

# Web Annotation

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*The Web's Conversation Layer*

Lyza Danger Gardner | [lyza@lyza.com](mailto:lyza@lyza.com)



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# Annotate the web, with anyone, anywhere.

We're a **nonprofit on a mission** to bring an open conversation over the whole web. Use Hypothesis right now to hold discussions, read socially, organize your research, and take personal notes.

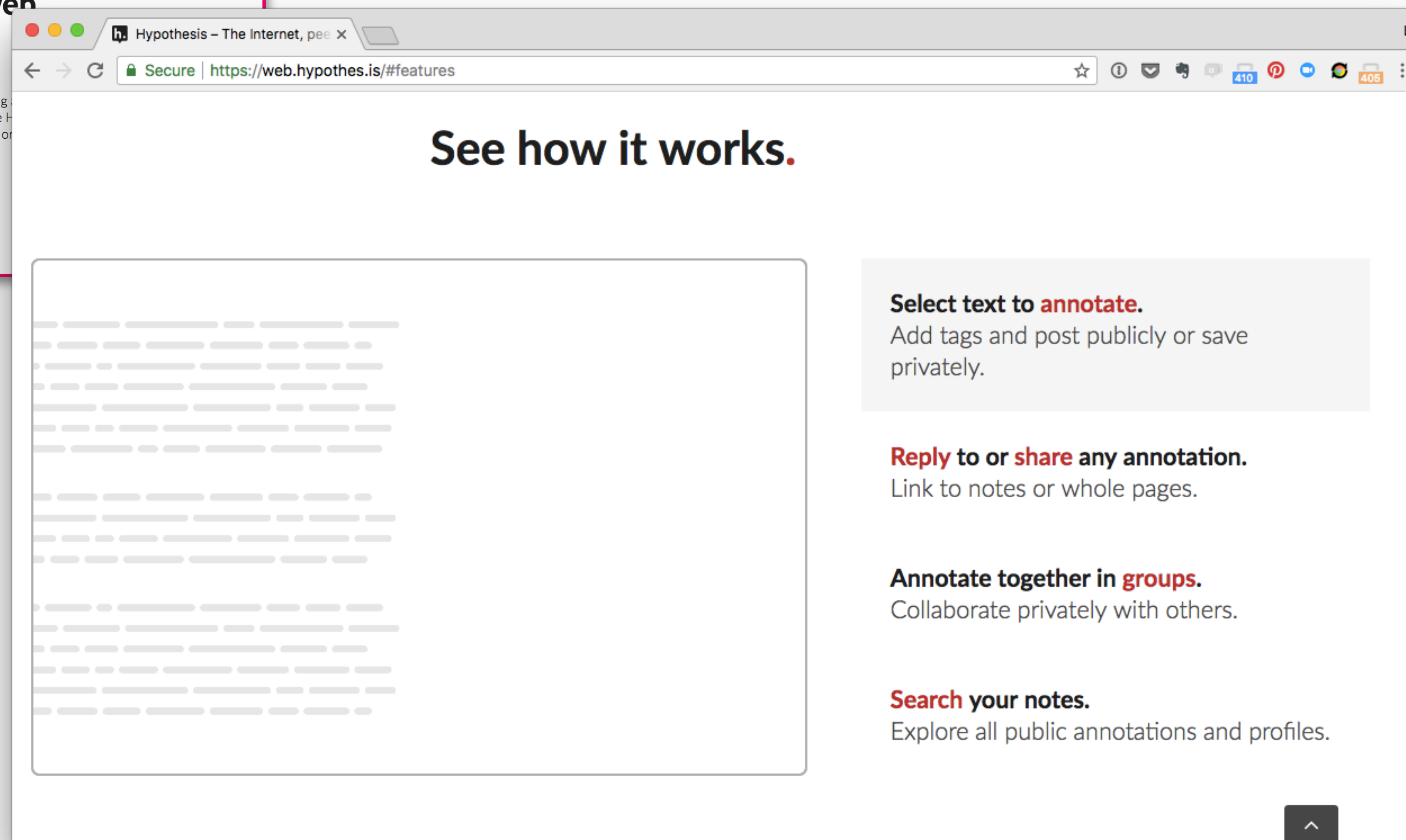
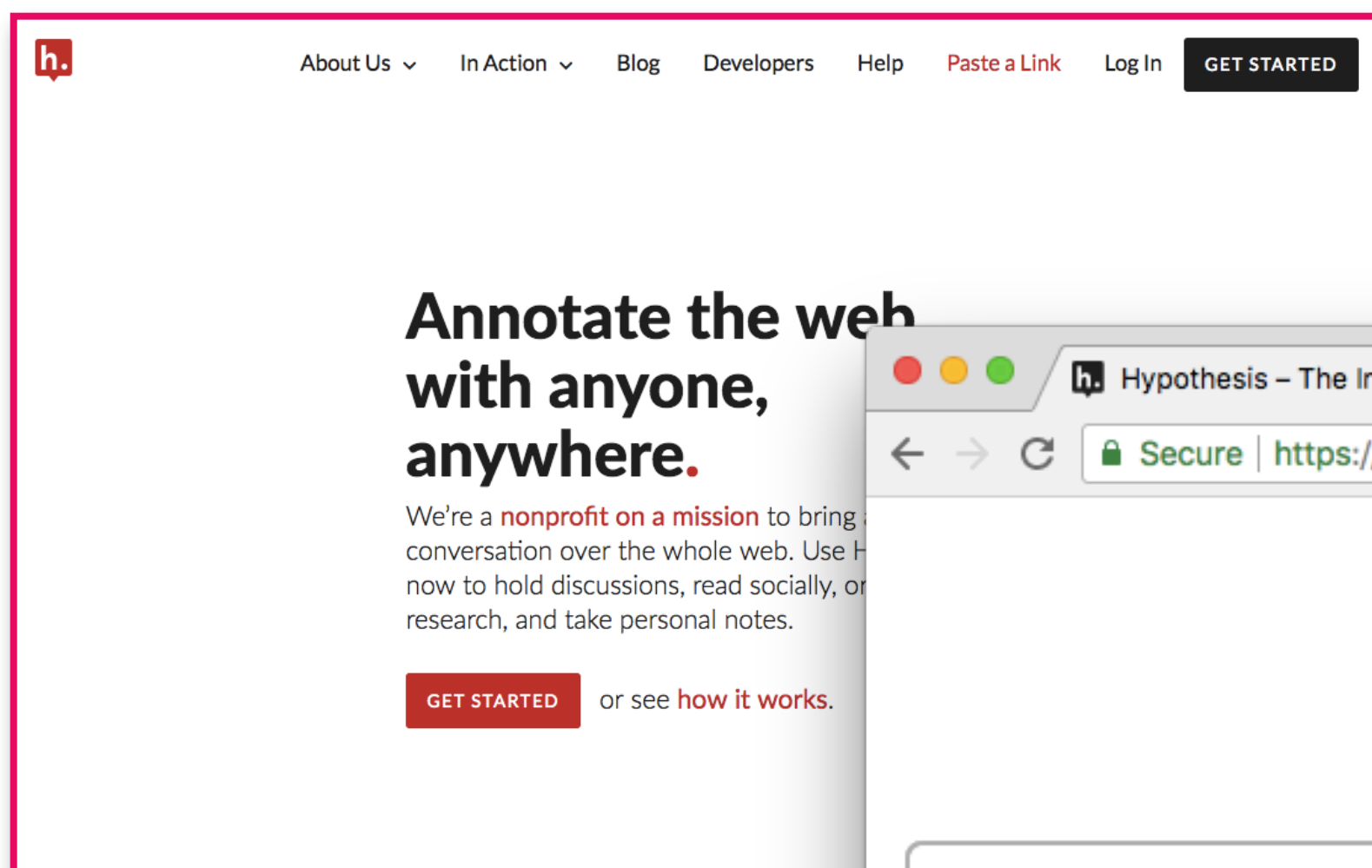
[GET STARTED](#)[or see how it works.](#)

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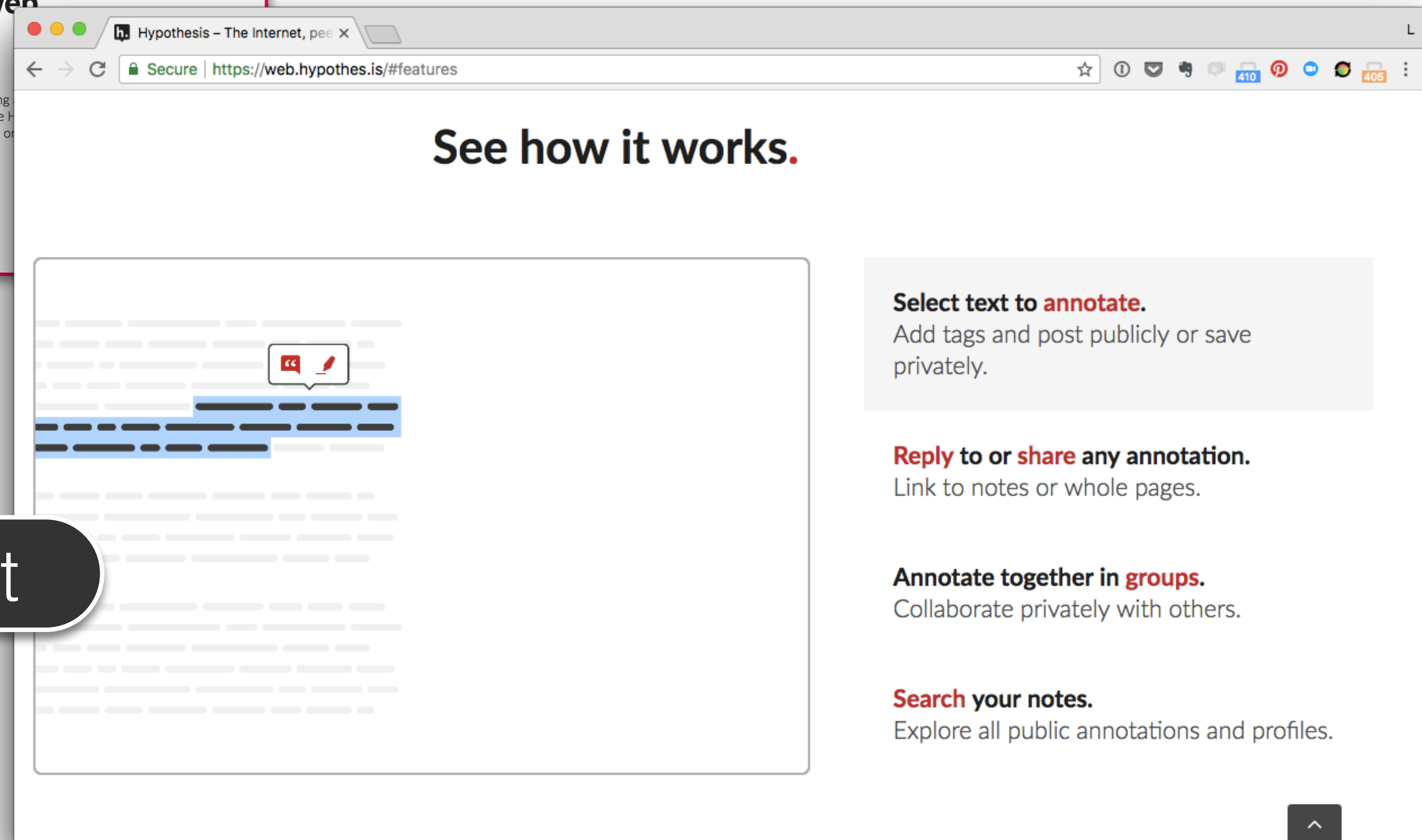
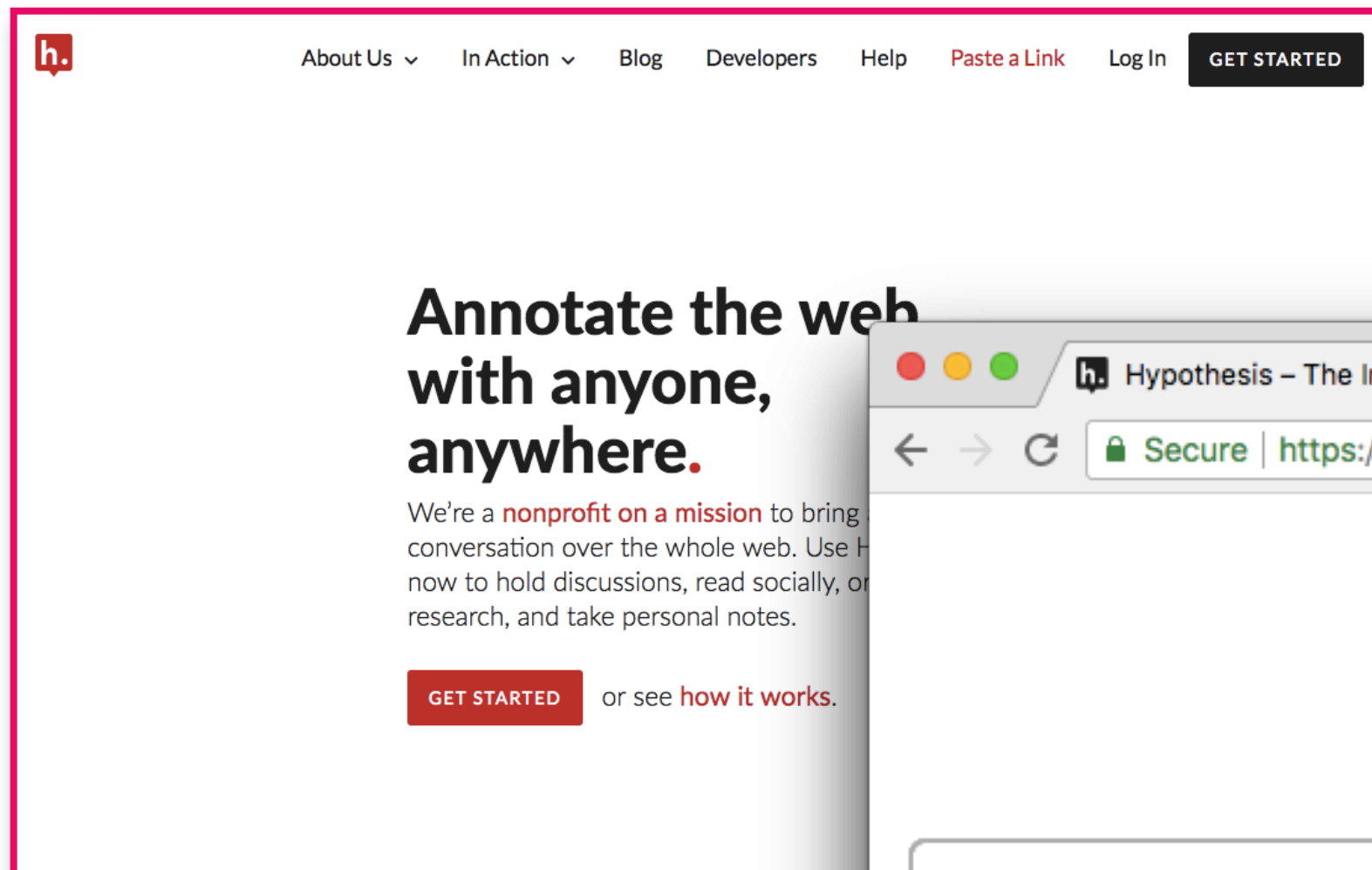
# Annotate the web, with anyone, anywhere.

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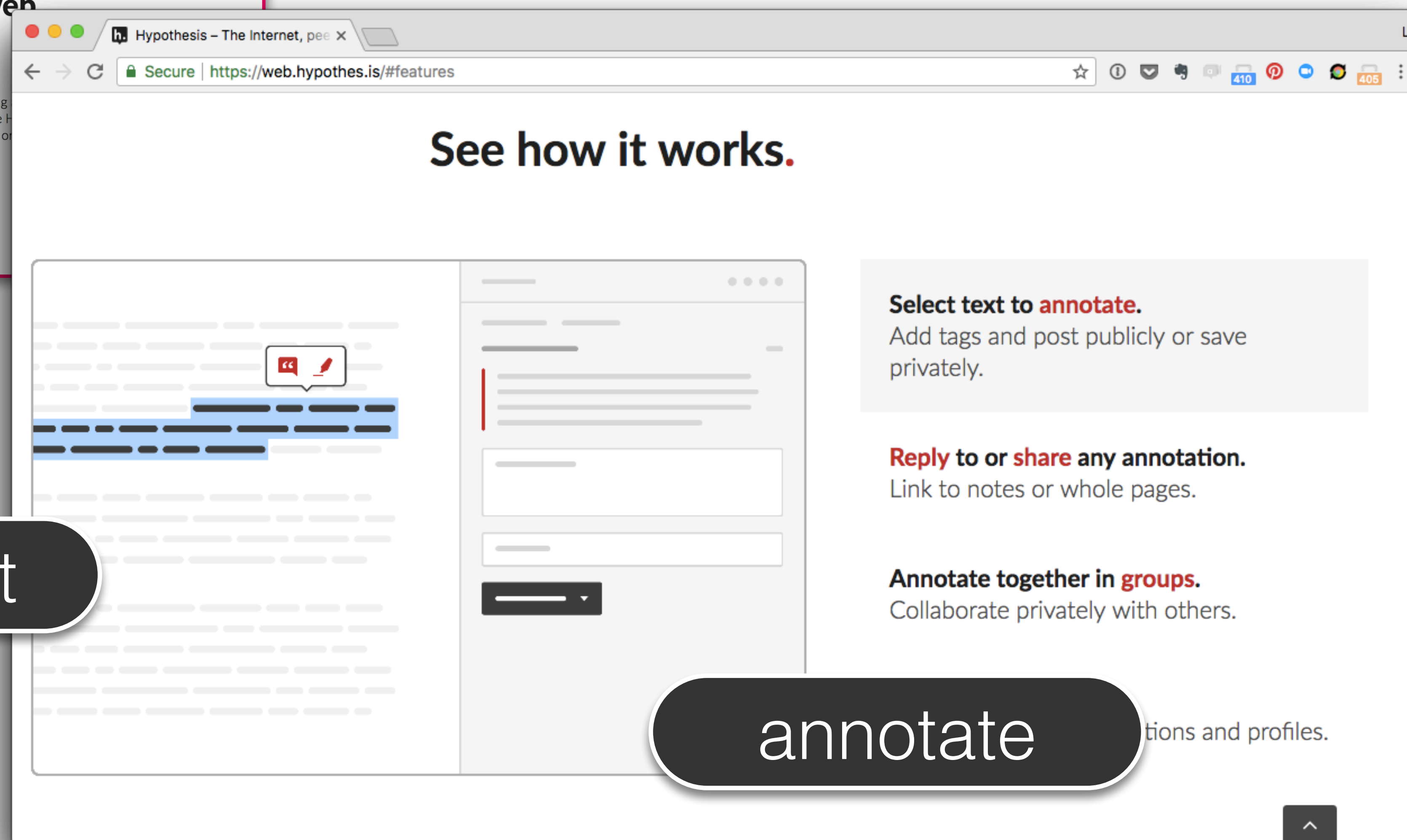
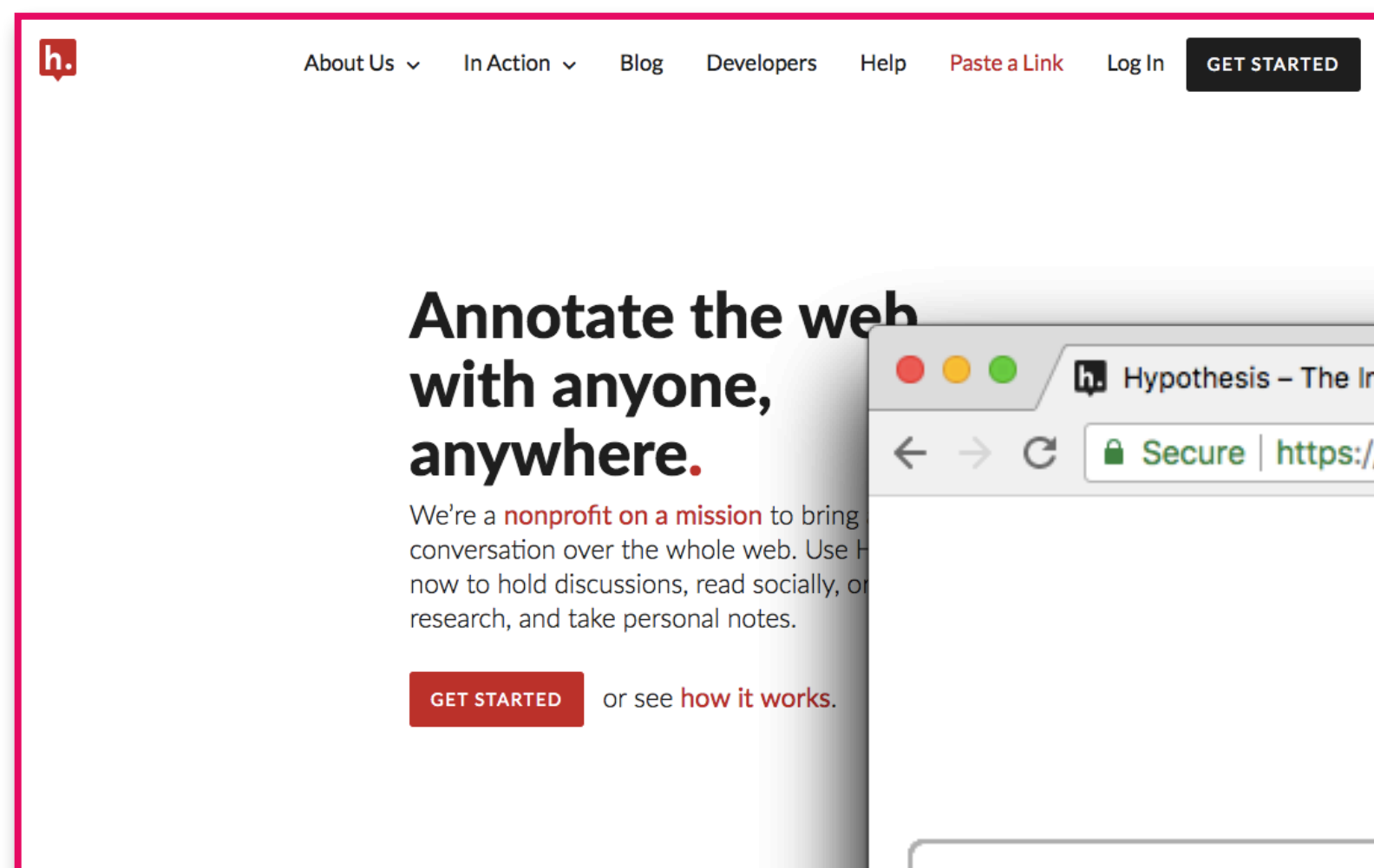
[GET STARTED](#)[or see how it works.](#)







select text



select text

annotate

tions and profiles.



**an • no • tate**

**an** • **no** • **tate**  
*annotare*



**annotate**

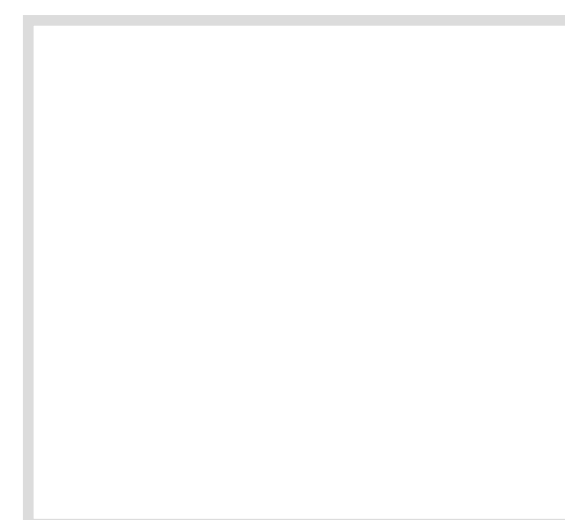
*annotare*

**annotate**

to

*annotare*

mark

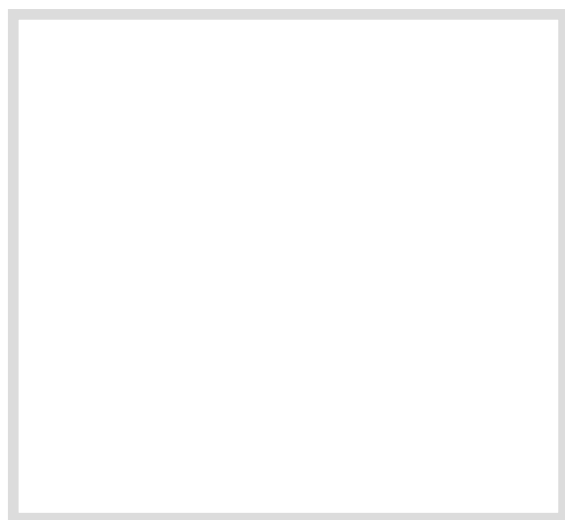
[illegible][illegible][illegible]

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Placeholder text block consisting of 10 horizontal lines.

Placeholder text block consisting of 10 horizontal lines.



Placeholder text block consisting of 10 horizontal lines.

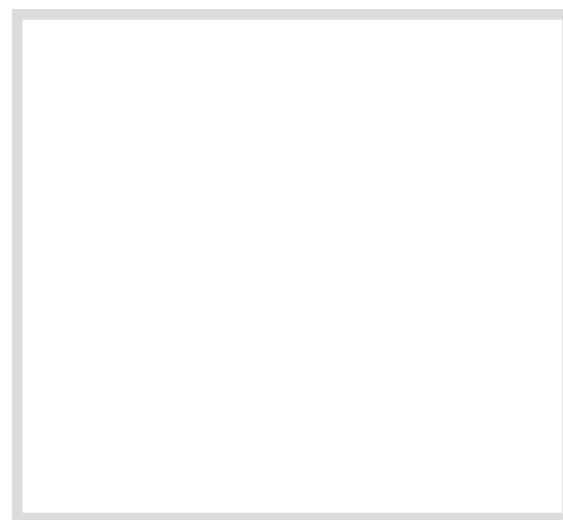
- Placeholder text line
- Placeholder text line
- Placeholder text line
- Placeholder text line
- Placeholder text line
- Placeholder text line

Placeholder text block consisting of 3 horizontal lines.



Placeholder text block consisting of 10 horizontal lines.

Placeholder text block consisting of 15 horizontal lines.



- Placeholder text line
- Placeholder text line
- Placeholder text line
- Placeholder text line
- Placeholder text line

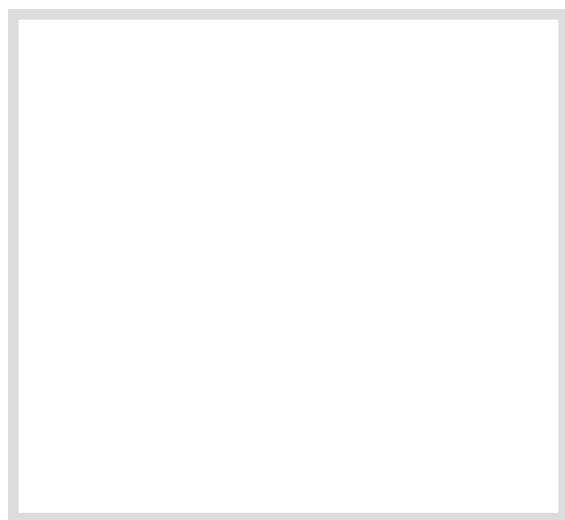
Placeholder text block consisting of 3 horizontal lines, enclosed in a dashed red border.





Placeholder text block consisting of 10 horizontal lines.

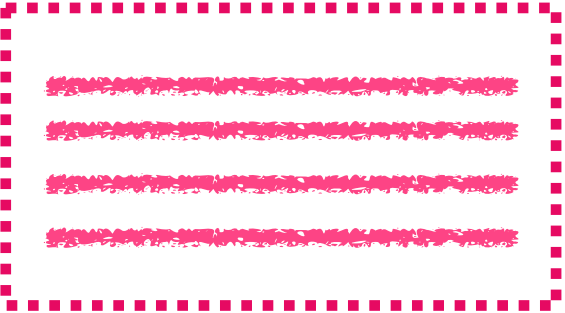
Placeholder text block consisting of 10 horizontal lines.



Placeholder text block consisting of 10 horizontal lines.

- Placeholder text line
- Placeholder text line
- Placeholder text line
- Placeholder text line
- Placeholder text line
- Placeholder text line

Placeholder text block consisting of 3 horizontal lines, enclosed in a dashed red border.





# WEB ANNOTATION



# WEB ANNOTATION

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**WEB ANNOTATION**

---

**STANDARD**



**WEB ANNOTATION**

---

**STANDARD**



# WEB ANNOTATION STANDARD

*THE*  
WEB

really quite intriguing

---

really quite intriguing

---

*(but also a somewhat challenging journey)*



From big, vast picture

---

**TODAY**

From big, vast picture

---

TODAY

From big, vast picture

---

*to some detailed, uh, details*

# The Web

---

*zoom level*

*universe galaxies constellations planets humans*

# The Web

---

*Our Universe*

*zoom level*

*universe galaxies constellations planets humans*

How would you draw the web?

How would you draw the web?

The web is furiously abstract



The web is furiously abstract

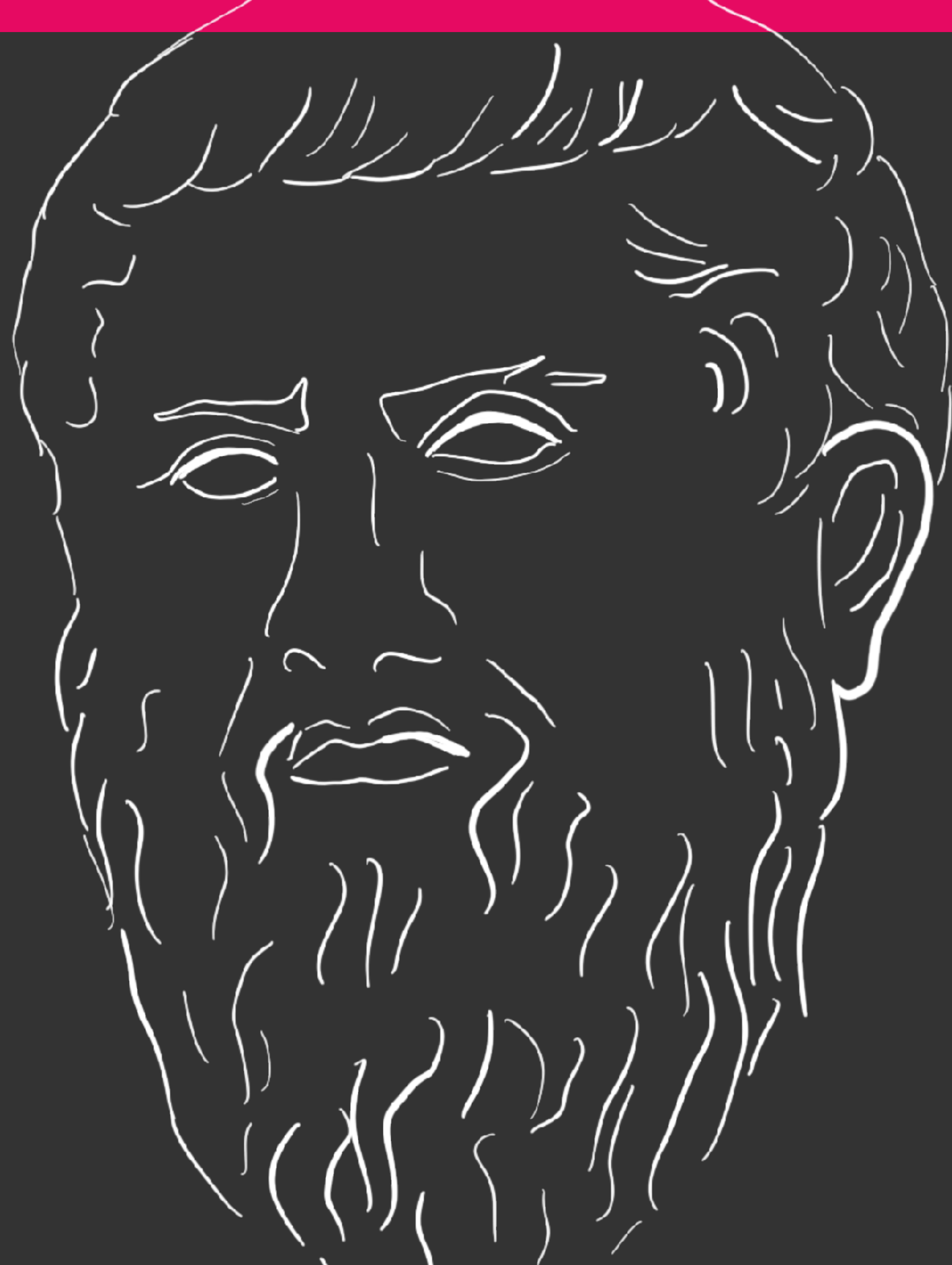
---

*but we hold a shared understanding*

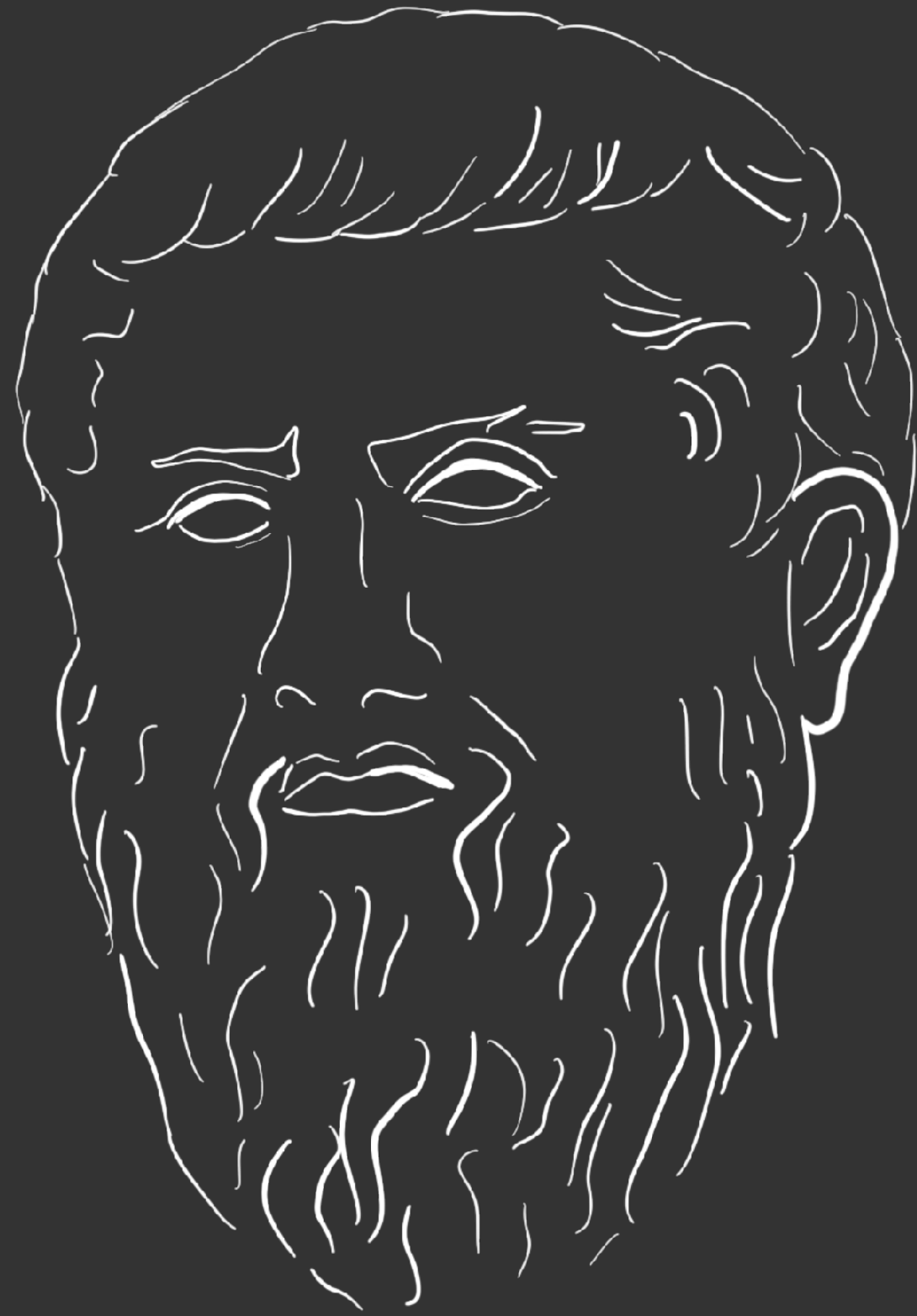
The web is furiously abstract

---

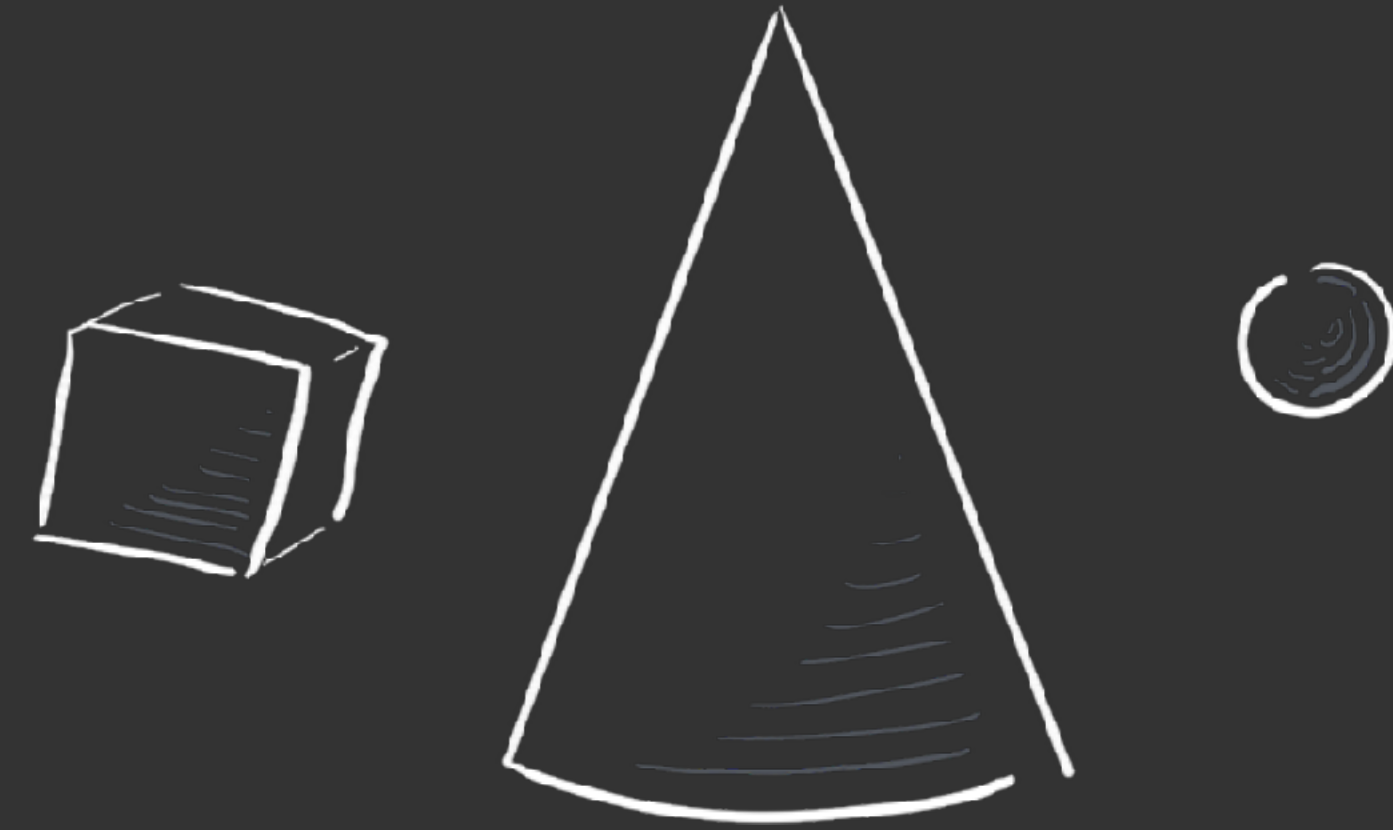
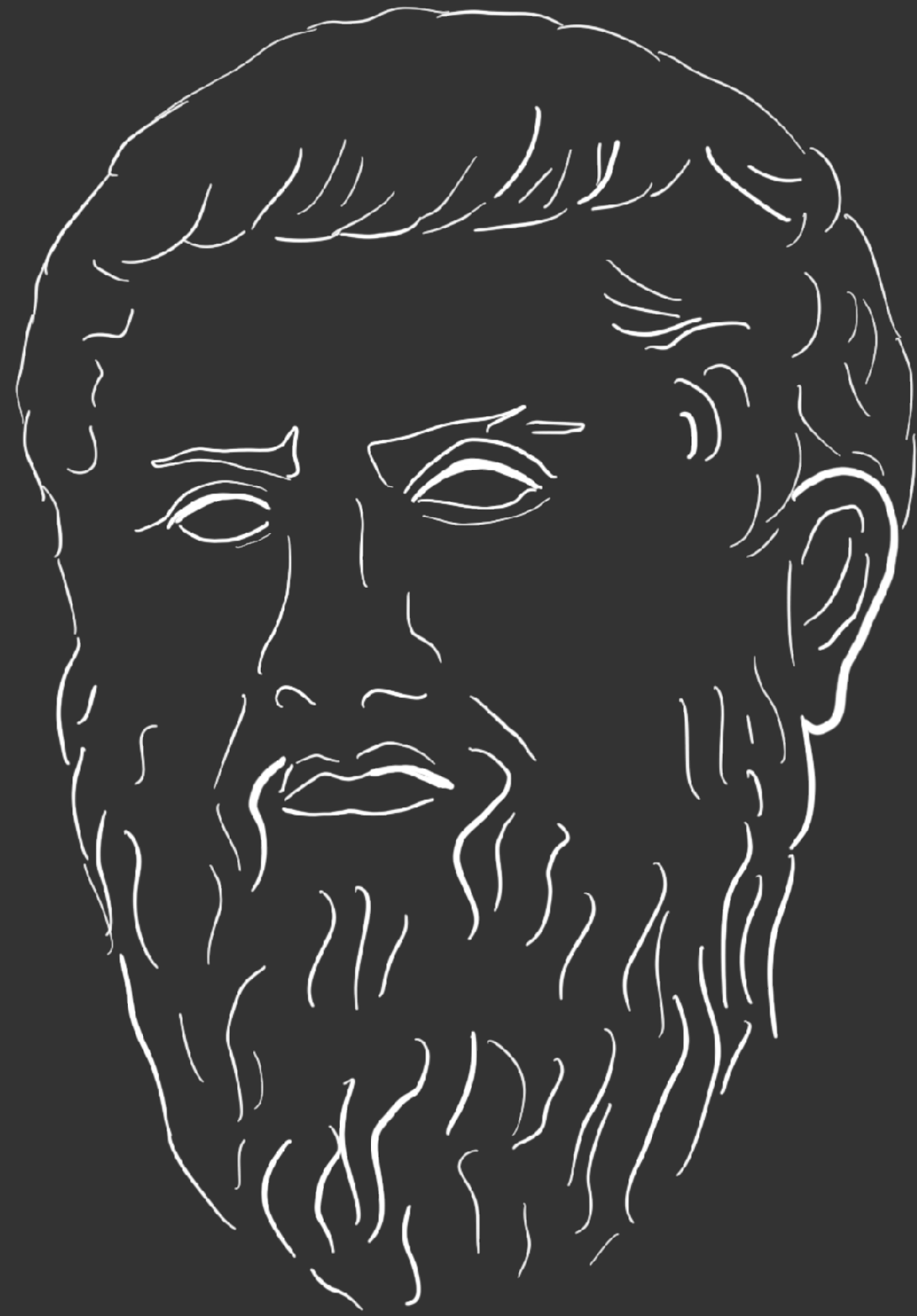
*but we hold a shared understanding*



