

Experiments.....

Case Studies for Multiple Modalities: Image Missed



(a) Want to help these unfortunates? New, iPhones, laptops, jewelry and designer clothing could aid them through this!



(b) Meet The Woman Who Has Given Birth To 14 Children From 14 Different Fathers!

- For first example, the complicated semantic meaning is contained in the attached image, which is challenging to be captured by VGG19.
- However, the words with strong emotion and inflammatory intention suggest this is a suspicious post.
- Second example looks very normal, but the text content seems to misrepresent the image to mislead the readers.
- Without texture content, the meaning of tweets would totally change.
- Only aligned with the corresponding text description, it can be identified as fake news.

Experiments.....

Convergence Analysis

- At the beginning, all of losses decrease.
- Then the discrimination loss increases and stabilizes at a certain level.
 - Decreasing in the beginning represents the event discriminator detecting the event-specific info in the feature.
 - the feature representation tend to be event invariant by the minimax game, specific info is removed incrementally, and the discrimination loss increases over the time.
- Then all losses smoothly converge, means that a certain level of equilibrium have been achieved.

