

ECON7960 User Experience and A/B Test

Hong Kong Baptist University

Topic 4: User Experience Strategy

Content

- User Experience and Google Analytics
- The Four Principles of UX Strategy
- Changing Behavioural Strategy
- Background: Wendel Chapter 3, Levy Chapter 1

A Quick Review

What did we learn last week

- Please use your phone to download an apps “SOCRATIVE” student version, and open it, you should see

Enter the Room Name “HUNG5085”

The quiz will start at 6:30pm before Wednesday lecture and lasted for 15 minutes.

Student Login

Room Name

JOIN

 English ▾

Points to noted



Trade off between A/B Test and MVT



The Framework of Experimentation



Typical 5 kinds of Non-rational Behaviour



5 Mechanisms to focus on Behavior Pattern

Potential of Google analytics (GA)

Google Analytics interacts and influence processing through many applications to fulfill multi-business objectives

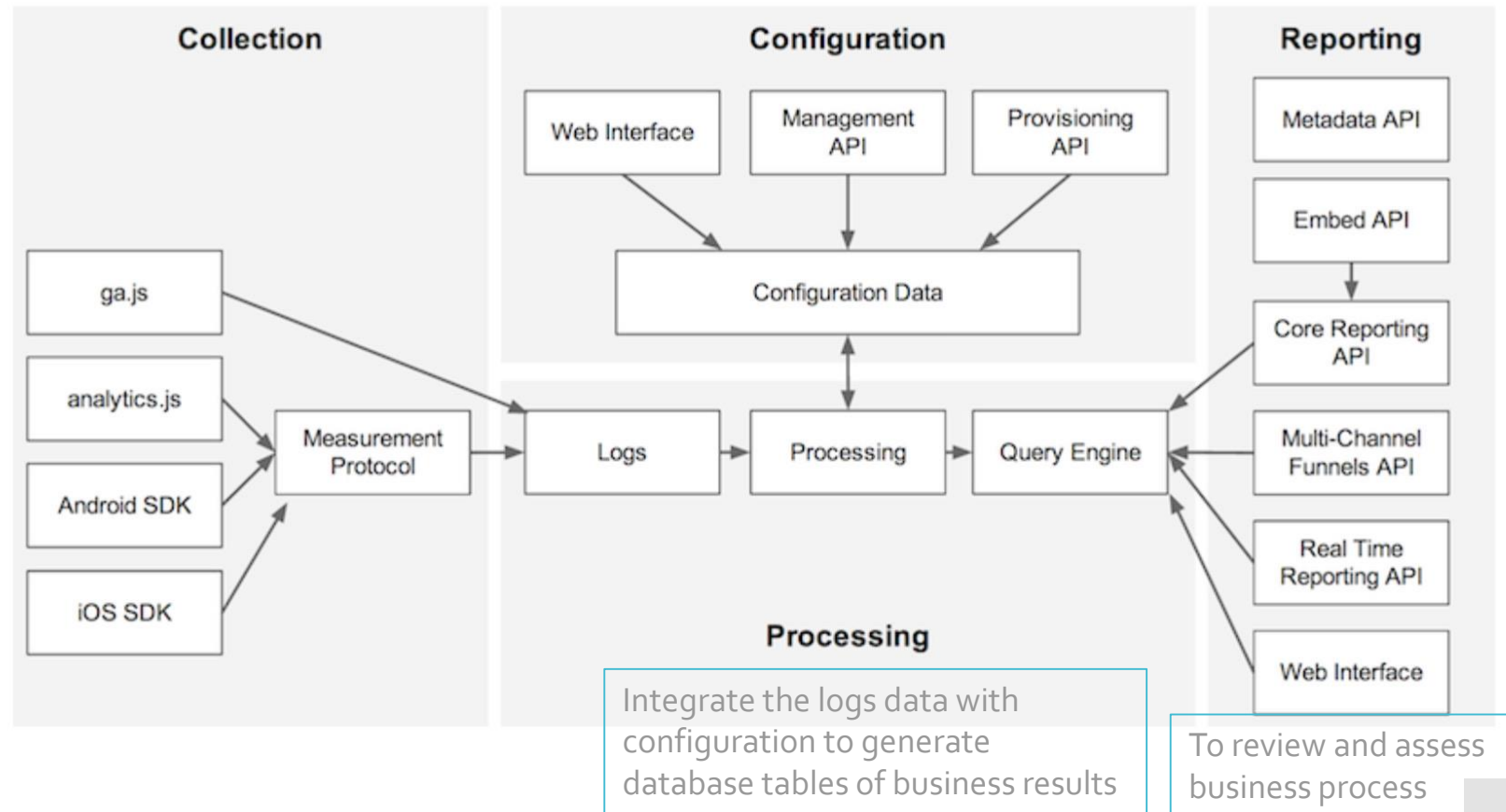
There are 4 components

Collection

Configuration

Processing

Reporting



GA record data to achieve business objectives in related matter such as

- When and how attractive an **event** (a social media recommendation, a video click)
- A **destination or state of** fulfilment of a services (a complaint successfully lodged)
- **Information pages** customers of different segments interested
- **how long (how much)** a user stays or views on a specific pages or channel

Tracking CODE

Google Analytics provides websites owners JavaScript tags (footprints) to record information about the pages users have seen or acted on it.

