Why is Type Theory Popular?

- Functions are a natural primitive
  - tedious to derive laws like β-conversion
- Laws are simpler with types
  - $x + 0 = x$ is an equation if x has type $\mathbb{N}$
  - without types: $x \in \mathbb{N} \Rightarrow x + 0 = x$
    - such a conditional is harder to use
- Type theory is fashionable
  - meshes well with trendy categorical logic