EXAMPLES

Futuristic soda machine

Jack in the Box ordering machine

ARC hand scanner

NetFlix on xbox/ps3

EEE mobile

WHAT THE GRADES MEAN

✓-

You should improve your upcoming entries to receive a sufficient grade.

✓

Your entries are good, but they can be better!

✓+

Great! Keep making ‘em like this!

WHAT IS A GOOD ENTRY?

Describe the interface

Tip: Annotate your sketches

Explain why it is good or bad

Tip: Use theory from class/book

Tip: Compare with other systems

Talk about the implications

How does the design of the interface affect your life?

WHAT IS AN AWESOME ENTRY?

Add nuance

If something is good, can you think of situations where it would not be good? Or people for whom it wouldn't work?

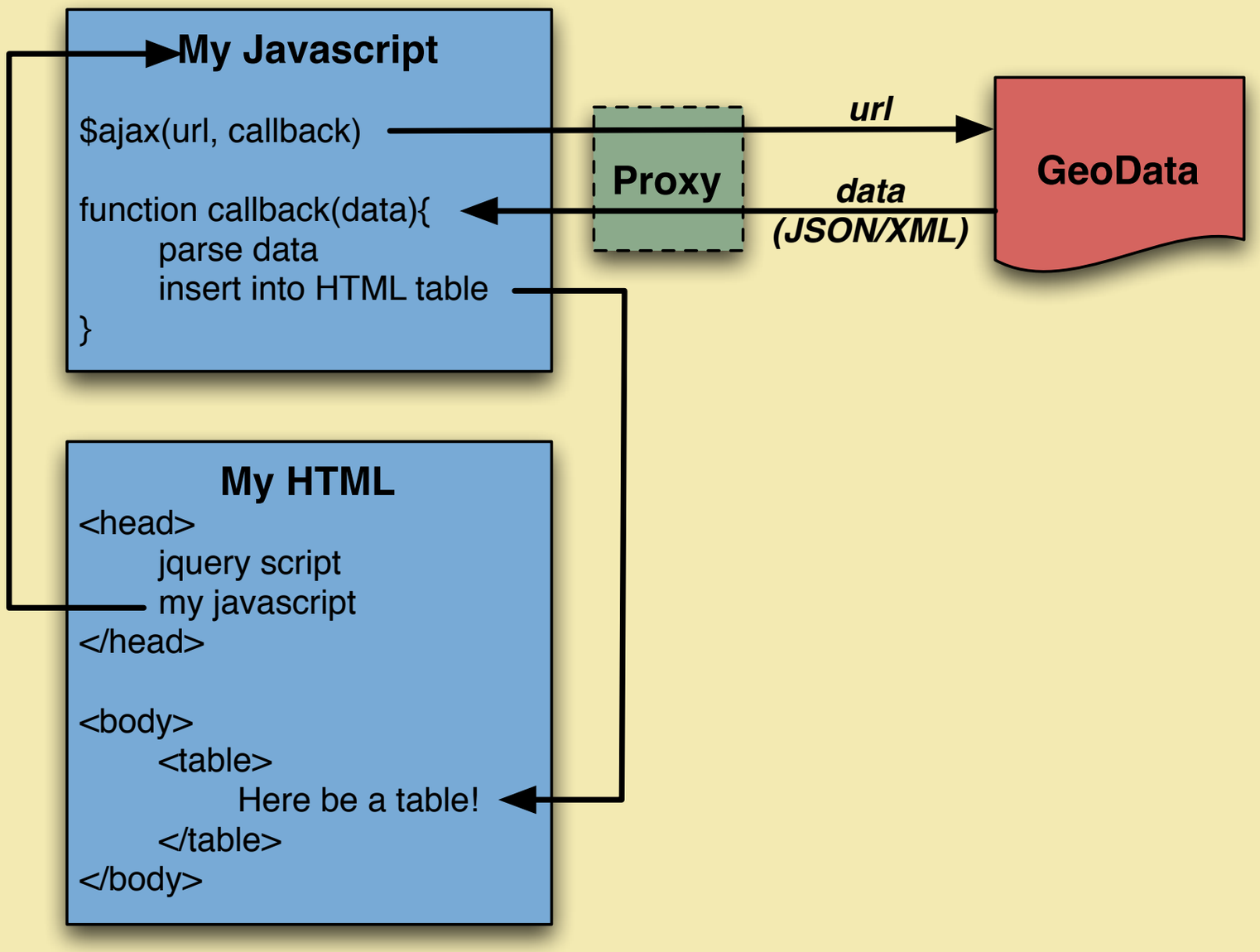
If something is bad, can you think of some reasons why it was designed this way?