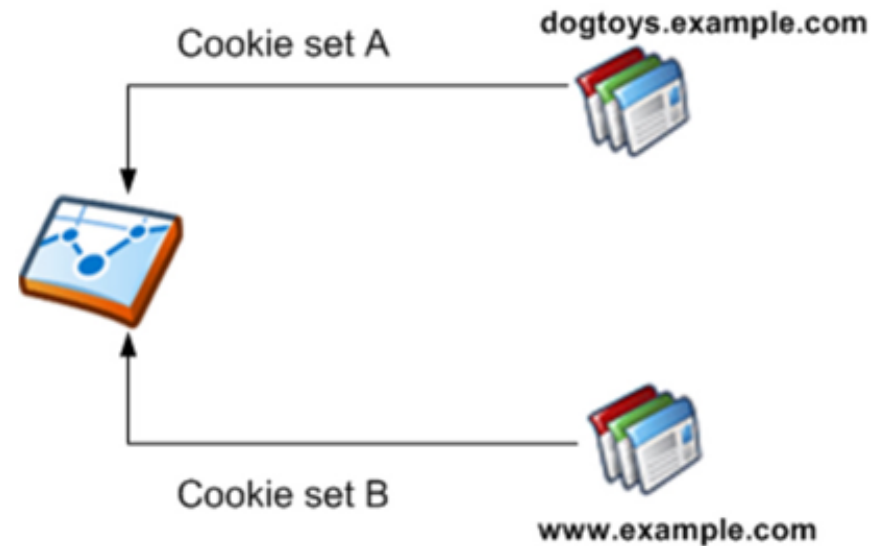
There are 3 JavaScript tags for measuring website usage:

gtag.js

analytics.js

ga.js (old way)

Analytics cookies define a site using `document.domain`



The Google Analytics JavaScript libraries use Cookies to "remember" what a user has done on previous pages / interactions with the website or JavaScript tagging framework and API to send event data to GA.

Setting cookies on the highest-level domain possible allows users to be tracked across subdomains without any extra configuration.

How GA Calculates the visits?

New Account

What would you like to track?

Website

Mobile app

Setting up your account

Account Name

Accounts can contain more than one tracking ID.

My New Account Name

Value is required.

Setting up your property

Website Name

My New Website

Website URL

http:// Example: http://www.mywebsite.com

Industry Category

Select One

Reporting Time Zone

United States

(GMT-08:00) Los Angeles Time

Data Sharing Settings

Data you collect, process, and store using Google Analytics ("Google Analytics data")

The data sharing options give you more control over sharing your Google Analytics d

☒ **Google products & services** RECOMMENDED
Share Google Analytics data with Google to help improve Google's products and s
you disable this option, data can still flow to other Google products explicitly link

☒ **Benchmarking** RECOMMENDED
Contribute anonymous data to an aggregate data set to enable features like benc

☒ **Technical support** RECOMMENDED
Let Google technical support representatives access your Google Analytics data.

