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TI Public-private share in maternal health care services utilization in India: A multinomial logistic regression analysis from three consecutive survey data

SO CLINICAL EPIDEMIOLOGY AND GLOBAL HEALTH

LA English

DT Article

DE Antenatal care; Institutional delivery; Multinomial logistic regression; Public-private health services; DLHS survey

ID MORTALITY

AB Background: The Antenatal care and institutional delivery to improve maternal and child health is the prime focus of the time. India, with its large economic diversity, the health care utilization may depend on type of service provider i.e. public or private. The present study estimates the trends in the utilization of public and private maternal health care services and the associated socio-demographic factors, the major focus being Antenatal care and skilled delivery.

Methodology: The present population based cross-sectional analysis is performed on the secondary data of India from three rounds of District Level Household Survey (DLHS) conducted in 1998-99, 2002-04 and 2007-08. Indicators for maternal health care utilization are based on full antenatal check up (FANC) as defined by RCH program and skilled institutional delivery attendance (SID) as defined by WHO by the mode of service provider (Public vs Private). Multinomial logistic regression was used for statistical analysis by considering these indicators as the outcome variables treating various socio-demographic factors as independent variables.

Result: The urban area, other than SC/ST caste, higher wealth index and more than 10 years of mother's & father's education have high proportion of maternal health care utilization. Lower parent's education have shown lower relative risk ratio of FANC and SID accessibility throughout the survey periods. Wealth indices as a factor of FANC and SID are observed higher in private sectors as compared to public sectors during second and third survey. Women with more pregnancy related problem have chosen private sector for their institutional delivery during all the survey periods. Maternal health programme related initiatives such as when health worker visit for antenatal care and women counselled to go for institutional delivery have shown improvement in terms of accessibility.

Conclusion: This study used multinomial logistic regression which attempts to integrate the different socio-economic and demographic factors as well as maternal health related program initiatives by mode of service provider. The analysis strongly brings out the preference for public sector and private sector for seeking maternal services mainly depends on the various socio-economic characteristics. Program initiatives clearly demonstrate that accessibility is higher for public sector. However, the improvement in the public sector is stagnating beyond a point across India. Public-private partnership needs to be

explored by keeping in mind that the efforts are to be directed more for deprived section of the society. (C) 2017 Published by Elsevier, a division of RELX India, Pvt. Ltd on behalf of INDIACLEN.

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TI Sexual and Gender Minority Youth's Perspectives on Sharing De-identified  
Data in Sexual Health and HIV Prevention Research

SO SEXUALITY RESEARCH AND SOCIAL POLICY

LA English

DT Article

DE Data sharing; Adolescents; Participant perspectives; HIV prevention;  
Research ethics; Sexual orientation; Gender identity

ID AFRICAN-AMERICANS; PARTICIPATION; ADOLESCENTS; BARRIERS; CONSENT; RISK;  
ATTITUDES; TRIAL; VIEWS; MEN

AB Funding agencies encourage and sometimes require data sharing. However, there is limited empirical research on participant perspectives on sharing de-identified data from research on sensitive topics (e.g., HIV, sexual health) with other researchers, and virtually none from adolescents or sexual and gender minority (SGM) participants. SGM teens (N=197) ages 14-17 completed an online survey with multiple-choice and open-ended items assessing perspectives toward sharing survey responses and blood samples from sexual health and HIV testing studies with other researchers. SGM youth were willing to share data but frequently cited confidentiality and privacy concerns, including fears about parents finding out about their identities even after de-identification was explained. Researchers need to ensure youth understand explanations of data security protections in order to make well-informed decisions about participating in research.

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AU Grossman, RL  
AF Grossman, Robert L.  
TI Data Lakes, Clouds, and Commons: A Review of Platforms for Analyzing and  
Sharing Genomic Data  
SO TRENDS IN GENETICS  
LA English  
DT Review

ID CANCER; VISION; BROWSER; GALAXY  
AB Data commons collate data with cloud computing infrastructure and commonly used software services, tools, and applications to create biomedical resources for the large-scale management, analysis, harmonization, and sharing of biomedical data. Over the past few years, data commons have been used to analyze, harmonize, and share large-scale genomics datasets. Data ecosystems can be built by interoperating multiple data commons. It can be quite labor intensive to curate, import, and analyze the data in a data commons. Data lakes provide an alternative to data commons and simply provide access to data, with the data curation and analysis deferred until later and delegated to those that access the data. We review software platforms for managing, analyzing, and sharing genomic data, with an emphasis on data commons, but also cover data ecosystems and data lakes.

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AF Minicuci, Nadia  
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TI Data Resource Profile: Cross-national and cross-study sociodemographic and health-related harmonized domains from SAGE plus CHARLS, ELSA, HRS, LASI and SHARE (SAGE+ Wave 2)  
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DT Article

ID COHORT PROFILE; RETIREMENT

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TI Gene expression data analysis for characterizing shared and type specific mechanisms of HCC and B-CLL

SO TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI

LA English

DT Article

DE B-cell chronic lymphocytic leukemia; Hepatocellular carcinoma; Re-analysis of public data; Gene expression; Bioinformatics; Microarray  
ID HEPATOCELLULAR-CARCINOMA; LIVER; CANCER

AB Background: Comparing gene expression profiles using gene expression datasets of different types of tumors is frequently used to identify molecular mechanisms of cancer. This study aimed to find shared and type specific gene expression profiles of hepatocellular carcinoma (HCC) and B-cell chronic lymphocytic leukemia (B-CLL).

Material and methods: Gene expression microarrays for HCC and B-CLL and RNA-sequencing expression data for liver HCC and lymphoid neoplasm diffuse large B-cell lymphoma (DLBC) were analyzed and differentially expressed probe sets or genes for each cancer type were detected. Probe sets and genes that were shared or specifically expressed in both cancer types were identified. Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway and Gene Ontology (GO) terms for Biological Process (BP) annotations were performed.

Results: According to our analysis shared upregulated genes were mainly annotated in cell cycle processes. Some of the genes that changed only in HCC were annotated in cell cycle and metabolic processes, and some of the genes, altered only in B-CLL, were annotated in immune response and hemopoiesis.

Conclusion: These results contribute to cancer research that aim to find the conserved gene expression profiles in different cancer types and widen the knowledge of HCC and B-CLL specific mechanisms.

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TI Inferring disease risk genes from sequencing data in multiplex pedigrees through sharing of rare variants

SO GENETIC EPIDEMIOLOGY

LA English

DT Article

DE family studies; identity by descent; oral clefts; variant sharing

ID OVARIAN-CANCER; SUSCEPTIBILITY; ASSOCIATION; BREAST; INDIVIDUALS; MUTATIONS; CANDIDATE

AB We previously demonstrated how sharing of rare variants (RVs) in distant affected relatives can be used to identify variants causing a complex and heterogeneous disease. This approach tested whether single RVs were shared by all sequenced affected family members. However, as with other study designs, joint analysis of several RVs (e.g., within genes) is sometimes required to obtain sufficient statistical power. Further, phenocopies can lead to false negatives for some causal RVs if complete sharing among affected is required. Here, we extend our methodology (Rare Variant Sharing, RVS) to address these issues. Specifically, we introduce gene-based analyses, a partial sharing test based on RV sharing probabilities for subsets of affected relatives and a haplotype-based RV definition. RVS also has the desirable feature of not requiring external estimates of variant frequency or control samples, provides functionality to assess and address violations of key assumptions, and is available as open source software for genome-wide analysis. Simulations including phenocopies, based on the families of an oral cleft study, revealed the partial and complete sharing versions of RVS achieved similar statistical power compared with alternative methods (RareIBD and the Gene-Based Segregation Test), and had superior power compared with the pedigree Variant Annotation, Analysis, and Search Tool (pVAASST) linkage statistic. In studies of multiplex cleft families, analysis of rare single nucleotide variants in the exome of 151

affected relatives from 54 families revealed no significant excess sharing in any one gene, but highlighted different patterns of sharing revealed by the complete and partial sharing tests.

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TI Protecting User Privacy and Rights in Academic Data-Sharing  
Partnerships: Principles From a Pilot Program at Crisis Text Line

SO JOURNAL OF MEDICAL INTERNET RESEARCH

LA English

DT Article

DE data sharing; privacy; crisis intervention; text messaging; ethics;  
business; technology; industry; cooperative behavior; information  
dissemination

ID SOCIAL MEDIA; TECHNOLOGY; HEALTH

AB Data sharing between technology companies and academic health researchers has multiple health care, scientific, social, and business benefits. Many companies remain wary about such sharing because of unaddressed concerns about ethics, data security, logistics, and public relations. Without guidance on these issues, few companies are willing to take on the potential work and risks involved in noncommercial data sharing, and the scientific and societal potential of their data goes unrealized. In this paper, we describe the 18-month long pilot of a data-sharing program led by Crisis Text Line (CTL), a not-for-profit technology company that provides a free 24/7 text line for people in crisis. The primary goal of the data-sharing pilot was to design, develop, and implement a rigorous framework of principles and protocols for the safe and ethical sharing of user data. CTL used a stakeholder-based policy process to develop a feasible and ethical data-sharing program. The process comprised forming a data ethics committee; identifying policy challenges and solutions; announcing the program and generating interest; and revising the policy and launching the program. Once the pilot was complete, CTL examined how well the program ran and compared it with other potential program models before putting in place the program that was most suitable for its organizational needs. By drawing on CTL's experiences, we have created a 3-step set of guidelines for other organizations that wish to develop their own data-sharing program with academic researchers. The guidelines explain how to (1) determine the value and suitability of the data and organization for creating a data-sharing program; (2) decide on an appropriate data sharing and collaboration model; and (3) develop protocols and technical solutions for safe and ethical data sharing and the best organizational structure for implementing the program. An internal evaluation determined that the pilot satisfied CTL's goals of sharing scientific data and protecting client confidentiality. The policy development process also yielded key principles and protocols regarding the ethical challenges involved in data sharing that can be applied by other organizations. Finally, CTL's internal review of the pilot program developed a number of alternative models for sharing data that will suit a range of organizations with different priorities and capabilities. In implementing and studying this pilot program, CTL aimed both to optimize its own future data-sharing programs and to inform similar decisions made by others. Open data programs are both important and feasible to establish. With careful planning and appropriate resources, data sharing between big data companies and academic researchers can advance their shared mission to benefit society and improve lives.

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TI Public participation, trust and data sharing: gardens as hubs for  
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SO INTERNATIONAL JOURNAL OF SCIENCE EDUCATION PART B-COMMUNICATION AND  
    PUBLIC ENGAGEMENT  
LA English  
DT Article  
DE Environmental communication; data visualization; citizen science  
ID INFORMATION; VEGETABLES  
AB Gardenroots: A Citizen Science Project (2015) is the product of a needs  
assessment, revealing environmental quality concerns of gardeners living near  
hazardous waste or resource extraction activities. Participants were trained,  
collected garden samples for analysis, and later received their data visualized  
(individual and aggregated) via community events or mail. This article describes  
participant motivations, changes in knowledge and efficacy, and whether these  
depend on the mode of data sharing and visualization. Motivations were internal,  
and self-efficacy increased, while knowledge and satisfaction were higher in  
event attendees due to increased researcher contact. This reveals importance of  
data-sharing events, data visualizations, and participatory research processes.  
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TC 0  
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PU ROUTLEDGE JOURNALS, TAYLOR & FRANCIS LTD  
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WC Education & Educational Research  
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AU Luo, Y  
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TI A Blockchain Future for Secure Clinical Data Sharing  
SO PROCEEDINGS OF THE ACM INTERNATIONAL WORKSHOP ON SECURITY IN SOFTWARE  
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CT ACM International Workshop on Security in Software Defined Networks and  
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SP Assoc Comp Machinery, ACM SIGSAC, NSF

DE Medical Data; Cloud Computing; Software Defined Networking; Blockchain;  
Smart Contract

AB In the digital healthcare era, it is utmost important to harness medical information scattered across healthcare institutions to support in-depth data analysis. However, the boundaries of cyberinfrastructure of healthcare providers place obstacles on data sharing. In this position paper, we firstly identify the challenges of medical data sharing and management. Then we introduce the background and give a brief survey on the state-of-the-art. Finally, we conclude the paper by discussing a few possible research directions to cope with the challenges in current medical information sharing.

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TI ETHICS POLICIES AND ETHICS WORK IN CROSS-NATIONAL GENETIC RESEARCH AND DATA SHARING: FLOWS, NONFLOWS, AND OVERFLOWS

SO REVUE D ANTHROPOLOGIE DES CONNAISSANCES

LA French

DT Article

DE biobank; collaboration; confidentiality; data sharing; ethics; genetic research; open science

ID COLLABORATIONS INVOLVING BIOBANKS; GLOBAL SAMPLE COLLECTION; ELSI CHALLENGES; DNA; CONSENT

AB In recent years, cross-national collaboration in medical research has gained increased policy attention. Policies are developed to enhance data sharing, ensure open-access, and harmonize international standards and ethics rules in order to promote access to existing resources and increase scientific output. In tandem with this promotion of data sharing, numerous ethics policies are developed to control data flows and protect privacy and confidentiality. Both sets of policy making, however, pay limited attention to the moral decisions and social ties enacted in the everyday routines of scientific work. This paper starts by examining the practices of a Danish laboratory highly experienced in collaborating cross-nationally on genetic research. We focus on a simple query, what makes genetic material and health data flow, and which hopes and concerns sit alongside them? We explore what we call the flows, the non-flows, and the overflows of material and information, and we document the work that produces the flows of health data and biomaterial. We call this work "ethics work" and argue that it is crucial for data sharing, despite rarely being included in ethics policies, remaining inadequately funded, and lacking acknowledgment in policies promoting international data sharing.

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SC Social Sciences - Other Topics  
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AU Zaghloul, E  
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GP IEEE  
TI Security and Privacy of Electronic Health Records: Decentralized and Hierarchical Data Sharing using Smart Contracts  
SO 2019 INTERNATIONAL CONFERENCE ON COMPUTING, NETWORKING AND COMMUNICATIONS (ICNC)  
SE International Conference on Computer Networking and Communications  
LA English  
DT Proceedings Paper  
CT International Conference on Computing, Networking and Communications (ICNC)

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SP IEEE, IEEE Comp Soc, IEEE Commun Soc

DE Blockchain; smart contract; healthcare records management

AB Over the last fifty years, medical treatment has seen remarkable advancement, however, the data management and storage systems of medical records has lagged in comparison. In addition, these systems are often inharmonious across platforms and do not put the privacy desires of patients first. While HIPAA and other laws are put in place to protect patient medical record security and privacy, these antiquated systems inherently hinder patient security and privacy. In this paper, we propose a novel data sharing and management scheme that empowers patients over their records by leveraging the security and privacy benefits of blockchain and smart contracts. In comparison to current methods for healthcare records management, our proposed scheme empower patients over their records and minimizes the dependencies on recordgenerating institutions. It also allows the patients to selectively share their records and disclose certain parts with specific data users based on the privacy preferences desired. In our security and privacy analysis, we show that patients can protect against potential threats to securely and privately share their records. Moreover, in our performance discussions, we show that smart contract design and development is key.

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AU Jin, H  
Luo, Y  
Li, PL  
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AF Jin, Hao  
Luo, Yan  
Li, Peilong  
Mathew, Jomol

TI A Review of Secure and Privacy-Preserving Medical Data Sharing  
SO IEEE ACCESS  
LA English  
DT Review

DE Access control; blockchain; encryption; medical data; privacy; security  
ID HEALTH; ENCRYPTION; ANONYMITY

AB In the digital healthcare era, it is of the utmost importance to harness medical information scattered across healthcare institutions to support in-depth data analysis and achieve personalized healthcare. However, the cyberinfrastructure boundaries of healthcare organizations and privacy leakage threats place obstacles on the sharing of medical records. Blockchain, as a public ledger characterized by its transparency, tamper-evidence, trustlessness, and decentralization, can help build a secure medical data exchange network. This paper surveys the state-of-the-art schemes on secure and privacy-preserving medical data sharing of the past decade with a focus on blockchain-based approaches. We classify them into permissionless blockchain-based approaches and permissioned blockchain-based approaches and analyze their advantages and disadvantages. We also discuss potential research topics on blockchain-based medical data sharing.

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PU IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC  
PI PISCATAWAY  
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J9 IEEE ACCESS  
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WC Computer Science, Information Systems; Engineering, Electrical &  
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AU Guo, BY  
Deng, XF  
Tian, J  
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AF Guo, Bingyi  
Deng, Xiaofang  
Tian, Jie  
Guan, Quansheng  
Zheng, Xiangwei  
TI A Secure Incentive Mechanism for Competitive Organization Data Sharing:  
A Contract Theoretic Approach  
SO IEEE ACCESS  
LA English  
DT Article  
DE Data sharing; incentive mechanism; competitiveness; privacy security;  
contract theory  
ID HEALTH-CARE DATA; PRIVACY  
AB With the development of information technology, various data-driven  
intelligent services have changed our daily life greatly. As the data fuels the  
development of these services, data sharing is desirable for data availability  
issues. Many mechanisms and technologies have been proposed to support data  
sharing. However, some organizations, especially with potential competitive  
relationships are still reluctant to share their data. On one hand, no data  
holder wish to see the competitiveness improvement of competitors by data  
sharing. On the other hand, data sharing suffers from huge privacy security  
risks. To encourage data sharing, in this paper, a competitiveness-driven and  
secure incentive mechanism is proposed. By introducing the concept of data  
competitiveness as incentive motivation, competitiveness worry of data holders  
is eliminated. Privacy is protected by adopting differential privacy. As the  
privacy protection levels of data holders are unknown to the data demander, a

contract theoretic approach is proposed to formulate the incentive mechanism. With the design of optimal contracts, the data demander can make the best decisions to pay data holders and data holders can optimize their utilities by choosing proper contracts. The numerical results demonstrate the effectiveness of the proposed incentive scheme.

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AU Naher, N  
Hashem, T  
AF Naher, Nazmun  
Hashem, Tanzima  
TI Think Ahead: Enabling Continuous Sharing of Location Data in Real-Time  
with Privacy Guarantee  
SO COMPUTER JOURNAL  
LA English  
DT Article  
DE continuous location-based services and analysis; location privacy;  
warning zone  
ID MIX-ZONES; PROTECTION; FRAMEWORK; CLOAKING  
AB A user's location is a sensitive data and can reveal private information  
about the user's health, habit and preferences. Due to privacy concerns, people  
may hesitate to share their locations and prohibit the growth of location-based  
services and analysis. The problem of protecting location privacy has been  
extensively studied in the literature. Sharing location data in sequence enable  
adversaries to apply privacy attacks by exploiting spatio-temporal constraints  
in road networks. In this paper, we identify a novel privacy attack that  
existing solutions cannot overcome for not considering upcoming sensitive  
locations in advance. We develop a technique to precompute the warning zone, i.e.  
the refined area where the disclosure of a user's actual location may enable  
adversaries to identify the user's sensitive locations in the future. Warning  
zones also enable users to reduce the frequency of not sharing locations for  
privacy reasons, and thereby improve the accuracy and utility of shared  
locations while guaranteeing the required level of location privacy of a user.  
Experiments using real datasets show that our approach significantly outperforms  
the state-of-the-art technique in terms of privacy, data utility and  
computational overhead.  
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WC Computer Science, Hardware & Architecture; Computer Science, Information  
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SC Computer Science

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AU Zamudio-Haas, S  
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AF Zamudio-Haas, Sophia  
Koester, Kimberly A.  
Maiorana, Andres  
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Parnell, Heather E.  
Quinlivan, Evelyn Byrd  
Myers, Janet J.

TI "Closing the Loop" Developing State-Level Data Sharing Interventions to Promote Optimum Outcomes Along the HIV Continuum of Care

SO AIDS AND BEHAVIOR

LA English

DT Article

DE HIV care continuum; Data sharing interventions; Surveillance data; Implementation science; State surveillance

ID PATIENT RETENTION; SURVEILLANCE DATA; INFECTED PERSONS; IMPLEMENTATION; LINK; MEN; SEX

AB This manuscript describes the experiences of three state departments of health (SDoH) that successfully launched data sharing interventions involving surveillance and/or patient data collected in clinics to improve care outcomes among people living with HIV. We examined 58 key informant interviews, gathered at two time points, to describe the development and implementation of data sharing interventions. We identified three common themes across states' experiences: creating standard practices, fostering interoperability, and negotiating the policy environment. Projects were successful when state teams adapted to changing circumstances and were committed to a consistent communication process. Once implemented, the interventions streamlined processes to promote linkage and retention in care among low-income populations living with HIV. Despite using routinely collected data, key informants emphasized the labor-intensive process to develop and sustain the interventions. Lessons learned from these three state experiences can help inform best practices for other SDoH that are considering launching similar interventions. ResumenEste manuscrito describe las experiencias de tres departamentos estatales de salud (SDoH, por su sigla en ingles) que implementaron con exito intervenciones de intercambio de datos que incluian datos de vigilancia y/o de pacientes recogidos en clinicas para mejorar los resultados medicos para personas que viven con el VIH. Analizamos 58 entrevistas con informantes claves, conducidas en dos etapas, para describir el desarrollo y la implementacion de intervenciones de intercambio de datos. Identificamos tres temas comunes en las experiencias de los estados: la creacion de practicas estandar, el fomento de la interoperabilidad y la negociacion del entorno de politicas. Los proyectos tuvieron exito cuando los equipos estatales se adaptaron a circunstancias

cambiantes y se comprometieron en un proceso de comunicacion constante. Una vez implementadas, las intervenciones racionalizaron los procesos para promover el vinculo y la retencion en la atencion medica en poblaciones de bajos ingresos que viven con el VIH. A pesar de utilizar datos recopilados rutinariamente, los informantes clave enfatizaron el proceso de trabajo intensivo para desarrollar y sostener las intervenciones. Las lecciones aprendidas de estas tres experiencias estatales pueden ayudar a informar mejores practicas para otros SDOH que esten considerando iniciar intervenciones similares.

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WC Public, Environmental & Occupational Health; Social Sciences, Biomedical  
SC Public, Environmental & Occupational Health; Biomedical Social Sciences  
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AU Saad, M  
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AF Saad, Mohamad  
    Wijsman, Ellen M.  
TI Association score testing for rare variants and binary traits in family  
    data with shared controls  
SO BRIEFINGS IN BIOINFORMATICS  
LA English  
DT Article  
DE linear mixed models; score test; pedigree data; next-generation  
    sequencing; association test; shared controls  
ID LINEAR MIXED MODELS; COMMON VARIANTS; GENOME; DISEASE; PEDIGREES;  
    GENOTYPES; POWERFUL; DESIGNS  
AB Genome-wide association studies have been an important approach used to  
    localize trait loci, with primary focus on common variants. The multiple rare  
    variant-common disease hypothesis may explain the missing heritability remaining  
    after accounting for identified common variants. Advances of sequencing  
    technologies with their decreasing costs, coupled with methodological advances  
    in the context of association studies in large samples, now make the study of  
    rare variants at a genome-wide scale feasible. The resurgence of family-based  
    association designs because of their advantage in studying rare variants has  
    also stimulated more methods development, mainly based on linear mixed models  
    (LMMs). Other tests such as score tests can have advantages over the LMMs, but

to date have mainly been proposed for single-marker association tests. In this article, we extend several score tests ( $\chi^2$  (corrected); W-QLS; and SKAT) to the multiple variant association framework. We evaluate and compare their statistical performances relative with the LMM. Moreover, we show that three tests can be cast as the difference between marker allele frequencies (AFs) estimated in each of the group of affected and unaffected subjects. We show that these tests are flexible, as they can be based on related, unrelated or both related and unrelated subjects. They also make feasible an increasingly common design that only sequences a subset of affected subjects (related or unrelated) and uses for comparison publicly available AFs estimated in a group of healthy subjects. Finally, we show the great impact of linkage disequilibrium on the performance of all these tests.

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TI Mortality, Resource Utilization, and Inpatient Costs Vary Among  
Pediatric Heart Transplant Indications: A Merged Data Set Analysis From  
the United Network for Organ Sharing and Pediatric Health Information

Systems Databases

SO JOURNAL OF CARDIAC FAILURE

LA English

DT Article

ID INTERNATIONAL SOCIETY; REGISTRY; OUTCOMES; CHILDREN; SURGERY; CARE; AGE

AB Background: Merging United Network for Organ Sharing (UNOS) and Pediatric Health Information Systems databases has enabled a more granular analysis of pediatric heart transplant outcomes and resource utilization. We evaluated whether transplant indication at time of transplantation was associated with mortality, resource utilization, and inpatient costs during the first year after transplantation.

Methods and Results: We analyzed transplant outcomes and resource utilization from 2004 to 2015. Patients were categorized as congenital (CHD), myocarditis, or cardiomyopathy based on UNOS-defined primary indication. CHD complexity subgroup analyses (single-ventricle, complex, and simple biventricular CHD) were also performed. Of 2251 transplants (49% CHD, 5% myocarditis, 46% cardiomyopathy), CHD recipients were younger (2 [IQR 0-10], 6 [IQR 0-12], and 7 [IQR 1-14] years, respectively;  $P < .001$ ) and less likely to have a ventricular assist device (VAD) at transplantation (3%, 27%, and 13%, respectively;  $P < .001$ ). Patients with single-ventricle CHD had the longest time on the waitlist and were least likely to receive a VAD before transplantation. After adjusting for patient-level factors, transplant recipients with single-ventricle CHD had the greatest mortality during transplantation admission and within 1 year (odds ratio [OR] 11.8 [95% confidence interval (CI) 5.9-23.6] and OR 6.0 [95% CI 3.6-10.2], respectively, vs cardiomyopathy). Mortality was similar between patients with myocarditis and cardiomyopathy. Post-transplantation length of stay (LOS) was longer in transplant recipients with CHD than myocarditis or cardiomyopathy (25 [interquartile range [IQR] 15-45] vs 21 [IQR 12-35] vs 16 [IQR 12-25] days;  $P < .001$ ), related in part to longer duration of intensive care unit-level care (ICU LOS 8 [IQR 4-20] vs 6 [IQR 4-13] vs 5 [IQR 3-8] days;  $P < .001$ ). Similarly, patients with CHD had higher median post-transplantation costs than myocarditis or cardiomyopathy (\$415K [IQR \$201K-503K] vs \$354K [IQR \$179K-390K] vs \$284K [IQR \$145K-319K];  $P < .001$ ) that persisted after adjusting for patient level factors (adjusted cost ratio 1.4 [95% CI 1.4-1.5], CHD vs cardiomyopathy) and was primarily driven by longer LOS. More than 50% were readmitted during the first year after transplantation, although readmission rates were similar across transplant indications ( $P = .42$ ).

Conclusions: Children with CHD, particularly single-ventricle patients, require substantially greater hospital resource utilization and have significantly worse outcomes during the first year after heart transplantation compared with other indications. Further work is aimed at identifying modifiable pre-transplantation risk factors, such as pre-transplantation conditioning with VAD support and cardiac rehabilitation, to improve post-transplantation outcomes and reduce resource utilization in this complex population.

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AU Fukushima, M

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TI The Global academic research organization network: Data sharing to cure diseases and enable learning health systems

SO LEARNING HEALTH SYSTEMS

LA English

DT Article

DE data sharing; global; harmonization; registry; standards

AB Introduction Global data sharing is essential. This is the premise of the Academic Research Organization (ARO) Council, which was initiated in Japan in 2013 and has since been expanding throughout Asia and into Europe and the United States. The volume of data is growing exponentially, providing not only challenges but also the clear opportunity to understand and treat diseases in ways not previously considered. Harnessing the knowledge within the data in a successful way can provide researchers and clinicians with new ideas for therapies while avoiding repeats of failed experiments. This knowledge transfer from research into clinical care is at the heart of a learning health system. Methods The ARO Council wishes to form a worldwide complementary system for the benefit of all patients and investigators, catalyzing more efficient and innovative medical research processes. Thus, they have organized Global ARO Network Workshops to bring interested parties together, focusing on the aspects necessary to make such a global effort successful. One such workshop was held in

Austin, Texas, in November 2017. Representatives from Japan, Taiwan, Singapore, Europe, and the United States reported on their efforts to encourage data sharing and to use research to inform care through learning health systems. Results This experience report summarizes presentations and discussions at the Global ARO Network Workshop held in November 2017 in Austin, TX, with representatives from Japan, Korea, Singapore, Taiwan, Europe, and the United States. Themes and recommendations to progress their efforts are explored. Standardization and harmonization are at the heart of these discussions to enable data sharing. In addition, the transformation of clinical research processes through disruptive innovation, while ensuring integrity and ethics, will be key to achieving the ARO Council goal to overcome diseases such that people not only live longer but also are healthier and happier as they age. Conclusions The achievement of global learning health systems will require further exploration, consensus-building, funding aligned with incentives for data sharing, standardization, harmonization, and actions that support global interests for the benefit of patients.

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AU Lin, HC  
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Buu, Anne

TI Interstate data sharing of prescription drug monitoring programs and associated opioid prescriptions among patients with non-cancer chronic pain

SO PREVENTIVE MEDICINE

LA English

DT Article

DE Chronic pain; Prescription drug; Interstate data sharing; Drug policy; Ambulatory care

ID UNITED-STATES; THERAPY; ANALGESICS; PHYSICIAN; EPIDEMIC; TRENDS; RISKS; ABUSE

AB All fifty states have implemented prescription drug monitoring programs (PDMPs) to reduce misuse and diversion of controlled drugs. Interstate PDMP data sharing has been called for by clinical practitioners, but evidence to support the effectiveness of PDMP data sharing is lacking. This study examined whether PDMP interstate data sharing with bordering states was associated with prescriptions of opioids. This was a cross-sectional study that included patients with non-cancer chronic pain from the 2014 National Ambulatory Medical Care Survey (weighted N = 66,198,751; unweighted N = 2846). Multinomial logistic regression was performed to examine the association between PDMP interstate data sharing status and patients' being prescribed opioids for pain treatment, controlling for covariates guided by the Eisenberg's model of physician decision-making. Findings indicated that patients residing in states with interstate PDMP data sharing with all or partial bordering states were not less



likely to be prescribed opioids compared to those living in states without interstate data sharing. Other factors such as patient age, health insurance type, new patient status, and physician adoption of electronic medical records were associated with the likelihood of patients' being prescribed opioids. This study concluded that current practice of interstate PDMP data sharing with bordering states was not associated with patients' being prescribed opioids for non-cancer chronic pain treatment. Future studies and policy efforts that unravel technological, legal, and political barriers to reciprocal and equal interstate data sharing with bordering states should be warranted to inform PDMP redesign and in turn, augment overall PDMP effectiveness in reducing misuse of prescription opioids.

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AU Ahn, J

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TI Bayesian analysis of longitudinal dyadic data with informative missing  
data using a dyadic shared-parameter model

SO STATISTICAL METHODS IN MEDICAL RESEARCH

LA English

DT Article

DE Dyadic; non-ignorable missingness; longitudinal study; shared-parameter;  
intermittent missing; sensitivity analysis

ID PATTERN-MIXTURE-MODELS; EFFECT HYBRID MODELS; DROP-OUT; NONIGNORABLE  
DROPOUT

AB Analyzing longitudinal dyadic data is a challenging task due to the complicated correlations from repeated measurements and within-dyad interdependence, as well as potentially informative (or non-ignorable) missing data. We propose a dyadic shared-parameter model to analyze longitudinal dyadic data with ordinal outcomes and informative intermittent missing data and dropouts. We model the longitudinal measurement process using a proportional odds model, which accommodates the within-dyad interdependence using the concept of the actor-partner interdependence effects, as well as dyad-specific random effects. We model informative dropouts and intermittent missing data using a transition model, which shares the same set of random effects as the longitudinal measurement model. We evaluate the performance of the proposed method through extensive simulation studies. As our approach relies on some untestable assumptions on the missing data mechanism, we perform sensitivity analyses to evaluate how the analysis results change when the missing data mechanism is misspecified. We demonstrate our method using a longitudinal dyadic study of metastatic breast cancer.

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TI Predictive Analytics and Modeling Employing Machine Learning Technology:  
The Next Step in Data Sharing, Analysis, and Individualized Counseling  
Explored With a Large, Prospective Prenatal Hydronephrosis Database  
SO UROLOGY  
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DT Article  
ID PARENCHYMAL AREA; BIG DATA; CHILDREN; ULTRASOUND; INFANTS; FUTURE;

CANCER; RATIO; CARE

**AB OBJECTIVE** To explore the potential value of utilizing a commercially available cloud-based machine learning platform to predict surgical intervention in infants with prenatal hydronephrosis (HN).

**MATERIALS AND METHODS** A prospective prenatal HN database was uploaded into Microsoft Azure Machine Learning Studio. Probabilistic principal component analysis was employed for data imputation. Multiple clinical variables were included in two-class decision jungle and neural network for model training, using surgical intervention as the primary outcome. Models were scored and evaluated after a 70/30 split of the data.

**RESULTS** A total of 557 entries were included. The optimized model (decision jungle) achieved an area under the curve of 0.9, accuracy of 0.87, and precision of 0.80, employing a threshold of 0.5 to predict surgery. Average time to train, score and evaluate the model was 5 seconds. The predictive model was deployed as a web service in 35 seconds, generating a unique API key for app and webpage development. Individualized prediction based on the included variables was deployed as a web-based and batch execution Excel file in less than one minute.

**CONCLUSION** This cloud-based ML technology allows easy building, deployment, and sharing of predictive analytics solutions. Using prenatal HN as an example, we propose an opportunity to address contemporary challenges with data analysis, reporting a creative solution that moves beyond the current standard. (C) 2018 Elsevier Inc.

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TI "You cannot collect data using your own resources and put It on open  
access": Perspectives from Africa about public health data-sharing

SO DEVELOPING WORLD BIOETHICS  
LA English  
DT Article  
DE data-sharing; public health; health and demographic surveillance  
systems; research involving public health data; research ethics; Africa

AB Data-sharing is a desired default in the field of public health and a source  
of much ethical deliberation. Sharing data potentially contributes the largest,  
most efficient source of scientific data, but is fraught with contextual  
challenges which make stakeholders, particularly those in under-resourced  
contexts hesitant or slow to share. Relatively little empirical research has  
engaged stakeholders in discussing the issue. This study sought to explore  
relevant experiences, contextual, and subjective explanations around the topic  
to provide a rich and detailed presentation of what it means to different  
stakeholders and contexts to share data and how that can guide practice and  
ethical guidance. A qualitative design involving interviews was undertaken with  
professionals working in public health institutions endowed with data (HDSS),

ethics committees, and advisory agencies which help shape health research in Africa. A descriptive form of thematic analysis was used to summarize results into six key themes: (1) The role of HDSSs in research using public health data and data-sharing; (2) Ownership and funding are critical factors influencing data-sharing; (3) Other factors discourage data-sharing; (4) Promoting and sustaining data-sharing; (5) Ethical guidance structures; and (6) Establishing effective guidance. The themes reveal factors regarding the willingness or not to share and an intricate ethical system that current discourse could reflect. Many of the concerns resonate with the literature, but a whole other gamut of people and process issues; commitments, investments, careers, and the right ethical guidance are needed to realize a sustainable goal of reaching 'share' as a default.