Make suggestions

How can the design be improved?

Are there any downsides of your solution? (there usually are!)

FOR ASSIGNMENT 2...



User Interaction:
Final thoughts on Assign #2

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INF 133 Fall 2011

jQuery

- What if you have something other than JSON to load?
  - XML
- Where can I find info about jQuery actions?
  - jQuery API Reference
- for example, html() vs text() vs append()?

jQuery - Final example Step14

```
<html>
    <head>
        <script src="http://ajax.googleapis.com/ajax/libs/jquery/1.4/jquery.min.js"></script>
        <script src="http://ajax.googleapis.com/ajax/libs/jqueryui/1.8/jquery-ui.min.js"></script>
        <script src="Step14.js"></script>
    </head>

    <body>
        <div class="dataXML">Replace this with XML</div>
        <hr/>
        <div class="dataJSON">Replace this with JSON</div>
        <hr/>
        <div class="dataJSONP">Replace this with JSONP</div>
    </body>
</html>
```

jQuery

```
function myBadLoadFunction(myXMLHttpRequest,myErrorMessage,myErrorThrown) {
    alert('status: ' + myErrorMessage + '\n' + myXMLHttpRequest.responseText);
}


function myReadyFunction(){
    $.ajax({
        url: "https://students.ics.uci.edu/~djp3/myProxy.php?http://api.flickr.com/services/feeds/geo/QDd_2PObCZ4ZsR
M6Sw&format=rss_200",
        dataType: "xml",
        success: myGoodLoadXML,
        error: myBadLoadFunction
    });
    $("div.dataXML").html("AJAX XML call initiated:<br/>");

    $.ajax({
        url: "https://students.ics.uci.edu/~djp3/myProxy.php?https://graph.facebook.com/cocacola",
        dataType: "json",
        success: myGoodLoadJSON,
        error: myBadLoadFunction
    });
    $("div.dataJSON").html("AJAX JSON call initiated:<br/>");

    $.ajax({
        url: "http://api.flickr.com/services/feeds/geo/United+States/California/Irvine&format=json",
        jsonp: "jsonFlickrFeed",
        dataType: "jsonp",
        success: myGoodLoadJSONP,
        error: myBadLoadFunction
    });
    $("div.dataJSONP").html("AJAX JSONP call initiated:<br/>");

}

$(document).ready(
    myReadyFunction
);
```

jQuery

```
function escapeText(t){
    return document.createTextNode(t).textContent;
}

function myGoodLoadXMLHelper()
{
    $("div.dataXML").append("<li>"+escapeText($(this).text())+"</li>");
}

function myGoodLoadXML(data) {
    $("div.dataXML").html("AJAX XML call returned:<br/>");
    $("div.dataXML").append("<ul>");

    $(data).find("item title").each(myGoodLoadXMLHelper);

    $("div.dataXML").append("</ul>");
}
```

```
function myGoodLoadJSON(data) {
    $("div.dataJSON").html("AJAX JSON call returned:<br/>");
    $("div.dataJSON").append("<ul>");

    $("div.dataJSON").append("<li>"+escapeText(data.name)+"</li>");

    $("div.dataJSON").append("</ul>");
}
```

```
function myGoodLoadJSONP(data) {
    $("div.dataJSONP").html("AJAX JSONP call returned:<br/>");
    $("div.dataJSONP").append("<ul>");

    for(var i = 0; i< data.items.length; i++){
        $("div.dataJSONP").append("<li>"+escapeText(data.items[i].title)+"</li>");
    }

    $("div.dataJSONP").append("</ul>");
}
```

