A Tangential View on Impact for the Arts and Humanities through the Lens of the DARIAH-ERIC

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STAY TUNED TO THE FUTURE

IMPACT OF THE RESEARCH INFRASTRUCTURES FOR SOCIAL SCIENCES AND HUMANITIES

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TABLE OF CONTENTS

WELCOMING ADDRESSES

INTRODUCTION

CONFERENCE KEYNOTES

PART I
CONCEPTUALISATION OF IMPACT

PART V

INCREASE OF IMPACT THROUGH INTERACTION OF DOMAINS

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Abstract

The reflections in this chapter stem from the perspective of the DARIAH-ERIC, a distributed infrastructure for the arts and humanities. They explore how impact can take a variety of forms not always considered when the term is applied in a strictly technocratic sense, and the idea that focussing on the user of a research infrastructure may not describe an optimal relationship from an impact perspective. The chapter concludes by presenting three frames of reference in which an infrastructure like DARIAH can have impact: to foster excellence through impact on researchers, promote fluidity through impact on policymakers, and support efficiency through impact on our partner organisations.

Introduction

We find ourselves in a time when data, and in particular big data, has become an object of central focus in both research and in industry. In the arts and humanities, however, having big data is far less important to creating insight than having smart data. By smart data, we mean digital information that may or may not be structured, but which is rich in context and readily linked to related resources, analogue and digital, that can help to corroborate conclusions and instigate the development of new theories. Researchers looking at sources in domains such as history, geography, literature, linguistics and the arts know that each piece of data is something essential, which needs to be documented, identified, analysed and communicated in such a way as to preserve these many marks of provenance and honour the people and institutions involved in its curation and preservation.

Dealing with this kind of data and processing workflow requires particular skills, such as how to transcribe difficult handwriting, and knowledge to allow the researcher to identify the important aspects of an object, such as when it was written and who or what is being discussed. But not all of the required knowledge for dealing with such documentation is necessarily

related to the time period of its production, for a researcher will also have to know how much of this content could be republished or reused, and of course whether to trust the source in the first place (a skill we instil in humanists that we could all use more of in this era of 'fake news').

Supporting these requirements for smart data research in the arts and humanities is the mission of the Digital Research Infrastructure for the Arts and Humanities, or DARIAH. DARIAH was established as a European Research Infrastructure Consortium (ERIC) in August 2014, and currently, DARIAH has seventeen national Members and many cooperating partners across eleven non-member countries.

DARIAH enhances and supports digitally-enabled research and teaching across the arts and humanities. DARIAH is a network of people, expertise, information, knowledge, content, methods, tools and technologies from its member countries. It develops, maintains and operates an infrastructure that sustains researchers in building, analysing and interpreting digital resources. By working with communities of practice, DARIAH brings together individual state-of-the-art digital arts and humanities activities and scales their results to a European level. It preserves, provides access to and disseminates research and research outputs that stem from these collaborations and ensures that best practices, methodological and technical standards are followed.

Through these activities, DARIAH integrates digital arts and humanities research and activities from across Europe, enabling transnational and transdisciplinary approaches. It promotes the further development of research methods in the arts and humanities, documenting the state-of-the-art, supporting the re-use of research data with a focus on particular challenges including diversity, provenance, multimedia collections and granularity, and acting as a coordinator and integrator for a diverse community of practice.

The notion of smart data influences our activities at every level, driving the services we offer and the tools we provide, as well as the impact we seek to have. Impact is not always a welcome rubric for the assessment of research in the arts and humanities, having come to be associated with quantitative measurement, applied research and immediate economic gains. In addition, while impact can sometimes be evidenced and observed directly, and measured as such, very often, the impact that we can see is merely the tip of a hugely complex iceberg of influences and environmental factors, a reality that makes it very difficult for one initiative or organisation to make a clear claim to their role in bringing that event or object into being. The arts and humanities do have a significant role to play in the development of culture and society however, and to understand DARIAH, it is

important as well to understand how we see this impact as it stretches beyond its horizon of easy measurability.

The concept of impact for an Arts and Humanities Research Infrastructure

Arts and humanities research informs human understanding of our ever-evolving cultures and societies. Unlike the natural sciences, the arts and humanities cannot base their work on fundamental laws that persist in supporting scientific theories over centuries, like gravity or thermodynamics, but on the fluid and diverse norms and values of humans, cultures and societies. The object of humanities research is therefore both ever-changing and strangely constant: while many of the ideas of Plato and Aristotle remain as relevant and exciting today as they may have ever been, it is undeniable that in other ways, the values of twenty-first-century Europe are far removed from those of Classical Greece.

