Data Analytics
CS301
Google Analytics

Week 2
Fall 2018
Oliver BONHAM-CARTER

Looking at Websites and Data

- The Internet is used to carry information to consumers.

- Websites used to display information

- Make sure web sites are doing what they should do

- Google Analytics
  - Free, easy to configure
  - Used by over half of all websites on Internet

- More than ten times more popular other analysis softwares
  - Yandex Metrics: https://metrica.yandex.com/dashboard?group=day&period=week&id=44147844

  - Piwik: https://matomo.org/
    - Demo: https://demo.matomo.org/

Google Analytics

- A service by Google to help users determine what is happening on their web sites.

- Allows users to analyze:

  - Website Traffic: User on your site.

  - Conversions: What the users do there?

  - E-commerce: What (financial) involvement the users have with your site

WebSite Traffic

Web traffic is the amount of data sent and received by visitors to a web site, necessarily not including traffic generated by bots. This is determined by the number of visitors and the number of pages they visit.

- Where are your users coming from?

- How did these users arrive here (direct searches, referrals from others to site?)

- What pages and for how long did they read?

- How much of the site did they read before leaving? (*bouncing*).

WebSite Conversions

The ability to get website visitors to do what you want them to do: buy products, sign up for your newsletters and communications, register for a webinar, or fill out a lead/contact form or survey.

- Page views?

- How many users clicked on purchase buttons?

- How many user downloaded (read, viewed) your hand-out newsletter?

- How long to land on "check-out" page? Time to decide to buy?

- Has a specific number of people *done something* in some allotted time on the site?

WebSite E-commerce

> **The ability of a website to attract interest and transactions for business development online.**

- Online shopping, retail sales directly to consumers

- Business to business buying and selling

- Gathering demographic data through web contacts and social media

- Marketing to specific populations

- Engaging in *pretail* for launching new products and services before general sales

Online, Data Collection

- But people do not always complete surveys to provide enough information.

- Google Analytics allows web builders to enhance their existing web sites by watching how people use the site.

- Enhancements:
  - Productivity
  - Business development
  - Site intuition
  - How to Market the site?

Default Reports

- **Real-Time Usage**
  - Who is on your site now?

- **Audience**
  - What types of users *tend* to use you site?

- **Acquisition**
  - How do these users get to your site?

- **Behavior**
  - What did the users do? What pages are most popular?

- **Conversions**
  - How many of the users completed some specific task of the website?

Real-Time Usage

- Who is on your site now?

Keywords that brought them here

Linked here from where?

Which pages are they looking at?

Audience

- Who are your users?
- When was that?