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TI Use of an electronic health record data sharing system for identifying current contraceptive use within the WWAMI region Practice and Research Network  
SO CONTRACEPTION  
LA English  
DT Article  
DE contraception; electronic health record; extraction; abstraction; guidelines; data-sharing system  
ID OUTCOMES RESEARCH; MEDICAL-RECORD; CARE; QUALITY  
AB Objective: To evaluate the ability of electronic health record (EHR) data extracted into a data-sharing system to accurately identify contraceptive use. Study design: We compared rates of contraceptive use from electronic extraction of EHR data via a data-sharing system and manual abstraction of the EHR among 142 female patients ages 15-49 years from a family medicine clinic within a primary care practice-based research network (PBRN). Cohen's kappa coefficient measured agreement between electronic extraction and manual abstraction. Results: Manual abstraction identified 62% of women as contraceptive users, whereas electronic extraction identified only 27%. Long acting reversible (LARC) methods had 96% agreement (Cohen's kappa 0.78; confidence interval, 0.57-0.99) between electronic extraction and manual abstraction. EHR data extracted via a data-sharing system was unable to identify barrier or over-the-counter contraceptives. Conclusions: Electronic extraction found substantially lower overall rates of contraceptive method use, but produced more comparable LARC method use rates when compared to manual abstraction among women in this study's primary care clinic. Implications: Quality metrics related to contraceptive use that rely on EHR data in this study's data-sharing system likely under-estimated true contraceptive use. (C) 2018 Elsevier Inc. All rights reserved.  
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TI Imaging Biomarker Ontology (IBO): A Biomedical Ontology to Annotate and  
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DT Article

DE Knowledge representation; Imaging biomarker; Ontology development;  
Biomedical ontologies

ID SURROGATE END-POINTS; KNOWLEDGE REPRESENTATION; FOCUS

AB Imaging biomarkers refer to radiological measurements that characterize biological processes of imaged subjects and help clinicians particularly in the assessment of therapeutic responses and the early prediction of pathologies. Several imaging features (size of a lesion, volume of a tumor, blood perfusion in a specific anatomical region, anisotropic water diffusion in a particular tissue region, etc.) are quantified and reported in the clinical practice. The growth of the number of research studies addressing imaging biomarkers and the increasing use of these measurements in the radiological routine necessitates the use of semantic research tools. The use of semantic technologies will enable to efficiently retrieve imaging-related data and to enhance the interoperability in the biomedical field. While many efforts have been conducted regarding the definition of a standardized vocabulary to support the sharing of the imaging biomarker knowledge, the definition of the term imaging biomarker stills inconsistent. In this paper, we introduce our motivation for semantically describing this concept and we outline shortcomings of the state-of-the-art methods. Here, we propose a semantic representation of the imaging biomarker concept that is based on the articulation of its three main semantic axes, namely the measured quality, the measurement tool and the decision tool. The developed ontology is called the Imaging Biomarker Ontology (IBO) and uses existing biomedical ontologies. A preliminary use case is studied to illustrate the utility of IBO in annotating quantitative and qualitative imaging data from the TCGA (The Cancer Genome Atlas) collection.

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AU Cantarero-Prieto, D  
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AF Cantarero-Prieto, David  
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TI What is Happening with Quality of Life Among the Oldest People in  
Southern European Countries? An Empirical Approach Based on the SHARE  
Data  
SO SOCIAL INDICATORS RESEARCH  
LA English  
DT Article  
DE Quality of life; Oldest people; Southern European countries; SHARE;  
Multilevel regressions  
ID HEALTH; CARE; SATISFACTION; AGES  
AB Population aging in developed countries has created new challenges to improve  
the well-being of individuals at different age cohorts. This issue is especially  
significant for Southern European countries, where aging societies have worse  
health and less socio-economic resources. The aim of this study is to contribute  
to this body of literature and to estimate the effect of aging on quality of  
life of oldest people. This paper uses the latest available data (6th wave) from  
the Survey on Health, Ageing and Retirement in Europe (SHARE). Specifically,  
robust ordinary least squares and multilevel regressions are employed to analyse  
the effects of socioeconomic, health, and community factors on quality of life  
among the oldest population for Southern European countries. Our findings  
confirm the significance of several factors on life satisfaction among the  
oldest population in this group of countries. Moreover, we show that the  
determinants which are correlated with quality of life include predisposing,  
health, geographic area and social isolation factors.  
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COMPARE: CIT5-CT-2005-028857, SHARE-LIFE: CIT4-CT-2006028812, 211909,  
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Y1-AG-4553-01, IAG\_BSR06-11, OGH04-064, HHSN271201300071C]  
FX This paper uses data from SHARE Wave 6 (<http>

://www.share-project.org/data-documentation/waves-overview/wave-6.html), see Borsch-Supan et al. (2017) for methodological details. The SHARE data collection has been primarily funded by the European Commission through FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARE-LIFE: CIT4-CT-2006028812) and FP7 (SHARE-PREP: No 211909, SHARE-LEAP: No 227822, SHARE M4: No 261982). Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the U.S. National Institute on Aging (U01\_AG09740-13S2, P01\_AG005842, P01\_AG08291, P30\_AG12815, R21\_AG025169, Y1-AG-4553-01, IAG\_BSR06-11, OGHA\_04-064, HHSN271201300071C) and from various national funding sources is gratefully acknowledged (see www.share-project.org).

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- NR 33  
TC 0  
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TI Big Data Sharing: A Crucial Democratic Issue for Genomic Medicine  
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DE big data; genomics; BRCA; oncogenetics; database  
ID BREAST-CANCER; DATABASES; KNOWLEDGE; BOUNDARY; HISTORY; PATENT  
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TI Estimating switching costs with market share data: an application to  
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DT Article



DE Switching costs; Discrete choice model; Medicare part D  
ID ADVERSE SELECTION; CONSUMER INERTIA; CHOICE; INSURANCE; DEPENDENCE;  
DEMAND; IMPACT; MODEL

AB Choice inertia and switching frictions are well-documented features of the demand for health insurance. In this paper, we estimate switching costs in the Medicare Part D market with aggregate market share data using standard discrete choice models for differentiated products. We consider various modelling assumptions: myopic and forward-looking consumers, and with and without random coefficients. Both myopic and forward-looking consumer models with no random coefficients yield switching cost estimates that closely match the actual average switching frequency, with implied dollar-valued switching costs of \$1600 to \$2000. We find the inclusion of random coefficients to the myopic consumer model results in smaller estimates of switching costs, but only at the expense of the model's fit to the switching frequency. The estimated welfare losses from switching frictions are large, but they are smaller under the forward-looking consumer model, amounting to around \$500 per enrollee annually, compared to over \$1000 under the myopic model. (c) 2018 Elsevier B.V. All rights reserved.

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TI User Perspectives of a Web-Based Data-Sharing Platform (Open Humans) on  
Ethical Oversight in Participant-Led Research: Protocol for a  
Quantitative Study

SO JMIR RESEARCH PROTOCOLS

LA English

DT Article

DE ethics; data sharing; patient participation; patient-generated health  
data; survey; questionnaire; mobile phone

ID PERSONALIZED MEDICINE; SELF-EXPERIMENTATION; CENTRIC INITIATIVES;  
SYSTEMS BIOLOGY; CITIZEN SCIENCE; HEALTH-CARE; ENGAGEMENT; ONLINE;  
PARTNERS; VIEWS

AB Background: Advances in medicine rely to a great extent on people's  
willingness to share their data with researchers. With increasingly widespread

use of digital technologies, several Web-based communities have emerged aiming to enable their users to share large amounts of data, some of which can possibly be employed for research purposes by scientists, or to conduct participant-led research (PLR). Scholarship has recently addressed the necessity of interrogating how existing ethical standards can and should be applied and adapted in view of the specificities of such Web-based activities. So far, no study has explored participants' beliefs about and attitudes toward ethical oversight when it comes to platforms that involve medical data sharing.

**Objective:** This paper presents the protocol for a survey study aimed at understanding users' beliefs about Web-based data-sharing platforms regarding how research ethics principles should be applied in such a setting. Furthermore, the study aims at quantitatively assessing the relationship between participants' perspectives on ethical oversight and other variables such as previous participation in research, beliefs about data sharing, and attitudes toward self-experimentation.

**Methods:** We are conducting a Web-based survey with users of a popular Web-based data-sharing platform, Open Humans. The survey has been sent to approximately 4640 users registered for the Open Humans newsletter. To fill out the survey, participants need to have an account on Open Humans. We expect a 5%-10% response rate (between 200 and 400 completed surveys out of approximately 4000 survey invitations sent). Independent variables include past data-sharing behavior and intention, beliefs about data sharing, past participation in research, attitudes toward self-experimentation, perceived knowledge of the platform's guidelines and terms, perceived importance of having transparent guidelines, and governance-related beliefs. The main dependent variable is participants' expectations regarding who should ensure that ethical requirements are met within research projects conducted on open data-sharing platforms, based on Emanuel et al's ethical framework. We will use chi-square tests to assess the relationship between participants' expectations regarding ethical oversight and their past behavior, future intentions, beliefs, attitudes, and knowledge.

**Results:** Data collection started on June 13, 2018. A reminder to fill out the survey was sent to participants in mid-July. We expect to gain insights on users' perspectives on the ethical oversight of Web-based data-sharing platforms and on the associated experiences, beliefs, and sociodemographic characteristics.

**Conclusions:** When digital tools allow people to engage in PLR including medical data, understanding how people interpret and envision the ethical oversight of their data-sharing practices is crucial. This will be the first study to explore users' perspectives on ethical oversight of Web-based data-sharing platforms. The results will help inform the development of a framework that can be employed for platforms hosting various kinds of research projects to accommodate participants' ethical oversight needs.

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TI Learning a Cox Model Predicting Survival Based on 3413 Routine Clinical  
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TI POPCORN: A web service for individual PrognOsis prediction based on multi-center clinical data CollaboRation without patient-level data sharing

SO JOURNAL OF BIOMEDICAL INFORMATICS

LA English

DT Article

DE Electronic health record; Prognosis prediction; Clinical decision support; Multi-center collaborative research; Multivariable meta-analysis

ID COLORECTAL-CANCER; MODELS; IMPLEMENTATION; METAANALYSIS; PERFORMANCE

AB Background and objective: Clinical prognosis prediction plays an important role in clinical research and practice. The construction of prediction models based on electronic health record data has recently become a research focus. Due to the lack of external validation, prediction models based on single-center, hospital-specific datasets may not perform well with datasets from other medical institutions. Therefore, research investigating prognosis prediction model construction based on a collaborative analysis of multi-center electronic health record data could increase the number and coverage of patients used for model training, enrich patient prognostic features and ultimately improve the accuracy and generalization of prognosis prediction.

Materials and methods: A web service for individual prognosis prediction based on multi-center clinical data collaboration without patient-level data sharing (POPCORN) was proposed. POPCORN focuses on solving key issues in multi-center collaborative research based on electronic health record systems; these issues include the standardization of clinical data expression, the preservation of patient privacy during model training and the effect of case mix variance on the prediction model construction and application. POPCORN is based on a multivariable meta-analysis and a Bayesian framework and can construct suitable

prediction models for multiple clinical scenarios that can effectively adapt to complex clinical application environments.

Results: POPCORN was validated using a joint, multi-center collaborative research network between China and the United States with patients diagnosed with colorectal cancer. The performance of the models based on POPCORN was comparable-to that-of-the standard prognosis prediction model; however, POPCORN did not expose raw patient data. The prediction models had similar AUC, but the BMA model had the lowest ECI across all prediction models, indicating that this model had better calibration performance than the other models, especially for patients in Chinese hospitals.

Conclusions: The POPCORN system can build prediction models that perform well in complex clinical application scenarios and can provide effective decision support for individual patient prognostic predictions.

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TI Networked medical data sharing on secure medium - A web publishing mode  
for DICOM viewer with three layer authentication

SO JOURNAL OF BIOMEDICAL INFORMATICS

LA English

DT Article

DE Image encryption; Chaos; Watermarking; Web Publishing; FPGA; DICOM

ID IMAGE ENCRYPTION SCHEME; HIGH-CAPACITY; REVERSIBLE WATERMARKING;  
WAVELET; INFORMATION; INTELLIGENT; PRIVACY

AB Growing demand for e-healthcare across the globe has raised concerns towards  
the secure and authentication enhanced medical image sharing. One of the  
services offered by health informatics in hospitals include an user interface  
through the Local Area Network (LAN) for enabling storage and access of medical  
records. In this paper, a security enhanced DICOM image sharing over a LAN  
addressing confidentiality, integrity and authentication has been proposed.  
Initially, the AES encrypted patient history was combined along with the thumb  
impression and Quick Response (QR) code of patient ID as watermark. This  
watermark was encrypted employing Integer Wavelet Transform (IWT), chaotic map  
and attractors with confusion-diffusion operations. Further, the encrypted  
watermark was embedded in the selected Region Of Non-Interest (RONI) pixels of  
DICOM image. Username & unique password credentials, Face identification and  
FPGA generated One Time Password (OTP) form the three layer authentication  
scheme for secure DICOM image access through the LAN. Web publishing medium of  
storing secured DICOM images in cloud has also been addressed in this work. To  
validate the proposed hybrid crypto-watermarking system, parameters such as key  
sensitivity, key space, correlation, entropy, histogram, cropping attack, Mean  
Square Error (MSE), Peak Signal to Noise Ratio (PSNR) and Structural Similarity  
Index Metric (SSIM) were performed and the results obtained have proved the  
strength of the proposed algorithm against brute force, statistical and cropping  
attacks.

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AU Sarker, A  
Belousov, M  
Friedrichs, J  
Hakala, K  
Kiritchenko, S  
Mehryary, F  
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Rios, A  
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AF Sarker, Abeed  
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TI Data and systems for medication-related text classification and concept normalization from Twitter: insights from the Social Media Mining for Health (SMM4H)-2017 shared task

SO JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION

LA English

DT Article

DE social media; text mining; natural language processing;  
pharmacovigilance; machine learning

ID ADVERSE DRUG-REACTIONS; PHARMACOVIGILANCE; KNOWLEDGE; CORPUS

AB Objective: We executed the Social Media Mining for Health (SMM4H) 2017 shared tasks to enable the community-driven development and large-scale evaluation of automatic text processing methods for the classification and normalization of health-related text from social media. An additional objective was to publicly release manually annotated data.

Materials and Methods: We organized 3 independent subtasks: automatic classification of self-reports of 1) adverse drug reactions (ADRs) and 2) medication consumption, from medication-mentioning tweets, and 3) normalization of ADR expressions. Training data consisted of 15 717 annotated tweets for (1), 10 260 for (2), and 6650 ADR phrases and identifiers for (3); and exhibited typical properties of social-media-based health-related texts. Systems were evaluated using 9961, 7513, and 2500 instances for the 3 subtasks, respectively.

We evaluated performances of classes of methods and ensembles of system combinations following the shared tasks.

Results: Among 55 system runs, the best system scores for the 3 subtasks were 0.435 (ADR class F1-score) for subtask-1, 0.693 (micro-averaged F1-score over two classes) for subtask-2, and 88.5% (accuracy) for subtask-3. Ensembles of system combinations obtained best scores of 0.476, 0.702, and 88.7%, outperforming individual systems.

Discussion: Among individual systems, support vector machines and convolutional neural networks showed high performance. Performance gains achieved by ensembles of system combinations suggest that such strategies may be suitable for operational systems relying on difficult text classification tasks (eg, subtask-1).

Conclusions: Data imbalance and lack of context remain challenges for natural language processing of social media text. Annotated data from the shared task have been made available as reference standards for future studies (<http://dx.doi.org/10.17632/rxwfb3tysd.1>).

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TI Improved Functional Proxy Re-encryption Schemes for Secure Cloud Data  
Sharing  
SO COMPUTER SCIENCE AND INFORMATION SYSTEMS  
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DT Article  
DE Attack; multi-control for big data storage; secure cloud data sharing;  
proxy re-encryption; chosen ciphertext security  
ID E-HEALTH CLOUD; PAIRINGS; SERVICE  
AB Recently Liang et al. propose an interesting privacy-preserving ciphertext  
multi-sharing control for big data storage mechanism, which is based on the  
cryptographic primitive of anonymous multi-hop identity based conditional proxy  
re-encryption scheme AMH-IBCPRE. They propose a concrete AMH-IBCPRE scheme and  
conclude their scheme can achieve IND-sCon-sID-CCA secure (indistinguishable  
secure under selectively conditional selectively identity chosen ciphertext  
attack). However, our research show their scheme can not be IND-sCon-sID-CCA  
secure for single-hop and multi-hop data sharing. Also in 2014, Liang et al.  
propose an interesting deterministic finite automata-based functional proxy  
reencryption scheme DFA-based FPRE for secure public cloud data sharing, they

also conclude their scheme can achieve IND-CCA secure (indistinguishable secure under chosen ciphertext attack), we also show their scheme can not be IND-CCA secure either. For these two proposals, the main reason of insecurity is that part of the re-encryption key has the same structure as the valid ciphertext, thus the adversary can query on the decryption oracle with this part of the re-encryption key to get secret keys, which will break the CCA-security of their scheme. We give an improved AMH-IBCPRE scheme and an improved DFA-based FPREScheme for cloud data sharing and show the new schemes can resist our attack and be CCA-secure. We also demonstrate our improved AMH-IBCPRE scheme's efficiency compared with other related identity based proxy re-encryption schemes, the results show our scheme is almost the most efficient one.

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FU National Natural Science Foundation of China [61772550, 61572521, U1636114, 61402531]; National Cryptography Development Fund of China [MMJJ20170112]; National Key Research and Development Program of China [2017YFB0802000]; Natural Science Basic Research Plan in Shaanxi Province of china [2018JM6028]; Guangxi Key Laboratory of Cryptography and Information Security [GCIS201610]

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PA UNIV NOVI SAD, FAC TECH SCI, TRG DOSITEJA OBRADOVICA 6, NOVI SAD, 21000,  
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Wiggins, Charles  
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TI Cancer survivor viewpoints on sharing patient generated health data with central cancer registries

SO QUALITY OF LIFE RESEARCH

LA English

DT Meeting Abstract

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Environmental & Occupational Health  
SC Health Care Sciences & Services; Public, Environmental & Occupational  
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PT J  
AU Liverani, M  
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Le, MS  
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AF Liverani, Marco  
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Coker, Richard  
TI Sharing public health data and information across borders: lessons from  
Southeast Asia  
SO GLOBALIZATION AND HEALTH  
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DT Article  
DE International health regulations; Infectious disease surveillance;  
Health data and information sharing; Southeast Asia; Health information  
systems; Regional health cooperation  
ID DEVELOPMENT COOPERATION; PLASMODIUM-FALCIPARUM; AVIAN INFLUENZA;  
SECURITY; POLITICS; DISEASES; SPREAD; EAST  
AB Background: The importance of data and information sharing for the prevention  
and control of infectious diseases has long been recognised. In recent years,  
public health emergencies such as avian influenza, drug-resistant malaria, and  
Ebola have brought renewed attention to the need for effective communication  
channels between health authorities, particularly in regional contexts where  
neighbouring countries share common health threats. However, little empirical  
research has been conducted to date to explore the range of factors that may  
affect the transfer, exchange, and use of public health data and expertise  
across borders, especially in developing contexts.  
Methods: To explore these issues, 60 interviews were conducted with domestic  
and international stakeholders in Cambodia and Vietnam, selected amongst those  
who were involved in regional public health programmes and networks. Data  
analysis was structured around three categories mapped across the dataset: (1)  
the nature of shared data and information; (2) the nature of communication  
channels; and (3) how information flow may be affected by the local, regional,  
and global system of rules and arrangements.  
Results: There has been a great intensification in the circulation of data,  
information, and expertise across borders in Southeast Asia. However, findings  
from this study document ways in which the movement of data and information from

production sites to other places can be challenging due to different standards and practices, language barriers, different national structures and rules that govern the circulation of health information inside and outside countries, imbalances in capacities and power, and sustainability of financing arrangements.

Conclusions: Our study highlights the complex socio-technical nature of data and information sharing, suggesting that best practices require significant involvement of an independent third-party brokering organisation or office, which can redress imbalances between country partners at different levels in the data sharing process, create meaningful communication channels and make the most of shared information and data sets.

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NR 65

TC 0

Z9 0

U1 3

U2 8

PU BMC

PI LONDON

PA CAMPUS, 4 CRINAN ST, LONDON N1 9XW, ENGLAND

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J9 GLOBALIZATION HEALTH

JI Global. Health

PD SEP 29

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WC Public, Environmental & Occupational Health

SC Public, Environmental & Occupational Health  
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UT WOS:000446303700001  
PM 30268139  
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ER

PT J

AU Bartlett, G  
Macgibbon, B  
Rubinowicz, A  
Nease, C  
Dawes, M  
Tamblyn, R

AF Bartlett, Gillian  
Macgibbon, Brenda  
Rubinowicz, Analia  
Nease, Cecilia  
Dawes, Martin  
Tamblyn, Robyn

TI The Importance of Relevance: Willingness to Share eHealth Data for  
Family Medicine Research

SO FRONTIERS IN PUBLIC HEALTH

LA English

DT Article

DE family practice; community health services; secondary data analysis;  
patient participation; informed consent

ID HEALTH; RECORDS; PRIVACY; CONSENT; AUTHORIZATION; FRAMEWORK; QUALITY;  
SYSTEMS; BIAS; CARE

AB Objective: To determine the proportion of family medicine patients unwilling  
to allow their eHealth data to be used for research purposes, and evaluate how  
patient characteristics and the relevance of research impact that decision.

Design: Cross-sectional questionnaire.

Setting: Acute care respiratory clinic or an outpatient family medicine  
clinic in Montreal, Quebec.

Participants: Four hundred seventy-four waiting room patients recruited via  
convenience sampling.

Main Outcome Measures: A self-administered questionnaire collected data on  
age, gender, employment status, education, mother tongue and perceived health  
status. The main outcome of was self-reported relevance of three research  
scenarios and willingness or refusal to share their anonymized data. Responses  
were compared for family practice vs. specialty care patients.

Results: The questionnaire was completed by 229 family medicine respondents  
and 245 outpatient respondents. Almost a quarter of all respondents felt the  
research was not relevant. Family medicine patients (15.7%) were unwilling to  
allow their data to be used for at least one scenario vs. 9.4% in the outpatient  
clinic. Lack of relevance (OR 11.55; 95% CI 5.12-26.09) and being in family  
practice (OR 2.13; 95% CI 1.06-4.27) increased the likelihood of refusal to  
share data for research.

Conclusion: Family medicine patients were somewhat less willing to share  
eHealth data, but the overall refusal rate indicates a need to better engage  
patients in understanding the significance of full access to eHealth data for  
the purposes of research. Personal relevance of the research had a strong impact  
on the responses arguing for better efforts to make research more pertinent to  
patients.

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 FU McGill University Health Centre Research Institute for the Clinical,  
 Evaluative and Public Health Research Pilot Project Competition  
 FX Data was provided from funds awarded to GB through the McGill University  
 Health Centre Research Institute for the Clinical, Evaluative and Public  
 Health Research Pilot Project Competition entitled, Informing patients:  
 A pilot project to develop different methods of gaining consent for the  
 use of data from electronic health records in healthcare research.  
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 NR 24  
 TC 0  
 Z9 0  
 U1 0  
 U2 5  
 PU FRONTIERS MEDIA SA  
 PI LAUSANNE  
 PA AVENUE DU TRIBUNAL FEDERAL 34, LAUSANNE, CH-1015, SWITZERLAND  
 SN 2296-2565  
 J9 FRONT PUBLIC HEALTH  
 JI Front. Public Health  
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WC Public, Environmental & Occupational Health  
SC Public, Environmental & Occupational Health  
GA GS6GM  
UT WOS:000443786300001  
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PT J  
AU Ohno-Machado, L  
AF Ohno-Machado, Lucila  
TI Sharing data from electronic health records within, across, and beyond  
healthcare institutions: Current trends and perspectives  
SO JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION  
LA English  
DT Editorial Material  
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TC 0  
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VL 25  
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BP 1113  
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DI 10.1093/jamia/ocy116  
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WC Computer Science, Information Systems; Computer Science,  
Interdisciplinary Applications; Health Care Sciences & Services;  
Information Science & Library Science; Medical Informatics  
SC Computer Science; Health Care Sciences & Services; Information Science &  
Library Science; Medical Informatics  
GA GS3SS  
UT WOS:000443542400001  
PM 30184157  
OA Bronze  
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PT J  
AU McCormick, B  
Hill, PS  
Redding, S  
AF McCormick, Barry  
Hill, Peter-Sam  
Redding, Stuart



TI Comparative morbidities and the share of emergencies in hospital admissions in deprived areas: a method and evidence from English administrative data

SO BMJ OPEN

LA English

DT Article

DE health economics; emergency and elective hospital admissions; deprivation

ID HEALTH-CARE SERVICES; GENERAL PRACTICES; OUTCOMES FRAMEWORK; SOCIOECONOMIC-STATUS; SOCIAL DEPRIVATION; MEDICAL ADMISSIONS; RATES; EQUITY; QUALITY; ENGLAND

AB Objective Various studies find that the share of emergencies in hospital admissions is higher in deprived areas, but both the explanation and policy implications are unclear. We estimate the extent to which this finding is due to a different disease mix in deprived areas, rather than other explanations such as patient behaviour and general practitioner effectiveness.

Design Secondary analysis using English Hospital Episode Statistics data, with disease for elective and emergency admissions in 2008/2009 coded at 186 blocks or 1230 categories and aggregated to lower layer super output area of residence. It is then linked to an appropriate measure of deprivation.

Outcome measures The difference in the share of emergencies in hospital admissions between communities in the highest and lowest deciles of deprivation; and the percentage of this difference that is explained if areas in the least deprived decile have the same disease mix as those in the most deprived decile.

Results Using the finest disease classification scheme (1230 categories), 71% of the higher share of admissions that were emergencies in decile 1 areas relative to decile 10, is explained by the adverse case mix (CM) in deprived areas. The remainder reflects the higher relative use of emergency care in deprived areas for the same conditions. Higher incidence of respiratory and circulatory diseases in deprived areas explains about 30% of the CM contribution. Diseases of the digestive system and abdomen have a high relative use of emergency care in deprived areas.

Conclusions The higher use of emergency care in deprived areas is primarily a symptom of the higher prevalence of diseases which have high national rates of emergency to elective care especially respiratory diseases rather than an indication of less effective primary care. Nevertheless, there is a higher share of emergency care in admissions in deprived areas for several diseases, most notably of the digestive system.

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NR 37

TC 0

Z9 0

U1 0

U2 0

PU BMJ PUBLISHING GROUP

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JI BMJ Open

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WC Medicine, General & Internal

SC General & Internal Medicine

GA GV9IO

UT WOS:000446470200158

PM 30127052

OA DOAJ Gold, Green Published

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ER

PT J

AU Seifert, A

AF Seifert, A.

TI Willingness of older People to share self-collected mobile Health Data

with Researchers  
SO ZEITSCHRIFT FUR GERONTOLOGIE UND GERIATRIE  
LA German  
DT Meeting Abstract  
C1 [Seifert, A.] Univ Zurich, Zentrum Gerontol, Univ Forsch Schwerpunkt UFSP  
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NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU SPRINGER HEIDELBERG  
PI HEIDELBERG  
PA TIERGARTENSTRASSE 17, D-69121 HEIDELBERG, GERMANY  
SN 0948-6704  
EI 1435-1269  
J9 Z GERONTOL GERIATR  
JI Z. Gerontol. Geriatr.  
PD AUG  
PY 2018  
VL 51  
SU 1  
MA S209-5  
BP 32  
EP 32  
PG 1  
WC Geriatrics & Gerontology; Gerontology  
SC Geriatrics & Gerontology  
GA GS4DH  
UT WOS:000443583200098  
DA 2019-08-06  
ER

PT J  
AU Yang, YT  
Chen, B  
AF Yang, Y. Tony  
Chen, Brian  
TI Precision Medicine and Sharing Medical Data in Real Time: Opportunities  
and Barriers  
SO AMERICAN JOURNAL OF MANAGED CARE  
LA English  
DT Editorial Material  
ID HEALTH-CARE; BIG DATA; POLICY  
AB Sharing massive amounts of medical data is critical to precision medicine.  
The California Department of Public Health recently started to partner with  
certain hospitals in the state to better understand cancer trends by collecting  
and securely sending standardized cancer data directly to the California Cancer  
Registry. This initiative is the first of its kind in the United States. This  
has afforded the cancer registry the opportunity to perform real-time  
surveillance on data reported via participating hospitals, and researchers can  
use advanced methods to analyze these data. Other states are likely to follow  
California's lead. However, there are barriers to increased data-sharing efforts.  
How these barriers can be addressed to facilitate data sharing while protecting  
individual privacy, reducing the risk of data misuse, and enhancing public trust  
becomes critical as precision medicine moves forward.  
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NR 10

TC 0

Z9 0

U1 2

U2 4

PU MANAGED CARE & HEALTHCARE COMMUNICATIONS LLC

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SN 1088-0224

J9 AM J MANAG CARE

JI Am. J. Manag. Care

PD AUG

PY 2018

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IS 8

BP 356

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PG 3

WC Health Care Sciences & Services; Health Policy & Services; Medicine, General & Internal

SC Health Care Sciences & Services; General & Internal Medicine

GA GR1LO

UT WOS:000442301000007

PM 30130030

DA 2019-08-06

ER

PT J

AU Pratt, DR

AF Pratt, Dexter R.

TI NDEx, the Network Data Exchange: Collaboration, publication and data sharing for cancer pathways

SO CANCER RESEARCH

LA English

DT Meeting Abstract

CT Annual Meeting of the American-Association-for-Cancer-Research (AACR)

CY APR 14-18, 2018

CL Chicago, IL

SP Amer Assoc Canc Res

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NR 0

TC 0  
Z9 0  
U1 0  
U2 0  
PU AMER ASSOC CANCER RESEARCH  
PI PHILADELPHIA  
PA 615 CHESTNUT ST, 17TH FLOOR, PHILADELPHIA, PA 19106-4404 USA  
SN 0008-5472  
EI 1538-7445  
J9 CANCER RES  
JI Cancer Res.  
PD JUL  
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IS 13  
SU S  
MA 3283  
DI 10.1158/1538-7445.AM2018-3283  
PG 1  
WC Oncology  
SC Oncology  
GA HZ4LO  
UT WOS:000468819501105  
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PT J  
AU Marwan, M  
    Kartit, A  
    Ouahmane, H  
AF Marwan, Mbarek  
    Kartit, Ali  
    Ouahmane, Hassan  
TI A Cloud Based Solution for Collaborative and Secure Sharing of Medical  
    Data  
SO INTERNATIONAL JOURNAL OF ENTERPRISE INFORMATION SYSTEMS  
LA English  
DT Article  
DE Collaborative System; Healthcare Domain; Homomorphic Encryption; Secure  
    Multi-Party Computation Protocols; Security  
ID ISSUES; EFFICIENT; ENCRYPTION; ADOPTION  
AB Healthcare sector is under pressure to reduce costs while delivering high  
quality of care services. This situation requires that clinical staff, equipment  
and IT tools to be used more equitably, judiciously and efficiently. In this  
sense, collaborative systems have the ability to provide opportunities for  
healthcare organizations to share resources and create a collaborative working  
environment. The lack of interoperability between dissimilar systems and  
operating costs are the major obstacle to the implementation of this concept.  
Fortunately, cloud computing has great potential for addressing interoperability  
issues and significantly reducing operating costs. Since the laws and  
regulations prohibit the disclosure of health information, it is necessary to  
carry out a comprehensive study on security and privacy issues in cloud  
computing. Based on their analysis of these constraints, the authors propose a  
simple and efficient method that enables secure collaboration between healthcare  
institutions. For this reason, they propose Secure Multi-party Computation (SMC)  
protocols to ensure compliance with data protection legislation. Specifically,  
the authors use Paillier scheme to protect medical data against unauthorized  
usage when outsourcing computations to a public cloud. Another useful feature of

this algorithm is the possibility to perform arithmetic operations over encrypted data without access to the original data. In fact, the Paillier algorithm is an efficient homomorphic encryption that supports addition operations on ciphertexts. Based on the simulation results, the proposed framework helps healthcare organizations to successfully evaluate a public function directly on encrypted data without revealing their private inputs. Consequently, the proposed collaborative application ensures privacy of medical data while completing a task.

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CR Abomhara M, 2016, INT C E HLTH NETW AP, P1, DOI

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TI Privacy, Trust, and Data Sharing in Web-Based and Mobile Research:  
Participant Perspectives in a Large Nationwide Sample of Men Who Have  
Sex With Men in the United States  
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DE data privacy; data sharing; research trust; mobile research; research ethics; men who have sex with men; gay and bisexual men

ID INTERNET RESEARCH; RESEARCH ETHICS; RISK BEHAVIOR; GAY MEN; ONLINE; HEALTH; SECURITY; NETWORKING; MEDIA

AB Background: Modern research is heavily reliant on online and mobile technologies, which is particularly true among historically hard-to-reach populations such as gay, bisexual, and other men who have sex with men (GBMSM). Despite this, very little empirical research has been published on participant perspectives about issues such as privacy, trust, and data sharing.

Objective: The objective of our study was to analyze data from an online sample of 11,032 GBMSM in the United States to examine their trust in and perspectives on privacy and data sharing within online and mobile research.

Methods: Participants were recruited via a social networking site or sexual networking app to complete an anonymous online survey. We conducted a series of repeated measures analyses adjusted for between-person factors to examine within-person differences in the following: (1) trust for guarding personal information across different venues (eg, online research conducted by a university vs. an online search engine); (2) privacy concerns about 12 different types of data for three distinct data activities (ie, collection by app owners, anonymous selling to third parties, and anonymous sharing with researchers); and (3) willingness to share those 12 different types of data with researchers. Due to the large sample size, we primarily reported measures of effect size as evidence of clinical significance.

Results: Online research was rated as most trusted and was more trusted than online and mobile technology companies, such as app owners and search engines, by magnitudes of effect that were moderate-to-large ( $\eta^2(\text{partial})=0.06-0.11$ ). Responding about 12 different types of data, participants expressed more concerns about data being anonymously sold to third-party partners (mean 7.6, median 10.0) and fewer concerns about data being collected by the app owners (mean 5.8, median 5.0) or shared anonymously with researchers (mean 4.6, median 3.0); differences were small-to-moderate in size ( $\eta^2(\text{partial})=0.01-0.03$ ). Furthermore, participants were most willing to share their public profile information (eg, age) with researchers but least willing to share device usage information (eg, other apps installed); the comparisons were small-to-moderate in size ( $\eta^2(\text{partial})=0.03$ ).

Conclusions: Participants reported high levels of trust in online and mobile research, which is noteworthy given recent high-profile cases of corporate and government data security breaches and privacy violations. Researchers and ethical boards should keep up with technological shifts to maintain the ability to guard privacy and confidentiality and maintain trust. There was substantial variability in privacy concerns about and willingness to share different types of data, suggesting the need to gain consent for data sharing on a specific rather than broad basis. Finally, we saw evidence of a privacy paradox, whereby participants expressed privacy concerns about the very types of data-related activities they have likely already permitted through the terms of the apps and sites they use regularly.

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AB It is increasingly recognised that effective and appropriate data sharing in  
biobanking research requires the development of models of good data-sharing  
policy capable of ensuring that the rights and privacy interests of participants  
are protected. However, the effectiveness and efficacy of biobank research  
depend on data and samples. In the same vein, making such data available to the

research community generates tension between two important goals: advancing scientific goals, and protecting the individual privacy interests of the tissue source. More critically, data sharing requires the development of models that promote an environment in which privacy rights and interests of participants are protected throughout the lifecycle of biobank initiatives. Many ethical issues are raised when genomics research is conducted on populations characterised by lower average income and literacy levels, such as populations included in lower-middle income countries (LMICs). These issues are further exacerbated in Nigeria by cultural and religious inflections. In this paper, to analyse the implications of data sharing within the legal framework of an LMIC, an analysis of existing laws in Nigeria was conducted. It was discovered that there were no provisions relating directly to data sharing, and its governance framework could only be gleaned from the patchwork of laws on privacy and confidentiality in Nigeria. There is a need for ethical guidelines in Nigeria to be adapted to the changing landscape of science, which increasingly involves storage and secondary use of samples and data. Current laws are inadequate for the challenges presented by biobanking.