# Plato

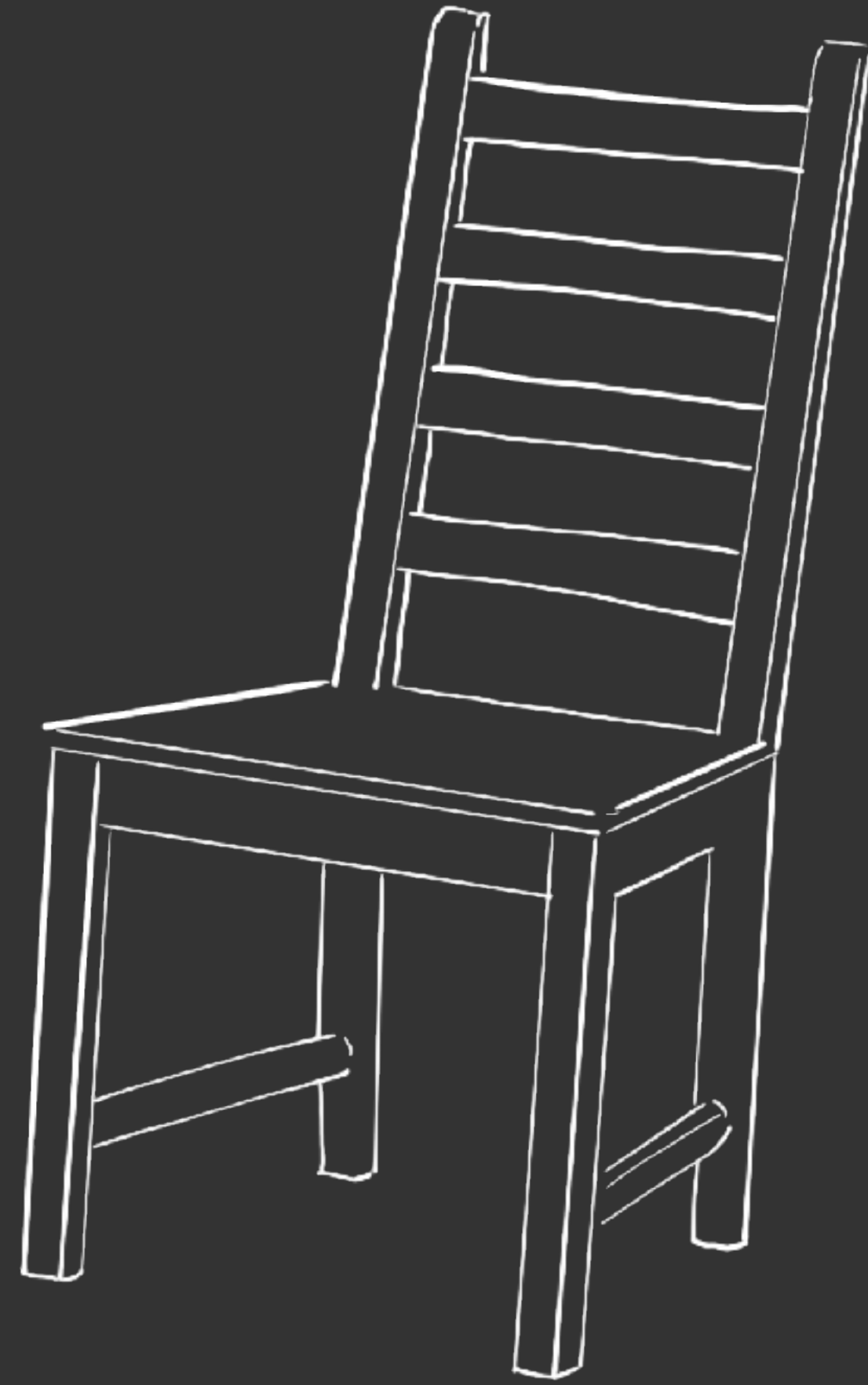


# Plato

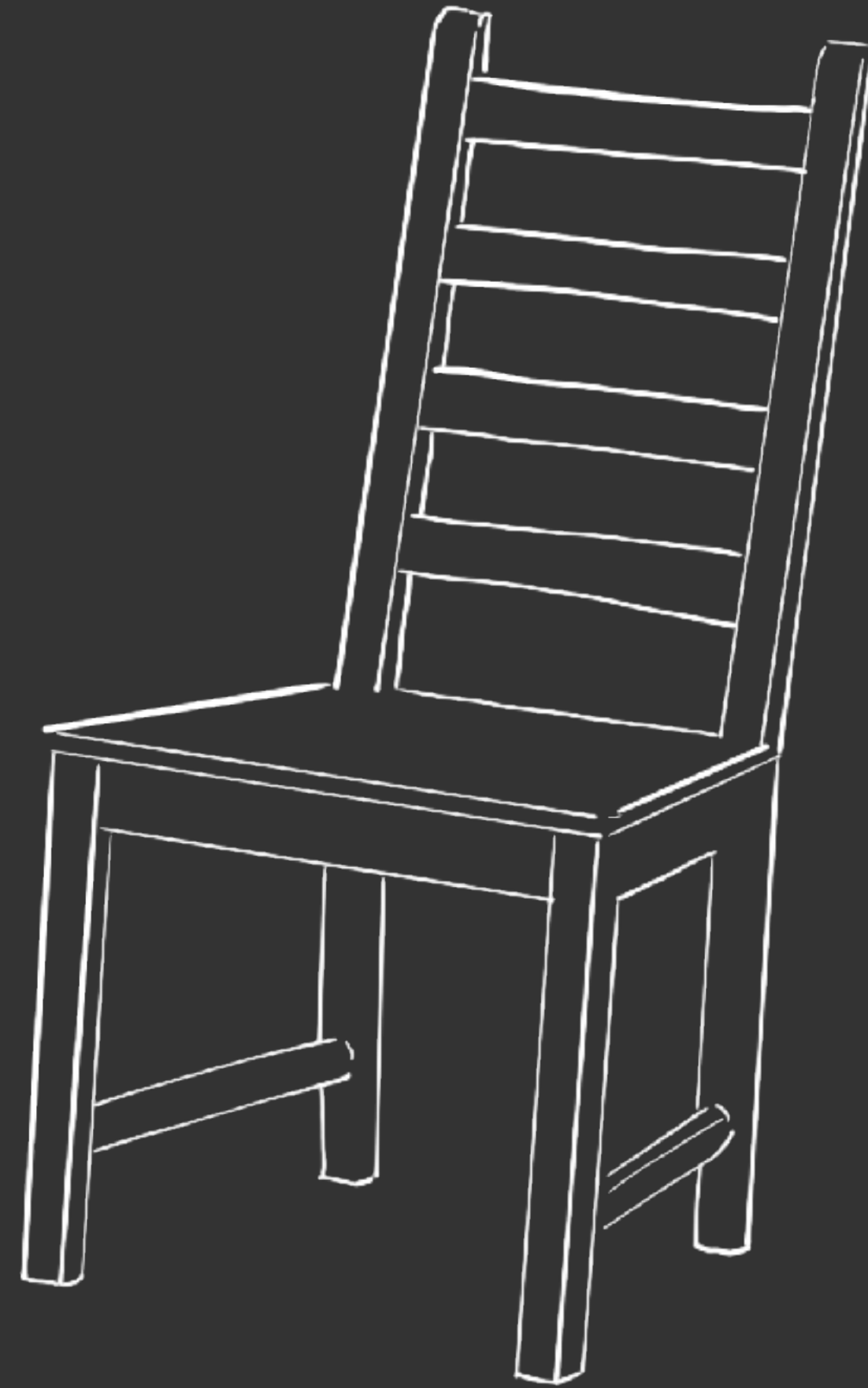


*Theory of Forms*



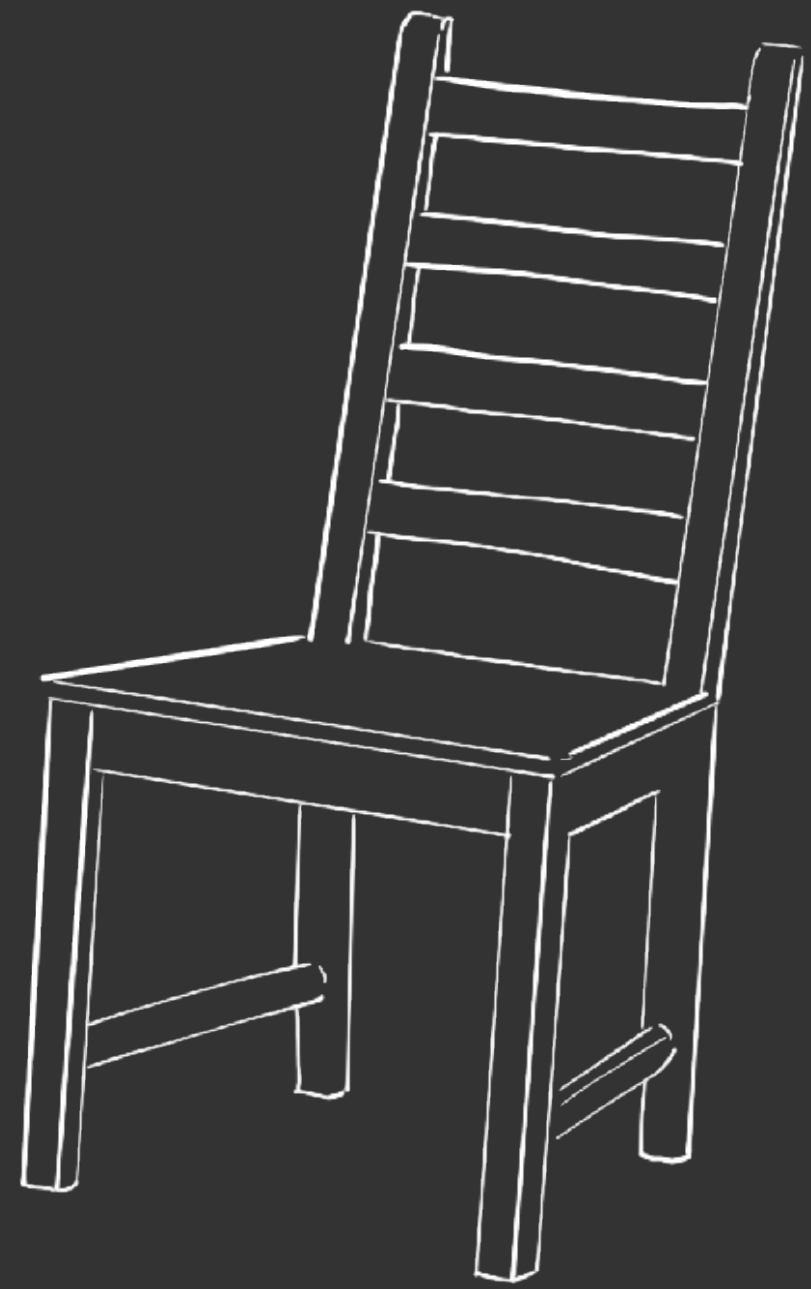


# One True Chair

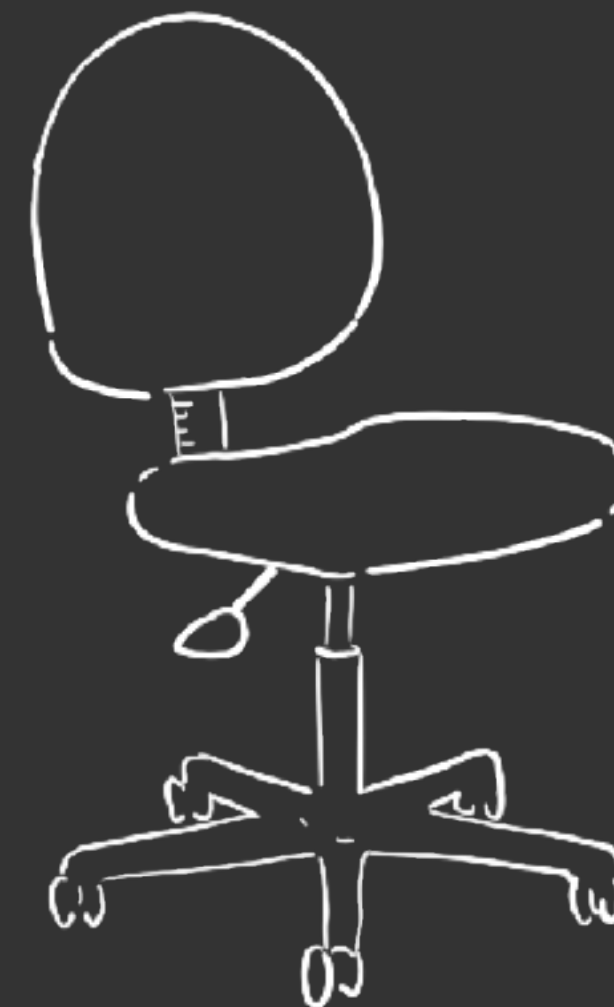
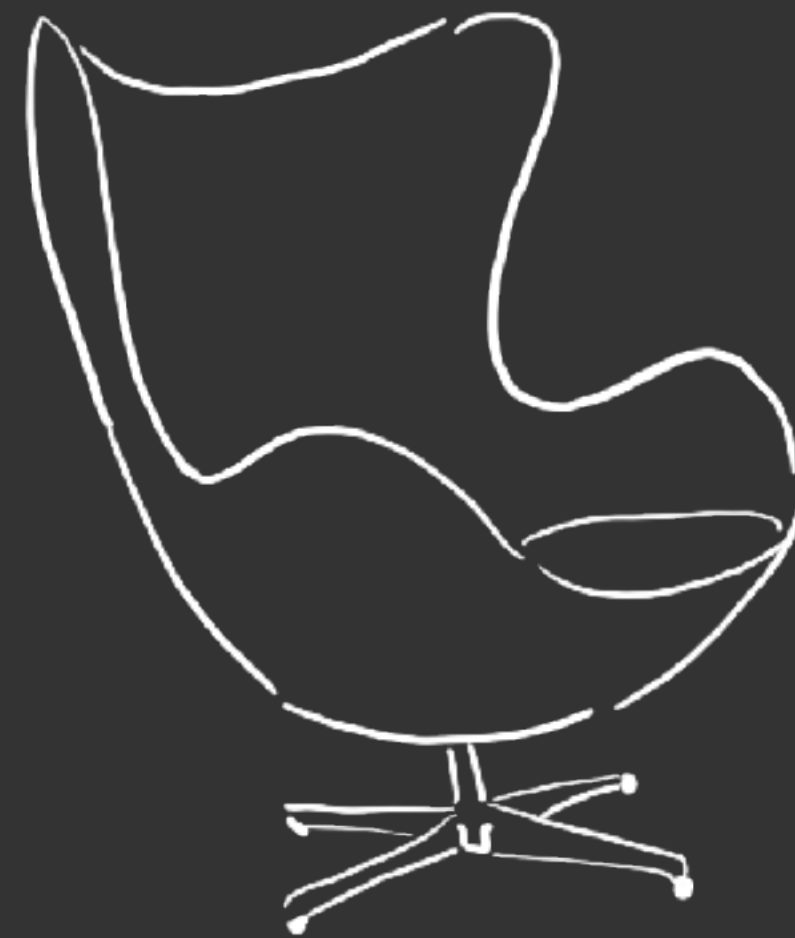
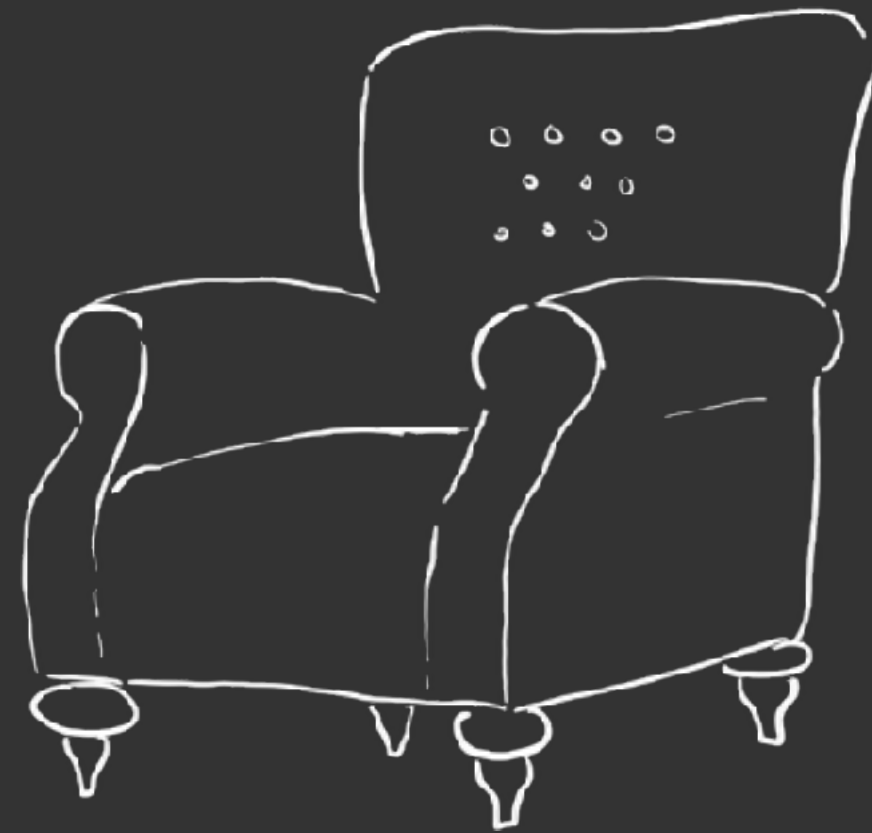
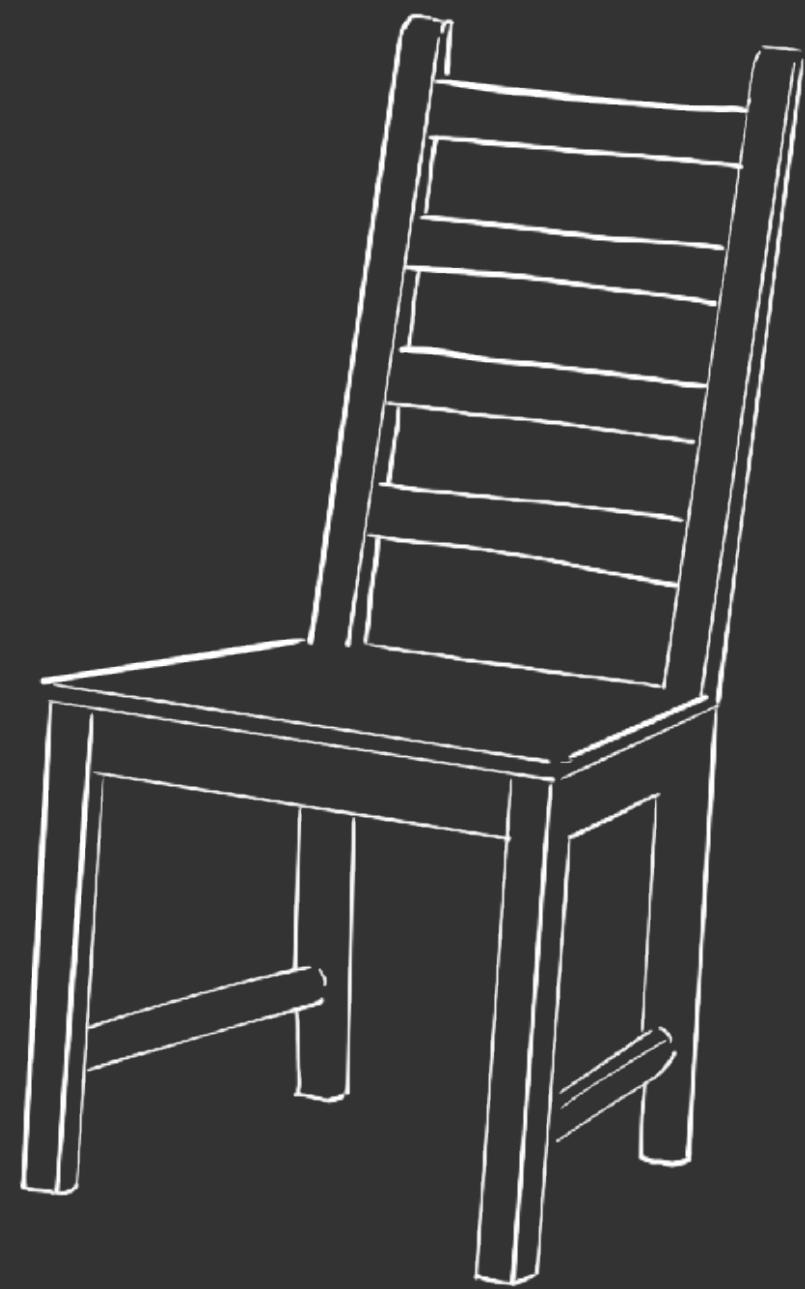




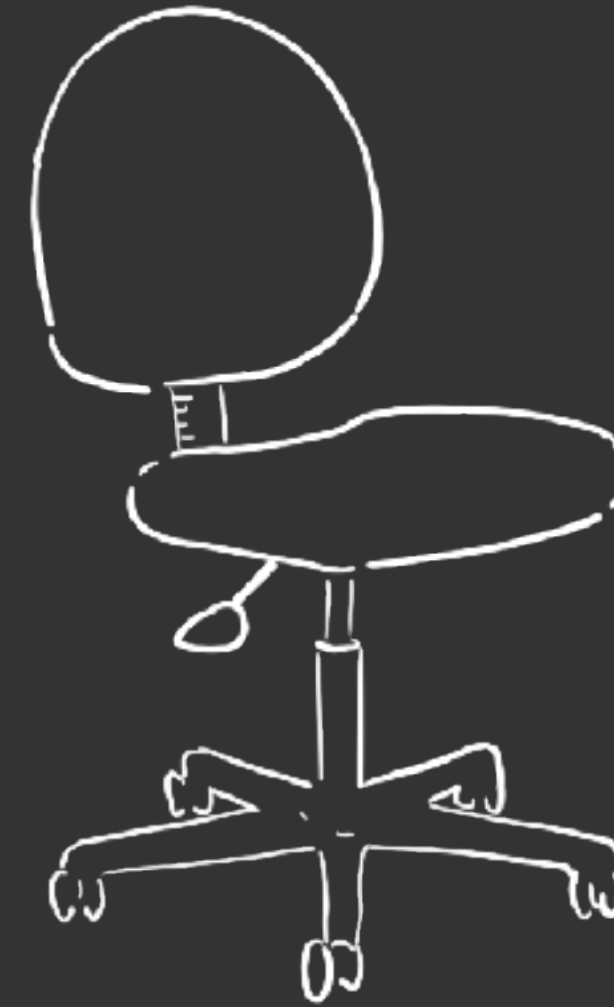
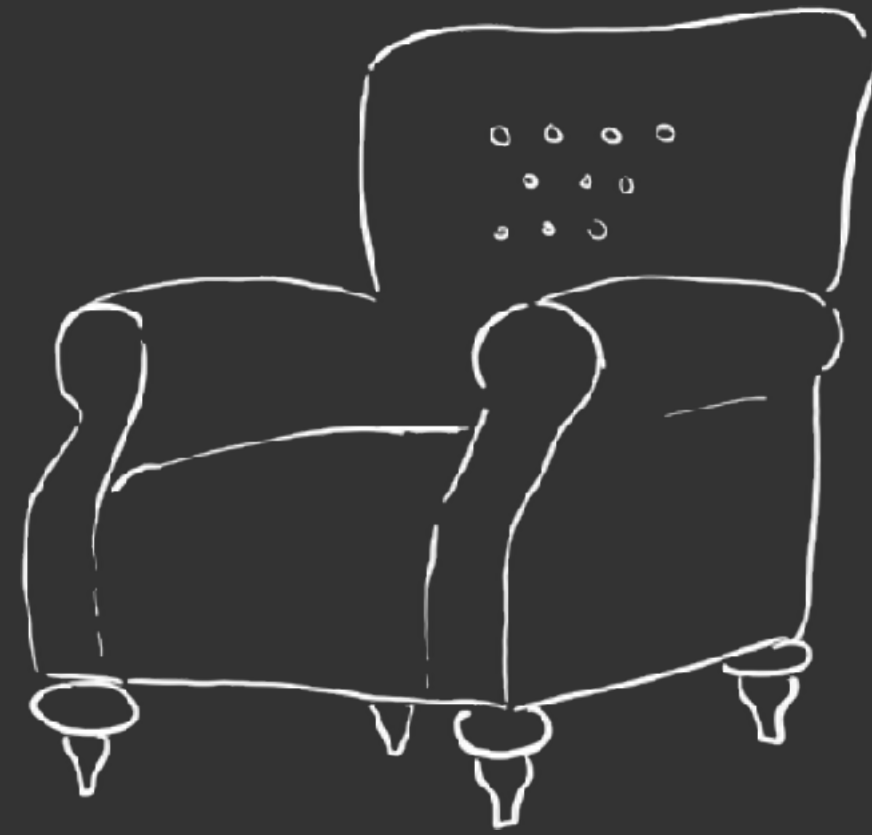
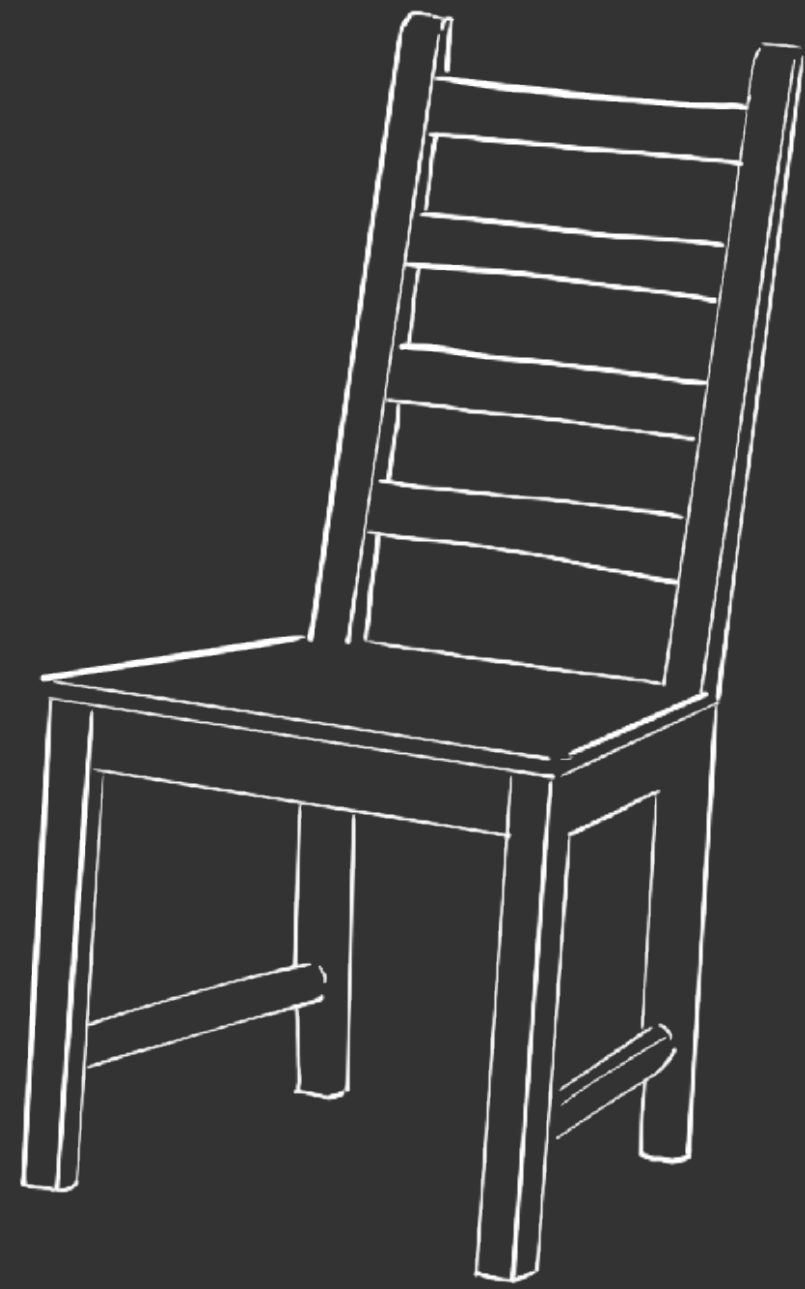
chairs in reality share chair-ness



# chairs in reality share chair-ness



chairs in reality share **chair-ness**



the web has web-*ness*

the web is a universe

the web is a universe

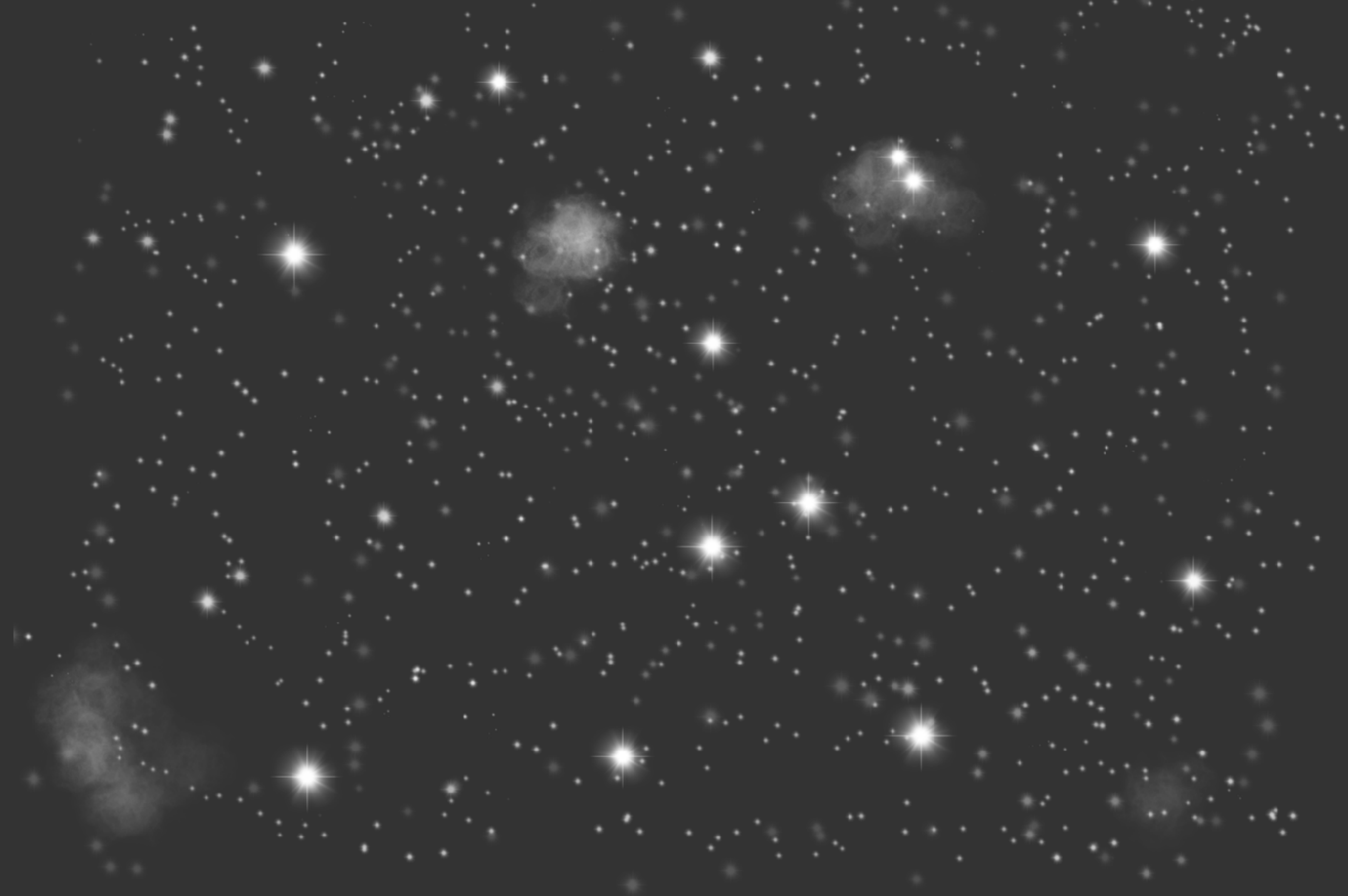


the web is a universe



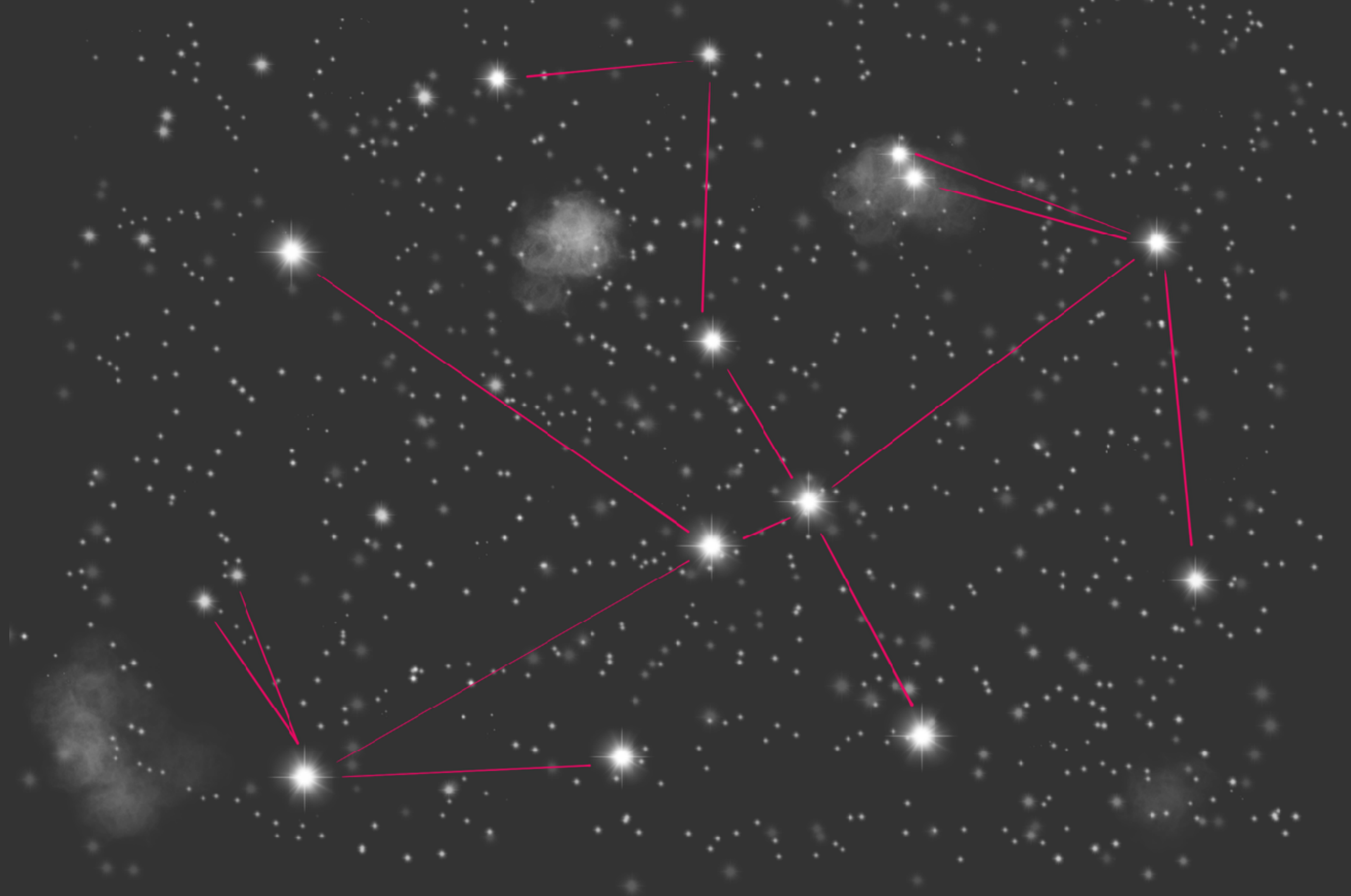


**the Web is a connected universe**





# the Web is a connected universe



Of the web

Of the web

---

*vs. on the web*

The web is...

The web is...

---

*noble*

The web is...

---

*noble practical*

The web is...

---

*noble practical ours*

The web is...

---

*noble practical ours brilliant*



The web is...

---

*practical ours brilliant flawed*

The web is...

---

*is brilliant flawed uncontrollable*

The web is...

---

*flawed uncontrollable democratic*

The web is...

---

*a vast, imperfect universe*

Recurring, thematic tensions

---

*in the web*

As with the web

---

*so with Web Annotations*

# Linked Data

---

*zoom level*

*universe galaxies constellations planets humans*

# Linked Data

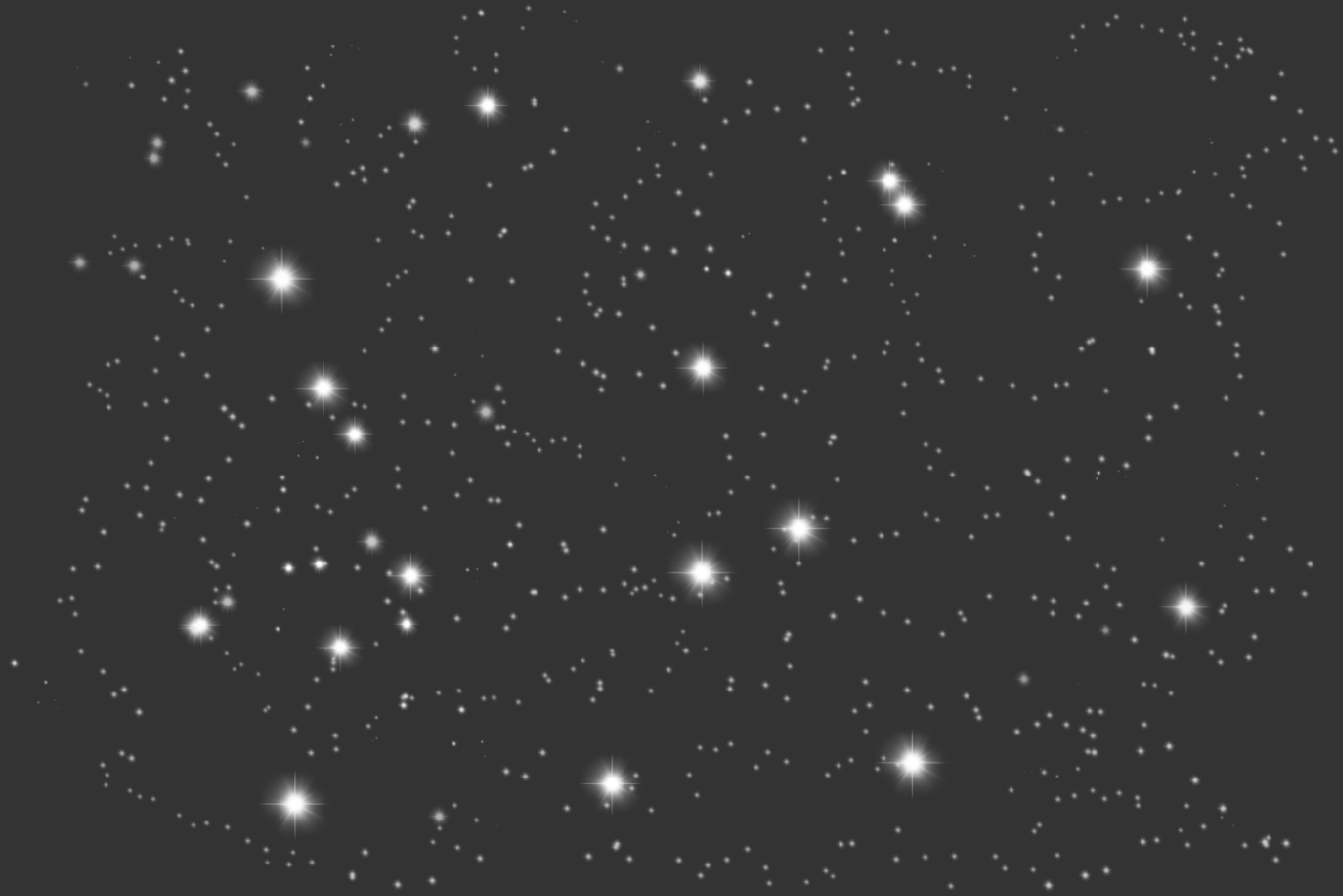
---

*Galaxies of connections*

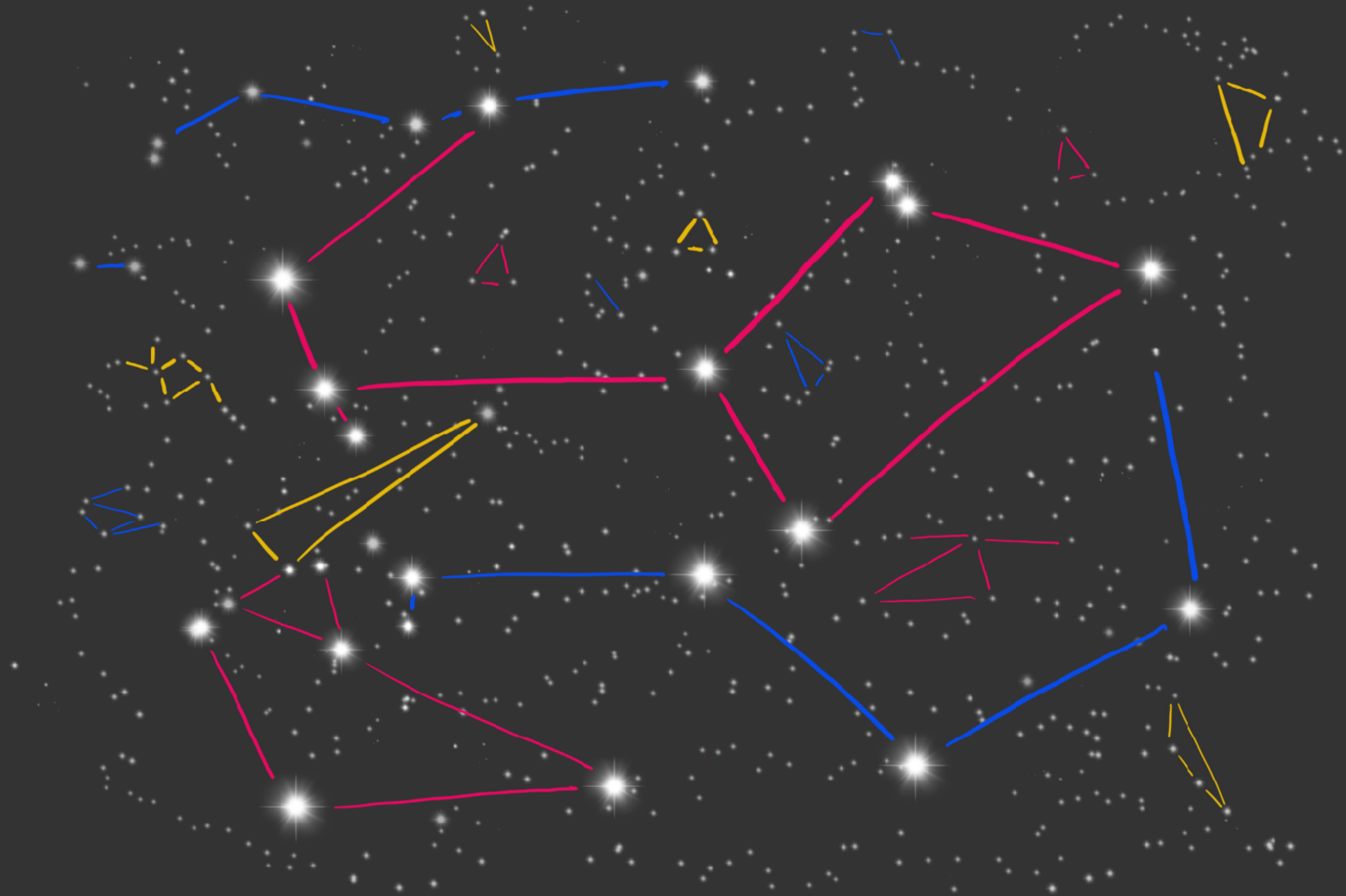
*zoom level*

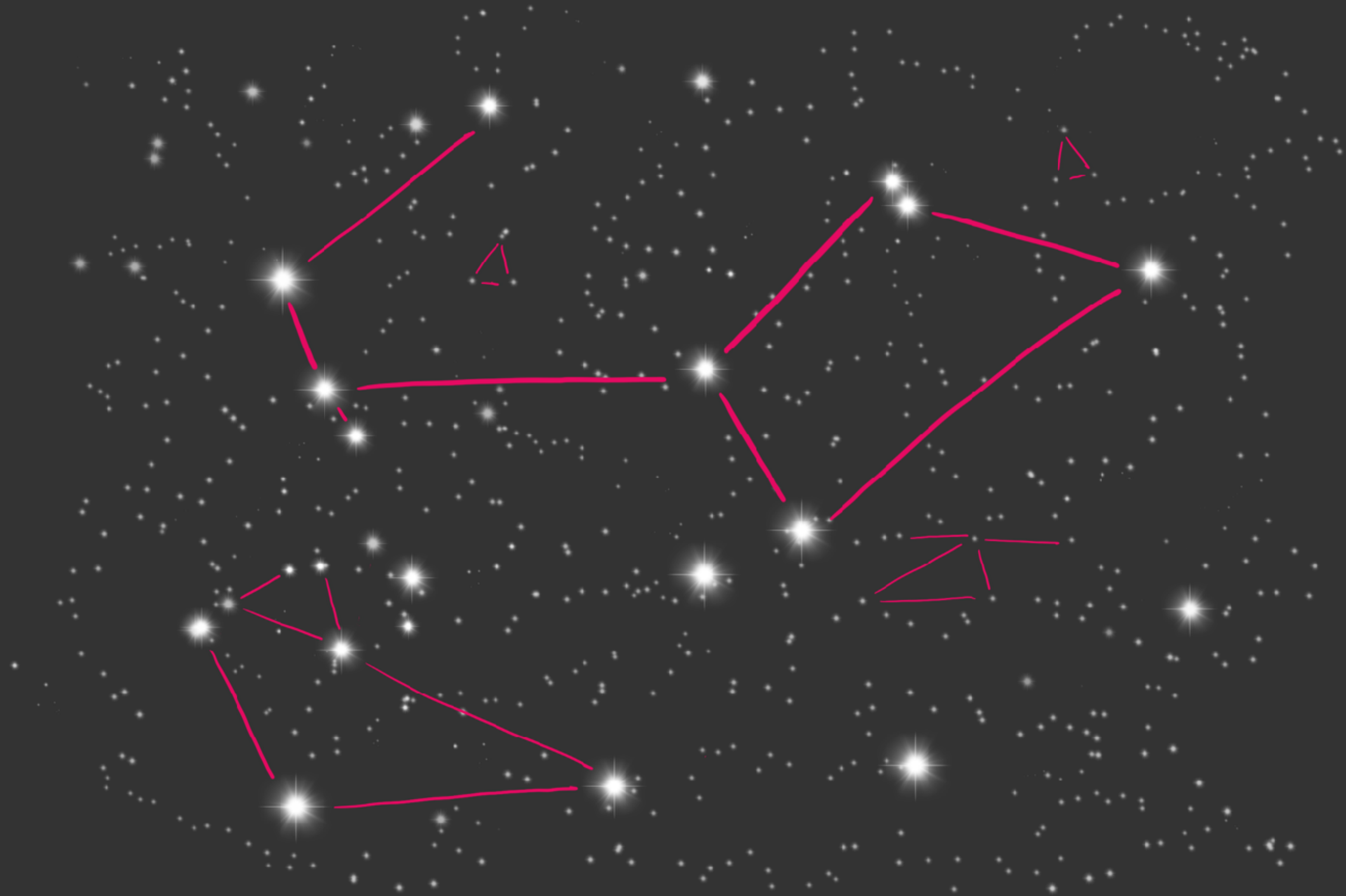
*universe galaxies constellations planets humans*



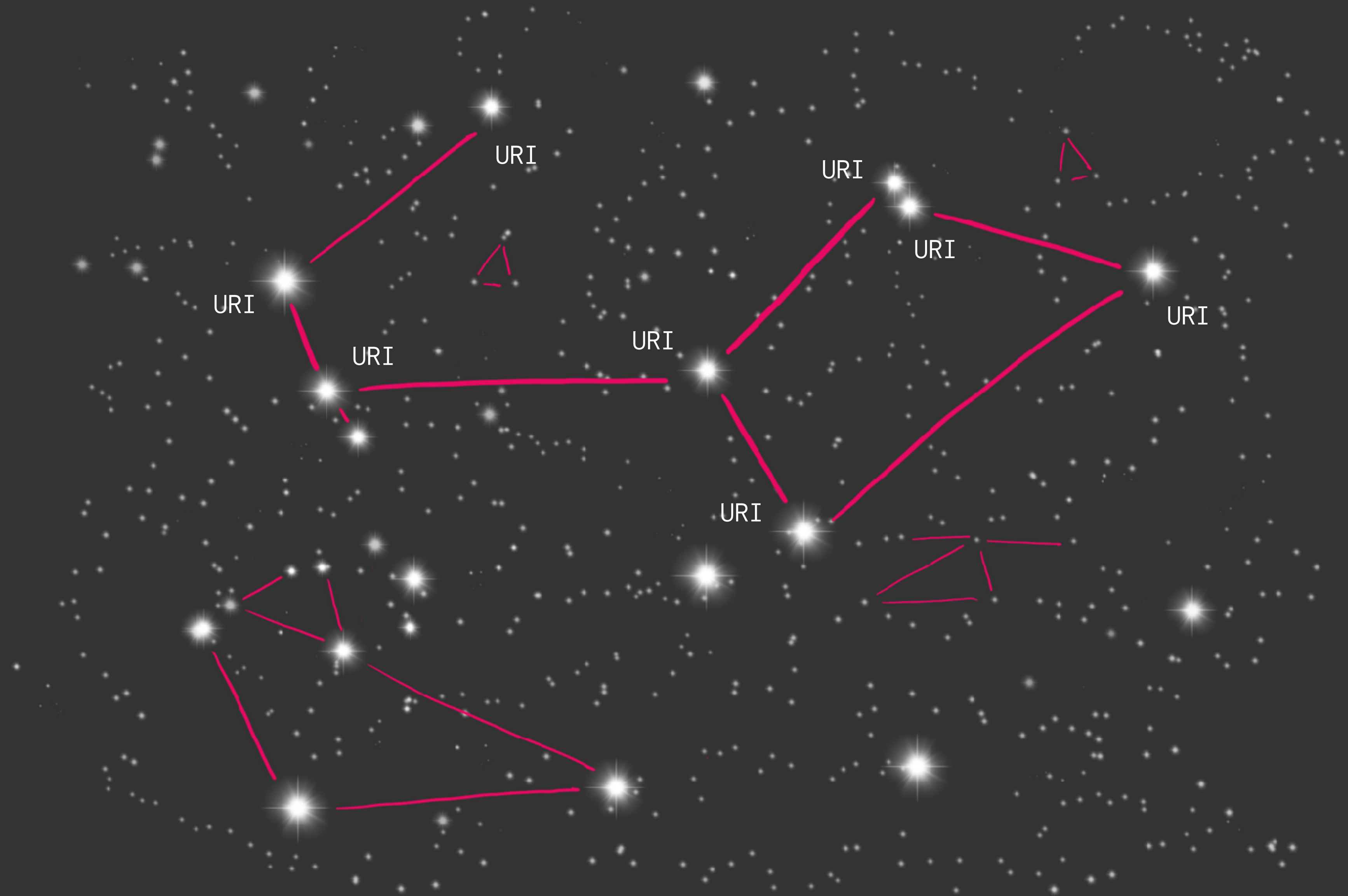














URI

URI

URI

URI

URI

URI

URI

URI



URI

URI

URI

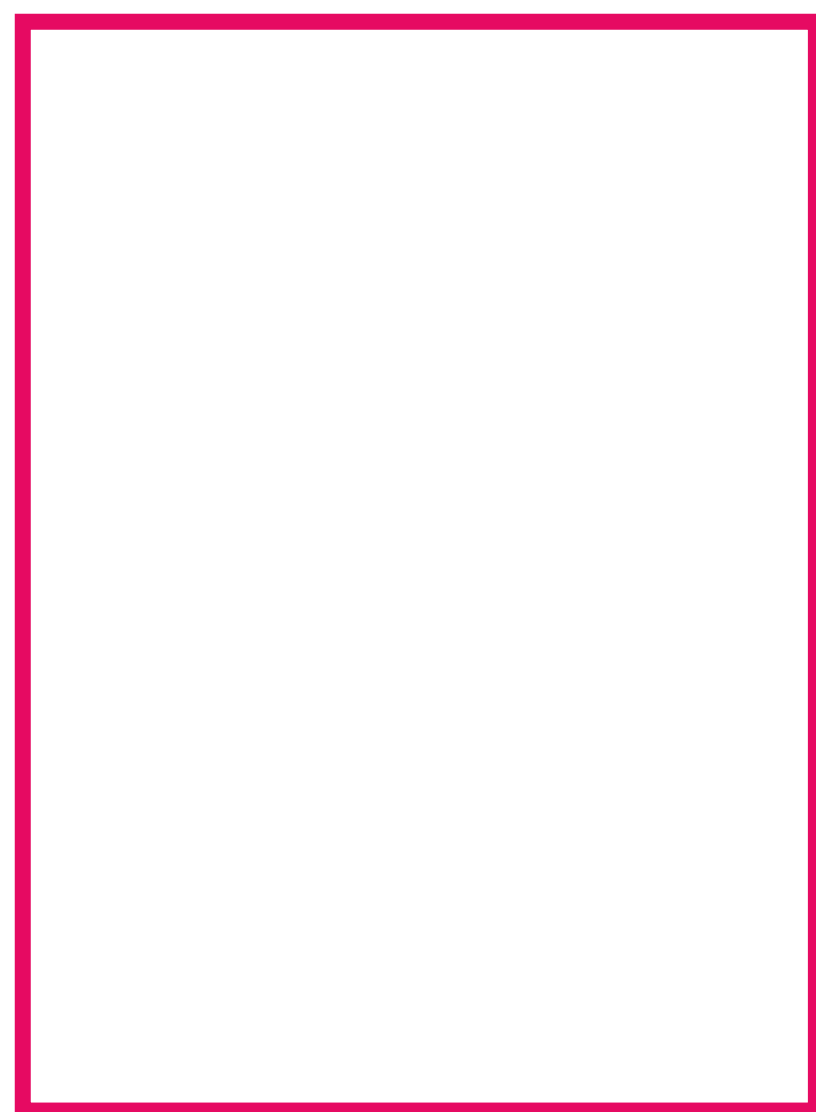
URI

URI

URI

URI

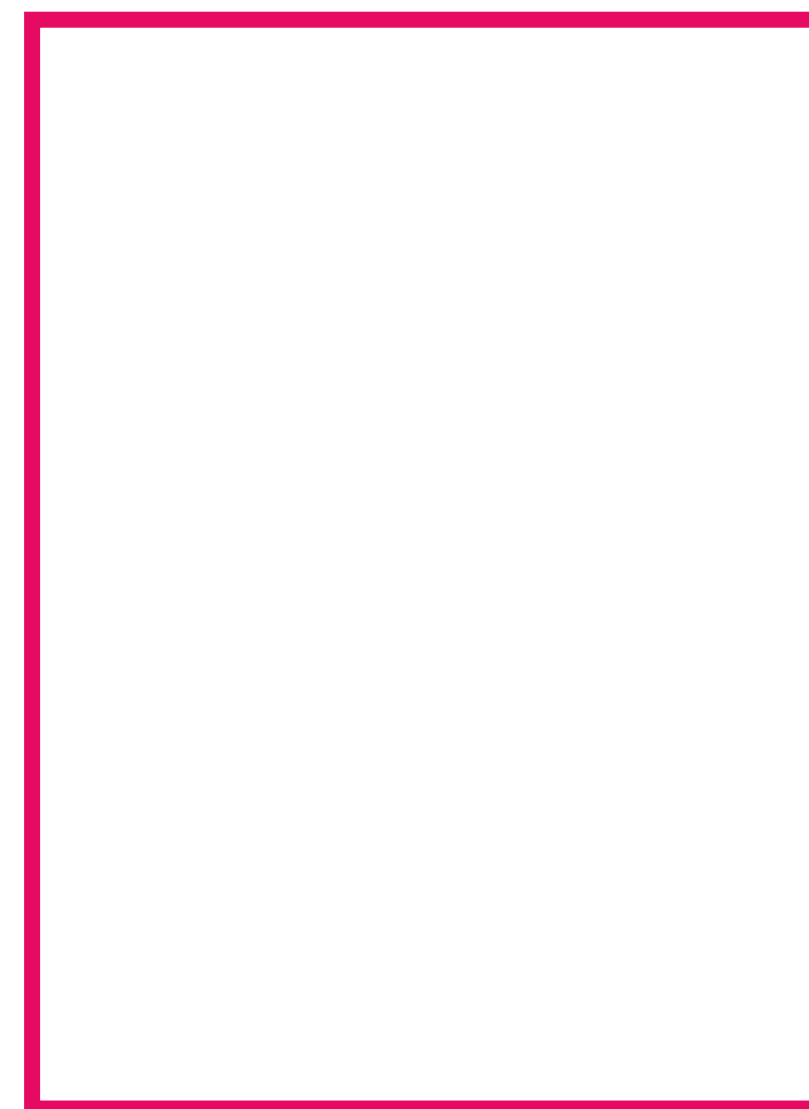
URI



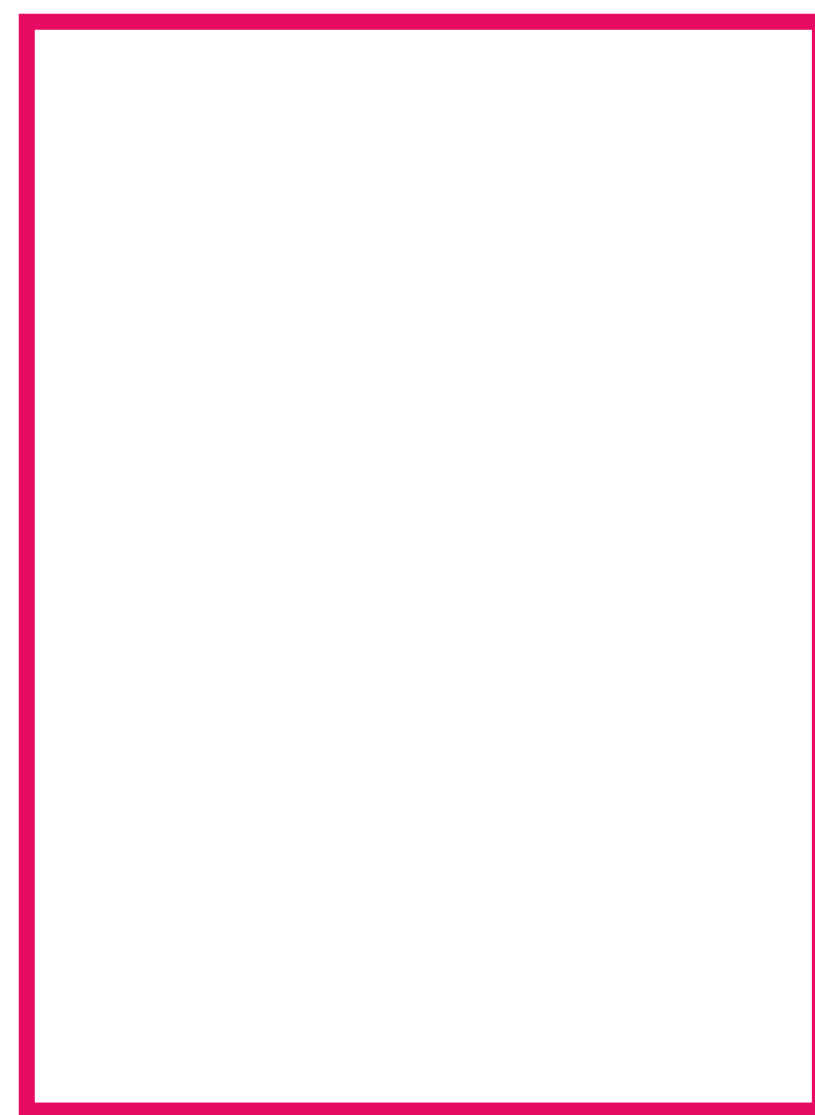
URI



URI





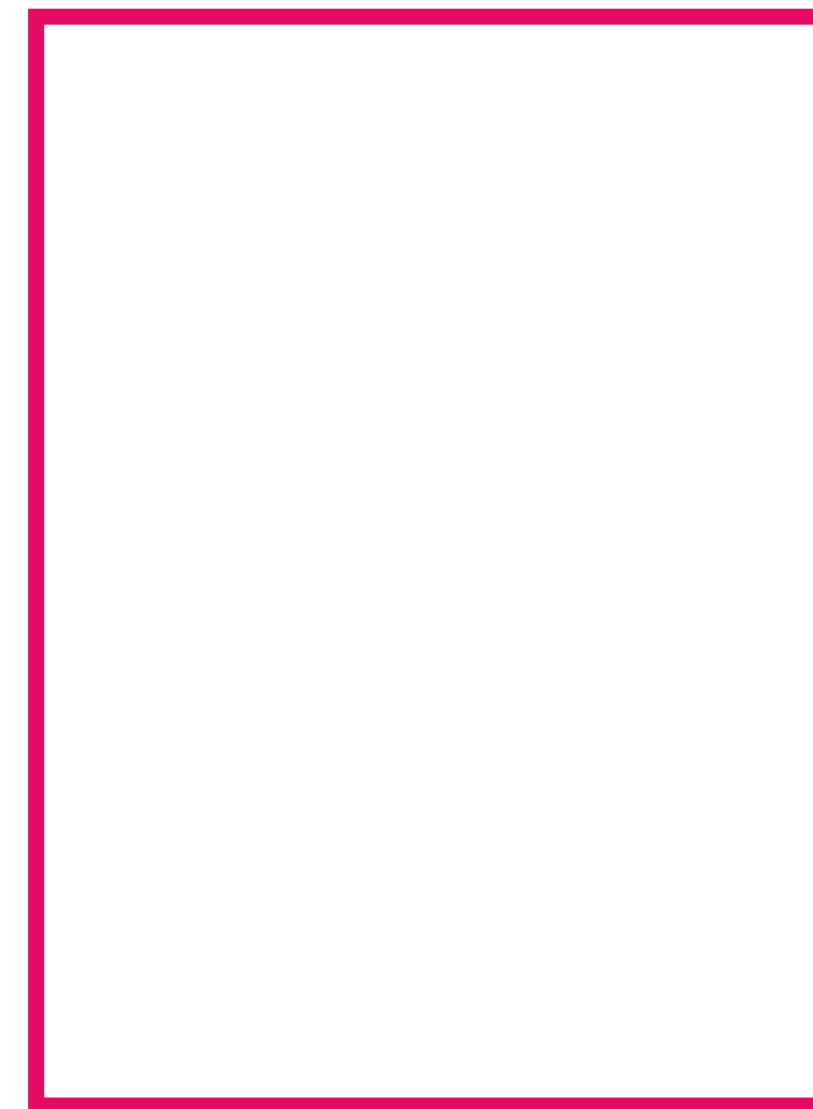


document

URI



URI



document

not just HTML documents, but...

