Simpler Voice
A Key Message & Visual Description Generator System for Illiteracy

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Introduction

• The social issues of illiteracy
  - Nearly 1 in 5 adults worldwide cannot read this sentence.
  - Difficulty in comprehending complex texts.
• Exceptional development in Data Science
  - Nature language processing
  - Artificial intelligence
• Proposed system SIMPLER VOICE:
  - Decoding complex texts
  - Simple key messages
  - Object2Text, Text2Visual

Technical Challenges

- Semantic parsing / semantic analysis from unknown word to image queries
- Word-sense-disambiguation, image-sense disambiguation mechanism, optimal visual components
- Linking words synsets to big datasets of descriptive images [3]
- Ranking queries & evaluating metrics [2,3]

Case Study & Results

• Case Study: Grocery shopping
  - Identifying how to use a product.
  - Encouraging customers to try new products.
  - Other products info (eg. Warning, allergy, etc.)
• System Demonstration
  - Input:
    Grocery product barcode (eg. 3700098084)
  - Generated Queries:
    [Subject] + [Verb] + [Category]
    > Woman / Man washing with Dishwasher Detergent
    > Woman / Man washing with auto dish care
  - Final Results:
    - Mobile App:

Related Research