USING DATABASES TO IMPROVE THE VISIBILITY OF WOMEN'S CONTRIBUTIONS IN STEM FIELDS

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Abstract

Databases are powerful tools to simplify managing and accessing information, which have been proved to be fundamental capabilities in the Data Science Age. Currently, databases are being widely implemented in many different applications and fields. In this work, we highlight the benefits that publicly available databases of professional women working in Science, Technology, Engineering and Mathematics (STEM) fields can provide to overcome the problem of lack of gender diversity and equity in them. Some examples of public databases in Spain are provided. Special focus is given to the Girls4STEM project database, which promotes gender perspective innovation from a Higher Education Institution

Sustainable development and gender diversity in STEM

❖ Gender equity and diversity are cornerstone in the promotion of social sustainability from the perspective of education
❖ Gender based attitudes are socially constructed and learned through formal, non-formal and informal environments
❖ Direct link with SDGs: 9 out of 17 SDGs are gender-related
❖ Need to promote gender diversity and equity in STEM fields to avoid employment problems and discriminating situations in the Data Science Age
❖ We discuss here the role of databases of professional STEM women, and provide some examples from Spain

Gender perspective innovation and University role

❖ Universities can strengthen the relationship with companies and society by integrating the gender perspective and promoting scientific and technological vocations
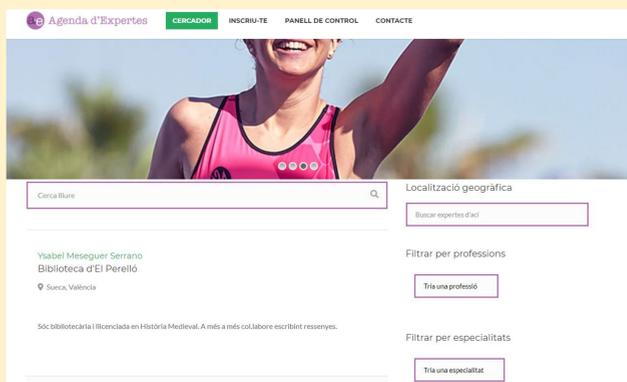❖ Interaction supported by the triple helix model University-Industry-Government relations (and its evolution)

Databases for improving gender diversity and equity in STEM

❖ Gender gap is a persistent problem in STEM careers (lack of role models, poor visibility of women's contributions…)
❖ Databases can help reverse this situation by helping locating professional STEM women when needed (mass media, panels, knowledge transfer, etc)

Example 1: AMIT

❖ Association of Women Researchers & Technologist
❖ PhD required, **visibility to researchers and academics** to ensure that events dedicated to science dissemination are of equal standing
❖ 3385 experts and advanced search features (filters, keywords, etc)

Example 2: #SonPioneras

❖ Project from University of Granada
❖ Visibility for female academics to enhance their possibilities for **transfer knowledge** (spin-offs, etc)
❖ Searches by area and name

Example 3: Experts agenda

❖ Journalist association and 5 public Universities from Valencia Region
❖ Not limited to STEM profiles, helps **mass media** locating expert women
❖ 555 experts

Example 4: Girls4STEM

❖ School of Engineering (University of Valencia)
❖ **Promote STEM vocations**, both boys and girls, targeting the girls
❖ Outreach activities to connect students, families and STEM female experts
❖ 152 experts, not only from Spain
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