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ID PUBLICATION; STANDARDS; OUTCOMES; SCIENCE; LIFE

AB In this era of high health care cost and limited research resources, open access to de-identified clinical research study data may promote increased scientific transparency and rigor, allow for the combination and re-analysis of similar data sets, and decrease un-necessary replication of unpublished negative studies. Driven by expanded computing capabilities, advocacy for data sharing to maximize research value is growing in both translational and clinical research communities. The focus of this study is to report on the current status of publicly available research data from studies published in the top 40 neurology and neurosurgery clinical research journals by impact factor. The top journals were carefully reviewed for data sharing policies. Of the journals with data sharing policies, the 10 most current original research papers from December 2015 - February 2016 were reviewed for data sharing statements and data availability. A data sharing policy existed for 48% (19/40) of the 40 journals investigated. Of the 19 journals with an existing data sharing policy, 58% (11/19) of the policies stated that data should be made available to interested

parties upon request and 21% (4/19) of these journals encouraged authors to provide a data sharing statement in the article of what data would be available upon request. Of the 190 articles reviewed for data availability, 21% (40/190) of these articles included some source data in the results, figures, or supplementary sections. This evaluation highlights opportunities for neurology and neurosurgery investigators and journals to improve access to study data and even publish the data prospectively for the betterment of clinical outcome analysis and patient care.

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AF Rubin, G. James  
Webster, Rebecca  
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Amlot, Richard  
Grey, Nick  
Greenberg, Neil

TI Public attitudes in England towards the sharing of personal data following a mass casualty incident: a cross-sectional study

SO BMJ OPEN

LA English

DT Article

ID TERRORIST ATTACKS

AB Objectives To assess public attitudes towards data sharing to facilitate a mental health screening programme for people caught up in a mass casualty incident.

Design Two, identical, cross-sectional, online surveys, using quotas to ensure demographic representativeness of people aged 18-65 years in England. Participants were randomly allocated to consider a scenario in which they witness a terrorism-related radiation incident or mass shooting, after which a police officer records their contact details.

Setting Participants were drawn from an online panel maintained by a market research company. Surveys were conducted before and immediately after a series of terrorist attacks and a large tower block fire occurred in England.

Participants One thousand people aged 18-65 years participated in each survey.

Main outcome measures Three questions asking participants if it would be acceptable for police to share their contact details, without asking first, with 'a health-related government organisation, so they can send you a questionnaire to find out if you might benefit from extra care or support', 'a specialist NHS team, to provide you with information about ways to get support for any physical or mental health issues' and 'your GP, so they can check how you are doing'.



Results A minority of participants reported that it would be definitely not acceptable for their details to be shared with the government organisation (n=259, 13.0%), the National Health Service (NHS) (n=141, 7.1%) and their general practitioner (GP) (n=166, 8.3%). There was a small, but significant increase in acceptability for the radiation incident compared with the mass shooting. No major differences were observed between the preincident and postincident surveys.

Conclusions Although most people believe it is acceptable for their details to be shared in order to facilitate a mental health response to a major incident, care must be taken to communicate with those affected about how their information will be used.

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FU National Institute for Health Research Health Protection Research Unit (NIHR HPRU) in Emergency Preparedness and Response at King's College London; Public Health England (PHE); NIHR HPRU in Evaluation of Interventions at the University of Bristol; PHE [HPRU-2012-10414]

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TI Data quality and timeliness of outbreak reporting system among countries  
in Greater Mekong subregion: Challenges for international data sharing

SO PLOS NEGLECTED TROPICAL DISEASES

LA English

DT Article

AB Cross-border disease transmission is a key challenge for prevention and control of outbreaks. Variation in surveillance structure and national guidelines used in different countries can affect their data quality and the timeliness of outbreak reports. This study aimed to evaluate timeliness and data quality of national outbreak reporting for four countries in the Mekong Basin Disease Surveillance network (MBDS). Data on disease outbreaks occurring from 2010 to 2015 were obtained from the national disease surveillance reports of Cambodia, Lao PDR, Myanmar, and Vietnam. Data included total cases, geographical information, and dates at different timeline milestones in the outbreak detection process. Nine diseases or syndromes with public health importance were selected for the analysis including: dengue, food poisoning & diarrhea, severe

diarrhea, diphtheria, measles, H5N1 influenza, H1N1 influenza, rabies, and pertussis. Overall, 2,087 outbreaks were reported from the four countries. The number of outbreaks and number of cases per outbreak varied across countries and diseases, depending in part on the outbreak definition used in each country. Dates on index onset, report, and response were >95% complete in all countries, while laboratory confirmation dates were 10%-100% incomplete in most countries. Inconsistent and out of range date data were observed in 1%-5% of records. The overall timeliness of outbreak report, response, and public communication was within 1-15 days, depending on countries and diseases. Diarrhea and severe diarrhea outbreaks showed the most rapid time to report and response, whereas diseases such as rabies, pertussis and diphtheria required a longer time to report and respond. The hierarchical structure of the reporting system, data collection method, and country's resources could affect the data quality and timeliness of the national outbreak reporting system. Differences in data quality and timeliness of outbreak reporting system among member countries should be considered when planning data sharing strategies within a regional network.

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AU Burstein, D

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AF Burstein, D.

Li, Y.

Getz, K.

Huang, Y.

Rossano, J. W.

O'Connor, M. J.

Lin, K. Y.

Aplenc, R.

TI Comparing Outcomes and Resource Utilization Among Pediatric Heart

Transplant Indications Using a Novel, Merged Data Set from the United Network for Organ Sharing and the Pediatric Health Information System (UNOS-PHIS) Databases

SO JOURNAL OF HEART AND LUNG TRANSPLANTATION

LA English

DT Meeting Abstract

CT 38th Annual Meeting and Scientific Sessions of the International-Society-for-Heart-and-Lung-Transplantation (ISHLT)

CY APR 11-14, 2018

CL Nice, FRANCE

SP Int Soc Heart & Lung Transplantat

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AU Burstein, D

Li, YM

Getz, KD

Huang, YS

Rossano, JW

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Aplenc, R

AF Burstein, Danielle

Li, Yimei  
Getz, Kelly D.  
Huang, Yuan-Shung  
Rossano, Joseph William  
O'Connor, Matthew  
Lin, Kimberly  
Aplenc, Richard

TI COMPARING RESOURCE UTILIZATION AMONG PEDIATRIC HEART TRANSPLANT  
INDICATIONS USING A NOVEL, MERGED DATA SET FROM THE UNITED NETWORK FOR  
ORGAN SHARING AND THE PEDIATRIC HEALTH INFORMATION SYSTEMS (UNOS-PHIS)  
DATABASES

SO JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY

LA English

DT Meeting Abstract

CT 67th Annual Scientific Session and Expo of the  
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CL Orlando, FL

SP Amer Coll Cardiol

C1 [Burststein, Danielle; Li, Yimei; Getz, Kelly D.; Huang, Yuan-Shung; Rossano,  
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WC Cardiac & Cardiovascular Systems

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Maitland, Michael  
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TI Vol-PACT: A Foundation for the NIH Public-Private Partnership That Supports Sharing of Clinical Trial Data for the Development of Improved Imaging Biomarkers in Oncology

SO JCO CLINICAL CANCER INFORMATICS

LA English

DT Article

ID RANDOMIZED PHASE-III; METASTATIC COLORECTAL-CANCER; RENAL-CELL CARCINOMA; RESPONSE ASSESSMENT; 1ST-LINE TREATMENT; TUMOR MEASUREMENTS; SOLID TUMORS; CT SCANS; VARIABILITY; RECIST

AB Purpose To develop a public-private partnership to study the feasibility of a new approach in collecting and analyzing clinically annotated imaging data from landmark phase III trials in advanced solid tumors.

Patients and Methods The collection of clinical trials fulfilled the following inclusion criteria: completed randomized trials of > 300 patients, highly measurable solid tumors (non-small-cell lung cancer, colorectal cancer, renal cell cancer, and melanoma), and required sponsor and institutional review board sign-offs. The new approach in analyzing computed tomography scans was to transfer to an academic image analysis laboratory, draw contours semi-automatically by using in-house-developed algorithms integrated into the open source imaging platform Weasis, and perform serial volumetric measurement.

Results The median duration of contracting with five sponsors was 12 months. Ten trials in 7,085 patients that covered 12 treatment regimens across 20 trial arms were collected. To date, four trials in 3,954 patients were analyzed. Source imaging data were transferred to the academic core from 97% of trial patients (n = 3,837). Tumor imaging measurements were extracted from 82% of transferred computed tomography scans (n = 3,162). Causes of extraction failure were nonmeasurable disease (n = 392), single imaging time point (n = 224), and secondary captured images (n = 59). Overall, clinically annotated imaging data were extracted in 79% of patients (n = 3,055), and the primary trial end point analysis in each trial remained representative of each original trial end point.

Conclusion The sharing and analysis of source imaging data from large randomized trials is feasible and offer a rich and reusable, but largely untapped, resource for future research on novel trial-level response and progression imaging metrics. (C) 2018 by American Society of Clinical Oncology C1 [Derck, Laurent; Zhao, Binsheng; Schwartz, Lawrence H.] Columbia Univ, Med Ctr, New York, NY 10032 USA.

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NR 34

TC 0

Z9 0

U1 0

U2 0

PU AMER SOC CLINICAL ONCOLOGY

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J9 JCO CLIN CANCER INFO

JI JCO Clin. Cancer Info.

PD MAR 2

PY 2018

VL 2

DI 10.1200/CCI.17.00137

PG 12

WC Oncology

SC Oncology

GA HP3CE

UT WOS:000461552600001

PM 30652552

DA 2019-08-06

ER

PT J

AU London, JW

AF London, Jack W.

TI Cancer Research Data-Sharing Networks

SO JCO CLINICAL CANCER INFORMATICS

LA English

DT Review

C1 [London, Jack W.] Thomas Jefferson Univ, Sidney Kimmel Canc Ctr, 233 S 10th St, Room 504, Philadelphia, PA 19107 USA.

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CR [Anonymous], ASCO ANN M

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NR 11  
TC 0  
Z9 0  
U1 0  
U2 0  
PU AMER SOC CLINICAL ONCOLOGY  
PI ALEXANDRIA  
PA 2318 MILL ROAD, STE 800, ALEXANDRIA, VA 22314 USA  
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J9 JCO CLIN CANCER INFO  
JI JCO Clin. Cancer Info.  
PD FEB 16  
PY 2018  
VL 2  
DI 10.1200/CCI.17.00145  
PG 3  
WC Oncology  
SC Oncology  
GA HP3CM  
UT WOS:000461553500001  
PM 30652538  
DA 2019-08-06  
ER

PT J  
AU Fitton, R  
AF Fitton, Richard  
TI CONTROL OF DATA IN ELECTRONIC HEALTH RECORDS Patients find it easy to  
select data they don't want to share  
SO BMJ-BRITISH MEDICAL JOURNAL  
LA English  
DT Letter  
EM richard.fitton1@btopenworld.com  
CR New JP, 2018, BMJ-BRIT MED J, V360, DOI 10.1136/bmj.j5554  
Powell John, 2006, Inform Prim Care, V14, P55

NR 2  
TC 0  
Z9 0  
U1 0  
U2 2  
PU BMJ PUBLISHING GROUP  
PI LONDON  
PA BRITISH MED ASSOC HOUSE, TAVISTOCK SQUARE, LONDON WC1H 9JR, ENGLAND  
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J9 BMJ-BRIT MED J  
JI BMJ-British Medical Journal  
PD FEB 15  
PY 2018  
VL 360  
AR k649  
DI 10.1136/bmj.k649  
PG 1  
WC Medicine, General & Internal  
SC General & Internal Medicine  
GA FW8LE  
UT WOS:000425583500003  
PM 29449265  
DA 2019-08-06

ER

PT J

AU Giordanengo, A  
Bradway, M  
Grottlund, A  
Hartvigsen, G  
Arsand, E

AF Giordanengo, A.  
Bradway, M.  
Grottlund, A.  
Hartvigsen, G.  
Arsand, E.

TI A FHIR-BASED DATA FLOW ENABLING PATIENTS WITH DIABETES TO SHARE  
SELF-COLLECTED DATA WITH THE NORWEGIAN NATIONAL HEALTHCARE SYSTEMS AND  
ELECTRONIC HEALTH RECORD SYSTEMS

SO DIABETES TECHNOLOGY & THERAPEUTICS

LA English

DT Meeting Abstract

C1 [Giordanengo, A.; Bradway, M.; Grottlund, A.; Hartvigsen, G.; Arsand, E.]  
Univ Hosp, Natl Ctr E Hlth Res, Tromso, Norway.

CR Giordanengo A, 2017, P SCAND C HLTH INF L

NR 1

TC 0

Z9 0

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U2 2

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EI 1557-8593

J9 DIABETES TECHNOL THE

JI Diabetes Technol. Ther.

PD FEB

PY 2018

VL 20

SU 1

MA 240

BP A109

EP A109

PG 1

WC Endocrinology & Metabolism

SC Endocrinology & Metabolism

GA FW0WC

UT WOS:000425015800255

DA 2019-08-06

ER

PT J

AU Handler, I

AF Handler, Ivan

TI Data Sharing Defined-Really!

SO COMPUTER

LA English

DT Article

AB A clear and comprehensive policy framework is needed to make data sharing  
more useful, robust, and efficient. Based on decades of experience as a CIO in

the healthcare sector, the author recommends ways to address various existing privacy, reliability, interoperability, security, and trust challenges.

C1 [Handler, Ivan] Insightamation, Chicago, IL 60613 USA.

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CR [Anonymous], 2013, FRAM HLTH INF EXCH

Global Alliance Genomics Hlth, 2016, SCIENCE, V352, P1278, DOI

10.1126/science.aaf6162

Grassi P. A., 2017, SPECIAL PUBLICATION

NR 3

TC 0

Z9 0

U1 0

U2 1

PU IEEE COMPUTER SOC

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EI 1558-0814

J9 COMPUTER

JI Computer

PD FEB

PY 2018

VL 51

IS 2

BP 36

EP 42

PG 7

WC Computer Science, Hardware & Architecture; Computer Science, Software Engineering

SC Computer Science

GA FX8KG

UT WOS:000426341500006

DA 2019-08-06

ER

PT B

AU Hui, HH

McLernon, D

Zaidi, A

AF Hui, Huaihai

McLernon, Des

Zaidi, Ali

GP ACM

TI Innovation Research in City Public Management Based on a Data Resource Sharing Exchange Platform

SO PROCEEDINGS OF THE 8TH INTERNATIONAL CONFERENCE ON INFORMATION COMMUNICATION AND MANAGEMENT (ICICM 2018)

LA English

DT Proceedings Paper

CT 8th International Conference on Information Communication and Management (ICICM)

CY AUG 22-24, 2018

CL Edinburgh, SCOTLAND

DE Platform; Data Resource; Management; Innovation

ID HEALTH

AB In order to solve the common needs of shared basic data resources in different industries, different departments and different regions in a city,

this paper has designed a Data Resource Sharing and Exchange Platform (DRSEP) to solve the demand for comprehensive data of City Public Management (CPM). Firstly, we analyze the basic functional requirements of the platform. Secondly, we study the characteristics of the DRSEP from three aspects: data type, data volume and data transmission/application methods. Thirdly, we provide the overall technical architecture of the DRSEP, which includes: the data resource layer, the resource site layer, the resource integration layer, the resource service layer and the resource application layer. In particular, we devise a Data Organization System (DOS) based on a Data Resource Directory (DRD), a Public Basic Database (PBcDB) and a Public Business Database (PBuDB). The DRD is the metadata standard and resource directory of the platform. Through this directory, the authority, accuracy and unity of the data resources can be ensured. The PBcDB consists of four types of databases: a population database, a corporation database, a macroeconomic database and a geospatial database. The PBuDB includes a video database, an environmental safety supervision database, a building database, a government affairs and emergency database, a credit database and a comprehensive human resources database. Finally, the DRSEP is deployed, tested, applied and evaluated in a city with a population of 2.19 million in western China. Moreover, the test evaluation results show that the platform exhibits an outstanding performance in the integration technology of multi-source heterogeneous data and the reliable transmission technology of massive data.

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FU Chinese Scholarship Council (CSC)

FX Our thanks to Chinese Scholarship Council (CSC).

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NR 6

TC 0

Z9 0

U1 0

U2 0

PU ASSOC COMPUTING MACHINERY

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PG 6

WC Computer Science, Theory & Methods; Engineering, Electrical & Electronic

SC Computer Science; Engineering

GA BNORB

UT WOS:000473336900015

OA Green Published

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ER

PT B  
AU Reda, R  
Carbonaro, A  
AF Reda, Roberto  
Carbonaro, Antonella  
GP Assoc Comp Machinery  
TI Design and Development of a Linked Open Data-Based Web Portal for  
Sharing IoT Health and Fitness Datasets  
SO GOODTECHS '18: PROCEEDINGS OF THE 4TH EAI INTERNATIONAL CONFERENCE ON  
SMART OBJECTS AND TECHNOLOGIES FOR SOCIAL GOOD (GOODTECHS)  
LA English  
DT Proceedings Paper  
CT 4th EAI International Conference on Smart Objects and Technologies for  
Social Good  
CY NOV 28-30, 2018  
CL Bologna, ITALY  
SP EAI  
DE health informatics; semantic web; lod; iot; wearable devices  
AB The huge amounts of self-tracked health data collected by Internet of Things  
(IoT) fitness devices offer important opportunities to the research community.  
If properly exploited, IoT health and fitness datasets can help to gain valuable  
insights into the human health in order to provide better healthcare.  
However, IoT health data come from a variety of different heterogeneous  
sources and in proprietary formats, which means that they require an integration  
process, normally manually done by domain experts, in order to be analysed. This  
task is not only significantly time consuming but in many cases, error prone.  
In this study, we designed and developed a web platform for collecting and  
publishing IoT health and fitness datasets according to Linked Data principles.  
We leveraged the IFO ontology and the Semantic Web technologies to make the IoT  
health and fitness datasets freely available to the community in a shared,  
semantically meaningful, easily discoverable, and reusable manner.  
The system introduced in this article shows that Semantic Web technologies  
can be a viable and comprehensive solution for describing, integrating and  
sharing heterogeneous IoT datasets, thus overcoming the issues of data silos  
that nowadays dominate the IoT landscape.  
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NR 34

TC 0

Z9 0

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U2 1

PU ASSOC COMPUTING MACHINERY

PI NEW YORK

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WC Computer Science, Artificial Intelligence; Computer Science, Theory &  
Methods

SC Computer Science

GA BM9HB

UT WOS:000470918900008

DA 2019-08-06

ER

PT S

AU Iguchi, M

Uematsu, T

Fujii, T

AF Iguchi, Makoto

Uematsu, Taro

Fujii, Tatsuro

BE Inomata, A

Yasuda, K

TI The Anatomy of the HIPAA Privacy Rule: A Risk-Based Approach as a Remedy  
for Privacy-Preserving Data Sharing

SO ADVANCES IN INFORMATION AND COMPUTER SECURITY, IWSEC 2018

SE Lecture Notes in Computer Science

LA English

DT Proceedings Paper

CT 13th International Workshop on Security (IWSEC)

CY SEP 03-05, 2018

CL Tohoku Univ, Sendai, JAPAN

SP Inst Elect, Informat & Commun Engineers, Tech Comm Informat Secur Engn Sci Soc, Informat Proc Soc Japan, Special Interest Grp Comp Secur, Tohoku Univ, Cyberscience Ctr

HO Tohoku Univ

AB This paper explores the effectiveness of a risk-based approach methodology in constructing systematic standards for privacy-conscious data sharing and disclosure. We consider the HIPAA (Health Insurance Portability and Accountability Act of 1996) Privacy Rule as an example and show that the data disclosure methods defined in the HIPAA Privacy Rule are well-constituted, by assessing the privacy risks of each disclosure method. We further explore factors that contribute to the success of the HIPAA Privacy Rule and discuss how we can leverage these factors as a reference for constructing privacy-conscious and systematic data disclosure rules and regulations in other domains.

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NR 20

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WC Computer Science, Software Engineering; Computer Science, Theory & Methods  
SC Computer Science  
GA BM8UJ  
UT WOS:000470001300012  
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ER

PT S  
AU Liu, JW  
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    Ye, L  
    Zhang, HL  
    Du, XJ  
    Guizani, M  
AF Liu, Jingwei  
    Li, Xiaolu  
    Ye, Lin  
    Zhang, Hongli  
    Du, Xiaojiang  
    Guizani, Mohsen  
GP IEEE  
TI BPDS: A Blockchain based Privacy-Preserving Data Sharing for Electronic Medical Records  
SO 2018 IEEE GLOBAL COMMUNICATIONS CONFERENCE (GLOBECOM)  
SE IEEE Global Communications Conference  
LA English  
DT Proceedings Paper  
CT IEEE Global Communications Conference (GLOBECOM)  
CY DEC 09-13, 2018  
CL Abu Dhabi, U ARAB EMIRATES  
SP IEEE  
ID SCHEME  
AB Electronic medical record (EMR) is a crucial form of healthcare data, currently drawing a lot of attention. Sharing health data is considered to be a critical approach to improve the quality of healthcare service and reduce medical costs. However, EMRs are fragmented across decentralized hospitals, which hinders data sharing and puts patients' privacy at risks. To address these issues, we propose a blockchain based privacy-preserving data sharing for EMRs, called BPDS. In BPDS, the original EMRs are stored securely in the cloud and the indexes are reserved in a tamper-proof consortium blockchain. By this means, the risk of the medical data leakage could be greatly reduced, and at the same time, the indexes in blockchain ensure that the EMRs can not be modified arbitrarily. Secure data sharing can be accomplished automatically according to the predefined access permissions of patients through the smart contracts of blockchain. Besides, the joint-design of the CPABE-based access control mechanism and the content extraction signature scheme provides strong privacy preservation in data sharing. Security analysis shows that BPDS is a secure and effective way to realize data sharing for EMRs.

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FU Key Program of NSFC-Tongyong Union Foundation [U1636209]; 111 Project [B08038]; Collaborative Innovation Center of Information Sensing and Understanding at Xidian University  
FX This work is supported by the Key Program of NSFC-Tongyong Union Foundation under Grant U1636209, the 111 Project (B08038) and Collaborative Innovation Center of Information Sensing and Understanding at Xidian University.  
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2008, IEEE WIRELESS COMMUN, V15, P60  
NR 21  
TC 0  
Z9 0  
U1 2  
U2 2  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
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J9 IEEE GLOB COMM CONF  
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WC Engineering, Electrical & Electronic; Telecommunications  
SC Engineering; Telecommunications  
GA BM5YU  
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ER

PT S  
AU Zaghloul, E  
Li, TT  
Ren, J  
AF Zaghloul, Ehab  
Li, Tongtong  
Ren, Jian

GP IEEE  
TI An Attribute-Based Distributed Data Sharing Scheme  
SO 2018 IEEE GLOBAL COMMUNICATIONS CONFERENCE (GLOBECOM)  
SE IEEE Global Communications Conference  
LA English  
DT Proceedings Paper  
CT IEEE Global Communications Conference (GLOBECOM)  
CY DEC 09-13, 2018  
CL Abu Dhabi, U ARAB EMIRATES  
SP IEEE

DE Public health record; single point of failure; attribute-based;  
distributed data

AB Patients rely on their public health records shared among medical institutions to receive the appropriate treatment they require. They must completely trust that these institutions will secure their records, protect their privacy, and efficiently share them when requested by other institutions. Unfortunately, medical institutions cannot fully be trusted for several reasons. First, patient records are stored on the servers of the medical institutions which could result in security issues and also a single point of failure. Second, centralized storage may also result in privacy concerns if records are incorrectly shared or leaked. Third, institutions may purposely delay sharing patient records for competitive reasons. To address these issues, we propose an attribute-based distributed data sharing scheme for patients to control how their records are shared. The distributed file sharing can effectively prevent the single point of failure and ensure data availability upon its request. Moreover, patients are also given the capability of selectively sharing their records for privacy protection. Our analysis shows that while ensuring attribute-based sharing of medical records, the proposed scheme can also work with the peer-to-peer distributed network storage such as InterPlanetary File System (IPFS) to improve efficient data retrieval.

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NR 7  
TC 0  
Z9 0  
U1 0  
U2 0  
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PI NEW YORK

PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
SN 2334-0983  
BN 978-1-5386-4727-1  
J9 IEEE GLOB COMM CONF  
PY 2018  
PG 6  
WC Engineering, Electrical & Electronic; Telecommunications  
SC Engineering; Telecommunications  
GA BM5YU  
UT WOS:000465774300020  
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ER

PT S  
AU Xiao, Z  
    Li, ZX  
    Liu, Y  
    Feng, L  
    Zhang, WW  
    Lertwuthikarn, T  
    Goh, RSM  
AF Xiao, Zhe  
    Li, Zengxiang  
    Liu, Yong  
    Feng, Ling  
    Zhang, Weiwen  
    Lertwuthikarn, Thanarit  
    Goh, Rick Siow Mong

GP IEEE  
TI EMRShare: A Cross-organizational Medical Data Sharing and Management  
    Framework Using Permissioned Blockchain  
SO 2018 IEEE 24TH INTERNATIONAL CONFERENCE ON PARALLEL AND DISTRIBUTED  
    SYSTEMS (ICPADS 2018)  
SE International Conference on Parallel and Distributed Systems -  
    Proceedings  
LA English  
DT Proceedings Paper  
CT 24th IEEE International Conference on Parallel and Distributed Systems  
    (ICPADS)  
CY DEC 11-13, 2018  
CL Singapore, SINGAPORE  
SP IEEE, IEEE Comp Soc  
DE access control; blockchain; healthcare; medical data; privacy and  
    security

AB With the development of information and storage technologies, electronic document recording has become an unalterable trend, which transforms the way that people store, access and operate the data generated in various applications. Healthcare is the leader application domain that pioneers in usage of electronic medical records (EMRs). Cross-organizational EMRs' sharing has many constructive effects in motivating the domain innovation, introducing better domain understanding and overall the domain intelligence. However, the privacy concern, trust issue as well as the sophisticated legal regulation of the sensitive EMRs' use leads to inefficiency in the data sharing process. In this paper, we propose a cross-organizational medical data sharing framework based on permissioned blockchain technology, named "EMRShare", to resolve the trust concern existing in EMRs sharing practice among different participants like patients, clinicians and researchers, and other relevant parties such as the insurance agent and government, to make medical data sharing and access secure, efficient,

transparent, immutable, traceable and auditable. A working prototype system is implemented to demonstrate the key features for the cross-organizational medical data sharing and access management. The objective of this work targets at explaining the essential design considerations along with the working principle and operation logics using the blockchain technology to facilitate the medical data sharing in a highly-cooperative healthcare ecosystem.

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NR 10

TC 0

Z9 0

U1 4

U2 4

PU IEEE

PI NEW YORK

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J9 INT C PAR DISTRIB SY

PY 2018

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PG 6

WC Computer Science, Hardware & Architecture

SC Computer Science

GA BM4AP

UT WOS:000462962600122

DA 2019-08-06

ER

PT B

AU Chan, T  
McMurray, J  
Sidahmed, A  
Wallace, JR

AF Chan, Tina  
McMurray, Josephine  
Sidahmed, Alaaddin  
Wallace, James R.

GP ACM

TI SmartSurveys: Does Context Influence Whether We'll Share Healthcare Experience Data with our Smartphone?

SO PROCEEDINGS OF THE 2018 ACM INTERNATIONAL CONFERENCE ON INTERACTIVE SURFACES AND SPACES (ISS'18)

LA English

DT Proceedings Paper

CT 13th ACM International Conference on Interactive Surfaces and Spaces (ISS)

CY NOV 25-28, 2018

CL Tokyo, JAPAN

SP Assoc Comp Machinery, ACM SIGCHI

DE Service Feedback; Meaning Creation; Healthcare; Information Systems; Shared Decision Making; Patient Centred Design; Geolocation; Smartphones

AB Consumer feedback is collected in many industries, including in healthcare where patient feedback contributes to a higher quality of care. Current collection methods include complaints, local surveys, and patient stories, but these methods yield low participation at high costs. Providers need affordable and effective ways to collect feedback, and smartphone applications present as suitable solutions. However, previous research shows that patients are hesitant to provide smartphone-based feedback in a care setting due to perceived risks and apparent futility of expecting change as a result. We will conduct a study to observe consumer behaviour using smartphones to provide service feedback in healthcare spaces versus non-healthcare spaces. We will identify addressable barriers that impact the adoption of smartphone technology to gather patient experience data in health care spaces.

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FU Social Sciences and Humanities Research Council of Canada (SSHRC); Natural Sciences and Engineering Research Council of Canada (NSERC)-Engage grant

FX We thank the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Natural Sciences and Engineering Research Council of Canada (NSERC)-Engage grant for funding this research.

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Z9 0  
U1 0  
U2 0  
PU ASSOC COMPUTING MACHINERY  
PI NEW YORK  
PA 1515 BROADWAY, NEW YORK, NY 10036-9998 USA  
BN 978-1-4503-5694-7  
PY 2018  
BP 381  
EP 385  
DI 10.1145/3279778.3279912  
PG 5  
WC Computer Science, Artificial Intelligence; Computer Science, Theory &  
Methods; Engineering, Electrical & Electronic  
SC Computer Science; Engineering  
GA BM0BB  
UT WOS:000458571200044  
DA 2019-08-06  
ER

PT B  
AU Al-Tabba, A  
Al-Omari, A  
Al-Hussaini, M  
AF Al-Tabba, Amal  
Al-Omari, Amal  
Al-Hussaini, Maysa  
BE Odeh, M  
Mansour, A  
Kharbat, FF  
Tbakhi, A  
TI Appraisal of the Jordanian Law for Data Sharing in Stem Cell Research:  
in the Light of the "GA4GH Framework" for Innovative Cancer Care  
SO 2018 1ST INTERNATIONAL CONFERENCE ON CANCER CARE INFORMATICS (CCI)  
LA English  
DT Proceedings Paper  
CT 1st International Conference on Cancer Care Informatics (CCI)  
CY NOV 19-21, 2018  
CL Amman, JORDAN  
SP King Hussein Cancer Fdn, King Hussein Cancer Ctr, Univ West England, IEEE  
Jordan Sect, Noor AlSabah Co, LeanGene, Fursan, QIAGEN, Abbott, Adv Grp,  
Faisaliah Healthcare Syst  
DE Data Sharing; Stem Cell Research; GA4GH Framework; Jordan; Cancer Care  
Informatics  
ID DISCLOSURE

AB The need for data sharing in stem cell research will continue to grow as the field keeps advancing. Yet, without a comprehensive and harmonized governance system to ensure ethical and responsible data and sample sharing, the field is threatened by unethical practices, compromise of participants' privacy and loss of public trust. In 2014, the Global Alliance for Genomics and Health (GA4GH) developed a common Framework for Responsible Sharing of Genomic and Health-Related Data. At the same year, Jordan passed the first of its kind law in the region for stem cells, Statute number 10 on Stem Cells. Using specific policy principles of the GA4GH Framework and the work of the International Stem Cell Forum (ISCF) Ethics Working Party, we identified several gaps in the Jordanian Statute of Stem Cell including active participation of the public, transparency in the data sharing and access processes, ensuring the quality and safety of the

data, maintaining the privacy, security & confidentiality of individuals, their samples and associated data, performing in-depth risk-benefit analysis and maintaining sustainability of stem cell banks and registries. We recommend revisiting the current Statue in light of the GA4GH Framework, which can be integrated to foster national and international collaboration and support responsible innovation in the discovery of new therapies for cancer treatment. C1 [Al-Tabba, Amal; Al-Hussaini, Maysa] King Hussein Canc Ctr, Off Human Res Protect Program, Amman, Jordan.

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NR 18

TC 0

Z9 0

U1 0

U2 0

PU IEEE

PI NEW YORK

PA 345 E 47TH ST, NEW YORK, NY 10017 USA

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PG 4

WC Oncology; Computer Science, Interdisciplinary Applications

SC Oncology; Computer Science

GA BMOFA

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ER

PT B

AU Liao, SW

Chang, EY

Liu, CT



Lin, WC  
Liao, PW  
Fu, WK  
Mei, CH  
Chang, EJ  
AF Liao, Shih-Wei  
Chang, Edward Y.  
Liu, Chun-Ting  
Lin, Wei-Chen  
Liao, Pin-Wei  
Fu, Wei-Kang  
Mei, Chung-Huan  
Chang, Emily J.  
GP IEEE  
TI DeepLinQ: Distributed Multi-Layer Ledgers for Privacy-Preserving Data  
Sharing  
SO 2018 IEEE INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND  
VIRTUAL REALITY (AIVR)  
LA English  
DT Proceedings Paper  
CT 1st IEEE International Conference on Artificial Intelligence and Virtual  
Reality (AIVR)  
CY DEC 10-12, 2018  
CL Taichung, TAIWAN  
SP IEEE, IEEE Comp Soc  
AB This paper presents requirements to DeepLinQ and its architecture. DeepLinQ  
proposes a multi-layer blockchain architecture to improve flexibility,  
accountability, and scalability through on-demand queries, proxy appointment,  
subgroup signatures, granular access control, and smart contracts in order to  
support privacy-preserving distributed data sharing. In this data-driven AI era  
where big data is the prerequisite for training an effective deep learning model,  
DeepLinQ provides a trusted infrastructure to enable training data collection in  
a privacy-preserved way. This paper uses healthcare data sharing as an  
application example to illustrate the key properties and design of DeepLinQ.  
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NR 23  
TC 0  
Z9 0  
U1 4  
U2 4  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
BN 978-1-5386-9269-1  
PY 2018  
BP 173  
EP 178  
DI 10.1109/AIVR.2018.00037  
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WC Computer Science, Artificial Intelligence  
SC Computer Science  
GA BM0FC  
UT WOS:000458717000029  
DA 2019-08-06  
ER  
  
PT B  
AU Purnamasari, DN  
Sudarsono, A  
Kristalina, P  
AF Purnamasari, Dian Neipa  
Sudarsono, Amang  
Kristalina, Prima  
BE Zainudin, A  
Murdianto, FD  
Nur, F  
Bagar, C  
Anisah, I  
Anggraeni, ME  
TI Secure Data Sharing Scheme using Identity-based Encryption for e-Health  
Record  
SO 2018 INTERNATIONAL ELECTRONICS SYMPOSIUM ON ENGINEERING TECHNOLOGY AND  
APPLICATIONS (IES-ETA)  
LA English  
DT Proceedings Paper  
CT IEEE International Electronics Symposium on Engineering Technology and  
Applications (IES-ETA)  
CY OCT 29-30, 2018  
CL Bali, INDONESIA  
SP Inst Elect & Elect Engineers Indonesia sect, Inst Elect & Elect Engineers  
DE eHealth record; data sharing; IBE; multiple servers  
AB The more healthcare center linking their information system to the global  
computer network such as the Internet, then It opens access from all over the  
world and makes the potential for leakage of information getting bigger. The  
importance of an eHealth record for the patient's health is to be protected from  
illegal users that can be misused for other purposes. Identity-based encryption

(IBE) is one of the appropriate security solutions to protect eHealth record data. The IBE algorithm addresses the problems inherent in conventional cryptographic techniques by using any string as a public key. The system is capable of enhancing the security of e-health records by adding verification processes to three interconnected servers. In this system communication on three servers using data that has been encrypted using IBE, so that each server is able to perform the process of encryption-decryption during data exchange. Only servers that have IDs are able to receive and extract e-health record data. Meanwhile, the experimental results show the practicality regarding the speed of the algorithm used on the system.

