



PhD position in Digital Business Strategy

About the position

The emergence of novel technologies such as artificial intelligence (AI) and big data analytics has resulted in a great interest from private and public organizations regarding the value that can be derived from effectively leveraging them. Nevertheless, despite the large promise of such innovations, adopting and strategically utilizing these technologies constitutes a major challenge for many organizations. Furthermore, there is limited understanding regarding how the use of technologies such as AI and big data analytics can drive business strategies and generate sustained value. While most research to date has looked into technical aspects related to AI and big data analytics and other analytics technologies, there is a growing need to understand how business strategies can be developed to harness the strengths of these novel technologies.

The position reports to Head of department

Main duties and responsibilities

The goal of this project is to explore the business value that AI and big data analytics can create, and how digital business strategies can be formulated around the potential of AI and big data analytics. This work will build on an interdisciplinary approach, bridging the domains of information systems, technology management, and business strategy. The successful candidate is expected to have a strong background in Information Systems and Management, be knowledgeable about research methods and data analysis techniques, and be competent in statistical methods. We are seeking a highly motivated individual that wants to excel in a research environment. The PhD candidate will therefore contribute to generate knowledge regarding the use and deployment of AI and big data analytics in organizational settings. Part of the main duties and responsibilities include conducting the following:

- Conduct interviews and focus groups with industry executives
- Collect, analyze and interpret quantitative data with the use of statistical analysis software
- Communicate and disseminate results

Qualification requirements

A master's degree in Computer Science, Informatics, Information Systems or equivalent with very good results is required, or an education at the equivalent level (equivalent to 120 credits). The applicant must satisfy the requirements for admission to the PhD education at NTNU (c.f. <https://www.ntnu.edu/phd> and <https://www.ntnu.edu/studies/phtele>). In particular, admission to the PhD education at NTNU requires an average grade of at least B, within a scale of A-E for passing grades (A best) in terms of NTNU's grading scale, for the last two years of the master's degree. Candidates completing the MSc-degree in spring 2019 are encouraged to apply

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and [national guidelines for appointment as PhD, postdoctor and research assistant](#)

NTNU is committed to following evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment - DORA](#).

Other qualifications

- The applicant should have a strong background in management information systems
- The applicants master thesis must be research-oriented
- Publication activities in relevant disciplines will be considered an advantage
- A strong background in research methods and particularly knowledge on quantitative techniques and statistical analysis is required
- Experience with management theories will be considered a plus
- Excellent English written and oral communication skills
- Non-Norwegian-speaking applicants must provide evidence of good English language skills. The following tests can be used as such documentation: TOEFL, IELTS or Cambridge Certificate in Advanced English (CAE) or Cambridge Certificate of Proficiency in English (CPE). Minimum scores are:
 - TOEFL: 600 (paper-based test), 92 (Internet-based test)
 - IELTS: 6.5, with no section lower than 5.5 (only Academic IELTS test accepted)
 - CAE/CPE: grade B.

Personal characteristics

The applicant should:

- enjoy working in a team-based environment, but also be able to conduct independent activities and thinking
- have a problem-solving attitude
- have an inquisitive nature and enjoy cross-disciplinary challenges
- be highly motivated to publish in top academic conferences and journals in the information systems domain

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability, as well as motivation, in terms of the qualification requirements specified in the advertisement

We offer

- exciting and stimulating tasks in a strong international academic environment
- an open and [inclusive work environment](#) with dedicated colleagues
- favourable terms in the [Norwegian Public Service Pension Fund](#)
- [employee benefits](#)

Salary and conditions

PhD candidates are remunerated in code 1017, and are normally remunerated at gross from NOK 456 400 before tax per year. From the salary, 2 % is deducted as a contribution to the Norwegian Public Service Pension Fund.

The period of employment is 3 years without required duties or 4 years with required duties. Appointment to a PhD position requires admission to the PhD programme in Information Technology

As a PhD candidate, you undertake to participate in an organized PhD programme during the employment period. A condition of appointment is that you are in fact qualified for admission to the PhD programme within three months.

Appointment takes place on the terms that apply to State employees at any time, and after the appointment you must assume that there may be changes in the area of work.

General information

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background. Under the Freedom of Information Act (offentleglova), information about the applicant may be made public even if the applicant has requested not to have their name entered on the list of applicants.

Questions about the position can be directed to Associate Professor Patrick Mikalef, phone number +47 485 02 737, e-mail: patrick.mikalef@ntnu.no or head of department e-mail John.Krogstie@ntnu.no

The application must contain:

- Curriculum vitae (CV) with information about the candidate's prior training, exams, and work experience
- Certified copies of transcripts and diplomas for the whole bachelor and master's degree. An English translation of all education documents is required unless the documents are in Norwegian.
- Applicants from universities outside Norway are kindly requested to send a diploma supplement or a similar document that describes in detail the study and grading system and the rights for further studies associated with the obtained degree
- Research statement (max. 4 pages) including:
 - A short presentation of the motivation for a PhD study
 - How the applicant sees his/her background suitable
 - The applicant's view of research challenges within the area of the PhD position
 - How artificial intelligence can create business value, and what are the emerging strategic opportunities of human-computer symbiosis
 - How the competence of the applicant can contribute to solving these challenges
 - A proposed research plan including appropriate research methods and what theories could be relevant to examine the topic of AI and business value
 - Names and contact information of at least 2 reference persons
- A copy of the master thesis (in PDF), or, for those who are near to completion of their MSc, an extended abstract combined with a statement of how and when the applicant plans to complete the thesis.

Incomplete applications will not be considered.

Publications and other academic works that the applicant would like to be considered in the evaluation must accompany the application. Joint works will be considered. If it is difficult to identify the individual applicant's contribution to joint works, the applicant must include a brief description of his or her contribution.

Please submit your application electronically via jobbno.no with your CV, diplomas and certificates. Applicants invited for interview must include certified copies of transcripts and reference letters. Please refer to the application number **2019/14812** when applying.

Application deadline: 26.08.2019

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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

Department of Computer Science

We are the leading academic IT environment in Norway, and offer a wide range of theoretical and applied IT programmes of study at all levels. Our subject areas include hardware, algorithms, visual computing, AI, databases, software engineering, information systems, learning technology, HCI, CSCW, IT operations and applied data processing. The Department has groups in both Trondheim and Gjøvik. The [Department of Computer Science](#) is one of seven departments in the [Faculty of Information Technology and Electrical Engineering](#).

Jobbnorge-ID: 171415, Søknadsfrist: Søknadsfristen er gått ut