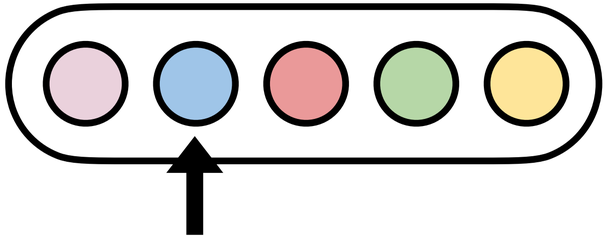
Methodology

Emotion Lexicon



- Given $\mathcal{T}$, gradually aggregate the scores of each word and the whole text across all the emotions for rich representation.
- For one of the emotion e, firstly calculate the word-level scores $s(t_i, e)$, if t_i is in $\mathcal{E}_e$, consider not only its occurrence frequency but also its contextual words.
- $$s\left(t_i, e\right) = \frac{1_{\mathcal{E}_e}\left(t_i\right) \times \mathrm{neg}\left(t_i, w\right) \times \mathrm{deg}\left(t_i, w\right)}{L}$$
- Example: "I am not very joyful today." $s(\text{joyful}, e_{happy}) = -1 \times 2 \times (1/6) = -1/3$

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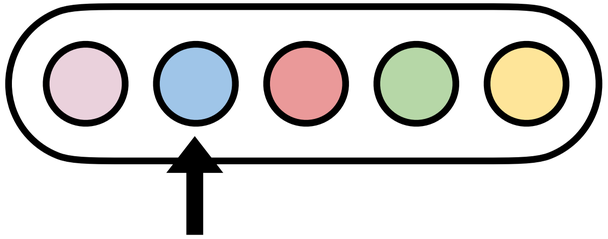
Emotion Lexicon



- $$s\left(t_i, e\right) = \frac{1_{\mathscr{E}_e}\left(t_i\right) \times \text{neg}\left(t_i, w\right) \times \deg\left(t_i, w\right)}{L}$$
- $$\text{neg}\left(t_i, w\right) = \prod_{j=i-w}^{i-1} \text{neg}\left(t_j\right), \deg\left(t_i, w\right) = \prod_{j=i-w}^{i-1} \deg\left(t_j\right)$$
- Example: "I am not very joyful today." $\text{neg}(\text{not}) = -1, \deg(\text{very}) = 2$
- $s(\text{joyful}, e_{happy}) = -1 \times 2 \times (1/6) = -1/3$