---

*people*

not just HTML documents, but...

---

*people places*

not just HTML documents, but...

---

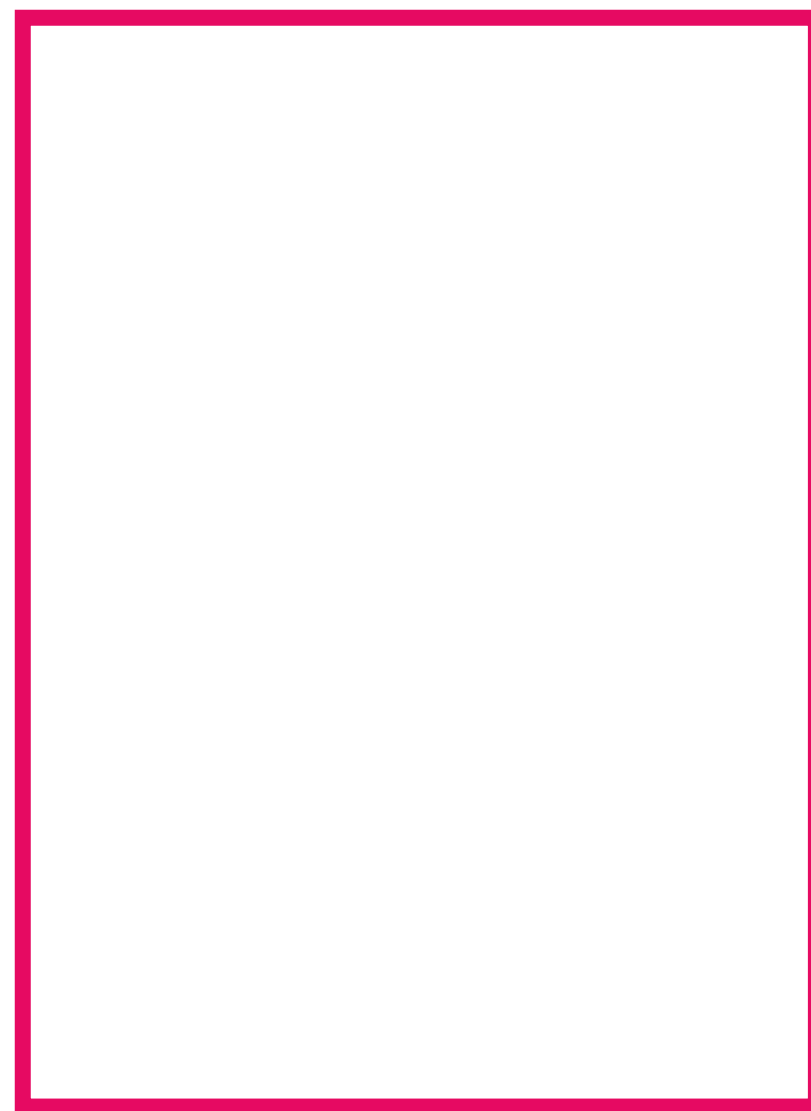
*people places books*

not just HTML documents, but...

---

*people places books dinosaurs*

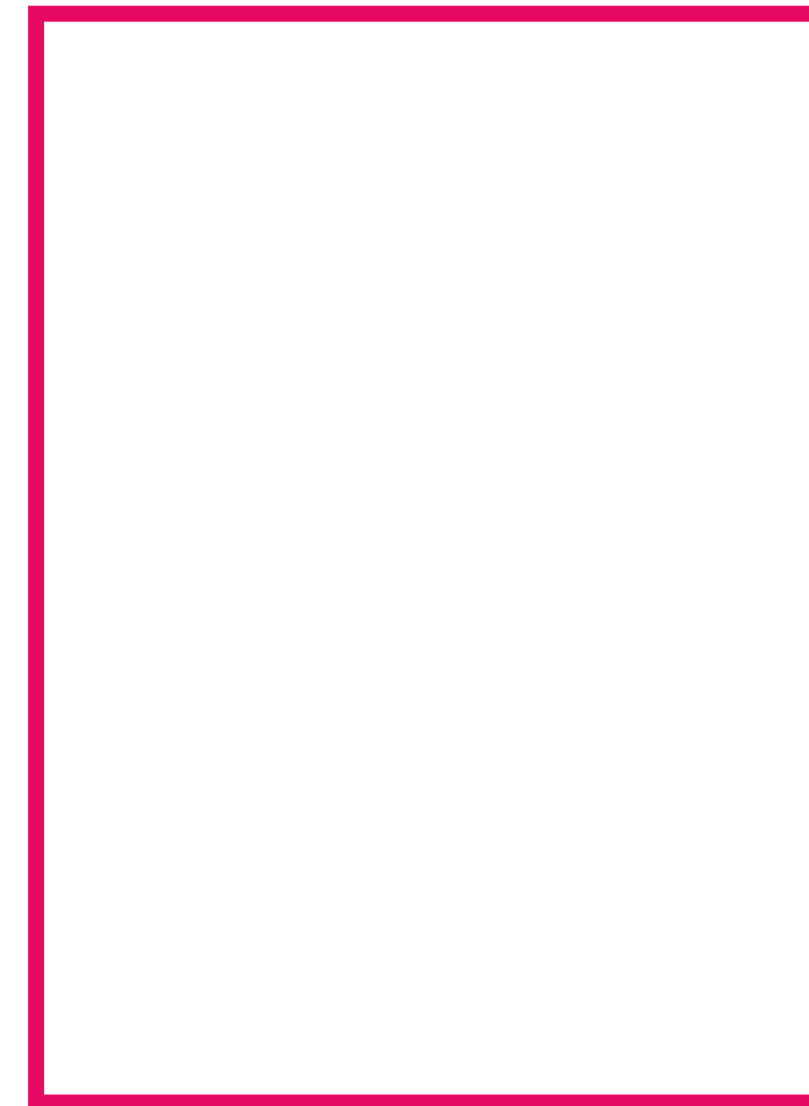
# people



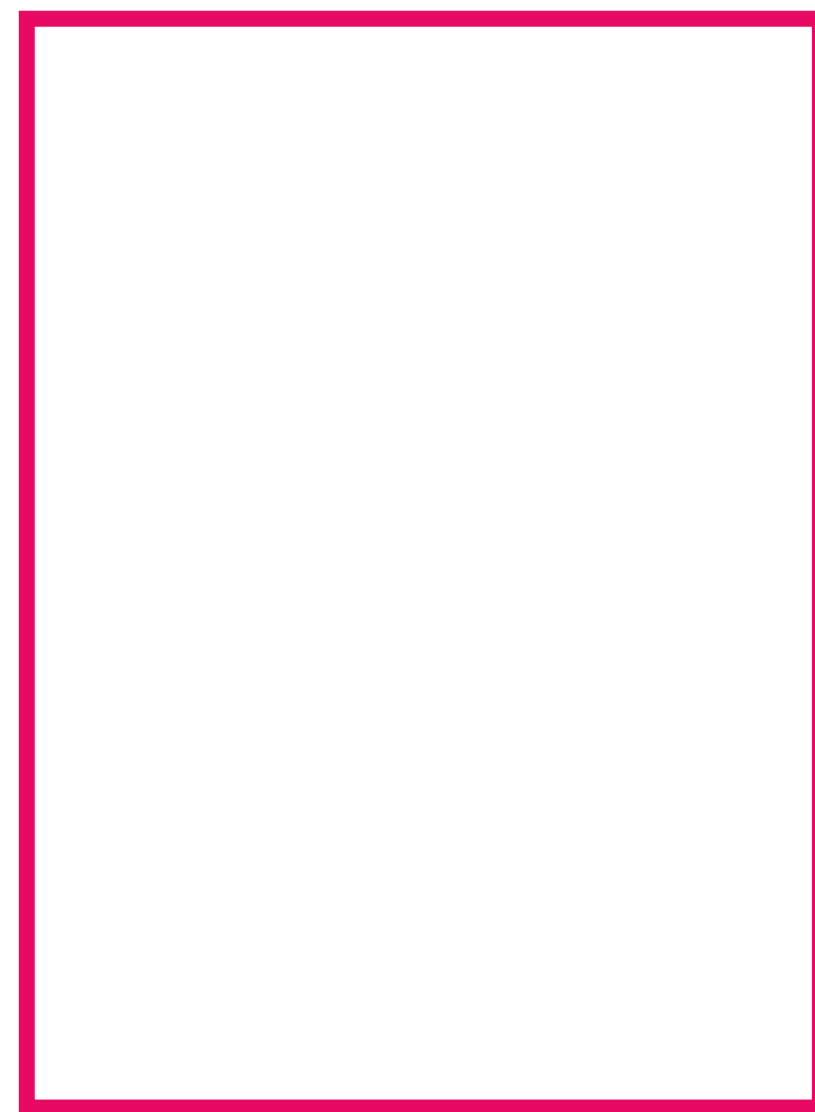
URI



URI



# people



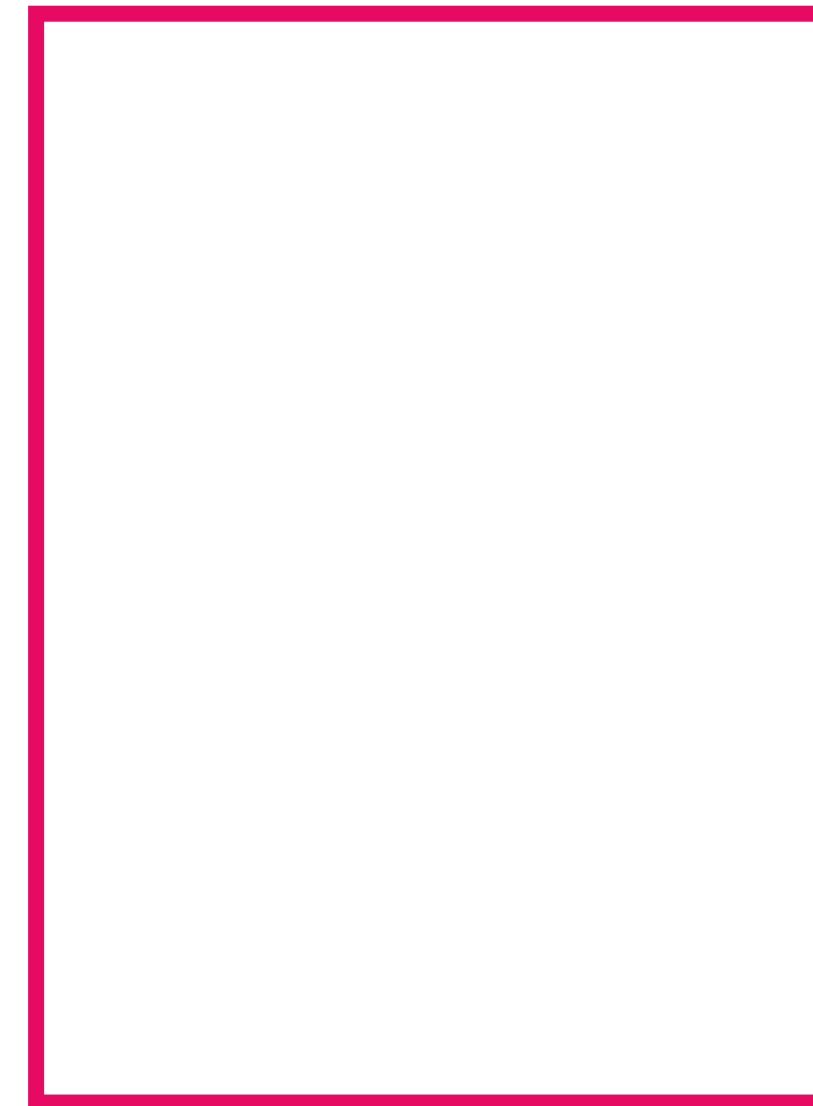
person

URI



**knows**

URI



person

# relationships



person

**knows**



person



# relationships



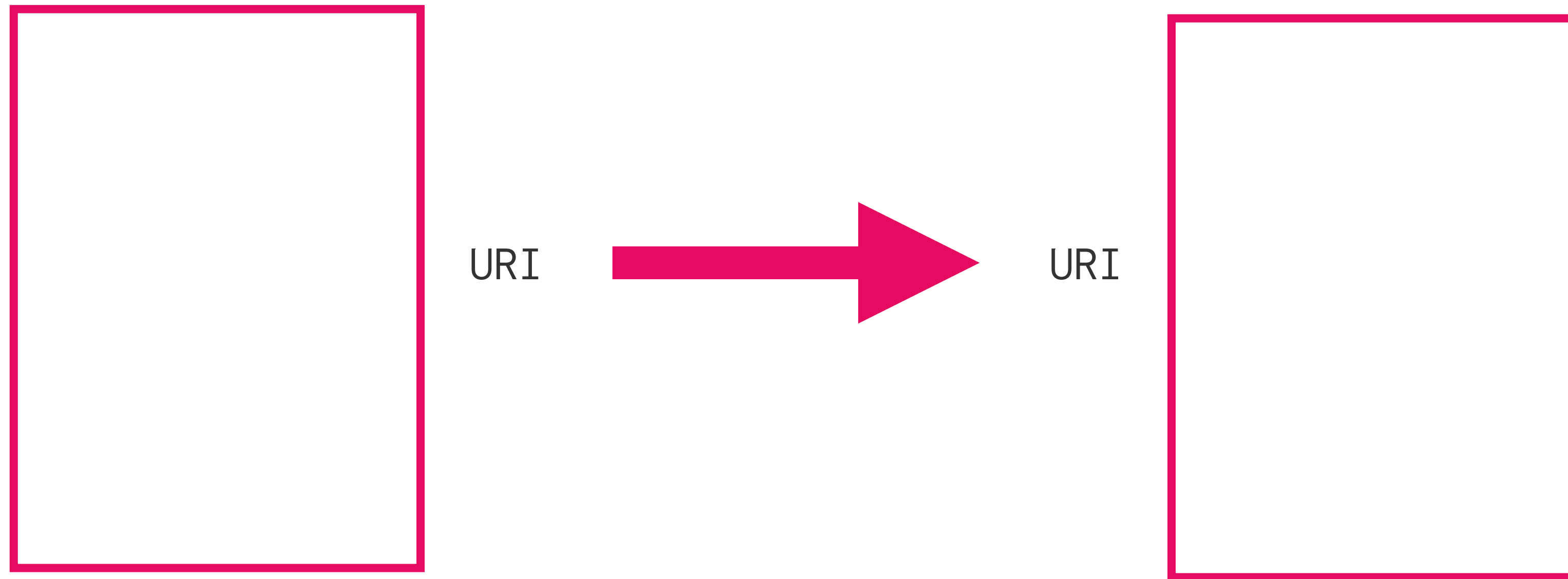
object

relationship

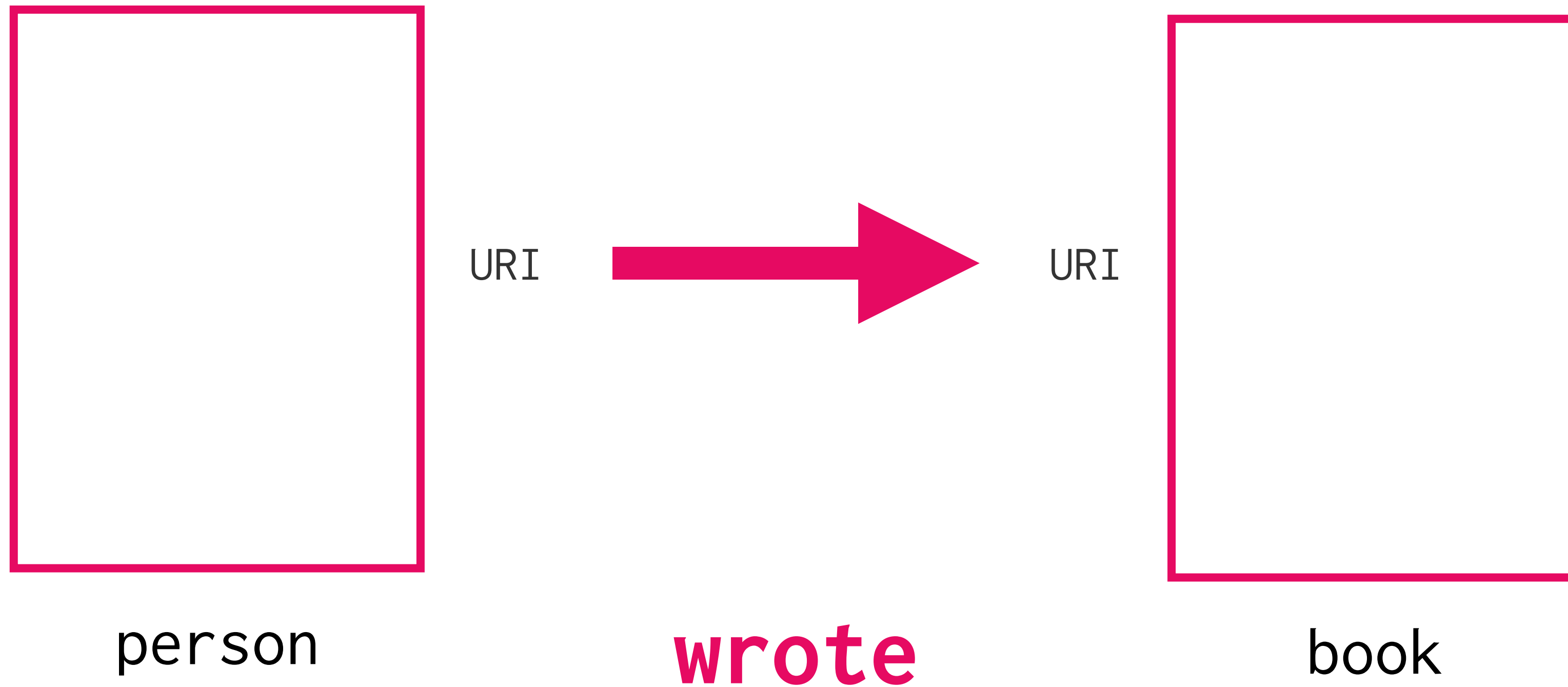


object

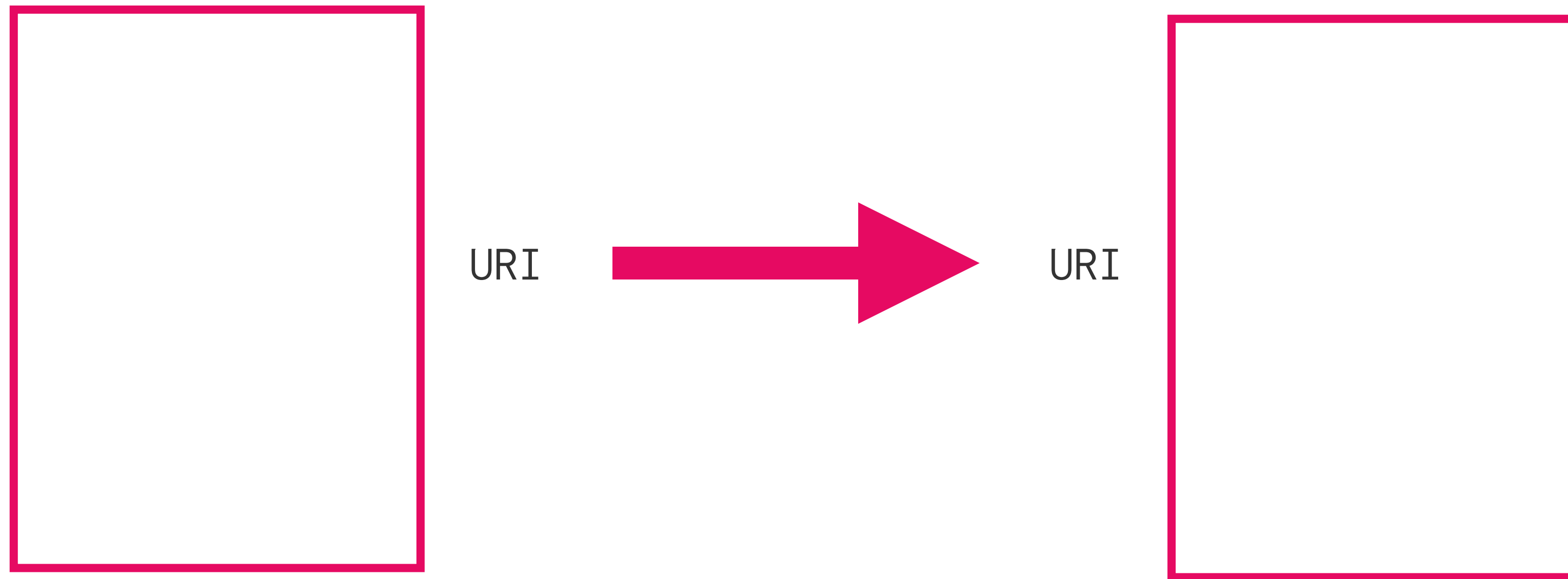
# people and things



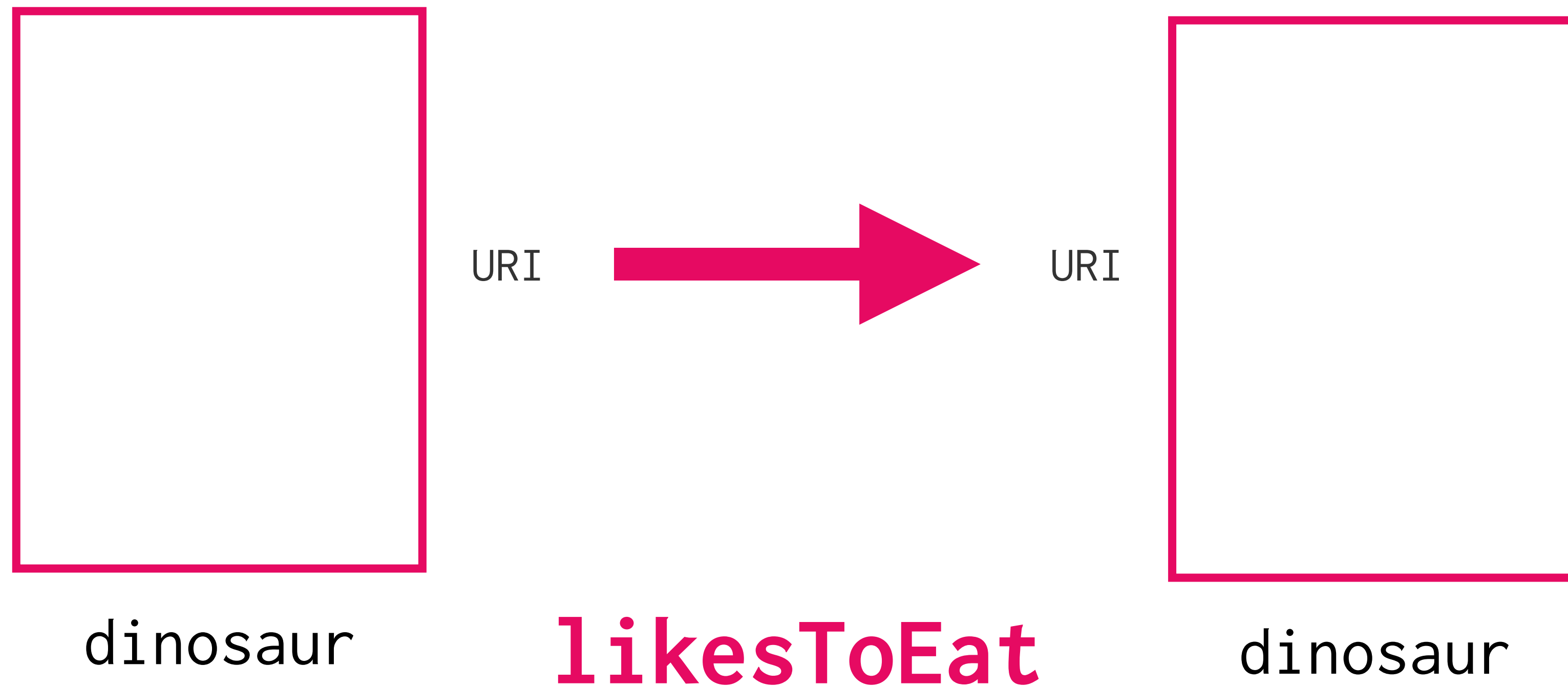
# people and things



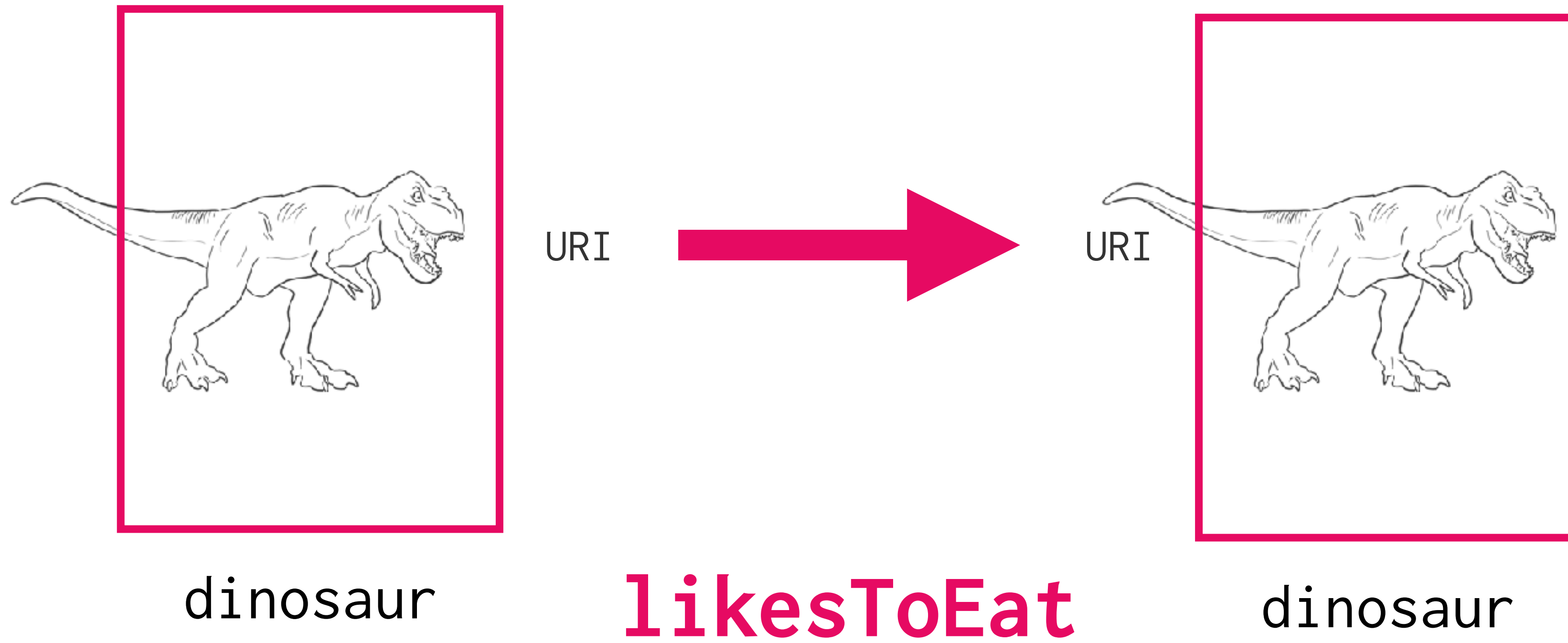
# things and things



# things and things



# things and things



URI

object

**relationship**

URI

object

# linked data



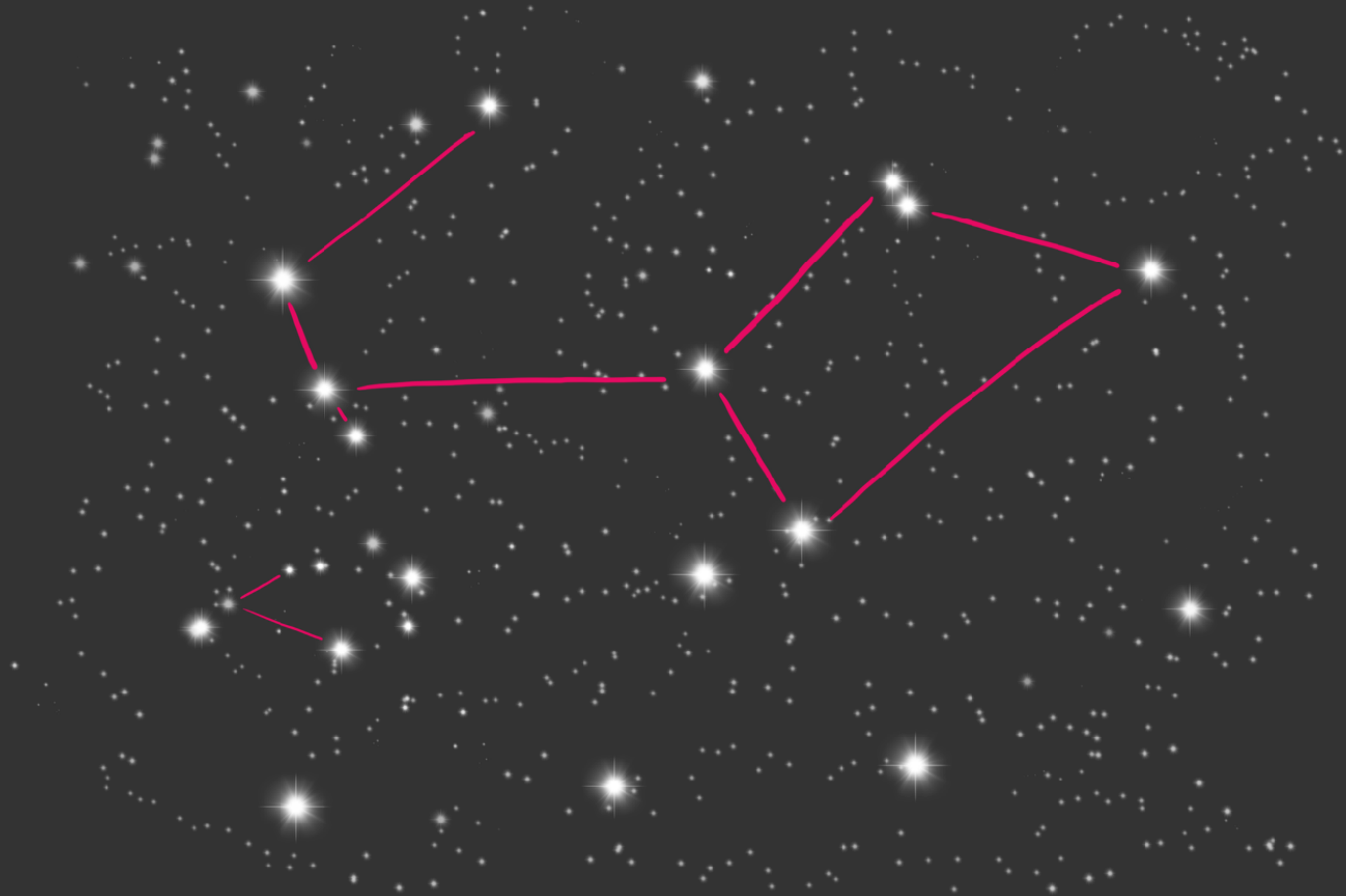
object

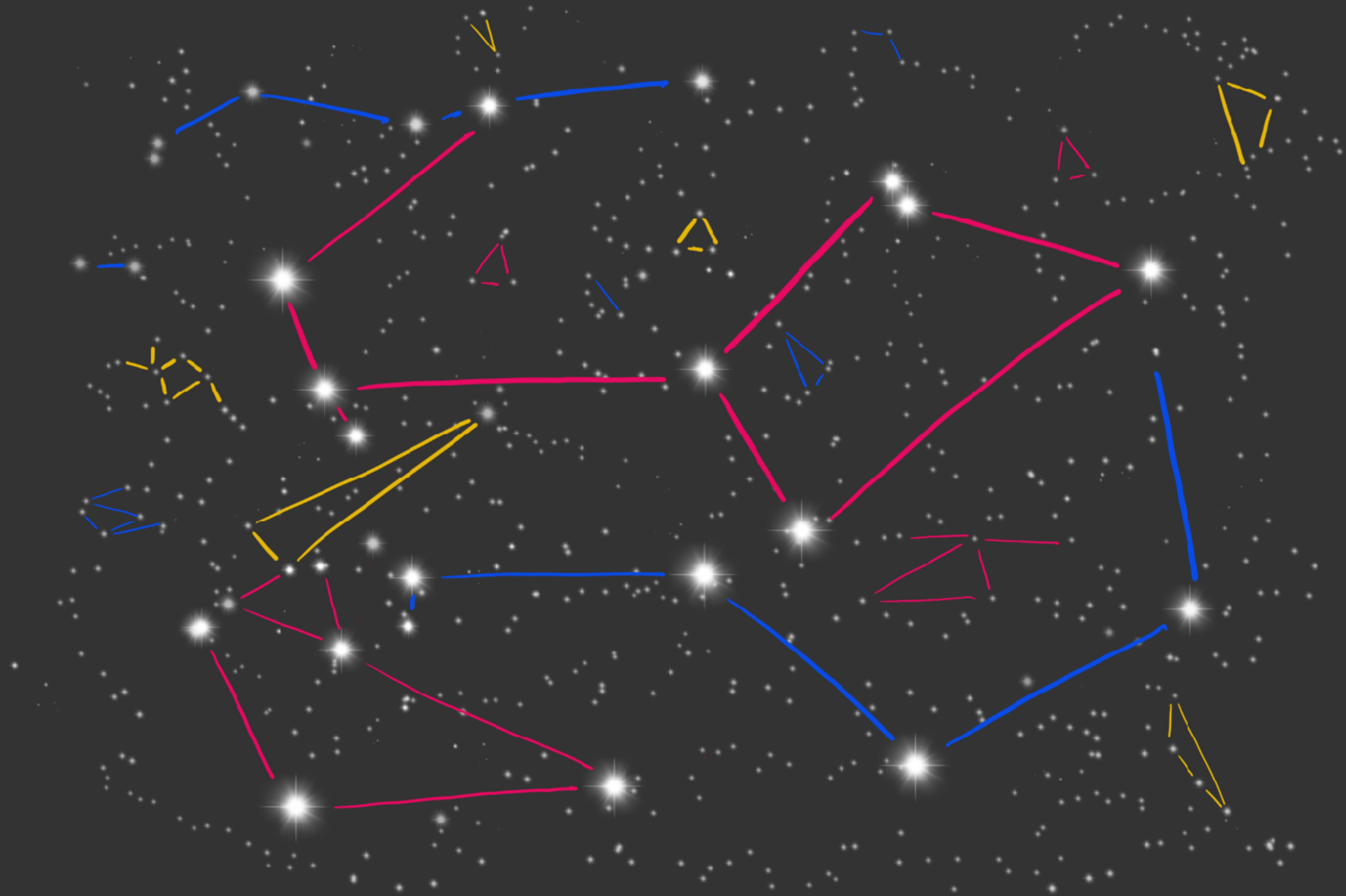
relationship



object













RDE

R

D

F

**R***esource*

**D***escription*

**F***ramework*



# RDF: Resource Description Framework



# RDF Triples



URI

subject

predicate



URI

object

# RDF Triples



URI

subject

predicate



URI

object

# RDF Triples



subject

predicate



object

# RDF Triples



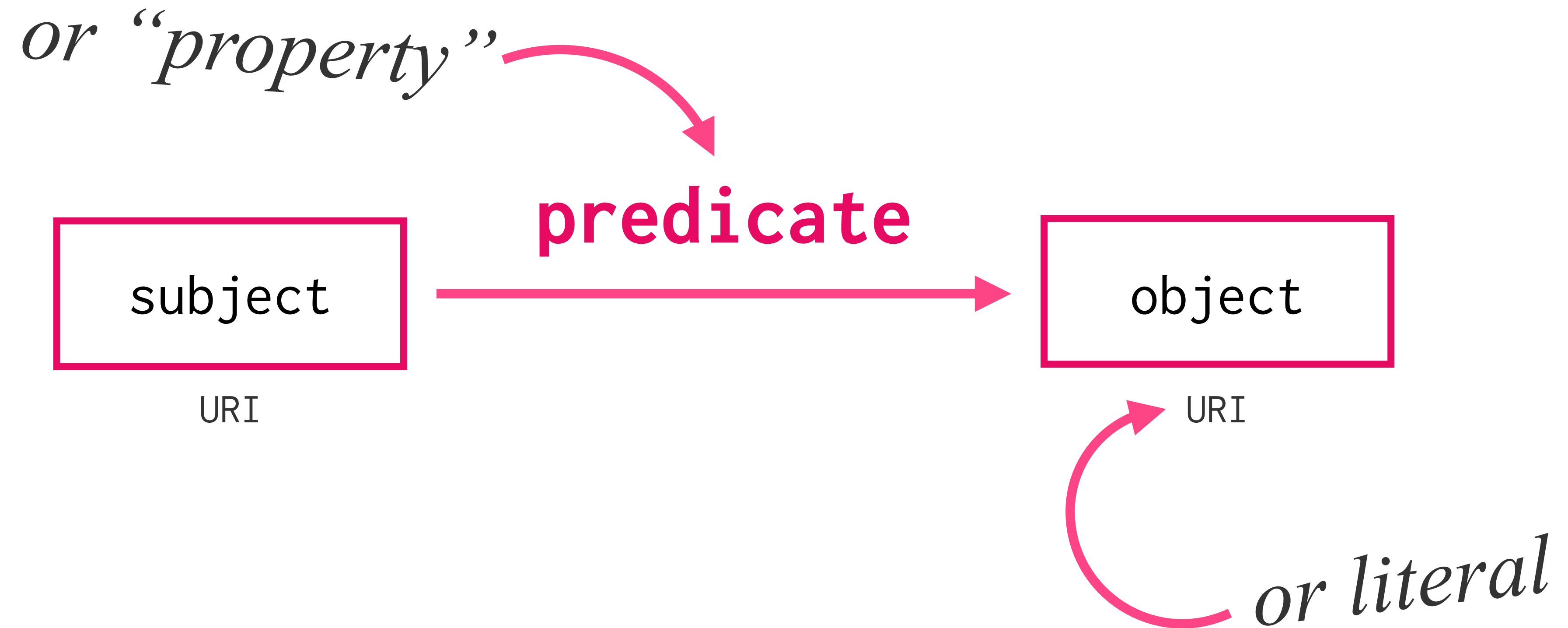
subject

predicate



object

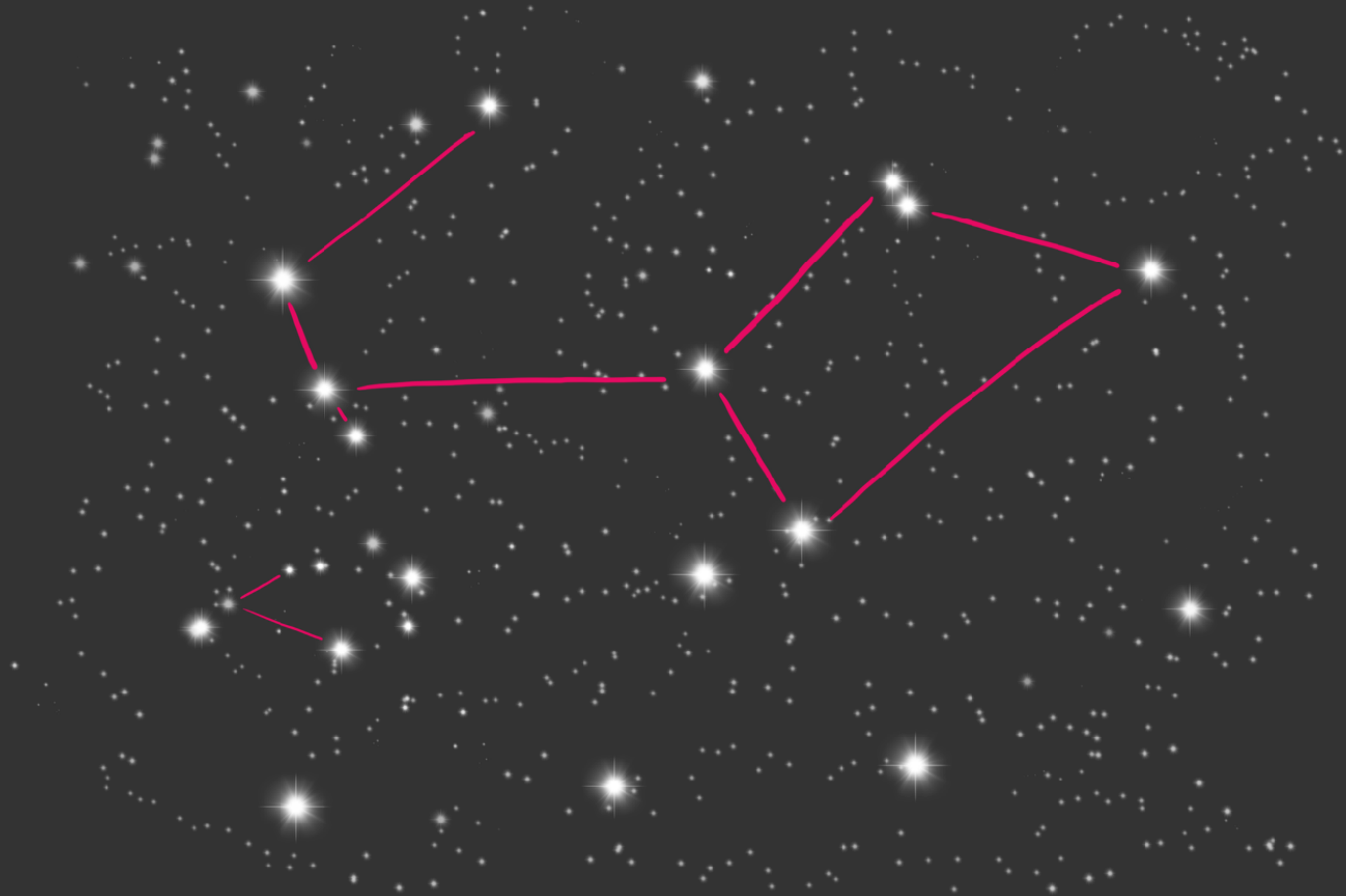
# RDF Triples

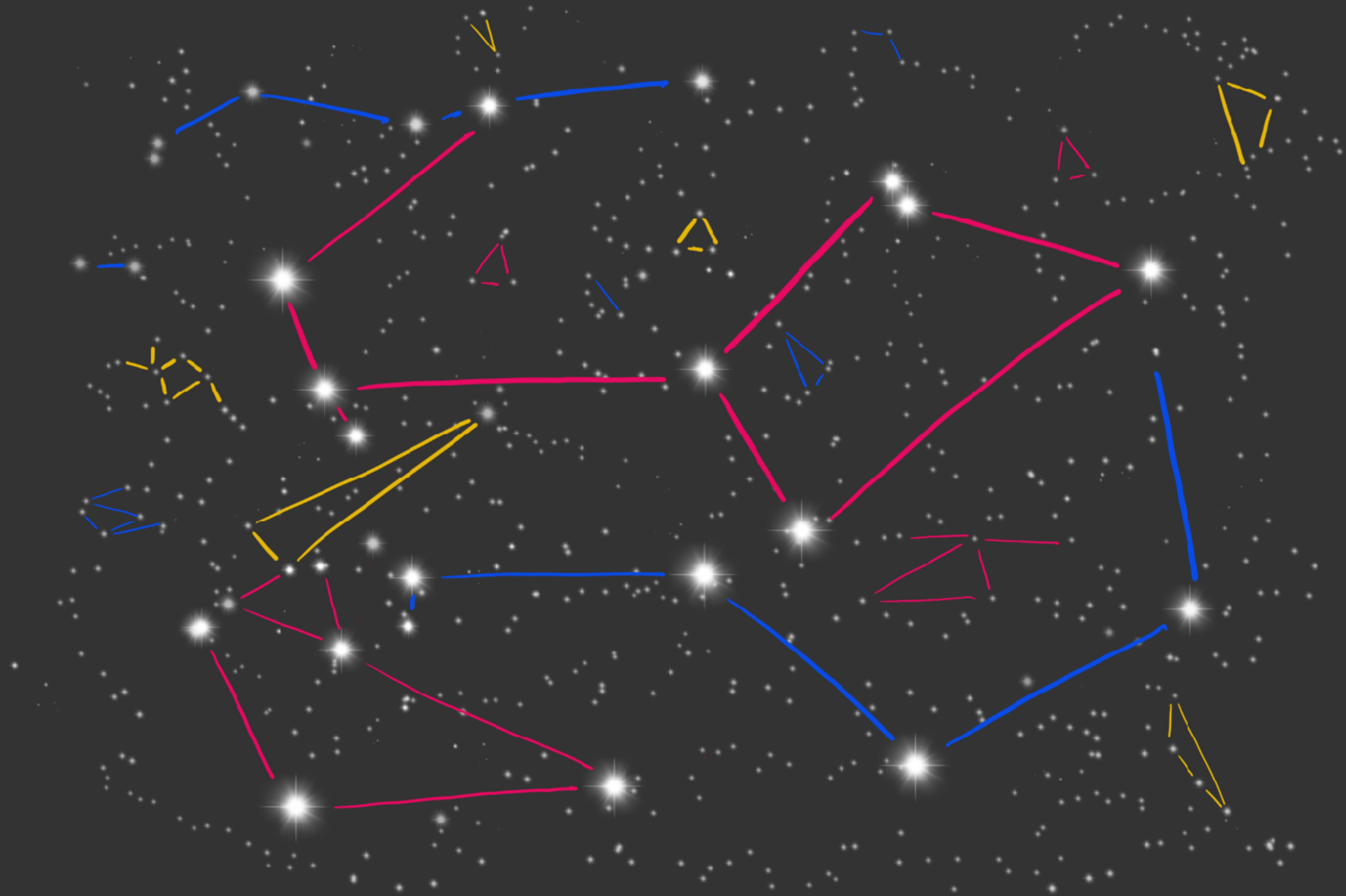












# Some HTML talking about myself

```
<div>
  <p>
    <span>Lyza Danger Gardner</span>,
    Email: <a href="mailto:lyza@example.com">lyza@example.com</a>,
    Phone: <a href="tel:+1-503-555-1212">+1 503.555.1212</a>
  </p>
</div>
```