Acquisition

- How do these users get to your site?
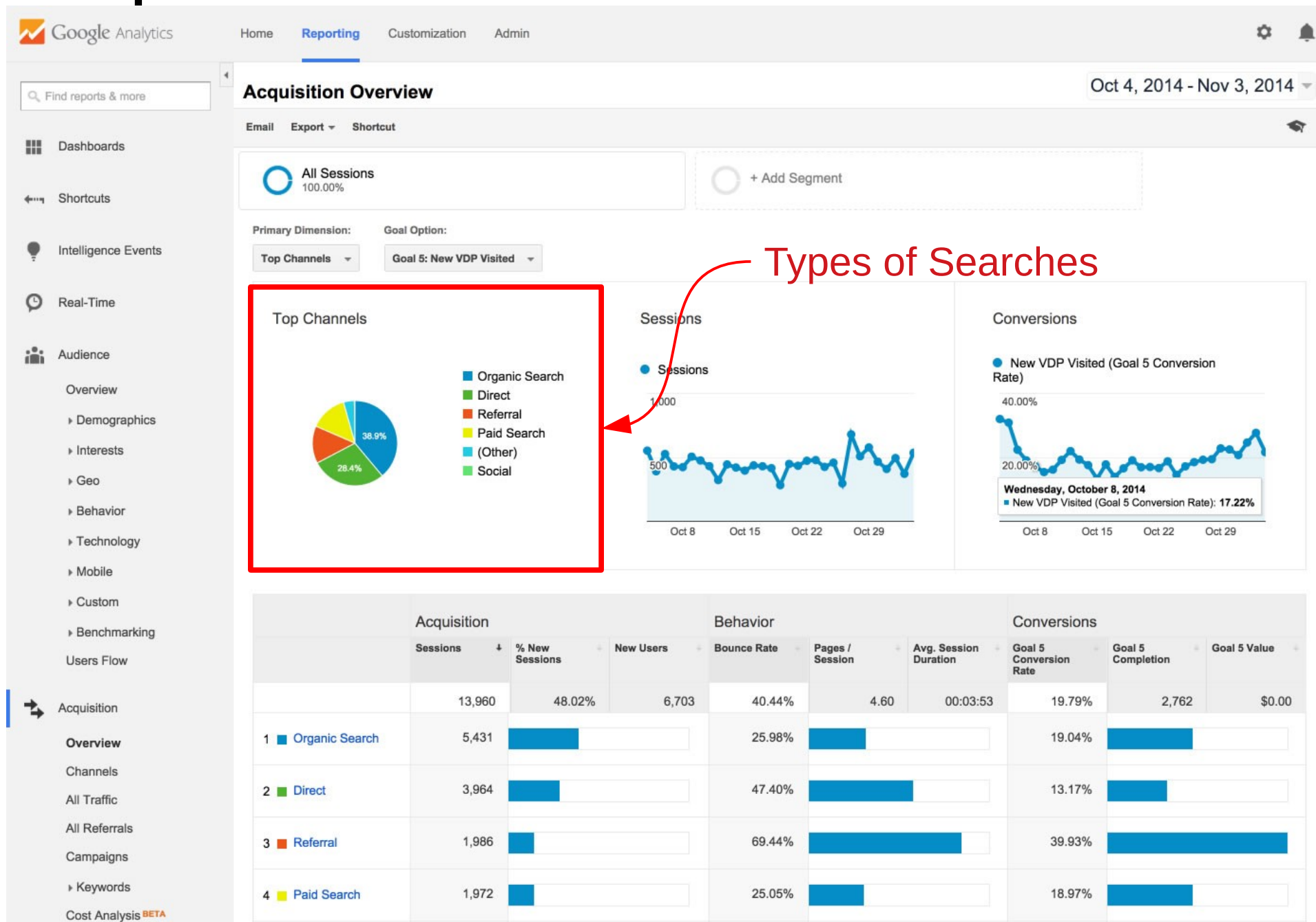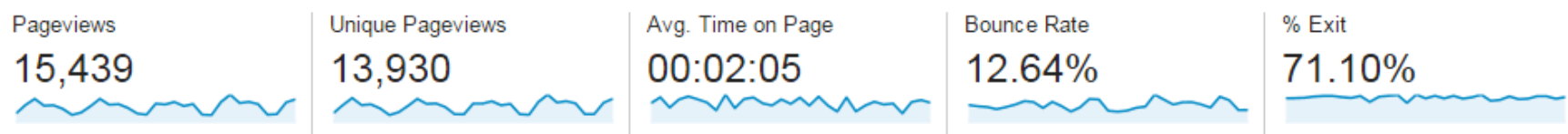

