

**Assessing opportunities and barriers to improving the secondary use of health care data at the national level : multicase study in the Kingdom of Saudi Arabia and Estonia**

Metsallik, Janek; Draheim, Dirk; Sabic, Zlatan; Novak, Thomas; Ross, Peeter Journal of Medical Internet Research 2024 / art. e53369 <https://doi.org/10.2196/53369> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Challenges of collaborative digital government : e-participation, open government data and cross-border interoperability = Koostööl põhineva digitaalse valitsemise keerukus : e-osaluse, avaandmete ja piiriülese koostööme näited**

Olesk, Maarja 2020 <https://www.digar.ee/arhiiv/nlib-digar:444367> <https://digikogu.taltech.ee/et/Item/5325f102-b6c4-476e-885e-563cfe906cd9>

**A comprehensive survey on digital twin for future networks and emerging Internet of Things industry**

Hakiri, Akram; Gokhale, Aniruddha; Ben Yahia, Sadok; Mellouli, Nedra Computer Networks 2024 / art. 110350 <https://doi.org/10.1016/j.comnet.2024.110350> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Cross-border data exchange in the Nordic-Baltic region : data intermediaries, interoperability, and e-services orchestration = Piiriülene andmevahetus Põhja-Balti regioonis : andmevahendajad, koostalitlusvõime ja e-teenuste orkestreerimine**

Jackson, Eric Blake 2024 [https://www.ester.ee/record=b5704325\\*est](https://www.ester.ee/record=b5704325*est) <https://doi.org/10.23658/taltech.54/2024> <https://digikogu.taltech.ee/et/Item/4c85549d-2e2a-4fff-bf11-08ce2295e945>

**Cross-border e-government services in Europe: expected benefits, barriers and drivers of the once-only principle**

Kalvet, Tarmo; Toots, Maarja; Veenstra, Anne Fleur van; Krimmer, Robert Johannes ICEGOV2018 : proceedings of the 11th International Conference on Theory and Practice of Electronic Governance : 4 - 6 April 2018, Galway, Ireland 2018 / p. 59-68 <https://doi.org/10.1145/3209415.3209458> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Development and implementation of enterprise information management systems for interoperability = Ettevõtte infohaldussüsteemide arendamine ja juurutamine koostalitlusvõime jaoks**

Lemmik, Rivo 2018 <https://digi.lib.ttu.ee/il/?10624> [https://www.ester.ee/record=b5151053\\*est](https://www.ester.ee/record=b5151053*est)

**Digital public service improvement in cross-border use cases**

Raamat, Helen; Liiv, Innar; Lips, Silvia; Ahmed, Rozha Kamal; Sharma, Rahul; Draheim, Dirk 37th Bled eConference – Resilience Through Digital Innovation: Enabling the Twin Transition: June 9 – 12, 2024, Bled, Slovenia, Conference Proceedings 2024 / p. 269–282 : ill <https://doi.org/10.18690/um.fov.4.2024.15>

**Digitalizing planning culture : a change towards information model-based planning in Finland**

Nummi, Pilvi; Staffans, Aija; Helenius, Otso Journal of Urban Management 2023 / p. 44 - 56 <https://doi.org/10.1016/j.jum.2022.12.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**A domain-specific framework for supporting semantic interoperability in primary and secondary use of health data on the example of the Estonian National Health Information System = Tervishoiu domeenipõhise semantilise raamistiku loomine terviseandmete esmaseks ja teiseks kasutamiseks Eesti Tervise infosüsteemi näitel**

Bossenko, Igor 2025 [https://www.ester.ee/record=b5730672\\*est](https://www.ester.ee/record=b5730672*est) <https://digikogu.taltech.ee/et/Item/a9944a4a-52e0-483e-9435-c6dc210745de> <https://doi.org/10.23658/taltech.9/2025>

**Ensuring large-scale semantic interoperability : the Estonian public sector's case study**

Haav, Hele-Mai; Kalja, Ahto; Küngas, Peep; Luts, Martin Databases and information systems V : selected papers from the Eighth International Baltic Conference, DBAMPIS 2008 2009 / p. 117-128 : ill

**ETSI SmartBAN architecture: The global vision for smart body area networks**

Hamalainen, Matti; Mucchi, Lorenzo; Girod-Genet, Marc; Paso, Tuomas; Farserotu, John; Tanaka, Hirokazu; Anzai, Daisuke; Pierucci, Laura; Khan, Rida; Alam, Muhammad Mahtab IEEE Access 2020 / art. 9167215, p. 150611-150625 <https://doi.org/10.1109/ACCESS.2020.3016705> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Evaluating business meta-models for semantic interoperability with FHIR resources**

