

# A Study on Glyph-based Visualisation with Dense Visual Context

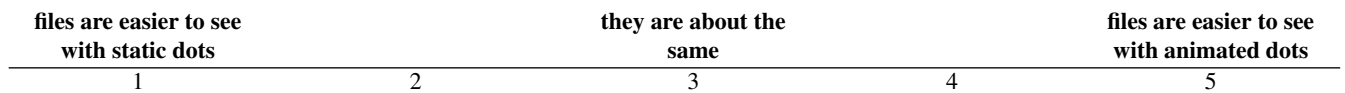
Saiful Khan,<sup>1,2</sup> Karl J. Proctor,<sup>2</sup> Simon Walton,<sup>2</sup> René Bañares-Alcántara,<sup>1</sup> and Min Chen<sup>2</sup>  
<sup>1</sup>Department of Engineering Science, <sup>2</sup>Oxford e-Research Centre, University of Oxford, UK

The supplementary material contains the questionnaire asked to the participants of the focus group study.

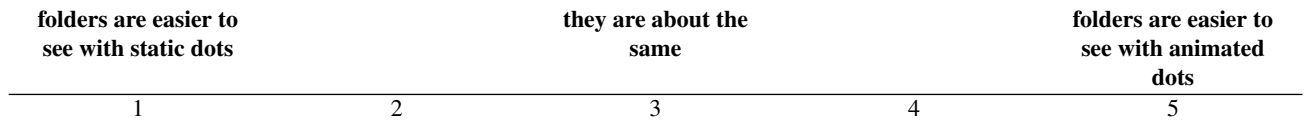
## 1. Questionnaire

### 1.1. Static Dots vs. Animated Dots

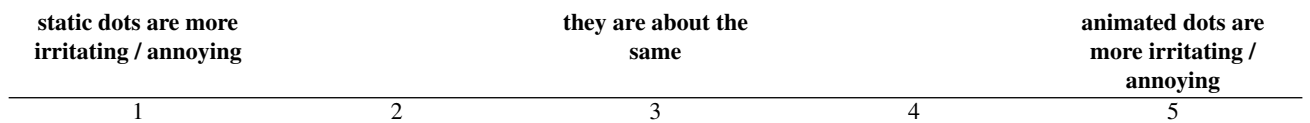
**Q1a.** Do you find it is easier to see **all individual files** (identified by a search) when they are presented as static dots or animated dots?



**Q1b.** Do you find it is easier to see the **underlying directory (folder) structure** in a treemap when files are shown as static dots or animated dots?

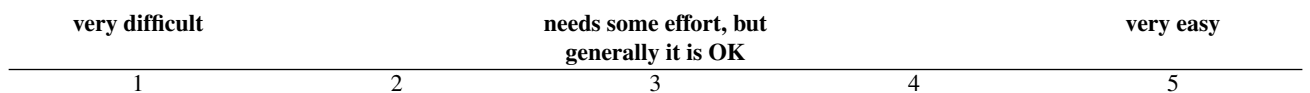


**Q1c.** Do you find static dots or animated dots more **irritating/annoying**?



### 1.2. Static Dots vs. Static Glyphs

**Q2a.** How easy or difficult is for you to **learn** the visual encoding of file attributes in glyphs?



**Q2b.** How easy or difficult is for you to **remember** the visual encoding of file attributes in glyphs?

<b>very difficult</b>		<b>needs some effort, but generally it is OK</b>		<b>very easy</b>
1	2	3	4	5

**Q2c.** How willing are you to **learn and memorise** the visual encoding of file attributes in glyphs if your job requires you to carry out file search frequently (e.g. more than 20 times per day)?

<b>I will not learn it even this is required</b>		<b>if required, I am OK</b>		<b>I will learn it without any persuasion</b>
1	2	3	4	5

**Q2d.** In order for the glyphs to have advantages over static dots, how frequently do you feel that one will have to carry out file searches as part of one's job?