Types of Searches
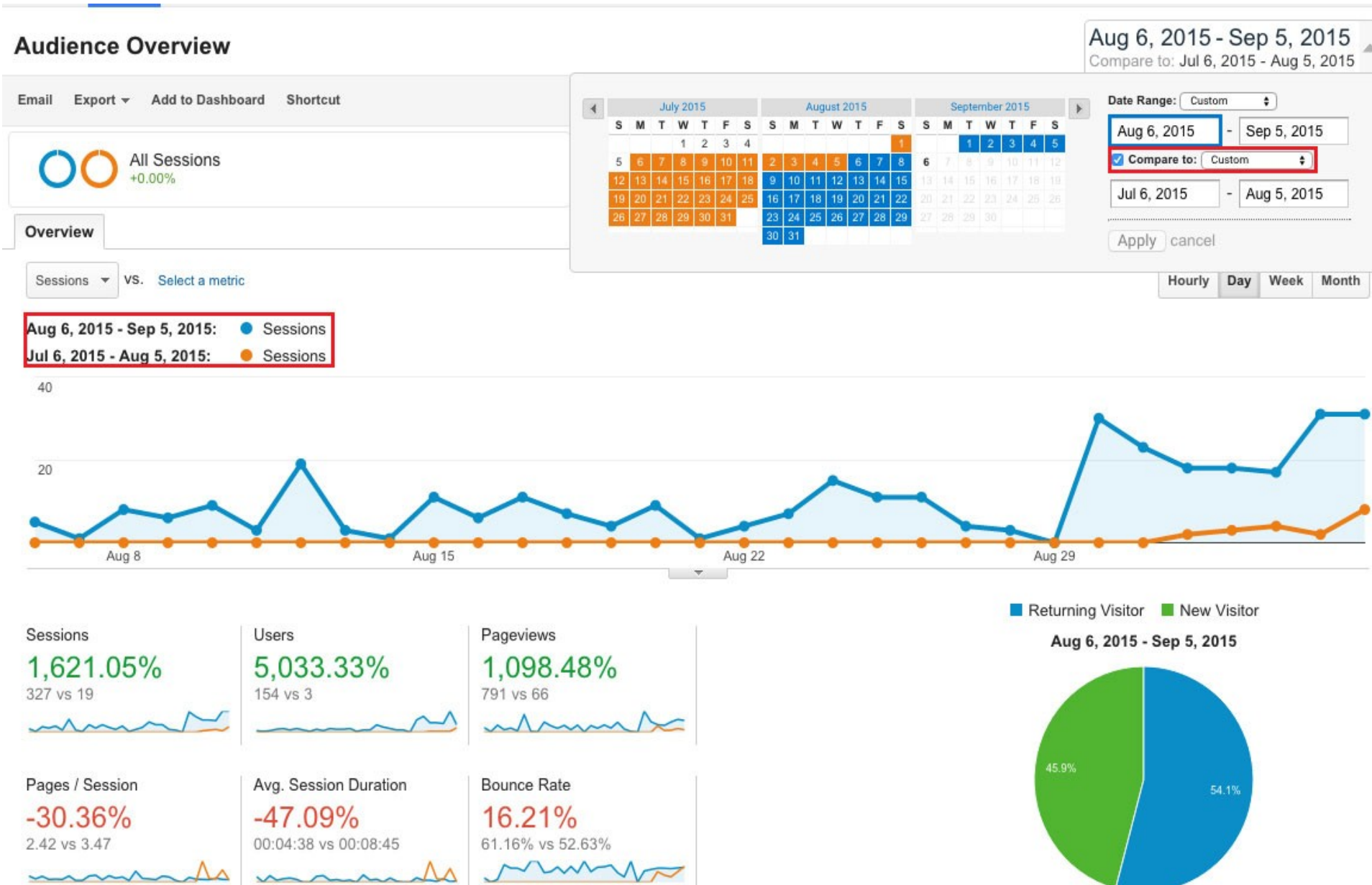
Site Arrivals

- **Organic Searches**—Visitors who come to your website after searching Google.com and other search engines

- **Paid Searches**—Visitors who come to your website from an AdWords or other paid search ad

- **Direct**—Visitors who come to your website without a traceable referral source, such as typing your URL into their address bar or using a bookmark on their browser

- **Referrals**—Visitors who come to your website from another website by clicking on a link

- **Social**—Visitors who come to your website from a social network

- **Other**—If you use UTM parameters for custom campaign tracking, the traffic linked to those campaigns is listed here