jQuery

- Assignment #2 knowledge needed:
  - Location of Geocoded Feeds
    - http://api.flickr.com/services/feeds/geo/QDd_2PObCZ4ZsRM6Sw&format=json
  - How to load jQuery
  - How to build an HTML Table
  - How to execute an AJAX request
    - Avoiding Cross-site scripting
      - XML, JSON, JSONP
  - What if you have an error?
  - JavaScript looping
    - http://www.w3schools.com/js/js_loop_for.asp

User Interaction: Intro to Location

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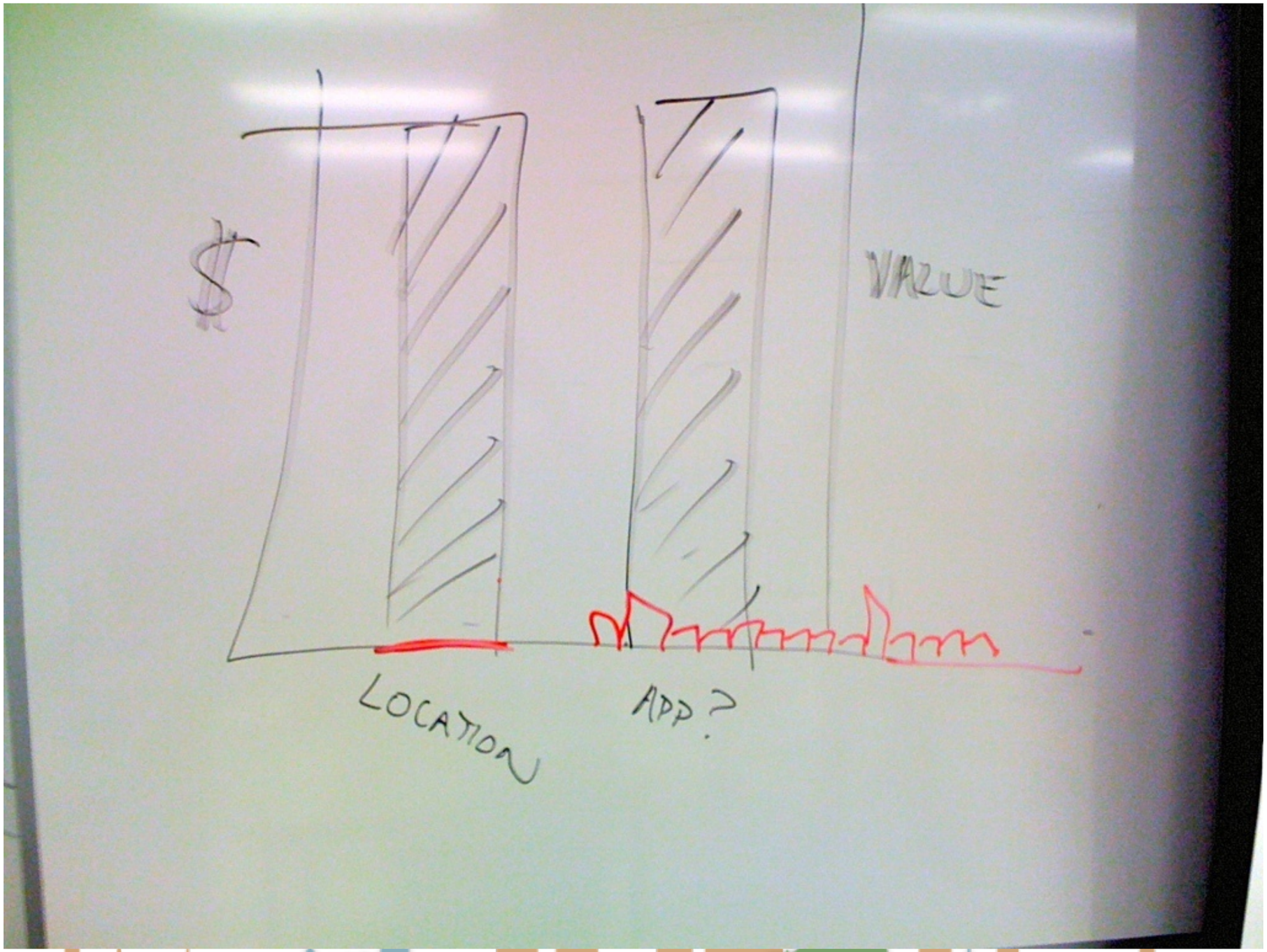
INF 133 Fall 2011

