Issue 27 - June 2021

Marie Curie Alumni Association Newsletter

The strength of working together

Researchers at risk

The challenges of an MSCA fellowship

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Editorial

The strength of working together

Working alone is inefficient: it is time consuming and results in a lack of positive discussions. On the other hand, collaboration harnesses the best out of each individual, all jointly working to reach a common goal.

This issue of the MCAA Newsletter is an exemplary representation of the benefits and power of collaborations. For the last five years, the MCAA Newsletter has been produced with the substantial support of an external agency specialised in science communication. The current issue you are reading is the first one entirely produced by the MCAA Newsletter Editorial Team without the external contractor. All the members of the Editorial Team, with the support of the Editorial Board, have put an incredible effort and dedicated many hours of their time to make sure that this issue maintains the standards of quality that you (and we) have been used to. It was quite a challenge as it considerably increased our amount of work as well as responsibilities.

The collaborative nature of this issue extends beyond the Editorial Team and involves the whole MCAA community. In order to face the challenges of creating a publication without any external specialised support, we reached out to the MCAA community. A call for articles was sent to all MCAA members, Chapters and Working Groups. The response was overwhelming. The outcome is a rich and diverse publication that makes us proud of the collective efforts of our community.

Being the first issue after the 2021 Annual Conference of the MCAA, a number of articles cover the event that took place in March. They gives us the opportunity to discuss once more the theme of "Research in time of crisis," and highlight the effects that this pandemic has had on the research system – especially on researchers' mental health.

The usual updates from Chapters and Working Groups report on some events that took place early this year and that span from science communication to scholars at risk. The notable feature of this issue of the Newsletter is most likely the research section, which has never been so rich. Seven articles guides us to the discovery of Marie Skłodowska-Curie Actions (MSCA) projects, with topics ranging from animal nutrition to the relation of data science and literature, from the social and cultural phenomenon of catacombs to the importance of theatre for refugees.

Over the years, the MSCA programme has funded projects that encompass a wide variety of topics. Researchers with diverse cultural, geographical and scientific background have enriched this fellowship scheme. The MCAA Newsletter harnesses this diversity and connects almost 20,000 researchers through a single publication that provides a glimpse of the various projects and stories. The Newsletter also discusses issues relevant to researchers and the everyday challenges they face. To reiterate our previous point, MCAA members have been extremely forthcoming with content, ideas and suggestions for this issue of the Newsletter. We – as the Editorial Team – are indebted to them. We therefore dedicate this issue to our incredible community. We hope you enjoy reading this issue as much as we enjoyed putting it together.

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Editorial


Photo by Krzysztof Gurszyński - lenses.eu.com

The making of a more inclusive research community

Diversity lies at the very core of nature. This holds true for human beings and their artefacts as well. As Antonio reminds us in Shakespeare's 'Twelfth Night': "in nature there's no blemish but the mind; none can be called deformed but the unkind." Exclusion and Stigma are the results of a societal organisation in which one group imposes its particular views as the norm. Access barriers are created by a society that does not recognise the value of diversity. Acknowledging that discrimination is in our mind is a crucial step towards (re)building a society where **diversity is the norm**, not a deviation; a strength, and not a weakness.

Diversity and access are pivotal factors for the flourishing of the research endeavour. The diversity of researchers' experiences and cultures as well as the diversity of theories and methodologies enrich and foster knowledge. A crucial step in promoting the value of diversity within the research environment lies in **reducing access barriers** to communication and information.

As a community of researchers, over the past few years the Marie Curie Alumni Association (MCAA) has been committed to increasing the accessibility of its communication products, services, and events. Under the leadership of the Editorial Board of the Communication Working Group, with the support of other Working Groups and the MCAA Board, the MCAA has been promoting a series of actions aimed at increasing the inclusivity of its community and reducing access barriers. Some examples will illustrate the work done so far.

In 2018, the Editorial Board prepared the "Guidelines on print accessibility and non-discriminatory language". Initially devised for internal use, an extended and revised version of the document is currently being developed for wider application. Once ready, it will become a compulsory tool for all authors wishing to publish via the MCAA communication channels as well as a resource for all MCAA members and the research community at large. In December 2020, the Editorial Team reached out to the working group on Genders, Equity, Diversity & Inclusion. A member of GEDI is now an integral part of the team, with the task of checking linguistic and visual biases in the MCAA Newsletter and IRRADIUM. In addition, almost all the events of the 2021 Virtual Conference were broadcast with professional live subtitles. For the first time in MCAA's history, a major event provided substantial and consistent intralinguistic access to its content. Since then, professional live subtitles have also been used in other events organised by the Communication and GEDI Working Groups. For various events, speakers

were provided with the "Guidelines for an accessible presentation" devised within the MSCA project UMAQ. In the near future, the document will be distributed even further, in order to encourage both speakers at MCAA events as well as MCAA members to make their presentations more accessible.

The time has come to take yet another step. Starting with this issue (June 2021), the MCAA Newsletter has a **new layout**. The new design aims at making the reading experience more accessible by reducing potential barriers our readers may face.

The new layout complies with many requirements of major **print and digital accessibility standards and guidelines**. For example, the background and foreground colours were selected and paired so as to fulfil the AAA level requirements for colour contrast devised by the Web Content Accessibility Guidelines (WCAG 2.1). Colour selection and pairing also comply with requirements for colour blindness. The text is not justified in order to keep the spacing between words consistent and regular in the entire text. Line spacing and font size were revised and increased too. Each macro-section is identified by a different colour so as to provide the reader with a better sense of content organisation. We also changed the font. The layout adopts TestMe, a font inspired by the Design for All principles. Last but not least, the PDF file now complies with PDF accessibility requirements and can be used by screen readers. Most notably, the layout and the PDF file were created following a proactive and user-centred approach. The design process had accessibility as a core requirement and included the involvement of end-users, who collaborated with the designer.

They are but small steps. There is still a long way to go and many access problems that must be amended. Most prominently, the MCAA website is currently not accessible. Addressing this problem as well as others will require significant effort and considerable time. Nonetheless, these small steps are taking us in the right direction, towards ultimately creating **a more inclusive research community**.

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Message from the Board

Reflections in the time of crisis

Dear Members,

I am writing this newsletter at a time when the world's hopes for a brighter future are raised. In this challenging context the MCAA Board is working hard towards a bright year ahead for the MCAA.

Let's look back at what happened at our Association in the past couple of months. Between the 5th and the 7th of March this year, we organized our annual flagship event under the theme "Research in times of crisis". We had 15 parallel sessions focusing on researcher's careers, science communication, science policy, mental health, science diplomacy, entrepreneurships, diversity and inclusion, proposal writing as well as sessions from our partners (EuroScience, EIT, Net4Mobility+). I had the pleasure of hosting the conference's welcome ceremony and listen to the talk of the European Commissioner for Innovation, Research, Culture, Education and Youth, Mariya Gabriel, where she spoke about the collaborative work of researchers during this pandemic and how the MCAA supported open science and helped building bridges among disciplines. The Chair of the Chief Scientific Advisors group of European Commission, Nicole Grobert, emphasized that scientists should build trust, and the General Secretary of Science Europe, Lidia Borrell-Damián, talked about the importance of cross-border collaboration as well as research culture. A very lively chat with one of the keynote speakers, the CEO Sudip Parikh, emphasized that scientists need to communicate science at a local level with policymakers.

I am thankful to the amazing volunteer team (Iva Škrinjar, Mladen Banovic, Damir Dominko, Ana Lopes, Azra Frkatović, Maja Mise, Valerie Bentivegna, Dragomira Majhen, Luksa Popovic, Fernanda Bajanca) led by Valentina Ferro for successfully organizing this conference. The summary of the sessions can be found on the MCAA blog written by our awesome volunteers.

We organized our first virtual General Assembly on March 12th where we fulfilled the legal formalities as well as talked about the upcoming priorities for the Association. Our Secretary Marina presented a summary of MCAA's activities, including all the Chapters and Working Groups in the past year. We recognized the MCAA members for their achievements through the MCAA Awards 2020.

Importantly, on April 4, our previous service contract with the European Commission expired. Since then, the efforts of all the volunteers that make the MCAA became more important than ever. Actually, this is the first time that an MCAA Newsletter is published without any support from external service providers. All the tasks were entirely managed by the volunteers of the Editorial Team led by the Newsletter Editor-in-Chief, Gian Maria Greco, and the Managing Editor, Ruben Riosa. I would like to thank Gian Maria, Ruben and all the members of the Editorial Team for their extraordinary efforts and dedication. This effort once again shows us the power of volunteers in MCAA and the power of working together.

In the meantime, the MCAA Board is working on providing several career development opportunities for our members. Keep an eye on your email, we will be offering a limited number of complimentary access to Coursera and LinkedIn Learning to our members, prioritising specific groups that may need it the most. We hope this initiative will bridge a gap and contribute to the career development of those who will take this opportunity. At the same time, we are developing a new mentoring platform and aiming to launch a pilot mentorship program this year. Sometime next year, we would be opening this opportunity to all the MCAA members. Vice-Chair Fernanda Bajanca and Board member Donata Iandolo are leading the effort of the Mentorship platform, whereas Board member Ana Lopes is leading the LinkedIn learning program. As part of our collaboration with the Montenegro government, we also organized a special school at the end of March on five different topics - Leadership, MSCA proposals, Design Thinking, Entrepreneurship and Open Science. Western Balkans Chapter Chair Radenka Krsmanović Whiffen coordinated the school with my support.

As an outcome of the MSCA 2020 conference in Germany, the MSCA unit very recently published a new document stating the Guidelines for Supervision for the MSCA projects. Our Vice-Chair Fernanda and I contributed to this document with the help of the MCAA Policy working group recommendations. Focusing on Open Science, MCAA supported the open letter on the right retention strategy and publishers equivocation from coAlition S.

