<table>
<tr><th></th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr>
<tr><td rowspan="2">LOOKUP</td><td colspan="4">Appropriate visual encodings:</td></tr>
<tr><td>Determined by graph representation; attribute encodings</td><td>Graph vis; timeslice views</td><td>Temporal vis; nested views; Time Fluxes [1], Vertex Small Multiples [2], LinkWave [3], NetVisia [4]</td><td>Temporal graph vis; design space [5]</td></tr>
<tr><td>Direct
(‘find attribute values or patterns, or structural patterns associated with given graph objects at given times’)</td><td colspan="4">Graph and temporal navigation</td></tr>
<tr><td rowspan="4">Inverse
(‘identify graph/time components corresponding to attribute values or patterns, or structural patterns)</td><td></td><td colspan="3">Filtering and reduction techniques to reveal patterns</td></tr>
<tr><td colspan="4">Filtering/highlighting to reduce search space</td></tr>
<tr><td colspan="4">Labelling strategies to identify time/graph objects</td></tr>
<tr><td colspan="4">Marking found graph objects/times for use in later tasks</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td rowspan="2">COMPARISON</td><td colspan="4">Gleicher’s approaches [6]: juxtaposition, superposition, explicit encoding</td></tr>
<tr><td colspan="4">Display a specified data item</td></tr>
<tr><td>Direct
(‘compare attribute values or patterns, or structural patterns’)</td><td colspan="2">Alignment, colour context
Graph comparison techniques – layout, transitioning, differencing, matching; co-ordinated pan & zoom
★</td><td>Nested views; aligned timeseries
★</td><td>Examples: [7], TimeMatrix [8], MatrixFlow [9], [1]
★</td></tr>
<tr><td rowspan="2">Inverse
(‘compare (find the relationship between) graph objects or times’)</td><td colspan="4">Identifiable graph/time labels</td></tr>
<tr><td colspan="2">Interactive highlighting of connections between selected graph objects; PaperLens [10]</td><td></td></tr>
<tr><td colspan="5"></td></tr>
<tr><td>RELATION SEEKING
(‘find data items related in a given manner’)</td><td colspan="2">Matching techniques (visual links, colour coding, brushing and linking); interactively highlighting nodes linked to a selected graph object; graph construction based on user-specified relationships (Phrase Nets [11])
★</td><td>TimeSearcher [12]</td><td>★</td></tr>
</table>

★ = possible opportunity for further research

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