# Some HTML talking about myself

```
<div>
  <p>
    <span>Lyza Danger Gardner</span>,
    Email: <a href="mailto:lyza@example.com">lyza@example.com</a>,
    Phone: <a href="tel:+1-503-555-1212">+1 503.555.1212</a>
  </p>
</div>
```

# Some HTML talking about myself

```
<div>
  <p>
    <span>Lyza Danger Gardner</span>,
    Email: <a href="mailto:lyza@example.com">lyza@example.com</a>,
    Phone: <a href="tel:+1-503-555-1212">+1 503.555.1212</a>
  </p>
</div>
```



RDF

RDF*a*



RDF *attributes*

# Some HTML talking about myself

```
<div>
```

```
<p>
```

```
<span>Lyza Danger Gardner</span>,
```

```
Email: <a href="mailto:lyza@example.com">lyza@example.com</a>,
```

```
Phone: <a href="tel:+1-503-555-1212">+1 503.555.1212</a>
```

```
</p>
```

```
</div>
```

F

O

A

F

**F***riend*

**O***f*

**A**

**F***riend*

# Some HTML talking about myself

```
<div>
```

```
<p>
```

```
<span>Lyza Danger Gardner</span>,
```

```
Email: <a href="mailto:lyza@example.com">lyza@example.com</a>,
```

```
Phone: <a href="tel:+1-503-555-1212">+1 503.555.1212</a>
```

```
</p>
```

```
</div>
```

# RDFa: FOAF

```
<div>
  <p>
    <span>Lyza Danger Gardner</span>,
    Email: <a href="mailto:lyza@example.com">lyza@example.com</a>,
    Phone: <a href="tel:+1-503-555-1212">+1 503.555.1212</a>
  </p>
</div>
```

# RDFa: FOAF

```
<div vocab="http://xmlns.com/foaf/0.1/"  
  <p>  
    <span      >Lyza Danger Gardner</span>,  
    Email: <a      href="mailto:lyza@example.com">lyza@example.com</a>,  
    Phone: <a      href="tel:+1-503-555-1212">+1 503.555.1212</a>  
  </p>  
</div>
```

# RDFa: FOAF

```
<div vocab="http://xmlns.com/foaf/0.1/"  
  <p>  
    <span>Lyza Danger Gardner</span>,  
    Email: <a href="mailto:lyza@example.com">lyza@example.com</a>,  
    Phone: <a href="tel:+1-503-555-1212">+1 503.555.1212</a>  
  </p>  
</div>
```



# RDFa: FOAF

```
<div vocab="http://xmlns.com/foaf/0.1/" typeof="Person">
  <p>
    <span                >Lyza Danger Gardner</span>,
    Email: <a            href="mailto:lyza@example.com">lyza@example.com</a>,
    Phone: <a            href="tel:+1-503-555-1212">+1 503.555.1212</a>
  </p>
</div>
```

# RDFa: FOAF

```
<div vocab="http://xmlns.com/foaf/0.1/" typeof="Person">
  <p>
    <span          >Lyza Danger Gardner</span>,
    Email: <a      href="mailto:lyza@example.com">lyza@example.com</a>,
    Phone: <a      href="tel:+1-503-555-1212">+1 503.555.1212</a>
  </p>
</div>
```

# RDFa: FOAF

```
<div vocab="http://xmlns.com/foaf/0.1/" typeof="Person">
  <p>
    <span property="name">Lyza Danger Gardner</span>,
    Email: <a property="mbox" href="mailto:lyza@example.com">lyza@example.com</a>,
    Phone: <a property="phone" href="tel:+1-503-555-1212">+1 503.555.1212</a>
  </p>
</div>
```

# RDFa: FOAF

```
<div vocab="http://xmlns.com/foaf/0.1/" typeof="Person">
  <p>
    <span property="name">Lyza Danger Gardner</span>,
    Email: <a property="mbox" href="mailto:lyza@example.com">lyza@example.com</a>,
    Phone: <a property="phone" href="tel:+1-503-555-1212">+1 503.555.1212</a>
  </p>
</div>
```



RDF *a* →

RDF *a* .....> HTML





ISON

J  
S  
O  
N

**J***ava*

**S***cript*

**O***bject*

**N***otation*

# JSON

```
{  
  "name": "Lyza Danger Gardner",  
  "homepage": "http://www.lyza.com/",  
  "picture": "http://twitter.com/account/profile_image/lyzadanger"  
}
```

# JSON

```
{  
  "name": "Lyza Danger Gardner",  
  "homepage": "http://www.lyza.com/",  
  "picture": "http://twitter.com/account/profile_image/lyzadanger"  
}
```





ISON



JSON-

JSON-LLD

JSON  
LD

JSON

*Linked Data*

# JSON

```
{  
  "name": "Lyza Danger Gardner",  
  "homepage": "http://www.lyza.com/",  
  "picture": "http://twitter.com/account/profile_image/lyzadanger"  
}
```

# JSON-LD

```
{  
  "@context": {  
    "xsd": "http://www.w3.org/2001/XMLSchema#",  
    "foaf": "http://xmlns.com/foaf/0.1/",  
  },  
  "@id": "http://me.lyza.com/",  
  "@type": "foaf:Person",  
  "foaf:name": "Lyza Danger Gardner",  
}
```

# JSON-LD

```
{  
  "@context": {  
    "xsd": "http://www.w3.org/2001/XMLSchema#",  
    "foaf": "http://xmlns.com/foaf/0.1/",  
  },  
  "@id": "http://me.lyza.com/",  
  "@type": "foaf:Person",  
  "foaf:name": "Lyza Danger Gardner",  
}
```

# JSON-LD

```
{  
  "@context": {  
    "xsd": "http://www.w3.org/2001/XMLSchema#",  
    "foaf": "http://xmlns.com/foaf/0.1/",  
  },  
  "@id": "http://me.lyza.com/",  
  "@type": "foaf:Person",  
  "foaf:name": "Lyza Danger Gardner",  
}
```



# JSON-LD

```
{  
  "@context": {  
    "xsd": "http://www.w3.org/2001/XMLSchema#",  
    "foaf": "http://xmlns.com/foaf/0.1/",  
  },  
  "@id": "http://me.lyza.com/",  
  "@type": "foaf:Person",  
  "foaf:name": "Lyza Danger Gardner",  
}
```

# JSON-LD

```
{  
  "@context": {  
    "xsd": "http://www.w3.org/2001/XMLSchema#",  
    "foaf": "http://xmlns.com/foaf/0.1/",  
  },  
  "@id": "http://me.lyza.com/",  
  "@type": "foaf:Person",  
  "foaf:name": "Lyza Danger Gardner",  
}
```

RDF*a*

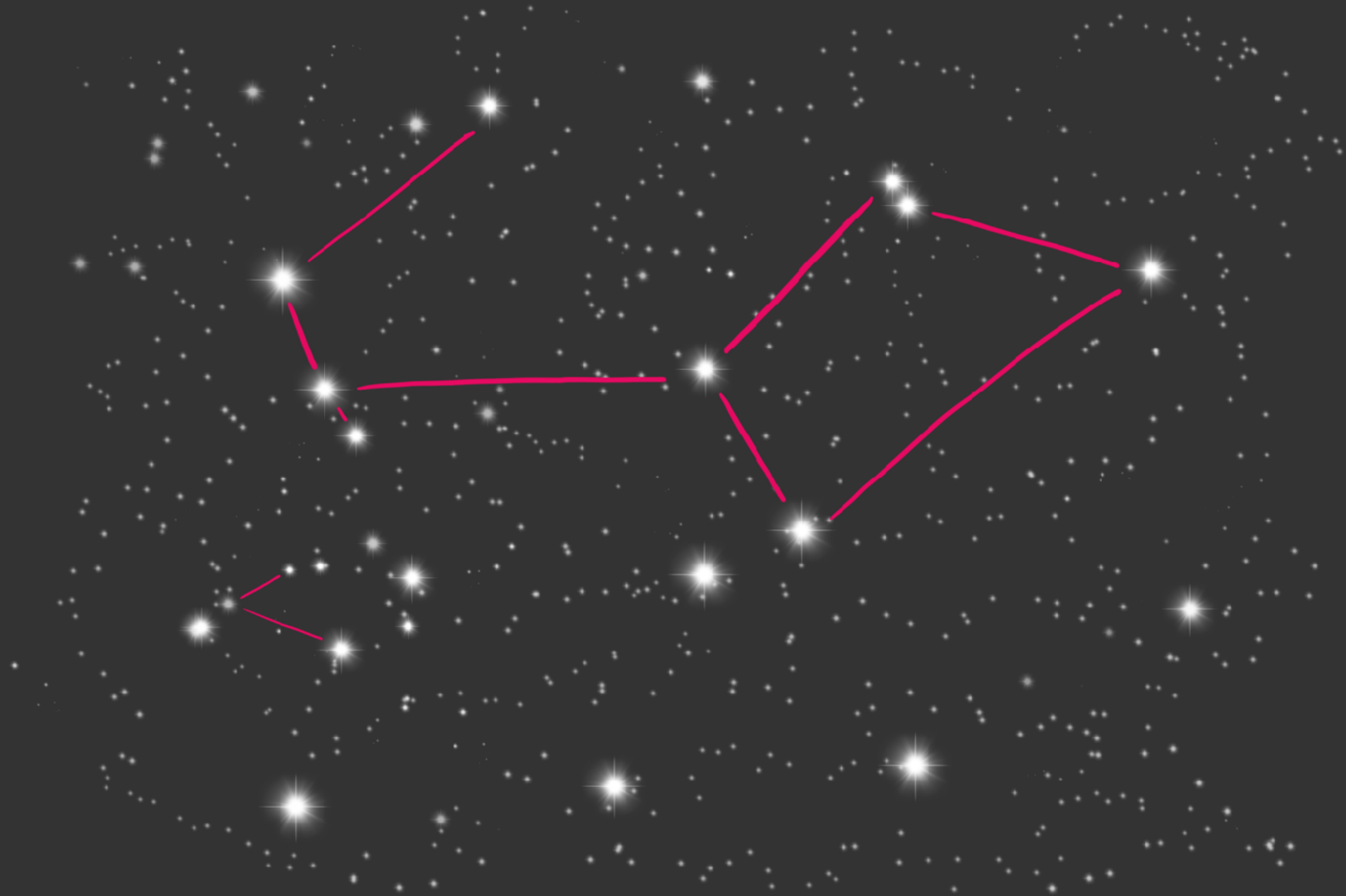


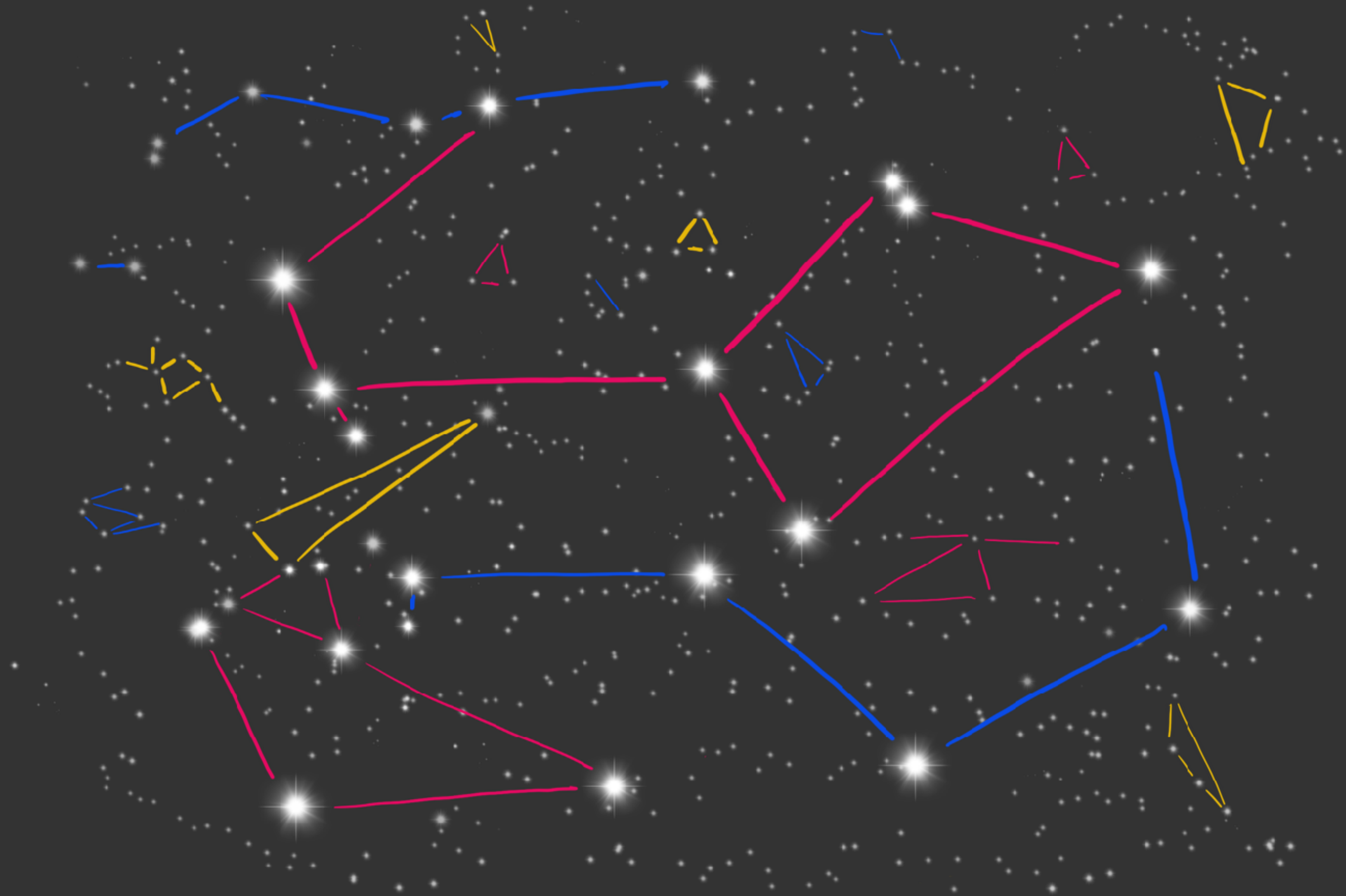
HTML



RDF*a* .....> HTML

JSON*LD* .....> JSON





*Then 2001 2009 2010 2011 2014 Now*

---

How did we get here?

# Web Annotation Pre-History

---

*zoom level*

*universe galaxies constellations planets humans*



# Web Annotation Pre-History

---

*Constellations on the web*

*zoom level*

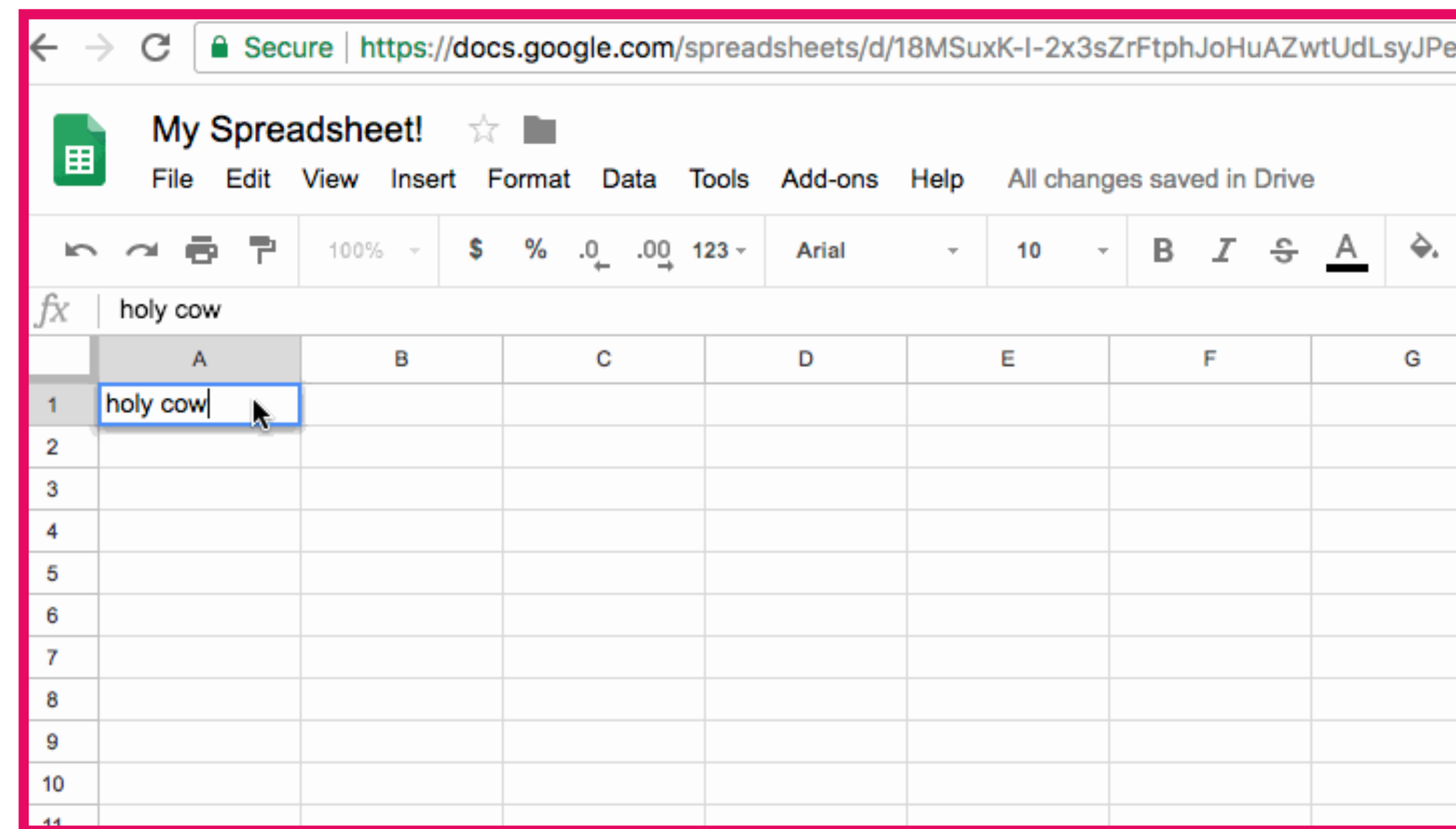
*universe galaxies constellations planets humans*



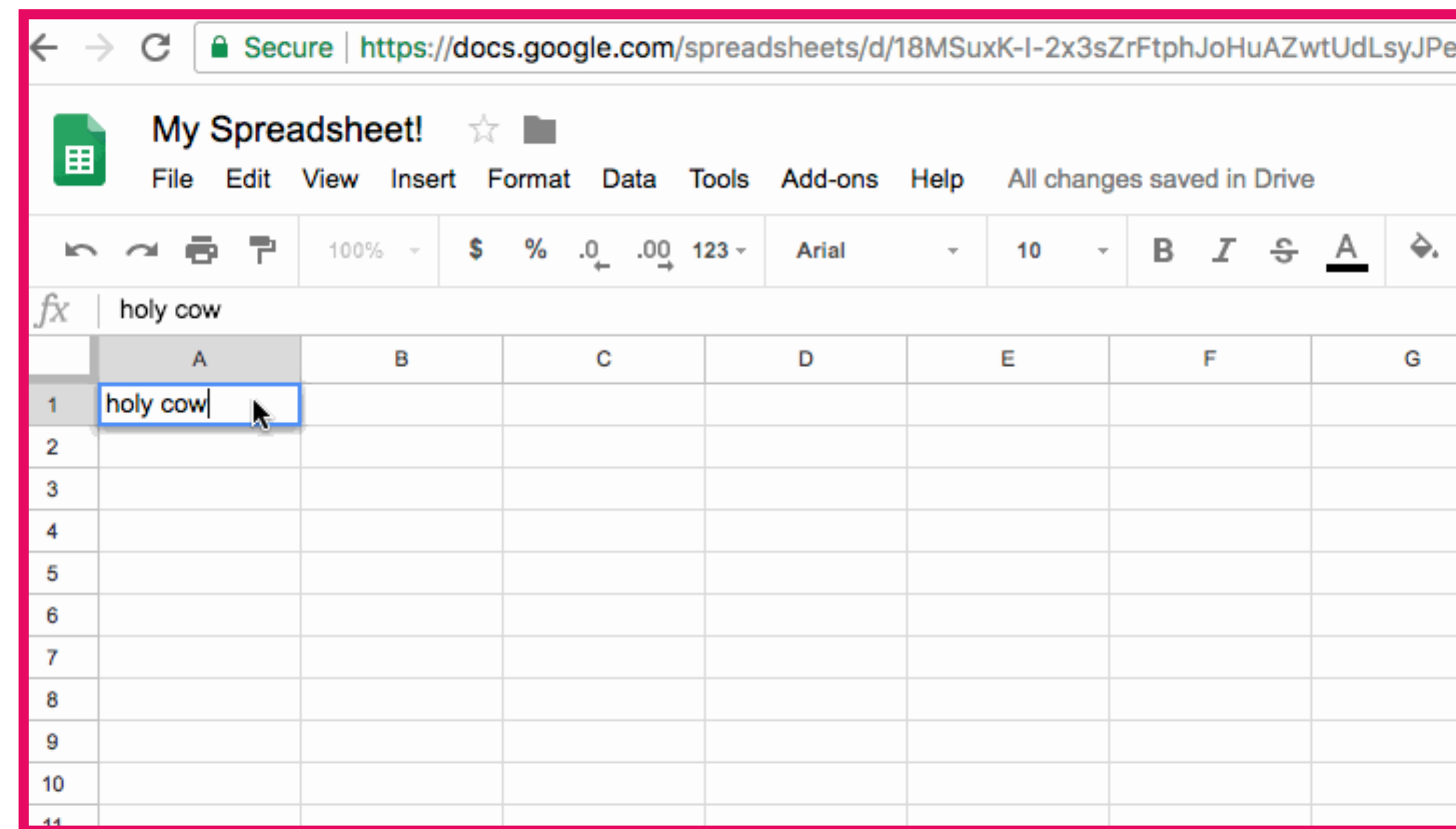
**Web 2.0**

**Web 2.0**

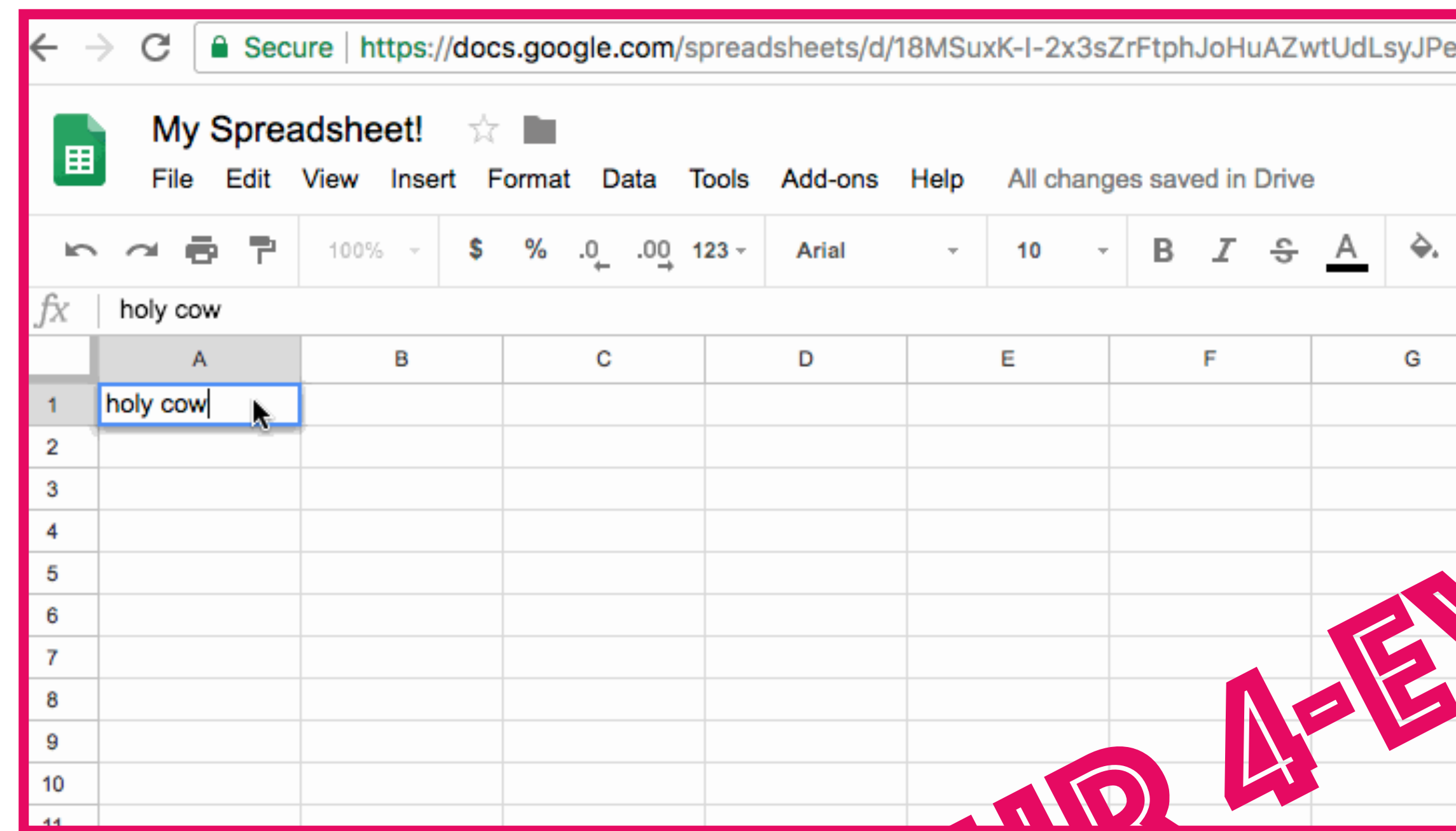
# App-like Web Things



# App-like Web Things



# App-like Web Things



XHR 4-EVER!



# Marc Andreessen

---

*co-founder, Netscape*

<https://www.flickr.com/photos/joi/2757536235/sizes/o/in/photostream/>

*1990s 2001 2009 2010 2011 2014 2017*

---

# Early Netscape



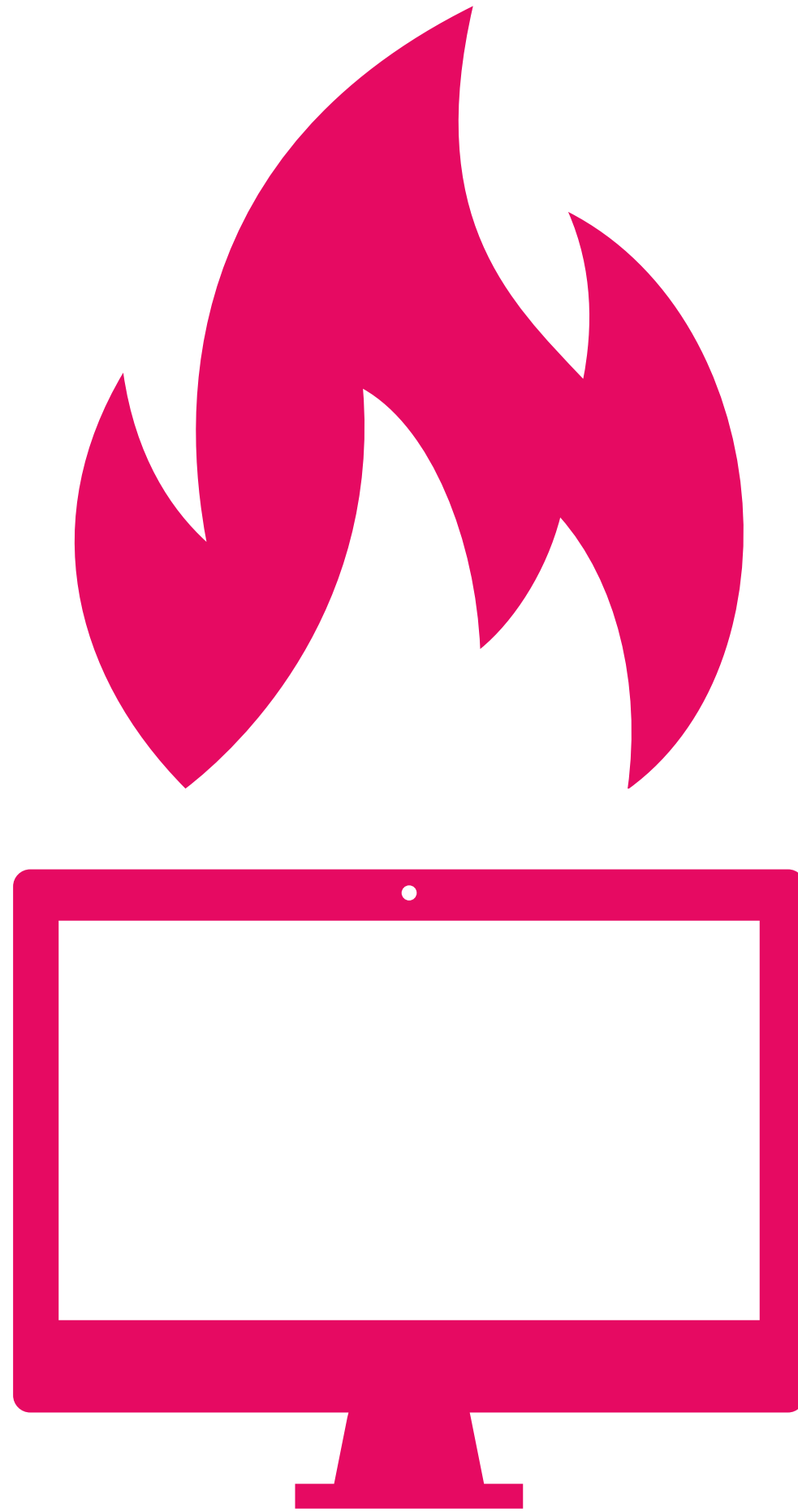
# technology not ready



**but the desire was there...**



**but the desire was there...**



*1990s 2001 2009 2010 2011 2014 2017*

---

# Third Voice

# Third Voice

# Third Voice

Business

## Third Voice slammed for 'defacing' Web sites

Webmasters up in arms over site comment software

By [Tony Smith](#) 11 Jun 1999 at 16:03

SHARE ▼

US software developer Third Voice has provoked the ire of Internet users and Webmasters by releasing software that allows Web surfers to share comments about Web sites. The problem is not necessarily that the Third Voice system is invasive, but that it allows anyone to add comments -- such as spam -- to a Web site without the permission of the site's owner. Third Voice is a Windows-only browser plug-in that allows users to select text on a Web page and attach a comment, in the form of a pop-up note, to it. Other Third Voice users visiting the site see one or more icons on

[https://www.theregister.co.uk/1999/06/11/third\\_voice\\_slammed\\_for\\_defacing/](https://www.theregister.co.uk/1999/06/11/third_voice_slammed_for_defacing/)

# Third Voice

Business

## Third Voice slammed for 'defacing' Web sites

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[https://www.theregister.co.uk/1999/06/11/third\\_voice\\_slammed\\_for\\_defacing/](https://www.theregister.co.uk/1999/06/11/third_voice_slammed_for_defacing/)

APARNA KUMAR BUSINESS 04.04.01 12:00 PM

## THIRD VOICE TRAILS OFF....

ENG-SION TAN HAD an idea he believed would promote freer speech on the Internet.

In 1999, he and two colleagues launched Third Voice, a free browser plug-in that allowed Web surfers to annotate any site with their comments. The idea was to spark "inline discussions" among Web users, promoting a new civic mindedness that would keep corporations, government and the media honest.

But the seemingly innocuous "sticky notes" gained enemies quicker than users. Launching a grassroots campaign called Say No to TV, some 400 independent Web hosts banded together to gag [Third Voice](#), which they likened to "Web graffiti."

<https://www.wired.com/2001/04/third-voice-trails-off/>






*1990s 2001 2009 2010 2011 2014 2017*

---

W<sub>3</sub>C: Annotea

# Annotea



## About Annotea

- [Overview](#)
- [Documents](#)
- [News](#)
- [Press](#)

## How to ...

- [Use annotations](#)
- [Install a server](#)
- [Write clients](#)

## Annotea

- [Servers](#)
- [Clients](#)
- [All projects](#)

## Mailing list

- [www-annotation](#)

## Contributors

## Annotea Project

### Overview

Annotea is a W3C [LEAD](#) (Live Early Adoption and Demonstration) project under [Semantic Web Advanced Development](#) (SWAD). Annotea enhances collaboration via shared metadata based Web annotations, bookmarks, and their combinations. By annotations we mean comments, notes, explanations, or other types of external remarks that can be attached to any Web document or a selected part of the document without actually needing to touch the document. When the user gets the document he or she can also load the annotations attached to it from a selected annotation server or several servers and see what his peer group thinks. Similarly shared bookmarks can be attached to Web documents to help organize them under different topics, to easily find them later, to help find related material and to collaboratively filter bookmarked material.

Annotea is open; it uses and helps to advance W3C standards when possible. For instance, we use an [RDF](#) based [annotation schema](#) for describing annotations as metadata and [XPointer](#) for locating the annotations in the annotated document. Similarly a [bookmark schema](#) describes the bookmark and topic metadata.

Annotea is part of the [Semantic Web](#) efforts. It provides a RDF metadata based extendible framework for rich communication about Web pages while offering a simple annotation and bookmark user interface. The annotation metadata can be stored locally or in one or more annotation servers and presented to the user by a client capable of understanding this metadata and capable of interacting with an annotation server with the HTTP service protocol.

The first client implementation of Annotea is W3C's [Amaya](#) editor/browser. Nothing prevents other clients from implementing these capabilities too. The current Amaya user interface for annotations is presented in the [Amaya documentation](#). Other projects (Firefox client, PHP work, etc) will be added shortly.

<https://www.w3.org/2001/Annotea/>



*1990s 2001 2009 2010 2011 2014 2017*

---

Google Sidewiki

# Google Sidewiki

Friday, September 03, 2010

## New Sidewiki "Sidebar" web element



We are very pleased to announce a new [Sidewiki](#) "sidebar" web element. Google Sidewiki allows visitors to your website to contribute helpful information and read other visitors' insights alongside the pages of the website. The new web element is a Sidewiki button, which, when clicked, displays a fully functional Sidewiki sidebar to the left of the page content. This means that your visitors can see the Sidewiki content for your page even if they don't have [Google Toolbar](#) or the [Sidewiki Chrome extension](#) installed.

You can choose from several different look and feels created by Google or even create a new custom one. Use our wizard to choose the desired look and behavior, embed the generated code in your page, and you're done. Here's a sketch of what it looks like when a visitor is looking at the Sidewiki content.



<http://googlecode.blogspot.com/2010/09/new-sidewiki-sidebar-web-element.html>



*1990s 2001 2009 2010 2011 2014 2017*

---

# Open Annotation Collaboration & Annotation Ontology



*1990s 2001 2009 2010 2011 2014 2017*

---

Open Annotation Community Group





*1990s 2001 2009 2010 2011 2014 2017*

---

# Web Annotation Working Group (WAWG)



*1990s 2001 2009 2010 2011 2014 2017*

---

# Web Annotation Standard



# WAWG Output

---

*3 Technical Reports (TRs)*

# Web Annotation Standard

# Web Annotation Standard

## ★ *Web Annotation Model*

what an annotation is and what its main parts are

# Web Annotation Standard

- ★ *Web Annotation Model*

what an annotation is and what its main parts are

- ★ *Web Annotation Vocabulary*

how to express things about an annotation

# Web Annotation Standard

- ★ *Web Annotation Model*

what an annotation is and what its main parts are

- ★ *Web Annotation Vocabulary*

how to express things about an annotation

- ★ *Web Annotation Protocol*

how to exchange annotations between systems

# WAWG Objectives



# WAWG Objectives

★ *interoperability*

centered on the URI, web foundations

# WAWG Objectives

- ★ *interoperability*

centered on the URI, web foundations

- ★ *generalized model*

“orthogonal to the domain of interest”

# WAWG Objectives

- ★ *interoperability*  
centered on the URI, web foundations
- ★ *generalized model*  
“orthogonal to the domain of interest”
- ★ *simple, inexpensive implementation*  
un-opinionated about specific technologies

# Web Annotation Basics

---

*zoom level*

*universe galaxies constellations planets humans*

# Web Annotation Basics

---

*Zooming in on the standard*

*zoom level*

*universe galaxies constellations planets humans*

A horizontal scale bar with vertical tick marks. A red triangle points to the 'planets' label.

Celebrate: there are specs!



Celebrate: there are specs!

?!



# Web Annotation Definition

“

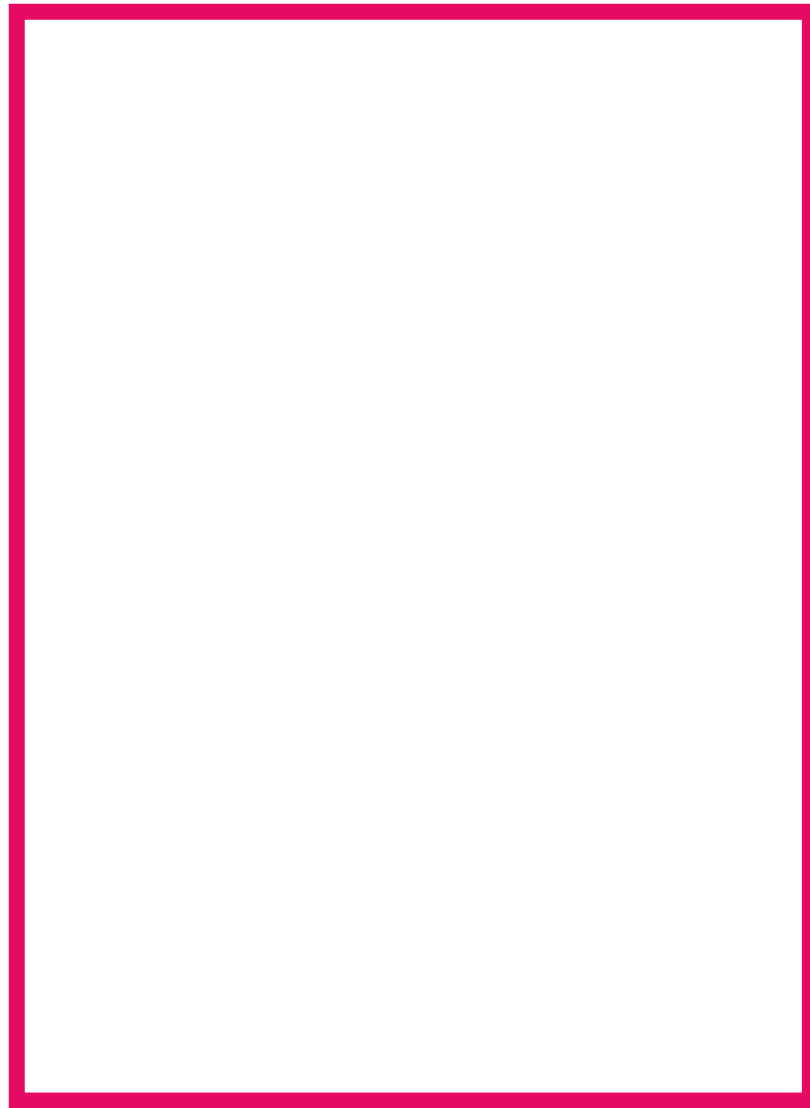
”

# Web Annotation Definition

“A set of connected resources,  
typically including a body and a  
target, where the body is related  
to the target.”

