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Identifying Misinformation from Website Screenshots

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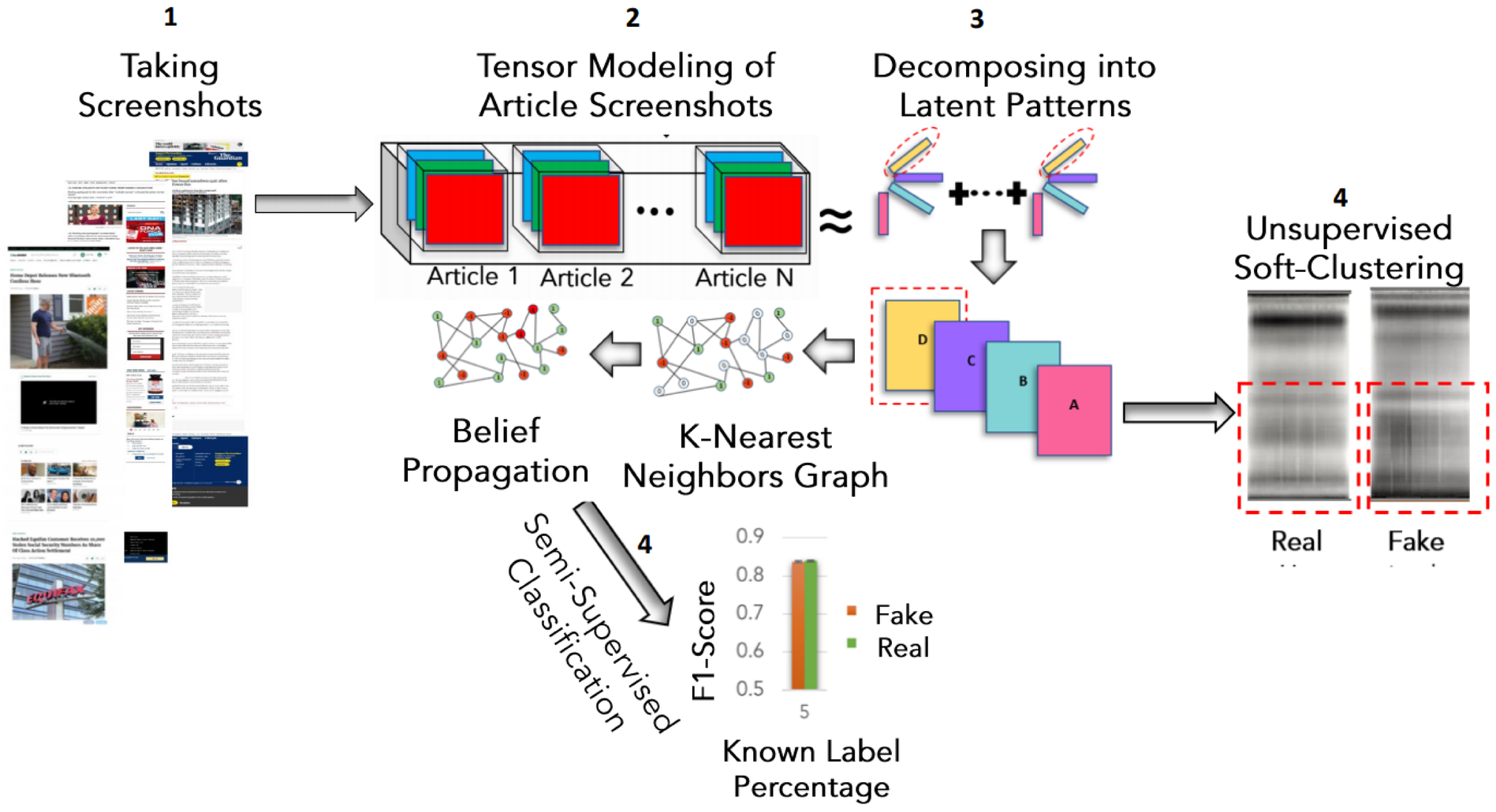

- **Using visual signal for modeling domain structure:** We propose to model article screenshots from different domains using a tensor-based formulation.
- **Fast and robust tensor decomposition approach i.e., VizFake for classification of visual information:** We propose a tensor-based model to find latent article patterns.
- **Unsupervised exploratory analysis:** Tensor-based representations of VizFake derived in an unsupervised manner, allow for interpretable exploratory analysis of the data.
- **Performance in label-scarce settings:** In contrast to deep learning approaches, VizFake can classify news articles with high performance using very few labels, due to a semi-supervised belief propagation formulation.
- **Experimenting on real-world data:** We evaluate VizFake on a real-world dataset we constructed with over 50K news article screenshots from more than 500 domains, by extracting tweets with news article links. Our experiments suggest strong classification results (85% F1 score) with very few labels (<5%) and over two orders of speedup compared to CNN-based methods.