Computing with Location

- Navigation
- Global Location
  - All things GPS
- Model-based localization vs. fingerprinting
  - Localization beyond GPS
- Beyond localization
  - Nomatic*IM context

Intro to Location



Tools for Navigation

- Navigation Tools
  - Clocks
  - Odometer
  - Electronic Aids
- Radio navigation aids
  - ground-based
  - space-based

Flickr:erica_marshall,darrenhester,maliciousmonkey

Tools for Navigation

Tools for Navigation

- Who calculates position?
  - User
  - 3rd party

Tools for Navigation

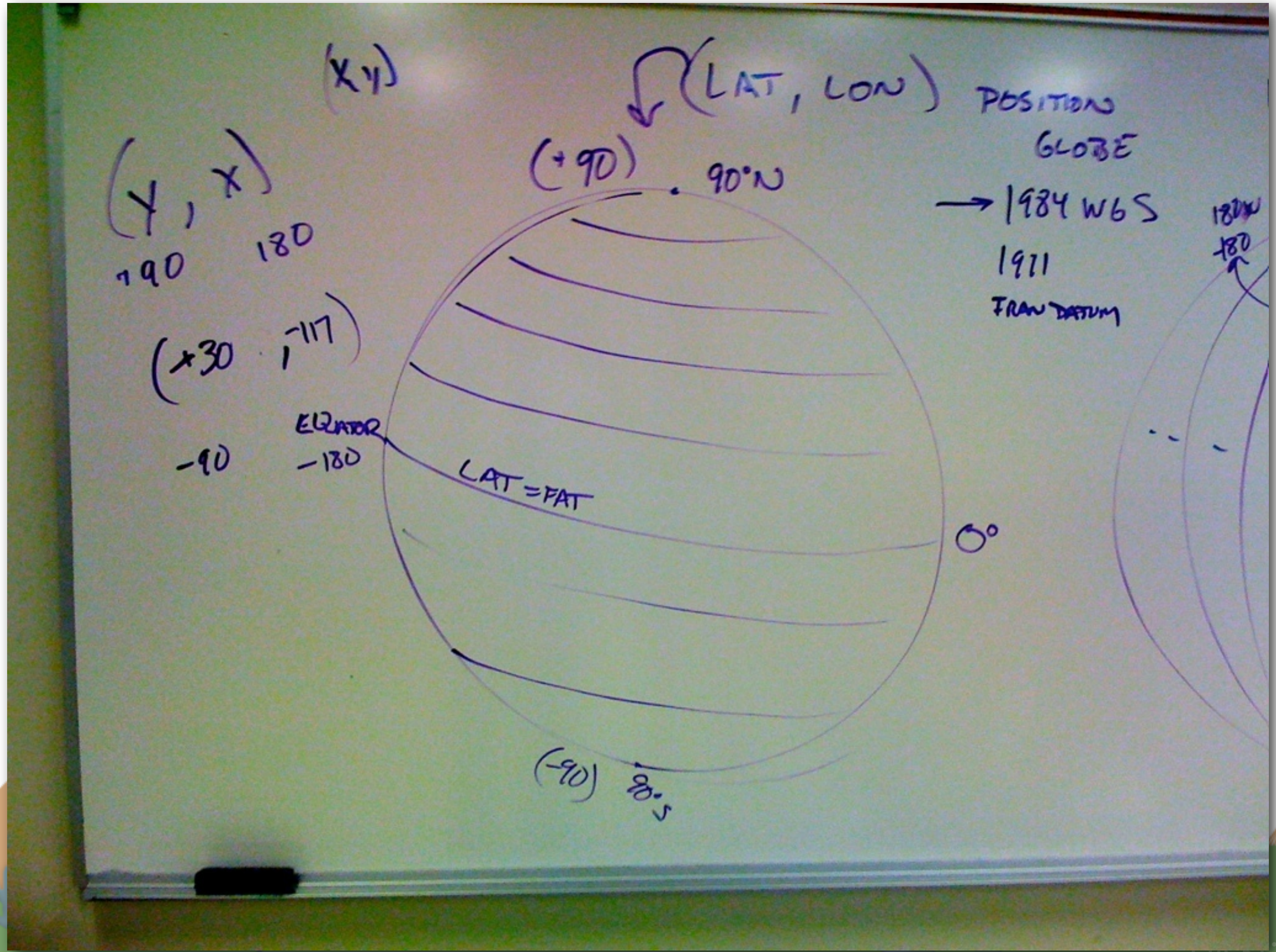
- Who calculates position?
  - User
  - 3rd party
- What's the impact?