The MCAA is also providing feedback on several stakeholder consultations organized by the European Commission on topics related to the European Research Area, the Researchers Charter & Code, and EURAXESS. In one such initiative, the MCAA Board member Karen Stroobants led the team of active policy working group members (Stephanie, Renaud, Tomislav among others) and published this policy recommendation. Board Member, Alexandra Dubini also joined the follow-up workshop and emphasized the fact that research is not only important for economic growth but it is also crucial for human wellbeing, cultural development, and social values. I joined two such consultations on supporting research careers in the context of the new ERA.

On a different note, we just updated our website. I hope that you like the upgraded user flexibility and new look of the website. This was a large operation that took several months of preparation, however some bugs still remain. Your help reporting any issues you may find is precious. The next step will be to add new content, including a better platform for all members to interact and contribute actively to the MCAA.

From the management point of view, the Management Working Group organized the first training sessions on MCAA 101 for the chairs of Chapters and Working Groups. This effort was fully led by our board member Esther Hegel and was supported by Gledson Emidio. In this training series, the internal management structure, social media strategy and the available resources were explained and discussed. In addition, our board member Sara Ricardo, who is in charge of the partnerships, gave an overview of the current partners and showed how to establish partnerships with local and regional organizations.

The new service contract from the European Commission has just started. More details will follow soon. In the upcoming year, several internal and external challenges wait for us if we want to grow as an association. I hope that together with all your support we will be able to overcome all challenges and reinforce the MCAA position as a stronger stakeholder in supporting researchers.

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News from the MCAA

Looking back at the 2021 virtual conference

Every year, members of the Marie Curie Alumni Association gather to connect, share ideas, and enjoy some food and drinks together. In 2020, that was not possible: a global pandemic had engulfed the world and our lives changed completely. Many events, including MCAA's 2020 Annual Conference, and trips were cancelled, including several member's flights to Croatia. We were all confined to our countries and our homes.

In 2021, things hadn't changed much. We had all adapted to a new, more virtual way of life. And after a very successful Virtual Conference in November 2020, the first for MCAA, the 2021 Annual Conference was to be completely virtual yet again.

From March 5 to March 7, several members, stakeholders and sponsors gathered online to discuss the topic "Research in Times of Crisis." There was no better time to hold this conversation, because in fact, these are times of crisis.

The program was jam-packed with interesting and thought-provoking speakers and panels, from Sunetra Gupta, who focused on different approaches to handling a pandemic, to Sudip Parikh, who spoke about how science is one of the crucial tools to fight against the problems of today's society - such as the pandemic, and global warming. We also had an interesting session with Tim Hardford, who took us on the journey of

Florence Nightingale and the power of using good data visualization for persuasion.

The conference included panels organized by partners and MCAA members, and covered a myriad of topics including entrepreneurship, intercultural competencies, open science, mental health, accessibility in times of crisis, and science diplomacy. Let us not forget the three workshops organized by MCAA working groups: there was a workshop on sustainable research careers, a workshop on inclusivity in research planning and communication, and finally, a workshop on how to write for the MCAA Newsletter (the very thing you're reading now) and the Blog (the very thing you can visit to read more details about the annual conference program).

Those who have attended these events before would know that there's no MCAA conference without some entertainment, whether it's in person or virtual! This year's Social Event saw some Science Comedy by Naomi Fitter, Jon the Robot, and Matthew Murtha, along with our very own version of a stay-at-home quiz.

In short, despite some technical hiccups, a staple of these online-times, the annual conference was a great success, and showed the possibility of moving to hybrid models for events in the future, allowing for people from all over the world to join the conference from the comfort of their own homes! As an attendee of the annual conferences since 2017, I can personally say that there is something nice about attending in pyjamas, even though I did miss seeing all your wonderful faces in person.

To conclude, I'd like to circle back to Tim Hardford's final notes, where he shared some tips on how to analyse a graph critically but thoughtfully. The same tips can apply to how we analyse the current state of the world: using the three Cs. The first C is for Calm, don't be driven solely by your first, emotional, gut response; but take a step back (and a deep breath). Second C is for Context, don't forget to observe a situation in its broader framework. And finally, Curiosity, as researchers we are always driven by the need to understand, learn, discuss and connect with each other. And if for now that happens to be remote, so be it.

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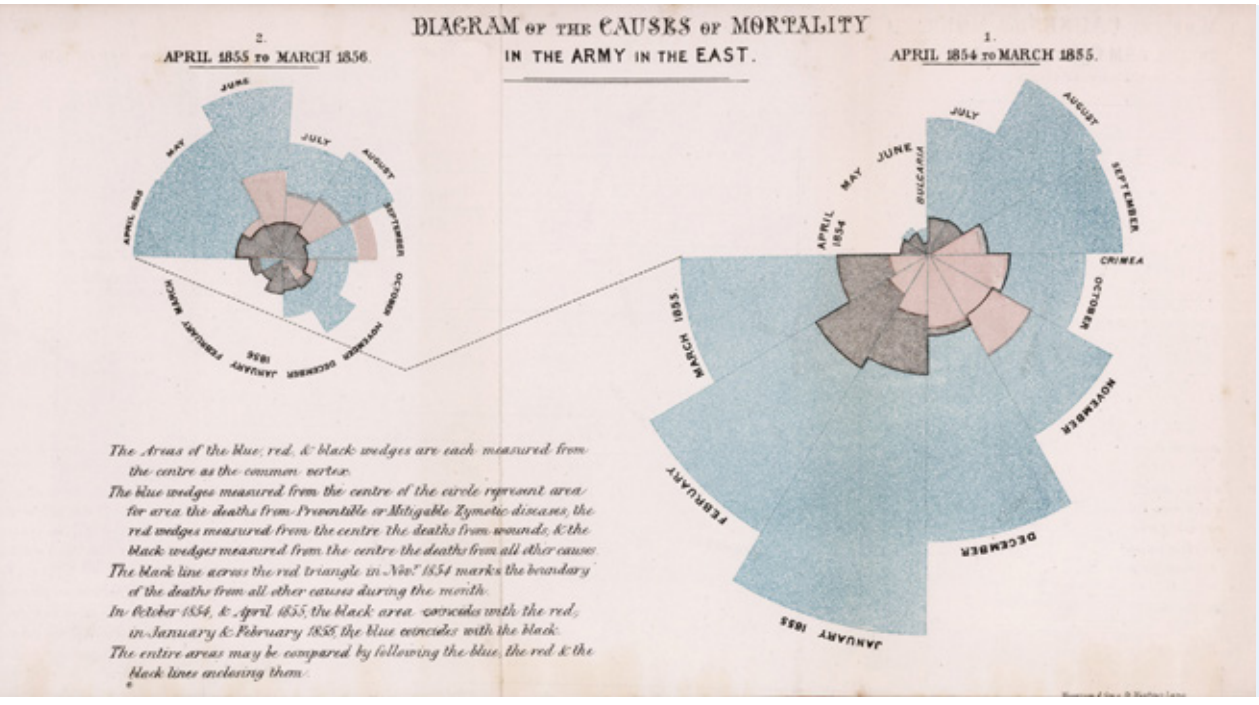


Florence Nightingale's "Diagram of the causes of mortality in the army in the East", published in 1958.

News from the MCAA

Researchers at risk: The journey, challenges and opportunities of the 2021 virtual conference

Research is the pursuit of truth, it's about observing, understanding, and challenging the established status quo. It requires asking the hard questions and delivering the unsettling answers. And it is about striving for change. Research requires passion, determination, bravery, resilience. Above all, it requires freedom. Many regions of the world are plagued by political crises or suffer from restricted personal freedoms, freedom of speech, and academic freedom. In these regions, researchers and scholars live in social, economic and political climates that put their careers, livelihood and lives in danger. These category of researchers are referred to as researchers or scholars at risk.

Many researchers and scholars at risk are pushed to seek refuge in more stable areas and countries where it seems possible to continue carrying out their academic and research activities and achieve the careers they aspire for. Researchers at risk have the potential to bring valuable skills and

knowledge to the host country and the host institutions. However, many hurdles stand in the path of those researches before and while they reach their host countries and institutions.

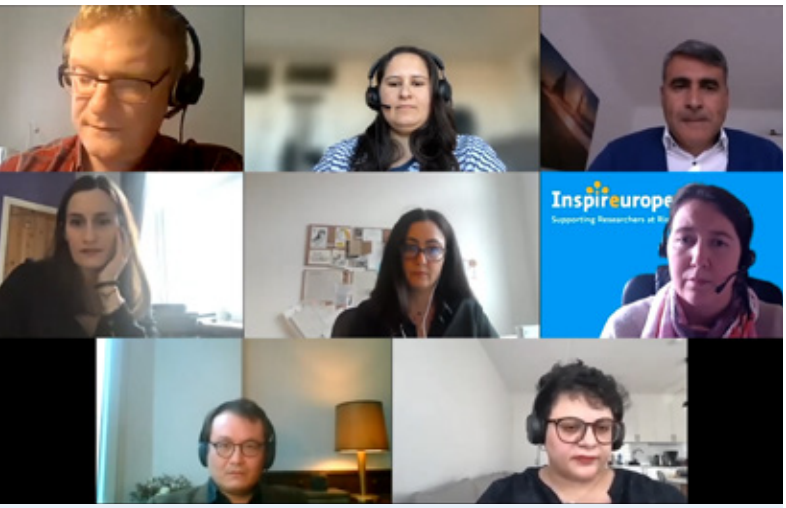
On the 25th of March 2021 the MCAA Genders, Equity, Diversity and Inclusion Working Group (GEDI WG) organized a webinar on "Researchers at Risk: The Journey, Challenges & Opportunities." The webinar was organised and facilitated by Nadia Metoui and Magda Theodoridou and moderated by Brian Cahill. The panel of speakers includedAhmad Al Ajlan (Post-doctoral researcher at the Institute for Interdisciplinary Conflict and Violence Research Bielefeld University, Germany), Olga Hünler (Visiting Researcher at the Freie Universität Berlin, Germany), and Leila Papoli-Yazdi (researcher at the Department of Cultural Sciences, Linnaeus University, Sweden); three researchers at risk who shared with us testimonies about the circumstances compelling them to leave their respective countries (Syria, Turkey, and Iran), as well as the difficulties they faced (and are still facing) in Europe. Frank Albrecht (Programme Director of the Philipp Schwartz Initiative, Alexander von Humboldt Foundation, Germany) and Orla Duke (Programme Manager for Scholars at Risk (SAR) Europe, Ireland) also accepted the invitation of GEDI and shared the background and details of these two programs (the Philipp Schwartz Initiative and SAR Europe) that aims to attract, support and empower scholars at risk. In the following sections, we will summarize the key ideas discussed during the webinar.

