TRAINING OBJECTIVES

These training workshops aim to provide delegates with an accessible and advanced understanding of data visualisation and infographic design: how to effectively communicate data visually.

The focus of the training is to teach the craft of this discipline, helping delegates to know what to think, when to think and how to think about all the analytical and design decisions involved in any data-driven communication. There are four key learning aims for these workshops:

To challenge your existing thinking about creating and consuming visualisation works, helping to clarify your convictions about what differentiates the good from bad in visualisation design.

To enlighten you with an appreciation of the wide range of analytical and design options, covering all chart types, interactivity techniques, ways of annotating, applications of colour, and features of composition.

To equip you with an efficient design process giving you the confidence to make astute choices based on sound principles and contextual influences.

To inspire you to elevate your ambitions, by broadening your visual vocabulary and exposing you to the best contemporary techniques.

THE APPROACH

The training is structured around a proven design process. Across the session delegates will build up, stage by stage, a detailed understanding of all the different aspects of decision-making that goes into any data visualisation challenge, whether for one-off projects or recurring works.

The content is delivered through a vibrant blend of teaching, discussion, and group practice. The practical exercises vary in nature from evaluating work, interrogating data, conceiving ideas, and assessing design choices.

This is not a technical course and the teaching is not framed around specific tools or applications. Across the session there will be references to some of the most common, contemporary visualisation technologies but the emphasis is on learning the underlying craft, regardless of your tools.

Materials will be issued digitally (e.g. Dropbox/USB flash drive) covering all teaching content, exercise files and useful resources. Attendees are required to bring fully-charged laptops to use as a convenient workspace with the only software requirements being Excel, a modern browser and pdf reader: no other technical or skill-based prerequisites exist.

WHO SHOULD ATTEND?

Over 6,000 people have attended Andy Kirk’s training events with delegates coming from all backgrounds, organisation types and domain areas: they are intended for and useful for any participant demographic.

You might be an analyst, statistician, or researcher looking to enhance the creativity and impact of your communications. Perhaps you possess creative flair, as a designer or developer, but you’re seeking to enhance the rigour of your data-driven thinking? Maybe you do not personally get your hands on the analysis of data but coordinate colleagues who do?

In contemporary society we cannot avoid being regular consumers of data visualisations, as we encounter visual displays in the media and through our workplaces. A key aspect of this training is to enhance our visual literacy as readers, interpreters and evaluators of visualisations.

The most crucial pre-requisite attribute is to demonstrate curiosity - an instinct for and interest in discovering and sharing insights from data. You will need an appetite to find a fresh approach to communicating data through visual representation and presentation. You should also be willing to contribute to and learn from discussions with fellow delegates during exercise activities and do so in a respectful and constructive manner.

TOPICS COVERED

An indicative agenda for the workshop is provided over the page. The training content, its sequencing, and the session’s rhythm is constantly being refined to optimise the impact of the teaching. The final itinerary and precise times presented may therefore evolve. Here is an outline of the main topics that will be covered:

Defining data visualisation and its juxtaposition with related fields
Overview of a process-driven approach for efficiency and effectiveness
The key principles of good data visualisation design
The role of consuming in developing a sophisticated visualisation literacy
The influence of contextual requirements and circumstances
Appreciation of the spectrum of contemporary styles of visualisation work
Assessing the physicality and potential of your data
Using visual techniques to explore data
The influence and components of editorial thinking
The data visualisation design anatomy
The building blocks of data encoding
The vast spectrum of different chart types and their roles
References to 1000+ examples and solutions via the ‘chartmaker directory’
The features and role of interactivity in visualisation design
The role of effective annotation for assistance and insight
Colour theories and best practice applications
The composition decisions around organising the layout your work
Understanding the component skills across the 7-hats of visualisation
Profiles of the key visualisation tools, applications and libraries

TRAINER PROFILE

Andy Kirk is an experienced UK-based data visualisation specialist: design consultant, teacher, author, speaker, researcher, podcast host (soon!) and editor of visualisingdata.com. Since founding Visualising Data Ltd. in 2011, Andy has delivered over 275 public and private training events in 27 countries, with clients like Spotify, Google, EU Council, and CERN. He has held visiting lecturer roles at MICA (USA) and Imperial College (UK), and now has a similar role teaching at UCL (UK). He is the author of three books, with the most recent title published in August 2019 by Sage, ‘Visualising Data: A Handbook for Data Driven Design (second edition). Andy also provides data visualisation services to Arsenal F.C.
DAY ONE

9:30 WELCOME TO DAY ONE
Overview of the workshop

10:00 INTRODUCTION
Exercise 0 – Warm-up | Discussion
Defining data visualisation
Exercise 1 – Instinctive critical evaluations | Discussion

11:10 BREAK

11:30 THE VISUALISATION DESIGN PROCESS
The three principles of good visualisation design

11:50 STAGE 1: FORMULATING YOUR BRIEF
Exercise 2 – Thinking about curiosity | Discussion
Context: Curiosity, circumstances
Exercise 3 – Thinking about context | Discussion
Vision: Purpose, ideas

12:45 LUNCH

13:45 STAGE 2: WORKING WITH DATA
Four steps towards developing intimacy with your data
Exercise 4 – Visualising the Olympics (1/3)

14:35 Project 1 – Formulating your brief
Project 2 – Working with data

15:05 BREAK

15:25 STAGE 3: ESTABLISHING EDITORIAL THINKING
Defining editorial thinking
The three editorial perspectives
Exercise 5 – Visualising the Olympics (2/3)

15:55 Project 3 – Editorial thinking

16:20 STAGE 4: DEVELOPING YOUR DESIGN SOLUTION
A profile of key tools, applications and libraries
Exercise 6 – Encoding data | Discussion

16:50 WRAP-UP & REVIEW

17:00 FINISH

DAY TWO

9:30 WELCOME TO DAY TWO
Review of day one, preview of day two

9:35 4.1: DATA REPRESENTATION
Visual encoding and the gallery of chart types
Influencing factors and considerations
Exercise 7 – Visualising the Olympics (3/3) | Discussion

11:00 BREAK

11:20 Project 4.1 – Data representation

11:40 4.2: INTERACTIVITY
Techniques for interactivity in data visualisation
Influencing factors and considerations
Exercise 8 – Forensic critical evaluations (1)

12:20 4.3: ANNOTATION
Features of annotation in data visualisation
Influencing factors and considerations
Exercise 8 – Forensic critical evaluations (2)

12:45 LUNCH

13:45 Project 4.2 – Interactivity & Project 4.3 – Annotation

14:10 4.4: COLOUR
Applications of colour in data visualisation
Influencing factors and considerations
Exercise 8 – Forensic critical evaluations (3)

14:35 4.5: COMPOSITION
Decisions about composition in data visualisation
Influencing factors and considerations
Exercise 8 – Forensic critical evaluations (4)

15:00 BREAK

15:20 Exercise 8 – Forensic critical evaluations | Discussion

15:45 Project 4.4 – Colour & Project 4.5 – Composition

16:10 Project Final – Group presentations | Discussion

16:50 WORKSHOP WRAP-UP
Final review and Q&A

17:00 FINISH