

Editorial/Uvodnik

The potential and pitfalls of artificial intelligence in nursing Možnosti in pasti umetne inteligence v zdravstveni negi

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When I was at the University of Edinburgh in the mid-1970s there was a Department of Artificial Intelligence. In fact, Edinburgh described itself as the home of artificial intelligence (AI) in Europe and had a Department of Machine Learning in the mid-1960s. Frankly, nobody knew what AI was and there was very little to show from the endeavours of such a department for many years. Also, academics in psychology who studied the complexities of human intelligence often scoffed at the idea of AI. Nobody is scoffing at it now.

AI is now a very real phenomenon and through the development of large language models which can mine large databases, such as the Internet, AI tools are now at the disposal of the general public. In a very short time, starting around 2022, awareness of AI began to grow as tools, primarily ChatGPT, were released with easily navigated interfaces and apps for mobile phones. The basic functions of ChatGPT are available free of charge. There can be very few academics and members of Generation Z who have not tried its facilities, sometimes for fun and sometimes to help with projects.

My first encounters with AI occurred last year in my capacity as Editor-in-Chief of *Nurse Education in Practice*. A colleague wrote an editorial in my journal on the use of AI in nursing education (O'Connor & ChatGPT, 2023). Not, in itself, controversial but she listed ChatGPT as a co-author and, as editorials do not go through the usual submission system and I thought it was quite a novel idea, this was not picked up as the editorial was being processed. However, it was picked up by *Nature News* (Else, 2023) and the editorial 'went viral'. I was severely criticised in the article for allowing an AI tool to be listed as an author. My publisher, Elsevier, chastised and praised me in equal measure. I was chastised for not knowing what the rules were on listing AI tools as an author (they

should not be listed) but also praised for publishing one of their most highly cited editorials.

I have since followed up this incident with articles demonstrating to nursing authors how useful AI could be in writing articles (Watson & O'Connor, 2023) and also exploring the many issues that academic publishers may have to face with the advent of easily accessible AI tools by authors (Watson & Štiglic, 2023). Academic publishers have had to move fast to accommodate AI. One major publisher, the Science group, tried to ban its use, but eventually relented as they realised that they would be fighting a losing battle. Now most mainstream academic publishers have specific sections in their guidance to authors on the proper limits to using AI and how its use should be declared and attributed when manuscripts are submitted.

Beyond academic publishing in nursing—where the issues are common to all subjects—AI has considerable potential to be used clinically to aid decision-making in clinical practice. Medicine has been investigating the use of AI in making clinical decisions for several years (Giordano et al., 2021) and recent commentators (Brown et al., 2023) suggest that it may be capable of making better clinical decisions than humans. Clearly, there is potential in nursing practice for the integration of AI tools and, indeed, work is underway in Slovenia at the University of Maribor in collaboration with colleagues in the United States (Gosak et al., 2024) to use generative AI in nursing education. To date, the work is promising but it is also clear that the human element to decision-making cannot be dismissed.

AI is here to stay; we can be sure of that. We can look forward to a future when AI tools are honed and perfected as the software develops and the databases which it mines are improved. I doubt we will even reach the stage where nurses are replaced by AI tools, but we can expect nurses to become increasingly AI

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literate. We should also be aware that, just as they have taken to the Internet for medical advice, that patients will likewise become more AI literate. Nursing education should be integrating the use of AI into nursing curricula as soon as possible.

Slovenian translation/Prevod v slovenščino

V sedemdesetih letih je na Univerzi v Edinburgu, kjer sem študiral, deloval oddelek za umetno inteligenco (UI). Edinburgh je bil v tem času znan kot evropsko središče UI, saj se je že sredi šestdesetih ponašal z oddelkom za strojno učenje. Takrat sicer še nihče ni povsem razumel, kaj UI sploh je, dolga leta pa so bili zelo slabo vidni tudi rezultati prizadevanj omenjenega oddelka. Če so se ideji o UI takrat pogosto posmehovali celo akademiki s področja psihologije in kompleksnosti človeške inteligentnosti, se ji danes ne posmehuje nihče več.

