

# Towards a Taxonomy for Evaluating User Engagement in Information Visualization



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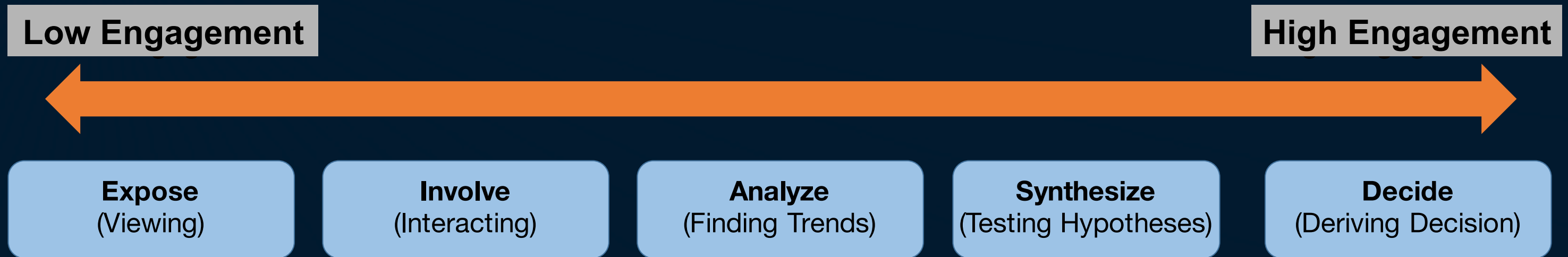


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# User Engagement in Personal Visualization

- Personal visualization for diverse, non-expert user group:
  - User engagement is critical
- The current status of “Engagement” in the VIS community:
  - No common definition
  - No systematic methods to evaluate
- Unified definition + systematic metrics can make effective evaluation tools.

# Defining Engagement with Degrees



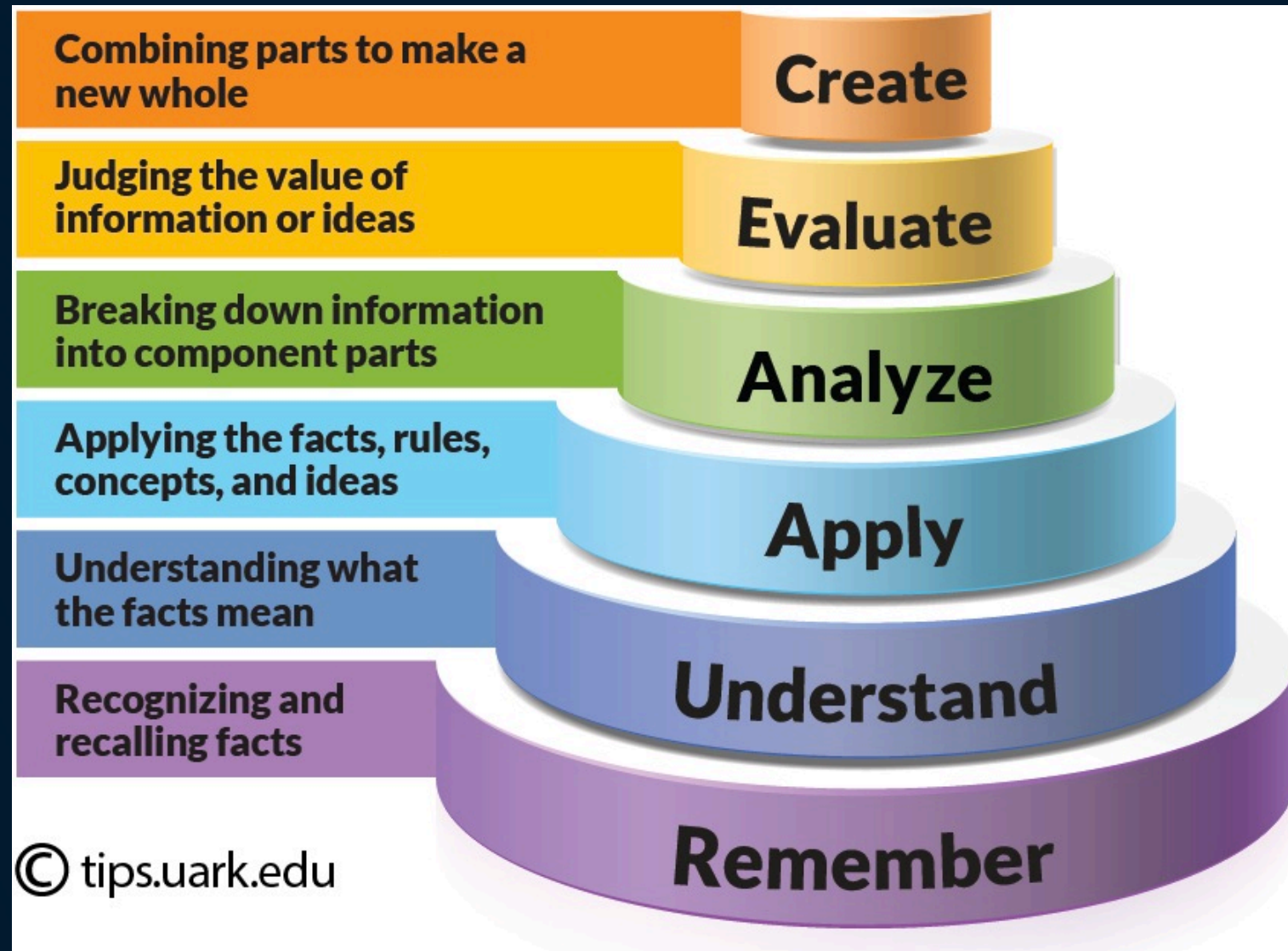
- 1. Expose:** the user knows how to read
- 2. Involve:** the user interacts with visualization
- 3. Analyze:** the user analyzes data (e.g. find trends)
- 4. Synthesize:** the user tests hypotheses
- 5. Decide:** the user derives decisions

# Open Research Questions

1. Definition of Engagement
2. What are the levels of engagement?
3. How do we measure engagement?
4. What are the differences between short-term vs. long-term engagement?
5. How can we increase the engagement level by visualization design?
6. Do personal traits correlate with the degree of engagement with some visualizations?
7. How can we incorporate the user engagement level into visualization models?

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# Bloom's Taxonomy



- B. S. Bloom. Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook 1-2. Longmans: McKay, 1974.