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NR 9

TC 0

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PU IEEE

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PA 345 E 47TH ST, NEW YORK, NY 10017 USA

BN 978-1-5386-8083-4

PY 2018

BP 60

EP 65

PG 6

WC Engineering, Electrical & Electronic

SC Engineering

GA BL9WB

UT WOS:000458431600011

DA 2019-08-06

ER

PT B

AU Stach, C

Mitschang, B

AF Stach, Christoph

Mitschang, Bernhard

GP Assoc Comp Machinery

TI CURATOR - A Secure Shared Object Store Design, Implementation, and Evaluation of a Manageable, Secure, and Performant Data Exchange Mechanism for Smart Devices

SO 33RD ANNUAL ACM SYMPOSIUM ON APPLIED COMPUTING

LA English

DT Proceedings Paper  
CT 33rd Annual ACM Symposium on Applied Computing (ACM SAC)  
CY APR 09-13, 2018  
CL Univ Pau Pays Adour, Pau, FRANCE  
SP Assoc Comp Machinery  
HO Univ Pau Pays Adour  
DE Data exchange; smart devices; shared object store; security  
AB Nowadays, smart devices have become incredibly popular-literally everybody has one. Due to an enormous quantity of versatile apps, these devices positively affect almost every aspect of their users' lives. E. g., there are apps collecting and monitoring health data from a certain domain such as diabetes-related or respiration-related data. However, they cannot display their whole potential since they have only access to their own data and cannot combine it with data from other apps, e. g., in order to create a comprehensive electronic health record. On that account, we introduce a secure shared object store called CURATOR. In CURATOR apps cannot only manage their own data in an easy and performant way, but they can also share it with other apps. Since some of the data is confidential, CURATOR has several security features, including authentication, fine-grained access control, and encryption. In this paper, we discuss CURATOR's design and implementation and evaluate its performance.  
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FU BW-Stiftung  
FX This paper is part of the PATRON research project which is commissioned by the Baden-Wuerttemberg Stiftung gGmbH. The authors would like to thank the BW-Stiftung for the funding of this research.  
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AU Carrington, P  
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AF Carrington, Patrick  
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TI Exploring the Data Tracking and Sharing Preferences of Wheelchair Athletes

SO ASSETS'18: PROCEEDINGS OF THE 20TH INTERNATIONAL ACM SIGACCESS  
CONFERENCE ON COMPUTERS AND ACCESSIBILITY

LA English

DT Proceedings Paper

CT 20th ACM SIGACCESS International Conference on Computers and  
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CL Galway, IRELAND

SP Assoc Comp Machinery, ACM SIGACCESS

DE Wheelchair; wheelchair basketball; activity recognition

ID PARALYMPIC SPORT; PERFORMANCE; FATIGUE; ACCURACY; RUGBY

AB Sports are increasingly data-driven. Athletes use a variety of physical activity monitors to capture their movements, improve performance, and achieve excellence. To understand how wheelchair athletes want to use and share their activity data, we conducted a study using a prototype wheelchair fitness tracking device, which served as a probe to facilitate discussions. We interviewed 15 wheelchair basketball players about the use of performance data in the context of wheelchair basketball, and we discuss several implications for using and sharing automatically-tracked data. We find that the wheelchair basketball community is less concerned about the privacy of their data, and, in contrast to health data, athletes are motivated by competition. We conclude with a set of design opportunities that leverage digitized performance metrics within wheelchair basketball, which could apply to the broader wheelchair and adaptive athletics community.

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FU Per4Max Medical; National Wheelchair Basketball Association (NWBA); National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) [90DP0061]

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TI The Portuguese Severe Asthma Registry: Development, Features, and Data Sharing Policies

SO BIOMED RESEARCH INTERNATIONAL

LA English

DT Article

ID REFRACTORY ASTHMA; UK; OMALIZUMAB

AB The Portuguese Severe Asthma Registry (Registo de Asma Grave Portugal, RAG) was developed by an open collaborative network of asthma specialists. RAG collects data from adults and pediatric severe asthma patients that despite treatment optimization and adequate management of comorbidities require step 4/5 treatment according to GINA recommendations. In this paper, we describe the development and implementation of RAG, its features, and data sharing policies. The contents and structure of RAG were defined in a multistep consensus process. A pilot version was pretested and iteratively improved. The selection of data elements for RAG considered other severe asthma registries, aiming at characterizing the patient's clinical status whilst avoiding overloading the standard workflow of the clinical appointment. Features of RAG include automatic assessment of eligibility, easy data input, and exportable data in natural language that can be pasted directly in patients' electronic health record and security features to enable data sharing (among researchers and with other international databases) without compromising patients' confidentiality. RAG is a national web-based disease registry of severe asthma patients, available at

asmagrave.pt. It allows prospective clinical data collection, promotes standardized care and collaborative clinical research, and may contribute to inform evidence-based healthcare policies for severe asthma.

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TI BASTet: Shareable and reproducible analysis and visualization of mass  
spectrometry imaging data via OpenMS1  
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DT Article; Proceedings Paper  
CT IEEE VIS Conference  
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SP IEEE  
DE Mass spectrometry imaging; Data provenance; Visualization; Data  
management; Analysis Workflows; Data sharing  
ID EXCHANGE; PLATFORM; FORMAT; CURVE  
AB Mass spectrometry imaging (MSI) is a transformative imaging method that  
supports the untargeted, quantitative measurement of the chemical composition  
and spatial heterogeneity of complex samples with broad applications in life  
sciences, bioenergy, and health. While MSI data can be routinely collected, its  
broad application is currently limited by the lack of easily accessible analysis  
methods that can process data of the size, volume, diversity, and complexity  
generated by MSI experiments. The development and application of cutting-edge  
analytical methods is a core driver in MSI research for new scientific  
discoveries, medical diagnostics, and commercial-innovation. However, the lack  
of means to share, apply, and reproduce analyses hinders the broad application,  
validation, and use of novel MSI analysis methods. To address this central  
challenge, we introduce the Berkeley Analysis and Storage Toolkit (BASTel), a  
novel framework for shareable and reproducible data analysis that supports  
standardized data and analysis interfaces, integrated data storage, data  
provenance, workflow management, and a broad set of integrated tools. Based on  
BASTet, we describe the extension of the OpenMS1 mass spectrometry imaging  
science gateway to enable web-based sharing, reuse, analysis, and visualization  
of data analyses and derived data products. We demonstrate the application of  
BASTet and OpenMS1 in practice to identify and compare characteristic  
substructures in the mouse brain based on their chemical composition measured  
via MSI.  
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U2 4

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TI Photoacoustic sensing and imaging by sharing single data acquisition channel

SO OPTICS IN HEALTH CARE AND BIOMEDICAL OPTICS VIII

SE Proceedings of SPIE

LA English

DT Proceedings Paper

CT Conference on Optics in Health Care and Biomedical Optics VIII

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CL Beijing, PEOPLES R CHINA

SP SPIE, Chinese Opt Soc

DE Photoacoustic imaging; data acquisition; signal de-noising

ID TOMOGRAPHY; RESOLUTION

AB As an emerging hybrid imaging modality, photoacoustic imaging has attracted intensive research interest in recent years in various applications, such as breast cancer detection, brain imaging, and intravascular imaging, which provides functional and molecular information. In a typical photoacoustic imaging system, laser intensity fluctuation needs to be monitored by a photodiode (PD) that can provide proper normalization for photoacoustic signals. Conventionally, at least two data acquisition channels are necessary to receive both photoacoustic signal and photodiode signal. In this paper, we propose a simple and efficient method to receive both photoacoustic and photodiode signals using single data acquisition channel, which gives lower system cost and faster system speed. After connecting the photodiode output and ultrasound transducer for hybrid signal acquisition, sharing channel can be achieved in two ways: Use a direct separation algorithm when received a PA signal with desirable signal-to-noise. Filters are exploited to keep low SNR PA signal immune from the photodiode signal and separate them from the receiving hybrid signal. 2D PA images based on the separated PA and PD signals will be illustrated to demonstrate their performance and efficiency. This method will be valuable especially when designing a PAT imaging system with multi-channel ultrasound array and data-acquisition card.

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TI BIG DATA IN ADOLESCENT PSYCHIATRY: DO PATIENTS SHARE THEIR PSYCHIATRIC SYMPTOMS ON SOCIAL NETWORKING SITES?

SO PSYCHIATRIA DANUBINA

LA English

DT Article

DE big data; adolescent psychiatry; social networking sites; symptom sharing

ID SELF-DISCLOSURE; FACEBOOK; ONLINE; DEPRESSION; DIAGNOSES; INTERNET; SUICIDE; SEEKING; CHILD

AB Background: Fascinating developments in big data technologies and unprecedented diffusion of social networking sites (SNSs) generate unseen opportunities for scientific fields, including psychiatry. This study focuses on the use of SNSs by adolescent psychiatric patients and the potential use of SNS-generated data to help medical practitioners diagnose and treat patients' mental health. Our objective is to understand and measure the psychiatric and individual conditions in which symptom-sharing occurs on SNSs and the frequency of these conditions. Based on literature, we hypothesized that the perceived value of social network sites positively affects adolescents' sharing of symptoms on these sites.

Subjects and methods: An empirical test of this hypothesis was conducted with a survey of 224 adolescents admitted to a psychiatry clinic in Turkey. The hypothesis was tested using a hierarchical multiple regression analysis.

Results: The perceived value of SNSs explained an additional 37.8% of variation in symptom sharing on SNSs above and beyond the control variables, which are gender, age, type of disorder, and amount of internet and SNS use. The findings suggested that adolescents share symptoms on SNSs only if they attribute value to the SNSs that they use. We also found that 72% of adolescents in our sample shared their symptoms on SNSs.

Conclusions: There is an attractive opportunity for information technology companies to develop, together with health professionals; data analytics that are able to detect symptoms to support psychiatric diagnoses and pave the way for big-data enabled personalized medicine.

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PU MEDICINSKA NAKLADA

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J9 PSYCHIAT DANUB  
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AF Wang, Xin  
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Yu, Huifang

TI A Cheating Detectable Privacy-Preserving Data Sharing Scheme for Cloud Computing

SO SECURITY AND COMMUNICATION NETWORKS

LA English

DT Article

AB Cloud computing provides a new, attractive paradigm for the effective sharing of storage and computing resources among global consumers. More and more enterprises have begun to enter the field of cloud computing and storing data in the cloud to facilitate the sharing data among users. However, in many cases, users may be concerned about data privacy, trust, and integrity. It is challenging to provide data sharing services without sacrificing these security requirements. In this paper, a data sharing scheme of reliable, secure, and privacy protection based on general access structure is introduced. The proposed scheme is not only effective and flexible, but also is capable of protecting privacy for the cloud owner, supporting data sharing under supervision, enabling accountability of users' decryption keys, and identifying cheaters if some users behave dishonestly. Security analysis and efficiency analysis demonstrate that our proposed scheme has better performance in computational costs compared with most related works. The scheme is versatile to be used in various environments. For example, it is particularly suitable to be employed to protect personal health data and medical diagnostic data in information medical environment.

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WC Computer Science, Information Systems; Telecommunications  
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GP IEEE  
TI Operationalizing Privacy Compliance for Cloud-hosted Sharing of  
    Healthcare Data  
SO 2018 IEEE/ACM INTERNATIONAL WORKSHOP ON SOFTWARE ENGINEERING IN  
    HEALTHCARE SYSTEMS (SEHS)  
LA English  
DT Proceedings Paper  
CT IEEE/ACM International Workshop on Software Engineering in Healthcare  
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CL Gothenburg, SWEDEN  
SP IEEE, Assoc Comp Machinery, IEEE Comp Soc, SIGSOFT, IEEE Tech Council  
    Software Engn  
DE Data Sharing Agreement; Privacy Compliance; Anonymization; Performance  
    Management; Cloud Computing; Healthcare Data Sharing  
AB Complex patient health needs and care delivery models such as patient  
participatory medicine require the ability to share data across multiple touch  
points. Achieving systematic performance management of care processes require an  
infrastructure that addresses interoperability and data standardization while  
supporting data governance and privacy compliance. In this paper, we present a  
framework for operationalizing privacy compliance for correlated cloud-hosted  
data using Data Sharing Agreements (DSAs) in support of performance management  
of community healthcare. Our focus is to show how DSAs can be used to  
operationalize privacy compliance for a cloud-hosted surveillance and  
performance management infrastructure by leveraging selective anonymization  
based on both organizational and patient consents. This allows a cloud-computing  
infrastructure to configure processes and services, including anonymization to  
ensure privacy compliance and a systematic approach to data governance.  
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FX This work was partially supported by funding from the Canadian Natural Sciences and Engineering Research Council (NSERC) and Ontario Graduate Scholarship (OGS).  
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TC 0  
Z9 0  
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U2 0  
PU IEEE  
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WC Computer Science, Interdisciplinary Applications; Computer Science,  
Software Engineering; Engineering, Electrical & Electronic  
SC Computer Science; Engineering  
GA BL1EB  
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PT J  
AU Weber, G  
AF Weber, Guglielmo  
TI SHARE: a data set for ageing research  
SO JOURNAL OF PUBLIC HEALTH RESEARCH  
LA English  
DT Editorial Material  
DE Econometrics; population ageing; SHARE; retirement; public health  
ID RETIREMENT  
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TC 0  
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PU PAGEPRESS PUBL  
PI PAVIA  
PA MEDITGROUP, VIA G BELLI, 4, PAVIA, 27100, ITALY  
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JI J. Public Health Res.  
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AR 1397  
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TI Sharing health data in Belgium: A home care case study using the Vitalink platform

SO INFORMATICS FOR HEALTH & SOCIAL CARE

LA English

DT Article

DE Belgium; cloud; health data; healthcare; privacy/security; Vitalink

ID MEDICATION COMPLIANCE; ADHERENCE; COMMUNICATION; INTERVENTIONS; CHALLENGES; PHYSICIANS; OUTCOMES; VISION

AB In 2013, the Flemish Government launched the Vitalink platform. This initiative focuses on the sharing of health and welfare data to support primary healthcare. In this paper, the objectives and mission of the Vitalink initiative are discussed. Security and privacy measures are reviewed, and the technical implementation of the Vitalink platform is presented. Through a case study, the possibility of interaction with cloud solutions for healthcare is also investigated upon; this was initially not the focus of Vitalink. The Vitalink initiative provides support for secure data sharing in primary healthcare, which in the long term will improve the efficiency of care and will decrease costs. Based on the results of the case study, Vitalink allowed cloud solutions or applications not providing end-to-end security to use their system. The most important lesson learned during this research was the need for firm regulations and stipulations for cloud solutions to interact with the Vitalink platform. However, these are currently still vague.

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FU iMinds Project OCareCloudS - IWT; iMinds; Televic Healthcare; TPVision; Telecom IT; Boone NV

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SC Health Care Sciences & Services; Medical Informatics  
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AU Gray, BJ  
    Barton, ER  
    Davies, AR  
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    Roderick, J  
    Bellis, MA  
AF Gray, Benjamin J.  
    Barton, Emma R.  
    Davies, Alisha R.  
    Long, Sara J.  
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    Bellis, Mark A.

TI A shared data approach more accurately represents the rates and patterns  
of violence with injury assaults

SO JOURNAL OF EPIDEMIOLOGY AND COMMUNITY HEALTH

LA English

DT Article

ID EMERGENCY-DEPARTMENT; ALCOHOL; COMMUNITY; HEALTH; TRENDS; SURVEILLANCE;  
INEQUALITIES; NIGHTLIFE; ENGLAND

AB Background To investigate whether sharing and linking routinely collected  
violence data across health and criminal justice systems can provide a more  
comprehensive understanding of violence, establish patterns of under-reporting  
and better inform the development, implementation and evaluation of violence  
prevention initiatives.

Methods Police violence with injury (VWI) crimed data and emergency  
department (ED) assault attendee data for South Wales were collected between 1  
April 2014 and 31 March 2016 to examine the rates and patterns of VWI. Person  
identifiable data (PID) were cross-referenced to establish if certain victims or  
events were less likely to be reported to criminal justice services.

Results A total of 18 316 police crimed VWI victims and 10 260 individual ED  
attendances with an assault-related injury were considered. The majority of ED  
assault attendances (59.0%) were unknown to police. The key demographic  
identified as under-reporting to police were young males aged 18-34 years, while

a significant amount of non-reported assaults involved a stranger. The combined monthly age-standardised rates were recalculated and on average were 74.7 (95% CI 72.1 to 77.2) and 66.1 (95% CI 64.0 to 68.2) per 100 000 population for males and females, respectively. Consideration of the additional ED cases resulted in a 35.3% and 18.1% increase on the original police totals for male and female VWI victims.

Conclusions This study identified that violence is currently undermeasured, demonstrated the importance of continued sharing of routinely collected ED data and highlighted the benefits of using PID from a number of services in a linked way to provide a more comprehensive picture of violence.

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PU BMJ PUBLISHING GROUP  
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PA BRITISH MED ASSOC HOUSE, TAVISTOCK SQUARE, LONDON WC1H 9JR, ENGLAND  
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JI J. Epidemiol. Community Health  
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PT J  
AU Srakar, A  
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TI MULTIPLE CHRONIC CONDITIONS IN OLDER PEOPLE AND THEIR EFFECTS ON HEALTH  
CARE UTILIZATION: A NETWORK ANALYSIS APPROACH USING SHARE DATA  
SO VALUE IN HEALTH  
LA English  
DT Meeting Abstract  
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JI Value Health  
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WC Economics; Health Care Sciences & Services; Health Policy & Services

SC Business & Economics; Health Care Sciences & Services

GA FK6FX

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PT J

AU Broes, S

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TI Sharing human samples and patient data: Opening Pandora's box

SO JOURNAL OF CANCER POLICY

LA English

DT Article

DE Data sharing; Clinical research; Human samples; Data protection;  
Incentives; Big data; Big sampling; Partnerships; Precision oncology

ID CLINICAL-TRIAL DATA; EUROPEAN-MEDICINES-AGENCY; OPEN ACCESS;

TRANSPARENCY; INITIATIVES; RESEARCHERS; BIOBANKS

AB Background: Sharing of clinical research data is a much-debated topic.

Actions are being taken at various levels ranging from industry cooperative data sharing models to high-level policy interventions. Similar approaches for sharing biological samples are lacking.

Aims and methods: An in-depth understanding of the motives for sharing, and the still too often lack thereof, is acquired through semi-structured interviews with 32 experts.

Results: Moral, societal, scientific, and economic reasons favoring sharing are driving a change in the behavior of both commercial and non-commercial organizations. Whereas concerns of losing control, the impact on incentives to invest, privacy and data protection considerations, pragmatic impediments, and samples' finite nature greatly impede exploiting the scientific potential of these valuable patient resources.

Conclusion: Addressing these concerns by mitigating the risks can provide incentives for sharing, and thereby leverage scientific research. Finally, a collective vision is necessary by all stakeholders that sharing will stimulate science and innovation in the medium and long term, and thereby outweigh potential short term disadvantages.

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WC Health Policy & Services  
SC Health Care Sciences & Services  
GA FU6EN  
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PT J  
AU Beninger, P  
Connelly, J  
Natarajan, C  
AF Beninger, Paul  
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TI Data Sharing in the Pharmaceutical Enterprise: The Genie's Out of the  
Bottle

SO CLINICAL THERAPEUTICS

LA English

DT Editorial Material

DE data sharing; exposure effect relationship; outcomes research;  
pharmaceutical enterprise; structure activity relationship; target  
discovery

ID MEDICINES

AB Objective: This Commentary shows that the present emphasis on the sharing of data from clinical trials can be extended to the entire pharmaceutical enterprise.

Methods: The authors constructed a Data Sharing Dashboard that shows the relationship between all of the life-cycle domains of the pharmaceutical enterprise from discovery to obsolescence and the domain bridging disciplines, such as target credentialing, structure-activity relationships, and exposure-effect relationships.

Findings: The published literature encompassing the pharmaceutical enterprise is expansive, covering the major domains of discovery, translation, clinical development, and post-marketing outcomes research, all of which have even larger, though generally inaccessible, troves of legacy data bases. Notable exceptions include the fields of genomics and bioinformatics.

Implications: We have the opportunity to broaden the present momentum of interest in data sharing to the entire pharmaceutical enterprise, beginning with discovery and extending into health technology assessment and post-patent expiry generic use with the plan of integrating new levels and disciplines of knowledge and with the ultimate goal of improving the care of our patients. (C) 2017 Elsevier HS Journals, Inc. All rights reserved.

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TI Journal of Health Psychology policy on data sharing  
SO JOURNAL OF HEALTH PSYCHOLOGY  
LA English  
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SO CANCER RESEARCH  
LA English  
DT Meeting Abstract  
CT Annual Meeting of the American-Association-for-Cancer-Research (AACR)  
CY APR 01-05, 2017  
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SP Amer Assoc Canc Res  
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AU Srakar, A  
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Rupel, Prevolnik, V  
TI MULTIPLE CHRONIC CONDITIONS IN OLDER PEOPLE AND THEIR EFFECTS ON HEALTH  
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SO VALUE IN HEALTH  
LA English  
DT Meeting Abstract  
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J9 VALUE HEALTH  
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WC Economics; Health Care Sciences & Services; Health Policy & Services  
SC Business & Economics; Health Care Sciences & Services  
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TI Data Sharing and Data Registries in Physical Medicine and Rehabilitation  
SO PM&R  
LA English  
DT Article  
ID HEALTH-CARE; OUTCOMES PARTNERSHIP; NEUROTROPHIC FACTOR; DATA MODELS;

QUALITY; SURVEILLANCE; DATABASES; KNOWLEDGE; TRENDS; STATE

AB The field of physical medicine Et rehabilitation (PM&R), along with all the disciplines it encompasses, has evolved rapidly in the past 50 years. The number of controlled trials, systematic reviews, and meta-analyses in PM&R increased 5-fold from 1998 to 2013. In recent years, professional, private, and governmental institutions have identified the need to track function and functional status across providers and settings of care and on a larger scale. Because function and functional status are key aspects of PM&R, access to and sharing of reliable data will have an important impact on clinical practice. We reviewed the current landscape of PM&R databases and data repositories, the clinical applicability and practice implications of data sharing, and challenges and future directions. We included articles that (1) addressed any aspect of function, disability, or participation; (2) focused on recovery or maintenance of any function; and (3) used data repositories or research databases. We identified 398 articles that cited 244 data sources. The data sources included 66 data repositories and 179 research databases. We categorized the data sources based on their purposes and uses, geographic distribution, and other characteristics. This study collates the range of databases, data repositories, and data-sharing mechanisms that have been used in PM&R internationally. In recent years, these data sources have provided significant information for the field, especially at the population-health level. Implications and future directions for data sources also are discussed.

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WC Rehabilitation; Sport Sciences  
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TI For Diabetes Shared Savings Programs, 1 Year of Data Is Not Enough

SO POPULATION HEALTH MANAGEMENT

LA English

DT Article

ID HEALTH-CARE COSTS; INNOVATION PROFILE; MEDICAID CLAIMS; QUALITY;  
SEVERITY; DEPRESSION; MELLITUS; RECORDS; OBESITY; ADULTS

AB Fee-for-service payment models are moving toward pay-for-performance designs, many of which rely on shared savings for financial sustainability. Shared savings programs divide the cost savings between health care purchaser and provider based on provider performance. Often, these programs measure provider performance as the delivery of agreed-upon clinical practice guidelines that usually are represented as evidence-based medicine (EBM). Multiyear studies show a negative relationship between total cost and EBM, indicating that long-term shared savings can be substantial. This study explores expectations for the rewards in the first year of a shared savings program. It also indicates the effectiveness of using 1 year of claims to assess cost savings from evidence-based care, especially in a patient population with high turnover. This study

analyzed 1956 adults with diabetes insured through Medicaid. Results of linear regression showed that the relationship between total cost of care and each element of evidence-based medical care during a 1-year period was positive (higher cost) or insignificant. The results indicate that diabetes EBM programs cannot expect to see significant cost savings if the evaluation lasts only 1 year or less. The study concludes that improvements in EBM incentive programs could come from investigating the length of time needed to realize cost savings from each element of diabetes EBM. Investigating other factors that could affect the expected amount of cost savings also would benefit these programs, especially factors derived from sources external to insurance program information such as the medical record and care management data.

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U1 1  
U2 3  
PU MARY ANN LIEBERT, INC  
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PA 140 HUGUENOT STREET, 3RD FL, NEW ROCHELLE, NY 10801 USA  
SN 1942-7891  
EI 1942-7905  
J9 POPUL HEALTH MANAG  
JI Popul. Health Manag.  
PD APR  
PY 2017  
VL 20  
IS 2  
BP 103  
EP 113  
DI 10.1089/pop.2016.0015  
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WC Health Care Sciences & Services  
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OA Green Published  
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PT J  
AU Ali, GS  
AF Ali, Gabriele Spina  
TI TRIPS and disclosure of clinical information: An intellectual property perspective on data sharing  
SO JOURNAL OF WORLD INTELLECTUAL PROPERTY



LA English

DT Article

DE clinical trials; data exclusivity; disclosure; TRIPS

ID TRIAL REGISTRATION; INTERNATIONAL-CONFERENCE; TECHNICAL REQUIREMENTS;  
TRANSPARENCY; STATEMENT; ACCESS; HEALTH; PHARMACEUTICALS; HARMONIZATION;  
COMMITTEE

AB Health scholars, lawyers, and social activists have greatly emphasized the social benefits of disclosure of clinical reports, that is, dossiers of drugs trials submitted to medical agencies in support of pharmaceutical authorizations. On their side, medical authorities are reluctant to divulge regulatory documents because they fear that they might contain commercial trade secrets of drug applicants. In these regards, the Agreement on Trade Related Aspects of Intellectual Property (TRIPS) prohibits trials disclosure except "where necessary to protect the public" or "unless steps are taken to ensure that the data are protected against unfair commercial use." This paper delves into the complicacies of the TRIPS discipline to clarify the limits imposed by the treaty on medical agencies, and it goes on to suggest meaningful ways of complying with the TRIPS obligations while retaining most of the benefits associated with trials disclosure.

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TC 0  
Z9 0  
U1 1  
U2 2  
PU WILEY  
PI HOBOKEN  
PA 111 RIVER ST, HOBOKEN 07030-5774, NJ USA  
SN 1422-2213  
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J9 J WORLD INTELLECT PR  
JI J. World Intellect. Prop.  
PD MAR  
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WC Law  
SC Government & Law  
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ER  
  
PT J  
AU Woolley, JP  
AF Woolley, J. Patrick  
TI TOOLS TO FOSTER TRUST IN SHARING HEALTHCARE DATA: TOWARD A COMMON  
LANGUAGE FOR REGULATORY METADATA  
SO MEDICINE AND LAW  
LA English  
DT Article  
DE Big Data; Data; Ethics; Genomics; Governance; Law; Medicine; Metadata;  
Regulation; Sociology  
ID GENOMIC MEDICINE; ETHICS  
AB The importance of ethical, legal, and social issues (ELSI) in genomics has  
been recognized since the inception of the Human Genome Project. As it is  
medical professionals who most directly interact with, advise, and guide  
patients and research participants, they are de facto intermediators between the  
public and these scientific, ethical, and regulatory matters. As individual  
genotyping becomes the norm, the public will increasingly turn to medical  
professionals for help in making sense of how uses of genomic data are relevant  
to one's own interests and to the interests of others. The Global Alliance for  
Genomics and Health (GA4GH) is developing metadata tools to help address  
regulatory concerns in the increasingly non-localized data contexts into which  
medical research is rapidly moving. This article discusses how these metadata  
tools establish clarity on complex, multifaceted, regulatory issues, and thereby

improve medical professionals' ability to inform individuals, respond to concerns, and foster trust.

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Yafiez I, METADATA IMPLICATION

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J9 MED LAW

JI Med. Law

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WC Law

SC Government & Law

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PT B  
AU Liang, XP  
    Zhao, J  
    Shetty, S  
    Liu, JH  
    Li, DY  
AF Liang, Xueping  
    Zhao, Juan  
    Shetty, Sachin  
    Liu, Jihong  
    Li, Danyi  
GP IEEE  
TI Integrating Blockchain for Data Sharing and Collaboration in Mobile  
    Healthcare Applications  
SO 2017 IEEE 28TH ANNUAL INTERNATIONAL SYMPOSIUM ON PERSONAL, INDOOR, AND  
    MOBILE RADIO COMMUNICATIONS (PIMRC)  
LA English  
DT Proceedings Paper  
CT IEEE 28th Annual International Symposium on Personal, Indoor, and Mobile  
    Radio Communications (PIMRC)  
CY OCT 08-13, 2017  
CL Montreal, CANADA  
SP IEEE, IEEE Commun Soc  
DE Healthcare; eHealth; Privacy; Permissioned Blockchain; Access Control;  
    Scalability; Integrity; Wearable Devices; Mobile Platform  
AB Enabled by mobile and wearable technology, personal health data delivers  
immense and increasing value for healthcare, benefiting both care providers and  
medical research. The secure and convenient sharing of personal health data is  
crucial to the improvement of the interaction and collaboration of the  
healthcare industry. Faced with the potential privacy issues and vulnerabilities  
existing in current personal health data storage and sharing systems, as well as  
the concept of self-sovereign data ownership, we propose an innovative user-  
centric health data sharing solution by utilizing a decentralized and  
permissioned blockchain to protect privacy using channel formation scheme and  
enhance the identity management using the membership service supported by the  
blockchain. A mobile application is deployed to collect health data from  
personal wearable devices, manual input, and medical devices, and synchronize  
data to the cloud for data sharing with healthcare providers and health  
insurance companies. To preserve the integrity of health data, within each  
record, a proof of integrity and validation is permanently retrievable from  
cloud database and is anchored to the blockchain network. Moreover, for scalable  
and performance considerations, we adopt a tree-based data processing and  
batching method to handle large data sets of personal health data collected and  
uploaded by the mobile platform.  
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OI Liang, Xueping/0000-0002-8764-9966; Shetty, Sachin/0000-0002-8789-0610  
FU Office of the Assistant Secretary of Defense for Research and  
    Engineering (OASD (R E)) [FA8750-15-2-0120]; National Natural Science

Foundation of China [61402470]; research project of Trusted Internet Identity Management [2016YFB0800505, 2016YFB0800501]

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PI NEW YORK

PA 345 E 47TH ST, NEW YORK, NY 10017 USA

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WC Engineering, Electrical & Electronic; Telecommunications

SC Engineering; Telecommunications

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AU Rake, EA  
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AF Rake, Ester A.  
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TI Personalized Consent Flow in Contemporary Data Sharing for Medical Research: A Viewpoint

SO BIOMED RESEARCH INTERNATIONAL

LA English  
DT Article

AB Background. Health data personally collected by individuals with wearable devices and smartphones is becoming an important data source for healthcare, but also for medical research. Objective. To describe a new consent model that allows people to control their personally collected health data and determine to what extent they want to share these for research purposes. Methods. We developed, in close collaboration with patients, researchers, healthcare professionals, privacy experts, and an accredited Medical Ethical Review Committee, an innovative concept called "personalized consent flow" within a research platform connected to a personal health record. The development was an iterative process with informal meetings, semistructured interviews, and surveys. The final concept of the personalized consent flow was reviewed by patients and improved and approved by the same patients in a focus group. Results. This concept could result in optimal control for individual users, since they will answer questions about how they will share data. Furthermore, it enables users to collect data for specific studies and add expiration dates to their data. This work facilitates further discussion about dynamic and personalized consent. A pilot study with the personalized consent model is currently being carried out. C1 [Rake, Ester A.; van Gelder, Marleen M. H. J.; Grim, David C.; Heeren, Barend; Engelen, Lucien J. L. P. G.; van de Belt, Tom H.] Radboud Univ Nijmegen, Med Ctr, Radboud REshape Innovat Ctr, Nijmegen, Netherlands.

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JI Biomed Res. Int.

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AU Dudnik, E

Goldstein, D

Roisman, L

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Daher, Sameh

Shamai, Sivan

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Shechtman, Yelena

Abu-Amna, Mahmoud

Zer, Alona

Wollner, Mira

Merimsky, Ofer

Cyjon, Arnold

Peled, Nir

TI Nivolumab for Non-Small Cell Lung Cancer (NSCLC): An Economic Model for  
Risk Sharing Based on Real-Life Data

SO JOURNAL OF THORACIC ONCOLOGY

LA English

DT Meeting Abstract

DE Nivolumab; economic model; non-small cell lung cancer (NSCLC); risk  
sharing

C1 [Dudnik, Elizabeth; Goldstein, Daniel; Roisman, Laila; Zer, Alona; Peled, Nir]  
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RI Roisman, Laila C./P-9129-2019  
OI Roisman, Laila C./0000-0001-8455-9327  
NR 0  
TC 0  
Z9 0  
U1 1  
U2 2  
PU ELSEVIER SCIENCE INC  
PI NEW YORK  
PA 360 PARK AVE SOUTH, NEW YORK, NY 10010-1710 USA  
SN 1556-0864  
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J9 J THORAC ONCOL  
JI J. Thorac. Oncol.  
PD JAN  
PY 2017  
VL 12  
IS 1  
SU S  
MA P3.07-004  
BP S1432  
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WC Oncology; Respiratory System  
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PT J  
AU Huang, QL  
Wang, LC  
Yang, YX  
AF Huang, Qinlong  
Wang, Licheng  
Yang, Yixian  
TI Secure and Privacy-Preserving Data Sharing and Collaboration in Mobile  
Healthcare Social Networks of Smart Cities  
SO SECURITY AND COMMUNICATION NETWORKS  
LA English  
DT Article  
ID ATTRIBUTE-BASED ENCRYPTION; SYSTEM; CLOUD; ACCESS  
AB Mobile healthcare social networks (MHSN) integrated with connected medical sensors and cloud-based health data storage provide preventive and curative health services in smart cities. The fusion of social data together with real-time health data facilitates a novel paradigm of healthcare big data analysis. However, the collaboration of healthcare and social network service providers may pose a series of security and privacy issues. In this paper, we propose a secure health and social data sharing and collaboration scheme in MHSN. To preserve the data privacy, we realize secure and fine-grained health data and social data sharing with attribute-based encryption and identity-based broadcast encryption techniques, respectively, which allows patients to share their private personal data securely. In order to achieve enhanced data collaboration, we allow the healthcare analyzers to access both the reencrypted health data and the social data with authorization from the data owner based on proxy

reencryption. Specifically, most of the health data encryption and decryption computations are outsourced from resource-constrained mobile devices to a health cloud, and the decryption of the healthcare analyzer incurs a low cost. The security and performance analysis results show the security and efficiency of our scheme.

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10.1016/j.future.2015.09.027

NR 30

TC 0  
Z9 0  
U1 6  
U2 26  
PU WILEY-HINDAWI  
PI LONDON  
PA ADAM HOUSE, 3RD FL, 1 FITZROY SQ, LONDON, WIT 5HE, ENGLAND  
SN 1939-0114  
EI 1939-0122  
J9 SECUR COMMUN NETW  
JI Secur. Commun. Netw.  
PY 2017  
AR UNSP 6426495  
DI 10.1155/2017/6426495  
PG 12  
WC Computer Science, Information Systems; Telecommunications  
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GA FD8HY  
UT WOS:000407767000001  
OA DOAJ Gold  
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PT S

AU Bouzille, G  
Westerlynck, R  
Defossez, G  
Bousslimi, D  
Bayat, S  
Riou, C  
Busnel, Y  
Le Guillou, C  
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Zhao, D

TI Sharing Health Big Data for Research - A Design by Use Cases: The  
INSHARE Platform Approach

SO MEDINFO 2017: PRECISION HEALTHCARE THROUGH INFORMATICS

SE Studies in Health Technology and Informatics

LA English

DT Proceedings Paper

CT 16th World Congress on Medical and Health Informatics (MEDINFO)

CY AUG 21-25, 2017

CL Int Med Informat Assoc, Xiamen, PEOPLES R CHINA

SP Chinese Med Informat Assoc

HO Int Med Informat Assoc

DE Information Dissemination; Information Storage and Retrieval; Registries

ID WATERMARKING; DISEASE

AB Sharing and exploiting Health Big Data (HBD) allow tackling challenges: data protection/governance taking into account legal, ethical, and deontological aspects enables trust, transparent and win-win relationship between researchers, citizens, and data providers. Lack of interoperability: compartmentalized and syntactically/semantically heterogeneous data. INSHARE project using experimental proof of concept explores how recent technologies overcome such issues. Using 6 data providers, platform is designed via 3 steps to: (1) analyze use cases, needs, and requirements; (2) define data sharing governance, secure access to platform; and (3) define platform specifications. Three use cases - from 5 studies and 11 data sources - were analyzed for platform design. Governance derived from SCANNER model was adapted to data sharing. Platform architecture integrates: data repository and hosting, semantic integration services, data processing, aggregate computing, data quality and integrity monitoring, Id linking, multisource query builder, visualization and data export services, data governance, study management service and security including data watermarking.

