

CONTENTS

About the author ix

Acknowledgements xi

01 What is neuro design? 1

What is neuro design? 3

A global psychology experiment 5

The importance of digital images 6

Web users are intuitive, impatient and image-focused 7

‘System 1’ business 9

Neuro design 10

Summary 14

Notes 14

02 Neuroaesthetics 17

Aesthetics and neuroscience 19

Neuroaesthetics is born! 21

Ramachandran’s nine principles 24

Semir Zeki: artists are neuroscientists 33

Summary 37

Notes 37

03 Processing fluency: how to make designs feel more intuitive 39

Processing fluency 42

Familiarity: the mere exposure effect 42

Physiological evidence for processing fluency 44

People internally monitor their ease of processing 45

How Systems 1 and 2 decode an image 46

Perceptual and conceptual fluency 47

Beyond simplicity versus complexity 49

Novelty and complexity can lead to liking 50

How would you make a robot curious to view images? 52

Ways to make designs more fluent	59
Checking the complexity of your designs	74
Summary	75
Notes	76

04 How first impressions work 81

The halo effect	83
Are first impressions just a feeling?	84
First impressions of people online	85
Thin slicing and the impatient consumer	87
What drives first impressions?	89
Novelty can harm usability	93
Implications for designers	94
Clear at a glance	95
Summary	98
Notes	98

05 Multisensory and emotional design 101

Activating other senses through visuals	103
Do letters trigger colour associations?	104
Day-colour associations	106
Do shapes have colours?	106
Colour	108
Embodied cognition	111
Word sound associations	112
The <i>affect</i> heuristic	113
Faces	113
The uncanny valley	115
Cuteness	116
Anthropomorphic design	117
Curved and pointy shapes	117
Summary	120
Notes	120

06 Visual saliency maps 123

How we decide where to look	125
The power of visual saliency	129
Saliency mapping software	130

Using saliency mapping software 131
Saliency mapping on webpages 132
How designers can use visual saliency 134
Summary 136
Notes 136

07 Visual persuasion and behavioural economics 139

Priming 141
Persuasion is not always conscious 142
Behavioural economics: shortcuts to decision making 146
Revisiting the pension challenge 151
Visual nudges 153
Creating/testing persuasive imagery and nudges 154
Summary 155
Notes 156

08 Designing for screens 157

Reading is harder on screens 160
Ways to increase readability of text 162
Hard to read = hard to do 162
Disinhibition effect 165
Mobile screens 165
Central fixation bias 168
Horizontal viewing bias 170
Summary 172
Notes 173

09 Viral designs 175

Memes 176
Internet memes 178
Memes and neuro design 180
Mimetic desire 182
Emotions and viral content 183
Can a computer predict if an image will go viral? 184
The main viral image sites 187
Summary 188
Notes 189

- 10 Designing presentation slides 191**
Allowing the audience to follow your message 193
Visual learning 200
Summary 202
Notes 203
- 11 Conducting neuro design research 205**
Average versus polarizing results 208
Controlling for other factors 208
The new research tools 210
Keeping up with new research findings 217
Conclusion 220
Summary 221
Notes 222
- 12 Conclusion 223**
Applications for neuro design 227
New screens and formats 230
More data for finding patterns 233
What neuro design still needs to learn 235
Notes 237
- Appendix: 61 neuro design principles 239*
Index 245