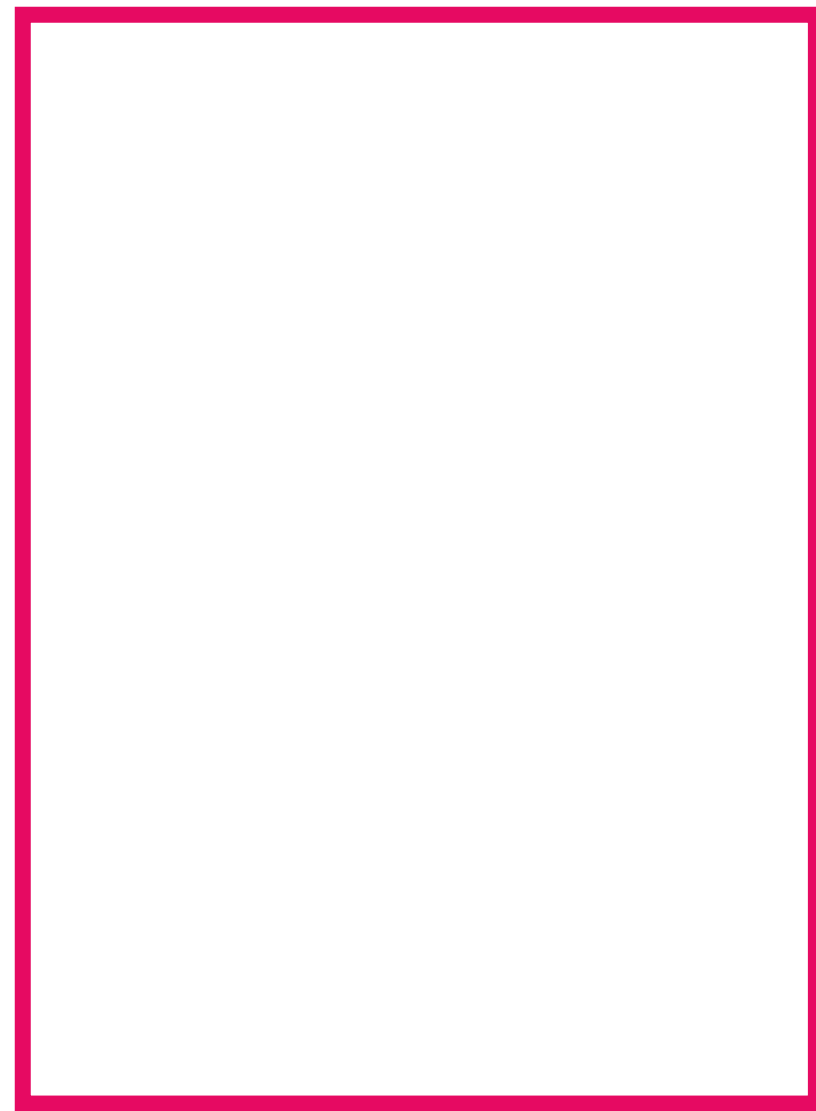


# Annotation

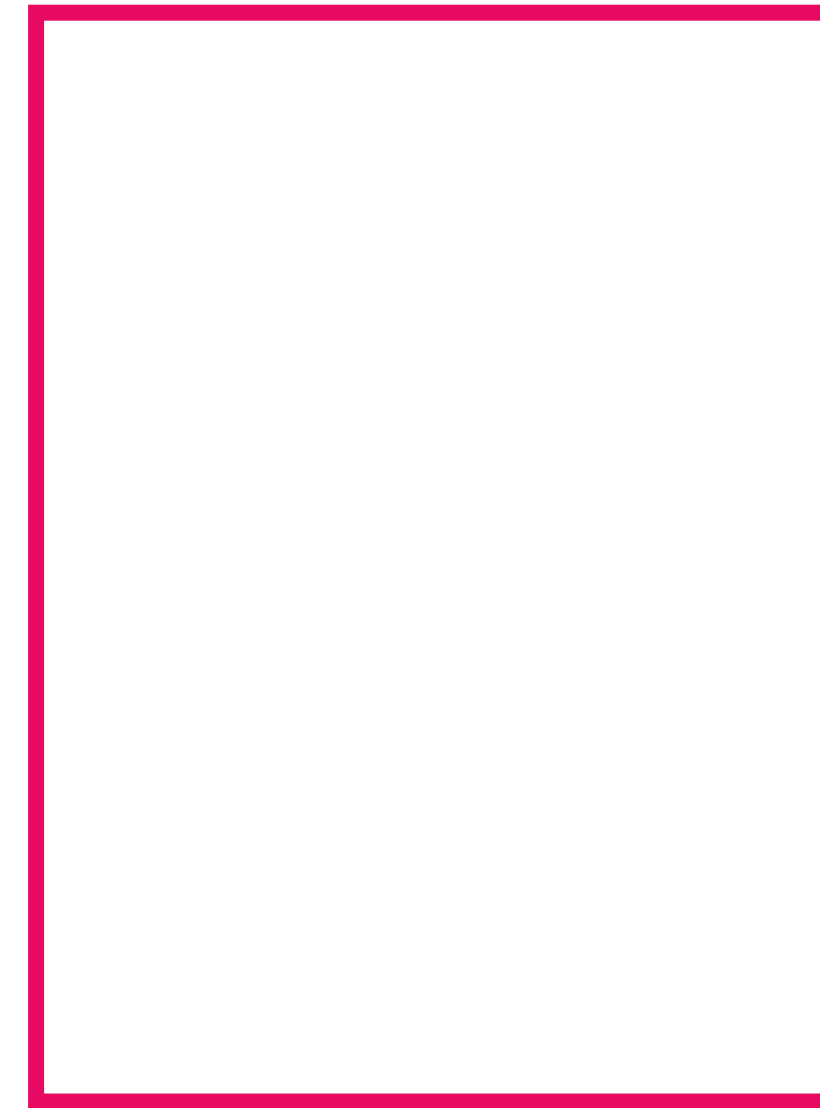


annotation

# Annotation

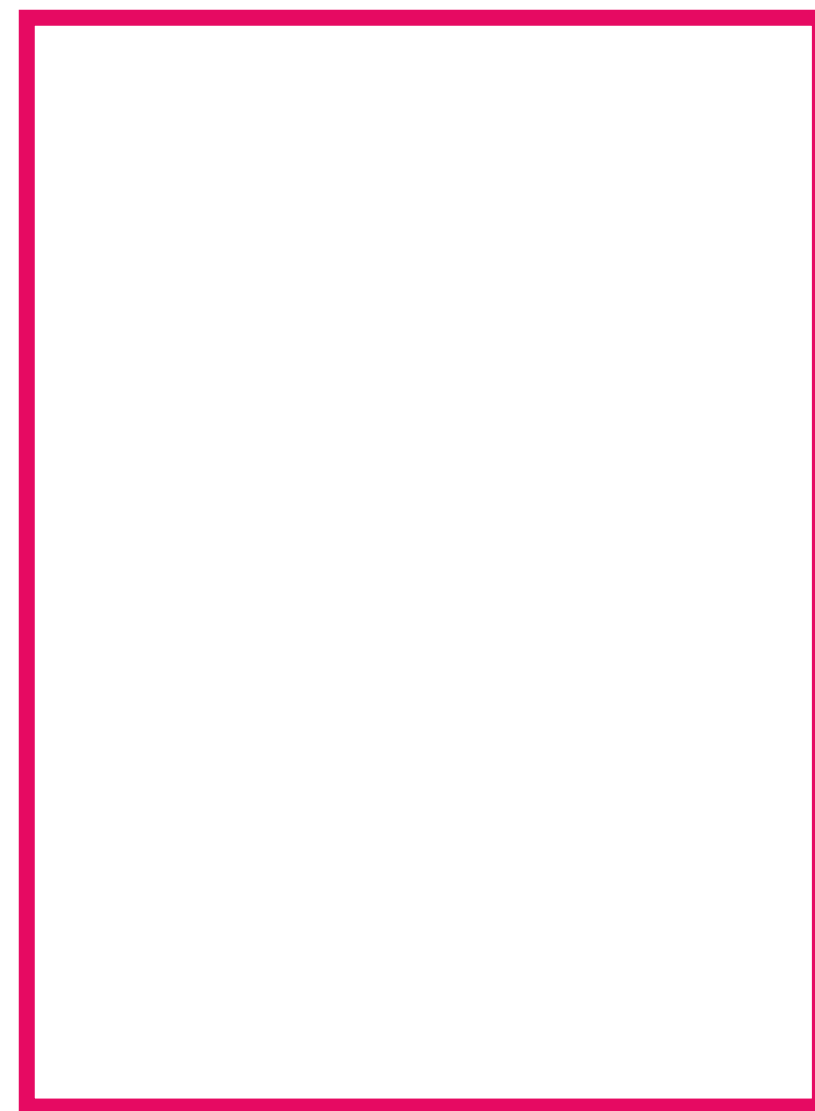


annotation



target

# Annotation

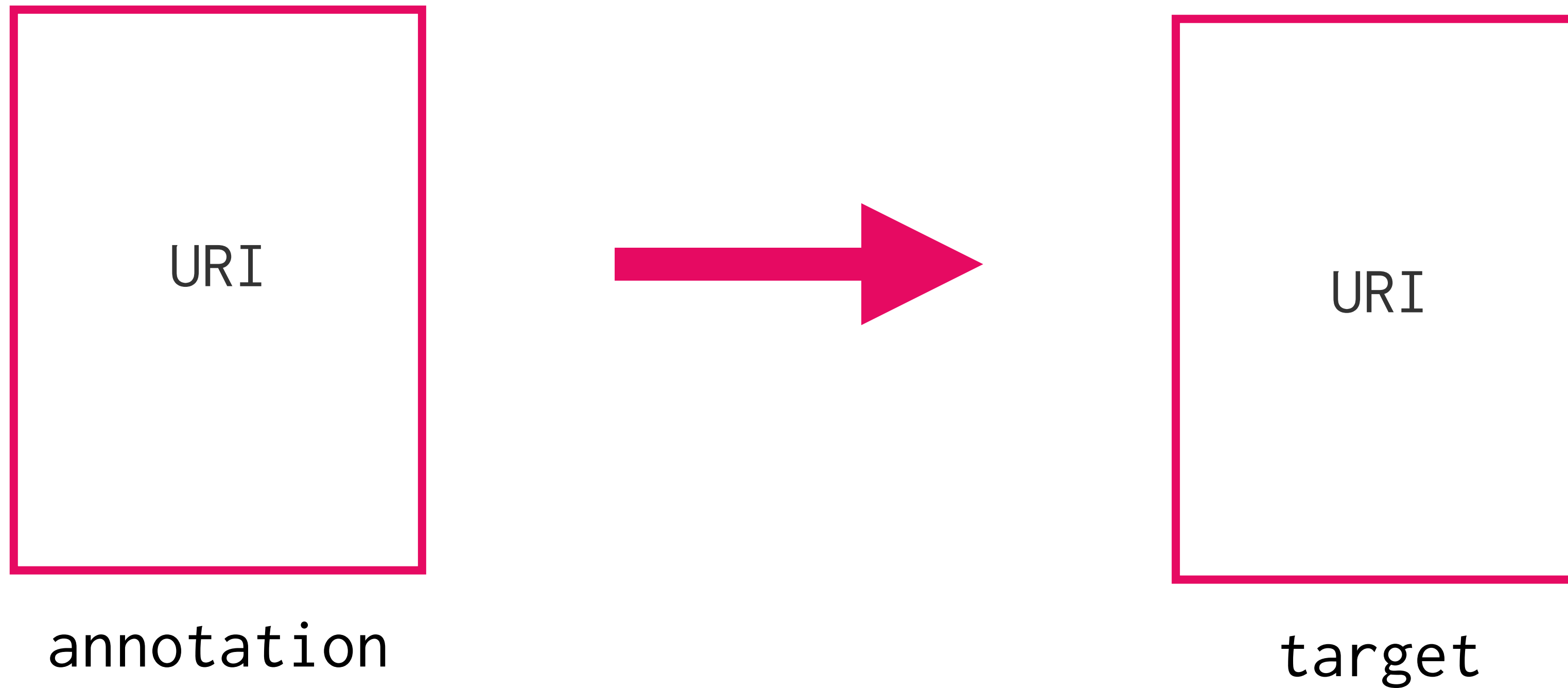


annotation



target

# Annotation



# Can be as simple as a placeholder

annotation



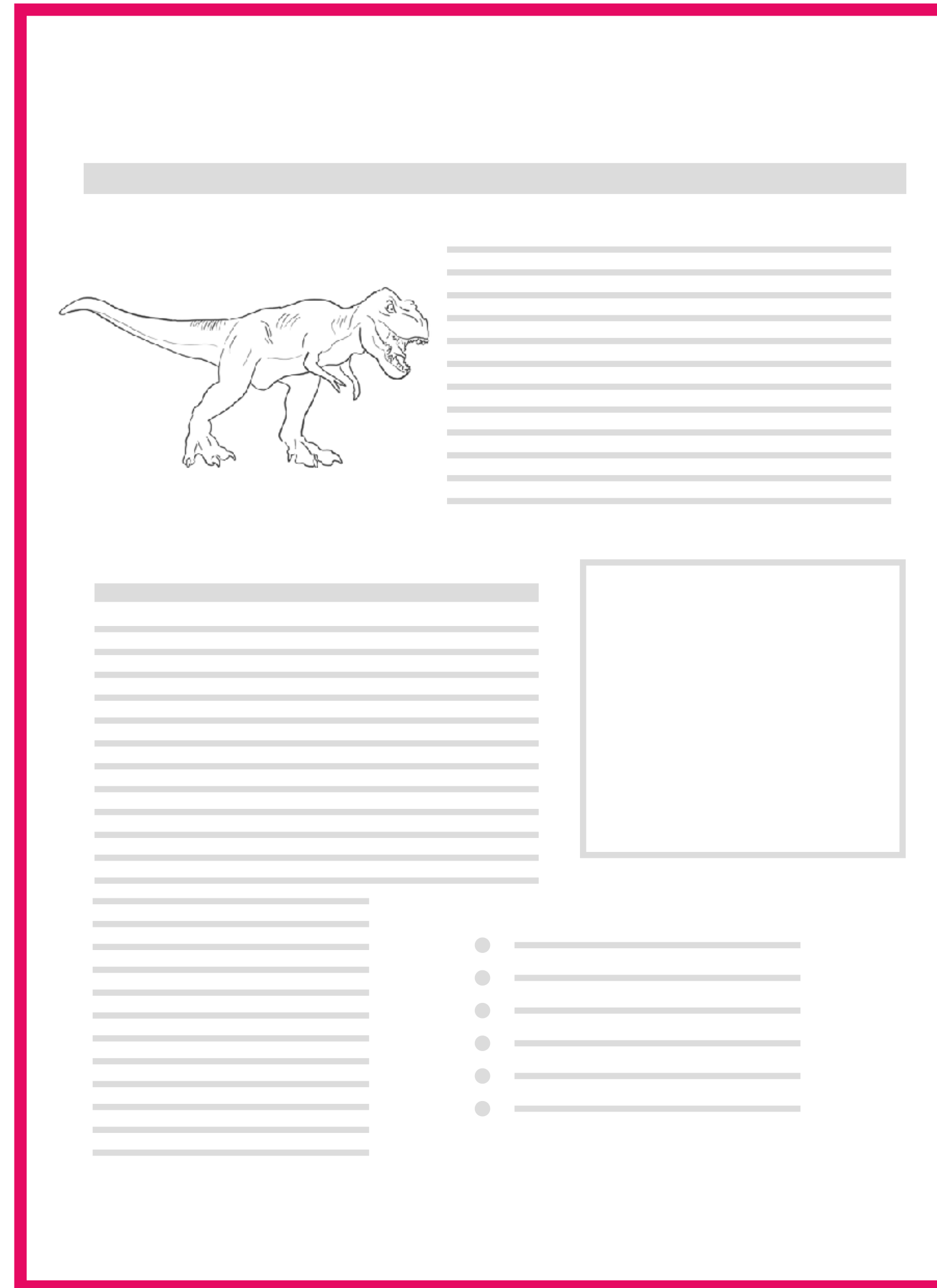
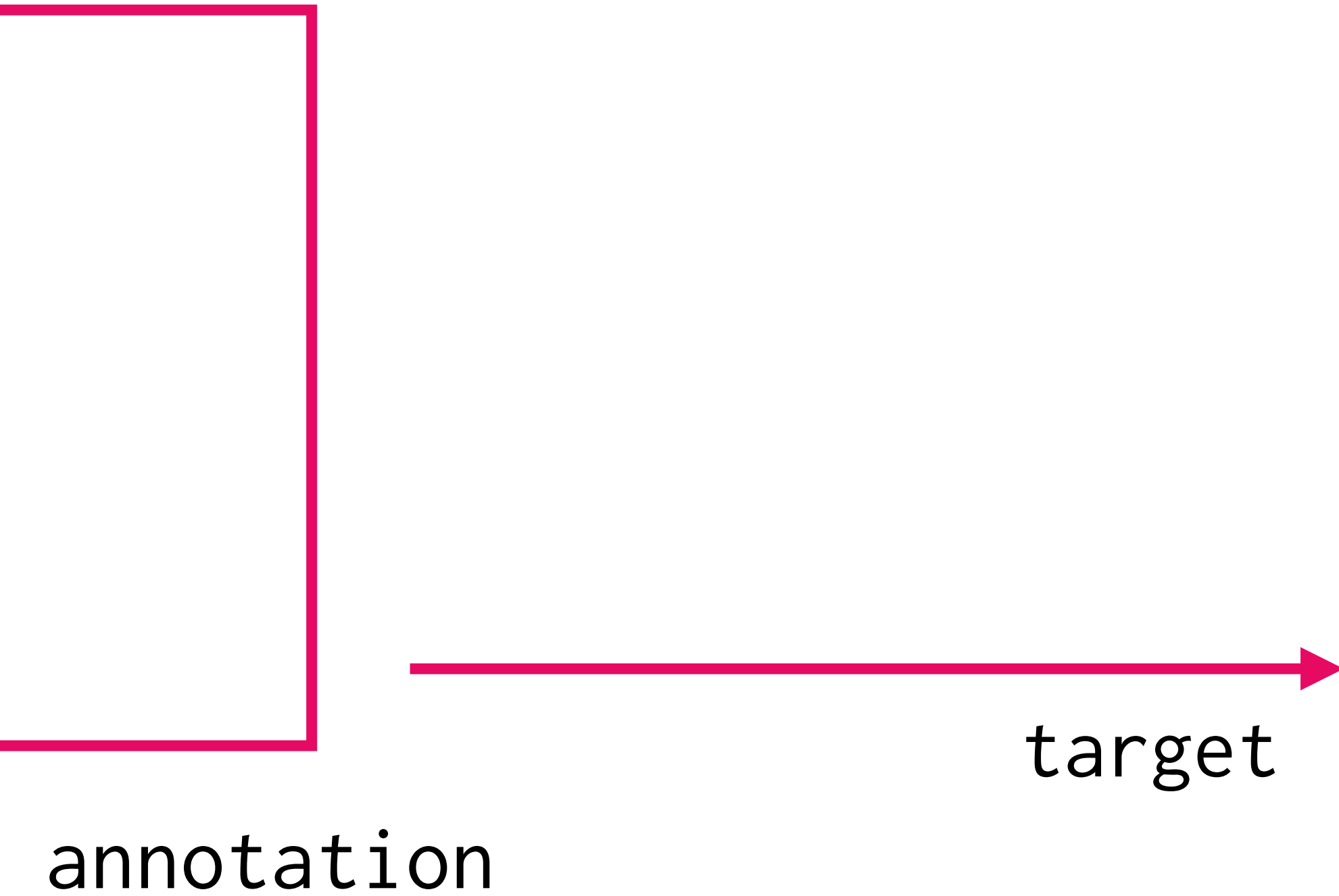
target



# Can be as simple as a placeholder

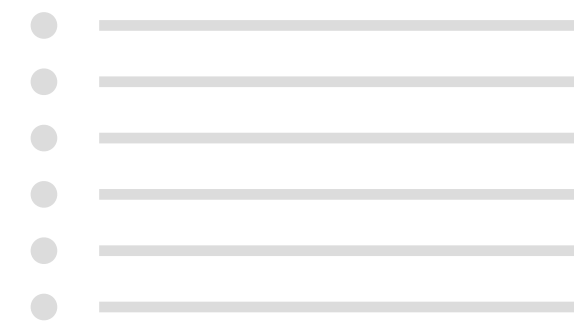
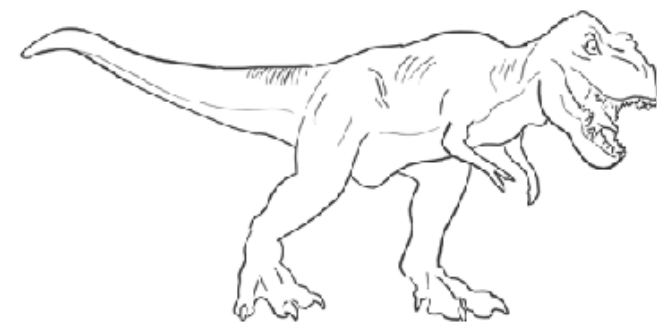


# Annotation: Like a Bookmark



<http://www.example.com/all-about-t-rex-diets>

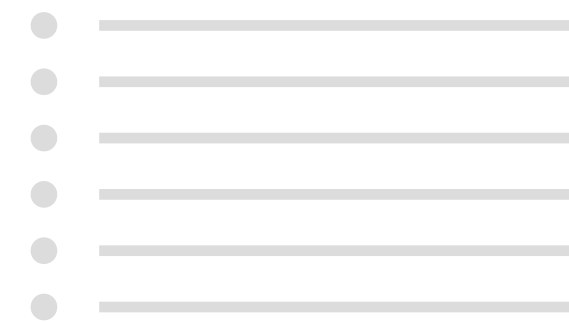
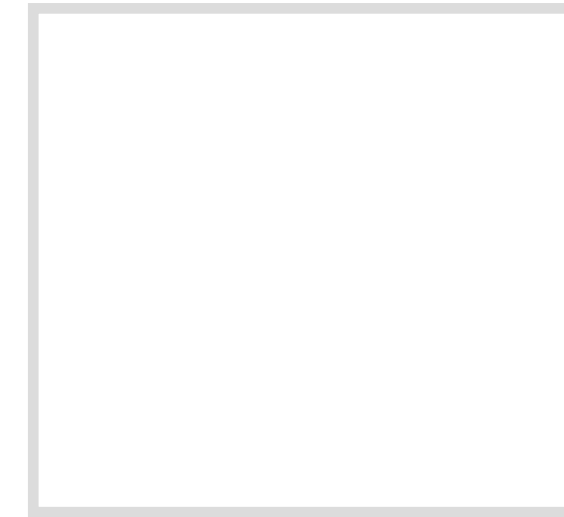
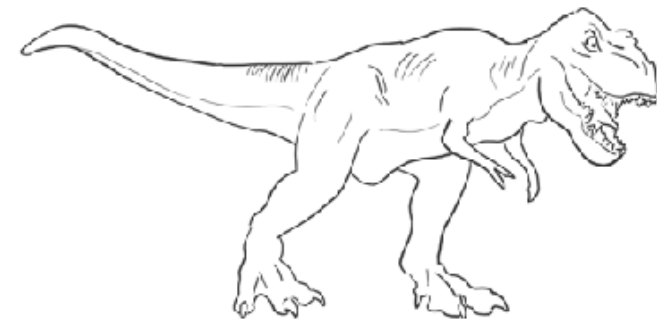
target



annotation

<http://www.example.com/all-about-t-rex-diets>

target



annotation

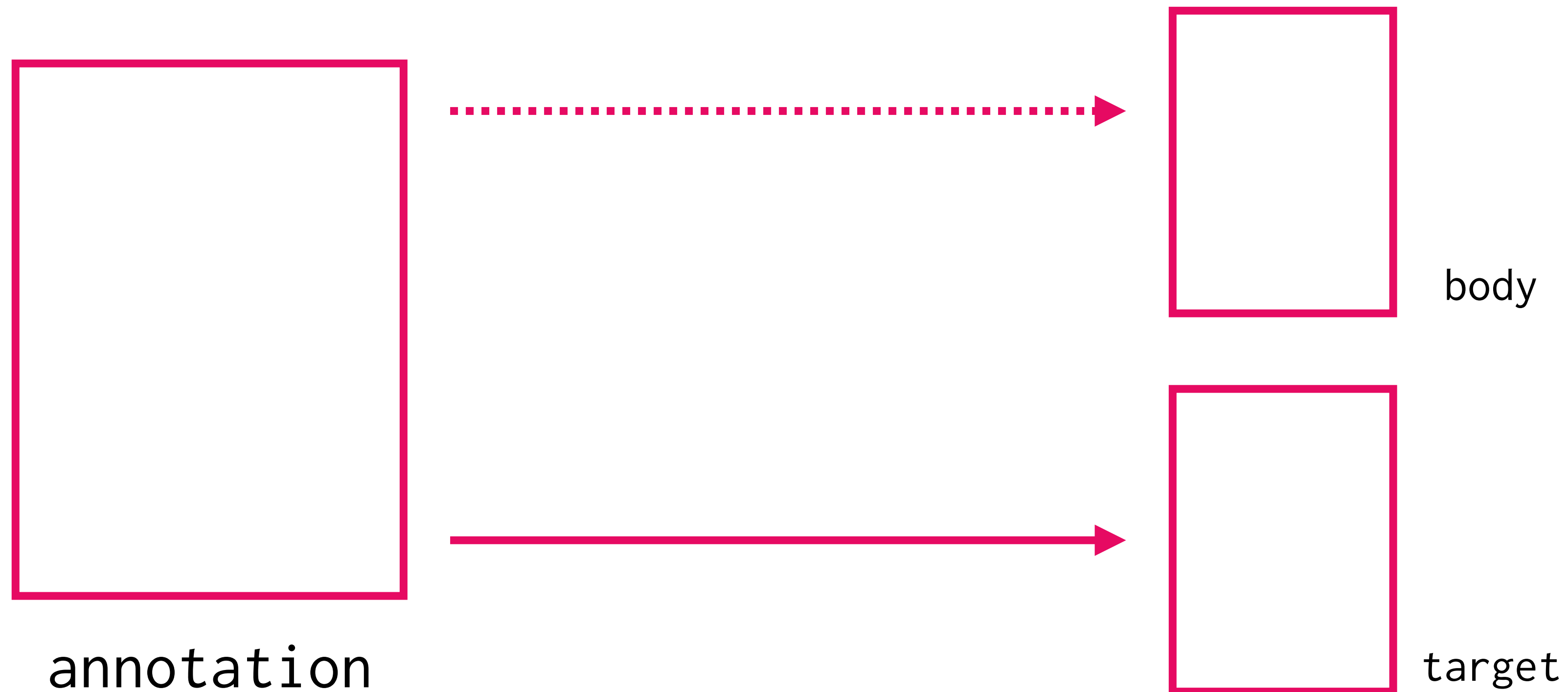


<http://www.example.com/all-about-t-rex-diets>

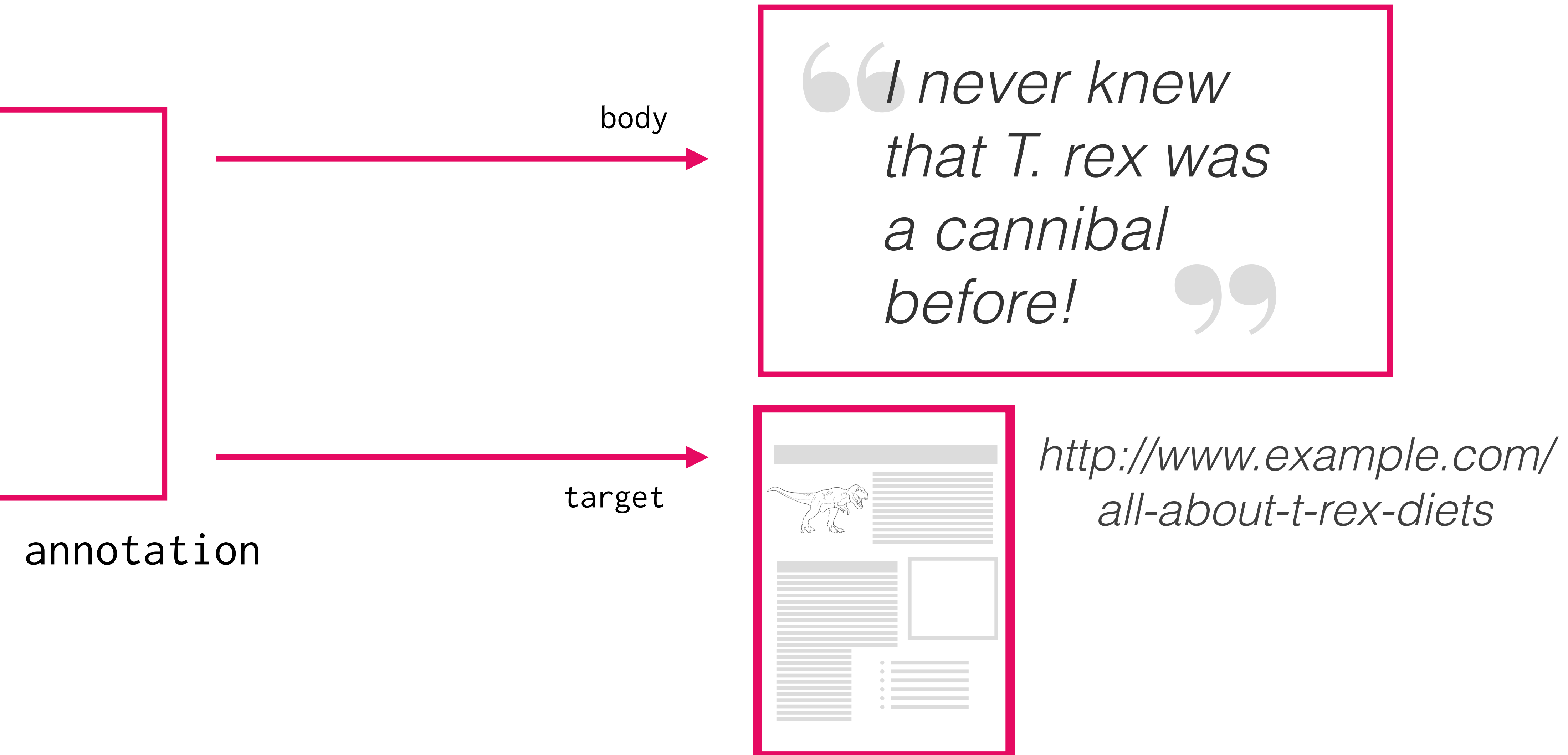
# Annotation: Not just like a bookmark



# Annotation: Not just like a bookmark



# Annotation with a simple body



# Annotation with a simple body

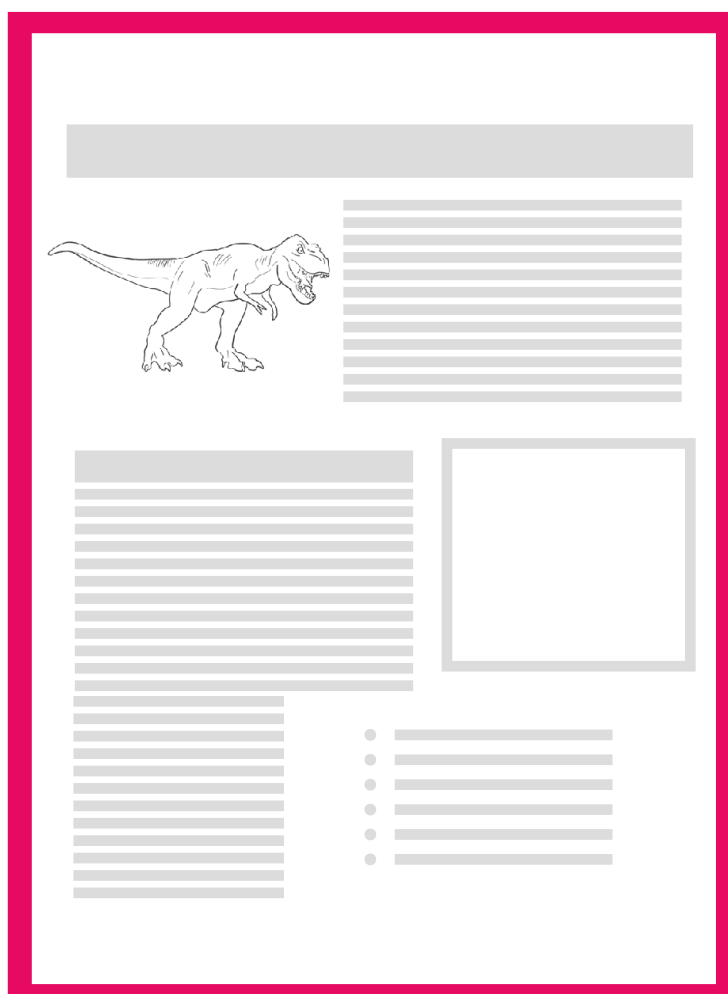
body

“

*I never knew that  
T. rex was a  
cannibal before!*

”

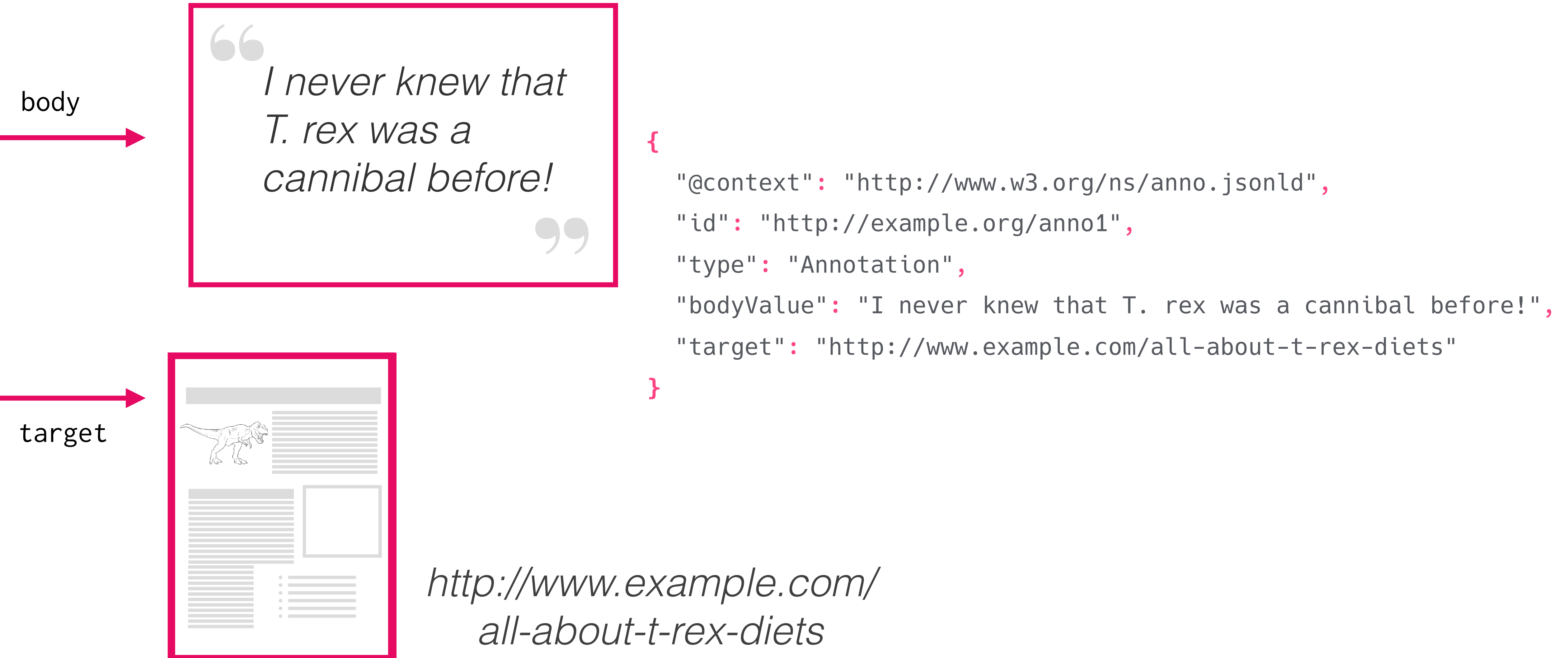
target



*[http://www.example.com/  
all-about-t-rex-diets](http://www.example.com/all-about-t-rex-diets)*



# Annotation with a simple body



# JSON-LD representation of simple annotation

```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
  "type": "Annotation",  
  "bodyValue": "I never knew that T. rex was a cannibal before!",  
  "target": "http://www.example.com/all-about-t-rex-diets"  
}
```

# JSON-LD representation of simple annotation

```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
  "type": "Annotation",  
  "bodyValue": "I never knew that T. rex was a cannibal before!",  
  "target": "http://www.example.com/all-about-t-rex-diets"  
}
```

# JSON-LD representation of simple annotation

```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
  "type": "Annotation",  
  "bodyValue": "I never knew that T. rex was a cannibal before!",  
  "target": "http://www.example.com/all-about-t-rex-diets"  
}
```

# JSON-LD representation of simple annotation

```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
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}
```

# JSON-LD representation of simple annotation

```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
  "type": "Annotation",  
  "bodyValue": "I never knew that T. rex was a cannibal before!",  
  "target": "http://www.example.com/all-about-t-rex-diets"  
}
```

# Richer metadata

---

*more relationships*

# Formatting my opinion

“

”



# Formatting my opinion

“This article is ***really*** wrong.

There is just no way.”

# Richer annotation bodies

```
{
```

```
  "@context" : "http://www.w3.org/ns/anno.jsonld",
```

```
  "id" : "http://example.org/anno1",
```

```
  "type" : "Annotation",
```

```
  "bodyValue" : "I never knew that T. rex was a cannibal before!",
```

```
  "target" : "http://www.example.com/all-about-t-rex-diets"
```

```
}
```

# Richer annotation bodies

```
{  
  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  "bodyValue" : "I never knew that T. rex was a cannibal before!",  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```

# Richer annotation bodies

```
{  
  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```

# Richer annotation bodies

```
{
```

```
  "@context" : "http://www.w3.org/ns/anno.jsonld",
```

```
  "id" : "http://example.org/anno1",
```

```
  "type" : "Annotation",
```

```
  "target" : "http://www.example.com/all-about-t-rex-diets"
```

```
}
```

# Richer annotation bodies

```
{  
  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  "body" : {  
    "type" : "TextualBody",  
    "value" : "<p>This article is <em>really</em> wrong.</p>  
              <p>There is just no way.</p>",  
    "format" : "text/html"  
  },  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```

# Richer annotation bodies

```
{  
  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  "body" : {  
    "type" : "TextualBody",  
    "value" : "<p>This article is <em>really</em> wrong.</p>  
              <p>There is just no way.</p>",  
    "format" : "text/html"  
  },  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```

# Richer annotation bodies

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  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  "body" : {  
    "type" : "TextualBody",  
    "value" : "<p>This article is <em>really</em> wrong.</p>  
              <p>There is just no way.</p>",  
    "format" : "text/html"  
  },  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```



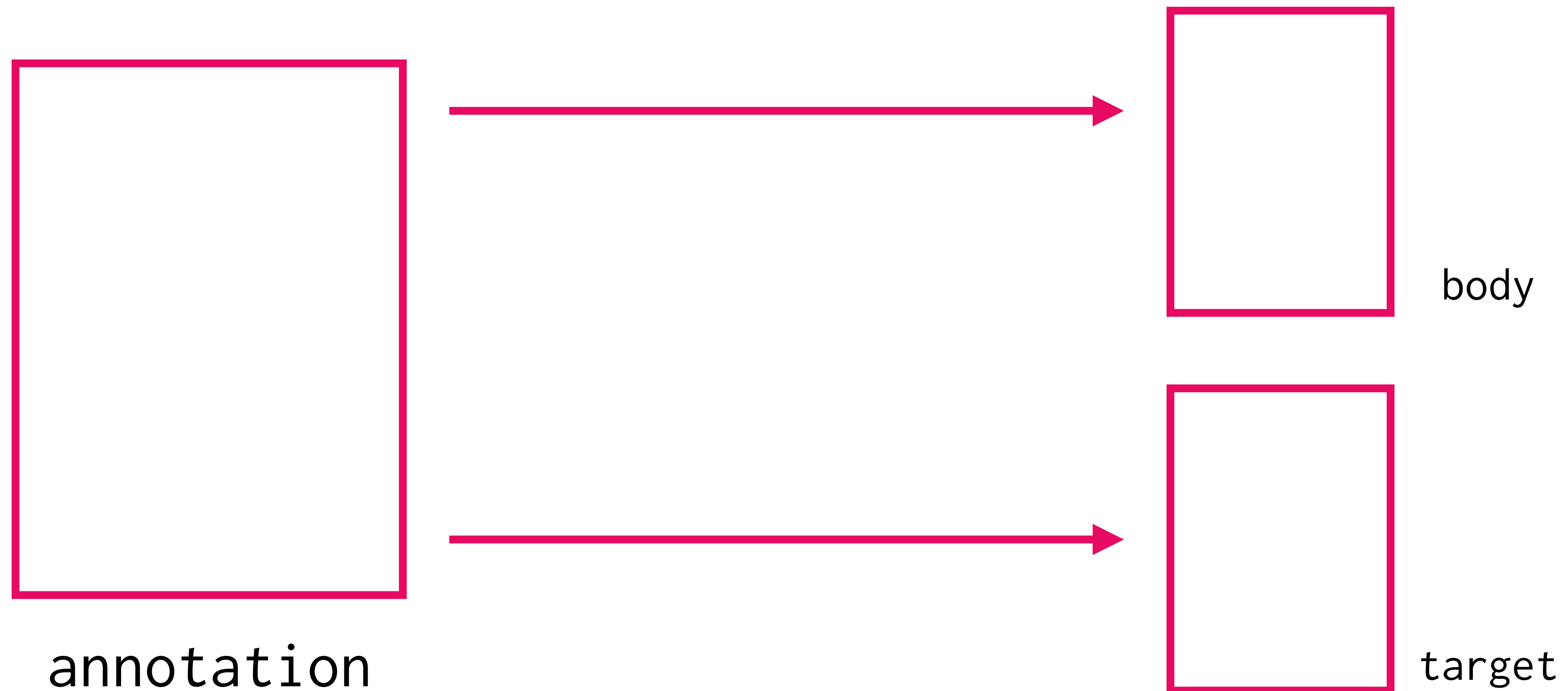
# Richer annotation bodies

```
{  
  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  "body" : {  
    "type" : "TextualBody",  
    "value" : "<p>This article is <em>really</em> wrong.</p>  
              <p>There is just no way.</p>",  
    "format" : "text/html"  
  },  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```

# external resource as body



# external resource as body



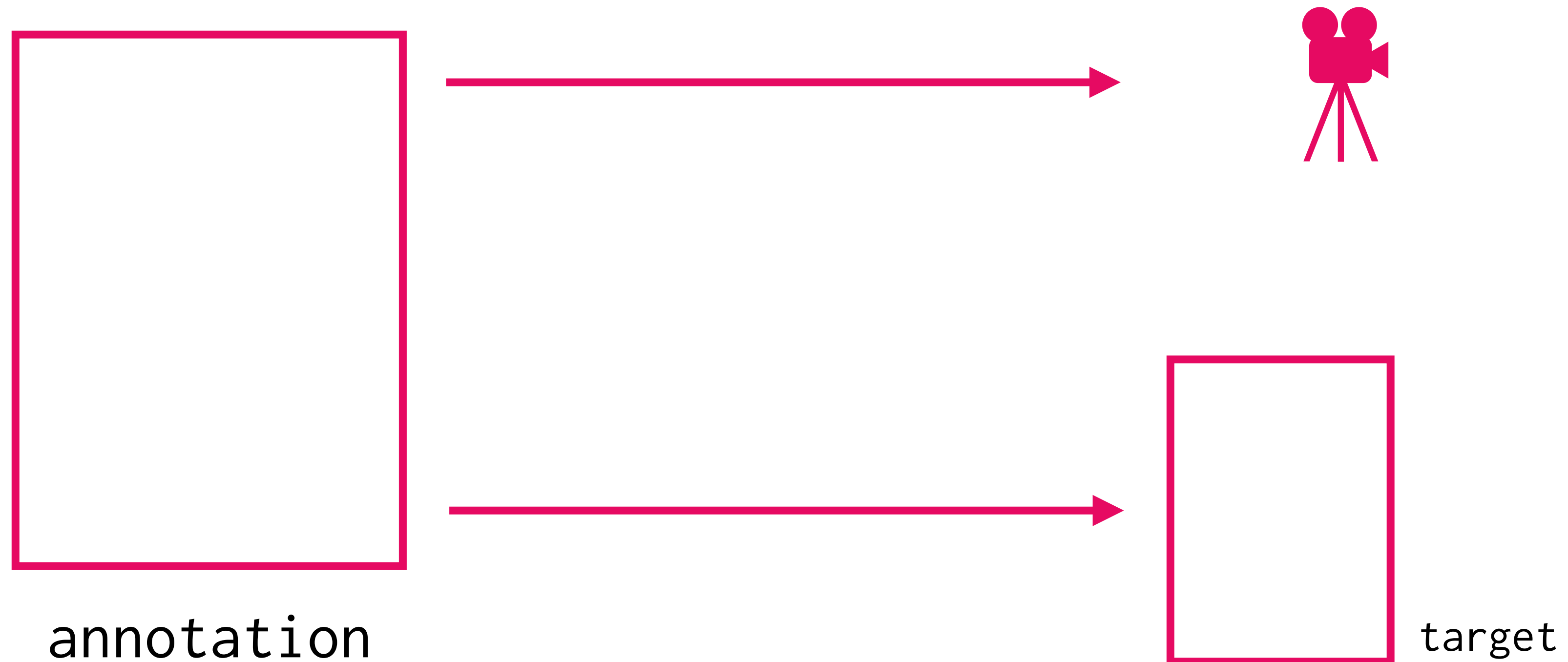
# external resource as body



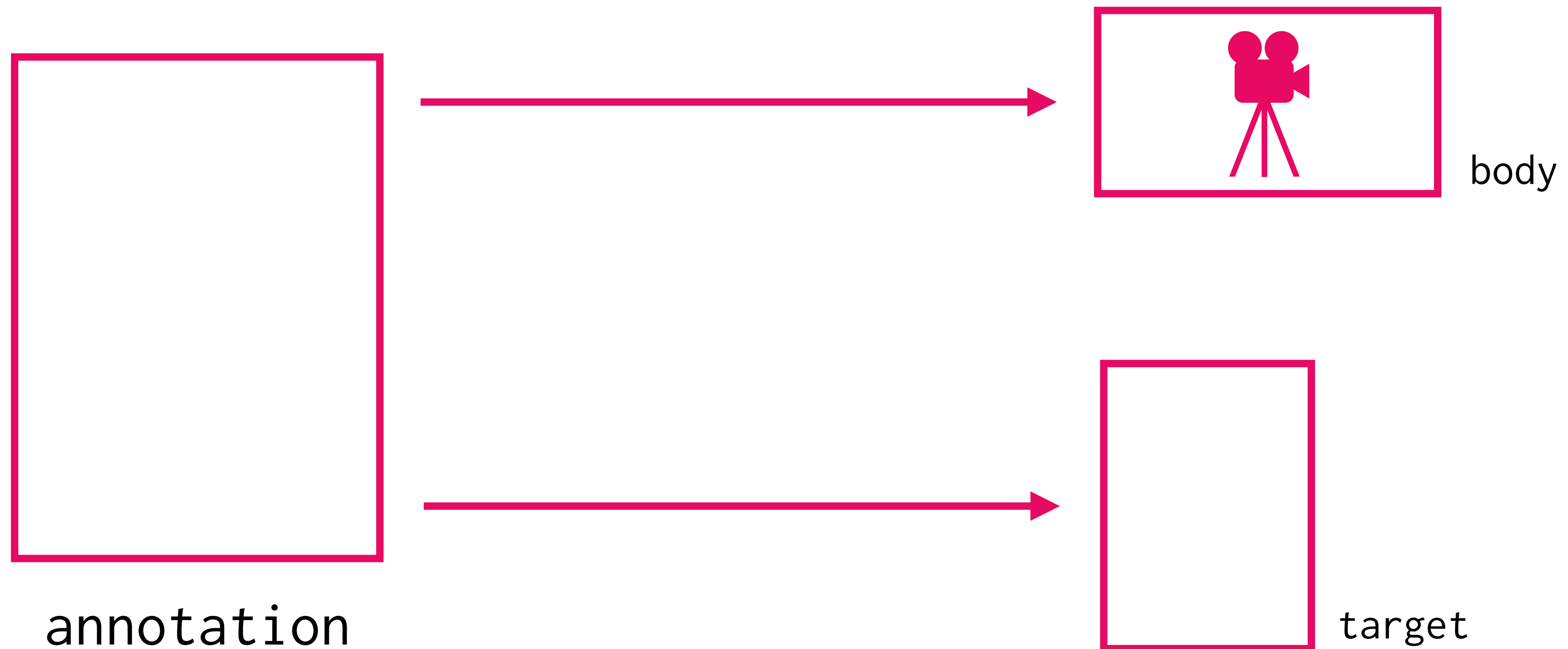
# external resource as body



# external resource as body



# external resource as body



# JSON-LD representation of simple annotation

```
{  
  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```



# JSON-LD representation of simple annotation

```
{  
  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  "body" : {  
    "id" : "http://example.org/in-defense-of-t-rex.mov",  
    "type" : "Video"  
  },  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```

# JSON-LD representation of simple annotation

```
{  
  "@context" : "http://www.w3.org/ns/anno.jsonld",  
  "id" : "http://example.org/anno1",  
  "type" : "Annotation",  
  "body" : {  
    "id" : "http://example.org/in-defense-of-t-rex.mov",  
    "type" : "Video"  
  },  
  "target" : "http://www.example.com/all-about-t-rex-diets"  
}
```

# JSON-LD representation of simple annotation

```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
  "type": "Annotation",  
  "body": {  
    "id": "http://example.org/in-defense-of-t-rex.mov",  
    "type": "Video"  
  },  
  "target": "http://www.example.com/all-about-t-rex-diets"  
}
```

**Other body properties**

**motivation**

---

# Other body properties

**motivation**

# Other body properties

**motivation**

- ★ *assessing*
- ★ *bookmarking*
- ★ *classifying*
- ★ *commenting*
- ★ *describing*
- ★ *editing*
- ★ *highlighting*
- ★ *identifying*
- ★ *linking*
- ★ *moderating*
- ★ *questioning*
- ★ *replying*
- ★ *tagging*

# Other body properties

## motivation

- ★ *assessing*
- ★ *bookmarking*
- ★ *classifying*
- ★ *commenting*
- ★ *describing*
- ★ *editing*
- ★ *highlighting*
- ★ *identifying*
- ★ *linking*
- ★ *moderating*
- ★ ***questioning*** →
- ★ *replying*
- ★ *tagging*

*The motivation for when the user intends to ask a question about the Target. For example to ask for assistance with a particular section of text, or question its veracity.*

# questioning motivation

```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
  "type": "Annotation",  
  "motivation": "questioning",  
  "body": {  
    "id": "http://example.org/in-defense-of-t-rex.mov",  
    "type": "Video"  
  },  
  "target": "http://www.example.com/all-about-t-rex-diets"  
}
```



# questioning motivation

```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
  "type": "Annotation",  
  "motivation": "questioning",  
  "body": {  
    "id": "http://example.org/in-defense-of-t-rex.mov",  
    "type": "Video"  
  },  
  "target": "http://www.example.com/all-about-t-rex-diets"  
}
```

more body properties and relationships...

---

*creator*

more body properties and relationships...

---

*creator modified*

more body properties and relationships...

---

*creator modified audience*

more body properties and relationships...

---

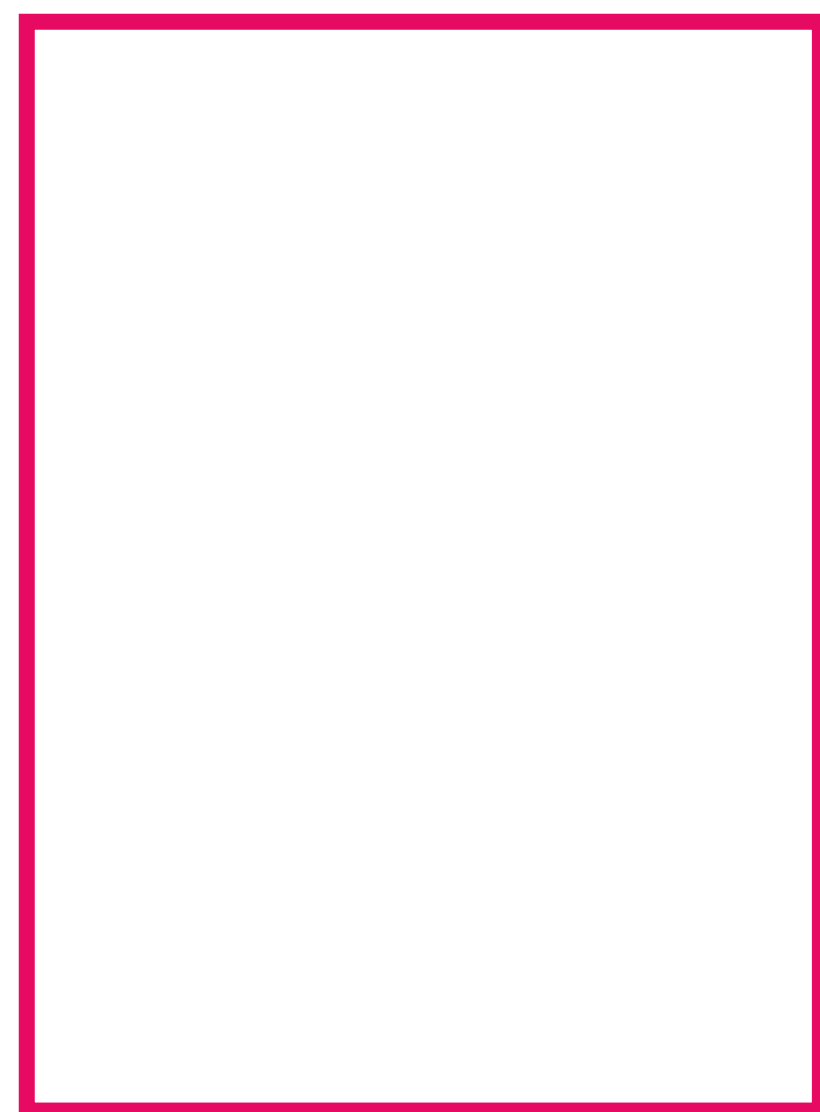
*ator modified audience rights*

“There’s a lot here”

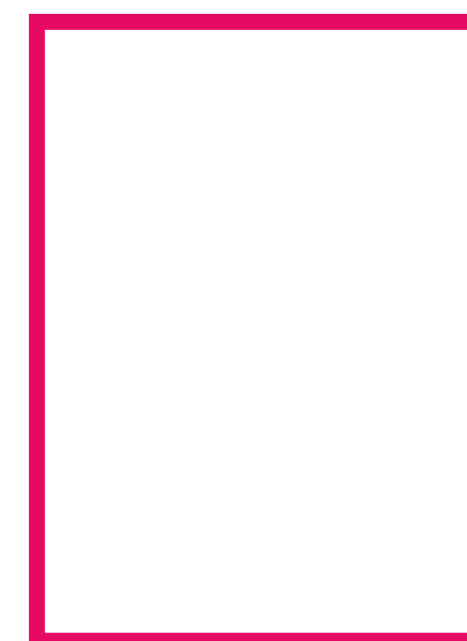
# Resource Segments

---

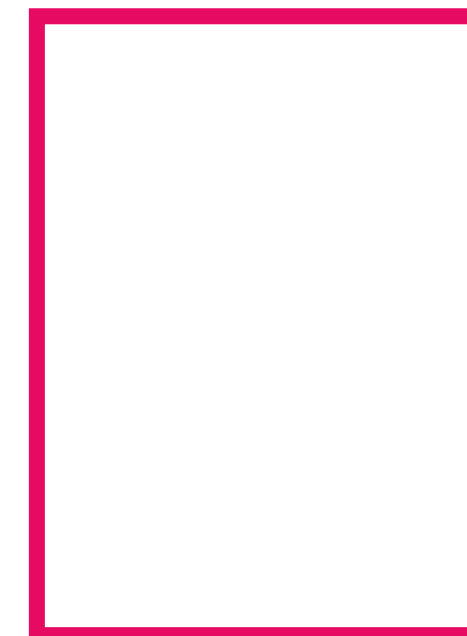
*Fragments, selectors and state*



annotation

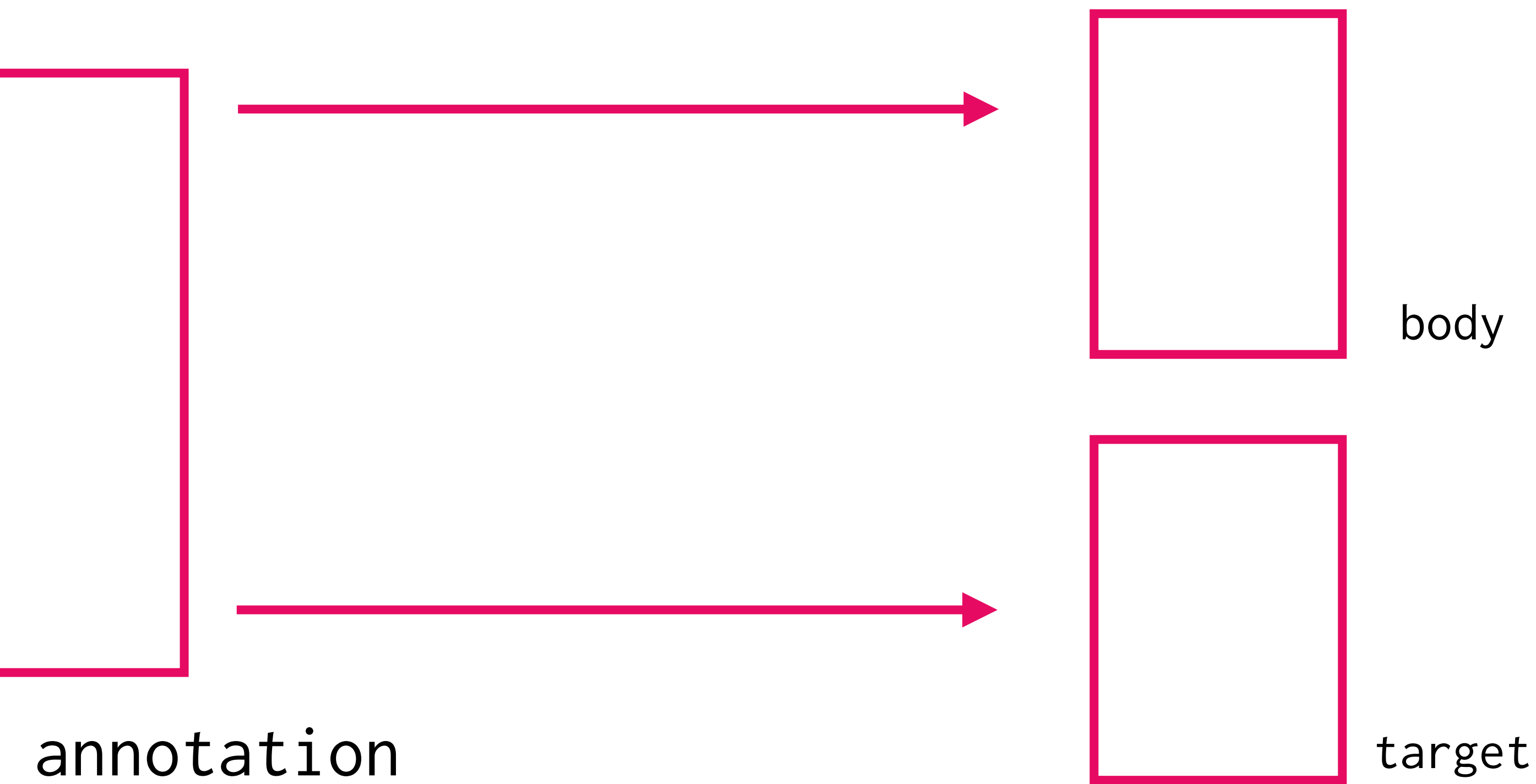


body



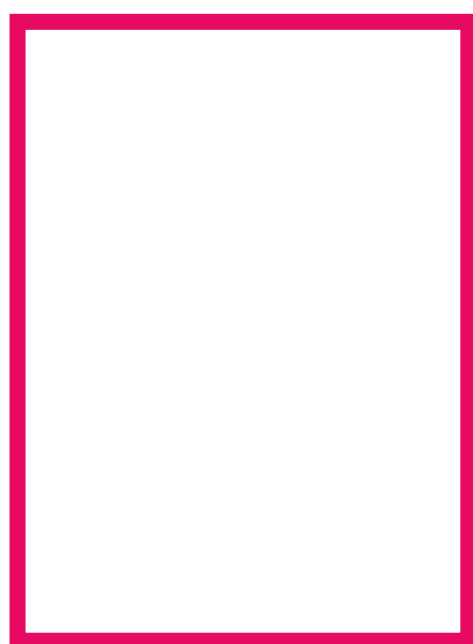
target







annotation



body



target

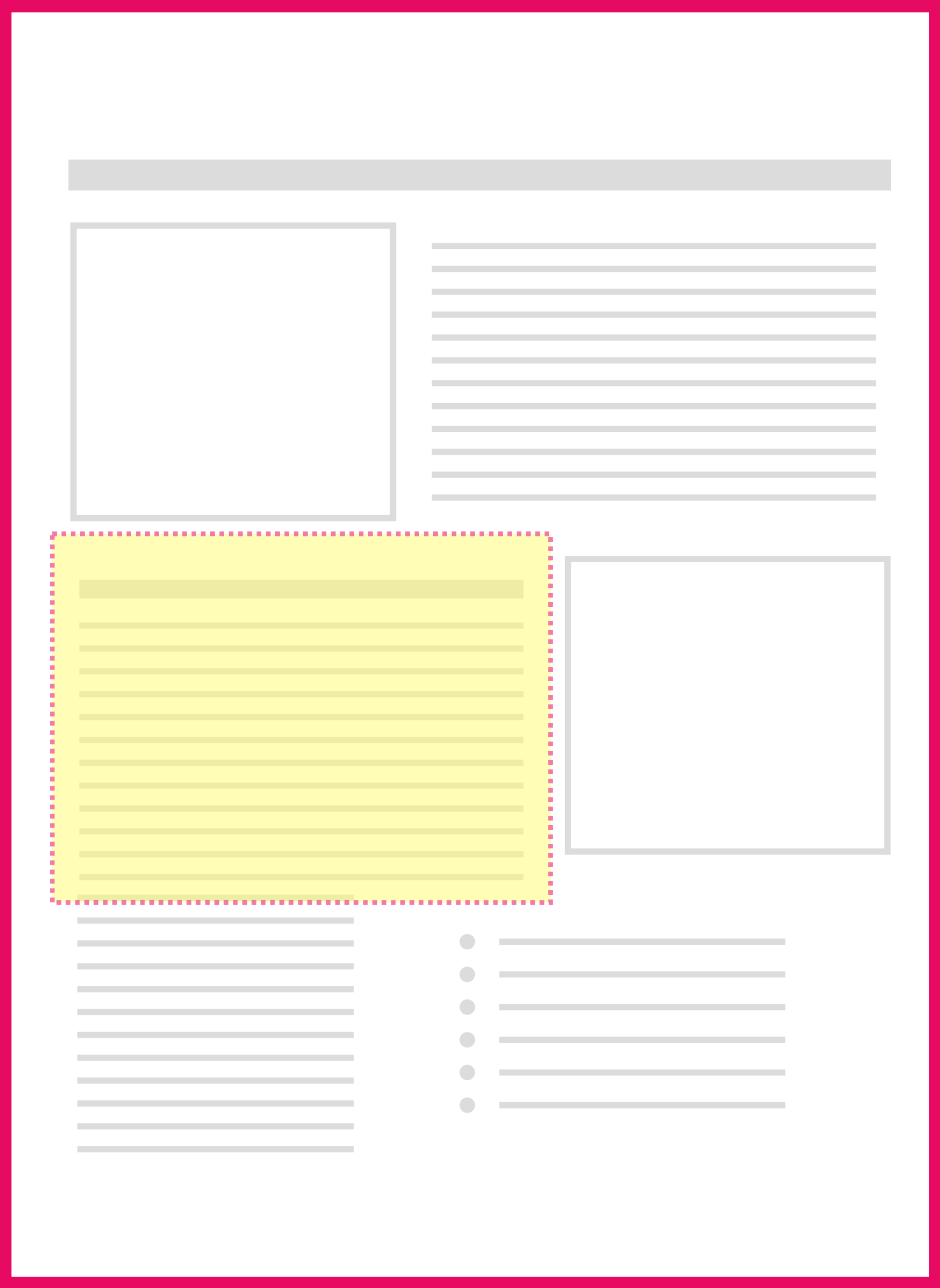
<http://www.example.com/all-about-t-rex-diets>

*<http://www.example.com/all-about-t-rex-diets>*



target

*<http://www.example.com/all-about-t-rex-diets>*



target

# Selectors

---

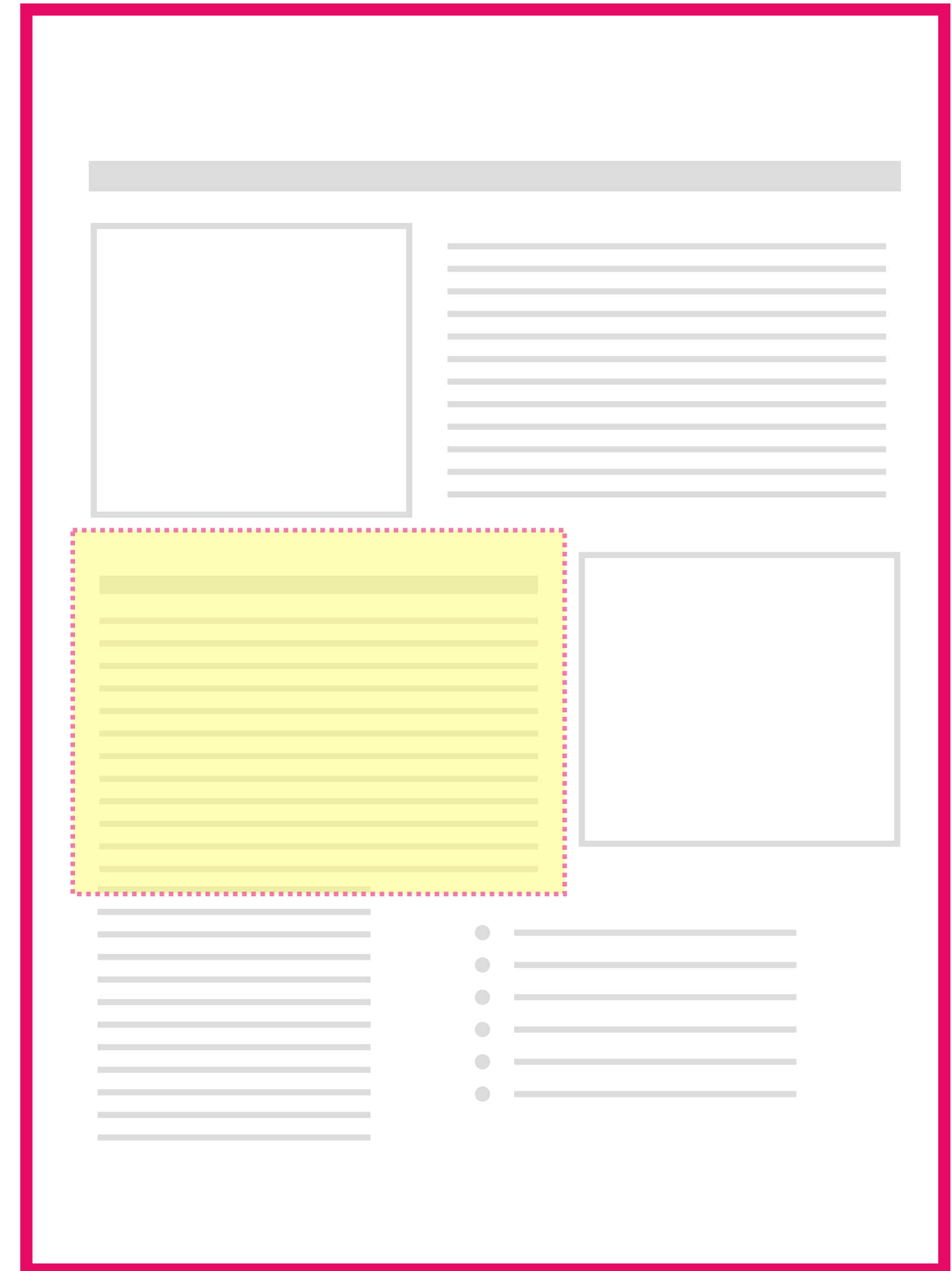
# Selectors

---

*Selectors allow you to define **resource segments***

# Fragments

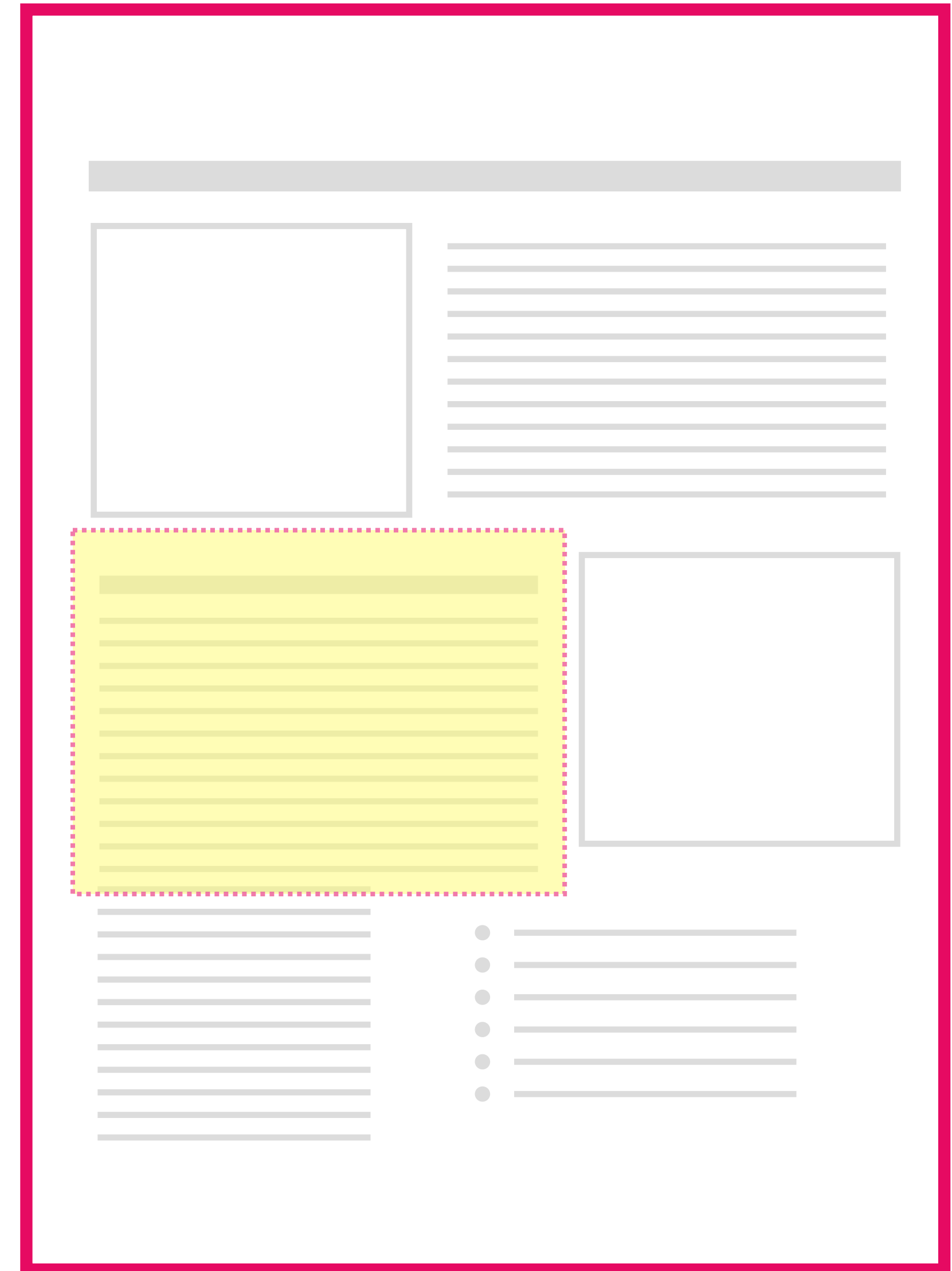
*<http://www.example.com/all-about-t-rex-diets#new-theories>*



target

# Fragments

*<http://www.example.com/all-about-t-rex-diets#new-theories>*



target



