

SOLVING THE BIG DATA CHALLENGE OF MEDICAL SCIENTIFIC LITERATURE

Tanja Novaković^{1,2*}, Mark Parker¹

¹ZEM Solutions Ltd., Belgrade, Serbia

²The Pharmacoeconomics Sections of the Pharmaceutical Association of Serbia,
Belgrade, Serbia

*tanjabel@hotmail.com

Recent advancements in technology have resulted in an explosion of available evidence collected in real world settings. Automated data collection, along with the digitisation of both medical literature and patient records have changed the face of medical science over the last 10 years. Through the analytics of big data, we can uncover hidden patterns, unknown correlations, trends, preferences, and other information that can help stakeholders make better and more informed decisions (1). The digitisation of scientific medical literature has given researches unprecedented access to a wealth of medical knowledge. Consequently medical scientific literature is now a big data problem. Current big data analysis techniques are not enough to solve the challenge of analysing large volumes of scientific medical literature. Machine learning and artificial intelligence (AI) provide a toolbox of techniques that can be applied to convert big data into information so it can be applied as knowledge (2). Through AI, we have an opportunity to do better to address major public health issues, improve health outcomes, reduce costs, ensure patient safety, address equity and equality issues by ensuring all healthcare stakeholders have access to timely, relevant, accurate and evidenced information across the entire decision-making spectrum.

References

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2. Drummond M, Sculpher M, Claxton K, Stoddart G, George, Torrance G. *Methods for the Economic Evaluation of Health Care Programmes.* Oxford University Press, 2015

REŠENJE IZAZOVA VELIKIH PODATAKA MEDICINSKE NAUČNE LITERATURE

Tanja Novaković^{1,2*}, Mark Parker¹

¹ZEM Solutions d.o.o, Beograd, Srbija

²Sekcija za farmakoekonomiju Saveza farmaceutskih udruženja Srbije, Beograd, Srbija

*tanjabel@hotmail.com

Nedavni napredak u tehnologiji rezultirao je eksplozijom dostupnih dokaza prikupljenih iz stvarnog okruženja. Automatsko prikupljanje podataka, zajedno sa digitalizacijom medicinske literature i kartona pacijenata, promenili su medicinske nauke u poslednjih 10 godina. Korišćenjem analitike velikih podataka, možemo otkriti skrivene obrasce, nepoznate korelacije, trendove, preferencije i druge informacije koje mogu pomoći učesnicima u zdravstvenom sistemu da donesu bolje i informisanije odluke (1). Digitalizacija naučne medicinske literature omogućila je istraživanjima pristup bez presedana bogatstvu medicinskog znanja. Shodno tome, medicinska naučna literatura sad predstavlja problem "velikih podataka". Trenutne tehnike analize velikih podataka nisu dovoljne da reše izazov analize obimnih podataka naučne medicinske literature. Mašinsko učenje i veštačka inteligencija (engl. Artificial intelligence - AI) pružaju set alata tehnika koje se mogu primeniti za pretvaranje velikih podataka u informacije koje bi se mogle primeniti kao znanje (2). Primenom veštačke inteligencije, imamo priliku da unapredimo najvažnija pitanja javnog zdravlja, da poboljšamo zdravstvene rezultate, smanjimo troškove, obezbedimo bezbednost pacijenata, rešimo pitanja jednakosti i pravičnosti tako što ćemo obezbediti da svi zainteresovani učesnici u zdravstvu imaju pristup pravovremenim, relevantnim, tačnim i dokazanim informacijama u toku procesa donošenja odluka.

References

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