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## TOWARDS A SEMANTIC RESEARCH INFORMATION SYSTEM BASED ON RESEARCHERS' CV DOCUMENTS

**Abstract:** *Curricula vitae* are widely used as the main mechanisms for evaluation of researchers. They also reflect a fraction of the data about the research activity of an organization and geographic area. The nature of the academic world causes researchers to have to continuously keep the information updated. There are tools to help manage this information, usually offered by an organization such as a university or the national government. However, the reports generated by these tools have a local scope when in most of the cases they are used outside the organization. We explore Semantic Web as a solution to this problem because of its benefits on interoperability, inference capabilities when merging data from different sources, and expedience when responding to semantic queries made by evaluators. We design a software solution using the existing tools, able to get data from a CV document, insert it into a semantic system, and then build a document CV from the existing amount of semantic data of a researcher in that system.

**Keywords:** *Curriculum vitae, Semantic web, Research management, Linked data*

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### 1. Introduction

Human capital is a key element for any research (Caire & Becker, 1967). Scientific method requires a combination of knowledge and talent in order to think appropriate questions, formulate hypothesis, develop and implement methodologies, understand observations, and share and discuss results with peers. However, human capital is difficult to measure, and thus, to evaluate. The usual evaluation mechanism is the Curriculum Vitae (CV): a well-structured text document with ordered lists of merits. For researchers, the CV contains abundant and varied types of evidence: education degrees, teaching experiences, faculty positions, participations in scientific meetings, staying

in outer institutions, involvement on research projects, and its outcomes: publications, innovations, patents, awards, etc. This diversity hampers objective evaluations of CV candidates.

Universities and governments use the CV for evaluations. Even, with an enormous and ever-growing public source of information, as editorials or institutional web portals, research decision makers still ask for the CV when it comes to decisions. Nevertheless, CV documents are not a practical evaluation mechanism for all kind of decisions. They are for those, which affect individuals or groups, like funding projects, appointing positions or rewarding based on merits. But when it comes to planning or monitoring for the whole institution or nation, CV evaluation becomes

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