	<b>glyphs are advantageous only if one does file search</b>				
<b>glyphs are never advantageous</b>	<b>1-20 times a day</b>	<b>21-40 times a day</b>	<b>40 or more times a day</b>	<b>glyphs are always advantageous</b>	
1	2	3	4	5	

**Q2e.** Do you find it is easier to **see the underlying directory (folder) structure** in a treemap when files are shown as static dots or static glyphs?

<b>folders are easier to see with static dots</b>		<b>they are about the same</b>		<b>folders are easier to see with static glyphs</b>
1	2	3	4	5

### 1.3. Static Glyph vs. Animated Glyphs

**Q3a.** Do you find it is easier to **see all individual files** (identified by a search) when they are presented as static glyphs or animated glyphs?

<b>files are easier to see with static glyphs</b>		<b>they are about the same</b>		<b>files are easier to see with animated glyphs</b>
1	2	3	4	5

**Q3b.** Do you find it is easier to **see individual file attributes** (e.g., type, size, last modified date) when they are presented as static glyphs or animated glyphs?

<b>attributes are easier to see with static glyphs</b>		<b>they are about the same</b>		<b>attributes are easier to see with animated glyphs</b>
1	2	3	4	5

**Q3c.** Do you find it is easier to **see the underlying directory (folder) structure** in treemap when files are shown as static glyphs or animated glyphs?

<b>folders are easier to see with static glyphs</b>		<b>they are about the same</b>		<b>folders are easier to see with animated glyphs</b>
1	2	3	4	5

**Q3d.** Do you find static glyphs or animated glyphs more **irritating / annoying**?

<b>static glyphs are more irritating / annoying</b>		<b>they are about the same</b>		<b>animated glyphs are more irritating / annoying</b>
1	2	3	4	5

#### 1.4. Animated Dots vs. Animated Glyphs

**Q4a.** Do you find it is easier to **see the underlying directory (folder) structure** in a treemap when files are shown as animated dots or animated glyphs?

<b>folders are easier to see with animated dots</b>		<b>they are about the same</b>		<b>folders are easier to see with animated glyphs</b>
1	2	3	4	5

**Q4b.** Do you find animated dots or animated glyphs more **irritating / annoying**?

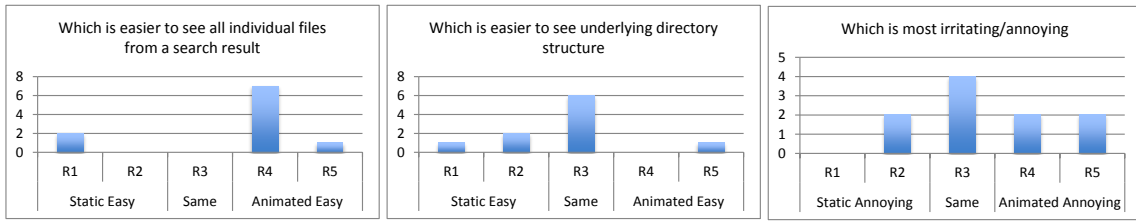
<b>animated dots are more irritating / annoying</b>		<b>they are about the same</b>		<b>animated glyphs are more irritating / annoying</b>
1	2	3	4	5