Randmaa, Rainer; Bossenko, Igor; Klementi, Toomas; Piho, Gunnar; Ross, Peeter HEDA 2022 : Proceedings of the International Health Data Workshop, co-located with 10th International Conference on Petrinets, Petri Nets 2022 2022 / p. 1-14 [https://ceur-ws.org/Vol-3264/HEDA22\\_paper\\_5.pdf](https://ceur-ws.org/Vol-3264/HEDA22_paper_5.pdf) [Conference proceedings at Scopus](#) [Article at Scopus](#)

**Exploring e-services development in local government authorities by means of electronic document management systems**

Pappel, Ingrid; Tsap, Valentyna; Pappel, Ingmar; Draheim, Dirk Electronic Governance and Open Society : Challenges in Eurasia 5th International Conference, EGOSE 2018, St. Petersburg, Russia, November 14–16, 2018 : Revised Selected Papers 2019 / p. 223-234 . ill [https://doi.org/10.1007/978-3-030-13283-5\\_17](https://doi.org/10.1007/978-3-030-13283-5_17) [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Forward and backward compatibility design techniques applying the HL7 FHIR standard**

Bossenko, Igor; Piho, Gunnar; Ross, Peeter HEDA 2022 : Proceedings of the International Health Data Workshop, co-located

with 10th International Conference on Petrinets, Petri Nets 2022 2022 / p. 1-14 [https://ceur-ws.org/Vol-3264/HEDA22\\_paper\\_14.pdf](https://ceur-ws.org/Vol-3264/HEDA22_paper_14.pdf)  
[Conference proceedings at Scopus](#) [Article at Scopus](#)

**A framework for the adoption of blockchain-based e-procurement systems in the public sector : A case study of Nigeria Akaba, Temofe Isaac; Norta, Alexander; Udokwu, Chibuzor; Draheim, Dirk** Responsible Design, Implementation and Use of Information and Communication Technology : 19th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society, I3E 2020, Skukuza, South Africa, April 6–8, 2020 : Proceedings, Part I 2020 [https://doi.org/10.1007/978-3-030-44999-5\\_1](https://doi.org/10.1007/978-3-030-44999-5_1) [Conference Proceedings at Scopus](#) [Article at Scopus](#)

**A historical analysis on interoperability in Estonian data exchange architecture : perspectives from the past and for the future**

**Jackson, Eric Blake; Dreyling III, Richard Michael; Pappel, Ingrid** ICEGOV '21: Proceedings of the 14th International Conference on Theory and Practice of Electronic Governance 2021 / p. 111-116 <https://doi.org/10.1145/3494193.3494209> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**International information security: Problems and ways of solving them**

Krutsikh, Andrei V.; Streltsov, Anatoli A.; **Tikk, Eneken** Routledge handbook of international cybersecurity 2020 / p. 260-268 <https://doi.org/10.4324/9781351038904-26> [https://www.estel.ee/record=b5308475\\*est](https://www.estel.ee/record=b5308475*est)

**Interoperability between different interest groups practice portal case study**

**Lemmik, Rivo; Karjust, Kristo** Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 1 2012 / p. 169-174 : ill

**IOCBIO Kinetics : an open-source software solution for analysis of data traces**

**Vendelin, Marko; Laasmaa, Martin; Kalda, Mari; Branovets, Jelena; Karro, Niina; Barsunova, Karina; Birkedal Nielsen, Rikke** PLoS computational biology 2020 / art. e1008475 <https://doi.org/10.1371/journal.pcbi.1008475> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Migration from HL7 CDA to FHIR in infectious disease system of Estonia**

**Bossenko, Igor; Linna, Kerli; Piho, Gunnar; Ross, Peeter** Studies in Health Technology and Informatics ; 299 2022 / p. 275-278 <https://doi.org/10.3233/SHTI220998> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Migration from HL7 Clinical Document Architecture (CDA) to Fast Health Interoperability Resources (FHIR) in infectious disease information system of Estonia**

**Bossenko, Igor; Linna, Kerli; Piho, Gunnar; Ross, Peeter** SAC '23: Proceedings of the 38th ACM/SIGAPP Symposium on Applied Computing 2023 / p. 882-885 <https://doi.org/10.1145/3555776.3577836>

**Modelling a patient identifier system in the Estonian National Health Information System**

**Bossenko, Igor; Piho, Gunnar; Ross, Peeter** Digital Economy. Emerging Technologies and Business Innovation 9th International Conference on Digital Economy, ICDEc 2024, Rabat, Morocco, May 9–11, 2024, Proceedings, Part II 2024 / p. 132-145 [https://doi.org/10.1007/978-3-031-76368-7\\_10](https://doi.org/10.1007/978-3-031-76368-7_10)