Trauma and mental health challenges

First, researchers and scholars at risk often suffer trauma and live in extremely stressful and mentally challenging conditions. Many of them fled conflicts, wars, and other deeply traumatising events. "Free to Think 2020 reported 341 cases of attacks against scholars in 58 countries in 2020, including

124 violent attacks and 96 wrongful imprisonments," highlighted Orla. Several other incidents were reported by Ahmad, Leila, and Olga, including their own stories (e.g., massive firing of scholars, public defamation and vilification, passport confiscation and long imprisonment, and death sentences). The tense and stressful conditions are exacerbated, at least at first, after leaving their countries. Many researchers have to go through complicated and draining procedures in a new country operating in a different language. Besides, not all scholars at risk are refugees, but many of them are, and in that case, they have to go through even more complex asylum procedures. They live long periods of instability and uncertainty. Some of them have left families and loved ones in their home countries, just to give some examples. Building a new life under these circumstances can be very challenging "if you are a person over 35 or 40, in some cases even over 50, it's difficult to establish a new life in a new country again," said Ahmad.

The panellists agreed that the most urgent aspect to address is providing mental and psychological support: "we've learned that one of the major topics for many scholars is



Left-right from top row: Brian Cahill, Nadia Metoui, Ahmad Al Ajlan; Magda Theodoridou, Olga Hünler, Orla Duke; Frank Albrecht, Leila Papoli-Yazdi.

overcoming trauma. Obtaining psychosocial support for themselves and their families is sometimes more important than anything else," said Frank. The Philipp Schwartz grants dedicate 20,000 EUR as auxiliary funds to support fellows in different aspects including psychosocial support. "Violence does not only threaten your job or make you unemployed, but it also impacts your mental health and your personal life," declared Leila. She advises all scholars at risk to pay particular attention to their mental health and to seek professional help as soon as they can. She also advises having a "lawyer or legal advisor" to help with the long and tedious procedures.

The acadeic job market: Shortage in opportunities and competitiveness

Beyond mental, personal, and familial struggles scholars at risk have to cope with a very competitive and demanding academic job market. Very few programs and fellowships are specifically dedicated to scholars at risk. Standard research grants (e.g., ERC, MSCA) have requirements and evaluation criteria that cannot and should not be applied to evaluate the scientific worth of a scholar at risk. Scholars at risk often live through long periods of unemployment where their research and academic work is interrupted. "You lose opportunities to read or update your knowledge in your field [...] you lose the opportunity to build a network [...] it is very hard to connect to a new work environment in a different country," highlighted Leila. Besides, "not all academics who are displaced or at risk have international experience," explained Frank. Rules and criteria of excellence could have been very different in their home countries as confirmed by Ahmad "here (in Germany) there are very different methods when you write, teach, supervise the student, here you have to write grants."

The speakers also agreed on the fact that academic entrepreneurship is also more ingrained in the European research culture. "If you have a research project, you have a position at the university. Then if you don't have a research project, you're out," added Ahmad. "In countries like Sweden, [...] you have to apply (for funding). It's very hard and problematic for the researchers who have been doing their research for years and decades in Sweden. For the newcomer (scholars at risk), it's simply too hard," explained Leila.

Furthermore, existing initiatives and programs for scholars at risk, although very valuable, are often very competitive and offer short-term contracts, which mirrors the precarious conditions of working in academia in general. This is especially heavy on scholars at risk because they often have mobility issues (e.g., asylum restrictions, visa procedures), sometimes financial issues etc., which lowers the motivation and leads to feelings of uncertainty, fatigue, and anxiety, as expressed by the speakers. After completing their fellowships, scholars at risk are encouraged to look for positions also outside academia; "it's unlikely that all scholars that we can support will actually be able to remain in academia" explained Frank and even then "we have to be aware that follow-up positions are not necessarily long-term. They are frequently precarious, temporary positions. Just to paint a realistic picture." he added.

Existing programs and actions supporting scholars at risk

Some initiatives and programs dedicated to hosting and supporting scholars at risk exist in Europe, for example the SAR network, which hosts threatened scholars for temporary academic visits. The Network established in Ireland includes, to date, over 540 institutions in 40 countries inside Europe and beyond. "SAR Europe aims also at strengthening the collective voice and contributing to informing the policymaking at EU level and to bridge the gaps between national and European support mechanisms," as described by Orla. A second program mentioned in the webinar was the Phillip Schwartz-Initiative: AvH fellowship, "a fully-funded two-year research fellowship that can be extended by a year," explained Frank. The program supports scholars at risk through all the stages from the "rescue" phase to finding follow-up positions after completing the program.

Besides these programs, preventive actions and measures must be taken. According to Olga "academic freedom is something fragile. It should be promoted and protected actively, not just waiting for a miracle protecting it." She engaged in several activist actions such as leading a massive open online course titled: "Dangerous questions. Why does academic freedom matters."

What more should be done

To conclude the webinar speakers were asked what further actions they would like to see materialise in the near future. For Leila, one of the priorities should be to design better and more flexible evaluation criteria for programs targeting scholars at risk. These criteria should take into consideration: the periods of forced unemployment, types of publications, and scientific outputs that can be of different types or written in the scholar's native language, to give some examples. For Olga one of the priorities is to safeguard academic freedom in Europe as well: "recent developments in Britain were very scary. Appointing free speech champions to monitor the content of the academic discussion is unacceptable." she explained. She also highlighted the importance of providing free space to academics to decide and develop their programs and shelter them from political and economic interests. In Ahmad's opinion, the priority should first be working towards alleviating mobility restrictions for scholars with refugee backgrounds, if they can look for positions in other EU countries this will help them find a job faster but also work on projects they like. Second, he urged for better communication and coordination to inform the refugee scholar about different opportunities at the early-stage as soon as they register an asylum request in a given country. When asked the same question Frank answered "to be honest, the wish list is quite long" but if he has to pick one he would urge for EU level actions instigated by the European Commission. For instance developing researchers at risk scholarships, where the scholar has the possibility and flexibility to choose their host institutions/ countries "if you're displaced by force, you can at least pick within the European Union where you'd like to go. I think that's maybe a major part of a wish list." said Frank.

Finally "Not at risk researchers' colleagues can help scholars at risk by raising awareness" explained Brian, and by providing a platform for scholars at risk to share their experiences and testimonies, which was one of the principal aims of GEDI in organising this webinar.

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News from the MCAA

Photo by Lacie Slezak on Unsplash

Mental health and research careers

One of the sessions in the 2021 MCAA Conference focuses on mental health and research careers. Fatemeh Asgari, member of the Communication Working Group, summarises some relevant points discussed in the session. No doubt that work is one of the top-rated reasons for daily life stress, and scientific research is not an exception.

I am a researcher, I know what it costs to be a researcher. Well, simply your mind! You need to deal with a broad type of tasks and responsibilities. You need to do the research, and that means you need to learn, apply what you have learnt, produce results, deliver these results in a tight deadline while you are worried about the funding, and throughout the process you are of course stressed because of the competitive nature of the field. For early researchers, other factors add to what I mentioned above, which brings more anxiety to cope with.

In the last MCAA Conference, there was a session on mental health and research careers in which different speakers shared tips on ways to decrease stress and improve the quality of life of early career researchers. The talk inspired me to write this article and give an overview on three critical issues: mobility and expectation, the relationship with supervisors, and the importance of seeking help.

Mobility and expectation

Many people migrate to other countries to extend their research path. This movement brings many challenges to deal with. To ease the difficulty in adapting to a new country, some strategies can aid us with the adjustment process. Here I mention tips that Scott Harrison (postdoctoral researcher and German chapter chair for MCAA) suggested during the session to those who must leave their own city/country:

- Make regular time to interact with family members and friends.
- Look for online communities with some local context.
- Make new friends. You can use websites to find a similar community with your interests.

There is no doubt that you are going to have some expectations about the new environment (country, city, institute),

supervisor, and colleagues. However, our expectations might be unrealistic, and if we are not flexible with them, there is a big chance of being disappointed.

On this point, Scott Harrison emphasized:

"To be flexible with your expectation does not mean forget about your values, they are what make you who you are, but understand that not always what we expect is going to be the exact reality! Being flexible, you can easily adjust to this new life."

Relationship with supervisors

For many of us, work consumes most of our life and it is how we spend our lives. When it comes to the research life, working hours are not clearly implemented, and often working on a project continues at home even during weekends. Supervisors have an enormous influence on our life. By being in a good relationship with them, the work gets easier and pleasant, moreover, their support brings us opportunities later.