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TC 0  
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U1 1  
U2 4  
PU IOS PRESS  
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PA NIEUWE HEMWEG 6B, 1013 BG AMSTERDAM, NETHERLANDS  
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DI 10.3233/978-1-61499-830-3-303  
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WC Health Care Sciences & Services; Medical Informatics  
SC Health Care Sciences & Services; Medical Informatics  
GA BL3AY  
UT WOS:000449471200063  
PM 29295104  
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PT S  
AU Small, SS  
Peddie, D  
Ackerley, C  
Hohl, CM  
Balka, E  
AF Small, Serena S.  
Peddie, David  
Ackerley, Christine  
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Balka, Ellen  
BE Nohr, C  
Kuziemy, CE  
Wong, ZSY  
TI Patient Perceptions About Data Sharing & Privacy: Insights from  
ActionADE  
SO CONTEXT SENSITIVE HEALTH INFORMATICS: REDESIGNING HEALTHCARE WORK  
SE Studies in Health Technology and Informatics

LA English  
DT Proceedings Paper  
CT International Conference on Context Sensitive Health Informatics, Human and Socio-Technical Approaches (CSHI)  
CY AUG 18-19, 2017  
CL Citi Univ, Hong Kong, HONG KONG  
SP City Univ Hong Kong, Dept Management Sci, IMIA Working Grp Human Factors Engr Healthcare Informat, IMIA Working Grp Organizat & Social Issues, IMIA Working Grp Technol Assessment & Qual Dev Hlth Informat, IMIA Working Grp Primary Hlth Care Informat  
HO Citi Univ  
DE Data privacy; information and communication technology; sociotechnical; patient participation  
ID HEALTH INFORMATION  
AB Information communication technologies (ICTs) may improve health delivery by enhancing informational continuity of care and enabling secondary use of health data including public health surveillance and research. ICTs also introduce concerns related to privacy. In this paper, we examine and address this tension in the context of the development and implementation of a novel platform that will enable the documentation and communication of patient-specific ADE information, titled ActionADE. We explored privacy concerns qualitatively from the perspective of patients. Our findings will inform a series of recommendations for system design that seek to balance the need to both share and protect personal health information.  
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WC Health Care Sciences & Services; Medical Informatics  
SC Health Care Sciences & Services; Medical Informatics  
GA BK5WO  
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PT S  
AU Niwa, A  
    Nishi, H  
AF Niwa, Akira  
    Nishi, Hiroaki  
GP IEEE  
TI An information platform for smart communities realizing data usage  
    authentication and secure data sharing  
SO 2017 FIFTH INTERNATIONAL SYMPOSIUM ON COMPUTING AND NETWORKING (CANDAR)  
SE International Symposium on Computing and Networking  
LA English  
DT Proceedings Paper  
CT 5th International Symposium on Computing and Networking (CANDAR)  
CY NOV 19-22, 2017  
CL Aomori, JAPAN  
SP IEICE Tech Comm Comp Syst, IPSJ Special Interest Grp Syst Architecture, IPSJ  
Special Interest Grp Programming, Hiroshima Univ, Natl Inst Informat, Fujitsu  
Ltd, Yahoo Japan  
DE Smart Community; Privacy; VRM; CRM  
ID INTERNET; PRIVACY; THINGS; CITY  
AB The deployment of Information and Communication Technology in existing  
infrastructure has increased interest in smart communities. Smart communities  
provide various services such as ancillary services, road traffic information  
management, and health care management. Each service has distinctive  
characteristics such as processing delay, the need for anonymity, computational  
cost, and the amount of data. Therefore, to optimize the system, locations to  
provide these services should be organized. In addition, secondary use of  
personal data is assumed in smart communities. Thus, measures to provide privacy  
protection should be implemented. In this paper, a new information platform is  
proposed, which allows management of a user's privacy policy, management of data  
usage, smooth data sharing, and adequate service location organization by  
introducing the concept of "Relationship." Response time associated with  
organization was evaluated on the implemented platform to ensure the feasibility

of the proposed method, and it was about 15 minutes when the number of Relationships is 12,800.

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NR 16

TC 0

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PU IEEE

PI NEW YORK

PA 345 E 47TH ST, NEW YORK, NY 10017 USA

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PY 2017

BP 119

EP 125

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PG 7

WC Computer Science, Hardware & Architecture; Computer Science, Theory & Methods; Engineering, Electrical & Electronic

SC Computer Science; Engineering

GA BK2GA

UT WOS:000432657800016

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ER

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Zhang, YX

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AF Tang, Wenjuan

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Ren, Ju

Zhang, Yaoxue

Shen, Xuemin (Sherman)

GP IEEE

TI Lightweight and Privacy-preserving Fog-assisted Information Sharing Scheme for Health Big Data

SO GLOBECOM 2017 - 2017 IEEE GLOBAL COMMUNICATIONS CONFERENCE

SE IEEE Global Communications Conference

LA English

DT Proceedings Paper

CT IEEE Global Communications Conference (GLOBECOM)

CY DEC 04-08, 2017

CL YourSingapore, Singapore, SINGAPORE

SP IEEE, Intel, Natl Instruments, Huawei, Keysight Technologies Inc, Nanyang Technol Univ, Sch Elect & Elect Engr, Rohde & Schwarz

HO YourSingapore

DE Fog Computing; E-healthcare; Data Sharing; Attribute-based Encryption; Privacy-preserving; Lightweight

AB With the advancements of electronic medical equipment, e-healthcare system becomes a promising paradigm to continuously monitor health conditions and remotely diagnose phenomena. However, it also generates a large volume of health data and poses several security challenges, such as access control security and privacy leakage. Furthermore, some medical devices/sensors have low battery power. In this paper, we propose a lightweight and privacy-preserving fog-assisted information sharing scheme (PFHD) for health big data. Specifically, we integrate fog computing into e-healthcare system to pre-process the raw health data and improve the efficiency of health data analysis. Meanwhile, we design a hierarchical attribute-based encryption method by encrypting the profile and health data with different access policies for privacy preservation. Furthermore, we achieve lightweight encryption on devices by offloading part of encryption cost from devices to fog servers. Security discussions show that PFHD can achieve fine-grained health data sharing with data privacy preservation. Performance evaluations demonstrate the efficiency of PFHD, especially in terms of encryption computation and storage costs.

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China [2015J01271]; Innovation-Driven Project of Central South  
University [2016CXS013]; Natural Sciences and Engineering Research  
Council of Canada

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the Natural Science Foundation Project of Fujian Province of China (No:  
2015J01271), the Innovation-Driven Project of Central South University  
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NR 22  
TC 0  
Z9 0  
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U2 2  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
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J9 IEEE GLOB COMM CONF  
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WC Engineering, Electrical & Electronic; Telecommunications  
SC Engineering; Telecommunications  
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ER

PT B

AU Shafagh, H  
Hithnawi, A

AF Shafagh, Hossein  
Hithnawi, Anwar

GP ACM

TI Privacy-preserving Quantified Self: Secure Sharing and Processing of  
Encrypted Small Data

SO PROCEEDINGS OF THE 2017 WORKSHOP ON MOBILITY IN THE EVOLVING INTERNET  
ARCHITECTURE (MOBIARCH '17)

LA English

DT Proceedings Paper

CT 12th ACM SIGCOMM Workshop on Mobility in the Evolving Internet  
Architecture (MobiArch)

CY AUG 25, 2017

CL Los Angeles, CA

SP Assoc Comp Machinery, ACM SIGCOMM

DE IoT; Privacy; Encrypted Processing; Homomorphic Encryption; Secure  
Sharing

AB The emergence of a plethora of wearables and sensing technologies has enabled non-intrusive digitization of our daily physical activities. Emerging applications utilize such data to make inferences about our physiological and health states, provide health diagnosis, and contribute to wellbeing improvements. The common approach for such applications is to collect data, either using mobile applications or special hardware, e.g., wearables, and store them on a third party storage provider. This results in many unconnected data silos of self-quantification data. Researchers and industry, advocate for a common personal storage space, to conquer the myriad of small chunks of data, deemed to be lost/forgotten in the long term. The benefits of such co-located personal data are tremendous, specifically with regards to personalized medicine, treatment, and health care. However, the centralized storage of data exacerbates the privacy and security concerns that the IoT ecosystem is facing today. In this position paper, we advocate the necessity of privacy and security guarantees for the paradigm of co-located storage of personal health data. We envision two core security functionalities: true end-to-end encryption, such that only encrypted data is stored in the cloud and secure sharing of encrypted data, without disclosing data owner's secret keys. We discuss the challenges in adopting such an end-to-end encryption paradigm while preserving the cloud's basic processing functionalities over encrypted data and how to cryptographically enforce access control.

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PU ASSOC COMPUTING MACHINERY  
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WC Telecommunications  
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AF Saha, Renata  
Sarkar, Sayan  
Datta, Soumya Kanti  
BE Taki, GS  
TI Balancing Security & Sharing of Fitness Trackers' Data  
SO 2017 1ST INTERNATIONAL CONFERENCE ON ELECTRONICS, MATERIALS ENGINEERING  
& NANO-TECHNOLOGY (IEMENTECH)  
LA English  
DT Proceedings Paper  
CT 1st International Conference on Electronics, Materials Engineering and  
Nano-Technology (IEMENTech)  
CY APR 28-29, 2017  
CL Kolkata, INDIA  
SP Inst Engn & Management, Dept Elect & Commun Engn  
DE Wearable; Fitness Trackers; Electronic Health Record (EHR); Security;  
Sharing; Filter System  
ID HEALTH-CARE  
AB Use of wearable fitness trackers is progressively increasing over the world.  
The raw information from these gadgets on processing produces Electronic Health  
Record (EHR). It has great importance since it enhances the scope of medicinal  
services with financially savvy nature. Despite this fact, the human health  
architecture are tested essentially by security and ownership of information.  
Securing EHR with an encoded secret key is a plausible choice. EHRs have their  
potential advantages in the Evidence Based Medicine (EBM). The purpose of this  
paper is to discuss the various ethical issues arising during use of the EHRs of  
fitness trackers and their possible solutions by strengthening security with  
gaining public trust on EHR based approach. This paper also proposes a filter  
system that balances the security & sharing of health data.  
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NR 12  
TC 0  
Z9 0  
U1 0  
U2 2  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
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PY 2017  
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WC Engineering, Electrical & Electronic  
SC Engineering  
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ER

PT B  
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AF Sharon, R. Shiny  
Manoj, R. Joseph  
GP IEEE

TI E-HEALTH CARE DATA SHARING INTO THE CLOUD BASED ON DEDUPLICATION AND  
FILE HIERARCHICAL ENCRYPTION  
SO 2017 INTERNATIONAL CONFERENCE ON INFORMATION COMMUNICATION AND EMBEDDED  
SYSTEMS (ICICES)

LA English  
DT Proceedings Paper  
CT International Conference on Information Communication and Embedded  
Systems (ICICES)  
CY FEB 23-24, 2017  
CL INDIA

SP S A Engn Coll, S A Engn Coll, Dept Comp Sci & Engn, S A Engn Coll, Elect  
Commun & Engn, S A Engn Coll, Elect & Elect Engn

DE E-Healthcare; PHI (Personal Health Information); cloud computing;  
deduplication; ABE (Attribute Based Encryption)

AB E-Healthcare system plays a major role in the society. It monitors the health condition and helps in giving appropriate medical treatments. This system aims at gathering and storing patient's details and sharing health related information. It also has high legitimate concerns about patient's privacy and information security. This system minimizes the infrastructural barriers for the developing nations. It also extends healthcare systems to the remote and isolated areas which has limited access to medical technologies, remote health services are provided through telecommunications. Quality of the service and security are added advantage to the system. They collect the real time personal information (PHI) and health problems from patients and transmit them to the healthcare provider for the authorized physicians to decide on the corresponding treatment. They send the PHI in terms of text and image to the cloud, and also the other personal queries related to their medical history. In cloud computing, collected PHI should match the physicians experience to judge the state of the patient and unfortunately, delegating both storage and computation to the untrusted entity would bring a series of security. This is where deduplication comes into play. It is a technique for eliminating duplicate copies of data, and has been widely used in cloud storage to reduce storage space and upload bandwidth. Attribute-based encryption (ABE) has been a preferred encryption technology to solve the challenging problem of security during data sharing in cloud computing. For every file a separate key will be provided, which is to be decrypted for using the file further.

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Suzaki Kuniyasu, MEMORY DEDUPLICATION  
Wang Guojun, HIERARCHICAL ATTRIBU  
Zhu Huafei, PRIVATE DATA DEDUPLI

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WC Computer Science, Artificial Intelligence; Computer Science, Information  
Systems; Computer Science, Interdisciplinary Applications;  
Telecommunications

SC Computer Science; Telecommunications

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BE VanDenBroek, EL

Fred, A

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TI Sharing of Big Data in Healthcare: Public Opinion, Trust, and Privacy  
Considerations for Health Informatics Researchers

SO PROCEEDINGS OF THE 10TH INTERNATIONAL JOINT CONFERENCE ON BIOMEDICAL  
ENGINEERING SYSTEMS AND TECHNOLOGIES, VOL 5: HEALTHINF

LA English

DT Proceedings Paper

CT 10th International Joint Conference on Biomedical Engineering Systems  
and Technologies

CY FEB 21-23, 2017

CL Porto, PORTUGAL

DE Big Data; Privacy; Critical Care; Data Analysis; Trust; Data Security

ID PATIENT

AB Advances in technology has transformed clinical medicine; electronic patient  
records routinely store clinical notes, internet-enabled mobile apps support  
self-management of chronic diseases, point-of-care testing enables laboratory  
tests to be performed outside of hospital environments, patient treatment can be  
delivered over wide geographic areas and wireless sensor networks are able to

collect and send physiological data. Increasingly, this technology leads to the development of large databases of sensitive electronic patient information. There is public interest into the secondary use of this data; many concerns are voiced about the involvement of private companies and the security and privacy of this data, but at the same time, these databases present a valuable source of clinical information which can drive health informatics and clinical research, leading to improved patient treatment. In this position paper, we argue that for health informatics projects to be successful, public concerns over the secondary use of patient data need to be addressed in the design and implementation of the technology and conduct of the research project.

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FU Innovate UK [102113]; West of Scotland Research Ethics Committee (REC) [15/WS/0222]

FX The CHART-ADAPT project is a collaboration between the University of Glasgow, Aridhia, NHS Greater Glasgow & Clyde, and Philips Healthcare. It has been co-funded by Innovate UK (ref: 102113). Approval for the CHART-ADAPT work was granted by the West of Scotland Research Ethics Committee (REC ref: 15/WS/0222) and local Caldicott Guardian approval has been provided. Approval for the survey (section 4) was provided by MVLS, University of Glasgow. The CHART-ADAPT project we would like to acknowledge the staff and patients of the Neurointensive care unit, Neurosciences Institute, Glasgow.

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WC Engineering, Biomedical

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TI Choices on selective clinical data sharing by people with Parkinson's disease

SO JOURNAL OF PARKINSONISM AND RESTLESS LEGS SYNDROME

LA English

DT Article

DE Parkinson's disease; patient choice; data sharing; data acquisition; data ownership; best practices; data charter

ID HEALTH

AB Background: Clinical data sharing and ownership are key issues in modern digital data acquisition. Data sharing is subject to influence by a range of stakeholders. Of these, patient attitudes are pivotal.

Objectives: The objective of this report was to characterize attitudes to clinical data sharing among people with Parkinson's disease (PD).

Methods: A recent survey, conducted by the Parkinson's Movement (2016) highlighted patient concerns over data sharing. This formed the basis for discussion by two focus groups at the Rallying to the Challenge meeting at the Van Andel Research Institute in September 2016.

Results: The focus groups examined issues related to the appropriateness of data sharing for different categories of data and highlighted both the value and concerns regarding data sharing.

Conclusion: At the conclusion of the session, it was proposed that a "data charter" be developed to reflect the thinking of people with PD on best practices in data acquisition, ownership, and sharing.  
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J9 J PARKINSONISM RESTL

JI J. PARKINSONISM RESTLESS LEGS SYNDR.

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WC Clinical Neurology

SC Neurosciences & Neurology

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ER

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TI A Privacy-Preserving Data Sharing Solution for Mobile Healthcare

SO PROCEEDINGS OF 2017 IEEE INTERNATIONAL CONFERENCE ON PROGRESS IN

INFORMATICS AND COMPUTING (PIC 2017)

SE Proceedings of the IEEE International Conference on Progress in

Informatics and Computing

LA English

DT Proceedings Paper

CT 5th IEEE International Conference on Progress in Informatics and Computing (PIC)

CY DEC 15-17, 2017

CL Nanjing, PEOPLES R CHINA

SP IEEE, Nanjing Univ Sci & Technol, Shanghai Univ Finance & Econ, IEEE Beijing Sect

DE privacy-preserving; security; biometric; attribute; mobile health

ID SECURE; SYSTEM

AB Personal Health Records (PHR) is patient-centric healthcare system, which allows patients to control who can get access to their health records and which section of the record can be accessed. Hot issues such as access control, patients control degree, and privacy protection, etc. are still the challenging concerns while designing a secure PHR system.

In this paper, we propose dsPPS, a secure integrated PHR framework (from health data collection to health data sharing) that meets patients' full control of their PHR and sufficient privacy preservation. Specifically, dsPPS provides two schemes: Biometric-Based secure health data Collection (BBC) scheme and Attribute-Based health record Accessing (ABA) scheme. While BBC scheme enables patients to collect their scattered health data from multiple typical health systems securely and efficiently, the ABA scheme allows users (health systems) access to the PHR server with their sensitive attributes being protected. Comprehensive analysis is conducted to show the security of dsPPS against typical attacks. In addition, experiments in both smart phone and PC (Intel) platforms demonstrate that dsPPS produces reasonable performance in terms of storage, communication and computational overheads.

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FU China NSF [61472189]; Jiangsu Planned Projects for Postdoctoral Research Funds [1701146B]; CERNET Next Generation IT Innovation Project [NGI120160105]; State Key Laboratory of Air Traffic Management System and Technology [SKLATM201703]; Open Project Program of Key Laboratory of Intelligent Perception and Systems for High-Dimensional Information of Ministry of Education [JYB201610]

FX This work is supported by China NSF (61472189), Jiangsu Planned Projects for Postdoctoral Research Funds (1701146B), CERNET Next Generation IT Innovation Project (NGI120160105), State Key Laboratory of Air Traffic Management System and Technology (SKLATM201703), and the Open Project Program of Key Laboratory of Intelligent Perception and Systems for High-Dimensional Information of Ministry of Education (JYB201610).

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PU IEEE

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WC Computer Science, Information Systems; Computer Science, Theory &  
Methods

SC Computer Science

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UT WOS:000464102900051

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ER

PT J

AU Bever, U

Tucker, K

AF Bever, U.

Tucker, K.

TI Roche-Genentech oncology trials - our experience with data sharing via  
CSDR

SO EUROPEAN JOURNAL OF CANCER

LA English

DT Meeting Abstract

CT 28th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer  
Therapeutics

CY NOV 29-DEC 02, 2016

CL Munich, GERMANY

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J9 EUR J CANCER  
JI Eur. J. Cancer  
PD DEC  
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WC Oncology  
SC Oncology  
GA EF7IO  
UT WOS:000390503500170  
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PT J  
AU Littler, K  
AF Littler, K.  
TI Sharing public health data saves lives  
SO INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES  
LA English  
DT Meeting Abstract  
C1 [Littler, K.] Wellcome Trust Res Labs, London, England.

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JI Int. J. Infect. Dis.  
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MA 13.002  
BP 24  
EP 25  
DI 10.1016/j.ijid.2016.11.067  
PG 2  
WC Infectious Diseases  
SC Infectious Diseases  
GA VE8AG  
UT WOS:000440378400054  
OA DOAJ Gold

DA 2019-08-06  
ER

PT J  
AU Mietchen, D  
AF Mietchen, D.  
TI Data sharing in public health emergencies  
SO INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES  
LA English  
DT Meeting Abstract  
C1 [Mietchen, D.] NIH, Bldg 10, Bethesda, MD 20892 USA.  
RI Mietchen, Daniel/A-7748-2009  
OI Mietchen, Daniel/0000-0001-9488-1870  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU ELSEVIER SCI LTD  
PI OXFORD  
PA THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND  
SN 1201-9712  
EI 1878-3511  
J9 INT J INFECT DIS  
JI Int. J. Infect. Dis.  
PD DEC  
PY 2016  
VL 53  
SU S  
MA 17.013  
BP 35  
EP 36  
DI 10.1016/j.ijid.2016.11.096  
PG 2  
WC Infectious Diseases  
SC Infectious Diseases  
GA VE8AG  
UT WOS:000440378400081  
OA DOAJ Gold  
DA 2019-08-06  
ER

PT J  
AU Orłowski, A  
    Heaton, D  
    Campbell, A  
    Macdonald, J  
AF Orłowski, A.  
    Heaton, D.  
    Campbell, A.  
    Macdonald, J.  
TI THE GM AHSN AF LANDSCAPE TOOL: A SHARED DATA PLATFORM TO IDENTIFY HEALTH  
AND ECONOMIC OPPORTUNITIES TO REDUCE INCIDENCE OF STROKE THROUGH  
EFFECTIVE ANTICOAGULANT MANAGEMENT OF PATIENTS WITH ATRIAL FIBRILLATION  
IN GREATER MANCHESTER  
SO VALUE IN HEALTH  
LA English  
DT Meeting Abstract

C1 [Orlowski, A.; Macdonald, J.] Greater Manchester Acad Hlth Sci Network,  
Manchester, Lancs, England.  
    [Heaton, D.] Harvey Walsh Ltd, Runcorn, Cheshire, England.  
    [Campbell, A.] ADC EXSAL Ltd, Chester, Cheshire, England.

NR 0  
TC 0  
Z9 0  
U1 1  
U2 2  
PU ELSEVIER SCIENCE INC  
PI NEW YORK  
PA 360 PARK AVE SOUTH, NEW YORK, NY 10010-1710 USA  
SN 1098-3015  
EI 1524-4733  
J9 VALUE HEALTH  
JI Value Health  
PD NOV  
PY 2016  
VL 19  
IS 7  
MA PCV153  
BP A664  
EP A664  
DI 10.1016/j.jval.2016.09.1824  
PG 1  
WC Economics; Health Care Sciences & Services; Health Policy & Services  
SC Business & Economics; Health Care Sciences & Services  
GA EO3PI  
UT WOS:000396606302045  
DA 2019-08-06  
ER

PT J  
AU Sullivan, F  
    McKinstry, B  
    Palmer, C  
AF Sullivan, Frank  
    McKinstry, Brian  
    Palmer, Colin  
TI BIG HEALTH DATA Opt-in method is vital for data sharing  
SO BMJ-BRITISH MEDICAL JOURNAL  
LA English  
DT Letter  
ID CLINICAL-RESEARCH; REGISTRY  
C1 [Sullivan, Frank] Univ Toronto, North York Gen Hosp, Dept Family & Community  
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RI Palmer, Colin/M-9773-2019; Sullivan, Frank/L-8286-2019  
OI Palmer, Colin/0000-0002-6415-6560; Sullivan, Frank/0000-0002-6623-4964  
FU Medical Research Council [MR/K007017/1, MC\_PC\_13040]  
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\*SCOTT HLTH INF PR, 2012, BLUEPR HLTH REC RES  
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TC 0

Z9 0

U1 0

U2 9

PU BMJ PUBLISHING GROUP

PI LONDON

PA BRITISH MED ASSOC HOUSE, TAVISTOCK SQUARE, LONDON WC1H 9JR, ENGLAND

SN 1756-1833

J9 BMJ-BRIT MED J

JI BMJ-British Medical Journal

PD AUG 5

PY 2016

VL 354

AR i4293

DI 10.1136/bmj.i4293

PG 1

WC Medicine, General & Internal

SC General & Internal Medicine

GA DS9DD

UT WOS:000381081800013

PM 27495936

DA 2019-08-06

ER

PT J

AU Gambardella, C

Matteucci, I

Petrocchi, M

AF Gambardella, Carmela

Matteucci, Ilaria

Petrocchi, Marinella

TI Data Sharing Agreements: How to Glue Definition, Analysis and Mapping Together

SO ERCIM NEWS

LA English

DT Article

AB An electronic data sharing agreement (DSA) is a human-readable, yet machine-processable contract, regulating how organisations and/or individuals share data. Its smooth definition and fluid lifecycle management are key aspects for enabling data protection in various contexts, from e-government to the provision of business and healthcare services, for example.

C1 [Gambardella, Carmela] Hewlett Packard Enterprise Italy, Cernusco Sul Naviglio, Italy.

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CR Caimi C., 2015, LEGAL TECHNICAL PERS, P178

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U1 0

U2 2



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SN 0926-4981  
EI 1564-0094  
J9 ERCIM NEWS  
JI ERCIM News  
PD JUL  
PY 2016  
IS 106  
BP 28  
EP +  
PG 2  
WC Computer Science, Interdisciplinary Applications  
SC Computer Science  
GA DX8KW  
UT WOS:000384638000019  
DA 2019-08-06  
ER

PT J  
AU Chisti, A  
Sharara, N  
Gupta, M  
Rosenberg, I  
Abudu, R  
Morgan, C  
Duncan, K  
Silkensen, S  
Craycroft, J  
Silva, J  
Andre, B  
Trimble, EL  
Bhatt, AS  
Huang, FW

AF Chisti, Ali  
Sharara, Nour  
Gupta, Manaswi  
Rosenberg, Ilyana  
Abudu, Rachel  
Morgan, Camille  
Duncan, Kalina  
Silkensen, Shannon  
Craycroft, Jane  
Silva, Jennifer  
Andre, Billy  
Trimble, Edward Lloyd  
Bhatt, Ami Siddharth  
Huang, Franklin W.

TI Mapping global cancer research and control in areas of low and middle  
income: The need for shared data on a single, interactive platform  
SO JOURNAL OF CLINICAL ONCOLOGY  
LA English  
DT Meeting Abstract  
CT Annual Meeting of the American-Society-of-Clinical-Oncology (ASCO)  
CY JUN 03-07, 2016  
CL Chicago, IL  
SP Amer Soc Clin Oncol

C1 Global Oncol Inc, Boston, MA USA.  
Broad Inst, Cambridge, MA USA.  
Leidos Biomed Res Inc, Frederick, MD USA.  
NCI Ctr Global Hlth, Bethesda, MD USA.  
Natl Canc Inst, Rockville, MD USA.  
Stanford Univ, Stanford, CA 94305 USA.  
Dana Farber Canc Inst, Boston, MA 02115 USA.

RI Trimble, Edward/J-9647-2019  
OI Trimble, Edward/0000-0001-5028-0598  
NR 0  
TC 0  
Z9 0  
U1 1  
U2 3  
PU AMER SOC CLINICAL ONCOLOGY  
PI ALEXANDRIA  
PA 2318 MILL ROAD, STE 800, ALEXANDRIA, VA 22314 USA  
SN 0732-183X  
EI 1527-7755  
J9 J CLIN ONCOL  
JI J. Clin. Oncol.  
PD MAY 20  
PY 2016  
VL 34  
IS 15  
SU S  
MA e18048  
DI 10.1200/JCO.2016.34.15\_suppl.e18048  
PG 4  
WC Oncology  
SC Oncology  
GA EZ4VV  
UT WOS:000404711503193  
DA 2019-08-06  
ER

PT J  
AU Winkler, EC  
Schleidgen, S  
Schickhardt, C  
Kalle, CV  
Ose, D  
Husedzinovic, A

AF Winkler, Eva Caroline  
Schleidgen, Sebastian  
Schickhardt, Christoph  
Kalle, Christof V.  
Ose, Dominik  
Husedzinovic, Alma

TI How cancer patients and oncologist assess data-sharing and the risk of re-identification in genomic research? Ethical implications for informed consent and governance.

SO JOURNAL OF CLINICAL ONCOLOGY  
LA English  
DT Meeting Abstract  
CT Annual Meeting of the American-Society-of-Clinical-Oncology (ASCO)  
CY JUN 03-07, 2016  
CL Chicago, IL

SP Amer Soc Clin Oncol  
C1 Univ Heidelberg Hosp, Natl Ctr Tumor Dis, Dep Med Oncol, Heidelberg, Germany.  
Natl Ctr Tumor Dis, Heidelberg, Germany.  
Natl Ctr Tumor Dis DKFZ, Heidelberg, Germany.  
Univ Utah, Salt Lake City, UT USA.  
RI Ose, Dominik/L-4250-2019  
NR 0  
TC 0  
Z9 0  
U1 1  
U2 2  
PU AMER SOC CLINICAL ONCOLOGY  
PI ALEXANDRIA  
PA 2318 MILL ROAD, STE 800, ALEXANDRIA, VA 22314 USA  
SN 0732-183X  
EI 1527-7755  
J9 J CLIN ONCOL  
JI J. Clin. Oncol.  
PD MAY 20  
PY 2016  
VL 34  
IS 15  
SU S  
MA e18186  
DI 10.1200/JCO.2016.34.15\_suppl.e18186  
PG 4  
WC Oncology  
SC Oncology  
GA EZ4VV  
UT WOS:000404711504046  
DA 2019-08-06  
ER  
  
PT J  
AU Sousa, VD  
Ramalho, PI  
Silveira, D  
AF Sousa, Varley Dias  
Ramalho, Pedro I.  
Silveira, Damaris  
TI Sharing regulatory data as tools for strengthening health systems in the  
Region of the Americas  
SO REVISTA PANAMERICANA DE SALUD PUBLICA-PAN AMERICAN JOURNAL OF PUBLIC  
HEALTH  
LA English  
DT Article  
DE Disclosure; access to information; confidentiality; technical  
cooperation; regional development; Americas  
ID CLINICAL-TRIAL DATA; TRANSPARENCY; ACCESS  
AB Regulatory transparency is an imperative characteristic of a reliable  
National Regulatory Authority. In the region of the Americas, the process of  
building an open government is still fragile and fragmented across various  
Health Regulatory Agencies (HRAs) and Regional Reference Authorities (RRAs).  
This study assessed the transparency status of RRAs, focusing on various  
medicine life-cycle documents (the Medicine Dossier, Clinical Trial Report, and  
Inspection Report) as tools for strengthening health systems. Based on a  
narrative (non-systematic) review of RRA regulatory transparency, transparency  
status was classified as one of two types: public disclosure of information

(intra-agency data) and data- and work-sharing (inter-agency data). The risks/benefits of public disclosure of medicine-related information were assessed, taking into account 1) the involvement and roles of multiple stakeholders (health care professionals, regulators, industry, community, and academics) and 2) the protection of commercial and personal confidential data. Inter-agency data- and work-sharing was evaluated in the context of harmonization and cooperation projects that focus on regulatory convergence. Technical and practical steps for establishing an openness directive for the pharmaceutical regulatory environment are proposed to improve and strengthen health systems in the Americas. Addressing these challenges requires leadership from entities such as the Pan American Health Organization to steer and support collaborative regional alliances that advance the development and establishment of a trustworthy regulatory environment and a sustainable public health system in the Americas, using international successful initiatives as reference and taking into account the domestic characteristics and experiences of each individual country.

C1 [Sousa, Varley Dias; Silveira, Damaris] Univ Brasilia, Dept Pharmaceut Sci, Brasilia, DF, Brazil.

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OI Ramalho, Pedro Ivo Sebba/0000-0002-1710-2500; Silveira, Damaris/0000-0003-1851-5224

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NR 37  
TC 0  
Z9 0  
U1 0  
U2 3  
PU PAN AMER HEALTH ORGANIZATION  
PI WASHINGTON  
PA 525 23RD ST NW, WASHINGTON, DC 20037 USA  
SN 1020-4989  
J9 REV PANAM SALUD PUBL  
JI Rev. Panam. Salud Publica  
PD MAY  
PY 2016  
VL 39  
IS 5  
BP 245  
EP 254  
PG 10  
WC Public, Environmental & Occupational Health  
SC Public, Environmental & Occupational Health  
GA EC9FA  
UT WOS:000388448600007  
PM 27706398  
DA 2019-08-06  
ER

PT J  
AU [Anonymous]  
AF [Anonymous]  
TI Willingness to Share Health Data  
SO INFORMATION-WISSENSCHAFT UND PRAXIS  
LA German  
DT News Item  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU WALTER DE GRUYTER GMBH  
PI BERLIN  
PA GENTHINER STRASSE 13, D-10785 BERLIN, GERMANY  
SN 1434-4653  
EI 1619-4292  
J9 INFORM-WISS PRAX  
JI Inform.-Wiss. Prax.  
PD MAY  
PY 2016  
VL 67

IS 2-3  
BP 133  
EP 133  
PG 1  
WC Computer Science, Information Systems; Information Science & Library  
Science  
SC Computer Science; Information Science & Library Science  
GA DL8DI  
UT WOS:000375869700010  
DA 2019-08-06  
ER

PT S  
AU Pei, X  
Wang, YJ  
Yao, W  
Lin, JC  
Peng, RX  
AF Pei, Xin  
Wang, Yongjian  
Yao, Wei  
Lin, Jiuchuan  
Peng, Ruxiang  
GP IEEE  
TI Security Enhanced Attribute Based Signcryption for Private Data Sharing  
in Cloud  
SO 2016 IEEE TRUSTCOM/BIGDATASE/ISPA  
SE IEEE Trustcom BigDataSE ISPA  
LA English  
DT Proceedings Paper  
CT 15th IEEE Int Conf on Trust, Security and Privacy in Comp and Commun /  
10th IEEE Int Conf on Big Data Science and Engineering / 14th IEEE Int  
Symposium on Parallel and Distributed Proc with Applicat (IEEE  
Trustcom/BigDataSE/ISPA)  
CY AUG 23-26, 2016  
CL Tianjin, PEOPLES R CHINA  
SP IEEE, IEEE Comp Soc, IEEE Tech Comm Scalable Comp  
DE data sharing; attribute based encryption; signcryption; proxy  
re-encryption; cloud security  
ID ENCRYPTION

AB The combination of signature and encryption techniques ensures data integrity and confidentiality in cloud. Researchers suggest the signcryption method to improve the efficiency during data signing, encrypting, verifying and decrypting procedures by integrating signature and encryption into a single function. However, the obscure use of keys and excessive cryptographical simplification reduce the system security levels. This paper proposes the identity and attribute based signcryption algorithm to enhance the security of storage and sharing of remote data. The proxy re-encryption and multi-attribute authority based signcryption techniques are used to achieve fault-tolerant attributes management and collusion-resistant system. In the Healthcare system, the attribute-based signature, encryption and signcryption methods are separately applied to scenarios of different data security levels in order to keep data access efficiency. Accordingly, the security properties and the access efficiencies of proposed algorithm are compared with known methods.

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FU Basic Scientific Research of Information Network Security of Ministry of Public Security [C16356]

FX This work was supported in part by the Special Funds for Basic Scientific Research C16356 of Information Network Security of Ministry of Public Security.

