics should be given more opportunities, in order to create greater diversity in terms of age. She also feels that the world of academia should be accessible to everyone: “I dream of a future where every kid, regardless of their gender or circumstances, is free to become a researcher. That would be my idea of heaven.”

Anita Mussche