UI je postala zelo prijemljiva realnost. Z razvojem obsežnih jezikovnih modelov ter njihovo zmogljivostjo rudarjenja obsežnih podatkovnih zbirk, kot je internet, so orodja UI postala dostopna širši javnosti. V zelo kratkem času, nekje od leta 2022, pa se je zavedanje o UI še povečalo z uporabo orodij s preprosto vodljivimi vmesniki in aplikacijami za mobilne telefone. Eno tovrstnih orodij je ChatGPT, osnovne funkcije katerega so na voljo brezplačno. Najbrž le peščica akademikov in pripadnikov generacije Z še ni preizkusila njegovih zmogljivosti, bodisi za zabavo, bodisi za pomoč pri različnih projektih.

Sam sem se z UI prvič srečal lani v vlogi glavnega urednika revije *Nurse Education in Practice*. Kolegica je za revijo napisala uvodnik o uporabi UI v izobraževanju medicinskih sester (O'Connor & ChatGPT, 2023), pri čemer je kot soavtorja navedla ChatGPT. Ker uvodniki niso podvrženi običajnemu recenzentskemu postopku in ker je bila to zame precej inovativna zamisel, se je med obdelavo članka to dejstvo spregledalo. Kontroverzno soavtorstvo pa so opazili pri *Nature News* (Else, 2023) in uvodnik je »postal viralen«. V omenjenem članku sem bil deležen ostre kritike, da sem dovolil navedbo orodja UI kot soavtorja. Moj založnik Elsevier me je hkrati oštel in pohvalil – oštel zaradi nepoznavanja pravil o navajanju orodij UI kot avtorja (se ne navajajo), hkrati pa pohvalil za objavo enega od najbolj citiranih uvodnikov.

Od takrat sem objavil številne članke, v katerih avtorjem s področja zdravstvene nege razkrivam uporabno vrednost UI pri pisanju člankov (Watson & O'Connor, 2023) ter naslavljam številna vprašanja, s katerimi se bodo akademske založbe morale soočiti ob pojavu avtorjem lahko dostopnih orodij UI (Watson & Stiglic, 2023). Akademske založbe se morajo rabi UI pospešeno prilagajati. Ena večjih založb, namreč Science, je njeno uporabo celo poskušala prepovedati,

vendar je nazadnje popustila, saj je spoznala, da bo bitko izgubila. Navodila avtorjem večine vodilnih akademskih založb že vključujejo razdelek o dopustni rabi orodij UI ter o ustreznem navajanju njihove rabe.

Vzporedno z akademskim založništvom v zdravstveni negi, kjer so ta vprašanja skupna vsem področjem raziskovanja, predstavlja UI izjemen potencial tudi kot pomoč pri sprejemanju odločitev v klinični praksi. V medicini se rabi UI pri sprejemanju kliničnih odločitev preučuje že vrsto let (Giordano et al., 2021), nedavne ugotovitve (Brown et al., 2023) pa celo kažejo, da njihova sposobnost sprejemanja kliničnih odločitev presega človeško. V praksi zdravstvene nege seveda obstajajo številne možnosti za vključevanje tovrstnih orodij. V Sloveniji Univerza v Mariboru tako sodeluje s kolegi iz Združenih držav Amerike (Gosak et al., 2024) pri uporabi generativne UI v izobraževanju na področju zdravstvene nege. Čeprav je njihovo dosedanje delo obetavno, je tudi jasno, da človeškega elementa pri sprejemanju odločitev ni mogoče zanemariti.

UI bo ostala, o tem smo lahko prepričani. Z razvojem programske opreme in izboljšanjem rudarjenih podatkovnih zbirk lahko pričakujemo nadaljnje izpopolnjevanje in izboljševanje njenih orodij. Čeprav dvomim, da bomo kdaj dosegli stopnjo, ko bi orodja UI nadomestila medicinske sestre, bodo slednje postajale vse bolj večje njihove uporabe. Hkrati pa se moramo zavedati, da bodo njihove uporabe vse bolj večji tudi pacienti, podobno kot sedaj uporabljajo internet kot vir zdravstvenih nasvetov. V sklopu izobraževanja medicinskih sester se mora zato v učne načrte zdravstvene nege čimprej vključiti tudi raba UI.

Conflict of interest/Nasprotje interesov

The author confirms that there are no conflict of interest./Avtor izjavlja, da ni nasprotja interesov.

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