HATEOAS is the fourth sub constraint. It means Hypermedia as the Engine of Application State. This is the one that a lot of RESTful systems fail to implement.

Remember that example we had in the beginning of the module when we explained while looking at the newspaper site how the state of our browser changed when we clicked the link?

Well, that link, that's hypertext, and hypermedia is a generalization of this. In case of APIs, that should be the engine of application state. In other words, it drives how to consume and use the API.

It tells the consumer what it can do with the API. Can I delete this resource? Can I update it? How can I create it? Where can I find it? In the end, this allows for a self-documenting API.

Graphical user interface, text, website

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Let's have a look at that example again. Let's open the body, in the response we can find links to delete an author, to create a course for an author, to get an author's courses, and so on. So through these links, we actually drive application state.

It's not an easy constraint, but it offers some really interesting possibilities like updating a business rule at API level, which declined can learn about without having to change the code at client level. There's a full module dedicated to it once we reach the advanced topics.