Global Location GPS

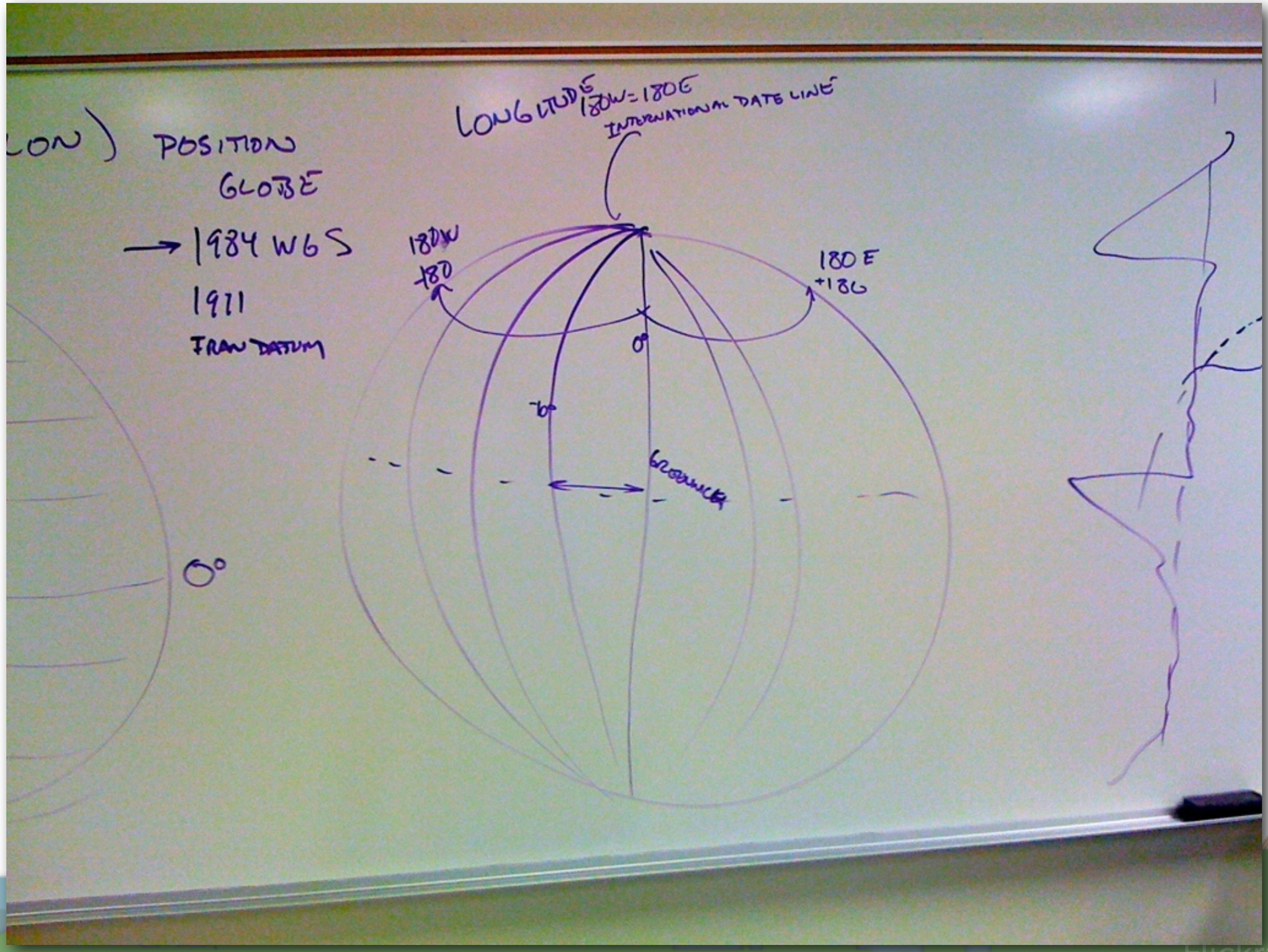
Global Location GPS

- Latitude and Longitude
  - What are they?
  - Datum

Global Location GPS

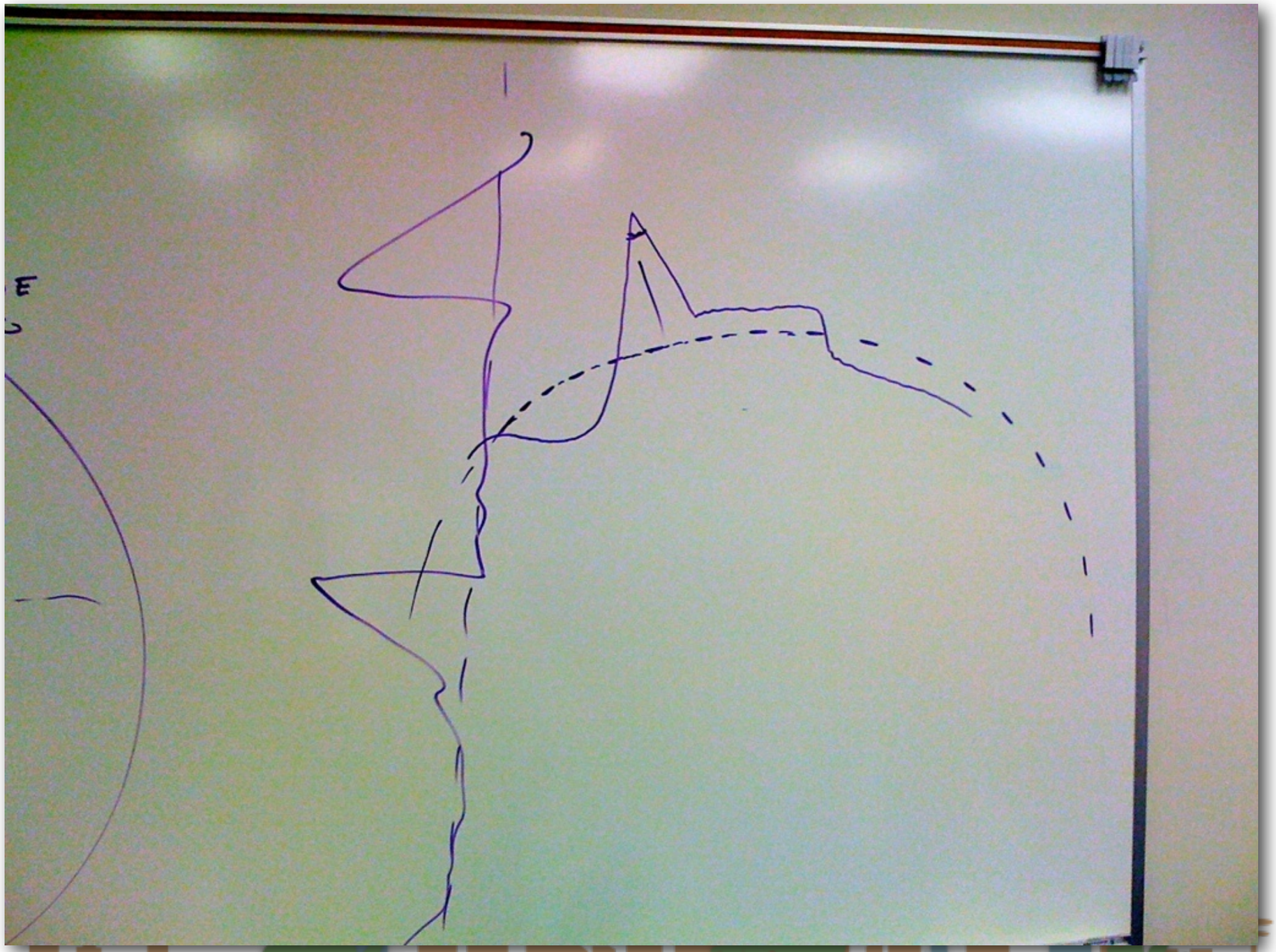


Global Location GPS



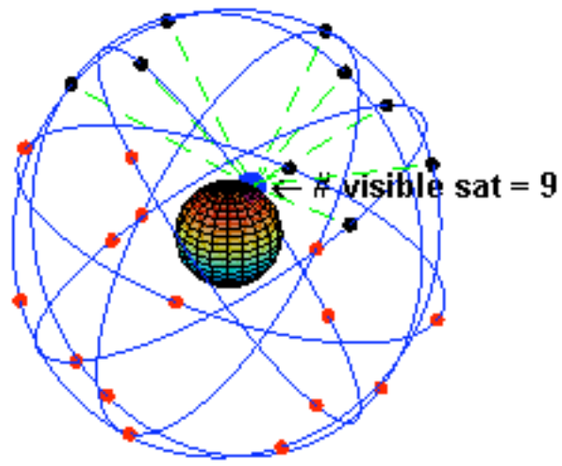
Flickr: akash_k