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Z9 0

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PU IEEE

PI NEW YORK

PA 345 E 47TH ST, NEW YORK, NY 10017 USA

SN 2324-9013

BN 978-1-5090-3205-1

J9 IEEE TRUST BIG

PY 2016

BP 737

EP 743

DI 10.1109/TrustCom.2016.130

PG 7

WC Computer Science, Information Systems; Computer Science, Theory & Methods

SC Computer Science

GA BH6MP

UT WOS:000401929800096

DA 2019-08-06

ER

PT S

AU Derler, D  
 Krenn, S  
 Slamanig, D

AF Derler, David  
 Krenn, Stephan  
 Slamanig, Daniel

BE Foresti, S  
 Persiano, G

TI Signer-Anonymous Designated-Verifier Redactable Signatures for  
 Cloud-Based Data Sharing

SO CRYPTOLOGY AND NETWORK SECURITY, CANS 2016

SE Lecture Notes in Computer Science

LA English

DT Proceedings Paper

CT 15th International Conference on Cryptology and Network Security (CANS)

CY NOV 14-16, 2016

CL Univ Studi Milano, Milan, ITALY

HO Univ Studi Milano

ID CONSTRUCTION; DEFINITIONS; FOUNDATIONS

AB Redactable signature schemes allow to black out predefined parts of a signed message without affecting the validity of the signature, and are therefore an important building block in privacy-enhancing cryptography. However, a second look shows, that for many practical applications, they cannot be used in their vanilla form. On the one hand, already the identity of the signer may often reveal sensitive information to the receiver of a redacted message; on the other hand, if data leaks or is sold, everyone getting hold of (redacted versions of) a signed message will be convinced of its authenticity.

We overcome these issues by providing a definitional framework and practically efficient instantiations of so called signer-anonymous designated-verifier redactable signatures (AD-RS). As a byproduct we also obtain the first group redactable signatures, which may be of independent interest. AD-RS are motivated by a real world use-case in the field of health care and complement existing health information sharing platforms with additional important privacy features. Moreover, our results are not limited to the proposed application, but can also be directly applied to various other contexts such as notary authorities or e-government services.

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OI Slamanig, Daniel/0000-0002-4181-2561; Derler, David/0000-0002-5345-3906

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TC 0  
Z9 0  
U1 1  
U2 3  
PU SPRINGER INTERNATIONAL PUBLISHING AG  
PI CHAM  
PA GEWERBESTRASSE 11, CHAM, CH-6330, SWITZERLAND  
SN 0302-9743  
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BN 978-3-319-48965-0; 978-3-319-48964-3  
J9 LECT NOTES COMPUT SC  
PY 2016  
VL 10052  
BP 211  
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DI 10.1007/978-3-319-48965-0\_13  
PG 17  
WC Computer Science, Information Systems; Computer Science, Theory & Methods  
SC Computer Science  
GA BG6CN  
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ER

PT B

AU Thakare, VR  
Singh, KJ

AF Thakare, Vaishali R.  
Singh, K. John

GP IEEE

TI Ternary Tree Based TGDH Protocol for Dynamic Secure Group Data Sharing  
In Healthcare Cloud

SO 2016 INTERNATIONAL CONFERENCE ON INVENTIVE COMPUTATION TECHNOLOGIES  
(ICICT), VOL 1

LA English

DT Proceedings Paper

CT IEEE International Conference on Inventive Computation Technologies  
(ICICT)

CY AUG 26-27, 2016

CL Coimbatore, INDIA

SP IEEE, IEEE Electron Devices Soc, RVS Tech Campus, Invent Res Org

DE Healthcare Cloud; TGDH protocol; Group Data Sharing; Security; and  
Ternary Tree

AB Healthcare requires continuous and systematic innovation in order to provide high quality services. Cloud computing is a new model of computing that promises to provide more flexibility, less expense and more efficient IT services to end-users. Large amount of sensitive data is shared by the healthcare cloud users. Here, privacy and security of group sharing data have become two major issues. The aim of this paper is to propose a ternary tree based TGDH protocol for dynamic group data sharing in healthcare cloud that could be used by a healthcare organization to share their data in dynamically secure groups containing other health organizations. Secure and reliable group communication in healthcare organizations is an increasingly active research area by growing popularity in group oriented and collaborative applications. Ternary tree approach covers more other healthcare members (organizations) in a subgroup and height of ternary tree will get increase when number of members in a group increase where height of tree is number of iterations required to compute group shared key.

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NR 13  
TC 0  
Z9 0  
U1 0  
U2 1  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
PY 2016  
BP 349  
EP 355  
PG 7  
WC Computer Science, Interdisciplinary Applications; Engineering,  
Electrical & Electronic  
SC Computer Science; Engineering  
GA BG9IN  
UT WOS:000393282500070  
DA 2019-08-06  
ER

PT B  
AU Vito, D  
Casagrande, G  
Bianchi, C  
Costantino, ML  
AF Vito, Domenico  
Casagrande, Giustina  
Bianchi, Camilla  
Costantino, Maria Laura  
GP IEEE  
TI An interoperable common storage system for shared dialysis clinical data  
SO 2016 IEEE EMBS International Student Conference (ISC)  
LA English  
DT Proceedings Paper  
CT IEEE EMBS International Student Conference (ISC)  
CY MAY 29-31, 2016  
CL Ottawa, CANADA  
SP IEEE EMBS, Carleton Univ, Fac Engn & Design, UOttawa, Fac Engn, TIM, IEEE  
Canadian Fdn, IEEE Ottawa Sect, Charlatan  
DE Dialysis; interoperability; federated database; data mining  
AB Interoperability stands in the ability of different information systems to  
exchange data. Today interoperability is highly requested in several departments  
of healthcare organizations. Dialysis facilities register a high delay in the  
possibility of data exchange, because the strong lack of standards results in a  
huge gap in having interoperable systems. This work represents a first effort to  
overcome the problems of interoperability of data related to dialysis units. A  
Federated DataBase System (FDBS) approach has been adopted to construct a common  
data repository. The storage system has been built by the Dialysis Data  
Infrastructure (DDI), a unique multilevel standardized data structure supported  
by the Dialysis MATlib (DM), an embedded Matlab (R) library, that's able to  
convert, harmonize and query the raw data coming from the dialysis treatment  
units into a common interoperable format. The DDI and DM have been developed in  
the context of the Italy-Switzerland cooperation project INTERREG DialysisIS, and  
currently contains 1018 dialysis sessions recorded referred to 145 patients.  
C1 [Vito, Domenico; Casagrande, Giustina; Bianchi, Camilla; Costantino, Maria  
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Wang W, 2009, P 2009 SPRING SIM MU

NR 12

TC 0

Z9 0

U1 0

U2 0

PU IEEE

PI NEW YORK

PA 345 E 47TH ST, NEW YORK, NY 10017 USA

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PY 2016

PG 4

WC Engineering, Biomedical

SC Engineering

GA BG5BH

UT WOS:000389320500030

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ER

PT J

AU Casey, C

Li, JL

Berry, M

AF Casey, Colleen

Li, Jianling

Berry, Michele

TI Interorganizational collaboration in public health data sharing

SO JOURNAL OF HEALTH ORGANIZATION AND MANAGEMENT

LA English

DT Article

DE Community planning; Collaboration; Public health; Data sharing; Interorganizational networks

ID ISOMORPHISM

AB Purpose - The purpose of this paper is to analyze the institutional and social forces that influence collaborative data sharing practices in cross-sector interorganizational networks. The analysis focusses on the data sharing practices between professionals in the transportation and public health sectors, areas prioritized for collaborative action to improve public health.

Design/methodology/approach - A mixed methods design is utilized. Electronic surveys were sent to 57 public health and 157 transportation professionals in a large major metropolitan area in the USA (response rate 39.7 percent). Focus

groups were held with 12 organizational leaders representing professionals in both sectors.

Findings - The application of the institutional-social capital framework suggests that professional specialization and organizational forces make it challenging for professionals to develop the cross-sector relationships necessary for cross-sector collaborative data sharing.

Research limitations/implications - The findings suggest that developing the social relationships necessary for cross-sector collaboration may be resource intensive. Investments are necessary at the organizational level to overcome the professional divides that limit the development of cross-sector relationships critical for collaborative data sharing. The results are limited to the data sharing practices of professionals in one metropolitan area.

Originality/value - Despite mandates and calls for increased cross-sector collaboration to improve public health, such efforts often fail to produce true collaboration. The study's value is that it adds to the theoretical conceptualization of collaboration and provides a deeper understanding as to why collaborative action remains difficult to achieve. Future study of collaboration must consider the interaction between professional specialization and the social relationships necessary for success.

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NR 42  
TC 0  
Z9 0  
U1 1  
U2 11  
PU EMERALD GROUP PUBLISHING LTD  
PI BINGLEY  
PA HOWARD HOUSE, WAGON LANE, BINGLEY BD16 1WA, W YORKSHIRE, ENGLAND  
SN 1477-7266  
EI 1758-7247  
J9 J HEALTH ORGAN MANAG  
JI J. Health Organ. Manag.  
PY 2016  
VL 30  
IS 6  
BP 855  
EP 871  
DI 10.1108/JHOM-05-2015-0082  
PG 17  
WC Health Policy & Services  
SC Health Care Sciences & Services  
GA EB2GJ  
UT WOS:000387175600004  
PM 27681021  
DA 2019-08-06  
ER  
  
PT B  
AU Nielsen, F  
Kovalevskaya, N  
AF Nielsen, Fiona  
Kovalevskaya, Nadezda  
BE Loizides, F  
Schmidt, B  
TI Genome sharing projects around the world: how you find data for your  
research  
SO POSITIONING AND POWER IN ACADEMIC PUBLISHING: PLAYERS, AGENTS AND  
AGENDAS  
LA English  
DT Proceedings Paper  
CT 20th International Conference on Electronic Publishing  
CY JUN 07-09, 2016  
CL Univ Gottingen, Gottingen, GERMANY

SP Altmetric, MDPI, Copernicus Publicat, Nature Commun  
HO Univ Gottingen

DE Genomic data; data access; data sharing; genomic data repositories;  
tools

AB Access to raw experimental research data and data reuse is a common hurdle in scientific research. Despite the mounting requirements from funding agencies that the raw data is deposited as soon as (or even before) the paper is published, multiple factors often prevent data from being accessed and reused by other researchers. The situation with the human genomic data is even more dramatic, since on the one hand human genomic data is probably the most important data to share - it lies at the heart of efforts to combat major health issues such as cancer, genetic diseases, and genetic predispositions for complex diseases like heart disease and diabetes. On the other hand, since it is sensitive and personal information, it is often exempt from data sharing requirements. DNAdigest investigates the barriers for ethical and efficient genomic data sharing and engages with all stakeholder groups, including researchers, librarians, data managers, software developers, policy makers, and the general public interested in genomics. Repositive offers services and tools that reduce the barriers for data access and reuse for the research community in academia, industry, and clinics. To address the most pressing problem for public genomic data: that of data discoverability, Repositive has built an online platform (repositive.io) providing a single point of entry to find and access available genomic research data.

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DOI [10.1038/461168a, DOI 10.1038/461168A]

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10.1016/j.atg.2014.09.013

NR 4

TC 0

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U2 2

PU IOS PRESS

PI AMSTERDAM

PA NIEUWE HEMWEG 6B, 1013 BG AMSTERDAM, NETHERLANDS

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PY 2016

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PG 3

WC Computer Science, Information Systems; Information Science & Library  
Science

SC Computer Science; Information Science & Library Science

GA BF8ZA

UT WOS:000385302800009

DA 2019-08-06

ER

PT J  
AU Dahi, A  
    Forgo, N  
    Jensen, S  
    Stauch, M  
AF Dahi, Alan  
    Forgo, Nikolaus  
    Jensen, Sarah  
    Stauch, Marc  
TI Using Patient Avatars to Promote Health Data Sharing Applications:  
    Perspectives and Regulatory Challenges  
SO EUROPEAN JOURNAL OF HEALTH LAW  
LA English  
DT Article  
DE information technology; health data; health apps; patient empowerment;  
    data protection law; medical devices law; software  
AB The potential of ICT to address problems in modern healthcare is considerable,  
and an ICT-driven revolution in healthcare appears imminent. Such developments  
may be viewed largely in positive terms. Thus they should result in enhanced  
treatment and care options, empowering patients - including by permitting  
greater self-management of illness outside hospital, while offering economic  
benefits and costs savings over traditional healthcare provision. However, the  
new possibilities also present manifold risks, such as of data breaches,  
encroachments on subject autonomy, as well as of other harms. This article  
considers some of the key regulatory challenges against the background of the  
progress of the current EU Commission-sponsored 'MyHealthAvatar' project.  
C1 [Dahi, Alan; Forgo, Nikolaus; Jensen, Sarah; Stauch, Marc] Leibniz Univ  
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RP Stauch, M (reprint author), Leibniz Univ Hannover, Inst Legal Informat, D-  
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CR Andoulsi I., 2013, EHEALTH LEGAL ETHICA, P27  
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    [Anonymous], 2015, SUMMARY REPORT PUBLI, P11  
    [Anonymous], COM 2014 219 FINAL, P13  
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NR 14  
TC 0  
Z9 0  
U1 0  
U2 0  
PU BRILL ACADEMIC PUBLISHERS  
PI LEIDEN  
PA PLANTIJNSTRAAT 2, P O BOX 9000, 2300 PA LEIDEN, NETHERLANDS  
SN 0929-0273  
EI 1571-8093  
J9 EUR J HEALTH LAW



JI Eur. J. Health Law  
PY 2016  
VL 23  
IS 2  
BP 175  
EP 194  
DI 10.1163/15718093-12341391  
PG 20  
WC Law  
SC Government & Law  
GA DO7UZ  
UT WOS:000377989800004  
PM 27228685  
DA 2019-08-06  
ER

PT J  
AU [Anonymous]  
AF [Anonymous]  
TI Doctor, meet my data Web-based health info can confuse patients and frustrate GPs. A better way to store, analyse and share health data online should strengthen the doctor-patient relationship  
SO NEW SCIENTIST  
LA English  
DT Editorial Material  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 2  
PU REED BUSINESS INFORMATION LTD  
PI SUTTON  
PA QUADRANT HOUSE THE QUADRANT, SUTTON SM2 5AS, SURREY, ENGLAND  
SN 0262-4079  
J9 NEW SCI  
JI New Sci.  
PD DEC 19  
PY 2015  
VL 228  
IS 3052  
BP 36  
EP 37  
PG 2  
WC Multidisciplinary Sciences  
SC Science & Technology - Other Topics  
GA CZ1MZ  
UT WOS:000366871200009  
DA 2019-08-06  
ER

PT J  
AU [Anonymous]  
AF [Anonymous]  
TI Sharing data to save lives  
SO NATURE MEDICINE  
LA English  
DT Editorial Material

AB Journals can and should ensure that they erect no barriers to fast and wide sharing of critical data during major public health emergencies. But funders and scientists must also play a part.

NR 0

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Z9 0

U1 0

U2 5

PU NATURE PUBLISHING GROUP

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J9 NAT MED

JI Nat. Med.

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PY 2015

VL 21

IS 11

BP 1235

EP 1235

PG 1

WC Biochemistry & Molecular Biology; Cell Biology; Medicine, Research & Experimental

SC Biochemistry & Molecular Biology; Cell Biology; Research & Experimental Medicine

GA CV9QH

UT WOS:000364621200001

PM 26540378

OA Bronze

DA 2019-08-06

ER

PT J

AU Van Panhuis, WG

Paul, P

Emerson, C

Wilder, R

Herbst, AJ

Heymann, D

AF Van Panhuis, Willem G.

Paul, Proma

Emerson, Claudia

Wilder, Richard

Herbst, Abraham J.

Heymann, David

TI BETTER DATA INTEGRATION AND SHARING CAN ACCELERATE RESEARCH AND POLICY FOR GLOBAL POPULATION HEALTH

SO AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE

LA English

DT Meeting Abstract

C1 [Van Panhuis, Willem G.; Paul, Proma] Univ Pittsburgh, Grad Sch Publ Hlth, Pittsburgh, PA USA.

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RI Van Panhuis, Willem/S-5495-2019  
OI Van Panhuis, Willem/0000-0002-7278-9982  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU AMER SOC TROP MED & HYGIENE  
PI MCLEAN  
PA 8000 WESTPARK DR, STE 130, MCLEAN, VA 22101 USA  
SN 0002-9637  
EI 1476-1645  
J9 AM J TROP MED HYG  
JI Am. J. Trop. Med. Hyg.  
PD OCT  
PY 2015  
VL 93  
IS 4  
SU S  
MA 677  
BP 205  
EP 205  
PG 1  
WC Public, Environmental & Occupational Health; Tropical Medicine  
SC Public, Environmental & Occupational Health; Tropical Medicine  
GA VB0ZJ  
UT WOS:000412844102419  
DA 2019-08-06  
ER

PT J  
AU Woods, S  
AF Woods, Susan  
TI Going mainstream: Online sharing of health data and test results with patients  
SO CANCER CYTOPATHOLOGY  
LA English  
DT Editorial Material  
ID EXPERIENCES  
C1 Connected Hlth, Vet Hlth Adm, Portland, ME 04101 USA.  
RP Woods, S (reprint author), Connected Hlth, Vet Hlth Adm, Portland, ME 04101 USA.  
CR Christensen K, 2013, J PARTICIPATORY MED, V5, pe38  
Debronkart D, 2013, BMJ-BRIT MED J, V346, DOI 10.1136/bmj.f1990  
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NR 6  
TC 0  
Z9 0  
U1 0  
U2 3  
PU WILEY-BLACKWELL  
PI HOBOKEN  
PA 111 RIVER ST, HOBOKEN 07030-5774, NJ USA  
SN 1934-662X

EI 1934-6638  
J9 CANCER CYTOPATHOL  
JI Cancer Cytopathol.  
PD JUL  
PY 2015  
VL 123  
IS 7  
BP 387  
EP 388  
DI 10.1002/cncy.21534  
PG 2  
WC Oncology; Pathology  
SC Oncology; Pathology  
GA CM8LP  
UT WOS:000357952800002  
PM 25833226  
OA Bronze  
DA 2019-08-06  
ER

PT J  
AU Carrier, J  
    Lord, C  
AF Carrier, Julie  
    Lord, Catherine  
TI Could networking and sharing (open) data in an international  
    collaborative effort unravel the mechanisms of sleep disturbances in  
    middle-aged women?  
SO MENOPAUSE-THE JOURNAL OF THE NORTH AMERICAN MENOPAUSE SOCIETY  
LA English  
DT Editorial Material  
ID POSTMENOPAUSAL WOMEN; MIDLIFE WOMEN; MENOPAUSAL TRANSITION; POOR SLEEP;  
    SYMPTOMS; INSOMNIA; HEALTH; ACTIGRAPHY; DURATION; DISEASE  
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NR 34

TC 0

Z9 0

U1 0

U2 2

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J9 MENOPAUSE

JI Menopause-J. N. Am. Menopause Soc.

PD JUL

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VL 22

IS 7

BP 691

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DI 10.1097/GME.0000000000000496

PG 2

WC Obstetrics & Gynecology

SC Obstetrics & Gynecology

GA CM1CE

UT WOS:000357416700004

PM 26079970

DA 2019-08-06

ER

PT J

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AF Loh, Brian C. S.

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TI Mobile Imagery eXchange (MIX) toolkit: data sharing for the unconnected

SO PERSONAL AND UBIQUITOUS COMPUTING

LA English

DT Article

DE Health care; Echocardiography; SMS; GSM; Image processing

ID AMERICAN SOCIETY

AB This paper proposes a healthcare solution that enables the sharing of medical videos in areas without satellite, broadband or mobile internet connectivity. Rural areas often encounter issues such as shortage of electricity, poor telecommunication services and lack of health facilities which have led to a deficiency of medical care in remote areas. The deployment of mobile devices for healthcare services is vital to alleviating these concerns. A majority of mobile device owners are located in developing nations, and the number of users is continually rising. These technologies effectively support remote health care due to their low-power requirements, multiple functionalities and custom applications. The Mobile Imagery eXchange (MIX) toolkit is a software application capable of converting echocardiogram videos into text for transmission through short message service (SMS), over a global system for mobile communications network. A smartphone or computer installed with the MIX toolkit can be utilized to deliver effective medical care within rural regions. To significantly shrink data size, video, image and file processing techniques are applied for analysis, segmentation, compression and conversion. Experiments show that data size reduction rates above 60 until 95 % are achievable when transforming imagery into text. Furthermore, in optimal conditions, the average SMS per image ranges from 9 to 23 text messages.

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NR 28

TC 0

Z9 0

U1 1

U2 8

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J9 PERS UBIQUIT COMPUT

JI Pers. Ubiquitous Comput.

PD JUL

PY 2015

VL 19

IS 3-4

SI SI

BP 723

EP 740

DI 10.1007/s00779-015-0835-2

PG 18

WC Computer Science, Information Systems; Telecommunications

SC Computer Science; Telecommunications

GA CM1WL

UT WOS:000357471100017

DA 2019-08-06

ER

PT S

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Sivapurapu, Mouli

Lee, Juhan

GP IEEE

TI Drops: A Multi-Producer and Multi-Consumer Data Sharing Framework with  
Human Experience

SO 2015 12TH ANNUAL IEEE CONSUMER COMMUNICATIONS AND NETWORKING CONFERENCE

SE IEEE Consumer Communications and Networking Conference

LA English

DT Proceedings Paper

CT 2015 12th Annual IEEE Consumer Communications and Networking Conference  
(CCNC)

CY JAN 09-12, 2015

CL Las Vegas, NV

DE Consumer Electronics; Internet of Things; IoT Protocols; IoT Data  
Framework

AB Just like the internet, Internet of things (IoT) with right standards and  
technologies, will impact multiple aspects of human lives including Smart Home,  
Smart Car and Healthcare. Healthcare of things (HoT) would enhance healthcare  
using the insight provided by sensor data. Healthcare users will subscribe to  
HoT services that use sensors to get activity data (such as steps walked, hours

slept and so on) along with other health vitals (such as heart rate, temperature and weight) to improve user's health. Similarly Smart home users subscribe to a Smart home cloud service that will use data from home sensors. Most of these IoT scenarios have multiple producer, multiple consumer (MPMC) environments, with multiple sensors as producers of data, and multiple IoT services as consumers of data. Current literature and standards provide many protocols for data paths (data transfers) in these MPMC environments that can be used for IoT. However, data paths in MPMC environment must be easily configurable and manageable by end users in order for IoT to be more appealing to a broader user community. Multiple sensors with multiple applications from each manufacturer to control them would not be preferred by users. Also, IoT users need to be able easily choose between multiple options for service providers. In this demonstration, we highlight how user experience perspectives impact the data framework design in MPMC environments, using our drops data framework infrastructure. We hope to have these concepts included IoT standardization efforts. This demonstration was also made at CES at the IEEE booth.

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Z9 0

U1 0

U2 0

PU IEEE

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J9 CONSUM COMM NETWORK

PY 2015

BP 601

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PG 2

WC Computer Science, Hardware & Architecture; Engineering, Electrical & Electronic; Telecommunications

SC Computer Science; Engineering; Telecommunications

GA BF1JL

UT WOS:000380402400106

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ER

PT B

AU Alamri, FS

Lee, KD

AF Alamri, Fahad Saeed

Lee, Ki Dong

GP IEEE

TI Secure Sharing of Health Data Over Cloud

SO 2015 5TH NATIONAL SYMPOSIUM ON INFORMATION TECHNOLOGY: TOWARDS NEW SMART WORLD (NSITNSW)

LA English

DT Proceedings Paper

CT 5th National Symposium on Information Technology - Towards New Smart World (NSITNSW)



CY FEB 17-19, 2015

CL Riyadh, SAUDI ARABIA

DE component; security; privacy; health data; data sharing

AB Modern information technology is increasingly used in healthcare with the goal to improve and enhance medical services and to reduce costs. In this context, the outsourcing of computation and storage resources to general IT providers (cloud computing) has become very appealing. As cloud computing is becoming more mature data outsourcing in public cloud is also gaining momentum including sensitive information like personal data, health data, media files and government documents. For sensitive data which is outsourced in public cloud, its encrypted uploads are recommended thus narrowing its utility scope in terms of processing and evaluation. To evaluate user requests obliviously on public cloud over sensitive encrypted data, we have formalized a system which protects not only the privacy of data but also the evaluation process that is carried on the public cloud. Throughout the system execution the cloud server will learn nothing useful except the reply cardinality.

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NR 18

TC 0

Z9 0

U1 0

U2 0

PU IEEE

PI NEW YORK

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PY 2015

PG 5

WC Computer Science, Theory & Methods; Engineering, Electrical & Electronic

SC Computer Science; Engineering

GA BF4PU

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ER

PT S  
AU Rosenberg, A  
Plaut, O  
AF Rosenberg, Aurelie  
Plaut, Olivier  
BE Geissbuhler, A  
Demongeot, J  
Mokhtari, M  
Abdulrazak, B  
Aloulou, H  
TI MonDossierMedical.ch: An Efficient Tool for Sharing Medical Data Between  
Patients and Doctors  
SO Inclusive Smart Cities and e-Health  
SE Lecture Notes in Computer Science  
LA English  
DT Proceedings Paper  
CT 13th International Conference on Smart Homes and Health Telematics  
(ICOST)  
CY JUN 10-12, 2015  
CL Univ Geneva, Geneva, SWITZERLAND  
SP CNRS UMI 2955, Image & Pervas Access Lab, Joseph Fourier Univ, Inst Mines  
Telecom, Geneva Univ Hosp, Natl Ctr Sci Res, Campus Biotech  
HO Univ Geneva  
DE Electronic health record; Geneva; MonDossierMedical.ch; Shared care  
plan; Shared medication list  
AB MonDossierMedical. ch is a project led by the canton of Geneva, making it  
possible for every patient to access his own electronic health record (EHR) and  
to share the medical files with his doctors. It was introduced across the canton  
in mid-2013, and provided to all patients free of charge. It is based on the  
first Swiss-wide eHealth-compliant pilot project "e-toile". The canton of Geneva  
developed " e-toile" as a public- private partnership together with Swiss Post  
and it was launched in 2011 in few municipalities. Back then, Geneva's EHR  
represented the first Swiss attempt to link all healthcare professionals in the  
treatment chain. Today, it serves more than 4,000 patients and 380 physicians.  
This number is growing regularly, as well as the health care institutions  
(private hospitals, labs) joining the community.  
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TC 0  
Z9 0  
U1 0  
U2 0  
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J9 LECT NOTES COMPUT SC  
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DI 10.1007/978-3-319-19312-0\_37

PG 6  
WC Computer Science, Information Systems; Computer Science, Theory & Methods  
SC Computer Science  
GA BF3HY  
UT WOS:000380544800037  
DA 2019-08-06  
ER

PT B  
AU Wang, XG  
Zhang, DD  
AF Wang, Xiao-guo  
Zhang, Dan-dan  
GP DEStech Publications, Inc  
TI The Research on the Design of Medical Data Exchange and Sharing Platform for Smart Healthcare  
SO 2015 INTERNATIONAL CONFERENCE ON SOFTWARE, MULTIMEDIA AND COMMUNICATION ENGINEERING (SMCE 2015)  
LA English  
DT Proceedings Paper  
CT International Conference on Software, Multimedia and Communication Engineering  
CY SEP 20-21, 2015  
CL HONG KONG  
DE Smart city; Smart health care; Cloud storage; Big data management; Medical data exchange platform; Data standards; XML  
AB This paper puts forward a solution for building a data exchange and sharing platform. The platform should satisfy the need of information interconnection and intercommunication between institutions among a whole city. The paper researched on big data management, cloud storage, medical data standardize and exchange platform, and then designed the platform. After researching, the paper designed a viable solution. According to analysis, the system should have functions as data acquisition, data processing, data storage, data management, data query and data mining. Medical institutions could use it to upload their own data, the system collected data from institutions, then saved and manage the data into cloud storage platform, by the other side, institutions could share the data in the platform while the system provided data query and mining. Finally, this paper gives an implementation for the platform.  
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NR 5  
TC 0  
Z9 0  
U1 0  
U2 3  
PU DESTTECH PUBLICATIONS, INC  
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PA 439 DUKE STREET, LANCASTER, PA 17602-4967 USA  
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PY 2015  
BP 344  
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WC Computer Science, Software Engineering; Computer Science, Theory & Methods  
SC Computer Science  
GA BF2TL  
UT WOS:000380498500059  
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PT S  
AU Xiao, L  
AF Xiao, Liang  
BE Bikakis, A  
Zheng, X  
TI An Agent-Oriented Data Sharing and Decision Support Service for Hubei Provincial Care Platform  
SO MULTI-DISCIPLINARY TRENDS IN ARTIFICIAL INTELLIGENCE, MIWAI 2015  
SE Lecture Notes in Artificial Intelligence  
LA English  
DT Proceedings Paper  
CT 9th International Workshop on Multi-Disciplinary Trends in Artificial Intelligence (MIWAI)  
CY NOV 13-15, 2015  
CL Fuzhou Univ, Fuzhou, PEOPLES R CHINA  
HO Fuzhou Univ  
DE Agent; Clinical data sharing; Clinical decision support; CDA; LCC  
ID SYSTEMS  
AB Research today is often dedicated in isolation to the fields of regional clinical data sharing and clinical decision support with closed boundary. A framework has been proposed in this paper for integrating agent-oriented data sharing and agent-oriented argumentation upon shared data, for the Hubei Provincial Care Platform. This is built upon the LCC technology and CDA standard, demonstrated with a hypertension management example, and in compliant with IHE XDS standard. The agent-oriented platform services will support, in the entire province, a regional collaborative health service paradigm where the right clinical data will be available at the right place at the right time, for making the right decision.  
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NR 17  
TC 0  
Z9 0  
U1 1  
U2 2  
PU SPRINGER-VERLAG BERLIN  
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PG 12  
WC Computer Science, Artificial Intelligence; Computer Science,  
Interdisciplinary Applications; Robotics  
SC Computer Science; Robotics  
GA BE1EH  
UT WOS:000367784700041  
DA 2019-08-06  
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Lu, Junye  
TI A Survey on Energy Harvesting and Integrated Data Sharing in Wireless  
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SO INTERNATIONAL JOURNAL OF DISTRIBUTED SENSOR NETWORKS  
LA English  
DT Review  
ID SENSOR NETWORKS; DESIGN; VIBRATIONS; SYSTEM; TECHNOLOGIES; SECURITY;  
NODES  
AB Wireless body area networks (WBANs) are important branches of wireless sensor  
networks (WSNs). They promise unobtrusive ambulatory health monitoring for real-  
time updates of patients' medical records that have aroused extensive attention  
in various fields. In recent years, one can find a lot of researches related to  
WBANs that have appeared in these literatures. But there are still many key

issues that need to be further investigated. This paper briefly introduces the architecture and features of WBANs. In this attempt, we focus mostly on energy acquisition, data integration and data sharing, and collaboration of WBANs, from the viewpoint of energy harvesting development, the social network and smartphone application in WBANs, and the integration of WBANs and cloud system networks computing to analyze related issues of WBANs. Finally, we put forward concluding remarks with several future research directions.

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FU Guangdong University of Petrochemical Technology [2012RC0106]; Educational Commission of Guangdong Province, China [2013KJCX0131]; Top Level Talents Project in "Sailing Plan" of Guangdong Province; Guangdong University [512030]; Science and Technology Program of Maoming City [0010041110629036]; Special Fund of Guangdong Higher School Talent Recruitment

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TI An empirical study on the performance evaluation of scientific data  
sharing platforms in China  
SO LIBRARY HI TECH  
LA English  
DT Article  
DE Performance measurement; Data management  
AB Purpose - The purpose of this paper is to conduct performance evaluation of  
eight main scientific data sharing platforms in China and find existing problems,  
thus providing reference for maximizing the value of scientific data and  
enhancing scientific research efficiency.  
Design/methodology/approach - First, the authors built an evaluation  
indicator system for the performance of scientific data sharing platforms. Next,  
the analytic hierarchy process was employed to set indicator weights. Then, the  
authors use experts grading method to give scored for each indicator and

calculated the scoring results of the scientific data sharing platform performance evaluation. Finally, an analysis of the results was conducted.

Findings - The performance evaluation of eight platforms is arranged by descending order by the value of F: the Data Sharing Infrastructure of Earth System Science (76.962), the Basic Science Data Sharing Center (76.595), the National Scientific Data Sharing Platform for Population and Health (71.577), the China Earthquake Data Center (66.296), the China Meteorological Data Sharing Service System (65.159), the National Agricultural Scientific Data Sharing Center (55.068), the Chinese Forestry Science Data Center (56.894) and the National Scientific Data Sharing & Service Network on Material Environmental Corrosion (Aging) (52.528). And some existing shortcomings such as the relevant policies and regulation, standards of data description and organization, data availability and the services should be improved.

Originality/value - This paper is mainly discussing about the performance evaluation system covering operation management, data resource, platform function, service efficiency and influence of eight scientific data sharing centers and made comparative analysis. It reflected the reality development of scientific data sharing in China.

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TI A Privacy Enhanced Search Approach for Cloud-Based Medical Data Sharing  
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(SMARTCITY)  
LA English  
DT Proceedings Paper  
CT IEEE Int Conf on Smart City/8th IEEE Int Conf on Soc Comp and Networking  
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SP IEEE, IEEE Comp Soc, IEEE Tech Comm Scalable Comp, Univ Elect Sci Technol of  
China, Asia Pacific Econ Cooperat, StFX Univ, Ubiquitous Media Commun Lab  
DE encrypted search; medical data; privacy protection; cloud computing  
AB With the development of healthcare industry, healthcare informatization  
provides great potential for the health-care improvement. The cloud computing  
platform, which is an important infrastructure for the inter( intra)-  
organization collaboration, provides a shared storage space to the medical data

sharing. For the privacy protection of medical data, sensitive data has to be encrypted before being transmitted to the cloud, which makes it more challenging to use these data in the cloud. For strengthening the utilization of encrypted cloud data, various encrypted search technologies are widely studied. However, these existing searchable encryption schemes may not enforce users' demands well. This paper proposes a privacy enhanced search approach for cloud-based medical data sharing. The proposed solution implements a hybrid search approach, where the search process is conducted across plaintext and ciphertext. Moreover, the enhanced access control can ensure the privacy protection of cloud data. The empirical experiments illustrate the effectiveness of our solution.

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TI Optimal Care Mother-Baby and Outcomes through Community-wide Data Sharing, Interoperability and Connectivity  
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CT 4th International Global Telehealth Conference (GT)  
CY MAY 29-30, 2015  
CL Canadas Hlth Informat Assoc, Toronto, CANADA  
SP Australasian Telehealth Soc  
HO Canadas Hlth Informat Assoc  
DE Integration; Interoperability; Electronic Medical Records (EMRs); Electronic Health Records (EHRs); Coordinated Care; Interprofessional Communication  
ID BIRTH  
AB The power of interoperable systems with data/information integration, central to achieving the goals of Telehealth, is illustrated through mutually beneficial sharing between Labor & Delivery (L&D) and Obstetrics (OBs) Clinics. Data shared between L&D and OB brought improved practice patterns and outcomes, and increased satisfaction at both. Staffing and skillsets were significantly improved by knowing complications arriving and anticipated volumes. OBs increased clinic efficiencies and improved patient-direct care time with improved clinical and cost outcomes.  
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NR 27  
TC 0  
Z9 0  
U1 1  
U2 1  
PU IOS PRESS  
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SN 0926-9630  
EI 1879-8365  
BN 978-1-61499-505-0; 978-1-61499-504-3  
J9 STUD HEALTH TECHNOL  
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WC Health Care Sciences & Services; Medical Informatics  
SC Health Care Sciences & Services; Medical Informatics  
GA BL6LQ  
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PM 25980718

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ER

PT S

AU Prey, JE  
Polubriaginof, F  
Kuperman, GJ  
Tiase, V  
Collins, SA  
Vawdrey, DK

AF Prey, Jennifer E.  
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Kuperman, Gilad J.  
Tiase, Victoria  
Collins, Sarah A.  
Vawdrey, David K.