#### 2. General Discussion

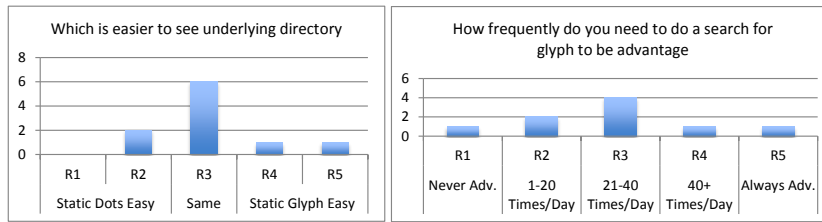
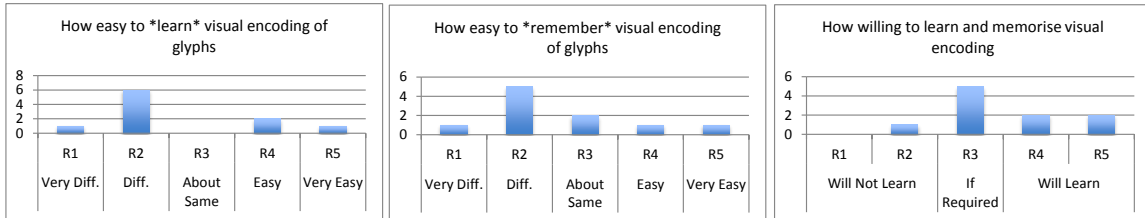
The general discussion session (about 20 minutes) will be recorded in order for the researchers to transcript your views more accurately. No written statement is required, but you are welcome use the space below to write down any additional comments and suggestions. In the general discussions, we are interested in your comments and suggestions about: (a) The design of glyphs, including but not limited to visual encoding for different attributes, overall glyph size, use of colours, etc.. (b) The timing of the animation for dots or glyphs. (c) If there is irritation or annoyance with animated dots or glyphs, how can it be alleviated? (d) Mechanisms for leaning and remembering glyph encoding. (e) Any other aspects that you think important.

#### 3. Results

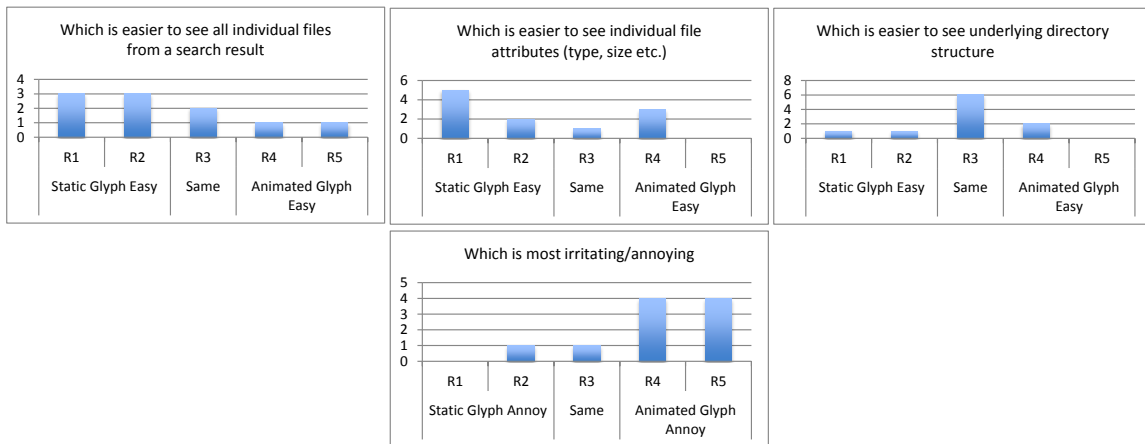
The results of the focus group study is presented in figure 1.



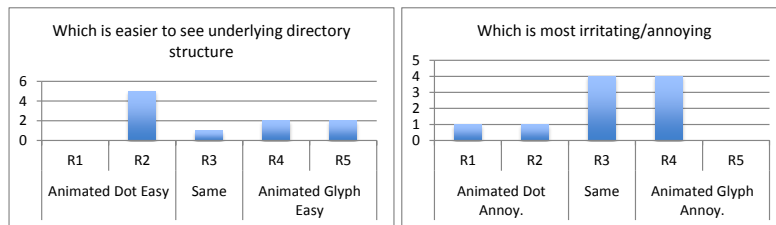
(a) Static Dots vs. Animated Dots



(b) Static Dots vs. Static Glyphs



(c) Static Glyph vs. Animated Glyphs



(d) Animated Dots vs. Animated Glyphs

Figure 1: Results of the qualitative evaluation of the system.