

1. The OALS2.0 dataset. The OALS2.0 dataset contains 12,111 life stories from 116 older adults. We collected life stories from various nursing homes like Laoximen and Waitan in Shanghai, and Jing'an in Hefei. Each older adult was interviewed around four to five times, following an interview outline. These interviews aimed to explore their education, work experiences, family life, needs for elderly care services, and significant life events. We recruited volunteers aged 65 and above, with good communication skills, to conduct these interviews. Our dataset consists of voluntarily shared life stories. Following the wishes of older adults to make their life stories public, only 16 stories from nursing home residents met our criteria. To broaden our dataset, we extended the life stories to online sources, looking for stories from older adults aged 65 and above.

The life stories dataset for older adults contains life stories with both annotated and unlabeled event elements (<https://github.com/gerontech-hfut/StoryWell>). The life stories annotated with event elements contain 2022 life stories of 95 older adults. The life stories unlabeled with event elements contain 13868 life stories of 100 older adults. All the life stories of each older adult are saved in a folder, and each life story is an independent JSON file. The life stories of the annotated event elements are shown in Figure 1, and the life stories of the unlabeled event elements are shown in Figure 2.

```
{ "person_id": "0010",  
  "source_text": "1953年, 抗美援朝时期, 吴荣兴在团内担任股长时, 认识了自己的妻子。当时, 军队里的财会类职务, 往往都由女性担任。她在吴荣兴所在的团里当兵, 是一名参军的上海知青。吴荣兴回忆, 当时, 是那女孩子主动追求他的, “那时候, 很多人给她介绍对象, 那些人年纪都比我大, 她都不要, 她就要我。””,  
  "ei": "认识妻子",  
  "pc": "吴荣兴",  
  "tm": "1953年",  
  "loc": "",  
  "em": "1953年, 吴荣兴在团内担任股长时, 认识了自己的妻子" }
```

Figure 1. A life story with annotated event elements

```
{ "person_id": "0141",  
  "source_text": "1923年, 李善祥自筹一部分资金, 在南山一带购得2000亩山坡生荒地, 与陈少亭、曹霄奋等创组庙沟生生果园股份公司, 从国外高价引进优良品种, 种植苹果等果树, 创办了中国人第一个苹果园—南山生生果园。””,  
  "ei": "",  
  "pc": "",  
  "tm": "",  
  "loc": "",  
  "em": "" }
```

Figure 2. A life story without annotated event elements

2. The Twitter dataset. The dataset comprises 17,420 events collected from Twitter. We selected 5 topics from the US Trending list on Twitter, removed duplicates, and added them to the topic list. These topics were then used as keywords to crawl 500 tweets related to the topic. We filtered out tweets containing less than 20 words. As the majority of the tweets did not have a time element, we saved the posting time of the tweet as the time element of the tweet event.

3. The news of the CNN dataset. We use trending topics as keywords to simulate browser behavior and search on CNN. From this search, we crawl 40 news items related to the topic, with only articles being retrieved and sorted by their relevance to the topic. The posting time of the news article is saved as the time element of the news event. The resulting dataset contains 46,855 English news documents spanning 61 topics.