```
{  
  "@context": "http://www.w3.org/ns/anno.jsonld",  
  "id": "http://example.org/anno1",  
  "type": "Annotation",  
  "motivation": "questioning",  
  "body": {  
    "id": "http://example.org/in-defense-of-t-rex.mov",  
    "type": "Video",  
  },  
  "target": "http://www.example.com/all-about-t-rex-diets"  
}
```

```
{
  "@context": "http://www.w3.org/ns/anno.jsonld",
  "id": "http://example.org/anno1",
  "type": "Annotation",
  "motivation": "questioning",
  "body": {
    "id": "http://example.org/in-defense-of-t-rex.mov",
    "type": "Video",
  },
  "target": {
    "source": "http://www.example.com/all-about-t-rex-diets",
    "selector": {
      "type": "FragmentSelector",
      "value": "new-theories"
    },
    "conformsTo": "http://tools.ietf.org/rfc/rfc3236",
  },
}
```

```
{
  "@context": "http://www.w3.org/ns/anno.jsonld",
  "id": "http://example.org/anno1",
  "type": "Annotation",
  "motivation": "questioning",
  "body": {
    "id": "http://example.org/in-defense-of-t-rex.mov",
    "type": "Video",
  },
  "target": {
    "source": "http://www.example.com/all-about-t-rex-diets",
    "selector": {
      "type": "FragmentSelector",
      "value": "new-theories"
    },
    "conformsTo": "http://tools.ietf.org/rfc/rfc3236",
  }
}
```

```
{
  "@context" : "http://www.w3.org/ns/anno.jsonld",
  "id" : "http://example.org/anno1",
  "type" : "Annotation",
  "motivation" : "questioning",
  "body" : {
    "id" : "http://example.org/in-defense-of-t-rex.mov",
    "type" : "Video",
  },
  "target" : {
    "source" : "http://www.example.com/all-about-t-rex-diets",
    "selector" : {
      "type" : "FragmentSelector",
      "value" : "new-theories"
    },
    "conformsTo" : "http://tools.ietf.org/rfc/rfc3236",
  },
}
```

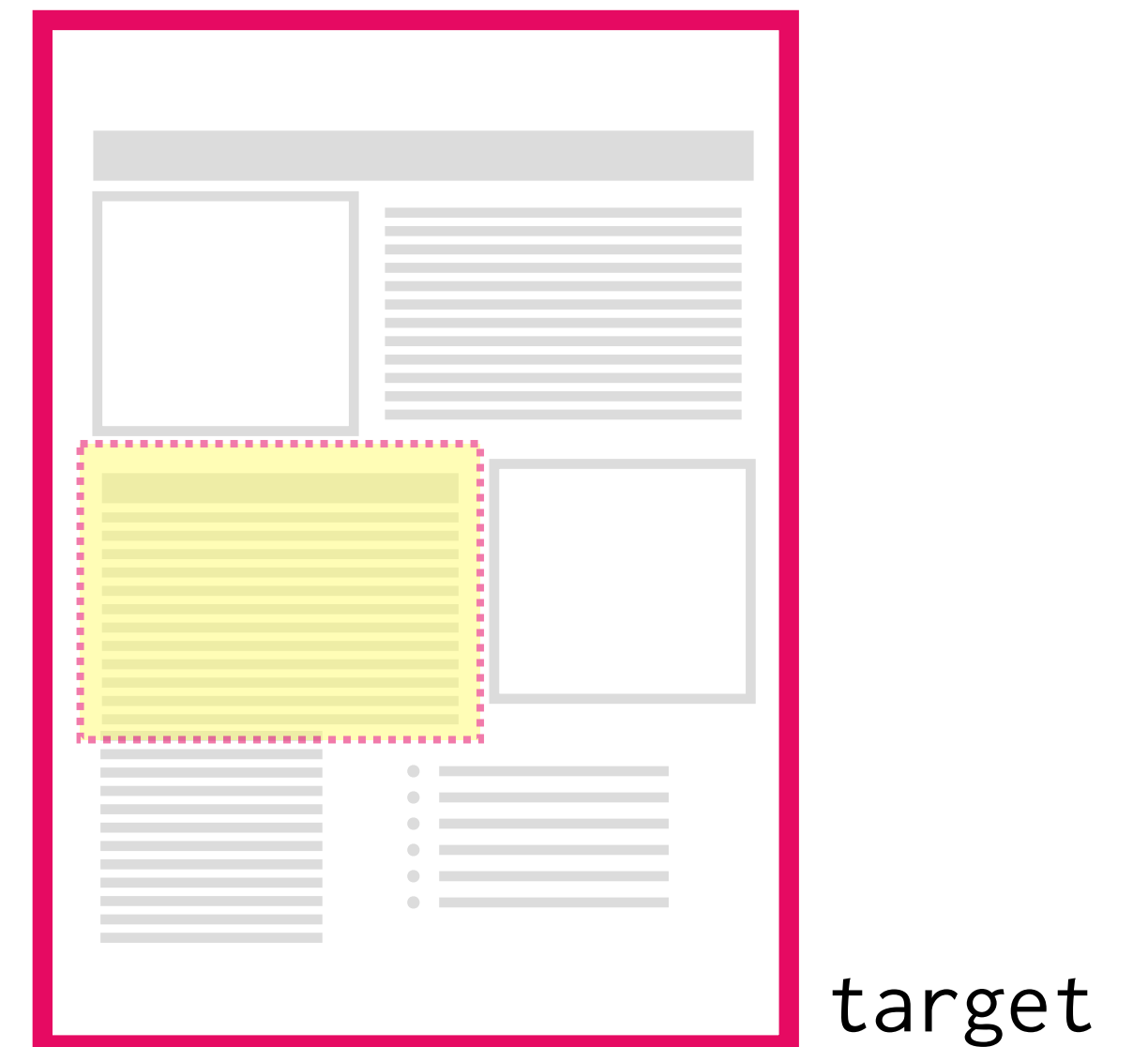
```
{
  "@context": "http://www.w3.org/ns/anno.jsonld",
  "id": "http://example.org/anno1",
  "type": "Annotation",
  "motivation": "questioning",
  "body": {
    "id": "http://example.org/in-defense-of-t-rex.mov",
    "type": "Video",
  },
  "target": {
    "source": "http://www.example.com/all-about-t-rex-diets",
    "selector": {
      "type": "FragmentSelector",
      "value": "new-theories"
    },
    "conformsTo": "http://tools.ietf.org/rfc/rfc3236",
  }
}
```

```
{
  "@context": "http://www.w3.org/ns/anno.jsonld",
  "id": "http://example.org/anno1",
  "type": "Annotation",
  "motivation": "questioning",
  "body": {
    "id": "http://example.org/in-defense-of-t-rex.mov",
    "type": "Video",
  },
  "target": {
    "source": "http://www.example.com/all-about-t-rex-diets",
    "selector": {
      "type": "FragmentSelector",
      "value": "new-theories",
      "conformsTo": "http://tools.ietf.org/rfc/rfc3236",
    }
  }
}
```

*http://www.example.com/all-about-t-rex-diets#new-theories*

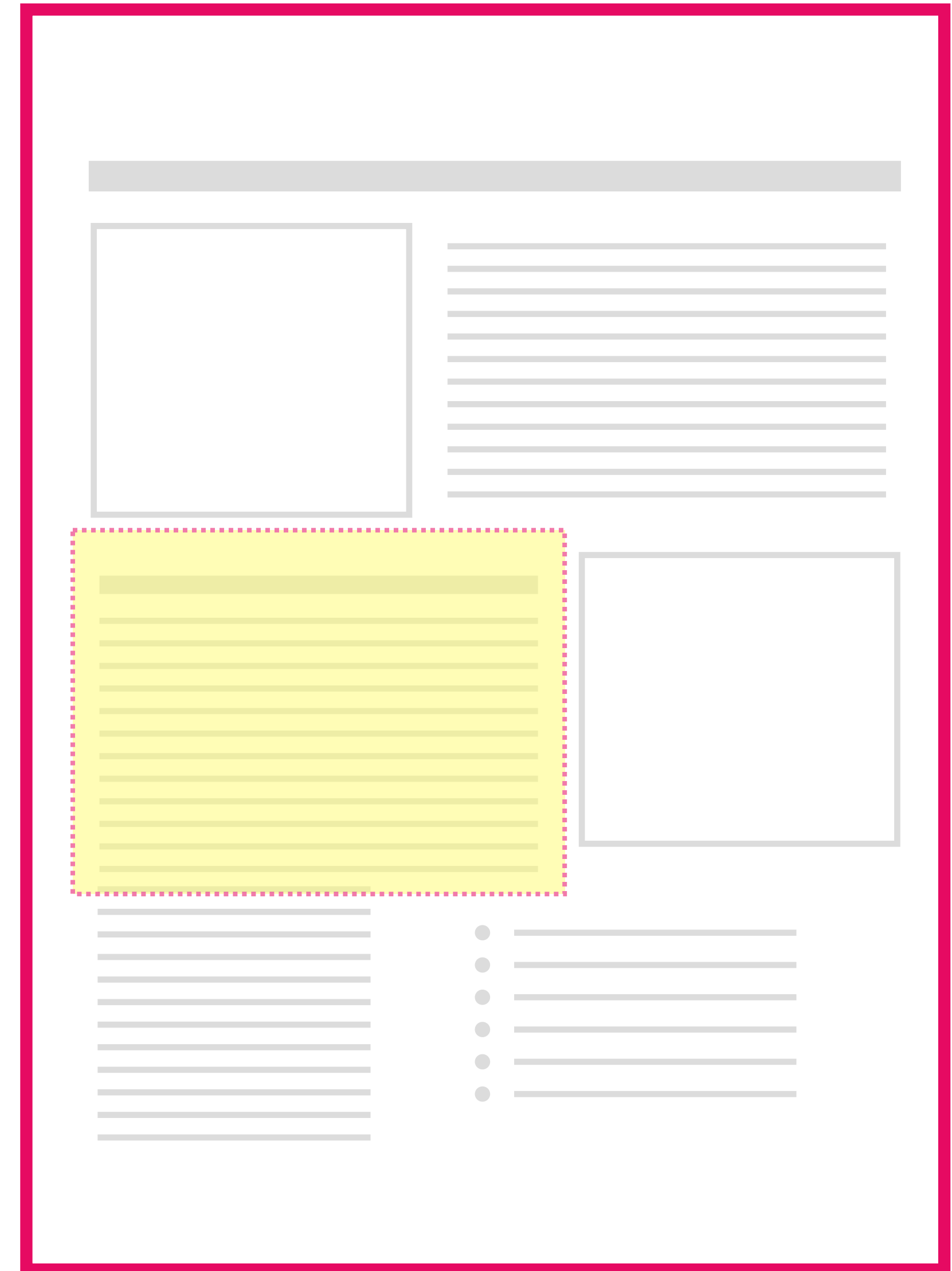
# Fragments

*http://www.example.com/all-about-t-rex-diets #new-theories*



# Fragments

*<http://www.example.com/all-about-t-rex-diets#new-theories>*



target



```
{
  "@context": "http://www.w3.org/ns/anno.jsonld",
  "id": "http://example.org/anno1",
  "type": "Annotation",
  "motivation": "questioning",
  "body": {
    "id": "http://example.org/in-defense-of-t-rex.mov",
    "type": "Video",
  },
  "target": {
    "source": "http://www.example.com/all-about-t-rex-diets",
    "selector": {
      "type": "FragmentSelector",
      "value": "new-theories"
    },
    "conformsTo": "http://tools.ietf.org/rfc/rfc3236",
  },
}
```

```
{
  "@context": "http://www.w3.org/ns/anno.jsonld",
  "id": "http://example.org/anno1",
  "type": "Annotation",
  "motivation": "questioning",
  "body": {
    "id": "http://example.org/in-defense-of-t-rex.mov",
    "type": "Video",
  },
  "target": {
    "source": "http://www.example.com/all-about-t-rex-diets",
    "selector": {
      "type": "FragmentSelector",
      "value": "new-theories"
      "conformsTo": "http://tools.ietf.org/rfc/rfc3236",
    }
  }
}
```

# Media Type Fragments

# Media Type Fragments

Name	Fragment Specification	Description
HTML	<a href="http://tools.ietf.org/rfc/rfc3236">http://tools.ietf.org/rfc/rfc3236</a>	[rfc3236] Example: <code>namedSection</code>
PDF	<a href="http://tools.ietf.org/rfc/rfc3778">http://tools.ietf.org/rfc/rfc3778</a>	[rfc3778] Example: <code>page=10&amp;viewrect=50,50,640,480</code>
Plain Text	<a href="http://tools.ietf.org/rfc/rfc5147">http://tools.ietf.org/rfc/rfc5147</a>	[rfc5147] Example: <code>char=0,10</code>
XML	<a href="http://tools.ietf.org/rfc/rfc3023">http://tools.ietf.org/rfc/rfc3023</a>	[rfc3023] Example: <code>xpointer(/a/b/c)</code>
RDF/XML	<a href="http://tools.ietf.org/rfc/rfc3870">http://tools.ietf.org/rfc/rfc3870</a>	[rfc3870] Example: <code>namedResource</code>
CSV	<a href="http://tools.ietf.org/rfc/rfc7111">http://tools.ietf.org/rfc/rfc7111</a>	[rfc7111] Example: <code>row=5-7</code>
Media	<a href="http://www.w3.org/TR/media-frags/">http://www.w3.org/TR/media-frags/</a>	[media-frags] Example: <code>xywh=50,50,640,480</code>
SVG	<a href="http://www.w3.org/TR/SVG/">http://www.w3.org/TR/SVG/</a>	[SVG11] Example: <code>svgView(viewBox(50,50,640,480))</code>
EPUB3	<a href="http://www.idpf.org/epub/linking/cfi/epub-cfi.html">http://www.idpf.org/epub/linking/cfi/epub-cfi.html</a>	[cfi] Example: <code>epubcfi(/6/4[chap01ref]!/4[body01]/10[para05]/3:10)</code>

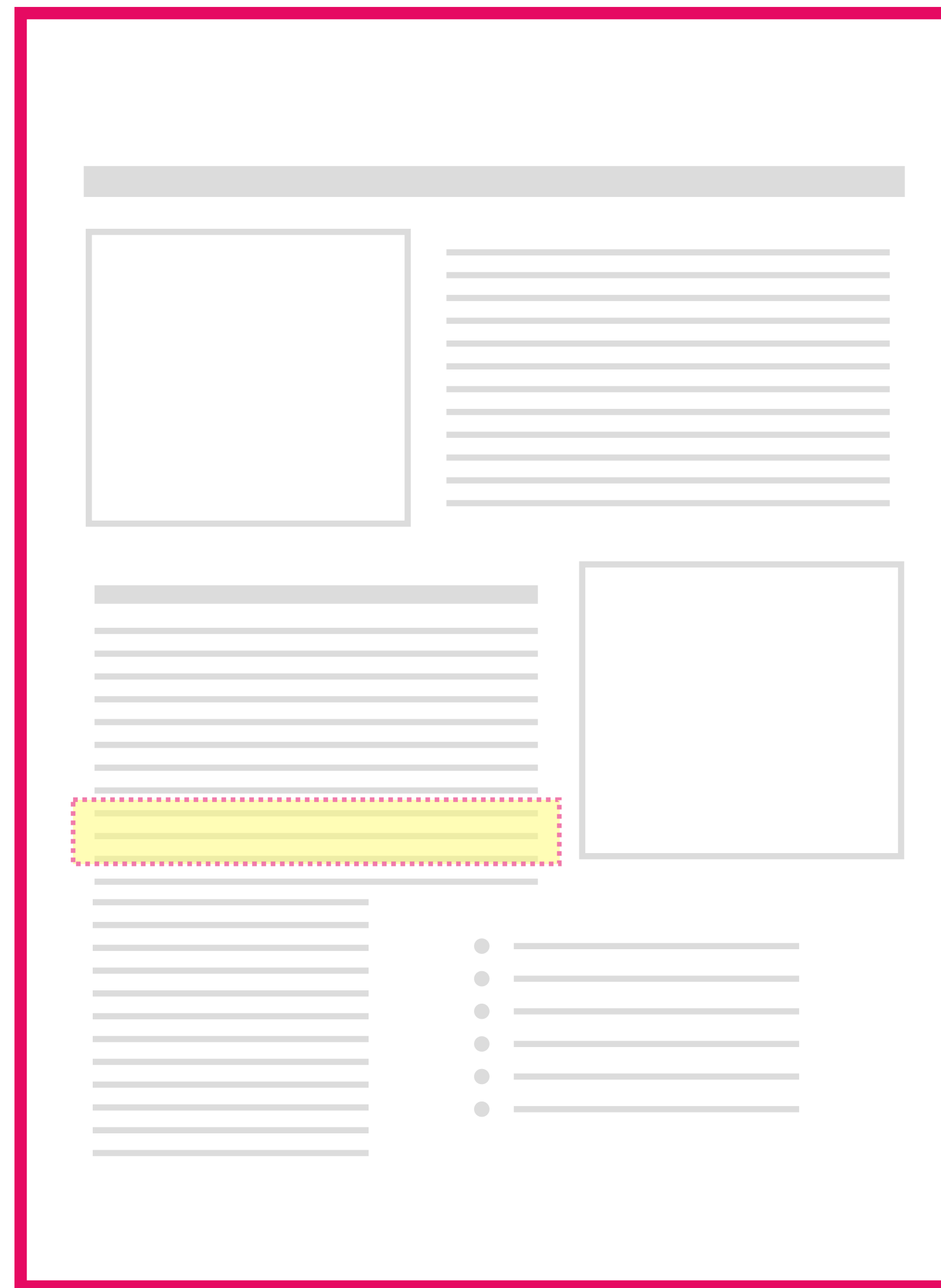
<https://www.w3.org/TR/annotation-model/#fragment-selector>

# Selectors and Segments



target

# Selectors and Segments



target

# Selectors

# Selectors

★ *Fragment*  
media type fragment



# Selectors

- ★ *Fragment*  
media type fragment
- ★ *XPath*  
document's DOM

# Selectors

- ★ *Fragment*  
media type fragment
- ★ *XPath*  
document's DOM
- ★ *Text Quote*  
exact text selected, as well as preceding (prefix) and succeeding (suffix) text

# Selectors

- ★ *Fragment*  
media type fragment
- ★ *XPath*  
document's DOM
- ★ *Text Quote*  
exact text selected, as well as preceding (prefix) and succeeding (suffix) text
- ★ *CSS*  
CSS selectors



target



target



target

# State



target

# State



target



# Zooming to another plane

---

*zoom level*

*universe galaxies constellations planets humans*

# Zooming to another plane

---

*zoom level*

*universe galaxies constellations planets humans*

# Zooming to another plane

---

*zoom level*

*universe galaxies constellations planets humans*



# Zooming to another plane

---

*Web Annotation's themes and struggles*

*zoom level*

*universe galaxies constellations planets humans*

# Power to the People?

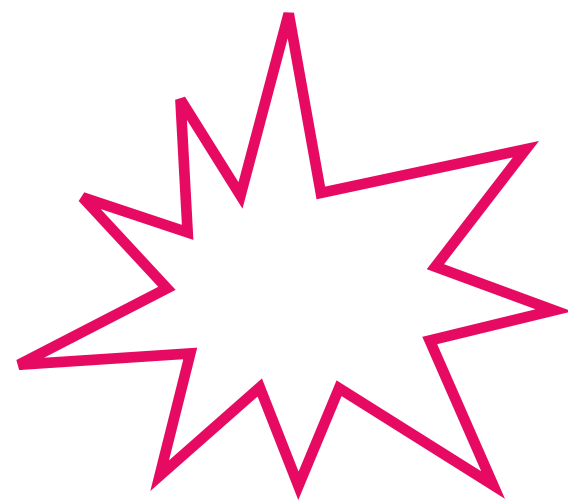
*Freedom vs. Control*

**the web promises democracy and freedom**

# the web promises democracy and freedom

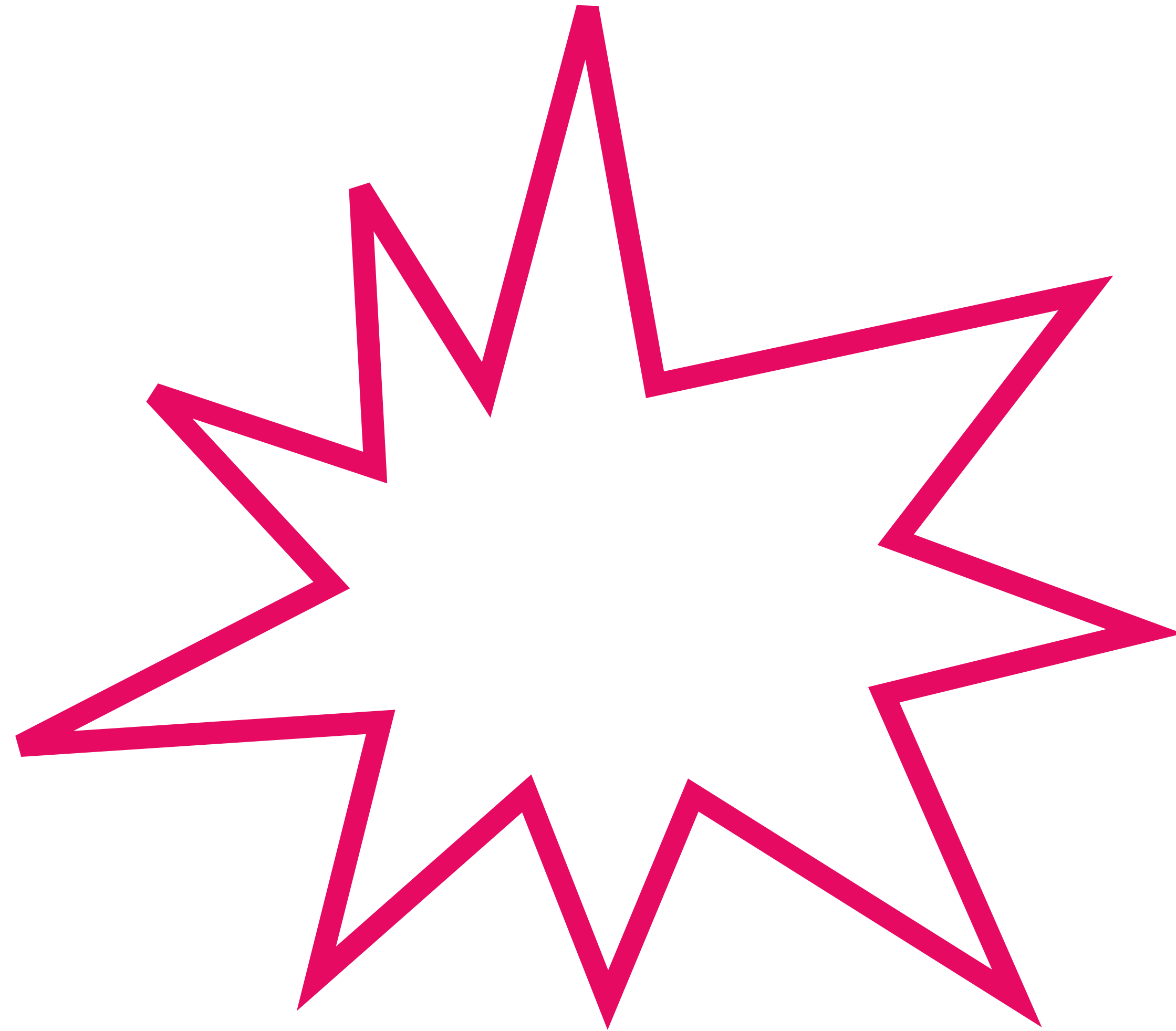


# the web is an amplification platform





**the web is an amplification platform**



**climatefeedback.org**

“

”

# climatefeedback.org

“global network of scientists fact-checking climate change news”

# climatefeedback.org



Climate Feedback

About

Scientific Feedbacks

Community

News & Events



Accurate information is the foundation of a functioning democracy

## WHAT WE DO

Climate Feedback is a worldwide network of scientists sorting fact from fiction in climate change media coverage. Our goal is to help readers know which news to trust.

## Latest Article Reviews

The screenshot shows a web browser displaying a Climate Feedback review of a Financial Post article. The article title is "Polar bears keep thriving even as global warming alarmists keep pretending they're dying" by Susan Crockford. The review includes a "Scientific Credibility" score of -1.7, which is categorized as "Very low" on a scale from +2 (Very high) to -2 (Very low). The review also includes a quote from the article: "Polar bears keep thriving even as global warming alarmists keep pretending they're dying". The review is dated 27 Feb 2018.

Financial Post publishes misleading opinion that misrepresents science of polar bears' plight

Financial Post

*"The article is composed of misstatements. These are either based upon the author's apparent lack of understanding of the ecological and geophysical situations, or intent to misl."*

- 27 Feb 2018



# Annotation using hypothes.is

The screenshot shows a web page from the Conservative Tribune with a red header. The main article title is "Flashback: Global Warming Study Canceled After Humiliating Discovery" by Benjamin Arie, dated June 22, 2017. The page includes social sharing buttons for Facebook, Twitter, Email, and Print. A yellow banner for Sprint and Hulu is visible. The right sidebar shows a public group with three annotations by user kmccusker. The first annotation is "different from their predictions" with a note: "The linked article is not about predictions made for Arctic sea ice". The second annotation is "yet they absolutely know how the climate will behave over the next 100 years" with a note: "This is a common and misleading argument that has been dispelled many times. Climate projections don't presume to predict exactly what will be happening and where at any given time, but instead describe the average climate (or the statistics of weather). A decrease in Arctic sea ice extent overall is a well-known feature of climate change, but within that, variability in regional ice concentration is expected." The third annotation is "It isn't the first time a global warming study has been ironically halted in its tracks." with a note: "The following citations of research cruises is an example of cher-".

**CT CONSERVATIVE TRIBUNE**

POLITICS CULTURE REAL

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**Unlimited**  
— Now with **hulu** —  
Speed max. use rules & rest apply. 1 Hulu Limited Commercials plan per acct.

**POLITICS**

**Flashback: Global Warming Study Canceled After Humiliating Discovery**

BY BENJAMIN ARIE  
JUNE 22, 2017 AT 5:40AM

**Share Tweet Email Print**

*Editor's Note: This was a popular CT story when it originally ran; we're re-posting it for your enjoyment.*

You can say this for bleeding-heart liberals: They certainly have a flair for the ironic.

**Public** Sign up / Log in

Biased Cherry-picking Derogatory Misleading

**kmccusker** Jan 14  
Public  
*different from their predictions*  
The linked article is not about predictions made for Arctic sea ice

**kmccusker** Jan 14  
Public  
*yet they absolutely know how the climate will behave over the next 100 years*  
This is a common and misleading argument that has been dispelled many times. Climate projections don't presume to predict exactly what will be happening and where at any given time, but instead describe the average climate (or the statistics of weather). A decrease in Arctic sea ice extent overall is a well-known feature of climate change, but within that, variability in regional ice concentration is expected.

**kmccusker** Jan 14  
Public  
*It isn't the first time a global warming study has been ironically halted in its tracks.*  
The following citations of research cruises is an example of cher-

<https://via.hypothes.is/https://conservativetribune.com/global-warming-study-cancelled/>

# Annotation using hypothes.is

The screenshot shows a web page from the Conservative Tribune with a red header. The main article is titled "Flashback: Global Warming Study Canceled After Humiliating Discovery" by Benjamin Arie, dated June 22, 2017. The article text includes an editor's note and a paragraph about bleeding-heart liberals. On the right, a sidebar shows three annotations from the user kmccusker, dated Jan 14. The annotations are: 1. "different from their predictions" (with a link to a linked article), 2. "yet they absolutely know how the climate will behave over the next 100 years" (with a paragraph of text), and 3. "It isn't the first time a global warming study has been ironically halted in its tracks." (with a link to research cruises). The page also features a Sprint advertisement and social media sharing buttons.

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— Now with **hulu** —  
Speed max. use rules & rest apply. 1 Hulu Limited Commercials plan per acct.

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Biased Cherry-picking Derogatory Misleading

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Public  
*different from their predictions*

The linked article is not about predictions made for Arctic sea ice

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Public  
*yet they absolutely know how the climate will behave over the next 100 years*

This is a common and misleading argument that has been dispelled many times. Climate projections don't presume to predict exactly what will be happening and where at any given time, but instead describe the average climate (or the statistics of weather). A decrease in Arctic sea ice extent overall is a well-known feature of climate change, but within that, variability in regional ice concentration is expected.

**kmccusker** Jan 14  
Public  
*It isn't the first time a global warming study has been ironically halted in its tracks.*

The following citations of research cruises is an example of cher-

<https://via.hypothes.is/https://conservativetribune.com/global-warming-study-cancelled/>



# Annotation using hypothes.is

The screenshot shows a webpage from the Conservative Tribune. The main article is titled "ENTER NOW" and features a large yellow button. The article text includes: "Let that sink in for a moment. Scientists were caught off guard when the true ice conditions were **different from their predictions**, which took place only months ago... yet they **absolutely** know how the climate will behave over the next 100 years." and "Global warming activists are already arguing that the Amundsen's reassignment because of increased sea ice is proof that a warming arctic is sending greater flocs into the sea lanes as Arctic ice shears, and that could well be true. But that's not the point. The point is, even climate scientists can't predict what's happening next summer, much less next century." Below the article is a "RELATED" link: "Alert: Global Warming Alarmist Threatens Trump's WH... Sound the Alarm".

Annotations from hypothes.is are visible on the right side of the page. The first annotation, by user kmccusker, is dated Jan 14 and contains the text: "different from their predictions" and "The linked article is not about predictions made for Arctic sea ice". The second annotation, also by kmccusker, is dated Jan 14 and contains the text: "yet they absolutely know how the climate will behave over the next 100 years" and "This is a common and misleading argument that has been dispelled many times. Climate projections don't presume to predict exactly what will be happening and where at any given time, but instead describe the average climate (or the statistics of weather). A decrease in Arctic sea ice extent overall is a well-known feature of climate change, but within that, variability in regional ice concentration is expected." The third annotation, also by kmccusker, is dated Jan 14 and contains the text: "It isn't the first time a global warming study has been ironically halted in its tracks." and "The following citations of research cruises is an example of cher-".

<https://via.hypothes.is/https://conservativetribune.com/global-warming-study-cancelled/>

# Annotation using hypothes.is

The screenshot shows a web browser displaying a page from the Conservative Tribune. The page features a red header with the site's logo and navigation links. A sidebar on the left contains social media sharing buttons. The main content area shows a news article with a headline and a sub-headline. A Hypothes.is annotation is overlaid on the article, displaying a comment from the user 'kmccusker' dated Jan 14. The annotation text reads: 'yet they absolutely know how the climate will behave over the next 100 years'. Below this, a paragraph of text is visible, discussing climate projections and Arctic sea ice extent. The annotation also includes a 'Public' status indicator and a date of 'Jan 14'.

Conservative Tribune

POLITICS CULTURE REAL

Public

Sign up / Log in

Biased Cherry-picking Derogatory Misleading

kmccusker Jan 14

Public

yet they absolutely know how the climate will behave over the next 100 years

This is a common and misleading argument that has been dispelled many times. Climate projections don't presume to predict exactly what will be happening and where at any given time, but instead describe the average climate (or the statistics of weather). A decrease in Arctic sea ice extent overall is a well-known feature of climate change, but within that, variability in regional ice concentration is expected.

RELATED: Alarm Alarm

Let that sink in conditions were ago... yet they years.

Global warming because of inc into the sea lar point. The poin summer, much

halted in its tracks.

The following citations of research cruises is an example of cher-

<https://via.hypothes.is/https://conservativetribune.com/global-warming-study-cancelled/>



# Bodies and Targets

annotation

kmccusker

Jan 14

 Public

*yet they absolutely know how the climate will behave over the next 100 years*

This is a common and misleading argument that has been dispelled many times. Climate projections don't presume to predict exactly what will be happening and where at any given time, but instead describe the average climate (or the statistics of weather). A decrease in Arctic sea ice extent overall is a well-known feature of climate change, but within that, variability in regional ice concentration is expected.




# Bodies and Targets

annotation

target




<https://conservativetribune.com/global-warming-study-cancelled/>

**kmccusker**Jan 14

 Public

*yet they absolutely know how the climate will behave over the next 100 years*

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# Bodies and Targets

annotation




target

<https://conservativetribune.com/global-warming-study-cancelled/>

**kmccusker** Jan 14  
Public

yet they absolutely know how the climate will behave over the next 100 years

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*refined by Selectors*

# Bodies and Targets

annotation

<https://conservativetribune.com/global-warming-study-cancelled/>

target

body

**kmccusker** Jan 14  
Public

yet they absolutely know how the climate will behave over the next 100 years

This is a common and misleading argument that has been dispelled many times. Climate projections don't presume to predict exactly what will be happening and where at any given time, but instead describe the average climate (or the statistics of weather). A decrease in Arctic sea ice extent overall is a well-known feature of climate change, but within that, variability in regional ice concentration is expected.

↩ ↪ 🚩

*refined by Selectors*

# Bodies and Targets

annotation

<https://conservativetribune.com/global-warming-study-cancelled/>

target

body

**kmccusker** Jan 14  
Public

yet they absolutely know how the climate will behave over the next 100 years

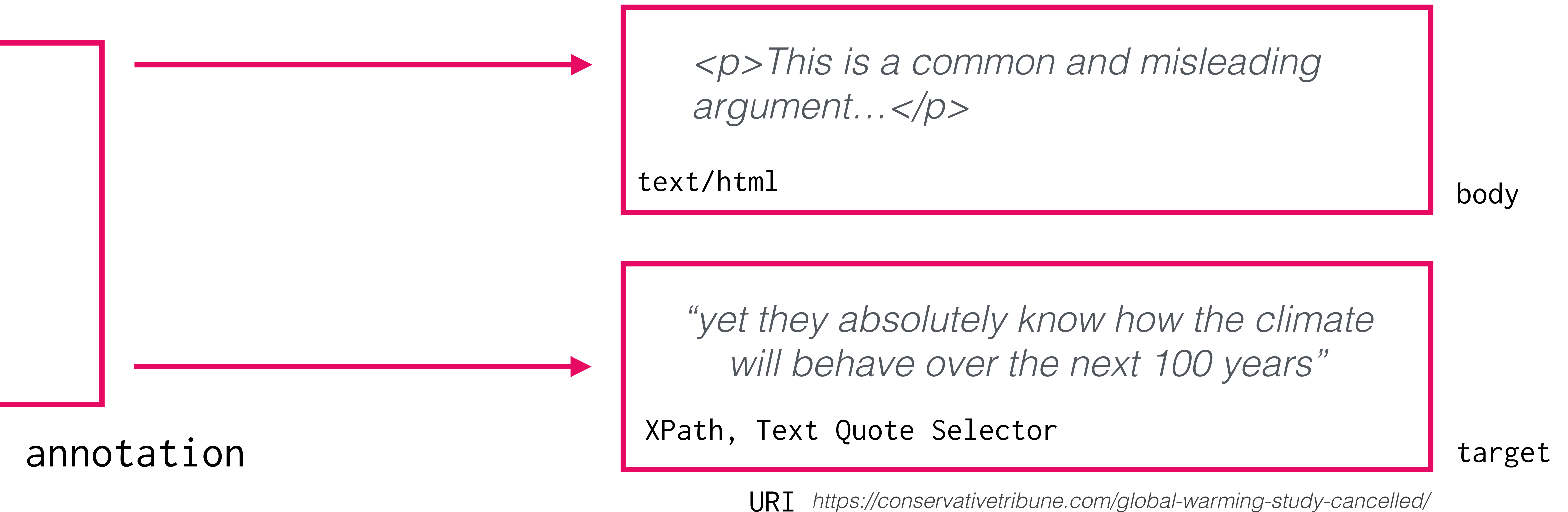
This is a common and misleading argument that has been dispelled many times. Climate projections don't presume to predict exactly what will be happening and where at any given time, but instead describe the average climate (or the statistics of weather). A decrease in Arctic sea ice extent overall is a well-known feature of climate change, but within that, variability in regional ice concentration is expected.

↩ ↪ 🚩

*refined by Selectors*

*formatted as HTML*

# Bodies and Targets





# Bodies and Targets

annotation

<http://www.example.com/annotations/e498dd93>

body

*<p>This is a common and misleading  
argument...</p>*

text/html

target

*“yet they absolutely know how the climate  
will behave over the next 100 years”*

XPath, Text Quote Selector

URI <https://conservativetribune.com/global-warming-study-cancelled/>

# Targeting another Annotation

annotation

<http://www.example.com/a>

*<p>This is a common and misleading  
argument...</p>*

text/html

*“yet they absolutely know how the  
will behave over the next 100 years”*

XPath, Text Quote Selector

URI <https://conservativetribune.com/global-warming/>



# Targeting another Annotation

annotation

<http://www.example.com/annotations/fcc983443>

body

*<p>Allow me to retort.</p>*

text/html

annotation

<http://www.example.com/>

*<p>This is a common and misleading  
argument...</p>*

text/html

*“yet they absolutely know how the  
will behave over the next 100 y*

XPath, Text Quote Selector

URI <https://conservativetribune.com/global-warmir>

# Targeting another Annotation

annotation

<http://www.example.com/annotations/fcc983443>

body

*<p>Allow me to retort.</p>*

text/html

target

<http://www.example.com/annotations/e498dd93>

annotation

<http://www.example.com/a>

*<p>This is a common and misleading  
argument...</p>*

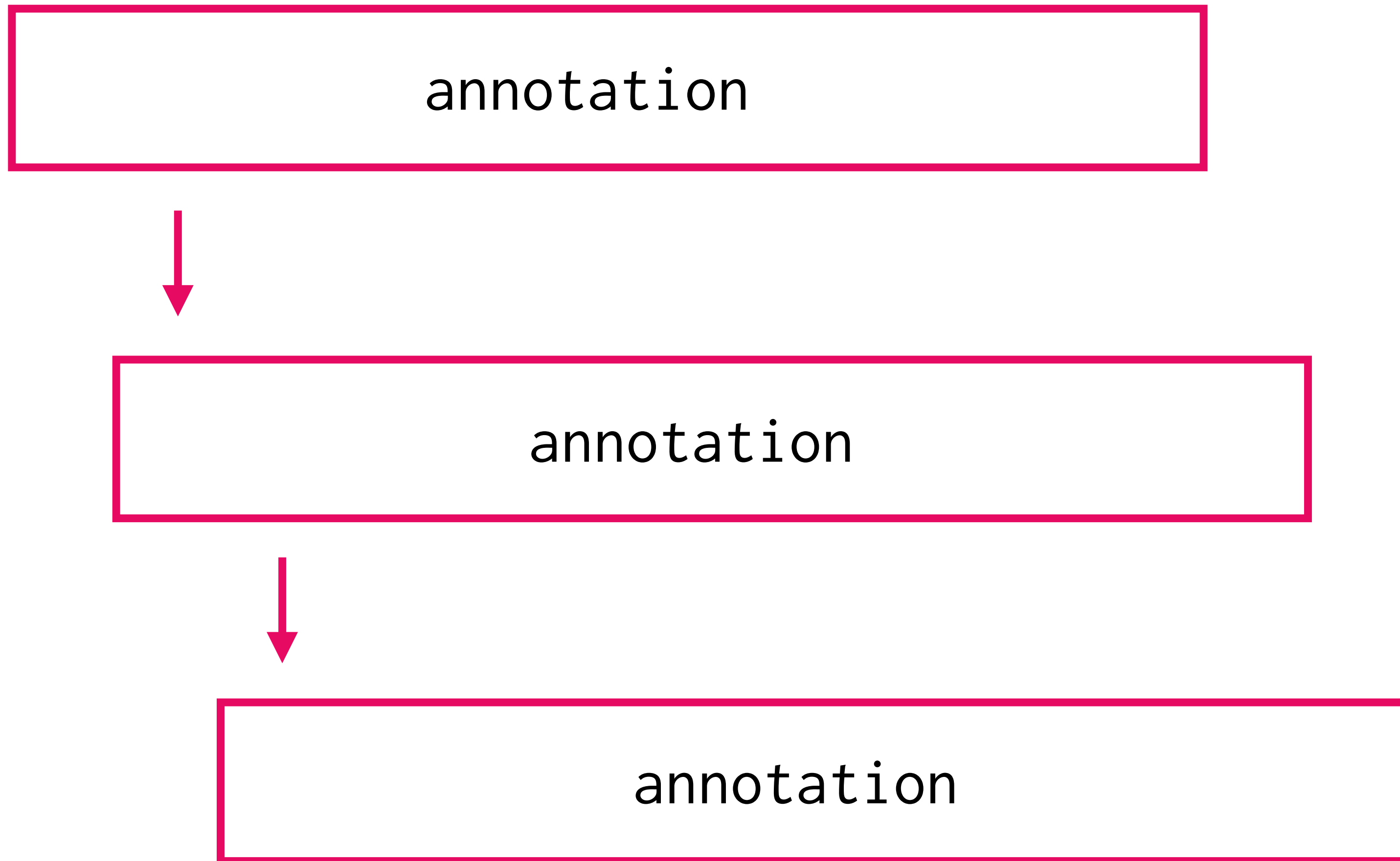
text/html

*“yet they absolutely know how the  
will behave over the next 100 y*

XPath, Text Quote Selector

URI <https://conservativetribune.com/global-warmir>

# threaded replies



# people can suck

“you suck”



“you suck more!”



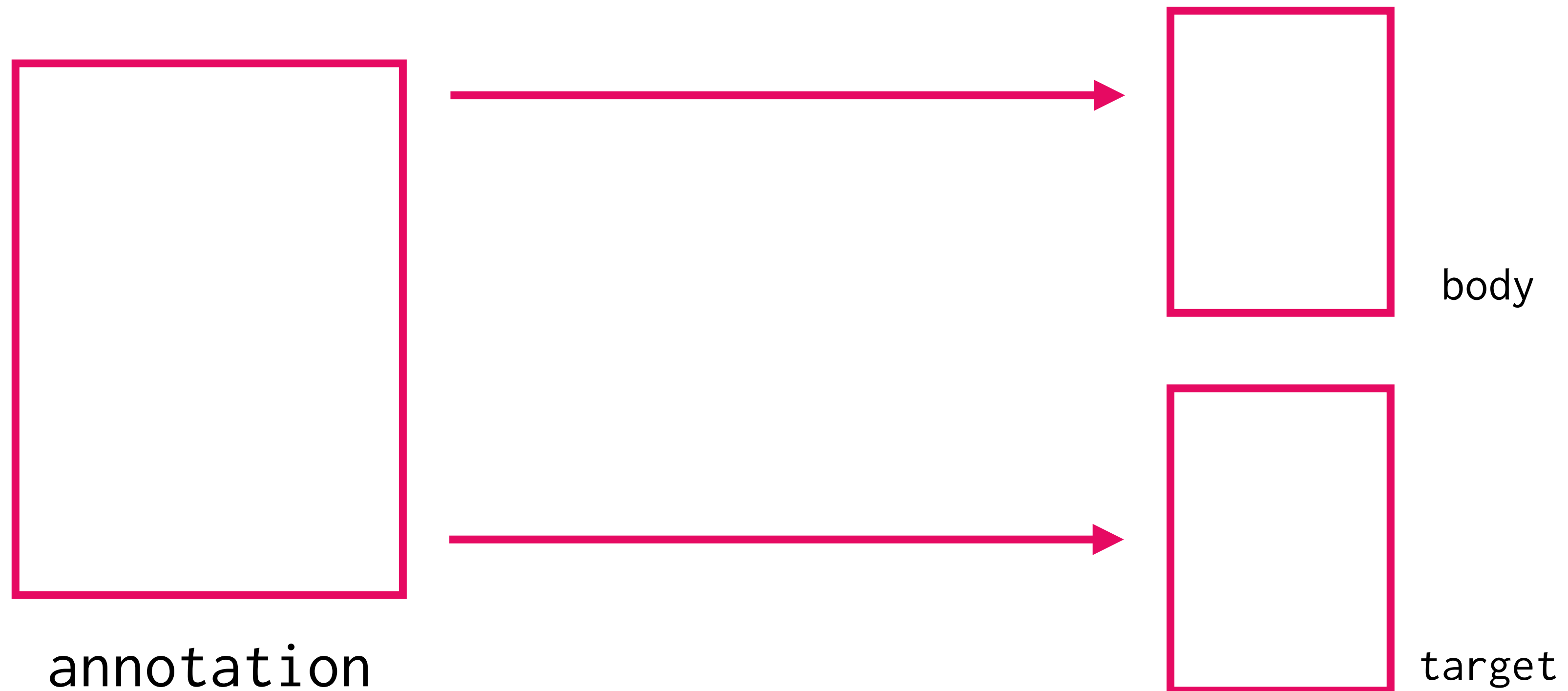
“you deserve pain”

# freedom vs. the trolls

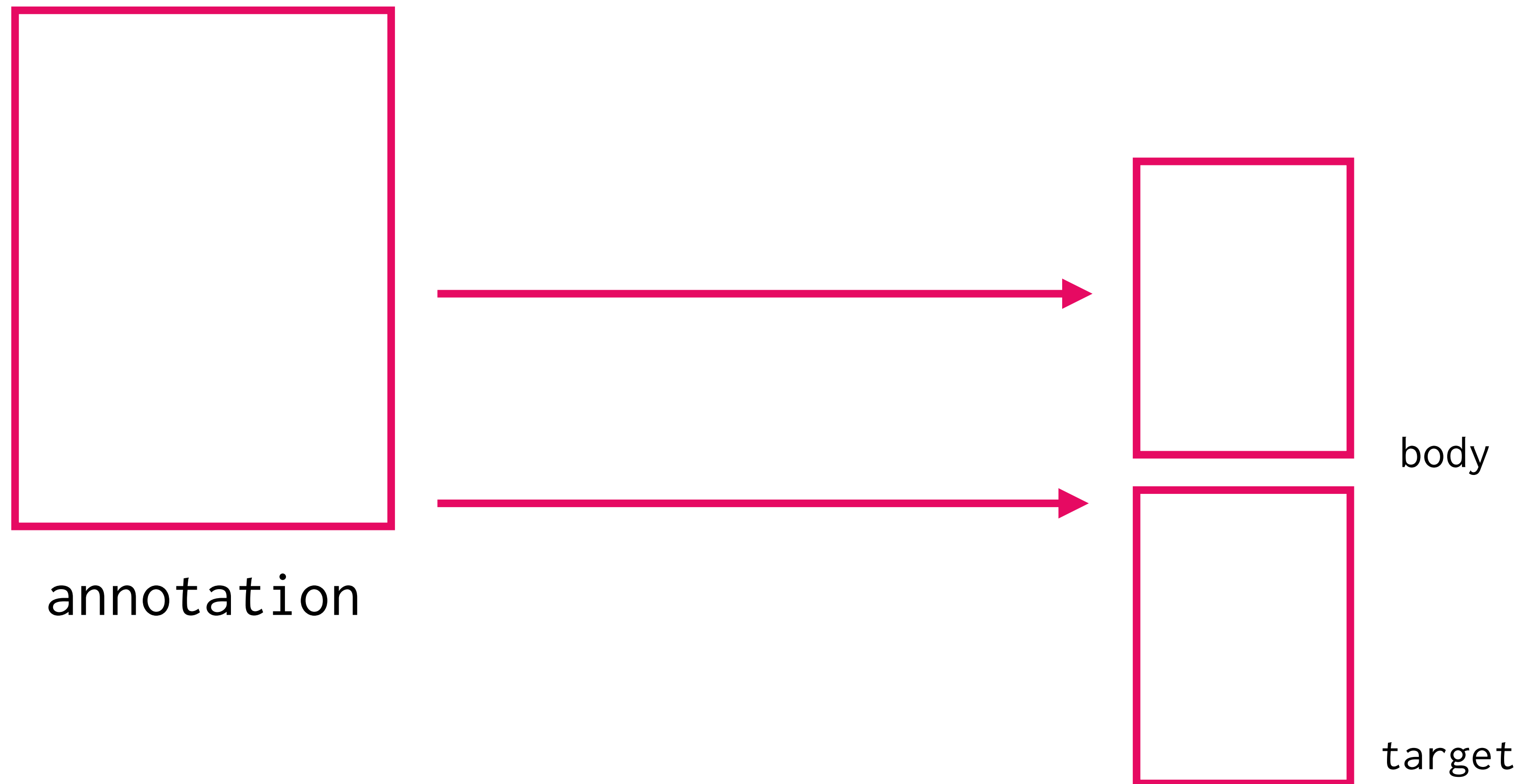
# freedom vs. the trolls



# Creator Relationship

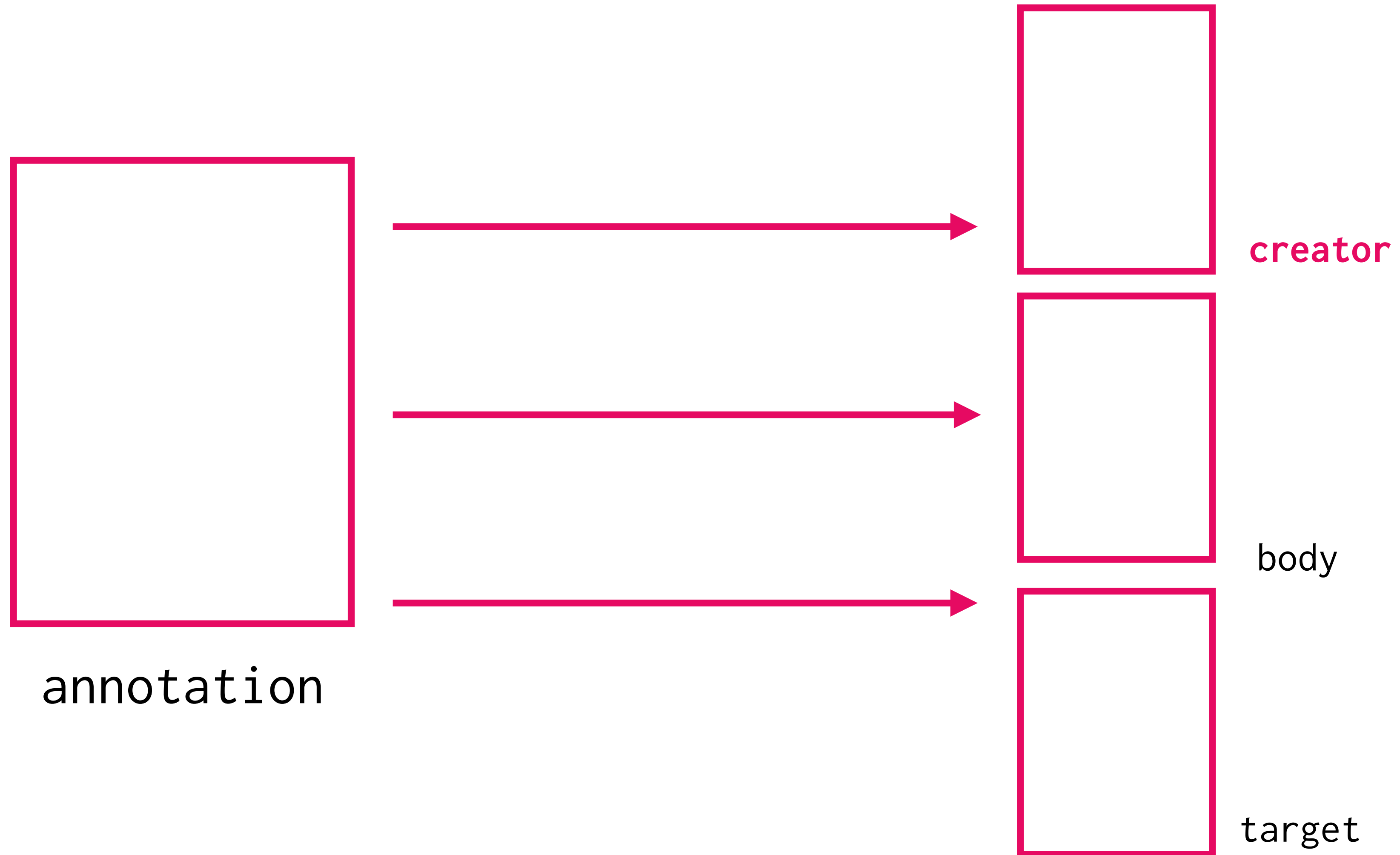


# Creator Relationship





# Creator Relationship



# WAWG Objectives

- ★ *interoperability*  
centered on the URI, web foundations
- ★ *generalized model*  
“orthogonal to the domain of interest”
- ★ *simple, inexpensive implementation*  
un-opinionated about specific technologies

It's complicated.

**can I mute this thing? halp!**





Your blog post

*You suck*



Your blog post

# Allow publishers to opt out?

<makeItStop="true">

# Allow publishers to opt out?