**(Non)negotiable spaces of algorithmic governance : perceptions on the Ubenwa health app as a 'relocated' solution**

**Masso, Anu; Chukwu, Martha; Calzati, Stefano** New media & society 2022 / p. 845–865 <https://doi.org/10.1177/14614448221079027> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Ontology-based integration of software artefacts for DSL development**

**Haav, Hele-Mai; Ojamaa, Andres; Grigorenko, Pavel; Kotkas, Vahur** On the Move to Meaningful Internet Systems: OTM 2015 Workshops/Confederated International Workshops: OTM Academy, OTM Industry Case Studies Program, EI2N, FBM, INBAST, ISDE, META4eS, and MSC 2015, Rhodes, Greece, October 26-30, 2015. Proceedings 2015 / p. 309 - 318 [https://doi.org/10.1007/978-3-319-26138-6\\_34](https://doi.org/10.1007/978-3-319-26138-6_34) [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Conference Proceedings at WOS](#) [Article at WOS](#)

**Prerequisites for the adoption of the X - Road Interoperability and data exchange framework : a comparative study**

**Saputro, Rois; Pappel, Ingrid; Vainsalu, Heiko; Lips, Silvia; Draheim, Dirk** 2020 Seventh International Conference on eDemocracy & eGovernment (ICEDEG), Buenos Aires, Argentina, April 22–24, 2020 : proceedings 2020 / p. 216-222 <https://doi.org/10.1109/ICEDEG48599.2020.9096704>

**RadLex and SNOMED CT integration : a pilot study for standardising radiology classification**

**Marquis, Merit; Bossenko, Igor; Ross, Peeter** Insights into Imaging 2025 / art. 58, 6 p <https://doi.org/10.1186/s13244-025-01935-5>

**Semantilise koosvõime arhitektuur riigi infosüsteemis**

**Haav, Hele-Mai; Kalja, Ahto; Küngas, Peep; Luts, Martin A & A** 2008 / lk. 32-42 : ill [https://artiklid.elnet.ee/record=b1022736\\*est](https://artiklid.elnet.ee/record=b1022736*est)

**Service oriented database interface for exchanging multi-format tabular data**

**Kaur, Kaiko; Ojamaa, Andres** Databases and information systems : proceedings of the Eighth International Baltic Conference, Baltic DBAMPIS 2008 : Tallinn, June 2-5, 2008 2008 / p. 289-300

### **A smart-contract-based adaptive security governance architecture for smart city service interoperations**

Siddiqui, Shahbaz; Hameed, Sufian; Shah, Syed Attique; Arshad, Junaid; Ahmed, Yussuf; **Draheim, Dirk** Sustainable Cities and Society 2024 / art. 105717 <https://doi.org/10.1016/j.scs.2024.105717> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **TermX: a game changer in the healthcare interoperability**

**Bossenko, Igor; Piho, Gunnar; Ross, Peeter** Digital Health and Informatics Innovations for Sustainable Health Care Systems 2024 / p. 88–89 : ill <https://doi.org/10.3233/SHTI240352> [Conference proceedings at Scopus](#) [Article at Scopus](#)

### **TermX: The semantic interoperability, knowledge management and sharing platform**

**Bossenko, Igor; Piho, Gunnar; Ivanova, Marina; Ross, Peeter** SoftwareX 2024 / art. 101839, 7 p. : ill <https://doi.org/10.1016/j.softx.2024.101839> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **TermX—bridging the Gap: implementing CTS2 and FHIR compatible terminology server**

**Ivanova, Marina; Bossenko, Igor; Piho, Gunnar** Proceedings of Ninth International Congress on Information and Communication Technology, ICICT 2024, London. Volume 1 2024 / p. 277-287 : ill [https://doi.org/10.1007/978-981-97-4581-4\\_20](https://doi.org/10.1007/978-981-97-4581-4_20) [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **The Estonian semantic interoperability initiative in public sector**

**Luts, Martin; Haav, Hele-Mai; Küngas, Peep**; Vallner, Uno; **Kalja, Ahto**; Arula, Kalle Databases and information systems : proceedings of the Eighth International Baltic Conference, Baltic DBAMPIS 2008 : Tallinn, June 2-5, 2008 2008 / p. 103-113

### **The X-road : a key interoperability component within the state information system**

**Kalja, Ahto** Information technology in public administration of Estonia : yearbook 2007 2008 / p. 19-22

### **“When need becomes necessity” - The single digital gateway regulation and the once-only principle from a European point of view**

**Schmidt, Carsten**; Krimmer, Robert Johannes; Lampoltshammer, Thomas J. Open Identity Summit 2021: Fachtagung vom 01.-02. Juni 2021 Copenhagen 2021 / p. 223-228 <https://dl.gi.de/server/api/core/bitstreams/ec03538d-b376-4537-bc0f-aab2936c74f8/content> [Conference Proceedings at Scopus](#) [Article at Scopus](#)