Behavior

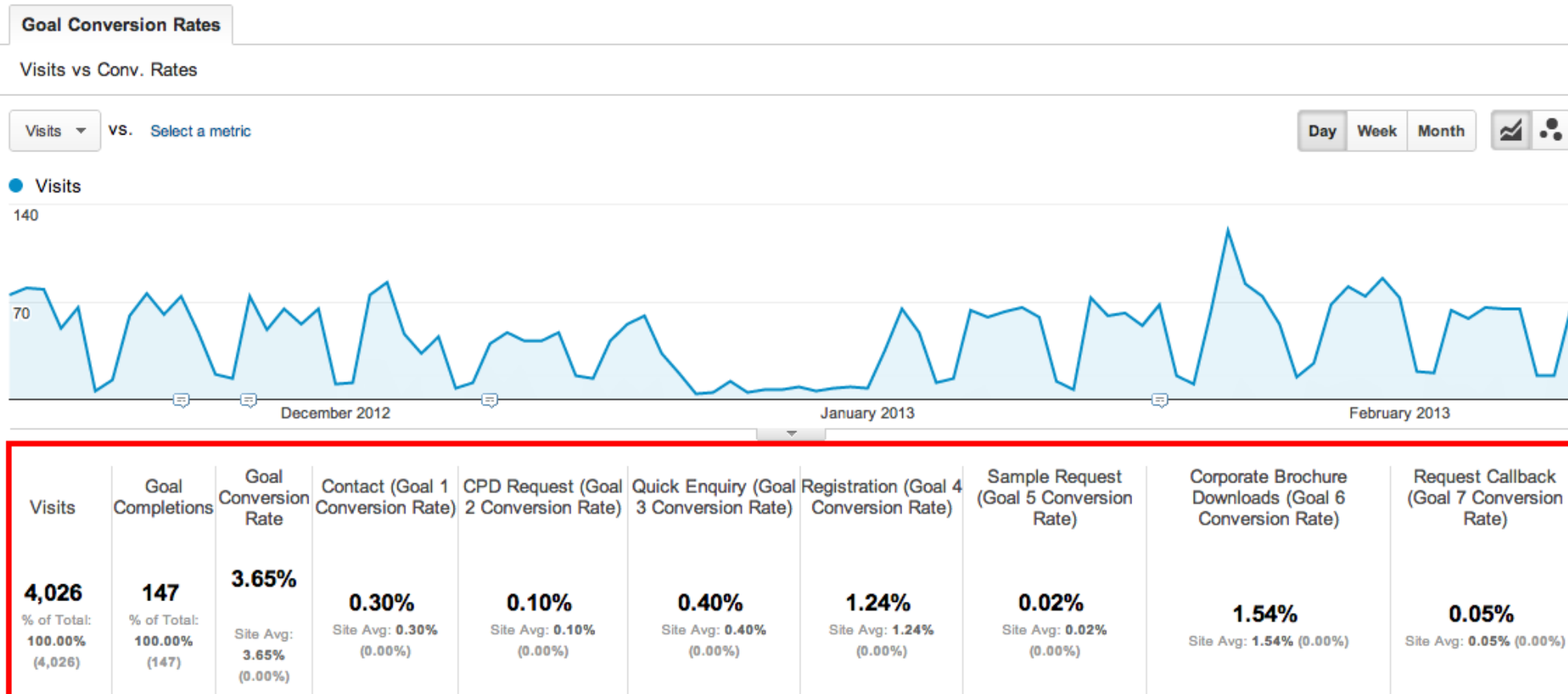- What are the users doing on your site?

Activity On a Site

- **Pageview**: An instance of a page being loaded (or reloaded) in a browser. Pageviews is a metric defined as the total number of pages viewed.

- **Unique Pageviews**: The number of sessions during which the specified page was viewed at least once. A unique pageview is counted for each page URL + page Title combination.

- **Session**: The duration that a user is on a site. Inactivity of 35 mins ends a current session.

- **Average Time**: The average amount of time users spent viewing a specified page or screen, or set of pages or screens.

- **Bounce rate**: The percentage of single-page sessions in which there was no interaction with the page. A bounced session has a duration of 0 seconds.
  - Did visit your main site (providing direction to other site pages) and then leave it soon after without seeing other pages?
  - Are you running a blog with only one (main) page.

- **Exit**: It indicates how often users exit from that page or set of pages when they view the page(s).
  - For the page or set of pages,
    - percent_Exit = (number of exits) / (number of pageviews)

Conversions

- Have your site goals been fulfilled?