```
document.ohGod.please.no.annotations = true;
```



# Not all opinions have real value

“

”

# Not all opinions have real value

“This article is *really* wrong.

There is just no way.”

# who gets to decide?

**BAN THIS USER**



# who gets to decide?



freedom vs. control

---

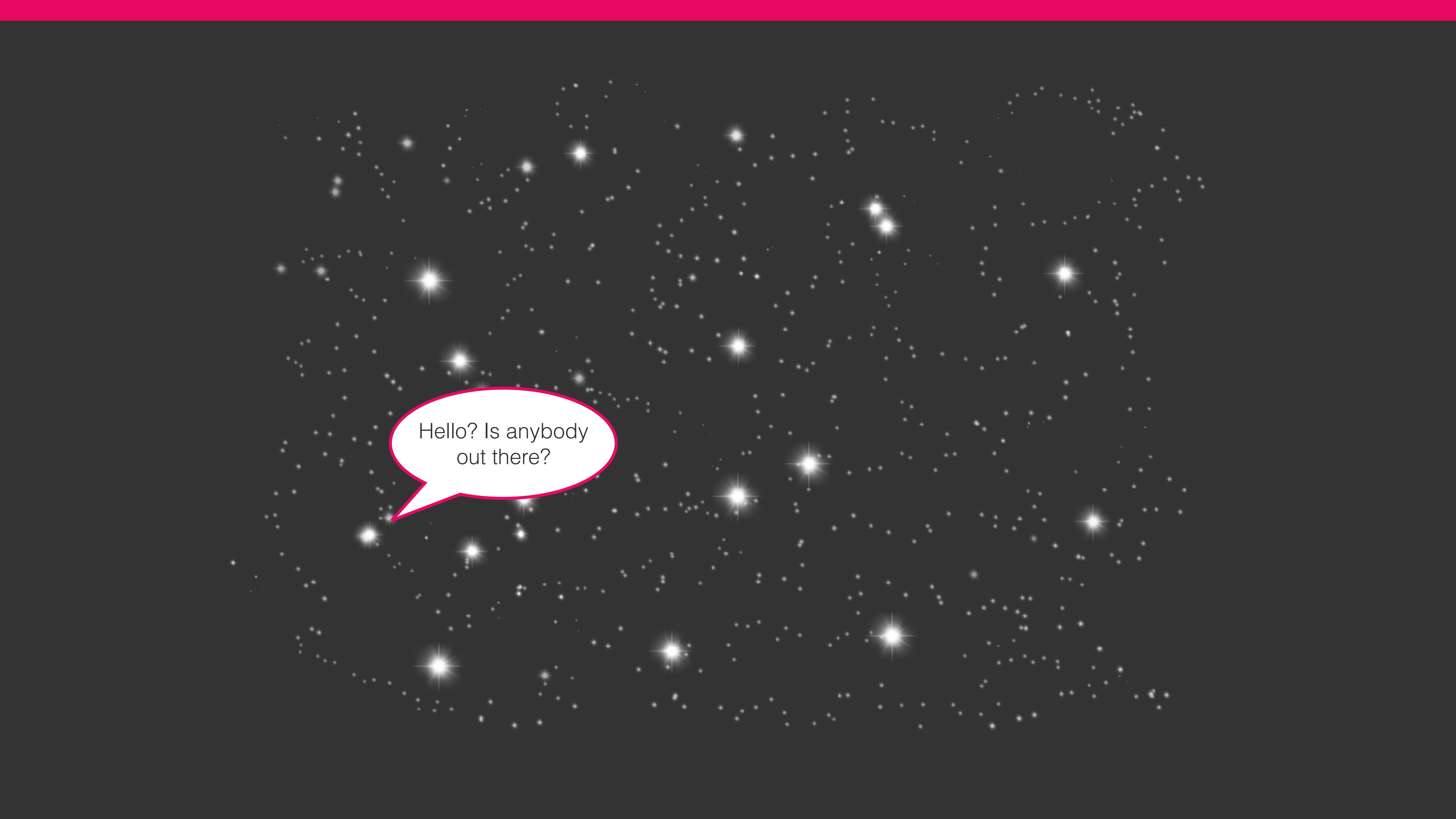
*always a tension on the web*

# Shouting into the Void

---

*Flexible vs. Specific*





Hello? Is anybody  
out there?





Is this thing on?

Hello? Is anybody  
out there?

# Web Annotation: a gift?





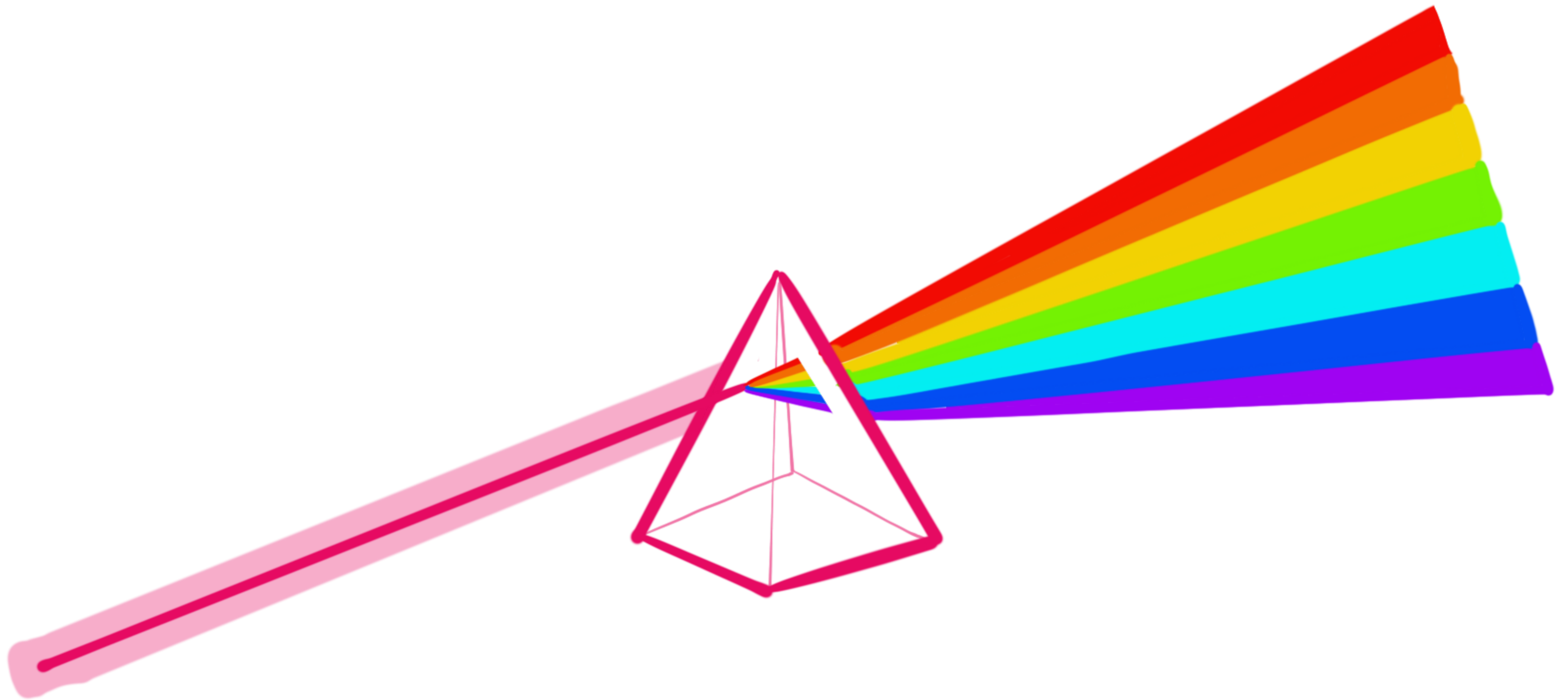
*the*  
TYRANNY  
*of*  
ABSTRACTION

flexible vs. specific

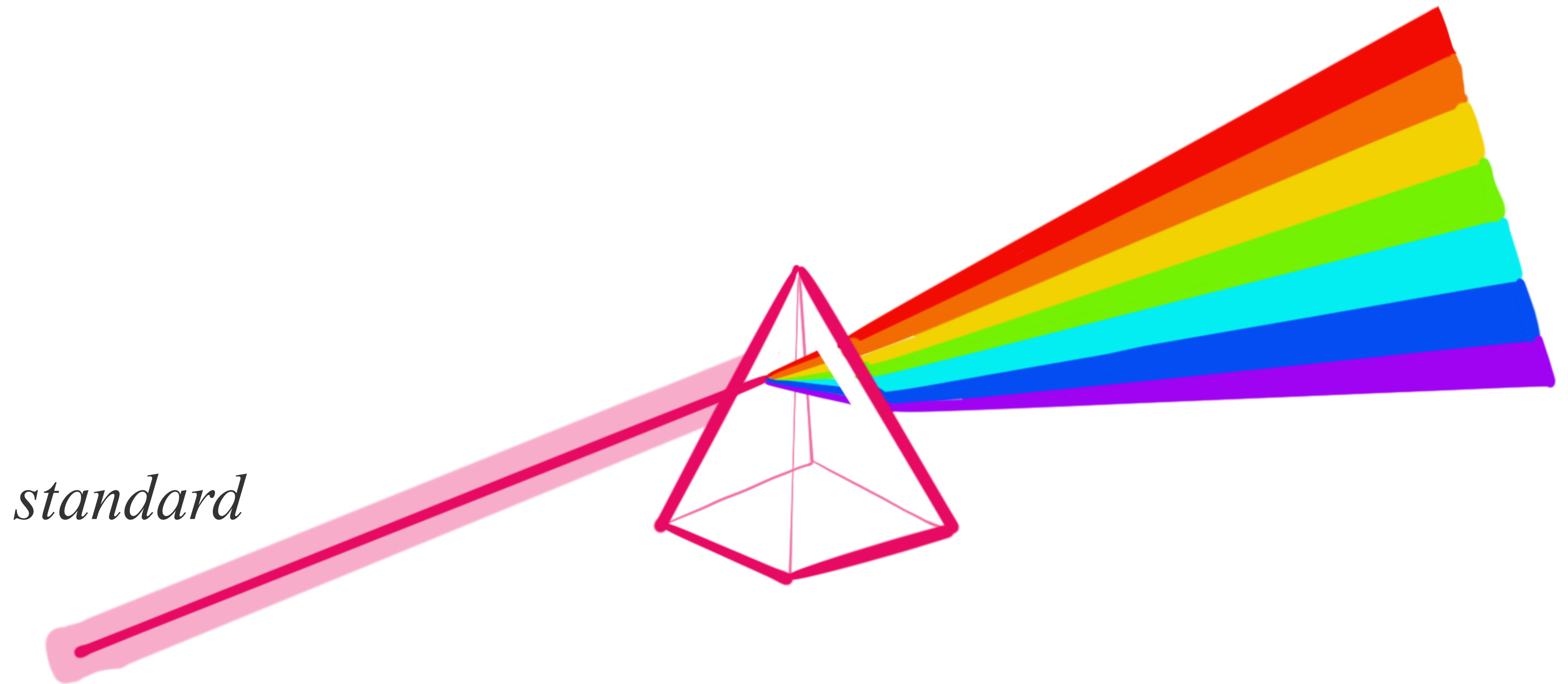
---

*always a tension on the web*

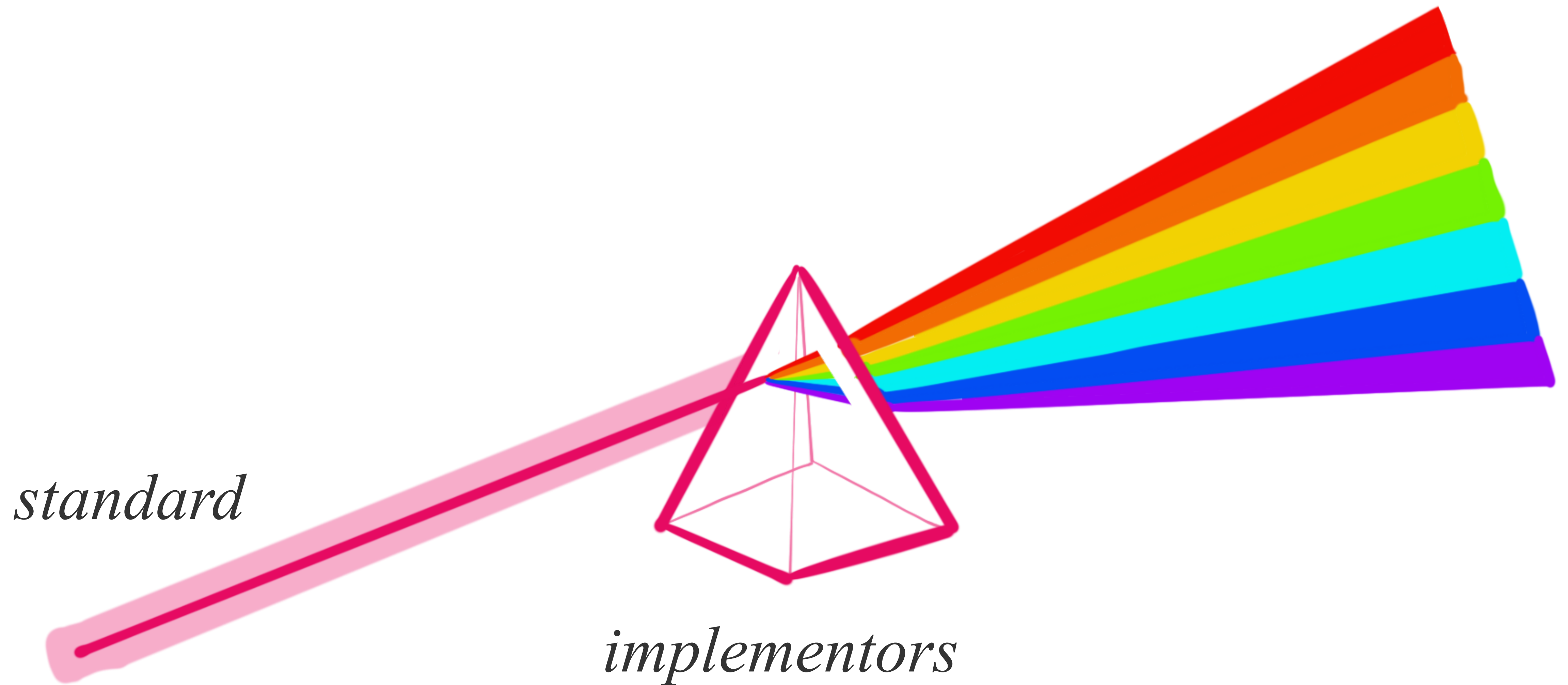
# making this great is up to implementors



# making this great is up to implementors

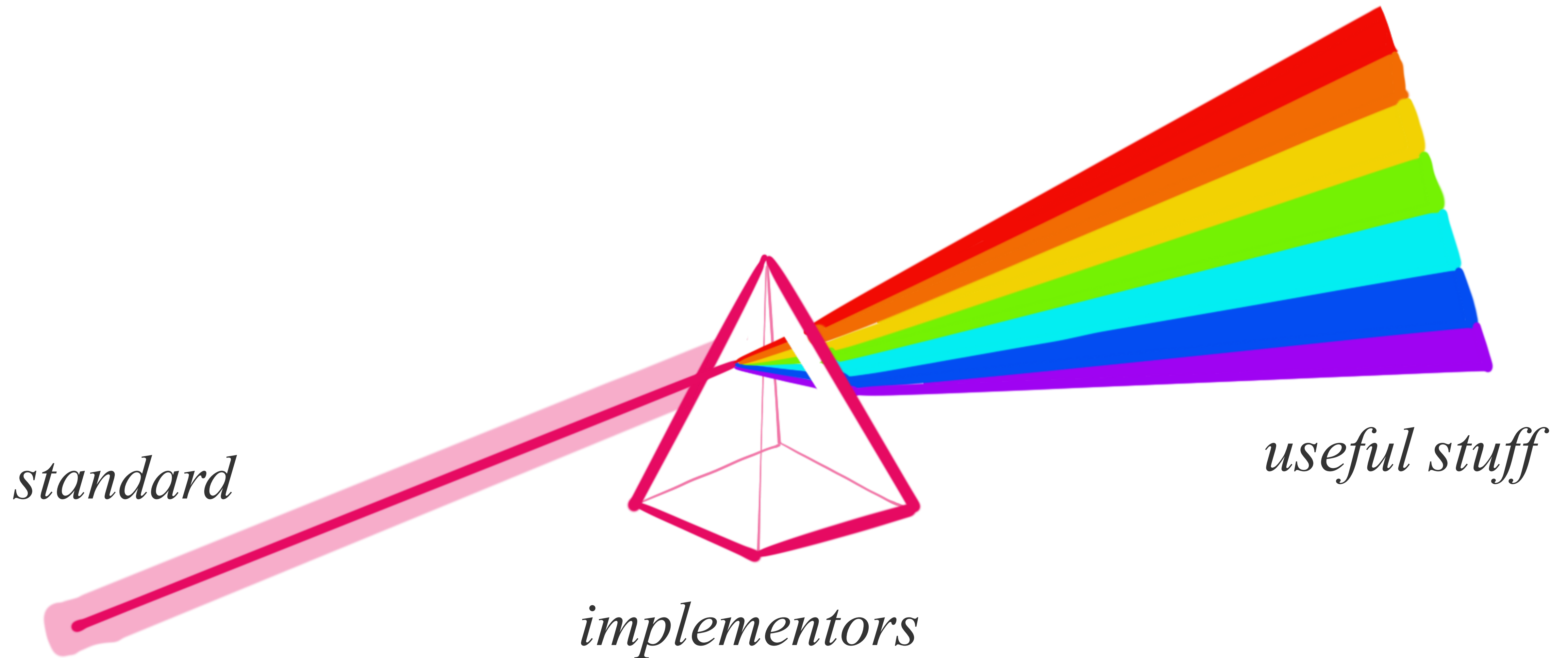


# making this great is up to implementors





# making this great is up to implementors





“FIRST POST!!!!11”

“testing..”

“first annotation test”

flexible vs. specific

---

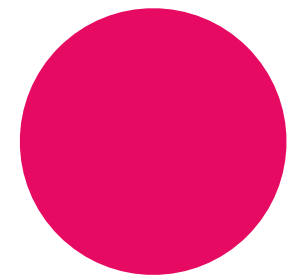
*always a tension on the web*

# It's slowing me down

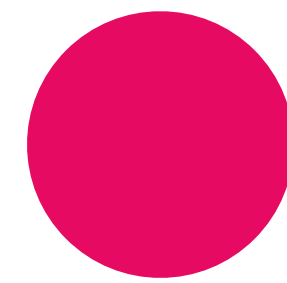
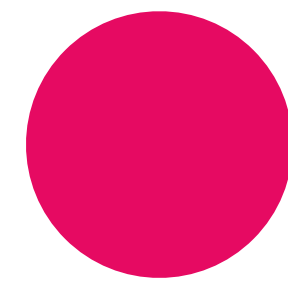
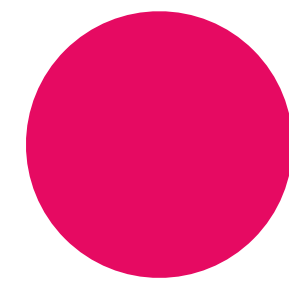
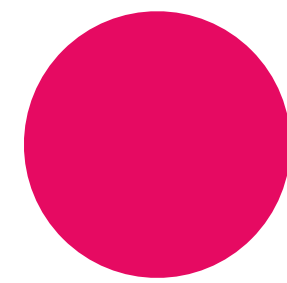
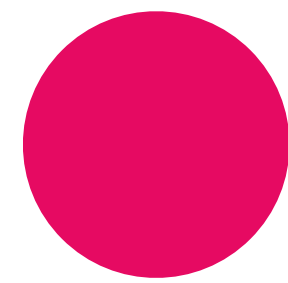
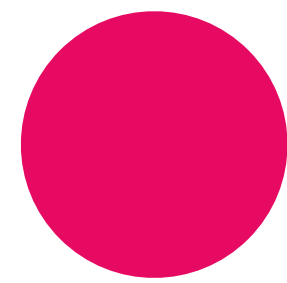
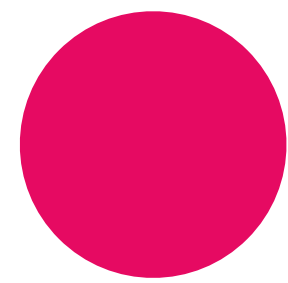
---

*Open vs. Proprietary*

the web evolves so slowly



the web evolves so slowly



# Extensible Web Manifesto



# Extensible Web Manifesto

## The Extensible Web Manifesto

#extendthewebforward

We—**the undersigned**—want to change how web standards committees create and prioritize new features. We believe that this is critical to the long-term health of the web.

We aim to tighten the feedback loop between the editors of web standards and web developers.

Today, most new features require months or years of standardization, followed by careful implementation by browser vendors, only then followed by developer feedback and iteration. We prefer to enable feature development and iteration in JavaScript, followed by implementation in browsers and standardization.

To enable libraries to do more, browser vendors should provide new low-level capabilities that expose the possibilities of the underlying platform as closely as possible.

They should also seed the discussion of high-level APIs through JavaScript implementations of new features (such as **Mozilla's X-Tags** and **Google's Polymer**).

*<https://extensiblewebmanifesto.org/>*

open vs. proprietary

---

*always a tension on the web*

open

---

proprietary

open

---

proprietary

★ *fast*

★ *full-featured*

★ *innovative*

open

★ *interoperable*

★ *democratic but slow*

★ *stable over the long term*

---

proprietary

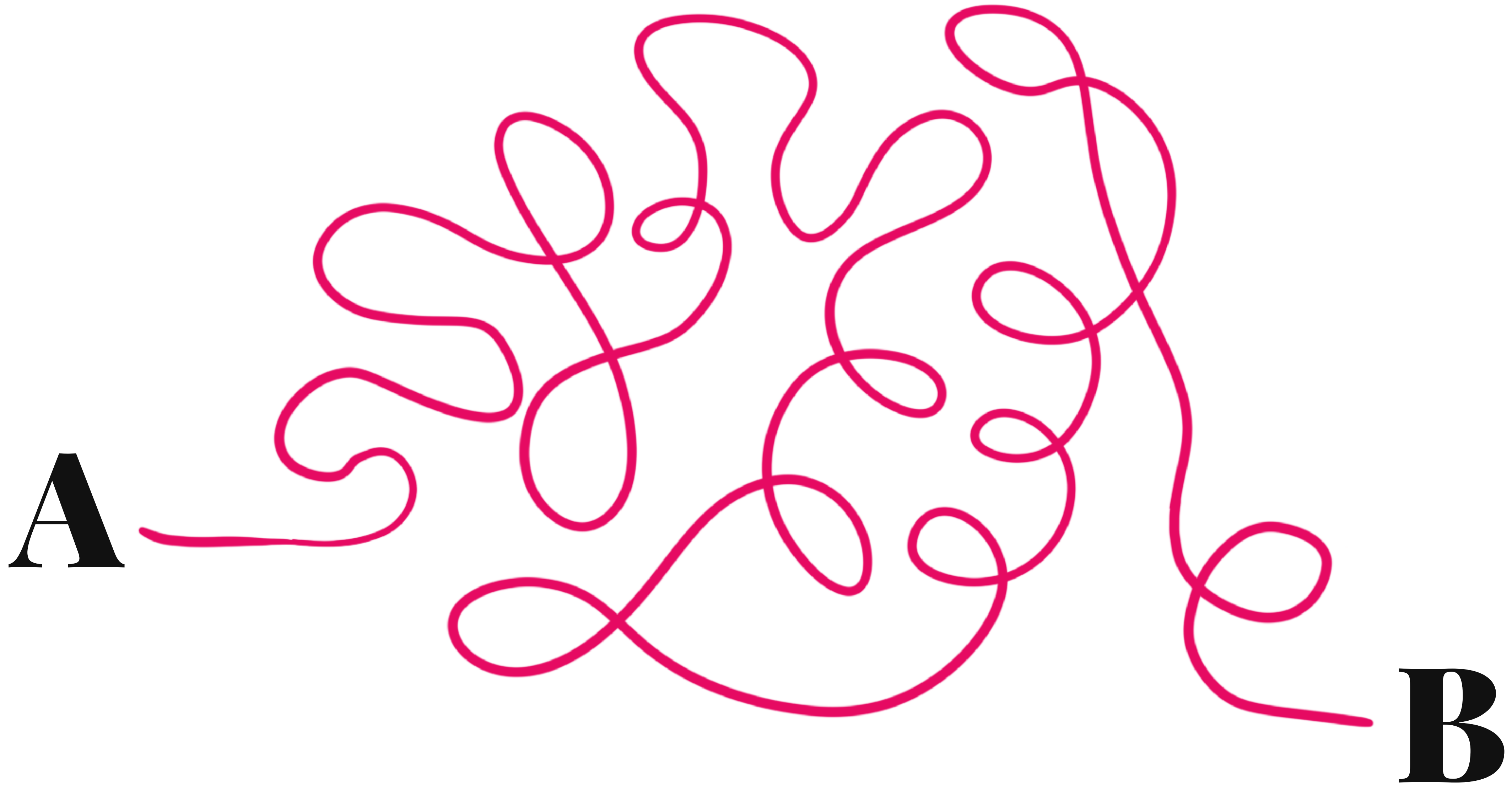
★ *fast*

★ *full-featured*

★ *innovative*

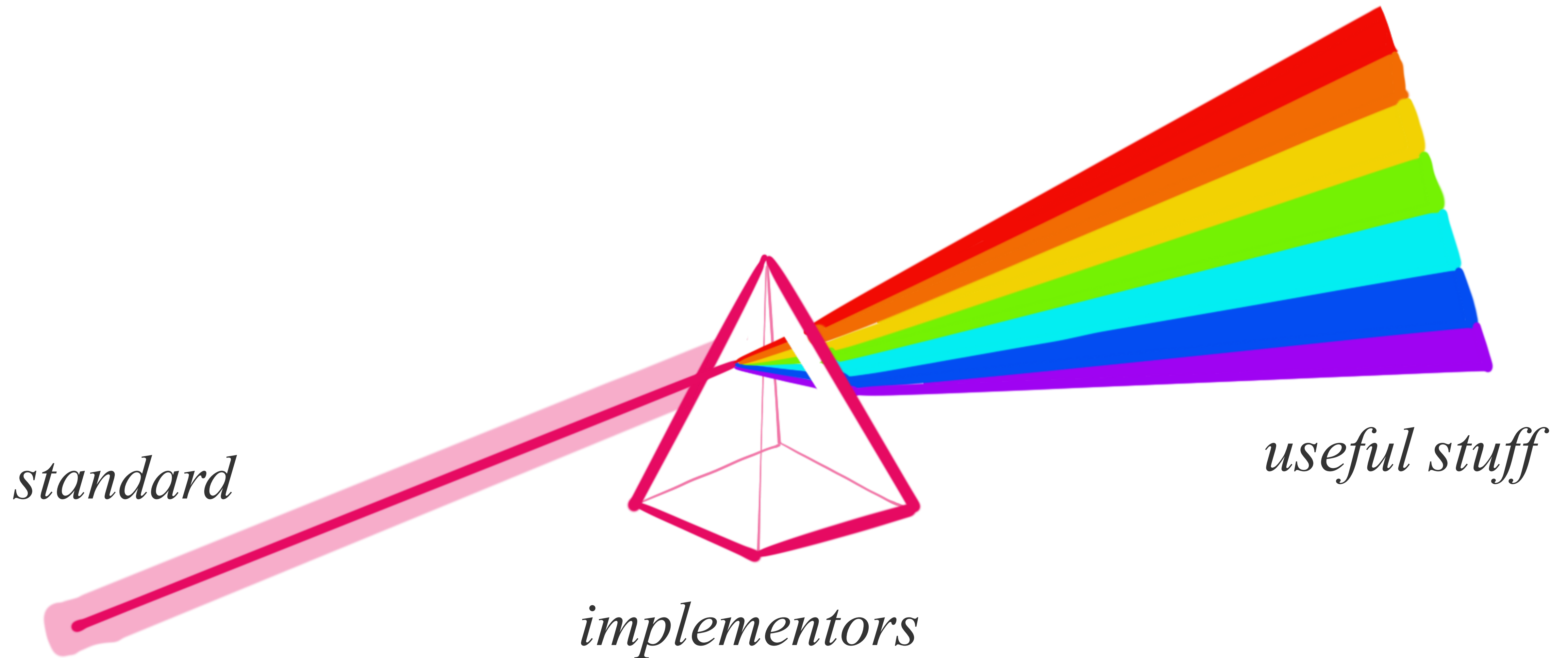
# Byzantine standards process

# Byzantine standards process



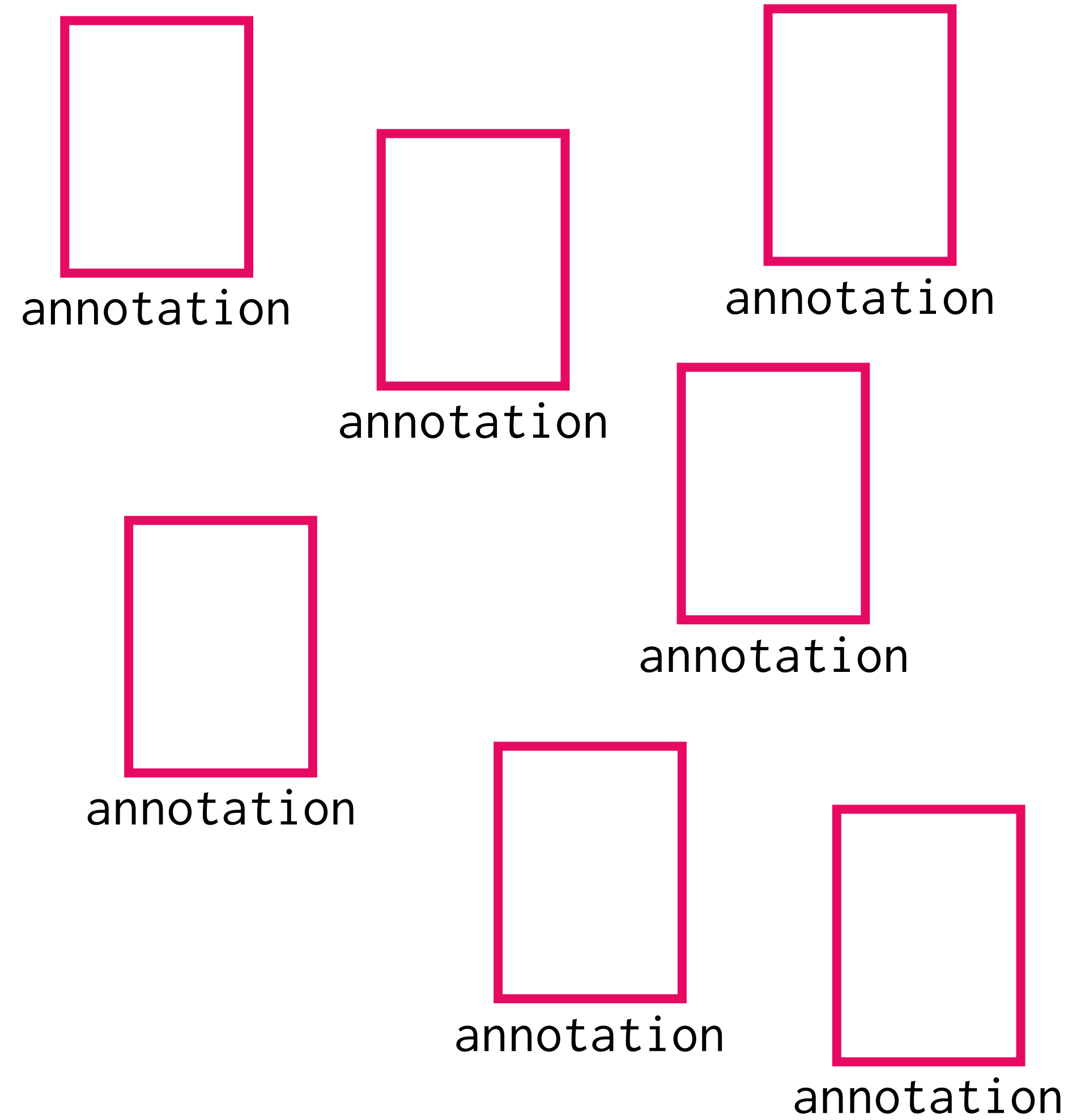


# flexibility gives implementors breathing room

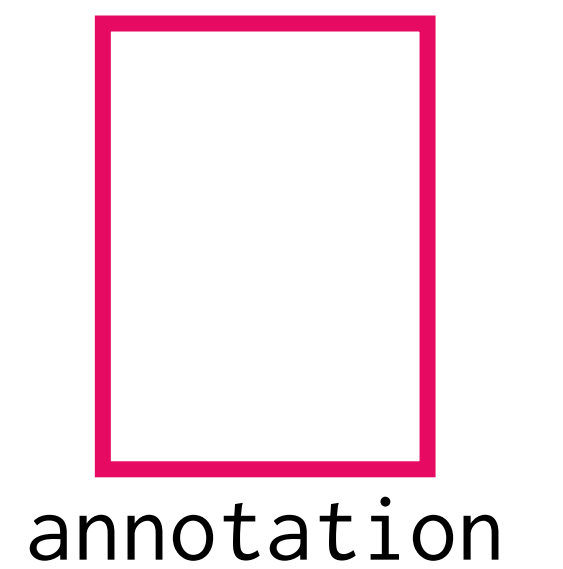
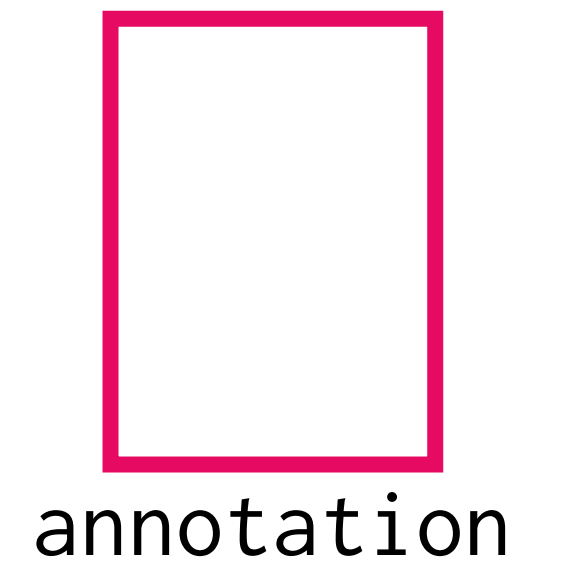
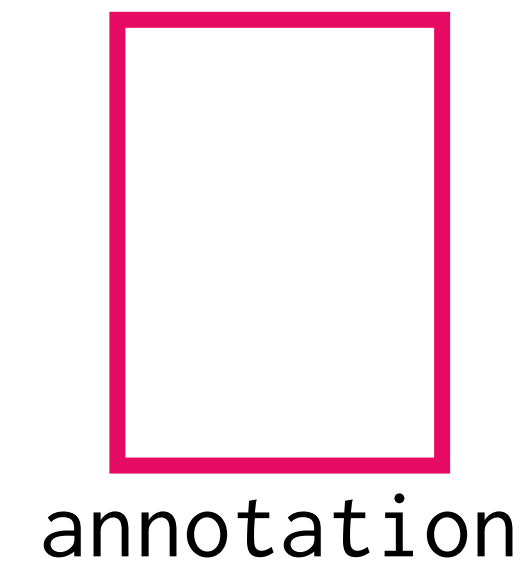
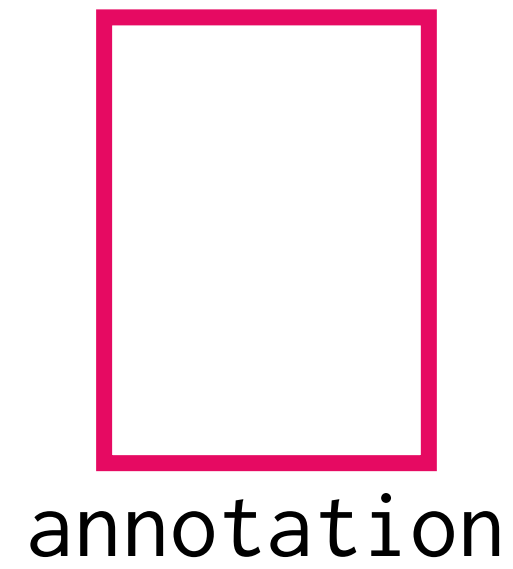
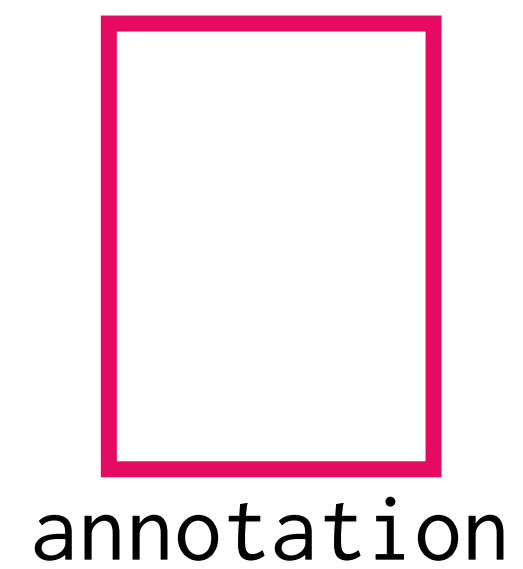
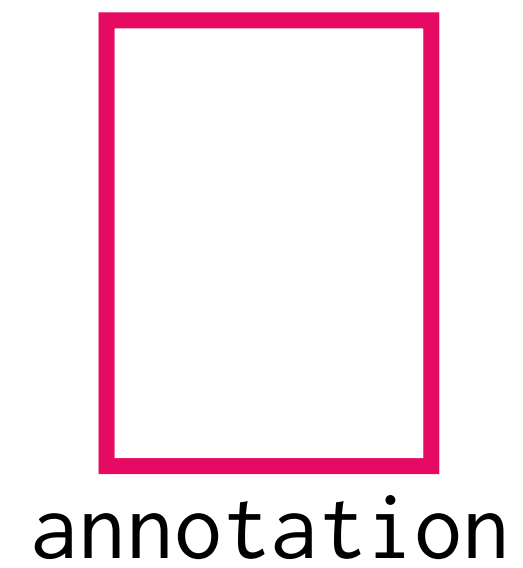
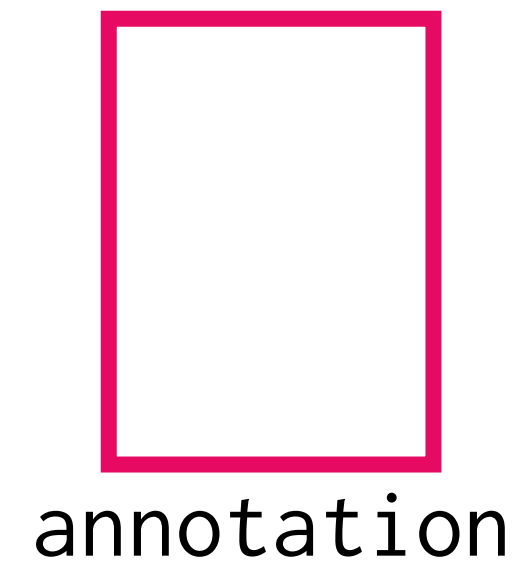




# Interoperability



# Interoperability



# Orthogonal to Use Cases

- ☐ *annotating scientific articles*
- ☐ *bookmarking*
- ☐ *studying — private notes*
- ☐ *reviewing*

# Orthogonal to Use Cases

- ☒ *annotating scientific articles*
- ☒ *bookmarking*
- ☒ *studying — private notes*
- ☒ *reviewing*

# Web Cornerstones

# Web Cornerstones

## ★ *Web Annotation Model*

The URI

# Web Cornerstones

- ★ *Web Annotation Model*

The URI

- ★ *Web Annotation Vocabulary*

RDF, JSON-LD

# Web Cornerstones

- ★ *Web Annotation Model*  
The URI
- ★ *Web Annotation Vocabulary*  
RDF, JSON-LD
- ★ *Web Annotation Protocol*  
RESTful



Let's Talk about Scientists

zoom level



# Let's Talk about Scientists

---

*How people use this thing*

*zoom level*

*universe galaxies constellations planets humans*

A horizontal scale bar with vertical tick marks. A red triangle points to the 'humans' label.



# Maryann Martone

---

*neuroscientist, UCSD*

“

”

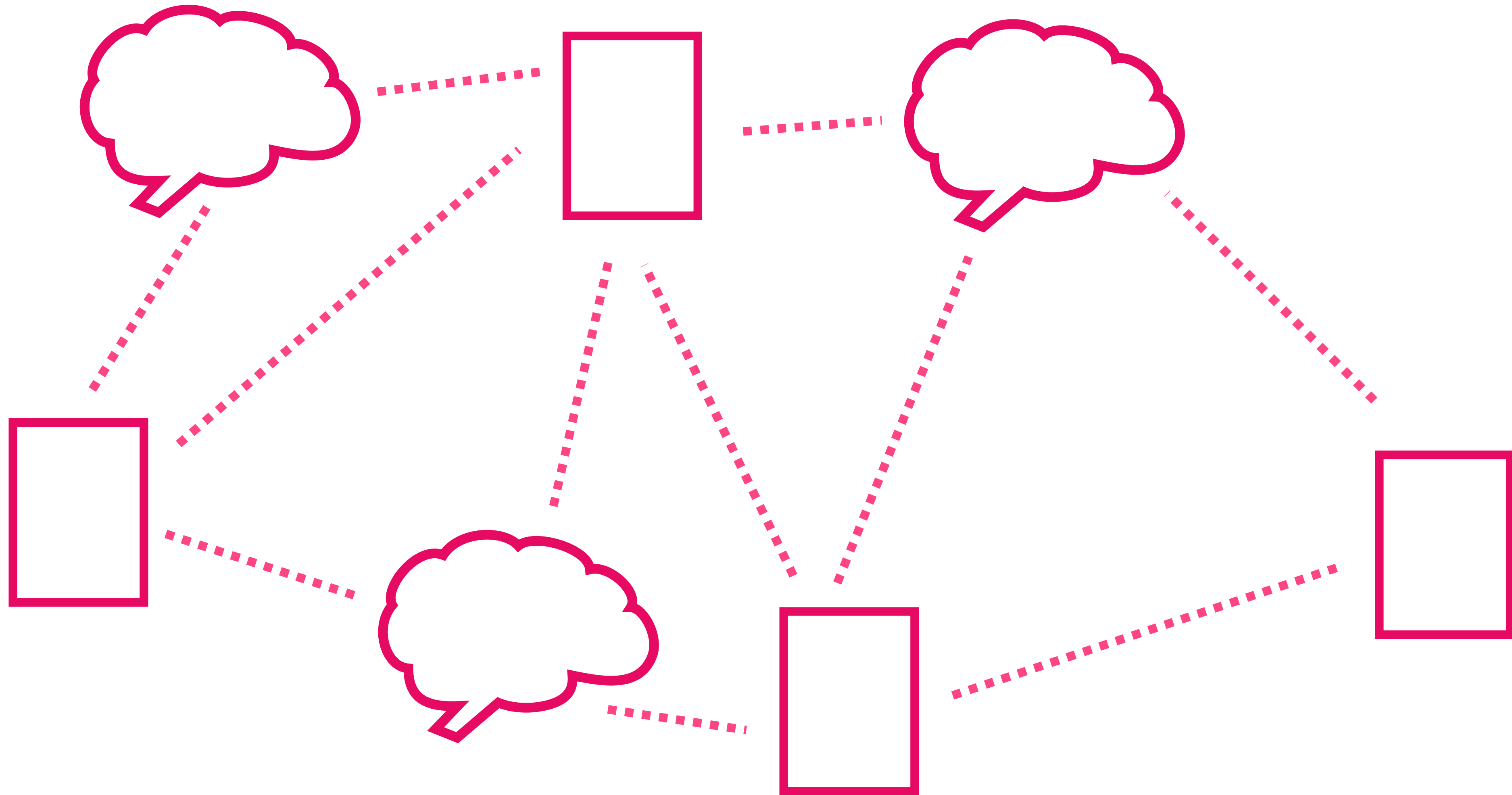
“*bioscientists are failing at the major scourges...we need an interface between data and knowledge.*”

technology vs. culture

---

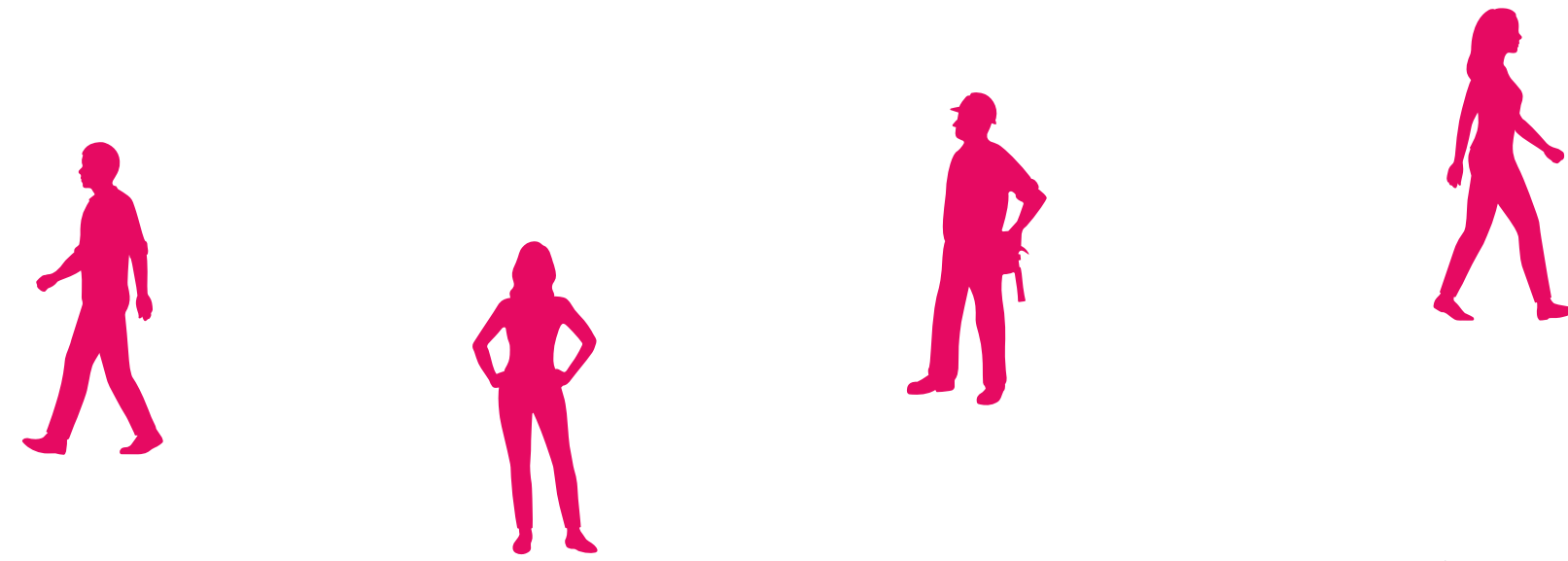
*always a tension on the web*

# connective tissue



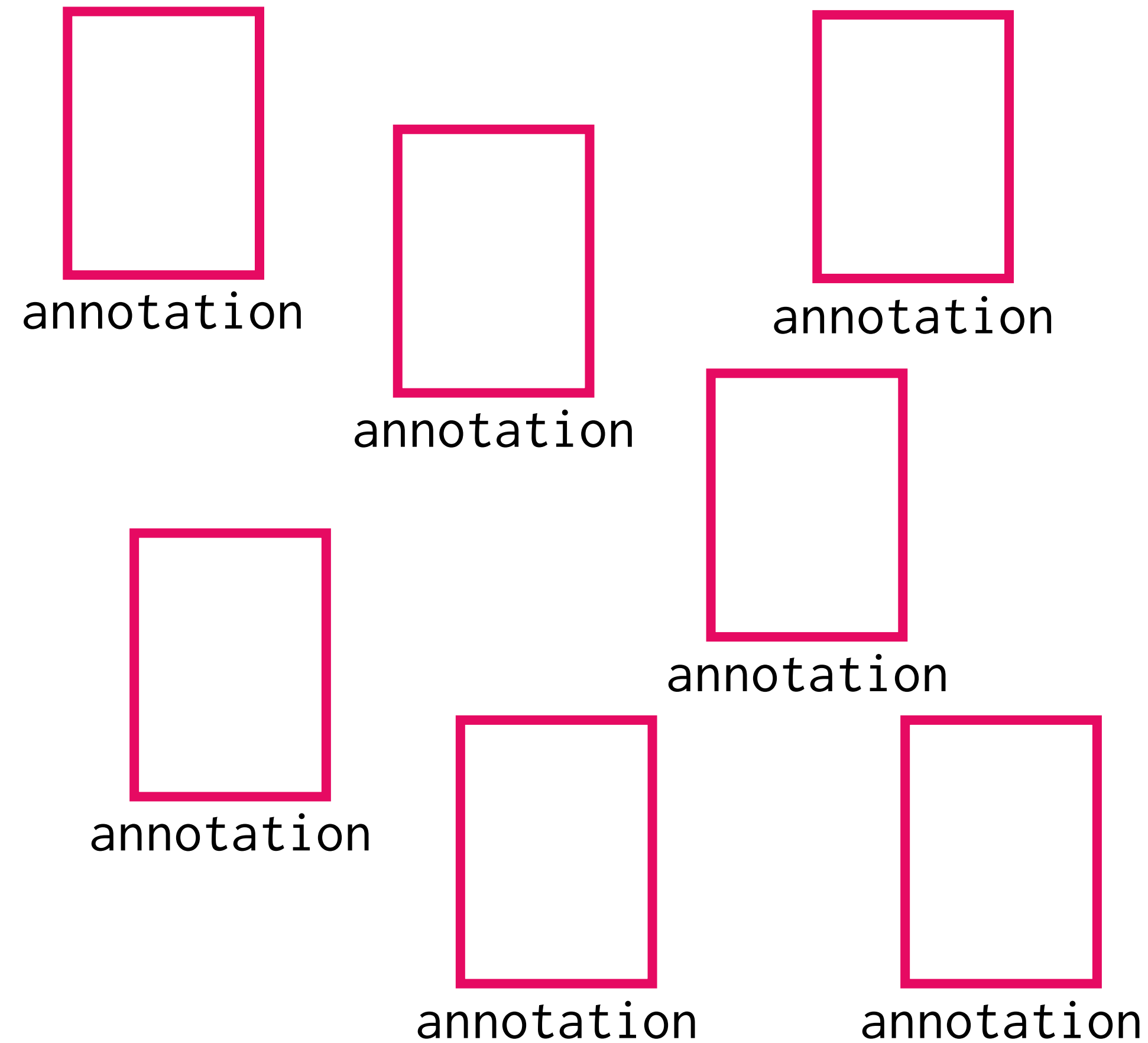
scientists are people



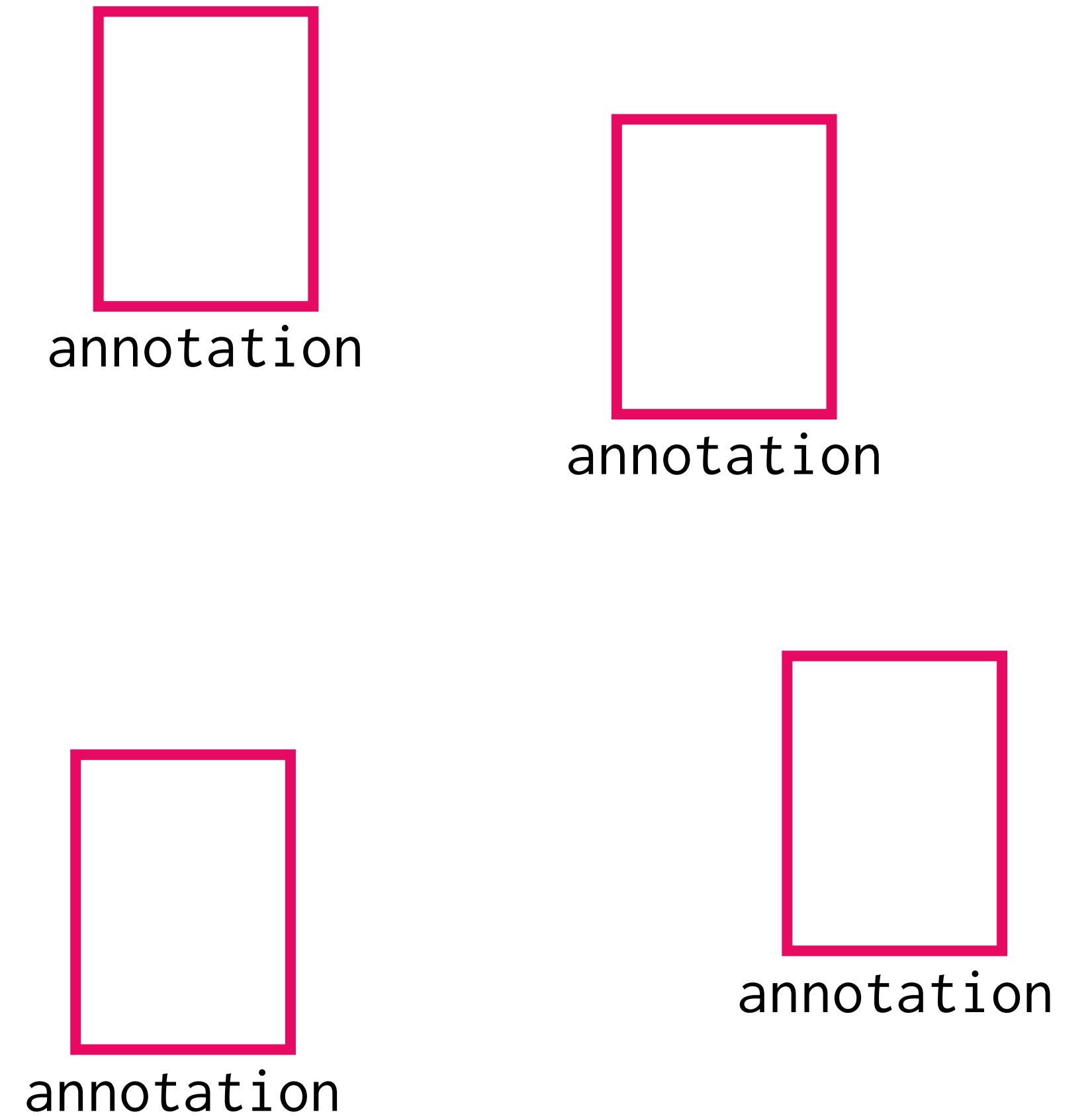


scientists are people

# Organizing annotations in groups

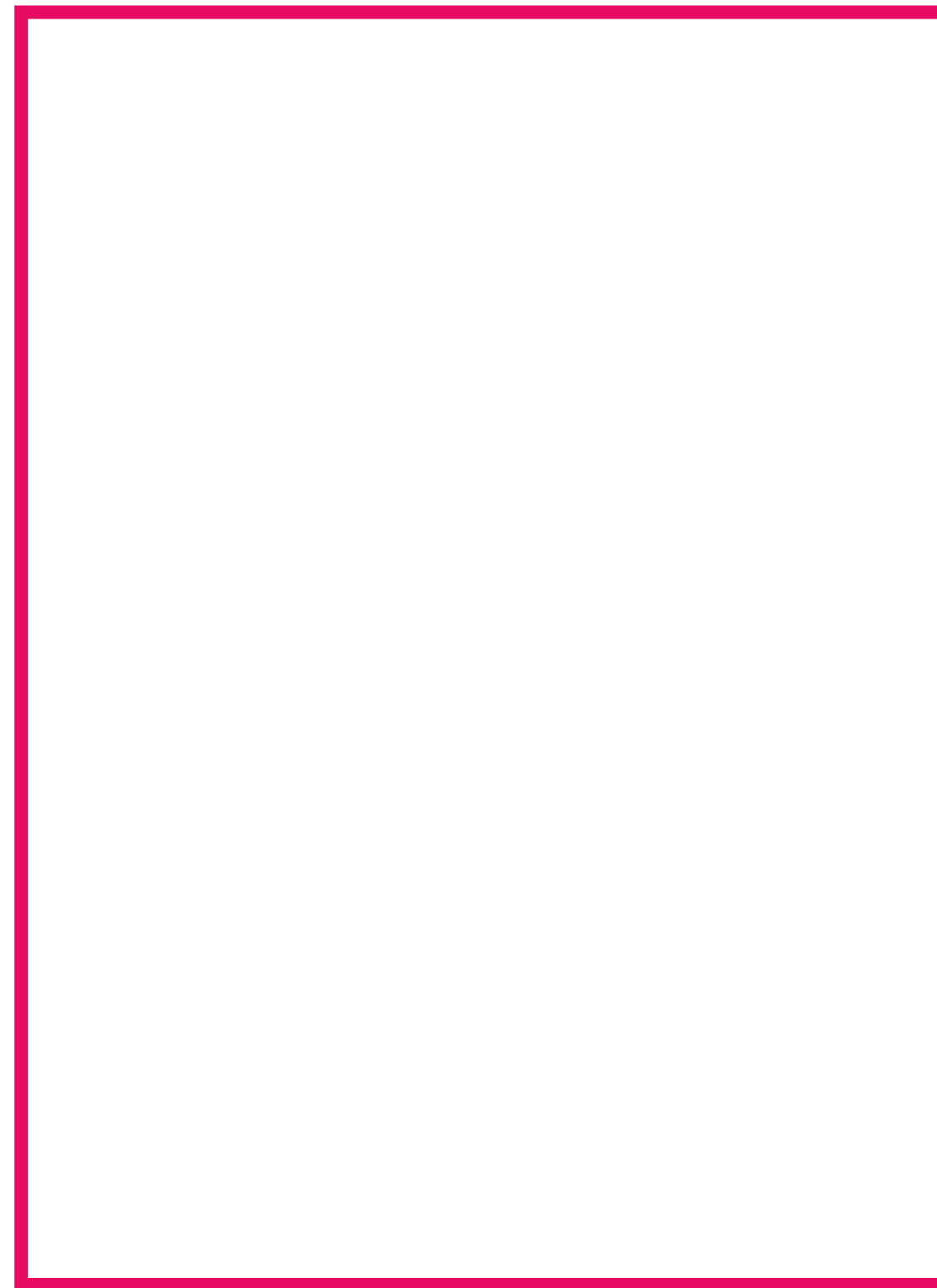


*T. Rex diet research*



*fun facts about squirrels*

# Tagging



**#t-rex-lies**

**#followup**

annotation

# Standard is extensible



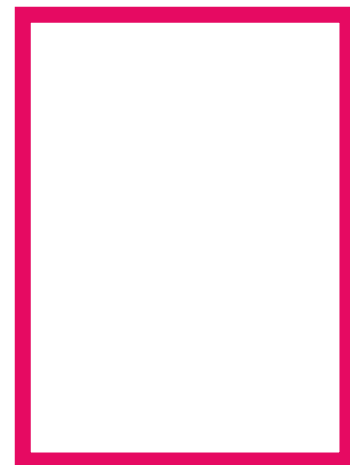
