Supplementary Materials for “VisRecall: Quantifying information Visualisation Recallability via Question Answering”

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This document contains the visualisation type distribution among MTurk groups (Figure 1), and additional examples from the VisRecall dataset for each visualisation type (Figure 2-7). Moreover, we provide the hit rate, false alarm rate, memorability (recognisability) and recallability scores of all visualisations in each quadrant in Figure 9 (Right) from the main manuscript (Tables 1, 2, and 3).

Fig. 1: Visualisation type distribution, i.e. the number of visualisations of a certain type, among ten MTurk groups.
Fig. 2: Example visualisation of bar plots from VisRecall dataset with five multiple-choice questions. The correct answer to each question is shown in bold.

Fig. 3: Example visualisation of tables from VisRecall dataset with five multiple-choice questions. The correct answer to each question is shown in bold.
Question: What is the theme of this visualization?
A: Tourism and GDP  
B: Foreign exchange reserves and GDP  
C: Military spending and GDP  
D: I can not remember  
Type: T-question

Question: What period of data does this visualization show?
A: 2001-2010  
B: 2002-2010  
C: 2002-2011  
D: I can not remember  
Type: F-question

Question: Which country has the biggest GDP growth in this period?
A: China  
B: Angola  
C: Ethiopia  
D: I can not remember  
Type: FE-question

Question: Which country has the biggest Military spending growth in this period?
A: Ecuador  
B: Kazakhstan  
C: Armenia  
D: I can not remember  
Type: FE-question

Question: Which country has a negative growth in military spending?
A: Italy  
B: Canada  
C: Singapore  
D: I can not remember  
Type: F-question

Fig. 4: Example visualisation of scatter plots from VisRecall dataset with five multiple-choice questions. The correct answer to each question is shown in bold.
Question: What is the theme of this visualization?
A: Total Professional services
B: Total Professional services and Scientific services
C: Total Professional services, Scientific and technical services
D: I can not remember
Type: T-question

Question: What year's data is displayed in this visualization?
A: 2009-2010
B: 2009-2011
C: 2007-2009
D: I can not remember
Type: F-question

Question: Which Field has the highest share of contribution?
A: Computer systems and related services
B: Scientific research and development
C: Architectural Engineering
D: I can not remember
Type: FE-question

Question: Which Field has the lowest share of contribution?
A: Computer systems and related services
B: Scientific research and development
C: Other professional, scientific and technical services
D: I can not remember
Type: FE-question

Question: Which keyword stands for the visualization the best?
A: Professional
B: Transactions
C: Technologies
D: I can not remember
Type: F-question

Question: What is the theme of this visualization?
A: Beer consumption around the world
B: Beer consumption around Europe only
C: Beer consumption around US only
D: I can not remember
Type: T-question

Question: What are the years seen in the visualization?
A: 2008 and 2010
B: 2000 and 2001
C: 2008 and 2009
D: I can not remember
Type: F-question

Question: Which country has recorded the highest consumption in terms of liters per person?
A: Czech Republic
B: US
C: Germany
D: I can not remember
Type: F-question

Question: Which country has recorded the lowest consumption in terms of liters per person?
A: Vietnam
B: France
C: China
D: I can not remember
Type: F-question

Question: How much Hectoliters/m of beer is produced by Asia and Europe in the year 2009?
A: Around 500
B: Above 550
C: Below 400
D: I can not remember
Type: RV-question

Fig. 6: Example visualisation of pie plots from VisRecall dataset with five multiple-choice questions. The correct answer to each question is shown in bold.

Fig. 7: Example visualisation of others from VisRecall dataset with five multiple-choice questions. The correct answer to each question is shown in bold.
### Table 1: Hit rate, false alarm rate, memorability (recognisability) and recallability scores of all visualisations in top-left quadrant in Figure 9 (Right) from the main manuscript.

<table>
<thead>
<tr>
<th>Visualisations</th>
<th>Hit Rate</th>
<th>False Alarm Rate</th>
<th>Memorability (Recognisability)</th>
<th>Recallability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upturn Amid Downturn</td>
<td>1</td>
<td>0.026</td>
<td>3.986</td>
<td>0.358</td>
</tr>
<tr>
<td>Number of registered self-employed, by country of origin</td>
<td>1</td>
<td>0.051</td>
<td>3.669</td>
<td>0.183</td>
</tr>
<tr>
<td>Table 15. Alcohol-attributable deaths per million inhabitants by income group and the world, 2004</td>
<td>1</td>
<td>0.077</td>
<td>3.463</td>
<td>0.075</td>
</tr>
<tr>
<td>C – Annual blood examination rate, 2007–2011</td>
<td>0.875</td>
<td>0</td>
<td>3.382</td>
<td>0.292</td>
</tr>
<tr>
<td>Visualisations</td>
<td>Hit Rate</td>
<td>False Alarm Rate</td>
<td>Memorability (Recognisability)</td>
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</tr>
<tr>
<td>----------------</td>
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</tr>
<tr>
<td>Selected learning buildings</td>
<td>1</td>
<td>0</td>
<td>4.268</td>
<td>0.633</td>
</tr>
<tr>
<td>Breeding bird species abundance</td>
<td>0.970</td>
<td>0</td>
<td>4.203</td>
<td>0.679</td>
</tr>
<tr>
<td>Running Dry</td>
<td>1</td>
<td>0.026</td>
<td>3.986</td>
<td>0.658</td>
</tr>
<tr>
<td>Auto Industry</td>
<td>1</td>
<td>0.026</td>
<td>3.986</td>
<td>0.650</td>
</tr>
</tbody>
</table>

TABLE 2: Hit rate, false alarm rate, memorability (recognisability) and recallability scores of all visualisations in top-right quadrant in Figure 9 (Right) from the main manuscript.
TABLE 3: Hit rate, false alarm rate, memorability (recognisability) and recallability scores of all visualisations in bottom-left quadrant in Figure 9 (Right) from the main manuscript.