







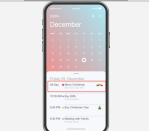
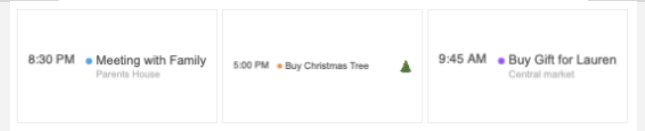




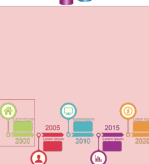
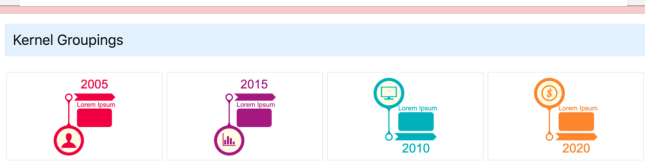

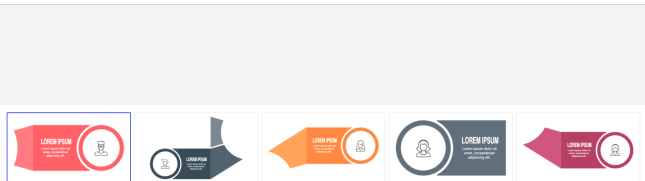

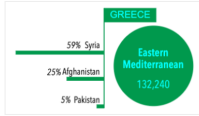

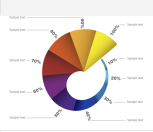




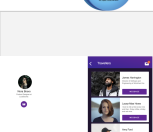







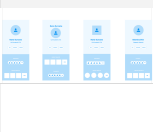
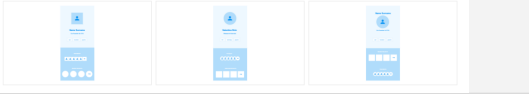






Test Data Set										
Design	# Elements		Variations		Match					Grouping
	Source	Target	Count	Type	Separate	All	Node Kernel	Uniform weights	Match highest similarity	Inferred k
	11.08	40.08	4.23		0.97	0.96	0.84	0.95	0.93	
	17	21	2	Text Cardinality	1.00	1.00	0.95	1.00	0.83	
	5	25	3	Color Size Text	1.00	1.00	0.96	1.00	0.96	
	10	50	3	Color Shape Size	1.00	1.00	0.76	1.00	1.00	
	14	40	3	Color Layout Text	1.00	1.00	1.00	1.00		
	6	15	4	Cardinality Color Size Text	1.00	1.00	1.00	1.00		
	9	63	4	Color Layout Shape Text	0.95	0.95	0.90	0.96		
	8	46	4	Cardinality Color Shape Size	0.98	0.98	0.72	1.00		
	8	33	5	Cardinality Color Layout Shape Text	1.00	1.00	0.76	1.00	1.00	<div>Kernel Groupings</div> 
	16	60	5	Cardinality Color Layout Shape Size Text	0.90	0.90	0.78	0.86	0.87	

	10	33	5	Cardinality Color Size Text Layout	1.00	1.00	0.94	0.97	1.00			
	4	36	5	Color Layout Shape Size Text	0.97	0.89	1.00	0.86				
	30	76	6	Color Cardinality Shape Size Layout Text	1.00	1.00	0.47	0.87				
	7	23	6	Cardinality Layout Shape Size Text Type	0.78	0.78	0.78	0.78	0.78			
	38	73	5	Cardinality Color Layout Shape Text	1.00	1.00	0.95	1.00				
	14	62	5	Cardinality Layout Shape Size Text	918032786	0.952	0.677	0.887				
	9	36	4	Shape Size Layout Text	1.000	0.972	0.806	0.972	0.972			
	40	120	4	Cardinality Layout Shape Size	1.000	1.000						
	24	109	5	Cardinality Color Shape Size Layout	1.000	1.000						
	9	33	5	Cardinality Color Shape Size Text	1.000	1.000						

	16	48	4	Color Shape Text Layout		0.958				
	19	52	5	Cardinality Color Shape Size Layout	0.923	0.923				
	10	37	6	Cardinality Color Shape Size Laout Text	0.838	0.784				
	19	27	5	Cardinality Color Shape Size Layout	1.000	1.000	0.741	1.000		
	12	47	5	Color Layout Shape Size Text	1.000	1.000	1.000	1.000		
	16	48	4	Color Layout Shape Text	0.896	0.854				

* Ablation Experiments were run on a subset of the designs.

* Highlighted rows indicate designs with nested source tree.