BE Sarkar, IN  
Georgiou, A  
Marques, PMD

TI A Global Analysis of Approaches to Sharing Clinical Data with Patients

SO MEDINFO 2015: EHEALTH-ENABLED HEALTH

SE Studies in Health Technology and Informatics

LA English

DT Proceedings Paper

CT 15th World Congress on Health and Biomedical Informatics (MEDINFO)

CY AUG 19-23, 2015

CL Int Med Informat Assoc, Brazilian Hlth Informat Soc, Sao Paulo, BRAZIL

HO Int Med Informat Assoc, Brazilian Hlth Informat Soc

DE Personal Health Records; Consumer Health Information; Health Information  
Technology; Patients; International Perspectives

AB Engaging patients in their care has become a topic of increasing importance, and enabling patients to have access to their clinical data is a key aspect of such engagement. To investigate on an international scale the current state of approaches for providing patients with access to their own clinical information, individuals from 16 countries, across six continents, participated in cross-sectional semi-structured interviews. Interview questions focused on social and cultural influences that affected patient engagement activities, government support for current and planned initiatives, data ownership models, and technical issues. Substantive initiatives for providing information to patients in the majority of countries interviewed are present; however, these initiatives were diverse in nature and stage of implementation. Efforts to improve patient access to data are active on a global-scale. There are many open questions about best practices and much can be learned by adopting an international perspective to guide future implementation efforts.

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FU National Library of Medicine [T15LM007079]; Agency for Healthcare Research and Quality [R01HS21816]

FX This work was supported by grants from the National Library of Medicine (T15LM007079 - Hripcsak) and the Agency for Healthcare Research and

Quality (R01HS21816 - Vawdrey).

CR Giardina TD, 2014, J AM MED INFORM ASSN, V21, P737, DOI 10.1136/amiajnl-2013-002239

NR 1

TC 0

Z9 0

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SC Computer Science; Health Care Sciences & Services; Medical Informatics

GA BL7ZK

UT WOS:000455836700211

PM 26262209

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ER

PT S

AU Burgun, A

Oksen, DV

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Prokosch, HU

Ganslandt, T

Buchan, I

van Staa, T

Cunningham, J

Gjerstorff, ML

Dufour, JC

Gibrat, JF

Nikolski, M

Verger, P

Cambon-Thomsen, A

Masella, C

Lettieri, E

Bertele, P

Salokannel, M

Thiebaut, R

Persoz, C

Chene, G

Ohmann, C

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Oksen, Dina V.

Kuchinke, Wolfgang

Prokosch, Hans-Ulrich

Ganslandt, Thomas



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Cunningham, James  
Gjerstorff, Marianne L.  
Dufour, Jean-Charles  
Gibrat, Jean-Francois  
Nikolski, Macha  
Verger, Pierre  
Cambon-Thomsen, Anne  
Masella, Cristina  
Lettieri, Emanuele  
Bertele, Paolo  
Salokannel, Marjut  
Thiebaut, Rodolphe  
Persoz, Charles  
Chene, Genevieve  
Ohmann, Christian

BE Sarkar, IN  
Georgiou, A  
Marques, PMD

TI Proposal for a European Public Health Research Infrastructure for  
Sharing of health and Medical administrative data (PHRIMA)

SO MEDINFO 2015: EHEALTH-ENABLED HEALTH

SE Studies in Health Technology and Informatics

LA English

DT Proceedings Paper

CT 15th World Congress on Health and Biomedical Informatics (MEDINFO)

CY AUG 19-23, 2015

CL Int Med Informat Assoc, Brazilian Hlth Informat Soc, Sao Paulo, BRAZIL

HO Int Med Informat Assoc, Brazilian Hlth Informat Soc

DE Europe; data sharing; public health; research infrastructure

AB In Europe, health and medical administrative data is increasingly  
accumulating on a national level. Looking further than re-use of this data on a  
national level, sharing health and medical administrative data would enable  
large-scale analyses and European-level public health projects. There is  
currently no research infrastructure for this type of sharing. The PHRIMA  
consortium proposes to realise the Public Health Research Infrastructure for  
Sharing of health and Medical Administrative data (PHRIMA) which will enable and  
facilitate the efficient and secure sharing of healthcare data.

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FU INSERM/Aviesan Public Health Institute  
FX This work has received support from INSERM/Aviesan Public Health  
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CR ESFRI-European Strategy Forum on research Infrastructures, 2010, STRAT REP  
RES INFR  
NR 1  
TC 0  
Z9 0  
U1 1  
U2 4  
PU IOS PRESS  
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WC Computer Science, Interdisciplinary Applications; Health Care Sciences &  
Services; Medical Informatics  
SC Computer Science; Health Care Sciences & Services; Medical Informatics  
GA BL7ZK  
UT WOS:000455836700308  
PM 26262306  
DA 2019-08-06  
ER  
  
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AU Stuver, SO  
Fraile, B  
Donohue, CC  
Odejide, OO  
Abel, GA  
Dodek, A  
Fallon, JA  
Jacobson, JO  
AF Stuver, Sherri Oliver  
Fraile, Belen  
Donohue, Caitlin C.  
Odejide, Oreofe Olukeyi  
Abel, Gregory Alan  
Dodek, Anton  
Fallon, John A.  
Jacobson, Joseph O.  
TI Novel data sharing between a comprehensive cancer center and a private

payer to better understand care at the end of life  
SO JOURNAL OF CLINICAL ONCOLOGY  
LA English  
DT Meeting Abstract  
CT American-Society-of-Clinical-Oncology (ASCO) Quality Care Symposium  
CY OCT 17-18, 2014  
CL Boston, MA  
SP Amer Soc Clin Oncol  
C1 Dana Farber Canc Inst, Boston, MA 02115 USA.  
Blue Cross & Blue Shield Massachusetts, Boston, MA USA.  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU AMER SOC CLINICAL ONCOLOGY  
PI ALEXANDRIA  
PA 2318 MILL ROAD, STE 800, ALEXANDRIA, VA 22314 USA  
SN 0732-183X  
EI 1527-7755  
J9 J CLIN ONCOL  
JI J. Clin. Oncol.  
PD OCT 20  
PY 2014  
VL 32  
IS 30  
SU S  
MA 1  
PG 1  
WC Oncology  
SC Oncology  
GA CN2JU  
UT WOS:000358247800002  
DA 2019-08-06  
ER

PT J  
AU [Anonymous]  
AF [Anonymous]  
TI Pharma firms pool and share cancer trial data  
SO NATURE REVIEWS DRUG DISCOVERY  
LA English  
DT News Item  
CR 2010, NATURE REV DRUG DIS, V9, P499  
NR 1  
TC 0  
Z9 0  
U1 0  
U2 0  
PU NATURE PUBLISHING GROUP  
PI LONDON  
PA MACMILLAN BUILDING, 4 CRINAN ST, LONDON N1 9XW, ENGLAND  
SN 1474-1776  
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J9 NAT REV DRUG DISCOV  
JI Nat. Rev. Drug Discov.  
PD MAY  
PY 2014

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WC Biotechnology & Applied Microbiology; Pharmacology & Pharmacy  
SC Biotechnology & Applied Microbiology; Pharmacology & Pharmacy  
GA AG7TH  
UT WOS:000335621100004  
DA 2019-08-06  
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PT S  
AU Goudar, V  
Potkonjak, M  
AF Goudar, Vishwa  
Potkonjak, Miodrag  
GP IEEE  
TI A Robust Watermarking Technique for Secure Sharing of BASN Generated  
Medical Data  
SO 2014 IEEE INTERNATIONAL CONFERENCE ON DISTRIBUTED COMPUTING IN SENSOR  
SYSTEMS (IEEE DCOSS 2014)  
SE IEEE International Conference on Distributed Computing in Sensor Systems  
LA English  
DT Proceedings Paper  
CT 9th IEEE International Conference on Distributed Computing in Sensor  
Systems (DCOSS)  
CY MAY 26-28, 2014  
CL Marina Del Rey, CA  
SP IEEE, IEEE Comp Soc, Assoc Comp Machinery  
DE Body Area Networks; Watermarking; Medical Data Sharing; Medical Data  
Security  
ID SYSTEM  
AB As remote health monitoring BASN technology matures and begins to proliferate,  
several issues related to the secure sharing of the resulting medical electronic  
data have come to the fore. This includes the need to provide the data owner  
(BASN user /patient) and the data consumers (healthcare providers, insurance  
companies, medical research facilities) secure control over the medical data as  
it is shared between these various stakeholders. In this paper, we focus on  
three secure sharing use-cases: proof of ownership, wherein the data owner must  
prove that she/he is the originator of the data; data tracking, wherein the data  
owner must trace unauthorized sharing of her/his biosignal data; and content  
authentication, wherein the data owner must prove whether the biosignal data has  
been maliciously altered. To address these usecases, we develop a robust  
watermarking technique to embed security information into biosignal data such  
that the semantic fidelity of the data is unaffected, the bio-signal waveforms  
are altered imperceptibly, and the watermark is not easily corrupted, recovered  
or spoofed by malicious data consumers. Based on experimentally collected  
datasets from a gait-stability monitoring BASN, we show that our watermarking  
technique can robustly and effectively embed up to 1000 bit watermarks under  
these constraints.  
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Cox I T., 2008, DIGITAL WATERMARKING  
Goudar V, 2013, INT WORKS POW TIM, P75, DOI 10.1109/PATMOS.2013.6662158

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Noshadi H, 2010, BIOSIGNALS 2010: PROCEEDINGS OF THE THIRD INTERNATIONAL  
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Pawar P, 2012, J BIOMED INFORM, V45, P544, DOI 10.1016/j.jbi.2012.02.007  
Prasad A., 2013, COMM SYST NETW COMSN, P1, DOI DOI  
10.1109/COMSNETS.2013.6465599  
NR 12  
TC 0  
Z9 0  
U1 0  
U2 0  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
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J9 IEEE INT CONF DISTR  
PY 2014  
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DI 10.1109/DCOSS.2014.22  
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WC Computer Science, Hardware & Architecture; Engineering, Electrical &  
Electronic; Remote Sensing  
SC Computer Science; Engineering; Remote Sensing  
GA BD4RF  
UT WOS:000361020100024  
DA 2019-08-06  
ER  
  
PT B  
AU Hernandez, L  
Onieva, J  
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Onieva, Jorge  
Fico, Giuseppe  
Cancela, Jorge  
Dagliati, Arianna  
Bucalo, Mauro  
Sacchi, Lucia  
Bellazzi, Riccardo  
Arredondo, Maria T.  
GP IEEE  
TI A proposal of architecture to share patients data out of healthcare  
settings for research purposes  
SO 2014 IEEE-EMBS INTERNATIONAL CONFERENCE ON BIOMEDICAL AND HEALTH

INFORMATICS (BHI)  
LA English  
DT Proceedings Paper  
CT IEEE-EMBS International Conference on Biomedical and Health Informatics  
(BHI)  
CY JUN 01-04, 2014  
CL Valencia, SPAIN  
SP IEEE, EMBS  
AB The emerging of new Information and Communications Technologies (ICT), the aging population and the increased number of people suffering from chronic diseases are changing the health structure of developed countries. Given this situation, it is crucial that research based on demographics data is promoted and researchers can access large amounts of patient data, having this information validated by medical institutions. Currently, there are some platforms and web applications available that allow patients the self-management and control of their health and wellness information. Other platforms allow managing large amounts of patient data (demographic, diagnostic, laboratory and medication) and share patient cohorts considering different criteria of inclusion and exclusion. This paper proposes to use a selection of these platforms and it defines how to relate them to obtain a framework where the information provided by patients and medical institutions can be safely used and validated by researchers. Furthermore, the system will enable clinical researcher to share the results of their research in a controlled and safe environment.  
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RI dagliati, arianna/I-7119-2019; Fico, Giuseppe/K-3640-2017  
OI Fico, Giuseppe/0000-0003-1551-4613; dagliati,  
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FU CEI Moncloa; European Commission [600914]  
FX Research supported by CEI Moncloa and European Commission through the 7th Framework Programme project MOSAIC (Grant Agreement 600914).  
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NR 9  
TC 0  
Z9 0  
U1 0  
U2 0  
PU IEEE

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PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
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PY 2014  
BP 789  
EP 792  
PG 4  
WC Medical Informatics  
SC Medical Informatics  
GA BB8FN  
UT WOS:000346504900190  
DA 2019-08-06  
ER

PT S  
AU Goudar, V  
Potkonjak, M  
AF Goudar, Vishwa  
Potkonjak, Miodrag  
GP IEEE  
TI Addressing Biosignal Data Sharing Security Issues with Robust  
Watermarking  
SO 2014 ELEVENTH ANNUAL IEEE INTERNATIONAL CONFERENCE ON SENSING,  
COMMUNICATION, AND NETWORKING (SECON)  
SE IEEE International Conference on Sensing Communication and Networking  
LA English  
DT Proceedings Paper  
CT 11th IEEE Annual International Conference on Sensing, Communication, and  
Networking (SECON)  
CY JUN 30-JUL 03, 2014  
CL Singapore, SINGAPORE  
SP IEEE  
DE Body Area Networks; Watermarking; Medical Data Sharing; Medical Data  
Security  
ID NETWORKS

AB One of the most important infrastructure requirements in the domain of remote health monitoring BASNs is the secure collection and dissemination of the user's medical data. Data security desiderata in this application domain are not limited to ensuring the confidentiality and integrity of medical data that has been logged to a data sink. Requirements also arise from the need to provide the data owner (BAN user / patient) and the data consumers (healthcare providers, insurance companies, medical research facilities) secure control over the data as it is shared between these various stakeholders. Here, we study a robust watermarking technique to embed security information into biosignal data such that the semantic fidelity of the data is unaffected, while simultaneously ensuring that the watermark is not easily erased or corrupted by malicious data consumers. In doing so, we address three use-cases: proof of ownership, wherein the data owner can prove that she/he is the originator of the data; data tracking, wherein the data owner can trace unauthorized sharing of her/his biosignal data; and content authentication, wherein the data owner can prove whether the biosignal data has been maliciously altered. Based on experimentally collected datasets from a gait-stability monitoring BASN, we show that the embedding of 800 bit watermarks can be achieved robustly and effectively, with near-imperceptible changes to the signal waveform and no loss in the the signal's diagnostic quality.

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CR Anemaet WK, 1999, TOP GERIATR REHABIL, V15, P66  
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NR 18  
TC 0  
Z9 0  
U1 0  
U2 0  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
SN 2473-0440  
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J9 IEEE INT CONF SENS  
PY 2014  
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WC Computer Science, Hardware & Architecture; Remote Sensing; Telecommunications  
SC Computer Science; Remote Sensing; Telecommunications  
GA BI3AS  
UT WOS:000410657700082  
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PT S  
AU Frontoni, E  
Baldi, M  
Zingaretti, P  
Landro, V  
Misericordia, P  
AF Frontoni, Emanuele  
Baldi, Marco  
Zingaretti, Primo  
Landro, Vincenzo  
Misericordia, Paolo  
BE Garzia, F  
Thomas, G



Pritchard, DA  
TI Security issues for data sharing and service interoperability in eHealth systems: the Nu.Sa. test bed  
SO 2014 INTERNATIONAL CARNAHAN CONFERENCE ON SECURITY TECHNOLOGY (ICCST)  
SE International Carnahan Conference on Security Technology Proceedings  
LA English  
DT Proceedings Paper  
CT 48th Annual IEEE International Conference Carnahan on Security Technology (ICCST)  
CY OCT 13-16, 2014  
CL Rome, ITALY  
SP Inst Elect & Elect Engineers, IEEE Aerosp & Elect Syst Soc Sect, Coll Engn, IEEE, Lexington Chapter, Natl Cent Univ, Chung Shan Inst Sci & Technol, European Acad Sci & Arts, Wessex Inst Technol  
DE electronic health record; security; privacy; cloud  
AB The aim of the Nu. Sa. project is the definition of national level data standards to collect data coming from General Practitioners' Electronic Health Records and to allow secure data sharing between them. This paper introduces the Nu. Sa. framework and is mainly focused on security issues. A solution for secure data sharing and service interoperability is presented and implemented in the actual system used around Italy. The solution is strongly focused on privacy and correct data sharing with a complete set of tools devoted to authorization, encryption and decryption in a data sharing environment and a distributed architecture. The implemented system with more than one year of experiences in thousands of test cases shows a good feasibility of the approach and a future scalability in a cloud based architecture.  
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RI Baldi, Marco/O-5792-2015; Zingaretti, Primo/B-1678-2012; Frontoni, Emanuele/D-9838-2013  
OI Baldi, Marco/0000-0002-8754-5526; Zingaretti, Primo/0000-0002-5709-2159; Frontoni, Emanuele/0000-0002-8893-9244  
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NR 26  
TC 0  
Z9 0  
U1 0  
U2 0  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
SN 1071-6572  
BN 978-1-4799-3532-1  
J9 INT CARN CONF SECU  
PY 2014  
PG 6  
WC Computer Science, Information Systems; Computer Science, Theory &  
Methods  
SC Computer Science  
GA BE2QO  
UT WOS:000369865000033  
DA 2019-08-06  
ER  
  
PT J  
AU Bryar, JM  
Dalby, CK  
Anastas, S  
Brady, L  
Hassett, MJ  
Shulman, LN  
Jacobson, JO  
AF Bryar, Julie M.  
Dalby, Carole Kathleen  
Anastas, Susan  
Brady, Lauren  
Hassett, Michael J.  
Shulman, Lawrence N.  
Jacobson, Joseph O.  
TI Implementation of chemotherapy treatment plans (CTP) in a large  
comprehensive cancer center (CCC): The key roles of infrastructure and  
data sharing  
SO JOURNAL OF CLINICAL ONCOLOGY  
LA English  
DT Meeting Abstract  
CT ASCO's Quality Care Symposium  
CY NOV 01-02, 2013  
CL San Diego, CA  
SP ASCO

C1 [Bryar, Julie M.; Dalby, Carole Kathleen; Anastas, Susan; Brady, Lauren; Hassett, Michael J.; Shulman, Lawrence N.; Jacobson, Joseph O.] Dana Farber Canc Inst, Boston, MA 02115 USA.

RI Hassett, Michael/M-5032-2019

NR 0

TC 0

Z9 0

U1 0

U2 0

PU AMER SOC CLINICAL ONCOLOGY

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SN 0732-183X

EI 1527-7755

J9 J CLIN ONCOL

JI J. Clin. Oncol.

PD NOV 1

PY 2013

VL 31

IS 31

SU S

MA 20

DI 10.1200/jco.2013.31.31\_suppl.20

PG 1

WC Oncology

SC Oncology

GA AG6YR

UT WOS:000335565500021

DA 2019-08-06

ER

PT J

AU Beleut, M

Baudis, M

Thurk, M

Goetz, R

Egorov, M

Wiesenfeldt, M

Knuth, A

Schraml, P

Moch, H

Henco, K

AF Beleut, M.

Baudis, M.

Thuerk, M.

Goetz, R.

Egorov, M.

Wiesenfeldt, M.

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Schraml, P.

Moch, H.

Henco, K.

TI Integrative analysis of genomic and transcriptomic data reveals the presence of a novel molecular class of biomarkers shared by all cancer entities

SO EUROPEAN JOURNAL OF CANCER

LA English

DT Meeting Abstract

CT European Cancer Congress 2013 - 17th ECCO / 38th ESMO / 32nd ESTRO  
CY SEP 27-OCT 01, 2013  
CL Amsterdam, NETHERLANDS  
SP European Conf Clin Oncol, European Soc Therapeut Radiol & Oncol, European Soc  
Med Oncol, European Soc Surg Oncol, European Assoc Canc Res, European Oncol  
Nursing Soc, European Soc Paediat Oncol  
C1 [Beleut, M.; Henco, K.] PAREQ, Zurich, Switzerland.  
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RI Baudis, Michael/J-4602-2012  
OI Baudis, Michael/0000-0002-9903-4248  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU ELSEVIER SCI LTD  
PI OXFORD  
PA THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND  
SN 0959-8049  
EI 1879-0852  
J9 EUR J CANCER  
JI Eur. J. Cancer  
PD SEP  
PY 2013  
VL 49  
SU 2  
MA 504  
BP S98  
EP S98  
PG 1  
WC Oncology  
SC Oncology  
GA 250HY  
UT WOS:000326843600348  
DA 2019-08-06  
ER  
  
PT S  
AU Ganzinger, M  
    Knaup, P  
AF Ganzinger, Matthias  
    Knaup, Petra  
BE Lehmann, CU  
    Ammenwerth, E  
    Nohr, C  
TI Semantic Prerequisites for Data Sharing in a Biomedical Research Network  
SO MEDINFO 2013: PROCEEDINGS OF THE 14TH WORLD CONGRESS ON MEDICAL AND  
HEALTH INFORMATICS, PTS 1 AND 2  
SE Studies in Health Technology and Informatics  
LA English  
DT Proceedings Paper  
CT 14th World Congress on Medical and Health Informatics (MEDINFO)  
CY AUG 20-23, 2013

CL Copenhagen, DENMARK  
DE Biomedical research network; ontology; vocabulary  
AB We investigated for a research network on liver cancer semantic prerequisites for successful data sharing. To support collaboration with information technology, it is important to annotate research data with metadata. Ideally, all data handled are described ontologically to allow for automated reasoning. However, a complete ontology is hard to define. As a preliminary step we acquired a project wide common vocabulary by interviewing project partners. The vocabulary contains terms for describing the projects' processes and related data. Where the vocabulary intersects with Unified Medical Language System (UMLS) terms, the terms will be replaced by UMLS-terms. Cell line data are a subclass of the data handled in our research network. For these data we reviewed existing ontologies and developed a new ontology for cell lines. The Cell Culture Ontology (CCONT) reuses existing ontologies and enhances those with more specific cell line related properties to achieve a comprehensive description of cell lines. The results of our work can be transferred to other research networks with a similarly limited biomedical scope.  
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RP Ganzinger, M (reprint author), Heidelberg Univ, Inst Med Biometry & Informat, Heidelberg, Germany.  
CR Ganzinger M, 2012, PLOS ONE, V7, DOI 10.1371/journal.pone.0048584  
Malone J, 2010, BIOINFORMATICS, V26, P1112, DOI 10.1093/bioinformatics/btq099  
NR 2  
TC 0  
Z9 0  
U1 0  
U2 0  
PU IOS PRESS  
PI AMSTERDAM  
PA NIEUWE HEMWEG 6B, 1013 BG AMSTERDAM, NETHERLANDS  
SN 0926-9630  
BN 978-1-61499-289-9; 978-1-61499-288-2  
J9 STUD HEALTH TECHNOL  
PY 2013  
VL 192  
BP 938  
EP 938  
DI 10.3233/978-1-61499-289-9-938  
PG 1  
WC Health Care Sciences & Services; Medical Informatics  
SC Health Care Sciences & Services; Medical Informatics  
GA BB1DZ  
UT WOS:000341021700206  
PM 23920712  
DA 2019-08-06  
ER  
  
PT S  
AU Zhou, J  
Yang, ZY  
AF Zhou, Jun  
Yang, Zhenyu  
BE Yarlagadda, P  
Yang, SF  
Lee, KM  
TI Data Privacy Preservation in Wireless Sensor Networks Based on Multi-Secret Sharing Scheme

SO INFORMATION TECHNOLOGY APPLICATIONS IN INDUSTRY II, PTS 1-4  
SE Applied Mechanics and Materials  
LA English  
DT Proceedings Paper  
CT 2nd International Conference on Information Technology and Management  
Innovation (ICITMI 2013)  
CY JUL 23-24, 2013  
CL Zhuhai, PEOPLES R CHINA  
DE WSN; data privacy; multi-secret; digital watermarking; threshold  
AB The Internet of things is widespread concerned by the whole society now. As  
an important component of the Internet of things, wireless sensor network has  
wide application prospect in various fields such as medical and health, military  
defense. The traditional data privacy protection technology of PKI system used  
in the WSN networks has its own weakness. This paper presents the secret key  
sharing mechanism to protect data privacy. The secret key, remote node and base  
station used to communicate, was divided into multiple secrets. The multiple  
secrets were distributed in the nodes which connect directly to the base station  
node. Only through collect more than threshold number of multi-secret that can  
decrypt the communication data between the base station and the remote node. To  
be safer, we used digital watermarking technology to protect the data  
transmission between the base station and the aggregate node. These techniques  
combined with the data slice, homomorphism encryption technology to protect data  
privacy, construct a safe and efficient wireless sensor networks.  
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NR 6  
TC 0  
Z9 0  
U1 0  
U2 0  
PU TRANS TECH PUBLICATIONS LTD  
PI STAFA-ZURICH  
PA LAUBLSRUTISTR 24, CH-8717 STAFA-ZURICH, SWITZERLAND  
SN 1660-9336  
BN 978-3-03785-864-6  
J9 APPL MECH MATER  
PY 2013  
VL 411-414  
BP 141  
EP 144  
DI 10.4028/www.scientific.net/AMM.411-414.141  
PG 4  
WC Engineering, Mechanical; Materials Science, Multidisciplinary; Mechanics  
SC Engineering; Materials Science; Mechanics  
GA BA5GU  
UT WOS:000336641400029  
DA 2019-08-06  
ER

PT B  
AU Klein, EL  
Heines, JM  
AF Klein, Edward L.  
Heines, Jesse M.  
GP IEEE  
TI Visualization of Privacy Filters for Sharing Sensor-based Health Data  
SO 2013 IEEE INTERNATIONAL CONFERENCE ON HEALTHCARE INFORMATICS (ICHI 2013)  
LA English  
DT Proceedings Paper  
CT 1st IEEE International Conference on Healthcare Informatics (ICHI)  
CY SEP 09-11, 2013  
CL Philadelphia, PA  
SP IEEE, IEEE Comp Soc  
AB This research explores interactive data visualization techniques for understanding how privacy filters in an electronic personal health record system govern the sharing of sensed health data. The research is intended to reveal insight into how well users can grasp the concepts of privacy and manipulate graphical entities to control how much and what aspects of their personal health records they are willing to share with family, friends, medical teams, and others.  
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NR 0  
TC 0  
Z9 0  
U1 0  
U2 1  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
BN 978-0-7695-5089-3  
PY 2013  
BP 481  
EP 481  
DI 10.1109/ICHI.2013.69  
PG 1  
WC Medical Informatics  
SC Medical Informatics  
GA BA1QP  
UT WOS:000332894400063  
DA 2019-08-06  
ER

PT J  
AU Coory, MD  
Fry, CL  
AF Coory, Michael D.  
Fry, Craig L.  
TI Towards sharing health-services data  
SO MEDICAL JOURNAL OF AUSTRALIA  
LA English  
DT Editorial Material  
ID INFORMATION

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NR 16

TC 0

Z9 0

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PU AUSTRALASIAN MED PUBL CO LTD

PI PYRMONT

PA LEVEL 2, 26-32 PYRMONT BRIDGE RD, PYRMONT, NSW 2009, AUSTRALIA

SN 0025-729X

J9 MED J AUSTRALIA

JI Med. J. Aust.

PD APR 16

PY 2012

VL 196

IS 7

BP 438

EP 439

DI 10.5694/mja11.11238

PG 2

WC Medicine, General & Internal

SC General & Internal Medicine

GA 930WO

UT WOS:000303175600006

PM 22509866

DA 2019-08-06

ER

PT B

AU Goldstein, AD

Hillman, RE

AF Goldstein, Anatoly D.

Hillman, Robert E.



BE Zhang, C  
Joshi, J  
Bertino, E  
Thuraisingham, B  
TI Integration, Reuse and Sharing of Data on Voice Disorders  
SO 2012 IEEE 13TH INTERNATIONAL CONFERENCE ON INFORMATION REUSE AND  
INTEGRATION (IRI)  
LA English  
DT Proceedings Paper  
CT 13th IEEE International Conference on Information Reuse and Integration  
(IEEE IRI) / DIM / WICSOC / IEEE EM- RITE / IRI-HI  
CY AUG 08-10, 2012  
CL Las Vegas, NV  
SP IEEE Syst Man & Cybernet Soc (IEEE SMC), Soc Informat Reuse & Integrat (SIRI),  
IEEE  
DE APM Website; Database for Voice Disorders; Healthcare Data Reuse; Online  
Data Sharing  
ID PATHOLOGY  
AB This paper describes a set of software tools which facilitate the automated  
processing of clinical voice (laryngeal) evaluation results, thus assisting  
doctors in voice disorder diagnostics, treatment and related research. The  
software tools include a website and a number of client/server applications  
developed by the authors at the Massachusetts General Hospital (MGH) for patient  
voice data entry, storage, retrieval, reporting, reuse and sharing on the web in  
de-identified form. The website software is integrated with existing commercial  
clinical software to support multi-institutional research collaboration. Design  
of the client/server applications includes automatic reuse of standard MGH  
outpatient and surgical schedules. An additional application has been developed  
to facilitate the remote retrieval and review of recorded clinical endoscopic  
examinations based on the reuse of commercial viewer software and database. A  
new general model is suggested for web-based sharing and mining of research data  
processed by means of a specific desktop computer program.  
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NR 14  
TC 0  
Z9 0

U1 0  
U2 2  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
BN 978-1-4673-2284-3  
PY 2012  
BP 407  
EP 414  
PG 8  
WC Computer Science, Theory & Methods; Engineering, Electrical & Electronic  
SC Computer Science; Engineering  
GA BDC08  
UT WOS:000312540300060  
DA 2019-08-06  
ER

PT S  
AU Solomonides, T  
AF Solomonides, Tony  
BE Desai, N  
Liu, A  
Winikoff, M  
TI Healthgrids, the SHARE Project, Medical Data and Agents: Retrospect and Prospect  
SO PRINCIPLES AND PRACTICE OF MULTI-AGENT SYSTEMS  
SE Lecture Notes in Artificial Intelligence  
LA English  
DT Proceedings Paper  
CT 13th International Conference on Principles and Practice of Multi-Agent Systems  
CY NOV 12-15, 2010  
CL Kolkata, INDIA  
SP Smart Serv CRC  
DE Healthgrids; cloud computing; electronic patient records; data protection; medical knowledge; agents  
AB The application of grid computing to biomedical research domains in the early years of the century has opened up promising prospects for the extension of this philosophy to translational medicine and hence to personalized healthcare. As the business side of the healthcare 'enterprise' also moves to take advantage of the related technology of cloud computing, the management of personal healthcare data on one hand, and of medical knowledge on the other, come to the fore as the principal challenges for successful adoption. We conclude by exploring the potential role of agents to address this and related challenges.  
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NR 5  
TC 0  
Z9 0  
U1 0

U2 0  
PU SPRINGER-VERLAG BERLIN  
PI BERLIN  
PA HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY  
SN 0302-9743  
BN 978-3-642-25919-7  
J9 LECT NOTES ARTIF INT  
PY 2012  
VL 7057  
BP 523  
EP 534  
PG 12  
WC Computer Science, Artificial Intelligence; Computer Science, Information Systems  
SC Computer Science  
GA BBJ71  
UT WOS:000307084200038  
DA 2019-08-06  
ER

PT J  
AU Gkoulalas-Divanis, A  
Cope, EW  
AF Gkoulalas-Divanis, A.  
Cope, E. W.  
TI A publication process model to enable privacy-aware data sharing  
SO IBM JOURNAL OF RESEARCH AND DEVELOPMENT  
LA English  
DT Article  
ID LINKAGE; TESTS  
AB As the Internet continues to permeate and connect communities, businesses, and things, there is an increasing demand for new approaches and technologies to analyze and synthesize data generated from diverse and distributed sources. In addition, this data must be accessible to a set of users having different analytic objectives and viewpoints. We examine these topics in light of the growing number of data consortia in sectors such as finance and healthcare, whose role is to share data among a set of contributing members. We address the need for data consortia to apply data customization and context-alignment services to make heterogeneous data relevant for its subscribers. Such services include record linkage, record selection, and scaling and homogeneity analysis. In addition, the often personal or business-sensitive nature of such data requires that privacy-preservation methods be employed to avoid improper disclosures. We provide a publication process model for data consortia that allow users to extract the maximum amount of information from these heterogeneous databases in a privacy-aware manner. We describe the Operational Riskdata eXchange (ORX) as a successful case study to illustrate these concepts.  
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0255(00)00013-X  
NR 33  
TC 0  
Z9 0  
U1 0  
U2 7  
PU IBM CORP  
PI ARMONK  
PA 1 NEW ORCHARD ROAD, ARMONK, NY 10504 USA  
SN 0018-8646  
J9 IBM J RES DEV  
JI IBM J. Res. Dev.  
PD SEP-OCT  
PY 2011  
VL 55  
IS 5  
AR 8  
DI 10.1147/JRD.2011.2163279  
PG 10  
WC Computer Science, Hardware & Architecture; Computer Science, Information  
Systems; Computer Science, Software Engineering; Computer Science,  
Theory & Methods  
SC Computer Science  
GA 908PA  
UT WOS:000301501100008  
DA 2019-08-06  
ER

PT J  
AU Lee, J  
AF Lee, J.  
TI INTERNATIONAL DATA SETS ON HEALTH: DATA COLLECTION AND SHARING FOR  
POLICY DESIGN  
SO JOURNAL OF EPIDEMIOLOGY AND COMMUNITY HEALTH  
LA English  
DT Meeting Abstract  
C1 [Lee, J.] RAND Corp, Santa Monica, CA USA.  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU B M J PUBLISHING GROUP  
PI LONDON  
PA BRITISH MED ASSOC HOUSE, TAVISTOCK SQUARE, LONDON WC1H 9JR, ENGLAND  
SN 0143-005X  
J9 J EPIDEMIOL COMMUN H  
JI J. Epidemiol. Community Health  
PD AUG  
PY 2011  
VL 65  
SU 1  
BP A27  
EP A27  
DI 10.1136/jech.2011.142976a.70  
PG 1  
WC Public, Environmental & Occupational Health  
SC Public, Environmental & Occupational Health  
GA 807MG  
UT WOS:000293901800071  
OA Bronze  
DA 2019-08-06  
ER

PT J  
AU Rechis, R  
Nutt, S  
AF Rechis, Ruth  
Nutt, Stephanie  
TI ENLISTING PARTNERS IN DATA COLLECTION AND SHARING DATA WITH COMMUNITIES:  
THE 2010 LIVESTRONG SURVEY FOR PEOPLE AFFECTED BY CANCER  
SO ANNALS OF BEHAVIORAL MEDICINE  
LA English  
DT Meeting Abstract  
C1 [Rechis, Ruth; Nutt, Stephanie] LIVESTRONG, Austin, TX USA.  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU SPRINGER  
PI NEW YORK  
PA 233 SPRING ST, NEW YORK, NY 10013 USA  
SN 0883-6612  
J9 ANN BEHAV MED

JI Ann. Behav. Med.  
PD APR  
PY 2011  
VL 41  
SU 1  
BP S144  
EP S144  
PG 1  
WC Psychology, Multidisciplinary  
SC Psychology  
GA 747CK  
UT WOS:000289297701053  
DA 2019-08-06  
ER

PT S  
AU Masud, M  
AF Masud, Mehedi  
GP IEEE  
TI INTEROPERABILITY AND DATA SHARING SETTINGS IN A HEALTHCARE DATA  
MANAGEMENT SYSTEM  
SO 2011 IEEE INTERNATIONAL CONFERENCE ON MULTIMEDIA AND EXPO (ICME)  
SE IEEE International Conference on Multimedia and Expo  
LA English  
DT Proceedings Paper  
CT IEEE International Conference on Multimedia and Expo (ICME)  
CY JUL 11-15, 2011  
CL Univ Ramon Llull, La Salle, Barcelona, SPAIN  
SP IEEE, IEEE Signal Proc Soc, IEEE Circuits & Syst Soc, IEEE Comp Soc, IEEE  
Commun Soc

HO Univ Ramon Llull, La Salle  
DE Data sharing; peer to peer; healthcare  
AB Over the last years, the Internet has become the backbone of the information processing environments. The peer to peer concept is ideal for the development of a healthcare data sharing system because it respects the internal autonomy of each of the participating agencies (e. g. physicians, clinics, pharmacies, laboratories, etc). In this paper we introduce interoperability and data sharing settings considering a healthcare data management system where two parties or peers exchange and share data without any middleware data management system. We assume that databases in peers or data sources are created independently and may have semantic inter-dependencies with regards to data. Each peer specifies pairwise data sharing settings/mappings with acquainted peers for sharing and exchanging related data.

