2.1 R has a lot going for it

R is a general tool (R Core Team (2022)). It is a statistical programming language (Ihaka & Gentleman (1996)). There are a lot of people using R. There are a lot of good reasons for this.

R is freely available

You can download and use R for free. What's not to like about that?

R can be used on any platform

It doesn't matter whether you are working on a PC, a Mac, or using a Linux operating system, R code works on any of these platforms, and R code is transferrable and can be shared.

R is open source

Because R is completely transparent and open source, there is a burgeoning global community of contributors. Anyone can write R code and share it openly with others. Anyone can make R packages or libraries and offer them to others. There are also a lot of free online groups/networks to support people in their quest to create R code for particular purposes and applications.

R code is useful for scripting/repeatability

Once you get your R code working to perform a specific analysis (and you are sure it does what you want it to do), let's suppose you now want to repeat that analysis hundreds of times. Because R is a programming language, it readily permits a straighforward avenue for scripting and repeatability.

R is always evolving and improving

The R community is always growing. Thus, both the R base package and contributed packages/libraries tend to continuously evolve and get better over time.

R is a language, so it is broad in scope

Because R is a language (rather than being a 'point-and-click' type of software), it is amenable to being used in lots of different ways by a lot of different communities. Everyone can shape (and share) their R code for their own needs. Indeed, you can find R packages and libraries implementing a very broad range of methods, which collectively services virtually any (perhaps

all?) branches of statistics.

In short...

The above is not intended to be en exhaustive list of what is good about R, but it makes it easy to understand what makes R a useful tool. In short, I am a fan of R. I have used it in my teaching, and I use it a lot in my own statistical research, particularly for programming new statistical methods from scratch and testing them to see how they perform under different scenarios.

However, R is not the only thing I use, and there are certainly also some down-sides to using R. Let's consider some of those.

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