המחלקה להנדסת תוכנה
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The Shakespeare Authorship Question Through Deep Impostors Approach

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Abstract:

The discussion on the genuine identity of the creations ascribed to William Shakespeare of Stratford keeps it up today since opening approximately 150 years after his death. The "Shakespeare authorship question" considers uncovering the authentic authors of creations prescribed to Shakespearean. Literature and the Internet are replete with books, articles, and posts devoted to this topic. The proposed approach considers classical literature creations from the standpoint of small patterns.

Following this general perception, each text (tested and imposters) is split into sequential equal-sized chunks, and for a pair of the given impostors, a deep neuron network is trained. Further, the competent network assigns the chunks of the tested collection texts to each imposter, and the tested documents are transformed by suitable averaging into a real-valued signal. The Dynamic Time Warping distance calculated between such signals applied together with an appropriate Isolated Forest reveals outliers within the tested documents for each impostor's pair. The final stage summarizes these results by clustering the supplied *p*-values of the Isolated forests computed in every step. The obtained results confirm well with several common classifications and hypotheses.

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