Global Location GPS



Flickr: akash_k

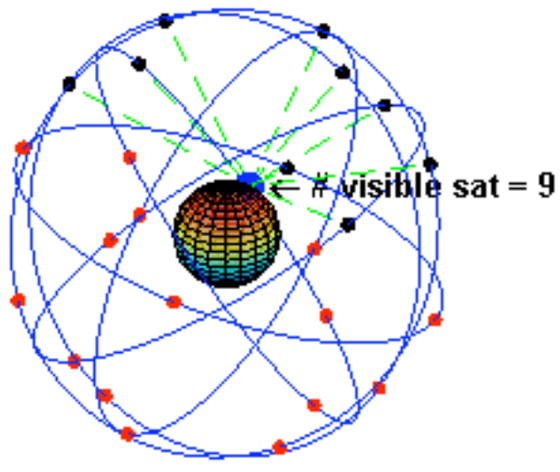
Global Location GPS



http://en.wikipedia.org/wiki/GPS,Flickr: girardi

Global Location GPS

- Current GPS
  - Fully operational
  - accurate, continuous, global 3-D position and velocity
  - also distributes universal coordinated time
  - 24 original satellites
  - 6 orbital places
  - 4 satellites per plane
  - not geosynchronous
  - world-wide monitoring stations



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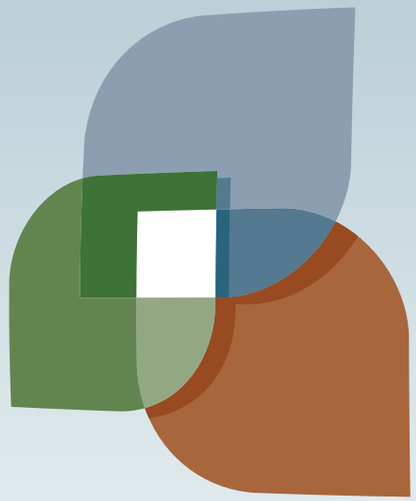

LUCI