Goal Conversion Rates

Visits vs Conv. Rates

Visits ▾ **VS.** Select a metric

Day | Week | Month

● Visits

140

70

December 2012   January 2013   February 2013

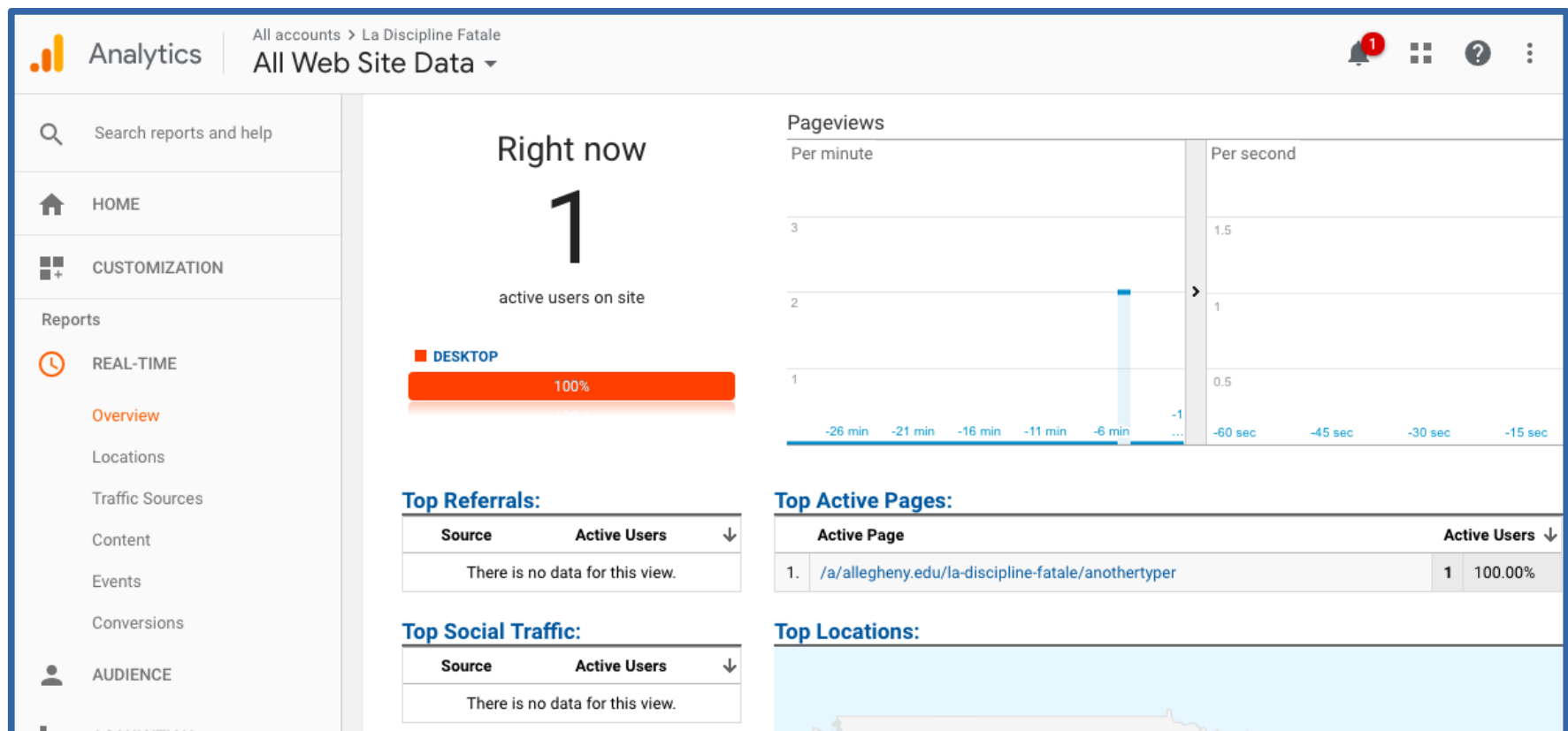| Visits	Goal Completions	Goal Conversion Rate	Contact (Goal 1 Conversion Rate)	CPD Request (Goal 2 Conversion Rate)	Quick Enquiry (Goal 3 Conversion Rate)	Registration (Goal 4 Conversion Rate)	Sample Request (Goal 5 Conversion Rate)	Corporate Brochure Downloads (Goal 6 Conversion Rate)	Request Callback (Goal 7 Conversion Rate)
4,026 % of Total: 100.00% (4,026)	**147** % of Total: 100.00% (147)	**3.65%** Site Avg: 3.65% (0.00%)	**0.30%** Site Avg: **0.30%** (0.00%)	**0.10%** Site Avg: **0.10%** (0.00%)	**0.40%** Site Avg: **0.40%** (0.00%)	**1.24%** Site Avg: **1.24%** (0.00%)	**0.02%** Site Avg: **0.02%** (0.00%)	**1.54%** Site Avg: **1.54%** (0.00%)	**0.05%** Site Avg: **0.05%** (0.00%)

- **Your website conversion rate is the ratio of visitors to your website that then go on to take your desired action (purchasing a product, signing up for a newsletter, etc).**
- Goals must first be set:
  - Financial,
  - User activities

Setting Up Analytics on Sites

- My site for the class (but you can make your own:

  – https://sites.google.com/a/allegheny.edu/la-discipline-fatale/home

- Let's see what Google Analytics looks like…

Setting Up Analytics on Sites

- Create a Google Sites website at "Google Sites"

    – https://sites.google.com/new/?authuser=0

- Already have a site?