To have a good relationship with a person, we need to get to know them. Knowing one's supervisor is very important, as highlighted by Hugh Kearns (public speaker at ThinkWell) during the session. He gave some tips for students:

- There is no empty moment dedicated to you unless you make it yourself. Make regular time to have a meeting with them.
- It is important to report to them and ask their ideas, this way you are sure you are going in the right way.
- Show them your passion and try to learn things as soon as possible. It makes you independent, and independence reduces your stress.

Photo by Toa Heftiba on Unsplash

The importance of seeking help

Regardless of the effort we put to overcome issues to move on, there are conditions where the road is too tough to pass, and it is painful to manage. If you are going through a hard time, it is your right to ask for help. Lea Heckmann, (Doctoral Researcher at Max Planck Institute for Physics) another speaker at the conference, emphasized that:

"At the beginning, especially when you migrate to a new country you need a lot of support, the responsibility is most for the institute that hosts you and the supervisor. Leaving yourself in your hole will not help you get out of the situation, it will just be a mental crisis."

It is important to be happy with our life; it does not mean there should not be any difficulties to cope with or research work is an easy job to have (I think an easy job does not exist), but it is important to manage things in such a way that success and happiness should go hand in hand.

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News from the Chapters

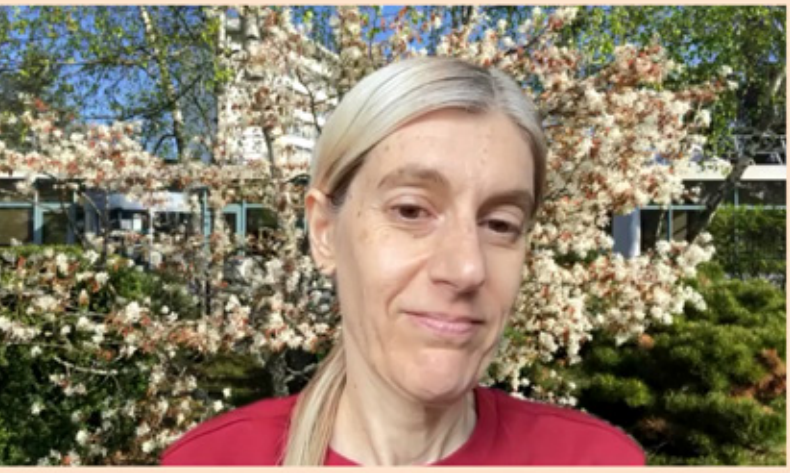
Swiss Chapter webinar on communication in science

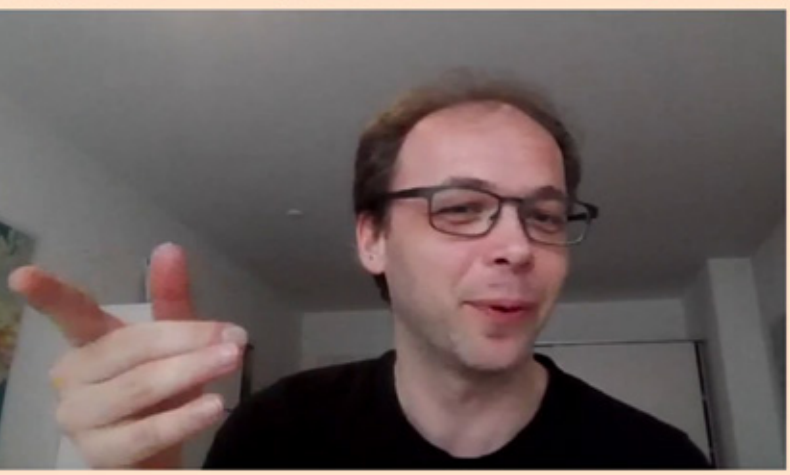
As Theodota Lagouri (Chair of the Swiss Chapter) already announced in the last Newsletter, the Swiss Chapter organized a series of webinars on Communication in Science, Mental Health, and Science Diplomacy. The first one, in collaboration with the Communication WG, took place on the 18th of April and was divided into two parts: the first part dealt with communicating science through art, presented by Jill Scott (Zurich University of the Arts) and Toni Fröhlich, while in the second part Ruben Riosa (Communication WG) gave a detailed overview on how to engage different audiences and how to write for non-specialists. This webinar discussed a broad range of science communication topics.

Art meets science

Jill Scott, a well-known artist, in her talk defined 'creative incubators' as a space and an environment for growing collaboration between art and science. This is a place where people are more important than disciplines, and art or science are not seen separately. She suggested that these kinds of creative

Clockwise from top-left corner: Theodota Lagouri, Jill Scott, Ruben Riosa, Toni Fröhlich.





collaborations can be stimulated by 'lateral thinking:' a thinking that teaches people how to think about the future of knowledge, and not what to think. Jill mentioned several examples of collaborations from biology, genetics, ecology, to physics which illustrate how researchers can spread science to a much wider audience.

Sometimes art can also touch on critical aspects in science and technology. In this context, Toni spoke about his experience in science-art collaboration. He worked with the New Zealand artist Raewyn Turner for a few years. In their project "Sensing Nanos" (picture below) the impact of inorganic nanoparticles like titanium dioxide on human sensation was discussed.

"Sensing Nanos" by Raewyn Turner & Brian Harris, 2018

Jill pointed out that younger scientists are more interested in communication and in the world around them. Therefore interpreting their science through art would be a very interesting pathway to follow.

Theodota asked how time demanding an art science project is for both the artist and the researcher and Jill's reply was that it can range from several months to a couple of years. There was also a discussion on what inspires an artist and how an artist can connect with the scientist to interpret the research topic.

The inspiration is usually mutual and the interaction bidirectional, impacting both artist and scientist. Of course failures are part of this procedure as well as great artistic work!

Know your audience

In his first presentation Ruben spoke about how to address different kinds of audience, such as experts, policy makers, the general public and children. Increasing the sense of wonder about scientific discoveries is only one part of science communication. Apart

from sharing recent findings and generating excitement for science one has to consider a lot more, such as the audience and the way of communication.

Ruben also talked about specific pros and cons of social media, such as Facebook, Twitter, Instagram, YouTube or TikTok. Some of their benefits are immediacy, reach and availability, which make it easy to share results with followers and the general public. Care should be taken with the format and content.

Interactions in science communication are very crucial. Jill explained that, children have an attention deficit and are much more able to learn through interactions. Therefore, scientists should engage through interactive exhibits which will encourage the audience to ask more questions and develop their own thinking.

Storyline and turning point

In his second presentation Ruben explained how to develop a good storyline. Different tools can be used to structure your story and to create an exciting narrative. A story usually contains a beginning, a middle and an end. You choose the characters, introduce a conflict and create a turning point which leads to a resolution and finally a conclusion. Never forget asking why, what and who you want to communicate with.

Ruben also focused on writing articles for the MCAA's blog and newsletter. This is a good starting point to share your personal stories with other members.

Try something new

In the discussion afterwards, Jill encouraged us to look beyond our own horizon. One of her advice was to write a film script and create a movie out of our research. Characters of that movie can be anything, such as microbes in a Petri dish or particles in an accelerator. This might be an interesting challenge for us as scientists.

We learned from Jill that science museums are the next big thing in the art-science collaboration and from Ruben how to communicate our science to the general public and specific audiences like policy stakeholders.

Overall, our webinar was a big success. A lively discussion developed, and we stopped only due to our tight agenda. It is surprising how far science communication and outreach activities can go. Do you want to know more? More info can be found at the MCAA events webpage.

Follow the MCAA Swiss Chapter on Twitter and LinkedIn.

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Research

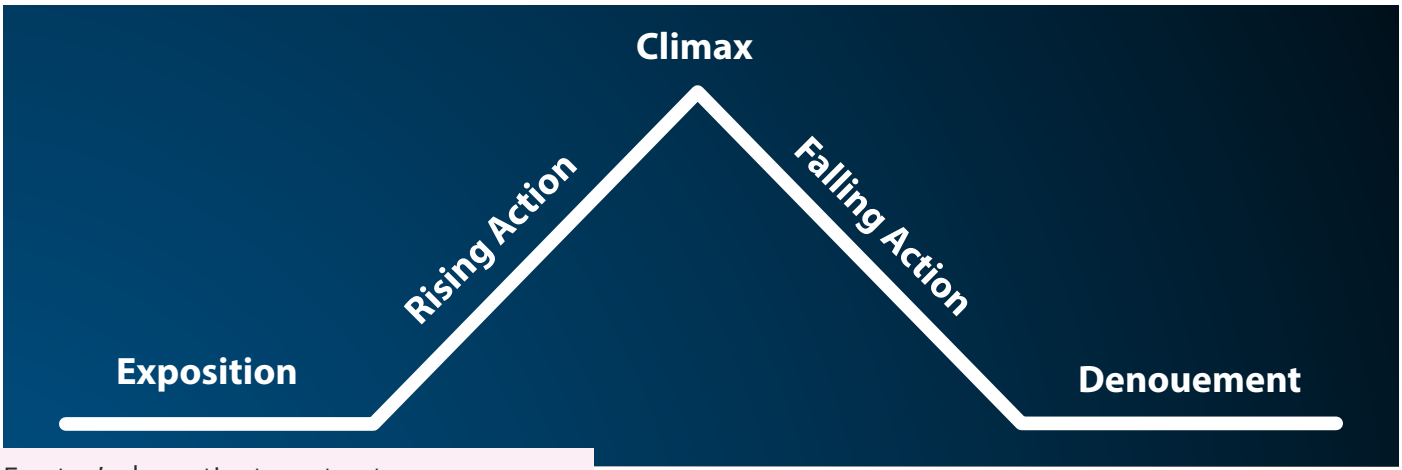
Storytelling and science communication: learning from Steve Jobs

Ruben Riosa, member of the Editorial Team of the MCAA, describes why we should start using storytelling to communicate our research findings and how much we can learn from one of the greatest communicators of our era.

