Towards A Unified Multi-Domain Framework for Dialogue Generation

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Summary: Recently, dialogue systems of specific domains have received extensive attention in
the research community. A large-scale corpus is indispensable for dialogue systems.
Unfortunately, domain-specific dialogue materials are usually not available due to security and
privacy concerns. One line is to improve the performance of the target domain (i.e., corpus
insufficient side) through Domain Adaptation. Domain adaptation usually requires us to find a
source domain with a rich corpus for cross-domain transfer, which limits the popularity of
dialogue systems in specific domains. We observe that large-scale pre-trained language
models have achieved excellent performance in open-domain dialogue generation, such as
DialoGPT, BART, Meena, and ChatGPT. We believe that language models have great
potential in specific domains. In this project, having a source domain with a rich corpus is not
a requirement. We will explore the potential of large-scale language models in multiple
low-resource domains, or even zero-resource domains.
Prerequisites: enthusiasm, Good programming background (preferably python), basic
knowledge of NLP, Generation task, and Pytorch