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TC 0

Z9 0  
U1 0  
U2 0  
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PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
SN 1945-7871  
BN 978-1-61284-349-0  
J9 IEEE INT CON MULTI  
PY 2011  
PG 6  
WC Computer Science, Information Systems; Computer Science, Software  
Engineering; Computer Science, Theory & Methods; Engineering, Electrical  
& Electronic  
SC Computer Science; Engineering  
GA BAJ50  
UT WOS:000304354700206  
DA 2019-08-06  
ER

PT B  
AU Tsai, SY  
Ho, HW  
Lin, YR  
Lu, CY  
AF Tsai, Shang-Yueh  
Ho, Hsiang-Wei  
Lin, Yi-Ru  
Lu, Chin-Yu  
BE Chua, CK  
Lee, MY  
Guan, YL  
Chen, JP  
Luo, KQ  
Lai, CS  
Kwoh, CK  
Lee, JD  
Chian, KS  
Wu, SL

TI THE POTENTIAL OF DATA SHARING RADIAL  
PROTONECHO-PLANAR-SPECTROSCOPIC-IMAGING (rPEPSI) FOR TE-AVERAGED  
GLUTAMATE MAPPING  
SO FIRST INTERNATIONAL SYMPOSIUM ON BIOENGINEERING (ISOB 2011), PROCEEDINGS  
LA English  
DT Proceedings Paper  
CT 1st International Symposium on Bioengineering  
CY JAN 19, 2011  
CL Nanyang Technol Univ, Singapore, SINGAPORE  
SP Nanyang Technol Univ, Coll Engn, Chang Gung Univ  
HO Nanyang Technol Univ  
ID PROJECTION RECONSTRUCTION; BRAIN; CANCER  
AB Glutamate (Glu) is a major primary excitatory neurotransmitter of the central nervous system Recently a TE-averaged MRS is proposed to simplify the quantification of the Glu peak using successive shift echo time in scan parameter at the expense of prolonged scan time. Here we propose to map the 2D Glu distribution in the brain using radial Proton Echo Planar Spectroscopic Imaging (rPEPSI). The radial readout trajectory is superior in possible data

sharing property which makes it more flexible in combination with TE-averaged technique.

C1 [Tsai, Shang-Yueh; Ho, Hsiang-Wei] Chang Gung Univ, Tao Yuan 333, Taiwan.  
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U2 0  
PU RESEARCH PUBLISHING SERVICES  
PI SINGAPORE  
PA NO 83 GENTING LANE, #08-01, GENTING BUILDING, SINGAPORE, 349568, SINGAPORE  
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PY 2011  
BP 96  
EP 103  
DI 10.3850/978-981-08-7615-9\_FI04  
PG 8  
WC Engineering, Biomedical  
SC Engineering  
GA BTS10  
UT WOS:000287943400013  
DA 2019-08-06  
ER

PT J  
AU Lee, J  
AF Lee, J.  
TI DATA SETS ON HEALTH AND RETIREMENT: DATA COLLECTION AND SHARING FOR POLICY DESIGN  
SO GERONTOLOGIST  
LA English  
DT Meeting Abstract  
C1 [Lee, J.] RAND, Santa Monica, CA USA.  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 1  
PU OXFORD UNIV PRESS INC



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SN 0016-9013  
J9 GERONTOLOGIST  
JI Gerontologist  
PD OCT  
PY 2010  
VL 50  
SU 1  
BP 249  
EP 249  
PG 1  
WC Gerontology  
SC Geriatrics & Gerontology  
GA 703UL  
UT WOS:000286006702312  
DA 2019-08-06  
ER

PT J  
AU Schaari, B  
    Jurges, H  
    Hank, K  
AF Schaari, B.  
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TI The survey bnung biometric data in the Survey of Health Ageing and  
    Retirement in Europe (SHARE)  
SO ZEITSCHRIFT FUR GERONTOLOGIE UND GERIATRIE  
LA German  
DT Meeting Abstract  
NR 0  
TC 0  
Z9 0  
U1 0  
U2 0  
PU SPRINGER HEIDELBERG  
PI HEIDELBERG  
PA TIERGARTENSTRASSE 17, D-69121 HEIDELBERG, GERMANY  
SN 0948-6704  
J9 Z GERONTOL GERIATR  
JI Z. Gerontol. Geriatr.  
PD SEP  
PY 2010  
VL 43  
SU 1  
BP 89  
EP 89  
PG 1  
WC Geriatrics & Gerontology; Gerontology  
SC Geriatrics & Gerontology  
GA 646EN  
UT WOS:000281519900294  
DA 2019-08-06  
ER

PT S  
AU Simpson, A

Slaymaker, M  
Gavaghan, D  
AF Simpson, Andrew  
Slaymaker, Mark  
Gavaghan, David  
BE Lambrix, P  
Kemp, G  
TI On the Secure Sharing and Aggregation of Data to Support Systems Biology  
Research  
SO DATA INTEGRATION IN THE LIFE SCIENCES  
SE Lecture Notes in Bioinformatics  
LA English  
DT Proceedings Paper  
CT 7th International Conference on Data Integration in the Life Sciences  
CY AUG 25-27, 2010  
CL Gothenburg, SWEDEN  
ID DATA INTEGRATION; LIFE SCIENCES; HEALTH-CARE; DRIVEN FRAMEWORK;  
BIOINFORMATICS; TRANSFORMATION; MODEL  
AB The development of tools and technologies to facilitate appropriate and  
effective data sharing is becoming increasingly important in many academic  
disciplines. In particular, the 'data explosion' problem associated with the  
Life Sciences has been recognised by many researchers and commented upon widely,  
as have the associated data management problems. In this paper we describe how a  
middleware framework that supports the secure sharing and aggregation of data  
from heterogeneous data sources developed initially to underpin the sharing of  
healthcare-related data-is being used to support Systems Biology research at the  
University of Oxford. As well as giving an overview of the framework and its  
application, we attempt to set our work within the wider context of the emerging  
challenges associated with data sharing within the Life Sciences.  
C1 [Simpson, Andrew; Slaymaker, Mark; Gavaghan, David] Univ Oxford, Comp Lab,  
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RP Simpson, A (reprint author), Univ Oxford, Comp Lab, Wolfson Bldg, Pk Rd,  
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OI gavaghan, david/0000-0001-8311-3200  
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NR 32  
TC 0  
Z9 0  
U1 1  
U2 2  
PU SPRINGER-VERLAG BERLIN  
PI BERLIN  
PA HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY  
SN 0302-9743  
BN 978-3-642-15119-4  
J9 LECT N BIOINFORMAT  
JI Lect. Notes Bioinforma.  
PY 2010  
VL 6254  
BP 58  
EP 73  
PG 16  
WC Biochemical Research Methods; Computer Science, Artificial Intelligence;  
Computer Science, Information Systems; Mathematical & Computational  
Biology  
SC Biochemistry & Molecular Biology; Computer Science; Mathematical &  
Computational Biology  
GA BUJ15  
UT WOS:000289493600006  
DA 2019-08-06  
ER  
  
PT S  
AU Al-Neyadi, F  
Abawajy, J  
AF Al-Neyadi, Fahed  
Abawajy, Jemal  
BE Kim, TH  
Lee, YH  
Kang, BH  
Slezak, D  
TI A Privacy Preserving Service Broker Architecture for Data Sharing  
SO FUTURE GENERATION INFORMATION TECHNOLOGY  
SE Lecture Notes in Computer Science  
LA English  
DT Proceedings Paper  
CT 2nd International Mega-Conference on Future Generation Information

Technology

CY DEC, 2010

CL Jeju Island, SOUTH KOREA

DE Privacy Preservation; Data Sharing; Data Management; Privacy; Healthcare data; Database

AB The problem addressed in this paper is how to ensure data privacy concerns when data is shared between multiple organisations. In domains such as healthcare, there is a need to share privacy-sensitive data among autonomous but cooperating organisations. However, security concerns and compliance to privacy regulations requiring confidentiality of the data renders unrestricted access to organisational data by others undesirable. The challenge is how to guarantee privacy preservations for the owners of the information that are willing to share information with other organisations while keeping some other information secret. Therefore, there is a need for privacy preserving database operations for querying data residing at different parties. To address this challenge, we propose a new computationally efficient framework that enables organisations to share privacy-sensitive data. The proposed framework is able to answer queries without revealing any useful information to the data sources or to the third parties.

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NR 18

TC 0

Z9 0

U1 0

U2 0

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J9 LECT NOTES COMPUT SC

PY 2010

VL 6485  
BP 450  
EP 458  
PG 9  
WC Computer Science, Hardware & Architecture; Computer Science, Information  
Systems; Computer Science, Theory & Methods  
SC Computer Science  
GA BSZ63  
UT WOS:000286176200044  
DA 2019-08-06  
ER

PT S  
AU Riano, D  
AF Riano, David  
BE Riano, D  
TenTeije, A  
Miksch, S  
Peleg, M  
TI A Knowledge-Management Architecture to Integrate and to Share Medical  
and Clinical Data, Information, and Knowledge  
SO KNOWLEDGE REPRESENTATION FOR HEALTH-CARE: DATA, PROCESSES AND GUIDELINES  
SE Lecture Notes in Artificial Intelligence  
LA English  
DT Proceedings Paper  
CT Workshop on Knowledge Representation for Health-Care (KR4HC 2009)  
CY JUL 19, 2009  
CL Verona, ITALY  
ID ALGORITHMS; GUIDELINES; MODELS  
AB Data, information, and knowledge in medicine is varied, changing,  
interrelated, and for diverse purposes. Medical and Clinical care depends on the  
correct and efficient combined application of these elements to concrete health  
care situations as prophylactics, screening, diagnosis, therapy, and prognosis.  
In this paper, we propose a Knowledge Management Architecture (KMA) to allow the  
integration of medical and clinical data, information and knowledge in a  
consistent and incremental way. The components of KMA are described and the  
already implemented parts are provided with references to papers where they are  
explained in more detail. For the first time, we present the conceptual  
integration of the isolated works performed in the research group of artificial  
intelligence of the Rovira i Virgili University and in collaboration with the  
Clinical Hospital of Barcelona, and the SAGESA health care organization.  
C1 Univ Rovira & Virgili, Res Grp Artificial Intelligence Banzai, Tarragona  
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RI Riano, David/C-5664-2013  
OI Riano, David/0000-0002-1608-0215  
CR Abidi SR, 2009, LECT NOTES ARTIF INT, V5651, P81, DOI 10.1007/978-3-642-  
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NR 24  
TC 0  
Z9 0  
U1 0  
U2 4  
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PA HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY  
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J9 LECT NOTES ARTIF INT  
PY 2010  
VL 5943  
BP 180  
EP 194  
PG 15  
WC Computer Science, Artificial Intelligence  
SC Computer Science  
GA BPJ33  
UT WOS:000278977600015  
DA 2019-08-06  
ER  
  
PT S  
AU Seng, WK  
Kim, MH  
Besar, R  
Salleh, F  
AF Seng, Wong Kok  
Kim, Myung Ho  
Besar, Rosli  
Salleh, Fazly  
BE Kim, T  
Yang, LT  
Park, JH  
Chang, ACC  
Vasilakos, T  
Yeo, SS  
TI A Privacy Preserved Model for Medical Data Sharing in Telemedicine

SO ADVANCES IN COMMUNICATION AND NETWORKING

SE Communications in Computer and Information Science

LA English

DT Proceedings Paper

CT 2nd International Conference on Future Generation Communication and Networking

CY DEC 13-15, 2008

CL Hainan, PEOPLES R CHINA

SP IEEE

DE Data Sharing; Privacy Preserving; Telemedicine

AB In the converged Information and Communication Technology (ICT) era, medical data sharing has emerged as an important element in the healthcare industry. Hospitals within a Telemedicine system would like to share their private local databases with other hospitals. However, they do not agree to keep a copy of their database into a central server. The central repository (data warehouse) model is not secure because too much control will be granted to the central site. In order to fully utilize the distributed and heterogeneous resources, a secure and privacy preserved model should be used to reach the balance between knowledge discovery and data privacy protection at the same time. We proposed a privacy preserved model to securely share the data for Telemedicine system.

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OI Wong, Kok-Seng/0000-0002-2029-7644;

FU Soongsil University Research Fund

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Z9 0

U1 0

U2 0

PU SPRINGER-VERLAG BERLIN  
PI BERLIN  
PA HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY  
SN 1865-0929  
EI 1865-0937  
BN 978-3-642-10235-6  
J9 COMM COM INF SC  
PY 2009  
VL 27  
BP 63  
EP +  
PG 2  
WC Computer Science, Information Systems; Computer Science, Software  
Engineering; Computer Science, Theory & Methods; Telecommunications  
SC Computer Science; Telecommunications  
GA BPV28  
UT WOS:000280078800006  
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ER

PT J  
AU Kash, BA  
Ohsfeldt, RL  
Gamm, LD  
AF Kash, Bitá A.  
Ohsfeldt, Robert L.  
Gamm, Larry D.

TI An Attempt to Forecast Hospital Market Share Using Admission Data  
SO JOURNAL OF HEALTHCARE MANAGEMENT  
LA English  
DT Review  
ID QUALITY; PERFORMANCE; MORTALITY

AB The purpose of this study was to develop a model to forecast market share before actual market share data become available to a hospital system. The typical data lag is about six to nine months, and market share information is often based on incomplete admissions data. Therefore, this exploratory analysis of admissions for all hospitals in a Texas hospital system was performed as an attempt to improve the accuracy and timeliness of market share data.

We used four data sources: (1) Texas Health Care Information Council Public Use Data File, (2) Solucient, (3) internal data on admissions for three small nearby hospitals not reporting to the state, and (4) population growth data based on the U.S. census. Data analysis was performed using STATA 9 and SAS statistical software. Six prediction models were chosen and evaluated that best predicted present and future market share using historical market share data, historical and current admissions data, and population growth data. These included models for the total market area; the core cluster; and the eastern, western, northern, and southern market clusters.

Only two of the six forecasting equations were useful, with a relatively high prediction value. Overall, the attempt to predict market share based on historical and current admissions data while controlling for demographic factors and seasonality was of limited success. Future research should consider additional factors associated with market share; these factors could include changes in physician referral patterns and third-party-payer contracts. The value of this type of research for management is explored here as well.

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PU AMER COLL HEALTHCARE EXEC HEALTH ADMINISTRATION PRESS

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J9 J HEALTHC MANAG

JI J. Healthc. Manag.

PD JAN-FEB

PY 2009

VL 54

IS 1

BP 44

EP 55

PG 12

WC Health Policy & Services

SC Health Care Sciences & Services

GA 397WE

UT WOS:000262692100009

PM 19227853

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ER

PT B

AU Barhamgi, M

Benslimane, D

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AF Barhamgi, Mahmoud

Benslimane, Djamal

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GP IEEE

TI SWSMS: A Semantic Web Service Management System for Data Sharing in Collaborative Environments

SO 2008 3RD INTERNATIONAL CONFERENCE ON INFORMATION AND COMMUNICATION TECHNOLOGIES: FROM THEORY TO APPLICATIONS, VOLS 1-5

LA English  
DT Proceedings Paper  
CT 3rd International Conference on Information and Communication  
Technologies  
CY APR 07-11, 2008  
CL Damascus, SYRIA  
ID VIEWS

AB In today's collaborative environments such as bioinformatics and healthcare, the access to an increasing number of data sources has been made in the form of Data-Providing Web Services. Current approaches to composing Web services are not suitable for this special class of Web services as they do not take into consideration the semantic relationship that holds between input and output sets of a Web service. In this paper, we present our Web Service Management System (WSMS) that is used to exchange data through Data-Providing Web Services. In our system we employ a novel approach for automatically composing data-providing services by making usage of the mature work that has been done in the conventional data integration and mediation systems. Specifically, we model data-providing services as RDF parameterized views over mediated ontologies. We devise an algorithm for composing services based on conventional query rewriting techniques. Our WSMS is very useful in domains such as bioinformatics and healthcare where web services are used extensively to exchange data.

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PA 345 E 47TH ST, NEW YORK, NY 10017 USA

BN 978-1-4244-1751-3

PY 2008

BP 1482

EP +

PG 3

WC Computer Science, Information Systems; Computer Science,  
Interdisciplinary Applications; Engineering, Electrical & Electronic;  
Telecommunications

SC Computer Science; Engineering; Telecommunications  
GA BIP38  
UT WOS:000261578000271  
DA 2019-08-06  
ER

PT S

AU Zheng, R  
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Zhang, Q  
Liu, YS  
Chu, P

AF Zheng, Ran  
Jin, Hai  
Zhang, Qin  
Liu, Yingshu  
Chu, Pan

GP IEEE

TI Heterogeneous medical data share and integration on grid  
SO BMEI 2008: PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON BIOMEDICAL  
ENGINEERING AND INFORMATICS, VOL 1  
SE International Conference on Biomedical Engineering and Informatics  
LA English  
DT Proceedings Paper  
CT 1st International Conference on Biomedical Engineering and Informatics  
CY MAY 27-30, 2008  
CL Sanya, PEOPLES R CHINA  
SP Tianjin Univ Technol, IEEE Comp Soc  
ID IMAGE RETRIEVAL

AB It is very significant for the medical and health enterprises to develop an efficient medical information grid to achieve sufficient medical data share and integration. In order to access heterogeneous data resources transparently, front agent is built on heterogeneous databases or medical systems, the same as the unified data models and mapping rules with grid services to communicate with upper grid middleware, so that users can query or access medical data conveniently. Two medical application instances, medical information integration and content-based image diagnosis or retrieval of emphysema disease, are introduced and realized with these technologies.

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TC 0

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U1 1  
U2 3  
PU IEEE COMPUTER SOC  
PI LOS ALAMITOS  
PA 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS ALAMITOS, CA 90720-1264 USA  
SN 1948-2914  
BN 978-0-7695-3118-2  
J9 INT CONF BIOMED  
PY 2008  
BP 905  
EP 909  
DI 10.1109/BMEI.2008.185  
PG 5  
WC Engineering, Biomedical; Mathematical & Computational Biology  
SC Engineering; Mathematical & Computational Biology  
GA BHW79  
UT WOS:000257096000178  
DA 2019-08-06  
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PT J  
AU Whitley, S  
Reeves, DM  
AF Whitley, Stephanie  
Reeves, Dianne M.  
TI Formbuilder: A tool for promoting data sharing and reuse within the  
cancer community.  
SO ONCOLOGY NURSING FORUM  
LA English  
DT Meeting Abstract  
C1 TerpSys, Rockville, MD USA.  
Natl Canc Inst, Rockville, MD USA.

NR 0  
TC 0  
Z9 0  
U1 0  
U2 1  
PU ONCOLOGY NURSING SOCIETY  
PI PITTSBURGH  
PA 125 ENTERPRISE DR, PITTSBURGH, PA 15275 USA  
SN 0190-535X  
J9 ONCOL NURS FORUM  
JI Oncol. Nurs. Forum  
PD MAR  
PY 2007  
VL 34  
IS 2  
MA 2067  
BP 502  
EP 502  
PG 1  
WC Oncology; Nursing  
SC Oncology; Nursing  
GA 146QP  
UT WOS:000244949700122  
DA 2019-08-06  
ER

PT B  
AU Al-Nayadi, F  
Abawajy, JH  
AF Al-Nayadi, Fahed  
Abawajy, J. H.  
GP IEEE Computer Society  
TI An authorization policy management framework for dynamic medical data  
sharing  
SO 2007 INTERNATIONAL CONFERENCE ON INTELLIGENT PERVASIVE COMPUTING,  
PROCEEDINGS  
LA English  
DT Proceedings Paper  
CT International Conference on Intelligent Pervasive Computing (IPC 2007)  
CY OCT 11-13, 2007  
CL Cheju Isl, SOUTH KOREA  
DE healthcare system; privacy; security; authorization; authentication;  
policy; P2P  
AB To offer the best possible care for their patients, family physicians need  
coordinated data obtained from the physicians own patient database, from other  
physicians database, pharmacies, and drug reference databases. P2P-based sharing  
systems have been actively researched to enable resource sharing between  
multiple heterogeneous healthcare. enterprises. Unfortunately, P2P system  
introduces a whole new class of privacy and security threats and in order to  
enable resource sharing between multiple heterogeneous healthcare enterprises, a  
policy management framework is required To solve these problems in a loose-  
coupling way, we propose a dynamic, distributed and heterogeneous policy  
management framework for sharing medical information among autonomous and  
disparate healthcare information systems.  
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NR 10  
TC 0  
Z9 0  
U1 0  
U2 0  
PU IEEE COMPUTER SOC  
PI LOS ALAMITOS  
PA 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS ALAMITOS, CA 90720-1264 USA  
BN 978-0-7695-3006-2  
PY 2007  
BP 313

EP 318  
DI 10.1109/IPC.2007.118  
PG 6  
WC Computer Science, Theory & Methods; Engineering, Electrical &  
Electronic; Telecommunications  
SC Computer Science; Engineering; Telecommunications  
GA BHJ72  
UT WOS:000253616900066  
OA Green Published  
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ER

PT J  
AU Liu, CY  
Cupples, LA  
Dupuis, J  
AF Liu, CY  
Cupples, LA  
Dupuis, J  
TI Comparisons of case-selection approaches based on allele sharing and/or  
disease severity index: application to the GAW14 simulated data  
SO BMC GENETICS  
LA English  
DT Article; Proceedings Paper  
CT 14th Genetic Analysis Workshop  
CY SEP 07-19, 2004  
CL Noordwijkerhout, NETHERLANDS  
ID BREAST-CANCER; SEGREGATION ANALYSIS; FAMILIES; GENE  
AB For mapping complex disease traits, linkage studies are often followed by a  
case-control association strategy in order to identify disease-associated  
genes/single-nucleotide polymorphisms (SNPs). Substantial efforts are required  
in selecting the most informative cases from a large collection of affected  
individuals in order to maximize the power of the study, while taking into  
consideration study cost. In this article, we applied and extended three case-  
selection strategies that use allele-sharing information method for families  
with multiple affected offspring to select most informative cases using  
additional information on disease severity. Our results revealed that most  
significant associations, as measured by the lowest p-values, were obtained from  
a strategy that selected a case with the most allele sharing with other affected  
sibs from linked families ("linked-best"), despite reduction in sample size  
resulting from discarding unlinked families. Moreover, information on disease  
severity appears to be useful to improve the ability to detect associations  
between markers and disease loci.  
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CR Abecasis GR, 2002, NAT GENET, V30, P97, DOI 10.1038/ng786  
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NR 6  
TC 0

Z9 0  
U1 0  
U2 1  
PU BMC  
PI LONDON  
PA CAMPUS, 4 CRINAN ST, LONDON N1 9XW, ENGLAND  
SN 1471-2156  
J9 BMC GENET  
JI BMC Genet.  
PD DEC 30  
PY 2005  
VL 6  
SU 1  
AR S103  
DI 10.1186/1471-2156-6-S1-S103  
PG 5  
WC Genetics & Heredity  
SC Genetics & Heredity  
GA 023CR  
UT WOS:000236103400103  
PM 16451559  
OA DOAJ Gold, Green Published  
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AU Brussee, R  
Porskamp, P  
van den Oord, L  
Rongen, E  
Bloo, H  
Erren, V  
Schaake, L  
AF Brussee, R  
Porskamp, P  
van den Oord, L  
Rongen, E  
Bloo, H  
Erren, V  
Schaake, L

GP IEEE  
TI Integrated health log: Share multimedia patient data  
SO 2005 IEEE INTERNATIONAL CONFERENCE ON MULTIMEDIA AND EXPO (ICME), VOLS 1  
AND 2  
LA English  
DT Proceedings Paper  
CT IEEE International Conference on Multimedia and Expo (ICME)  
CY JUL 06-08, 2005  
CL Toronto, CANADA  
SP IEEE

AB The Integrated Health Log demonstrator shows how multimedia can be used in collaborative settings in healthcare. Patient data can be shared annotated discussed and processed by medics involved with a patient. Special emphasis is put on protecting the privacy of patients and allowing medics to keep responsibility for their patient data. In particular, grid technology is used to decouple services and service providers so that services can be executed under the control of the data owner. The system will be piloted it? a gait analysis

laboratory and in a network of physiotherapists involved in treating children with movement disorders.  
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TC 0  
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U2 0  
PU IEEE  
PI NEW YORK  
PA 345 E 47TH ST, NEW YORK, NY 10017 USA  
BN 0-7803-9331-7  
PY 2005  
BP 1594  
EP 1597  
PG 4  
WC Computer Science, Artificial Intelligence; Computer Science, Information Systems  
SC Computer Science  
GA BDO93  
UT WOS:000234623800397  
DA 2019-08-06  
ER  
  
PT J  
AU Driscoll, CT  
AF Driscoll, CT  
TI NIH data and resource sharing, data release and intellectual property policies for genomics community resource projects  
SO EXPERT OPINION ON THERAPEUTIC PATENTS  
LA English  
DT Editorial Material  
DE community resource project; database; data release; data sharing; genomics; HapMap; human genome project (HGP); intellectual property (IP); Human Genome Sequencing Consortium (IHGSC); International Sequencing Consortium (ISC); licensing; Mammalian Gene Collection (MGC); National Human Genome Research Institute (NHGRI); open access; patent; policy; research tool; Trans-NIH Mouse Initiative; The SNP Consortium (TSC); US National Institutes of Health (NIH)  
ID PATENTS



AB The rationale behind the development and adoption of various data release, data and research resource sharing, and patent policies for 'pre-competitive' biological information and critical reagents, notably DNA sequence information, genomic data and research tools generated by National Institutes of Health (NIH) partners and deposited in open access databases and repositories, is described. Specifically covered are the relevant policies implemented by NIH-supported public-private consortia efforts such the International Human Genome Sequencing Consortium (IHGSC), the Trans-NIH Mouse Initiative, the Mammalian Gene Collection (MGC) and the International Haplotype Map Project (HapMap). All of these research initiatives are considered to be community resource projects. In addition, a few key genomics research-related intellectual property (IP) concerns are discussed in conjunction with some proposed possible policy and legal remedies. The hope is that the knowledge gained from the use of the biological resources and the analysis of data generated from these large-scale genomics; projects will be a catalyst for future innovative research including the commercial development of new medicines.

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1996, EU DATABASE DIRECTIV

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PU TAYLOR & FRANCIS LTD

PI ABINGDON

PA 2-4 PARK SQUARE, MILTON PARK, ABINGDON OR14 4RN, OXON, ENGLAND

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J9 EXPERT OPIN THER PAT

JI Expert Opin. Ther. Patents

PD JAN

PY 2005

VL 15

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DI 10.1517/13543776.15.1.1  
PG 8  
WC Chemistry, Medicinal; Pharmacology & Pharmacy  
SC Pharmacology & Pharmacy  
GA 892IH  
UT WOS:000226643300001  
OA Bronze  
DA 2019-08-06  
ER

PT B  
AU Santos-Eggimann, B  
Geoffard, PY  
AF Santos-Eggimann, B  
Geoffard, PY  
GP OECD  
OECD  
TI Data needed for research and policy in ageing societies - Contribution  
of the survey of health, ageing and retirement in Europe (SHARE project)  
SO DISEASE-BASED COMPARISON OF HEALTH SYSTEMS: WHAT IS BEST AND AT WHAT  
COST?  
LA English  
DT Proceedings Paper  
CT Workshop on Disease Based Comparison of Health Systems  
CY JUN 20-21, 2002  
CL PARIS, FRANCE  
SP Natl Inst Aging U S, Natl Board Hlth & Welfare Japan  
ID COUNTRIES; POPULATION; DETERMINANTS  
AB Population ageing raises many issues of public policy at the cross roads of  
economics, sociology, psychology and medicine. While the OECD Ageing-Related  
Diseases project pointed to variations between countries in treatments and  
outcomes for common diseases, most European countries lack the necessary data to  
understand the reasons and the impact of such variations. The Survey of Health,  
Ageing and Retirement in Europe (SHARE) is designed to produce comparative,  
longitudinal, multidisciplinary data collected at an individual level and will  
further our understanding of the issues raised by population ageing.  
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\*I MED, 2001, CROSS QUAL CHASM  
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NR 25

TC 0

Z9 0

U1 0

U2 0

PU ORGANIZATION ECONOMIC COOPERATION & DEVELOPMENT

PI PARIS

PA 2, RUE ANDRE PASCAL, CEDEX 16, 75775 PARIS, FRANCE

BN 92-64-09981-6

PY 2003

BP 181

EP 191

PG 11

WC Health Care Sciences & Services; Health Policy & Services

SC Health Care Sciences & Services

GA BX11X

UT WOS:000184328200011

DA 2019-08-06

ER

PT S

AU Le Duff, F

Happe, A

Burgun, A

Levionnois, S

Bremond, M

Le Beux, P

AF Le Duff, F

Happe, A

Burgun, A

Levionnois, S

Bremond, M

Le Beux, P

BE Patel, VL

Rogers, R

Haux, R

TI Sharing medical data for patient path analysis with data mining method

SO MEDINFO 2001: PROCEEDINGS OF THE 10TH WORLD CONGRESS ON MEDICAL

INFORMATICS, PTS 1 AND 2

SE Studies in Health Technology and Informatics

LA English

DT Proceedings Paper

CT 10th World Congress on Medical Informatics (MEDINFO 2001)

CY 2001

CL LONDON, ENGLAND

SP McGill Univ, Ctr Med Educ, Columbia Univ, Dept Med Informat

DE Intranet; health care process; low back pain; confidentiality; health  
information system

ID PRIMARY-CARE

AB The Agora Data project started in October 1997 in France. The objective was to share medical data between several medical institutions to analysis medical care pathways for patients that suffer from low back pain. The analysis of the medical records decomposed in three steps allowed us to produce knowledge on medical contacts of patients with the health care system. In order to study the relations between these contacts, we created medical path of patients within the framework of the possible contacts we had isolated. This work relates the implementation and the first results of the pilot study.

C1 Fac Med, Lab Informat Med, F-35043 Rennes, France.

RP Le Duff, F (reprint author), Fac Med, Lab Informat Med, Av Pr Leon Bernard, F-35043 Rennes, France.

EM Franck.LeDuff@univ-rennes1.fr

OI Burgun, Anita/0000-0001-6855-4366

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NR 11

TC 0

Z9 0

U1 1

U2 1

PU IOS PRESS

PI AMSTERDAM

PA NIEUWE HEMWEG 6B, 1013 BG AMSTERDAM, NETHERLANDS

SN 0926-9630

EI 1879-8365

BN 1-58603-194-5

J9 STUD HEALTH TECHNOL

PY 2001

VL 84

BP 1364

EP 1368

PG 3

WC Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Medical Informatics

SC Computer Science; Medical Informatics

GA BT40J

UT WOS:000172901700365

PM 11604950

DA 2019-08-06

ER

PT J

AU CHERTOW, GM

BRENNER, BM

MACKENZIE, HS

MILFORD, EL

AF CHERTOW, GM  
BRENNER, BM  
MACKENZIE, HS  
MILFORD, EL  
TI NONIMMUNOLOGICAL PREDICTORS OF CHRONIC RENAL-ALLOGRAFT FAILURE - DATA  
FROM THE UNITED-NETWORK-OF-ORGAN-SHARING  
SO KIDNEY INTERNATIONAL  
LA English  
DT Article; Proceedings Paper  
CT Chronic Renal Allograft Failure Satellite Symposium to the XIIIth  
Meeting of the International Congress of Nephrology  
CY JUL 07-09, 1995  
CL CUENCA, SPAIN  
SP Int Soc Nephrol  
ID GLOMERULI; KIDNEY; AGE; SIZE  
AB Experimental evidence and clinical experience suggest that non-immunologic  
factors are important predictors of long-term renal allograft survival. It has  
been suggested that chronic allograft failure may in some cases be mediated by  
non-immunologic factors implicated in the pathobiology of other forms of  
progressive renal disease. Donor age, sex, and race may influence the 'dose'  
of nephrons delivered in cadaveric renal transplantation. The United Network of  
Organ Sharing 1994 Public Use Data Tape was used to evaluate these and other  
risk factors in more than 31,000 recipients of cadaver allografts followed  
between 1987 and 1992. Female sex and African American race of the donor were  
important predictors of allograft failure. There was a markedly increased risk  
of allograft failure at both extremes of donor age. Recipients of large body  
size had accelerated graft loss. Stratified analyses suggested an interaction  
between donor and recipient race; nevertheless, all non-immunologic factors  
examined expressed independent associations with allograft survival. In sum,  
antigen-independent factors appear to be important determinants of allograft  
performance. Additional multivariable analyses are required to assess the  
relative importance of these factors compared with other known immunologic  
factors, such as HLA antigen mismatch. These findings may have important  
biomedical and health care policy implications.  
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USRDS 1994 ANN REPOR  
NR 18  
TC 0  
Z9 0

U1 0  
U2 1  
PU BLACKWELL SCIENCE PUBL INC CAMBRIDGE  
PI CAMBRIDGE  
PA 238 MAIN ST, CAMBRIDGE, MA 02142  
SN 0085-2538  
J9 KIDNEY INT  
JI Kidney Int.  
PD DEC  
PY 1995  
VL 48  
SU 52  
BP S48  
EP S51  
PG 4  
WC Urology & Nephrology  
SC Urology & Nephrology  
GA TH917  
UT WOS:A1995TH91700011  
DA 2019-08-06  
ER

PT J  
AU MCPHERSON, RA  
AF MCPHERSON, RA  
TI DATA SHARING AND EVALUATION  
SO CANCER  
LA English  
DT Article; Proceedings Paper  
CT WORKSHOP ON MOLECULAR MARKERS IN THE CLASSIFICATION AND STAGING OF  
CANCER  
CY DEC 13-14, 1990  
CL ATLANTA, GA  
SP AMER CANC SOC, AMER JOINT COMM CANC  
AB Interinstitutional evaluations of molecular markers for the diagnosis and  
staging of cancer are highly dependent on strict standardization of assays to  
make clinical comparisons valid. New assays for cancer markers depend on  
discoveries of biochemical or cellular functions coupled with technologies  
suitable for making relevant measurements. Transfer of these technologies from  
the research laboratory to the diagnostic laboratory requires method validation  
that consists of specific information regarding assay principle, reagents,  
calibration, sensitivity, assay behavior, specimen requirements, clinical and  
method correlations, reference range, quality control, proficiency testing,  
critical steps, and guidelines for interpretation. Fulfillment of all the  
components of method validation will guarantee the fastest and most accurate  
implementation of new diagnostic assays in clinical studies and practice.  
RP MCPHERSON, RA (reprint author), SCRIPPS CLIN & RES FDN, SCRIPPS IMMUNOL  
REFERENCE LAB, 11107 ROSELLE ST, SAN DIEGO, CA 92121, USA.  
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NR 4  
TC 0  
Z9 0  
U1 0  
U2 1

PU WILEY-LISS  
PI NEW YORK  
PA DIV JOHN WILEY & SONS INC 605 THIRD AVE, NEW YORK, NY 10158-0012  
SN 0008-543X  
J9 CANCER  
JI Cancer  
PD MAR 15  
PY 1992  
VL 69  
IS 6  
SU S  
BP 1572  
EP 1577  
DI 10.1002/1097-0142(19920315)69:6+<1572::AID-CNCR2820691311>3.0.CO;2-4  
PG 6  
WC Oncology  
SC Oncology  
GA HJ806  
UT WOS:A1992HJ80600010  
PM 1540897  
DA 2019-08-06  
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