Norwegian Roadmap for Research Infrastructure 2023

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Humanities and Social Sciences

Humanities

The humanities encompass many different disciplines, e.g. history, philosophy, linguistics, arts, cultural sciences and comparative literature, which have in common that they seek to interpret, explain and understand human beings, human expressions and people's cultural environment. Research in the humanities plays an important role in society through the formation of knowledge, education, artistic insight and competence, the formation of public opinion, administration and policy development. It helps to ensure a broad knowledge base in the face of societal challenges.

Together with the social sciences, the humanities will provide the necessary insight into the cultural and social aspects of many of the societal challenges of our time, such as climate and environmental challenges, social and economic inequality, integration, migration and conflict, and the technological shift we are in the midst of. There is a need for greater efforts within humanities in such strategic areas as made clear in the Long-term plan through the launch of a national social mission: "Include more children and young people in education, work and society" and in the white paper Humanities in Norway. Among the thematic priorities in the Long-term plan, 'Societal security and emergency preparedness' and 'Trust and community' stand out as two priorities where the humanities and social sciences are particularly important.

The humanities contribute with research on ethical, security or other consequences of digital developments. Digital tools and technologies are thus becoming increasingly integrated into research processes in the humanities, at the same time as digitalisation and its consequences are increasingly topics for research. This applies not least to artificial intelligence (AI), which has an important place in the humanities in the development of technology for language, sound and image. The rapid and far-reaching development of AI in all areas of society will entail new research needs and challenges, such as the emergence of a number of ethical and legal challenges, e.g. in terms of democracy, trust, freedom of expression and the public sphere, and in the arts and culture field.

Jurisprudential issues related to privacy or copyright concern many research infrastructures within the humanities. Some examples that can be mentioned are the need for handling, quality assurance and sharing of collected video and image data in accordance with privacy requirements or video, image and audio data in accordance with copyright requirements and possible challenges in reuse. It is therefore important to have competence related to the FAIR principles in order to make such data FAIR.

The infrastructure landscape today and in the future

The infrastructures within the humanities are described in Part 3, and make available the extensive collections found in the university and university college and ABM sectors (archives, libraries and museums), and which enable interdisciplinary collaboration. A number of infrastructures adapted for linguistics have also been established, such as INESS (Infrastructure for the Exploration of Syntax and Semantics), MENOTEC (Medieval Norwegian Text Corpus), and LIA (Language Infrastructure made Accessible). CLARINO, the Norwegian node in the ESFRI project CLARIN (Common Language Resources and Technology Infrastructure), is also used by linguists, but may be relevant for other disciplines within the social sciences, including psychology and media and information science. Some infrastructure in other areas may also be relevant for humanities research, for example infrastructure for materials characterisation.

The need for the future will be better coordination and coordination between already established data infrastructures within the humanities and across disciplines and sectors. This is to ensure long-term interaction and reuse of data ("I" and "R" in the FAIR principles) in the services being developed. This is clearly highlighted in the Long-term plan. It is also important to use international standards in order to coordinate digital infrastructures both nationally and internationally.

The report Follow-up of evaluation of research in the humanities in Norway recommends a clearer focus on digitalisation and infrastructure for the humanities. Much of the research infrastructure needs in the humanities are directed towards collections and digitisation of these, in addition to digitalisation in general, standardisation, systematisation, linking and making data available through open archives and databases. There is also an increasing need for long-term storage of large amounts of data and high-performance computing facilities. The rapid development of AI depends on such supercomputers.

There is a growing need for access to, and analysis of, fresh and real-time data, such as language data, websites, online newspapers and content from social media that is harvested continuously. In addition, it will provide great added value to be able to harvest user-generated content and data for increased knowledge about the use of e.g. learning materials and learning platforms. The same applies to registry data and the need to share the large scope of registry data. All this will entail, among other things, ethical issues.

In some research areas, it will be necessary to have access to high-tech and expensive equipment to conduct high-quality research. Examples of this are archaeology and conservation, where analysis of finds requires advanced instruments, or linguistics, where cognitive research laboratories will make it possible to conduct neurological and psychological tests of language users.

Social sciences

The social sciences develop knowledge about how people and society interact in an increasingly complex world. This knowledge must be updated in pace with changes in the economy, demographics, technology and restructuring in the labour market and business sector. This presupposes that it is possible to access and share data that provide a basis for research, administration and policy.

Perspectives from the social sciences and humanities play an important role in a number of areas if we are to solve the major sustainability and social challenges we face. The Long-term plan also emphasises the need for social science perspectives, including legal perspectives, in order to further develop our understanding of, for example, how marine and coastal areas should be managed holistically. The major technological advances that are continuously taking place require sound and appropriate regulations, in which social science research will provide important knowledge.

The social sciences can contribute with research on how different emergency preparedness measures are understood and handled by different social groups, and how different groups understand and relate to risk in different situations. This is of great importance for how emergency preparedness works in the situation it is supposed to resolve. Social research also contributes to understanding the consequences of - and - evaluating public development and innovation projects.

In order to strengthen research on democracy, governance and renewal, and the research requested in the Long-term plan on trust, inclusion, societal security and emergency preparedness, it is important to facilitate increased use of experimental methods, longitudinal studies, and coordinated data collection in groups with different roles in society and public administration. Norway is known to have extensive registers with high-quality data on the entire population. Accessible infrastructure will provide opportunities for research of high relevance to society, e.g. by facilitating studies of major societal challenges related to democracy, education, business and industry, governance and administration. More concretely, such research can provide important knowledge about issues related to: climate and environmental challenges, the Norwegian working life and welfare model, migration, reforms and innovation in the public sector, participation in education and society, extremism, security, human rights and various forms of inequality. This is a necessary part of the knowledge base for policy development and for further development of the welfare society. Such research enables us to better understand trends in society and meet national and global challenges with targeted and effective measures, and will be relevant to the national social mission: "Include more children and young people in education, work and society".

The infrastructure landscape today and in the future

As shown in part 3, the Research Council has made several investments in infrastructures through INFRASTRUKTUR to upgrade services related to depositing, curating and making research data available. The Norwegian Open Research Data Infrastructure (NORDi) project is an example of this. The social science ESFRI projects European Social Survey (ESS) and Council of European Social Science Data Archives (CESSDA) give researchers access to data across national borders.

In the time ahead, there will be a need for better interaction and coordination between infrastructures, institutions and sectors. It will also be of great importance to maintain and further develop infrastructures for data storage and accessibility.

It will be important to exploit the opportunities provided by digitalisation and larger amounts of data. There are several research infrastructures that facilitate the collection, quality assurance and sharing of different types of data. Nevertheless, major tasks remain to be done to further develop these and facilitate standardisation, increased access and efficient reuse of the data stored there. In addition, it is important to further develop data infrastructure in order to exploit opportunities to generate data in new ways by, among other things, facilitating new research methods, the use of new technology, social media and large amounts of data. Today, there are a number of legal challenges related to sensitive personal data and GDPR, and there is a need for better systems for data storage of this type of data.

In connection with crisis management and emergency preparedness, it is particularly important to have access to data across sectors, which in turn can have legal and ethical challenges. It is important to facilitate access to industrial data and commercial data, which may entail the use and development of ICT technology for, for example, encryption and anonymisation of such data.

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