React is a library for building user interfaces

Composition

Composition is a language agnostic engineering principal, and the same intuition about how to compose functions together applies to not only writing functions but can be applied to writing components

Same benefits of composing functions are found when composing UIs

Another natural benefit is that you get an ecosystem of third party components

A lot of these are now available for use on npm, bit, etc

UniDirectional Dataflow

Makes writing predictable and robust applications much easier

You dictate exactly what will cause state to change from inside your components and how UI will update based on that state change

Declarative UI

You hook up functions that dictate how component state should update as callbacks on your components for event handlers, and then tell what the UI should look like based on that state, React does the rest

This is different than how jquery clicks work typically where you just dictate how something should change outside of the UI itself

React takes care of what to do on the UI side

Just JavaScript

React uses JavaScript functionalities, such as loops, classes, etc. as soon as stuff in JavaScript is updated, you can use it in React

While at the same time you are becoming better at writing React you are becoming better at writing JavaScript

Vue on the other hand has a very opinionated structure enforcing even how you loop through data

There’s not a whole lot of API that goes along with React

That means that there is even additional community behind React – JS community

The Right Abstraction

React is such a good idea that we will spend the rest of the decade continuing to explore its implications and applications – Guillermo Rauch, CEO ZEIT

What makes creating abstractions difficult is that they have to be opinionated

The right abstraction should empower the user without getting in their way. They should simplify how you think about a behavior. It needs to allow for an endless number of use cases without leaking its implementation details

The proof is really in the types of applications and even tools that have been built using or on top of React.

Gatsby is a free and open source framework based on React that helps developers build blazing fast websites and apps.

Styled Components are “Visual primitives for the component age”.

Next.js is a JavaScript framework that lets you build server-side rendered, static web applications using React.

React Spring – an animation library made easy to implement by react hooks+

Community – vibrant community around it – educators, newsletters, conferences, OSS devs

The Team – Facebook invests heavily in React’s development and the team is always innovating and prioritizing the right problems