



DOCTORATS
INDUSTRIALS



EL PLA DE
DOCTORATS
INDUSTRIALS

PROJECTE DE DOCTORAT INDUSTRIAL EXPEDIENT 2016 DI 095

DADES DE L'EMPRESA I DE L'ENTORN ACADÈMIC

Títol del projecte

Making historical archives searchable. Semantic annotation of handwritten word images

Empresa

Qidenus Group GmbH

Responsable de l'empresa

Martin Micko Micko

Universitat

Universitat Autònoma de Barcelona

Director/a de tesi

Josep Lladós Canet

Treballador/a de l'empresa i doctorand/a

Manuel Carbonell Núñez

BREU DESCRIPCIÓ DEL PROJECTE DE RECERCA

Historical documents reflect the identities and contexts of the past, and the access to their contents allows citizens at large to know their individual and collective memory. Search centered at people is very important in historical research, including family history and genealogical research. Genealogical documents such as birth, marriage or death certificates or census records contain information that reflect a picture of a historical context: a person's life, an event, a location at some period of time. The CVC and Qidenus are currently working in the development of computational methods for the massive analysis of digitized historical demographic documents.

Handwriting recognition is an area of research that has attracted great interest over the years. However, current algorithms, such as Hidden Markov Models (HMM) and neural networks have not yet reached an acceptable level of recognition, especially in multi-writer and cursive script scenarios, where variations in writing style makes extremely difficult the task of recognition.

Massive processing of demographic handwritten documents covers several centuries and countries. Therefore the problem must tackle with different styles of writing. The objective of the thesis is to investigate techniques for writer adaptation and transfer of learning that basically consist is train the system with a set of controlled documents and define some adaptation functions to adapt the model to the target images without re-training the system.



Generalitat de Catalunya
Departament d'Empresa i Coneixement
Secretaria d'Universitats i Recerca



Agència
de Gestió
d'Ajuts
Universitaris
i de Recerca