Steve Jobs, the former Apple CEO, apart from being a technological genius and an innovator, changed the way we now communicate and share information. He was an effective communicator thanks to his capacity to speak with passion and make his ideas (as well as the new technologies Apple was presenting) understandable and memorable. But how did he do that? What were his secrets?

Storytelling, demonstrations, and clarity.

Moreover, he always presented one idea at a time, without the support of an overly busy presentation. He never used technical jargon because he knew he had to connect with the audience at a human level. He wanted (and succeeded) to create a physical and emotional connection.



Freytag's dramatic story structure

Freytag's dramatic story structure

In the year 1860, Freytag, a dramatist, theorised that drama should be divided into five parts (or acts):[1]

- Exposition: the situation before the 'act' starts;
- Rising action: a series of conflict and a crisis;
- Climax: the turning point, an intense moment of the story;
- Falling action: the action which follows the climax;
- Denouement: the conclusion, the new situation.

This structure can of course be expanded, and we can have more rising and falling actions, leading to a structure more similar to a 'snake,' in which we have a beginning, a middle part, and an ending, as represented by the image below.

Thanks to this structure, we can represent the 'what is' section with the present situation, which carries all the problems and the limitations. And this part is compared to the 'what could be' section, which represents the new development, or the new product, which solves all the problems of the present. The ending represents the 'utopia,' a world described using the new concept, a new beginning.

Steve Jobs' products launch presentation

Mr. Jobs was an excellent communicator partly because he effectively managed to apply this technique to his product launch. Using his incredible communications skills, he was able to connect with the audience. He identified the 'what is,' with the current products which are not innovative, and the 'what could be,' with the new product. Concluding of course with the actual launch of the new product ('new bliss'), the new norm in the world.

He not only described the technical innovation/product but also created a story around every apple innovation/product

1. A more detailed analysis can be found in Nancy Duarte's 2011 TED Talk entitled 'The secret structure of great talks'.

This one was a winning strategy because when you connect with the audience at an emotional level, you will be able to transmit to them your message, in Mr. Jobs' case a product.

How to apply it to Science Communication?

Sometimes scientists still need to understand that to successfully deliver a message to a non-expert audience there is a need to connect with them. Throwing data or difficult concepts without further explanations is not efficient. On the contrary, you don't connect with your audience and you end up being as boring as incomprehensible.

Communication can be defined as the act of giving, receiving, or exchanging ideas, information, or messages through various media, which enables a person or a group of people to receive or to give away a piece of information.

Thus, we (scientists and researchers) need to create a connection with our audience. And this connection cannot be created by only listing our findings or displaying an infinite number of graphs and figures as it were our grocery list. We need to make our audience enter into our story; we need to lead them through our 5-acts scientific theatrical representation.

Our new findings can easily fit this structure. The 'what is now' part represents the world we live in, our problems, our limitations, the 'what could be' can be our findings, the way we are going to change the world.

How can we connect with the audience?

We need to learn from communicators like Steve Jobs, from storytelling, from theatre and other arts: our messages have to tell a story. How can we do it? Some quick tips:

- The story of our research must fascinate our audience. We need the 'wow' effect in our story, the sense of wonder;
- We need to use the correct language: we cannot use scientific jargon, but at the same time we do not have to underestimate the readers' knowledge. We need to find a balance;
- We need to find the story within the science, not the vice-versa.

To conclude and to come back to the beginning of this article with a quote from Mr. Jobs:

"You can have the greatest idea in the world, but if you can't communicate your ideas, it doesn't matter."

It is the same with science as well, a scientific breakthrough or discovery means nothing if it is not properly communicated.

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Research

MANNA: System biology in dairy cows

Discover project number 10 of the MANNA network. You will find out how omega-6 and omega-3 fatty acids supplementation improve health and performance of dairy cows and their calves.

The European Joint Doctorate in Molecular Animal Nutrition (MANNA) is an EU network whose mission is to provide a Double Doctorate level training programme, valid throughout Europe, on innovative technologies applied to animal science and nutrition. The MANNA Joint Doctoral project is a Marie Skłodowska-Curie Innovative Training Network funded by the European Commission under the Horizon 2020 Programme. This is the eleventh of a series of articles on the

Who am I?

My name is Arash Veshkini, and I was born and raised in Tehran, the capital of Iran – a country with more than 3000 years of history and known to be the cradle of poetry, literature, and culture. Together with this, being raised in a family of academics inspired me to develop my higher education passion. I was fortunate to study both my bachelor's and master's in Animal Nutrition Science at the University of Tehran, one of the best universities in my country. My passion for learning new things and new trends in Animal Sciences motivated me to take part-time jobs at various stem cell and molecular labs in Iran. I had the honour of participating in some exciting research projects related to transgenic animals' production and infertility treatments. After these experiences, the need of receiving consistent learning pushed me forward to expand my knowledge in a leading international project; this is why I became a part of a Marie Skłodowska-Curie project under the Horizon 2020 Programme, and I am currently an ESR working on the project "Importance of supplying dairy cows with essential fatty acids (EFA) and conjugated linoleic acids (CLA) during the transition period on metabolism and health" which is supervised by Helga Sauerwein from the University of Bonn (Germany), Fabrizio Ceciliani from the University of Milan (Italy), Harald Hammon from the Leibniz Institute for Animal Biology in Dummerstorf (Germany) and Muriel Bonnet from the INRAe in Clermont-Ferrand (France).

MANNA doctorate, through which we will discover in detail its projects and the Early Stage Researchers (ESRs) involved.

Project overview

Meat quality traits, including sensorial,
The focus of my project is on the transition from late pregnancy to early lactation in dairy cows - a time frame usually negatively associated with the overall health of the animals. Nutritional management through supplementing fatty acids is a natural strategy to improve animal health during this period.

Essential fatty acids (EFA) are defined as fatty acids that cannot be synthesized in humans and animals and must be obtained from the diet. Particularly, omega-3 and omega-6 fatty acids, which play a crucial role in the immune system, can just be synthetized if their precursors α-linolenic acid (C18:3 n-3, ALA) and linoleic acid (C18:2 n-6, LA) are provided in the diet. Naturally occurring isomers of LA are defined as Conjugated Linoleic Acids (CLAs), which are not yet categorized as EFAs, although they are also considered to exert an immune modulatory effect. In this project, we aimed to investigate the molecular pathways by which EFA and CLA, alone and in combination, affect the performances and the immune functions of dairy cows during the transition from late pregnancy to early lactation. The novelty of this project is the application of OMICs technologies, which have been developed to provide the large-scale characterization of the entire interested molecules (RNA, protein, or metabolite), to better understand in depth the impact of the regulatory pathways on immune system homeostasis.

My project so far

Three phases have been defined to investigate the metabolic and immune adaptations in transition dairy cows supplemented with EFA and CLA: (1) plasma, liver, and milk proteomics;[1] (2) serum miRNA sequencing;[2] and (3) integration of all these datasets together and to provide an overview of the importance of FA supplementation during the transition period.

In the first phase, which was conducted at INRAe (France), I compared the proteome profile of liver, milk, and serum of dairy cows supplemented with EFA and CLA to a control diet group without any supplementation. Interestingly, as a central organ regulating metabolic adaptations, the liver revealed several less studied pathways that are crucial in determining the fate of hepatic metabolic homeostasis. Later on, I profiled the serum proteins to identify proteins that could be used as biomarkers of hepatic health. By applying complex statistical modelling, I was able to track (at least in part) the relation of liver metabolism with serum proteome. Moreover, colostrum proteome statistical analysis based on machine learning algorithms[3] identified several immune-related proteins affected by EFA and CLA. Since the immature immune system of new-born calves is entirely dependent on colostrum, we assumed EFA and CLA supplementation might play a beneficial role in developing the calf immune system.

In the subsequent two phases, the plasma miRNA profile of dairy cows will be investigated. Furthermore, all proteome and miRNA datasets will be combined and integrated with the purpose of defining fast biomarkers for the prediction of whole-body metabolic health.

1. Proteomics refers to the study of large-scale characterization of the entire protein complement of a tissue at a real time.
2. miRNA sequencing is a technique to examine the presence and quantity of entire miRNA, in a tissue at a real time.
3. Machine learning is the study of computer algorithms that improve automatically through experience. It is seen as a subset of artificial intelligence.

How being part of an MSCA itn impacts me

Being a part of an extensive network has given me endless opportunities to develop my areas of expertise and improve my soft skills. The EJD-MANNA programme was an opportunity for me to work with renowned professors, research institutes, companies, and talented students.

So far, I have had the privilege of working in several countries with world-class research institutions such as the Physiology Institute at the University of Bonn, the Department of Veterinary Medicine at the University of Milan, Italy, the INRAe in France, and the Leibniz Institute for Farm Animal Biology in Germany; while also collaborating with other partners, such as the Glasgow Polyomics at the University of Glasgow (UK), The Institute of Agricultural Biology and Biotechnology in Lodi (Italy), the IGATech in Udine (Italy), the animal breeding group at the University of Bonn (Germany) and the Institute of Mathematics in Toulouse (France).

Regarding the importance of networking in my career, it is worth mentioning just one of my own memories: I did my proteomics analysis at INRAe, and there, they had developed a powerful platform for statistical analysis and bioinformatics. However, due to the complexity of my experimental design, I had to develop a different model to deal with an intricate and multidimensional design, and my supervisors supported me to work with Prof. Sebastien Déjean at the Institute of Mathematics in Toulouse in order to solve this issue. To sum up, the MSCA ITN has been a fantastic experience and has propelled my career in the right direction.