Unlike the methodologies generally associated with the social sciences, the arts and humanities explore such issues not through the lens of targeted data collected for a pre-defined purpose, but through the more rich, subtle and ambiguous instrument of the artefacts humans and cultures create and leave behind. In historical documents we seek not only evidence of what happened, but how historical records show, through their language, their gaps, and their origins, the biases of their creators, and the later diffusion and impact of their thoughts. In the record of human creativity, we find not just what people say they know, feel or do, but empirical evidence of what inspires us, how we feel our identities and interconnectedness can be expressed, what makes our own time and place unique, and what makes our experience universal. Understanding those aspects of lives and cultures that are so deeply held that we can hardly describe them ourselves: this is the realm of humanistic and artistic enquiry.

Study of the arts and humanities results in an informed citizenry with agile minds and broad perspectives; creative and able to draw from different points of view to build industrial and social innovations; tolerant and able to view their own actions in a broad and ethically informed perspective; individuals empowered to build their own health and self-confidence through generative action, and support this process in the next generation.

Nowhere are these methods more powerful than when they are used in combination with other forms of knowledge creation, and it is this process, more than anything else, that DARIAH seeks to promote and support for the arts and humanities. There are many ways and places to do this, but the intersection of the digital and the humanities is a particularly rich one,

where the methods of history, literary studies, linguistics and other such disciplines come together with the quantitative and engineering traditions of computer science. Technology is currently reshaping our societies and our lives, but such a transformation must not be affected by engineers alone, without the input and expertise of those with deep knowledge of how we as humans communicate, how we interact, what we value and how we form identities. Strong societies need this, as do strong economies.

Among its fellow research infrastructures, and in particular the group of those constituted under the European legal instrument of the Research Infrastructure Consortium (ERIC) DARIAH is unique for the diversity of the community it serves. Methodological and epistemic divides between even two historians can sometimes be vast, and DARIAH encompasses as well literary studies, linguistics, cultural studies, art history, media studies, musicology, and many more approaches. Our task in this respect is no less complex than providing the fullest possible representation of the diverse range of subjects falling under the umbrella of humanities, and translating their common and divergent needs into support structures and technologies that meet their needs and harness trends in the wider environment.

DARIAH seeks to ensure that humanities researchers are able to assess the impact of technology on their work in an informed manner, access the data, tools, services, knowledge and networks they need seamlessly and in contextually rich virtual and human environments and produce excellent, digitally-enabled scholarship that is reusable, visible and sustainable. How we propose to build upon our unique position to provide the foundation for this vision is at the heart of the DARIAH strategy, and in how we view our 'users'. This term is also one that sits somewhat uncomfortably with the work we do and the community we serve, however, and also requires some explication.

The concept of the user for an Arts and Humanities Research Infrastructure

The concomitant question to that of 'what is impact?' is, of course, 'impact for whom?' Of the many actors DARIAH interacts with, we would see the following as our most critical audiences: our national members, and the researchers they represent. The term most recognised widely within research infrastructural policy and practice as a descriptor for such beneficiaries of the services an infrastructure provides, is 'user', and yet we in DARIAH use this term only with some hesitation. In DARIAH, we can hardly recognise the distinctive roles of producer and consumer. Our users, if indeed they are such, are as much contributors as beneficiaries: the DARIAH stat-

utes require high in-kind contributions of our members. This fact canon-ises a much more equal standing between those who might be considered central within DARIAH and those who might be seen as peripheral. We therefore use the term only in the sense of the 'produser' or 'prosumer', whose input is as essential to the eventual quality of the services and expe-riences DARIAH provides, as is DARIAH to the services and experienc-es they partake of.

Serving this community requires us to bring value to some of our oth-er relationships as well, however: with the European Commission, with cul-tural heritage institutions, and with other ERICs, for example. Beyond this, we can abstract to a further level of general impact, reaching out to socie-ty and research as a whole, though we would generally consider these pri-marily indirect, rather than direct targets for our impact.

On the basis of this understanding of the impact of arts and humanities research, of a research infrastructure in this domain, and upon the relation-ship between DARIAH and its community, we can propose three main areas of impact that we can seek to trace our influence through, namely that we:

– Foster research excellence.
– Support organisational efficiency and effectiveness (eg. at the national partner level).
– Promote more fluid interactions between policy and practice.

