

Essential Design Principles for Tableau

Static Versus Interactive Visualizations



Consider the context
and workflows where
your designs are used



Static designs
require careful thought
about what is and isn't
being displayed

Users cannot adjust the view



Interactive visualizations have more viewing options

More interactivity
requires users to think
and decide how to
view the data

Users want and need
more interactivity



Large data sets can generate chaotic visualizations





Tools to untangle
the data:

Filtering

Zooming controls

Start with
a big picture view

Then go into details

You can reveal multiple
details within the same
workflow interface



"Overview first, zoom and filter,
then details on demand."
- Ben Shneiderman

This is an iterative process

1. Direct manipulation of graphical objects
2. Exploration and navigation
3. Problem solving and question generation

Colin Ware's
interactive visualization
– interlocking feedback
loops

Direct manipulation
of graphical objects:

Ability to interact with
various visual elements
representing data



Uses of visual elements:

Hover/roll-over
provides additional
details

Input mechanism

Enhance display

Pivot point for
new exploration



Direct data manipulation should have a purpose
and meet the needs of users





Crowded and overlapped graphics are hard to interact with

Outlining, highlighting, rollovers, and image zooming help users select items

Exploration and
navigation lets users
quickly find information



The interface
should help users:

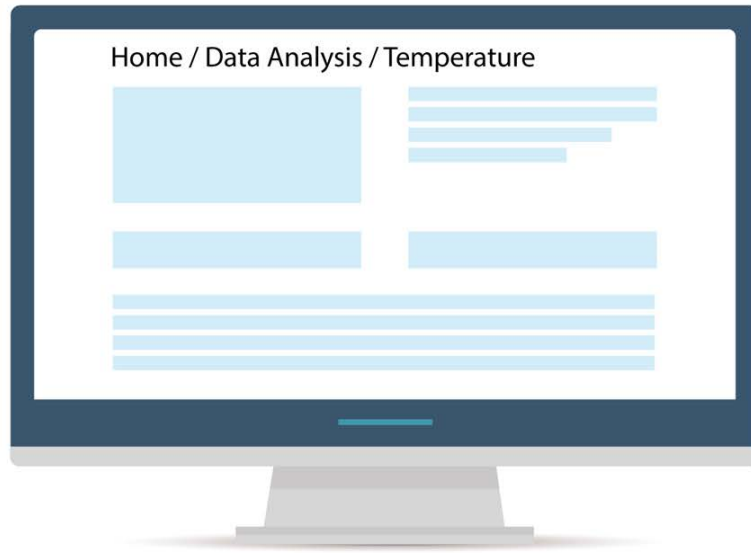
Enter

Orient themselves

Move toward

Discover new paths

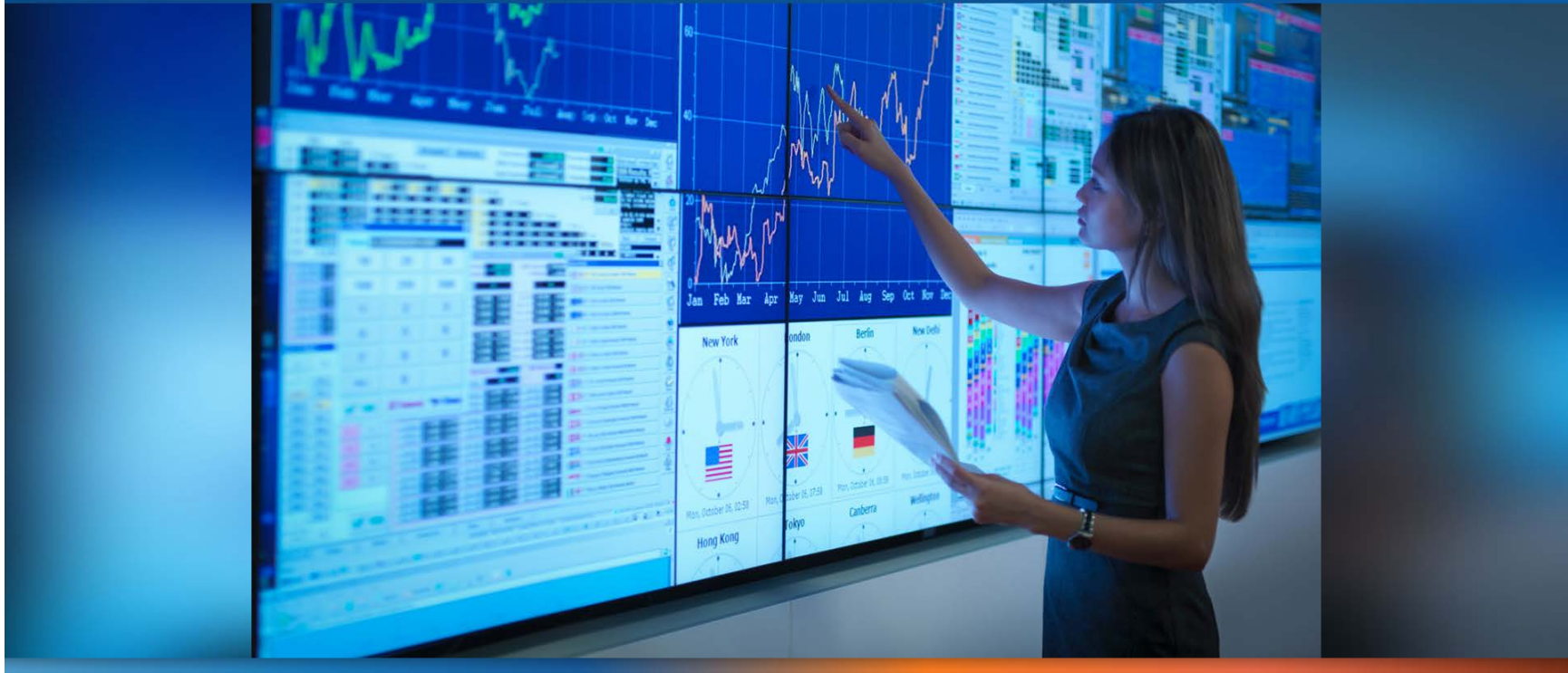




Keeping context,
back-tracking and
trailblazing are all
important as users
explore data

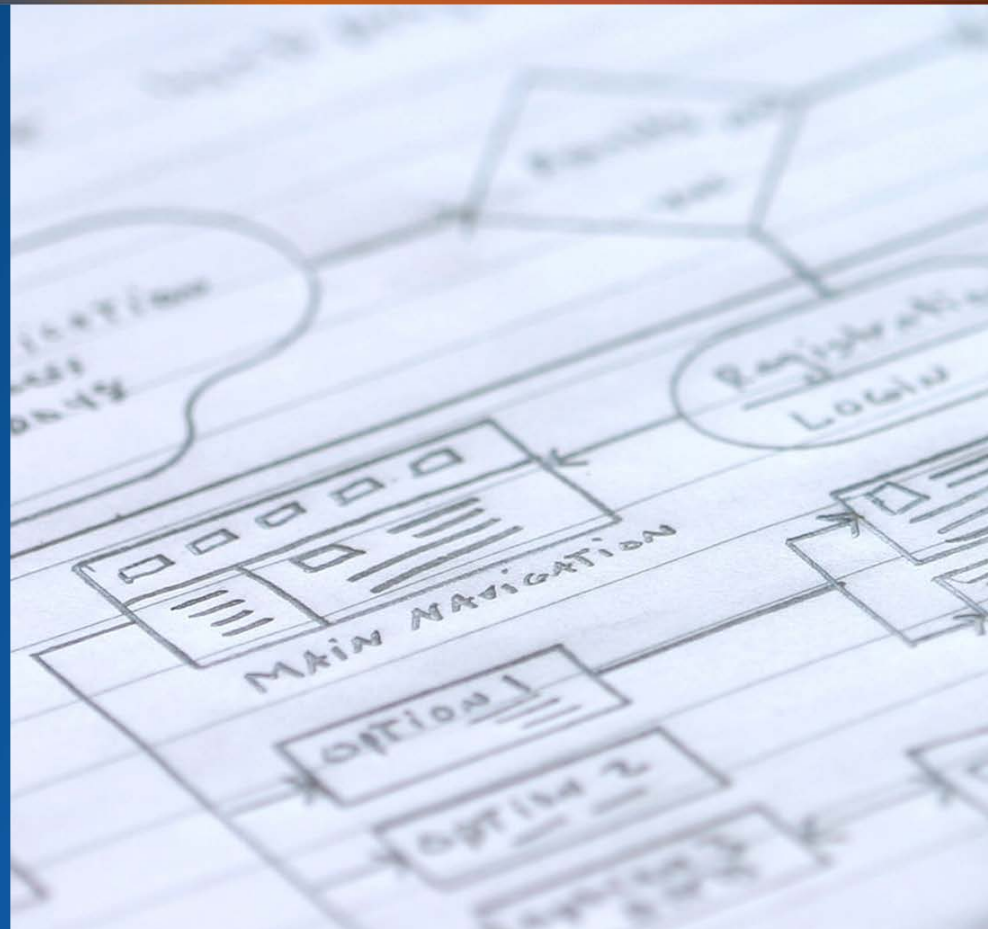
Bread crumbs show the path the user has followed