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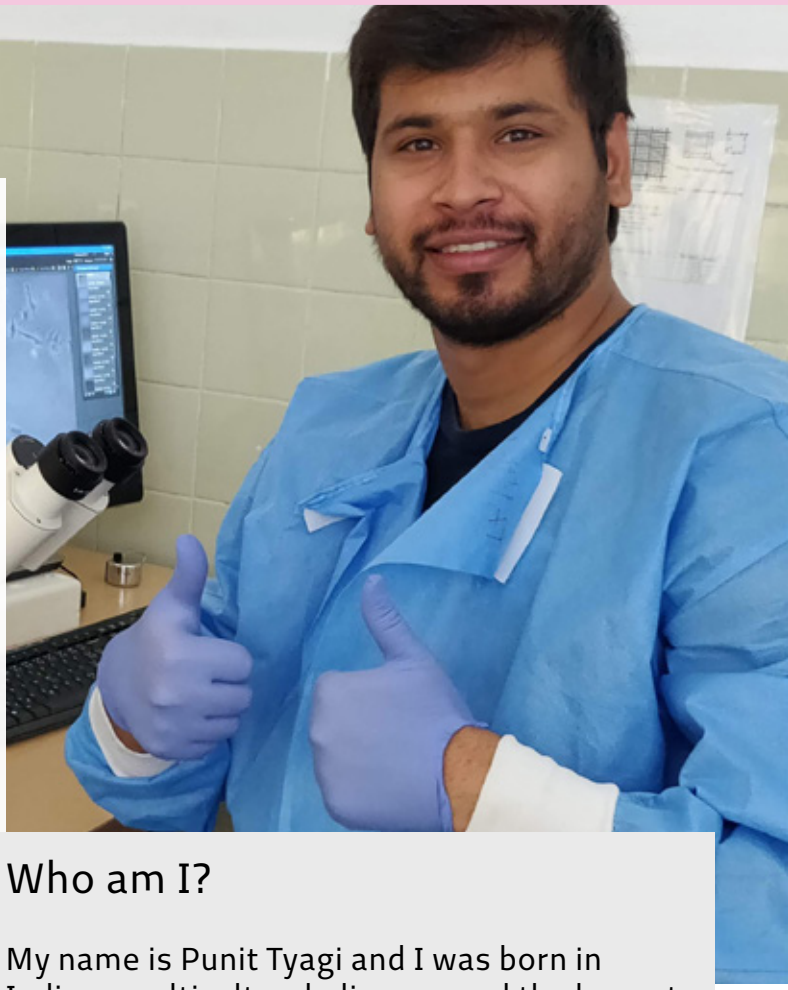
Research

MANNA: Unlocking new frontiers in studying omics data through bioinformatics



Discover Project number 11 of the MANNA network. You will find out how big data analysis reveals the putative biomarkers from omics approaches

The European Joint Doctorate in Molecular Animal Nutrition (MANNA) is an EU network whose mission is to provide a Double Doctorate level training programme, valid throughout all Europe, on innovative technologies applied to animal science and nutrition. The MANNA Joint Doctoral project is a Marie Skłodowska-Curie Actions Innovative Training Network (MSCA ITN) funded by the European Commission under the Horizon 2020 Programme. This is the twelfth of a series of articles on the MANNA doctorate, through which we will discover in detail its projects and the Early Stage Researchers (ESRs) involved.

Project overview

One of the major human food sources came from livestock and maintaining their health is

Who am I?

My name is Punit Tyagi and I was born in India, a multicultural, diverse, and the largest democratic country in the world. I received my bachelor's degree in Zoology with Honours from the University of Delhi and a master's degree in Bioinformatics from Jamia Millia Islamia University. Then, I worked with a private company as a next-generation sequencing data analyst and junior research fellow in the National Bureau of Plant Genetic Resources (NBPGR) and National Research Centre on Plant Biotechnology (NRCPB). This three-year working experience was life-changing for me and transformed my point of view about data and its analysis.

I am currently an ESR working in the project entitled "Development of a bioinformatics platform for analysing big data from Omics analyses - OMnalysis" which is supervised by Mangesh Bhide from the University of Veterinary Medicine and Pharmacy in Kosice, Slovakia, Armand Sanchez from the Universitat Autònoma de Barcelona, Spain, and Milan Samaj from the company MetLabs, Slovakia.

a big concern for industries and researchers. Nowadays, advanced technologies are being used to investigate each layer of OMICs,[1] which are fundamentals tools to fully unravel the secrets of animals' metabolism. In MANNA projects, early-stage researchers are applying OMICs approaches on livestock mainly, working on transcriptomics,[2] proteomics,[3] metabolomics[4] and microbiomics.[5] These approaches require analytical setup and professionals to handle the resultant big data; thus, scientists usually outsource it to the third party and get back meta-data.[6] However, researchers with minimum programming skills still face difficulties to analyse meta-data as it contains a list of thousands of genes, proteins or metabolites that hinder them to translate data into biological discovery.

Previously developed bioinformatics tools were not user-friendly, lacked updates and were difficult to integrate into a pipeline. This is why we decided to develop an integrated open-source web-application, called OMnalysis, which provides tools for the analysis and comprehension of high-throughput OMICs data. OMnalysis will help researchers by providing a holistic picture of molecular activities at OMICs level in a short time. Researchers with few clicks can get publication-ready images and in-depth biological knowledge from their omics data.

In conclusion, the aim of the project is to develop a fully functioning bioinformatics platform for analysing big data from OMICs analyses – OMnalysis.

My project so far

During the initial phase of my doctorate, I achieved the first objective to gather all the structured (raw sequences) and unstructured (from scientific literature) OMICs data from various resources into an in-house repository. Using Bioconductor and R shiny packages I have developed a web-application that can be accessed on OMNALYSIS. To check the functionality, we tested the example RNA-seq data of human brain microvascular endothelial cell-induced with neuro-invasive pathogens. The codes and other supporting documents were stored in the GitHub repository for replication. In the upcoming months, we will test the transcriptomics data produced by ESRs within the MANNA consortium.

How being part of an MSCA ITN impacts me

Being part of an MSCA ITN is a great opportunity to develop interpersonal and professional skills. MANNA gave me an environment to learn and work with 10 other ESRs having an exceptional scientific knowledge of their field. In my opinion, science grows with discussion and exchange of thoughts among researchers.

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1. OMICs refers to the collective technologies used to explore the roles, relationships, and actions of the various types of molecules that make up the cells of an organism.
2. Transcriptomics is the study of complete RNA content in the cell at a given time point.
3. Proteomics is the study of whole protein complements in the cell, tissue, or organism under some specific condition.
4. Metabolomics is the large-scale study of small molecules or chemical substances produced as a result of metabolism
5. Microbiomics is the study of all microorganisms of given microbiota.
6. Meta-data refers to additional information with the count data in differentially expressed genes.

Research

The challenges of implementing a Marie Skłodowska-Curie Fellowship: The PRESSTECH project

The Marie Skłodowska-Curie Post-Doctoral call encourages researchers to explore novel research paths, investigate new topics, and develop original methodologies. However, entering new fields brings along unexpected challenges, which make risk management and problem-solving skills indispensable assets in any scientific career. Elena Fernandez, post-doc fellow at the MSCA COFUND project Eurotech, talks us through the challenges she has been facing during the implementation of her project PRESSTECH. In particular, she discusses some problems related to optical character recognition

Opening new research lines: Data science across domains

Eurotech is a post-doctoral programme co-funded by the European Commission under the Horizon 2020 programme (Grant Agreement number 754462). Similar to the Marie Skłodowska-Curie Individual Fellowships, Eurotech post-doctoral researchers have the opportunity of designing a bottom-up project, where they often open novel and unexplored research lines while acquiring new and highly valuable skills. Attractive as this opportunity may seem to be, it does come with many challenges along the way.

Holding a background in humanities (PhD in Hispanic languages and literature, UC Berkeley 2019), I am a newcomer to one of the most promising emerging academic and professional fields of the twenty-first century: data science. The increasing availability of big data across domains is surely unlocking new research opportunities in diverse disciplines ranging from humanities and social sciences, environmental studies, finance, or biomedical sciences, just to name a few. However, and to successfully execute big data research projects, several matters must be considered.

Following the ideas of Gaston Sanchez (2020), the data analysis circle consists of several

well-differentiated stages: data collection (acquisition), data cleaning, data tidying, exploratory data analysis, confirmatory data analysis, data visualization, model building, simulations, and communication. This article will center its attention on the first and often most difficult part in the data analysis circle: data acquisition. The first thing that most researchers in data science across domains need to address when designing a new research project is to locate the data that they intend to use. However, once this data has been located, there is one unexpected challenge that newcomers to the field may not be familiar with: Optical Character Recognition (OCR).

What is OCR, you may wonder? OCR is a computational procedure that transforms text characters into machine-encoded text (see Chaudhuri et al. 2017). Let's provide an example: when you scan a page in a book, what you will get is a picture of that page. However, without OCR processing, you will not be able to get the text on that page for text-extraction operations (for example a simple copy-paste). How do you know if a scanned document has gone through an OCR process? Very simple: just left click on your mouse over the scanned document of choice, and if you can select the words individually, then, success! Your document has undergone OCR processing. However, even if your selected corpus of data is OCR-proofed, and it is theoretically speaking ready for quantitative research purposes, you may encounter yet another unexpected problem: low-quality OCR.