These user-centric impact areas provide instructive windows into how DARIAH can shape and improve the research environment for the arts and humanities. Each of these areas is discussed in more detail below.

Fostering research excellence: Impact on research and researchers

Through DARIAH, individual researchers can access the partnerships, knowledge, tools, services and other assets they need for their work. They can join or form working groups to easily assemble groupings of research-ers to explore new ideas. Digital work in the humanities is well-known for its ability to be hidden from or otherwise inaccessible for reuse, or removed from developments in other research areas. Through DARIAH, these op-portunities can be maximised.

Impacting on research is also centrally and essentially about training. We need to bring researchers, who have sometimes little or no knowledge of digital methods beyond Microsoft Word, to understand the potential of tools, so that when they encounter digitised content, they understand better what they can do, and what they should not. DARIAH operates always un-

der the maxim that digital methodologies supplement, rather than supplant, existing approaches, we do not seek to change researchers in such a way that they do something else, but empower them to adapt to digital content and methods. To ensure this transition to the digital methods we need to also bring them to new descriptive possibilities, providing guidance about standards and best practices in digital scholarly work, for example. As such, we introduce ways of asking old questions new ways or asking new entirely questions with the data, through approaches such as distant reading, information extraction, and data visualisation.

Of course, we also need to train trainers. The number of researchers in the humanities is so immense that we cannot reach out to them all, and the specificity of the requirements of their sources and questions makes the goal of providing them with the knowledge and skills they need, when they need it, a challenging one to deliver upon directly. The notion of having impact by touching each researcher in the arts and humanities is not achievable, but creating a waterfall effect, starting with a smaller group of ambassadors within the community through training is something we strive to embed. As many countries and institutions respond to a similar impetus with the appointment of professors and other academic staff with a digital humanities leadership role locally, we can see a network forming that we might support, helping them to broaden their skills beyond their own interests, and increase their own impact as institution-level agents for growth and development.

This commitment can take many forms, and we have a catalogue of options. DARIAH and CLARIN jointly support a course registry[1] for digital curricula in Europe, and we work as well through our Working Groups to identify the needs of the communities. DARIAH hosts and supports a lot of training events, seminars and schools, including many joint events with a variety of partners, and finally we also use these various events to feed an ever-growing corpus of on-line training materials which in turn can be used by our ambassadors and their students.

Promote more fluid interactions between policy and practice: Impact on policymakers

In DARIAH, we speak a lot about how we are very much an organisation built from the 'bottom-up', serving researchers and following their needs, rather than the other way around. To do this effectively, however,

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[1] https://registries.clarin-dariah.eu/courses/.

the overall environment from the 'top-down' must also be in line with these researcher needs, and research policy has very often been seen as being in conflict rather than in harmony with the distinct needs of arts and humanities research. DARIAH, as a large and representative body with national ministry buy-in and recognised at European-level, is in a unique position to inform policy, in particular as our expertise and interest in technology places us at the heart of so many debates, from Open Science to the Digital Economy.

Open Science is a good example to look at in more detail. You cannot speak about changing research in Europe without having a strong Open Science policy, and we in DARIAH have developed this step-by-step. Many aspects of the discourse on Open Science are either not well-matched to the manner in which arts and humanities researchers work, or they are commonly discussed at a level of abstraction that can seem a barrier to communities still trying to understand how their norms of communication and publication can become open. Some of our partners have been very active in this space: for example, our partners in the Netherlands DANS have developed the Data Seal of Approval, and have been leaders in promoting responsible data management and the FAIR principles across the disciplines. DANS is not the norm, however, and we need to remain mindful of the fact that the humanities are not at the forefront of the OA movement. It is difficult to forget the statement by the American Historical Society some years ago urging students not to put the pdf of their PhD thesis online, because it would impact on the business model of the publishers, who may not choose to publish a thesis already openly available, and who should be protected with an embargo of at least five years. We need to evangelise to researchers about the most basic aspects of open access. But not everything about the mismatch between Open Science and the humanities is down to disciplinary conservatism. In the realm of Open Data, for example, there is also a need to redefine the relationship between researchers and cultural heritage institutions, as the open sharing of data is currently not possible for researchers whose source material is under the care and protection of libraries, museums and archives. DARIAH is developing, together with CLARIN but also with Europeana, Archive Portal Europe and others, a data reuse charter[2] that will ease this discussion between memory institutions and researchers, but also between researchers and the funders who might expect a data deposit in addition to any traditional publications coming out of funded research.