    – https://sites.google.com/a/allegheny.edu

- Give it a name now for publishing and add to it later!!
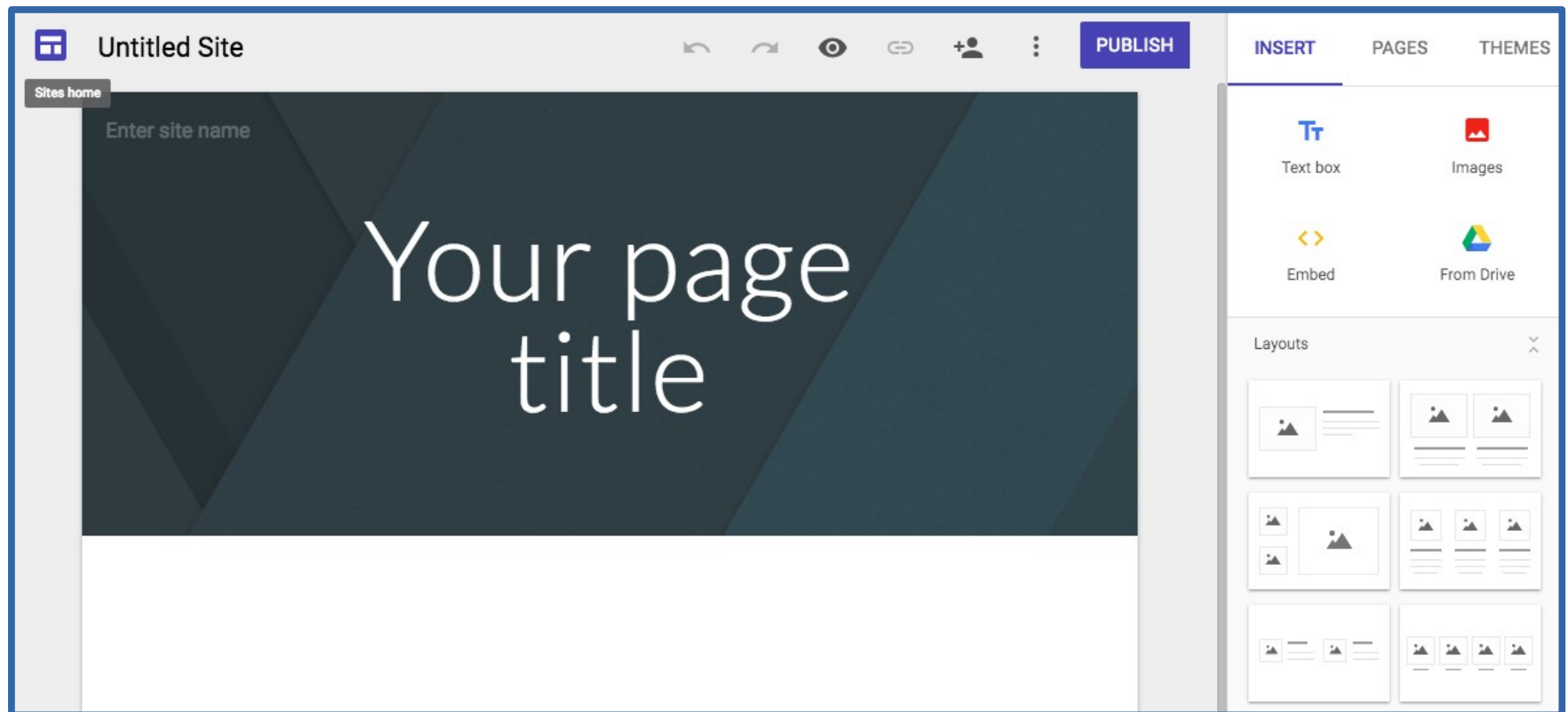
Create Google Analytics Account

- Go to Google Analytics at https://analytics.google.com/analytics/web/
- Or go directly: https://analytics.google.com/analytics/web/provision/?authuser=1#provision/SignUp/
- Note: If you have a Google account, and are not signed in, click Sign in. If you do not have a Google account, click Create an account.
- Once you have signed in to your Google account, click Access Google Analytics.
- Click "Sign up".
- Fill in your Account Name, Website Name, Website URL, and select an Industry Category and Reporting Time Zone
- Under Data Sharing Options, check the boxes next to the options that you want.
- Click Get Tracking ID (or JS code for your html pages, if necessary)
- From the Google Analytics Terms of Service Agreement that opens, click, "I Accept."
- Add the Tracking ID to your site.

Now Add your
Tracking ID To Your Site

- With your tracking ID, go to the "Publish" page at Google Sites to find "Site Analytics"
- Add the ID and wait a day for it to begin working...