Data visualizations should solve problems and generate questions

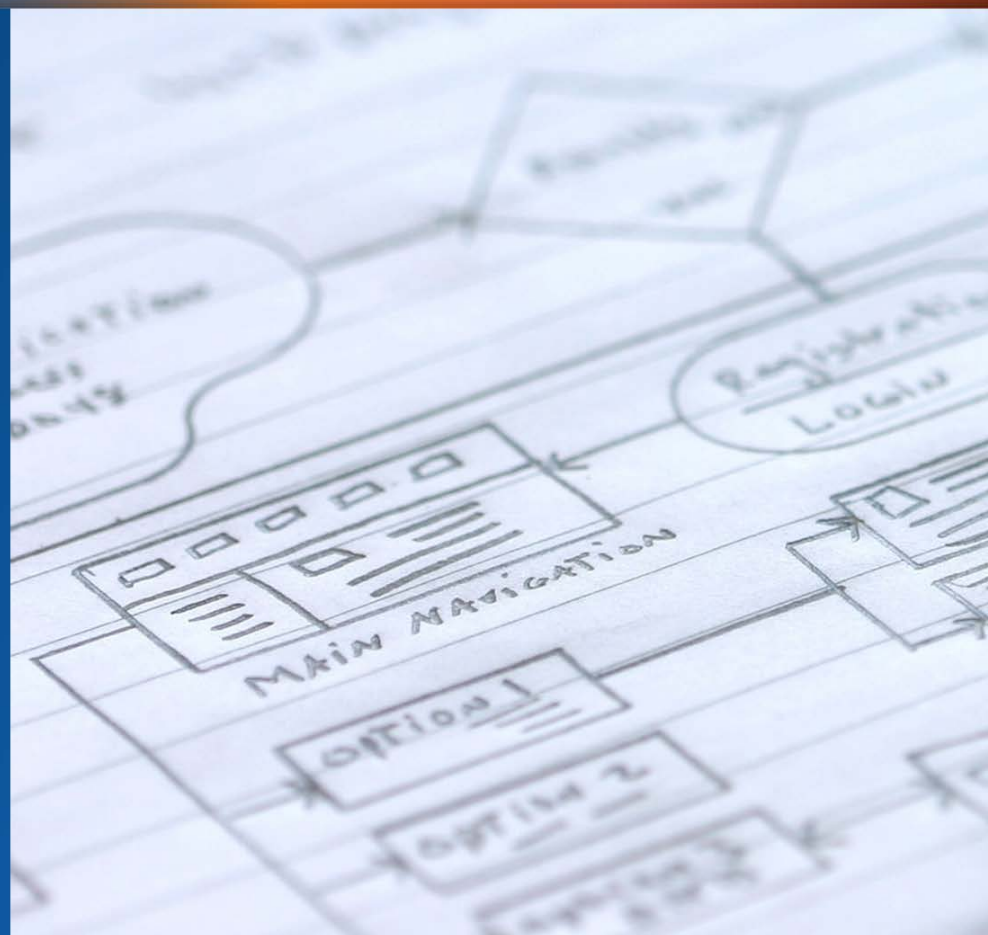


Visuals and navigation
should help users
solve problems

Understand your
audience's needs
and goals



Use problem solving,
workflow maps, and
storyboarding to design
useful visualizations





Consider the user's
needs for:

Direct manipulation
of data

Navigation

Problem solving
question generation

Good design can be immersive



You are a data architect

Users move through
visualizations like
people walking
through a building

Visualizations, like
buildings, are built
based on user's needs

