Implications of Web APIs for Teaching and Research

TREO Talk Paper

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Abstract

Application Programming Interfaces (APIs) have enabled several profound shifts in systems design. This shift can be illustrated by the development of the automotive industry. As the automotive industry matured, specialization gave rise to a robust ecosystem of parts suppliers. As the software industry matures, we are seeing a similar shift. We are able to access external functions through APIs much like a car maker is able to buy brakes from a supplier (a16z 2018). This enables software to utilize specialized features such as image recognition and artificial intelligence developed by other firms.

This shift is making it easier to create applications and enabling new business models (Iyer and Subramaniam 2015). For example, when Uber launched it used several third-party APIs including Google Maps, Twilio (for text messages), and Braintree for payment processing. Learning how to build, utilize, integrate, and monetize data through APIs is an important skill for our students (Apigee 2011). Does our current information systems curriculum properly address this?

In this short presentation, I present several methods for incorporating web-based APIs into our curriculum and the value doing so.

References