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[2] https://datacharter.hypotheses.org.

We also need to be very open in the domain of openness, as it were, rather than letting current policies and fashions shape our imaginations. Openness must go beyond basic aspects such as access to publications, and so, for example, in DARIAH we are also working to create clear guidance about using standards, which can increase reuse as well as visibility for objects that might not normally be conceived of as fitting under the rubric of the FAIR. The notion of authorities is relevant here too, making sure we give guidance on ensuring proper authorship of datasets, the notion of licenses, and finally of course we need those technical components like repositories to ensure that researchers have the capacity to be open through the infrastructures we deliver. This is the policy space where DARIAH is seeking both to sustain dialogue and to build solutions.

Support organisational efficiency and effectiveness: Impact on partner institutions

Having access to DARIAH helps research groups and national partner institutions to gain access to and maintain visibility over a European horizon of research and development. In addition, they can learn from other partners, and access tools and services that can benefit their research projects and communities, without the need to necessarily instigate or fund such developments from scratch.

This form of impact has to do with the notion of institutional change. Reflecting on the first twelve years of DARIAH's development, even if we had done nothing technical, over this time we would still have seen in a lot of countries how national programmes have developed, and for the better, in relation to that country's participation in DARIAH.

One case in particular is memorable. When Serbia joined DARIAH, then Minister of Culture, Ivan Tasovac, met with us and said that he was in a situation where his major cultural institutions seemed to be behind the curve in terms of digital methods. He had found a couple of institutions that were progressive and ambitious, and what he needed, more than anything else, was a forum to exchange with others and ensure that the process of digitisation he wanted to enact in his own country reflected what had happened and was going on in other countries. This is a major example of the kind of political impact we can see within our partner countries.

Conversely, it also is very important that we take the best of 'the jewels', that is, what has been developed nationally in the various countries, and expose them outward as well, redistributing this knowledge toward the other countries. This is the main role of an infrastructure like DARIAH. It

has to do with datasets, it has to do with tools, it has to do with skills, and knowledge – the transformative spark for a country looking to make major changes, or indeed even for one well-established but seeking ever to stay at the cutting-edge – can come from many places and in many forms. There are barriers to this form of openness, however: issues such as multilingualism, documentation and community recognition all pose greater challenges at the European than at the national level. In addition, issues of maintenance arise, in which the balance between what can and should be provided at institutional, national and European levels is delicate indeed. We are working to ensure appropriate and sustainable sharing and reuse across our partner countries through the development of what we call the SSH Marketplace. The concept behind this is to create a context-rich registry, fed from our in-kind contributions, of user-centred information concerning existing tools, existing methods, existing knowledge centres, which we will supplement with community enhancements and the kind of transparency scholars require, down to the description of algorithms.

Conclusion (transverse issues)

In some ways, none of the things described here are specific to DARIAH on a conceptual level, and we recognise that in particular among the SSH RIs we should work together more towards developing joint policies and impact stories. In this sense, two more forms of impact close to the heart of DARIAH come to mind, as these areas, while strong motivators for us, also will be stronger still when we expand their scope beyond the confines of our one infrastructure.

In specific we mean things like the impact of developing networks and collaborations. More the anything else, DARIAH is about people, and about sharing knowledge in large groups and small conversations. These networks can lead to large scale funding proposals, or to more limited (but no less valuable) insight, publications and events, all of which ensure the fluid circulation of knowledge among experts and curious alike. As we move into an age where more will be expected from digital scholars in terms of their fluency with data originating from approaches and disciplines that are not their own, we need to work together to enhance our capacity for such impact.

A second such area to explore is the promotion of innovation. Because of its scale and place between humanities and arts research and technology, DARIAH is able to support new modes of research that may follow either a policy imperative or an applied or translational one. Through DARIAH, researchers and research performing organisations can develop their ca-

pacity in research approaches that are mission-oriented or facing new audiences or societal challenges. This too, however, should naturally lead us into new collaborations across disciplines and for the benefit of both industry and society.

It is common now to speak about digital humanities, but it is the nature of such methodological and social shifts that such an expression of hybridity will disappear in another decade or so. It is the overarching goal of DARIAH to be a part of that transition, ensuring the preservation of the traditional strengths of arts and humanities research as it reaches a new potential for integration and impact in a digital age.