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INNOMINATE – Digital catalog and tools of the identified skeleton collection of IUCS-CESPU

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Abstract

Background: The University Institute of Health Sciences (IUCS) - CESPU houses the XXI CEIC - XXI Century Identified Skeletal Collection; it holds over a hundred human remains undergoing or awaiting full processing – cleaning, documentation, and proper storage. All data are documented in printed templates during processing, including information on osteological material presence, absence, preservation status, measurements, and biological profile estimations [1]. The absence of a well-structured digital repository hinders interested parties from fully leveraging the collection's pedagogical/scientific potential. **Objective:** The aim of this work is to build a web catalogue for the XXI CEIC, allowing students, professors, and experts in related fields easy access to data and tools suitable for their purposes [2]. **Methods:** A review of other online osteological collections in Portugal or abroad was conducted. We extracted all data fields to be included from existing records and templates and structured them in a relational database for easy querying in SQL. Extensive user interface models/mockups were created, considering functionality and appearance, with support images/icons generated by artificial intelligence, hand-drawn, or open source. The collection will be available at https://ceic.iucs.cespu.pt, with access permissions pending Ethics Committee review. **Results:** In Europe, there are 151 osteological collections, 43 being contemporary [3]. Portugal, alongside the XXI CEIC, holds 9 of these, for which no web databases were found [1]. In the United States of America, among 288 catalogued forensic databases, only four comprised human osteological remains [4]. Our web catalogue will feature anonymous personal information, such as dates and places of exhumation; description of bones condition (presence/absence); cranial measurements; data required for determining the preservation state, and biological profile estimation with associated calculation tools. **Conclusions:** The XXI CEIC aims to be a research and pedagogical tool in Health and Forensic Sciences, and a web platform to interact with it will be key to reaching its full potential.

Keywords: osteology; identification; anthropology; computing; forensic sciences

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