In the following pages, I will discuss several risk management and contingency plans for researchers who may find themselves in the middle of their post-doctoral project encountering unexpected noisy OCR issues. Even though science-related challenges are quite common in the life of any post-doctoral researcher, risk management procedures in digital humanities projects have not received as much critical attention as they should. By focusing on solutions rather than on problems, this article will provide useful resources for researchers who may find themselves in this situation across different scientific disciplines.

Promises

My research project is entitled 'Time, Technology and the Press. A Study of Accelerations of Time Perceptions during the Industrial and Digital Revolutions' (PRESSTECH). It aims to analyze information behavior historically by measuring information compactness using different computational methodologies such as quantitative narrative analysis and network analysis. Using newspapers as an object of study (The New York Times, Le Figaro, Boletín Oficial del Estado), over a time-scope of twenty years (1988-2018), PRESSTECH has so far successfully produced research results without major technical inconveniences.

Newspapers as an object of study are of high value for researchers in several disciplines, such as digital humanities, computational social science, digital journalism, digital history, media and communication studies, sociology... just to name a few. Their relatively temporal and geographical stability (some of them have been ongoingly published since the seventeenth century), as well as its recent digitization, provide an ideal ground for theoretic and quantitative research.

There are indeed several open-access digitized collections around the world that host a variety of multilingual historic newspapers. To begin with, Chronicling America, hosted by The Library of Congress, contains an archive of United States newspapers ranging from 1777 to 1963 in a variety of languages.[1] To continue, under the umbrella of the Europeana Project, a European Union funded project

1. Such as Armenian, Russian, Chinese, Italian and Dutch, as well as more than twenty other languages.

for the digitalization of cultural heritage, several historical newspapers from Germany, Austria, Latvia, Finland, Serbia, Poland, and Luxembourg, are available. Moreover, national libraries around the world have recently made available their newspaper collections following open access policies. Some examples include Portugal,[2] Spain,[3] France,[4] or Australia.[5] Although most of the time they are all freely available to the public, access to these collections varies. Sometimes it is possible to do bulk downloads of data, sometimes it is necessary to use their respective APIs, and sometimes it is necessary to manually download newspapers one by one (or even page by page).

Newspapers' availability in their digitized form is, therefore, a promising vehicle for quantitative analysis across domains. Encouraged by the positive development of PRESSTECH with contemporary newspapers that have no OCR problems, and having located several collections of historical newspapers, I was ready to continue with my project. But suddenly, I found myself at a very unexpected research crossroads.

Problems

Using quantitative narrative analysis, PRESSTECH has as a baseline the extraction of subject verb object (SVO) triplets. To perform this kind of methodology, exceptionally clean digitized text is needed. Ground-truth OCR could be defined as digitized documents that have an OCR quality almost perfect. Even though the average digitized historical newspaper may have good enough quality for performing some text data mining operations, it may be insufficient for other research methodologies.

Having finished the more contemporary data analysis of PRESSTECH, I planned to apply quantitative narrative analysis to historic newspapers to inspect fluctuations of information density overtime aiming to analyze the social impact of technology from a historic perspective. However, what I unexpectedly encountered was low-quality OCR in my selected corpus. What can researchers who, like me, suddenly find themselves in that kind of situation, right in the middle of their research project?

Solutions

Keep calm and carry on. There are several risk management and contingency plans that can be followed if you find yourself in this situation. I will focus my attention on four of them: finding an alternative corpus, curating the one that you have, changing your research methodology, or publishing preliminary results without including any data analysis.

2. The Diario de Noticias de Madeira is digitally available from 1876 to 2000.
3. The Boletín Oficial del Estado-La Gaceta de Madrid is available from 1661 up to present times.
4. The Bibliothèque National de France (BNF) has a collection of more than twenty historical newspapers under the Gallica section.
5. The Trove database is a collaboration between the National Library of Australia and hundreds of Partner organisations around Australia, andoffers a vast collection of digitized newspapers.

Research infrastructure as a cornerstone of digital humanities, computational social science, and information science as fields of research, is, fortunately, a well-established reality. Indeed, it counts with highly competent scientific personnel all around the world who will be ready and happy to help you. Specialized librarians are an indispensable figure for any digital humanities project and can be found in several organizations, ranging from cultural heritage digitization projects, national libraries, research groups, or digital humanities centers. Thanks to their invaluable help, I was able to locate several datasets containing ground-truth OCR. For example, the KB Lab hosts a collection of individual newspaper pages that have undergone a Ground Truth OCR process.

Moreover, the state of the art in OCR post-correction for historical newspapers is rapidly evolving (for an excellent overview about existing software and approaches, check out Ströbel et al. 2020). If you are located in a research center that hosts specialized researchers with specific knowledge of OCR post-correction tools, it will be possible to curate your dataset. However, bear in mind that this will be a very slow and time-consuming process.

A third possibility could be to change your research methodology. There are several cutting-edge research projects both in digital humanities and computational social science that use noisy OCR digitized corpora with a variety of computational methodologies, as their main goal is to observe general trends in information behavior using big data across domains.

Finally, the possibility of publishing preliminary ideas in journals such as this one (the MCAA Newsletter has an ISSN, and therefore, counts as a scientific publication), could be a very good solution for this kind of scenario. The practice of publishing position papers or preliminary papers is

well-established in some fields, such as computer science, but not so common in others. However, with the growing presence of data science across domains, some journals in digital humanities are starting to accept articles without data analysis but with well-elaborated research ideas.

Any of those four contingency plans will have as a side effect some inevitable modifications in your original research question. However, as a postdoctoral researcher, you should consider this challenge as highly valuable scientific training that will strengthen your research skills and help you to gain scientific maturity and research independence.

Conclusion

Being a postdoctoral researcher grants really valuable opportunities for professional development, knowledge discovery, and scientific exploration of new fields. However, and inevitably, it comes along with many challenges. Nevertheless, one way or another, there are solutions. Effective risk management skills and the elaboration of creative contingency plans are crucial assets for developing scientific careers across domains. Consequently, research challenges should be addressed as highly valuable learning opportunities and as training to improve your problem-solving skills.

Acknowledgements: I want to express my gratitude to all the librarians around the world who have helped me from the beginning of PRESSTECH with highly important (and lifesaving!) information. Thanks very much to: Lotte Wilms from the KB Lab, Jean-Philippe Moreux and Emmanuelle Bermès from BNF, Amber Paranik and Nathan Yarasavage from The Library of Congress, Reinhard Niederer from TUM, and Clemens Neudecker from Europeana. I also want to say thanks very much to all the librarians and scientific personnel who have kindly taken the time to reply to my really many emails from: Trove-National Library of Australia, Biblioteca Nacional de España (Hemeroteca Digital), Bavarian State Library, Servicio de atención al ciudadano-BOE, ProQuest, and LexisNexis. The EuroTech Postdoc Programme sponsors this article, and it is co-funded by the European Commission under its framework programme Horizon 2020,Grant Agreement number 754462.

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Research

An MSCA Project combines researching access to higher education for refugees and theatre

In this research project, which is a Marie Skłodowska-Curie Individual Fellowship, Nina Lueck investigates access to higher education for refugees in Ireland. The project uses an innovative methodology mix of narrative interviews, thematic analysis, collaborative playwriting and staging the lived experience of refugee students.

The project analyses the support refugees receive when they access higher education both by universities and by the voluntary sector, and it illustrates how this support influences the lives of refugee students. It uses an innovative and interdisciplinary methodology mix which combines narrative and problem-centred interviews, socio-legal analysis and theatre playwriting about exclusion from higher education. Volunteers from the 51 interviewees and the MSCA Fellow are creating the script in a collaborative writing process. The play is called Food or Thought. It reflects a strong "Leitmotiv" which emerged from many of the 51 interviews which were conducted between February and September 2020, both on campus of University College Dublin and remotely. Refugee students in Ireland have to make a daily choice between attending meals in the hostels they live in ("Direct Provision") and attending classes at university. As a result, many of the research participants are left without food or enough food regularly. The analysis reveals barriers students face not only in accessing higher education in Ireland, but also the ones after enrolment. These barriers are of financial, logistic, linguistic, psychological or physical nature. Here are some key findings from the coding and analysis process. They form the basis for the theatre play in which a group of students both with a refugee and an Irish background experience patterns of exclusion because of the refugee status of the protagonist named Grace.

1. The system of Direct Provision is a totally unsuitable form of accommodation for students. Room sharing with up to five other people who are not studying, lack of libraries or quiet rooms, and constant noise in the hostels are a huge burden for

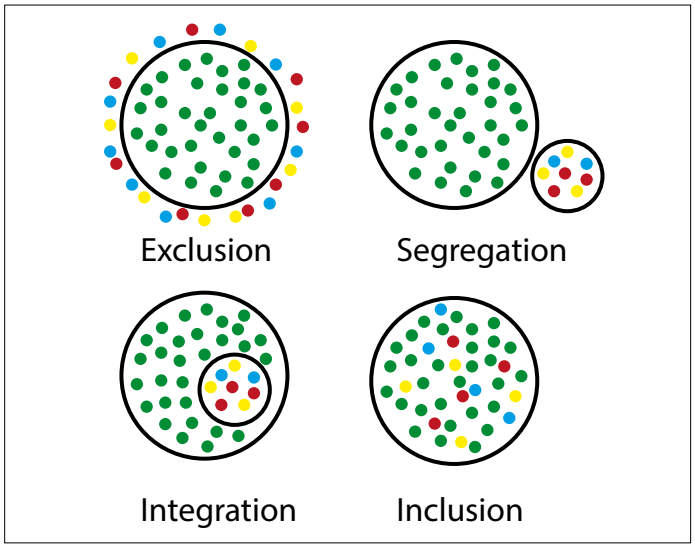
students. The system of Direct Provision and its psychological side-effects are particularly detrimental for students who suffer from depression, anxiety and post-traumatic stress syndrome. Direct Provision is not healing mental health issues but rather enforcing post-traumatic stress.