The diagram illustrates the concept of an extensible standard. It features a large, light gray rectangle with a dashed magenta border. Inside this rectangle is a smaller, solid magenta rectangle with a solid black border. The text 'Web Annotation Standard' is centered within the magenta rectangle in white, bold, sans-serif font.

**Web Annotation  
Standard**

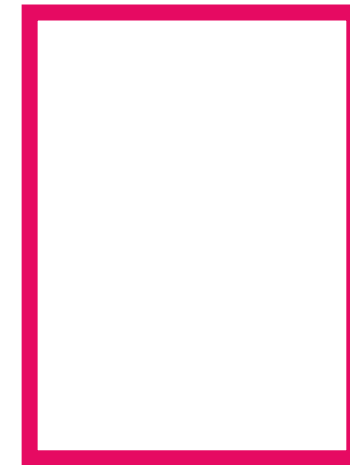
# Interoperability



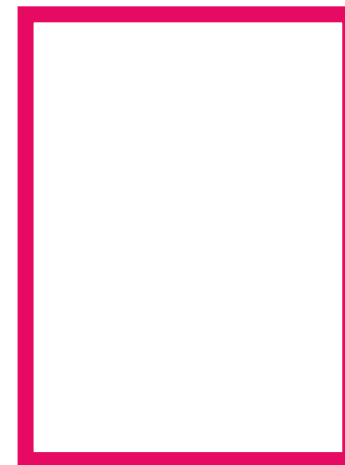
annotation



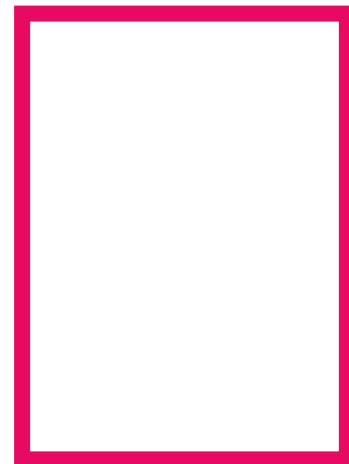
annotation



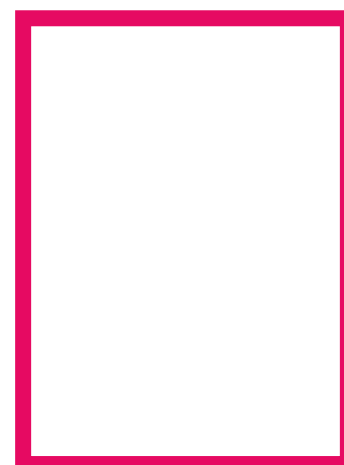
annotation



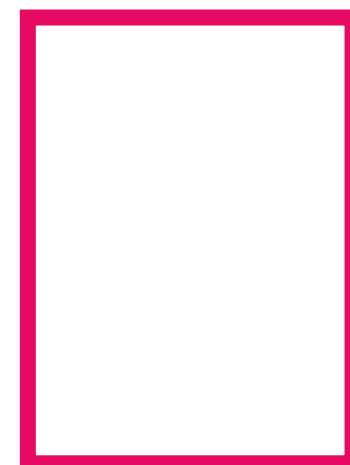
annotation



annotation

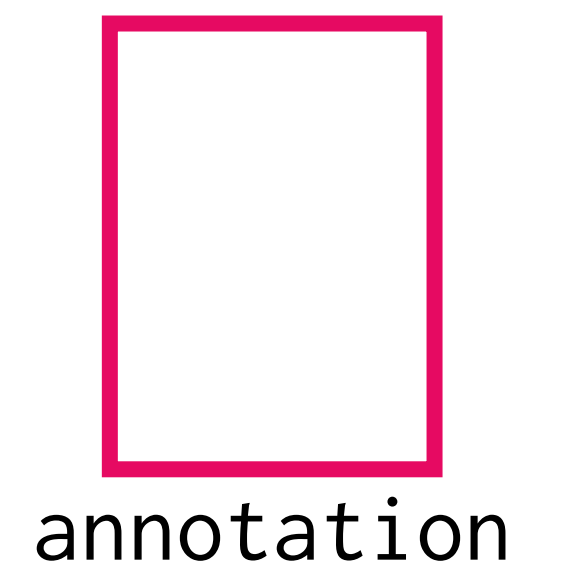
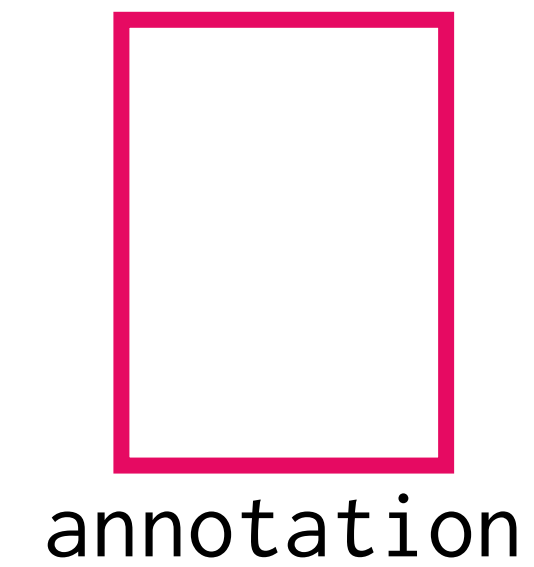
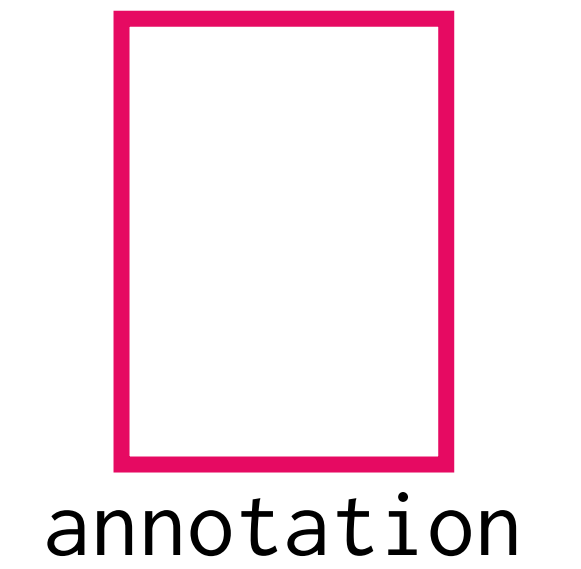
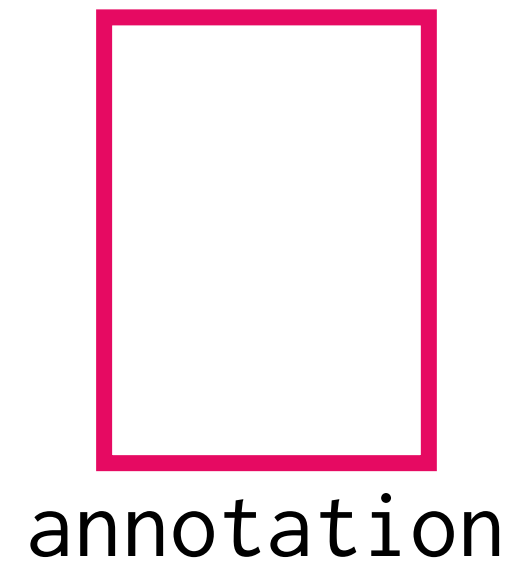
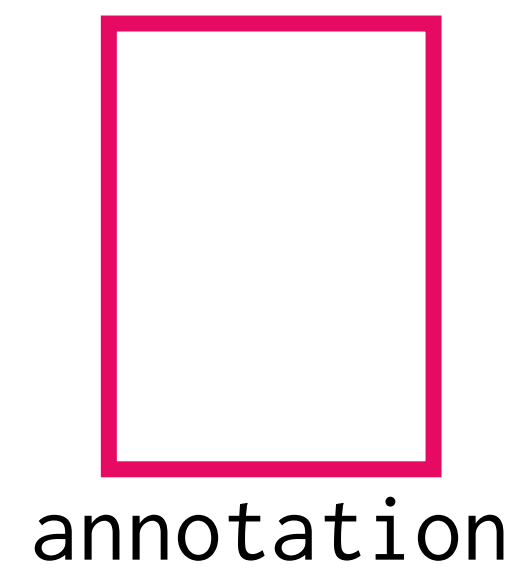
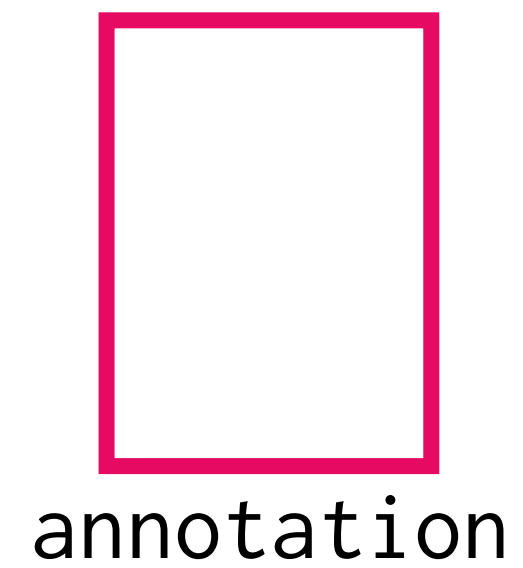
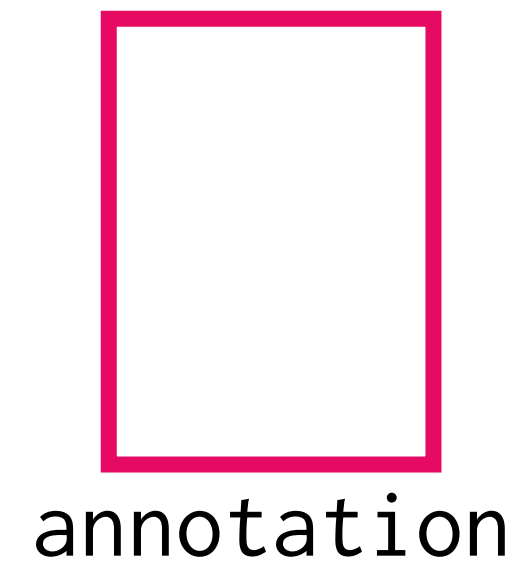


annotation



annotation

# Interoperability



but there are some challenges





DOI

D

O

I

**D***igital*

**O***bject*

**I***dentifier*



*<http://www.example.com/article20394af>*

**doi:10.1037/rmh0000008**

*<http://www.example.com/article20394af>*

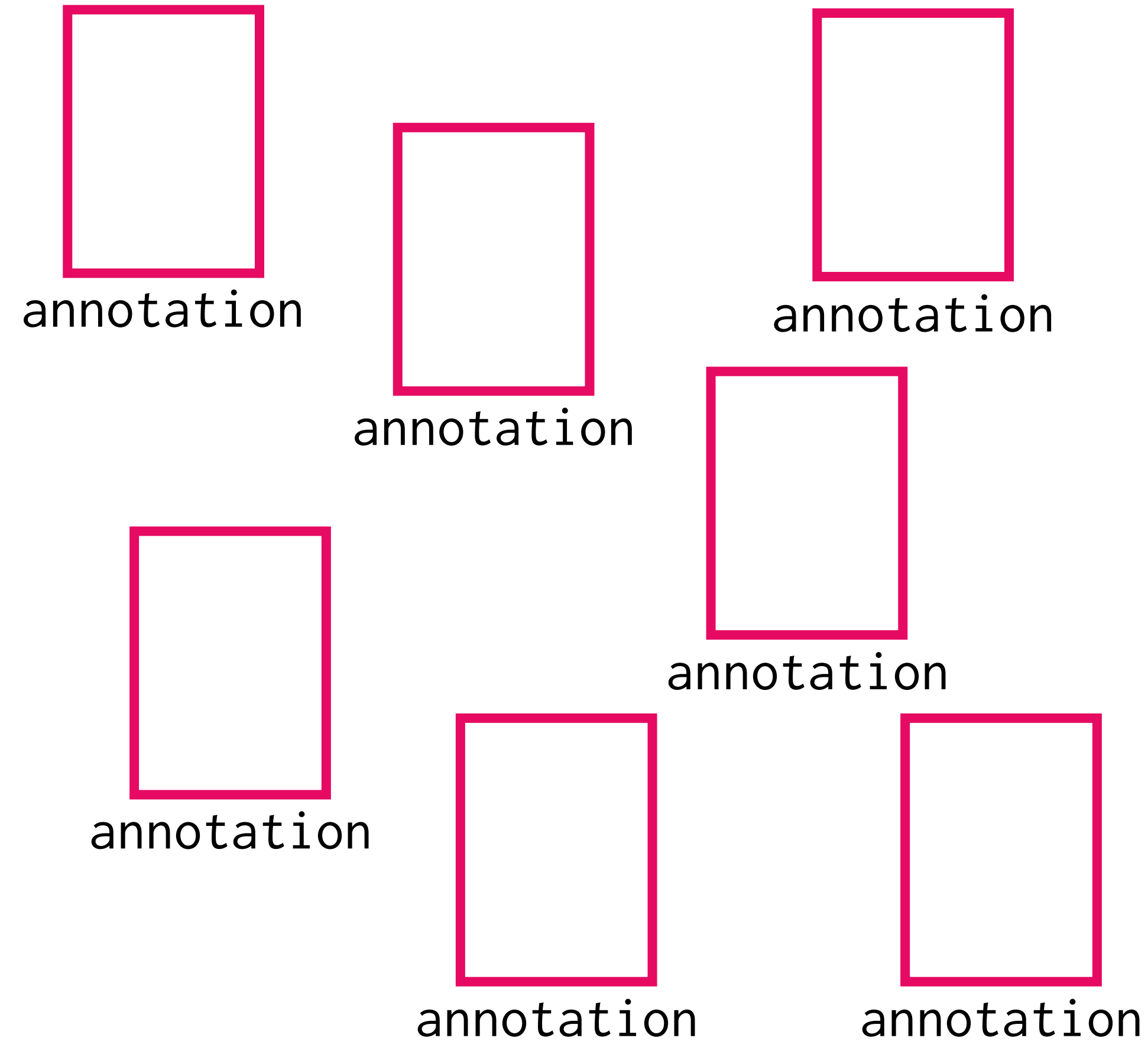
*<http://www.example.com/adifferentURL>*



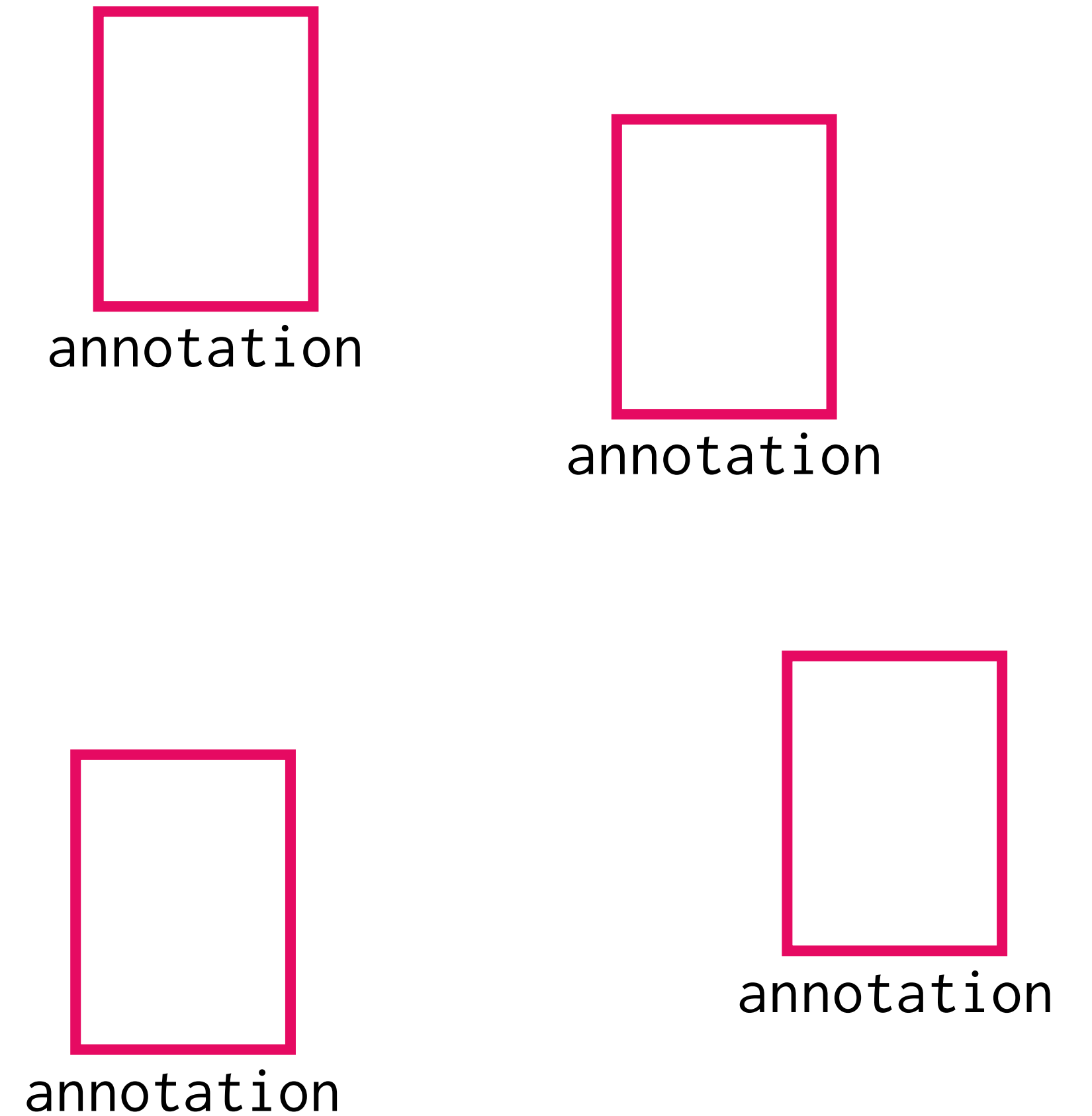
**doi:10.1037/rmh0000008**



# Moving annotations around

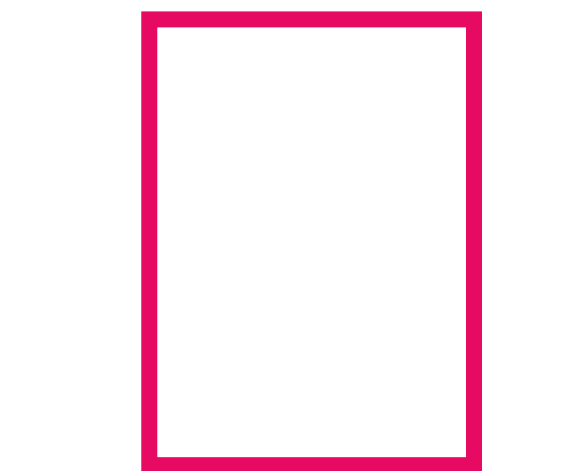


*T. Rex diet research*

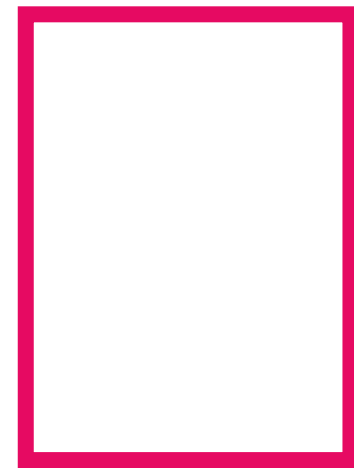


*fun facts about squirrels*

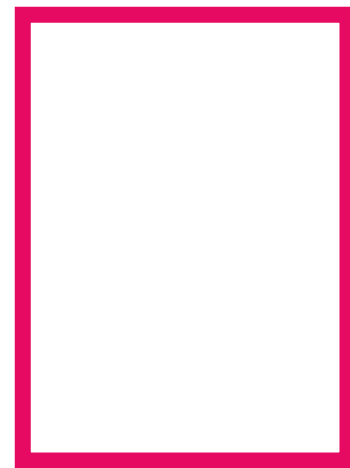
# Moving annotations around



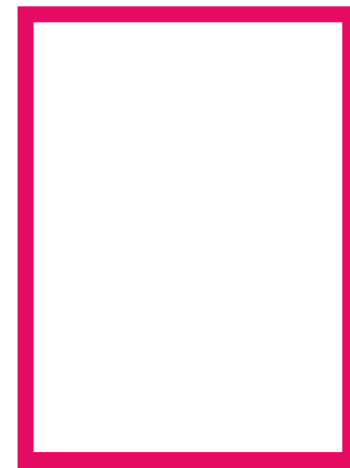
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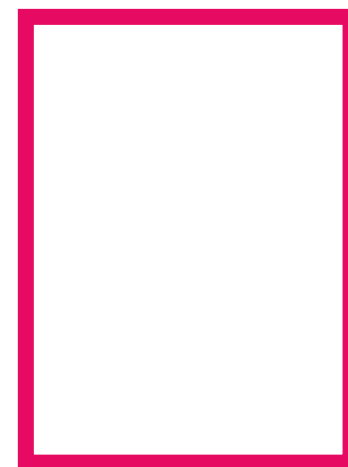
annotation



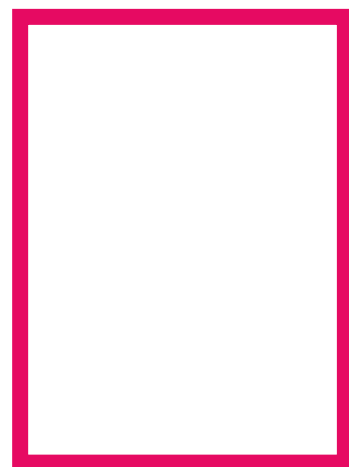
annotation



annotation

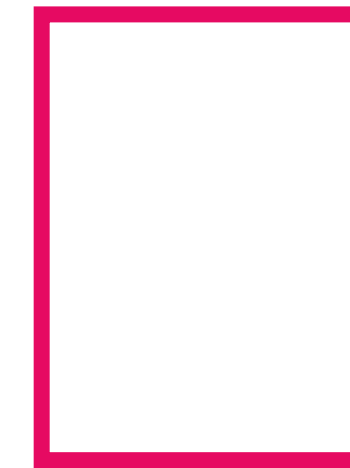


annotation



annotation

*T. Rex diet research*



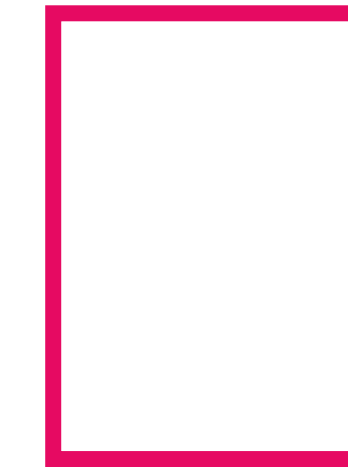
annotation



annotation



annotation



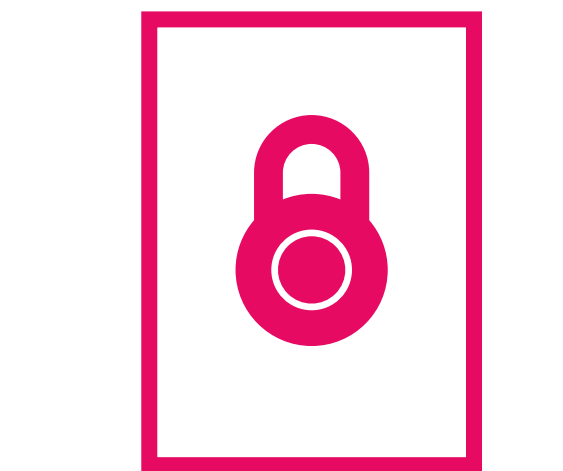
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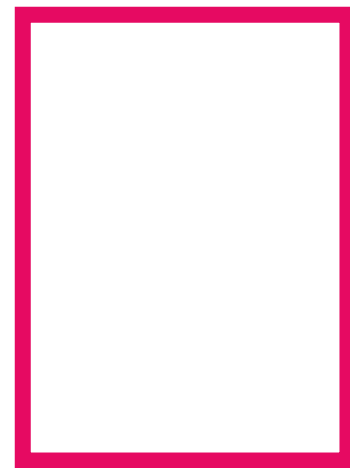
annotation

*fun facts about squirrels*

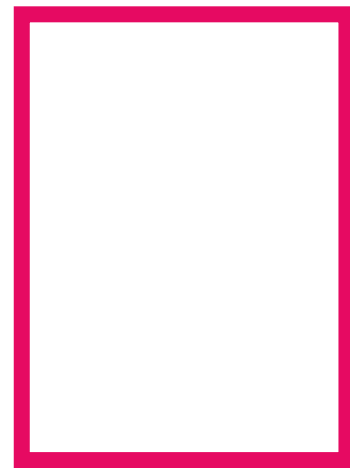
# Moving annotations around



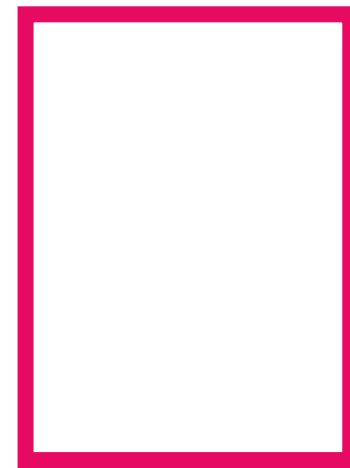
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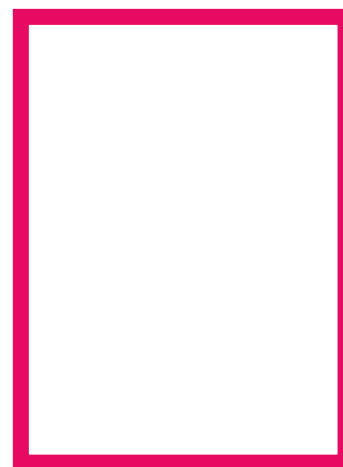
annotation



annotation



annotation

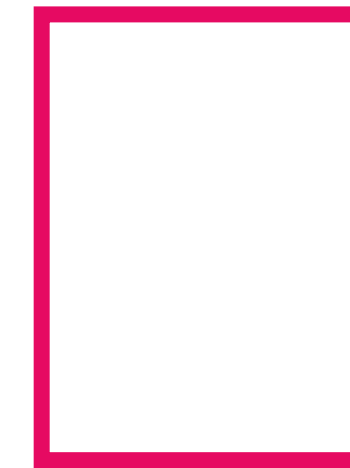


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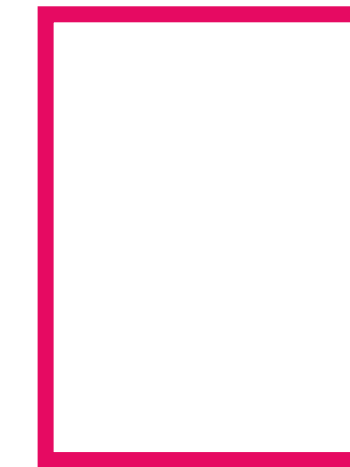


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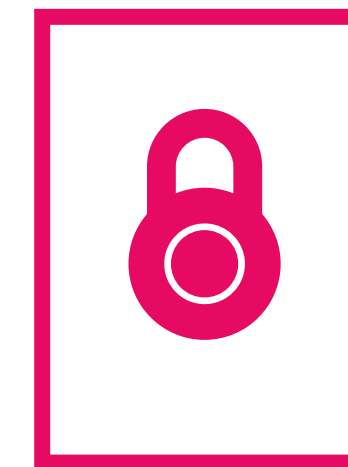
*T. Rex diet research*



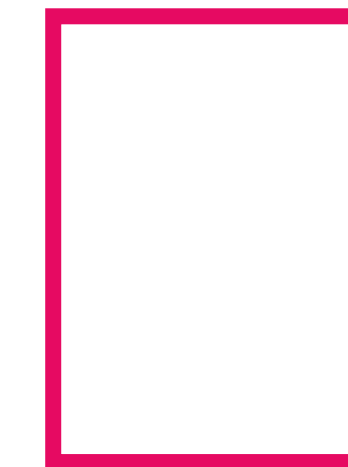
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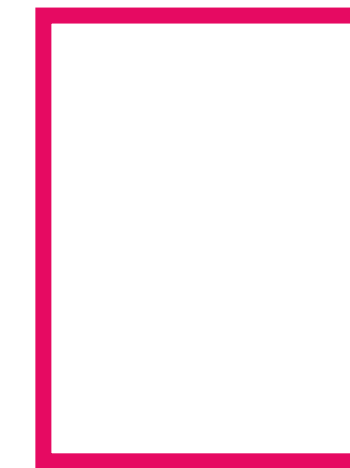
annotation



annotation



annotation



annotation

*fun facts about squirrels*



# SciBot

## SciBot

---

A tool and companion service used to:

- find RRIDs in articles
- look them up in the SciCrunch resolver
- create Hypothesis annotations that anchor to the RRIDs and display lookup results

## Getting Started

---

- [Create a Hypothesis](#) account which will post the annotations.
- Generate an api token at <https://hypothes.is/profile/developer> (must be logged in to see page).
- Create a group to store the annotations at <https://hypothes.is/groups/new> (must be logged in to see page).
- See [Setup on amazon](#)

## Capturing the bookmarklet

---

Visit <http://HOST:PORT/bookmarklet> and follow the instructions.

## Using the bookmarklet

---

Visit an article that contains RRIDs, click the bookmarklet

## Checking results in the browser

---

The found RRIDs are logged to the JavaScript console

## Checking results on the server

---

The found RRIDs are logged to timestamped files, along with the text and html of the article that was scanned for RRIDs

*<https://github.com/SciCrunch/scibot>*

“

”

“Some things are dead ends: but that’s what you get in a big, chaotic system... You rip it apart and you try it again.”

The web is...

---

*a vast, imperfect universe*

# Web Annotations

---

*are a part of that vast, imperfect universe*

Web annotations are...

Web annotations are...

---

*noble*

# Web annotations are...

---

*noble practical*



# Web annotations are...

---

*noble practical ours*

Web annotations are...

---

*noble practical ours brilliant*

Web annotations are...

---

*practical ours brilliant flawed*

Web annotations are...

---

*...is brilliant flawed uncontrollable*

Web annotations are...

---

*lawed uncontrollable democratic*

freedom vs. control

---

*always a tension on the web*

expression vs. the trolls

---

*always a tension on the web*

# expression vs. the trolls

---

*always a tension on the web*





flexible vs. specific

---

*always a tension on the web*



*the*  
TYRANNY  
*of*  
ABSTRACTION

open vs. proprietary

---

*always a tension on the web*

technology vs. culture

---

*always a tension on the web*

# Web Annotation

---

*The Web's Conversation Layer*

Lyza Danger Gardner | [lyza@lyza.com](mailto:lyza@lyza.com)

