cases	doc_1		doc_2		decision	id
	authors	• Sean MacAvaney • Arman Cohan • Nazli Goharian • Ross Filice	**authors**	• A Yates • AD Kalaria • AT Ruutiainen • J Walls • MA Makary • S Saleh	DUPLICATES	299
	title	Ranking Significant Discrepancies in Clinical Reports	**title**	Ranking Significant Discrepancies in Clinical Reports		
	publication_date	2020-01-18 00:00:00	**publication_date**	2020-01-18 00:00:00		
	source	SupportedSources.INTERNET_ARCHIVE	**source**	SupportedSources.CORE		
	journal		**journal**			
	volume		**volume**			
	doi		**doi**	10.1007/978-3-030-45442-5_30		
	urls	• https://web.archive.org/web/20200321055517/https://arxiv.org/pdf/2001.06674v1.pdf	**urls**	• http://arxiv.org/abs/2001.06674		
	id	id6308769325681900883	**id**	id7304576695284149652		
	abstract	Medical errors are a major public health concern and a leading cause of death worldwide. Many healthcare centers and hospitals use reporting systems where medical practitioners write a preliminary medical report and the report is later reviewed, revised, and finalized by a more experienced physician. The revisions range from stylistic to corrections of critical errors or misinterpretations of the case. Due to the large quantity of reports written daily, it is often difficult to manually and thoroughly review all the finalized reports to find such errors and learn from them. To address this challenge, we propose a novel ranking approach, consisting of textual and ontological overlaps between the preliminary and final versions of reports. The approach learns to rank the reports based on the degree of discrepancy between the versions. This allows medical practitioners to easily identify and learn from the reports in which their interpretation most substantially differed from that of the attending physician (who finalized the report). This is a crucial step towards uncovering potential errors and helping medical practitioners to learn from such errors, thus improving patient-care in the long run. We evaluate our model on a dataset of radiology reports and show that our approach outperforms both previously-proposed approaches and more recent language models by 4.5% to 15.4%.	**abstract**	Medical errors are a major public health concern and a leading cause of death worldwide. Many healthcare centers and hospitals use reporting systems where medical practitioners write a preliminary medical report and the report is later reviewed, revised, and finalized by a more experienced physician. The revisions range from stylistic to corrections of critical errors or misinterpretations of the case. Due to the large quantity of reports written daily, it is often difficult to manually and thoroughly review all the finalized reports to find such errors and learn from them. To address this challenge, we propose a novel ranking approach, consisting of textual and ontological overlaps between the preliminary and final versions of reports. The approach learns to rank the reports based on the degree of discrepancy between the versions. This allows medical practitioners to easily identify and learn from the reports in which their interpretation most substantially differed from that of the attending physician (who finalized the report). This is a crucial step towards uncovering potential errors and helping medical practitioners to learn from such errors, thus improving patient-care in the long run. We evaluate our model on a dataset of radiology reports and show that our approach outperforms both previously-proposed approaches and more recent language models by 4.5% to 15.4%.Comment: ECIR 2020 (short		
	versions		**versions**			