2. Finances are another obstacle. Whilst there are scholarships for international protection applicants under the University of Sanctuary schemes which all Irish Universities and a growing number of colleges are part of, there are not enough bursaries. The existing bursaries do not cover the actual costs, especially the cost and duration of travelling between the hostel and university. Refugee students who would like to support themselves still face restrictions concerning paid work. Students who have a scholarship at a Dublin university but live in the West of Ireland have no right to apply for a transfer of accommodation for educational reasons.

3. The support interviewees get from university staff (both academic and administrative) and from staff of the voluntary sector is a positive role model for other EU countries. In particular, the mentoring and the financial, logistic and psychological support during the access and enrolment process help refugee students to pursue a degree programme. Drop in sessions, coffee mornings and free soup meals are some of the many exemplary support mechanisms for refugee students.

4. Refugee Students need even more tailored medical and psychological support at universities and colleges. Many interviewees come from a cultural background where seeking counselling services is stigmatised, and the prevalent lack of diversity of university staff creates an additional hurdle to avail such services.

5. The majority of the students found it possible to integrate into the student community and enjoyed the study experience



before the pandemic started. Interviewees got involved with student societies and reported that being a student helped to self-identify as "worthy" or "valuable." Most students had not experienced any form of discrimination on campus, but rather in the town/place they lived in, by other residents. The pandemic created new barriers for refugee students: Only prepaid phones but no laptops, unstable WiFi in Direct Provision, and room sharing left refugee students with huge problems to follow their classes online.

With the roll-out of vaccines in Ireland and subsequent lifting of restrictions, the play will be staged with a diverse group of students in the foreseeable future. The outreach and impact factors of this project not only lie in the authentic storytelling which feeds into the playwriting process, but also create transfer of knowledge, for instance to the private sector and businesses in their diversity commitment, and to local communities in their efforts to be welcoming and supportive towards newcomers.

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Research

LIT! Living in the catacombs! Reception of catacomb art in European culture and architecture between the 19th and 20th century

232 L'ESPOSIZIONE UNIVERSALE DEL 1867 ILLUSTRATA

Soltano arriva, il duca regnante di Baden e il vice-re d'Egitto sono arrivati.

Ismail-pascià, il quale accoglie così bene i Francesi nel suo Delta, che così regolarmente protegge i rischi dei nostri azionisti del canale di Suez, che affida ai nostri scienziati le preziose scoperte che vanno a profitto della storia e della scienza, che conosce il nostro incivilimento e l'ama, il vice-re d'Egitto merita d'essere ben accolto da noi; e difatti tutti lo salutano al suo passaggio; e l'imperatore gli ha fatto l'accoglienza che si fa agli ospiti più onorevoli.

Noi tutti abbiamo conosciuto il signor Sala, uno dei nostri più amabili e più simpatici colleghi di stampa; egli è morto leggiù al suo posto, sulla riva del canale di Suez. Il vice-re, che non aveva alcuna obbligazione verso di lui, mandò alla sua famiglia 20,000 franchi senza dir niente a nessuno. Se io riferisco questo tratto, che il vice-re adoperava nell'indirizzione del sig. Ferdinando Lesseps, che me l'ha confidato.

Il re di Prussia è stato un po' trascurato, persino dal Moniteur. Forse è stato desiderio di re Guglielmo che ciò avvenisse, tanto egli ama i suoi comodi. Invece si parlò molto del suo ministro il signor di Bismarck, e delle sue eccentricità un po' troppo calcolate, come tutte le fantasie tedesche.

Ricordiamo per memoria le liberalità dello Czar e quelle del re di Prussia, durante il loro soggiorno a Parigi.

Noi auguro la gioventù. Il principe Umberto d'Italia occupa in questo momento la scena di Parigi, ove il principe di Galles verrà a raggiungerlo. Perchè il principe Oscar di Svezia e il principe Vladimiro di Russia sono partiti? Scommetto che ritorneranno ancor così, — se le potranno.

— Ma le visite dei sovrani e dei principi non debbono farci dimenticare gli altri ospiti non meno rigurdevoli. La commissione d'incoraggiamento per gli studi degli operai dà ospitalità ne' suoi alloggi dello straduone Rapp a quasi 200 operai inglesi, a 40 operai napoletani, senza contare gli operai prussiani che si aspettano e saranno i benvenuti. I delegati di dipartimento arrivano anch'essi, mentre i delegati degli operai di Parigi lavorano a stendere i loro rapporti, che si pubblicheranno probabilmente alla stessa epoca di quelli dei giurì; bisognerà vedere quali saranno i migliori!

La commissione d'incoraggiamento deve nel mese venturo trovare posto per alloggiare tre o quattro mila ordonnisti. Quanto alle bande militari venute dall'estero, il ministero della guerra s'incarica di metterle ne' quartieri.

Il bacino di Jena è animatissimo e solcato da barche d'ogni genere e prove. Lo spettacolo sarebbe bellissimo se non fosse al ogni istante offuscato dal acre ed insopportabile fumo che gettano nel loro passaggio i piroscafi che fanno il servizio di Billancourt.

Curiosissime esperienze ebbero luogo sulla Ivra; — una, colla palla-foolina del signor Devisme; l'altra, coi materassi incommergibili del signor Pasch; la terza e la più importante col cannone porta-càmpo, il quale lancia una freccia che, mediante una catena di ferro, attacca insieme il naviglio naufragato col naviglio di salvamento.

Quanto al signor Devisme, io non so veramente dove si fermeranno i suoi esperimenti distruttori. Or saranno due anni, ci aveva convocati allo esperimento della sua palla esplodibile. Si tirava su alcuni poveri cavalli che non ne avevano alcun sospetto. Colpiti appena, vacillavano un momento e cadevano fulminati da una emoragia subitanea. Era uno spettacolo straziante; alcuni generali, che avevano sovente affrontato la morte, non erano meno pallidi di me, dopo tirato il colpo.

Quella palla esplodibile ha già fatto viaggio nel mondo; un Inglese riconoscente si slanciava l'altro giorno nelle braccia del signor Devisme, tutto fiero di avere accino dieci coccodrilli nella sua breve escursione sul Nilo.

Presentemente il signor Devisme inventa una palla con cui si aggrappa il pescatore ed anche la balena; le ali della palla si aprono nel corpo dell'animale, ed eccolo ucciso e afferrato al tempo stesso. Ora s'arresterà questo spietato armajuolo?

F. Dulcino.

CATACOMBE DI ROMA.

MILANO. — Tipografia dello Stabilimento di EDOARDO SONZOGNO.

Visitors inside a facsimile catacomb in 1867.

Living the catacombs! (LIT!) project has the main objective of investigating extensively the social and cultural phenomenon of catacomb facsimile in late 19th - early 20th century Europe. Chiara Cecalupo shares her research trajectory and scientific aims.

The history of the reception of antiquity is European history. No major archaeological discovery in recent times has ever been confined to its geographical area but has always been the subject of great interest to scholars and common people across the continent. This has made archaeology an interesting and exciting subject in Europe for many centuries. The LIT! project starts from the international appeal of archaeological discovery and analyses one of the most intriguing phenomena of dissemination of antiquarian and archaeological culture: the birth of facsimile catacombs.

What do Rome (Italy), Paris (France), Valkenburg (The Netherlands), and Solin (Croatia) have in common between the late 19th and early 20th centuries? In these and many other small and large cities, the custom of setting up rooms decorated in the manner of the catacombs became widespread. In several cases, we record even entire facsimile catacombs, i.e. life-size copies of the most famous hypogeal monuments of early Christianity of Rome, which archaeologists had been rediscovering since the mid-19th

century. The phenomenon was very wide-ranging and involved many European nations, so much so that it can be considered one of the main vehicles for the international dissemination of early Christian archaeology among different social classes. Despite the importance of the trend of catacomb facsimile in late 19th century Europe, a comprehensive global study of its political and social implications has never been carried out.

This project works on the in-depth study of known cases to rescue the numerous stories that are unknown today. The detailed analysis of individual cases allows us to turn the spotlight on single events and their influences on European society, to understand the cultural impact of archaeological discoveries in Rome throughout Europe, regardless of contemporary political relations. The multiplicity of sources used and above all the study of cases in different European countries (with a large number of European institutions and languages involved) contributes to the international nature of this research.

Indeed, the timespan of the diffusion of facsimile catacombs is not of secondary importance: its international spread took place during a remarkable cultural moment in Europe. Firstly, the phenomenon can be connected to the coeval diffusion of exact copies for the reproduction of the European main monuments and works of art for study, protection, conservation, and also for the dissemination of antiquarian styles and fashions. Secondly, the political factor is at the heart of this study, as the phenomenon, strongly linked to the Roman Catholic tradition, spreads during a time of disintegration of the empires and the birth of contemporary European states.

The broader objective of the LIT! project is to contribute to the knowledge of the long and endemic process of forming a common identity between Southern and Northern Europe through the rediscovery and promotion of archaeological cultural heritage. In this way,

Photograph and sections of the facsimile catacomb of the 1867 Paris Universal Exhibition.

the project uses a single phenomenon that has not been studied extensively to contribute to the understanding of the centuries-old cultural relations between European states and their common history.

You can follow the project by visiting its official website or the UC3M CONEX website.

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Editorial information

About

The MCAA Newsletter is the main communication channel for and about the MCAA community. It is a publication venue for science communication and public outreach. Its main aim is the dissemination of information about past and current MSCA projects, as well as activities of MCAA Chapters and Working Groups, events, and members' achievements.

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