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(71) Applicant(s):
UNIVERSITY-INDUSTRY COOPERATION GROUP OF KYUNG HEE UNIVERSITY [KR/KR]; (KYUNG HEE UNIVERSITY, Seocheon-dong) 1732, Deogyeong-daero,Giheung-gu Yongin-si Gyeonggi-do 17104 (KR) *(for all designated states)*

(72) Inventor(s):
LEE, Sung Young; (Sam-hwan Villa, Gumi-dong) 102-102, 25 Gumi-ro 144 beon-gil, Bundang-gu Seongnam-si Gyeonggi-do 13622 (KR)
TAQDIR, Ali; 1732, Deogyeong-daero, Giheung-gu Yongin-si Gyeonggi-do 17104 (KR)

(74) Agent(s):
ROH, Chul Ho; (U-space2, Sampyeong-dong) #1003, 10th Floor, B-dong, 670, Daewangpangyo-ro, Bundang-gu Seongnam-si Gyeonggi-do 13494 (KR)

(54) Title (EN): METHOD, APPARATUS AND COMPUTER PROGRAM FOR MAPPING MEDICAL DATA

(54) Title (FR): PROCÉDÉ, APPAREIL ET PROGRAMME INFORMATIQUE POUR METTRE EN CORRESPONDANCE DES DONNÉES MÉDICALES

(54) Title (KO): 의료 데이터의 매핑 방법, 장치 및 컴퓨터 프로그램

(57) Abstract:

(EN): The present invention relates to a method for mapping heterogeneous medical data, the method comprising the steps of: generating domain clinic model ontology that defines a concept of arbitrary medical data collected from individual clinics and a relationship between the medical data; if SNOMED CT ontology that defines the concept and relationship of the domain clinic model ontology and standardized medical terms is loaded and the concept included in the domain clinic model ontology and/or the SNOMED CT ontology has a degree of similarity equal to or greater than a preset threshold value, determining that the concept has been mapped and generating a DCM-SNOMED mapping file for the mapping information; if vMR ontology describing the concept and relationship of data models defined by the SNOMED CT ontology and Health Level 7 standard is loaded and the concept included in the SNOMED CT ontology and/or the vMR ontology has a degree of similarity equal to or greater than a preset threshold value, determining that the concept has been mapped and generating a vMR-SNOMED mapping file for the mapping information; and generating a DCM-vMR mapping file for mapping information between the arbitrary medical data collected from the individual clinics and the concept included in the vMR ontology by using the DCM-SNOMED mapping file and the MR-SNOMED mapping file.

(FR): La présente invention concerne un procédé de mise en correspondance de données médicales hétérogènes, le procédé comprenant les étapes consistant à : générer une ontologie de modèle clinique de domaine qui définit un concept de données médicales arbitraires collectées à partir de cliniques individuelles et une relation entre les données médicales ; si une ontologie SNOMED CT qui définit le concept et la relation de l'ontologie de modèle clinique de domaine et des termes médicaux normalisés est chargée et le concept inclus dans l'ontologie de modèle clinique de domaine et/ou l'ontologie SNOMED CT a un degré de

similitude égal ou supérieur à une valeur seuil prédéfinie, déterminer que le concept a été mis en correspondance et générer un fichier de mise en correspondance DCM-SNOMED pour les informations de mise en correspondance ; si l'ontologie vMR décrivant le concept et la relation de modèles de données définis par l'ontologie SNOMED CT et la norme de santé de niveau 7 sont chargées et le concept inclus dans l'ontologie SNOMED CT et/ou l'ontologie vMR a un degré de similitude égal ou supérieur à une valeur seuil prédéfinie, déterminer que le concept a été mis en correspondance et générer un fichier de mise en correspondance vMR-SNOMED pour les informations de mise en correspondance ; et générer un fichier de mise en correspondance DCM-vMR pour mettre en correspondance des informations entre les données médicales arbitraires collectées à partir des cliniques individuelles et le concept inclus dans l'ontologie vMR en utilisant le fichier de mise en correspondance DCM-SNOMED et le fichier de mise en correspondance MR-SNOMED.

(KO): 본 발명은 이종의 메디컬 데이터를 매핑하는 방법에 대한 것으로, 개별 클리닉에서 수집한 임의의 메디컬 데이터의 개념 및 상기 메디컬 데이터 상호간의 관계를 정의하는 도메인 클리닉 모델 온톨로지를 생성하는 단계; 상기 도메인 클리닉 모델 온톨로지와 표준화된 메디컬 용어들의 개념과 관계를 정의하는 SNOMED CT 온톨로지를 로딩하고, 상기 도메인 클리닉 모델 온톨로지 및/또는 상기 SNOMED CT 온톨로지에 포함된 개념이 미리 설정된 임계값 이상의 유사도를 가지는 경우, 상기 개념은 매핑된 것으로 판단하고, 상기 매핑 정보에 대한 DCM-SNOMED 매핑 파일을 생성하는 단계; 상기 SNOMED CT 온톨로지 및 Health Level 7 표준이 규정한 데이터 모델들의 개념 및 관계를 기술한 vMR 온톨로지를 로딩하고, 상기 SNOMED CT 온톨로지 및/또는 상기 vMR 온톨로지에 포함된 개념이 미리 설정된 임계값 이상의 유사도를 가지는 경우, 상기 개념은 매핑된 것으로 판단하고, 상기 매핑 정보에 대한 vMR-SNOMED 매핑 파일을 생성하는 단계; 및 상기 DCM-SNOMED 매핑 파일 및 MR-SNOMED 매핑 파일을 이용하여 상기 개별 클리닉에서 수집한 임의의 메디컬 데이터와 상기 vMR 온톨로지에 포함된 개념 사이의 매핑 정보에 대한 DCM-vMR 매핑파일을 생성하는 단계를 포함하는 것을 특징으로 한다.

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