### Pros & Cons of Simulation

<table>
<thead>
<tr>
<th><strong>Pros:</strong></th>
<th><strong>Cons:</strong></th>
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<tbody>
<tr>
<td>✓ Allows for more realism, complexity, randomness</td>
<td>✓ Each system is different &amp; requires its own model</td>
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<td>✓ Easier for clients to understand &amp; get involved with</td>
<td>✓ Easier to misuse (e.g., too much focus on animation)</td>
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<tr>
<td>✓ Help us better understand how a real system works</td>
<td>✓ Wrong model structure =&gt; Meaningless results</td>
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### Additional Pros:
- Easier & cheaper to alter model than real system
  - Can control randomness
  - Can compress time
- “What if” analysis
  - Unlimited experimentation
- Can have multiple objectives (PM’s)

### Additional Cons:
- Still can take lots of time, money & effort:
  - Collecting data; Coding;
  - Validating; Experimenting
- No guarantee of optimal or even good answers
- Hard to prove simulation model is valid (but this is true of most models)