☒ **Account specialists** RECOMMENDED
Give Google marketing specialists and your Google sales specialists access to yc
representatives.

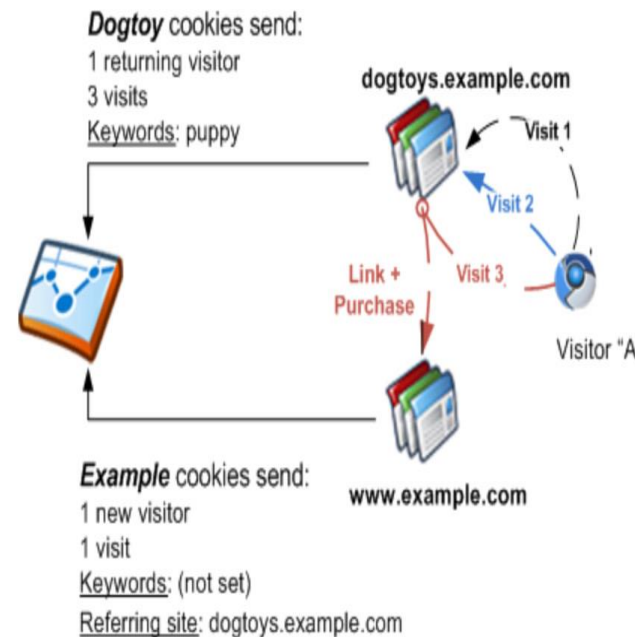
Learn how Google Analytics [safeguards your data](#).

Separate domains mean separate user and traffic data

For each separate domain, the standard Analytics cookies determine two simple things:

- user information (sessions counts)
- traffic sources (referrals, searches, ad campaigns)

If you have separate cookies set for a domain and a sub-domain, unique users to each are counted independently, and any links between the two sites are counted as referral traffic. The two sites will also not share search or campaign information. This is true *even if each site uses the same web property ID in the tracking code*.



QUESTIONS GA CAN ANSWER



Sources: <https://developers.google.com/analytics/>

Great work! You just hit a new record for monthly users. ...

14 Aug 2015 – 31 Jan 2019

Your website had 181K users this month.

[VIEW INSIGHT](#)

More users returned to your site in January. ...

You had 154K users in December, 16.1K came back in January, which means 8.88% of your users returned to your site.

[VIEW INSIGHT](#)

Pageviews for page '/ws_chi/news/videos/497/cordless-upright-vacuum-cleaners.html' spiked yesterday ...

2 Feb 2019

On 2 Feb 2019, page '/ws_chi/news/videos/497/cordless-upright-vacuum-cleaners.html' had 240 pageviews. That's a spike in the original forecast range of 4.67 to 142 pageviews.

[VIEW INSIGHT](#)

Site speed issue: a top page loads slower now ...

1 – 31 Jan 2019 vs. 1 – 31 Dec 2018

One of your top 2 pages had a significantly longer load time for the month of January: <https://www.consumer.org.hk/accounts/2091798/events/3228733/player?autoplay=false&height=180&mute=false&width=319>.

[VIEW INSIGHT](#)

Website performance week-over-week ...

4 – 10 Feb 2019 vs. 28 Jan – 3 Feb 2019

This report shows how your website performed this week compared to the previous week.

[VIEW INSIGHT](#)

One of your top 5 landing pages is loading slowly ...

1 – 31 Jan 2019

[VIEW INSIGHT](#)

Pageviews for page '/ws_chi/complaints_and_advices/how_to_complain/howtocomplain.html' dropped yesterday ...

5 Feb 2019

On 5 Feb 2019, page '/ws_chi/complaints_and_advices/how_to_complain/howtocomplain.html' had 109 pageviews. That's a drop in the original forecast range of 123 to 396 pageviews.

[VIEW INSIGHT](#)

GA FILTER information



and VIEWS SETTING

View Settings

Basic Settings

View ID
189858189

View Name

All Web Site Data

Website's URL

http:// www.aibyml.com

Time zone country or territory

Hong Kong

(GMT+08:00) Hong Kong Time

Default page optional

Exclude URL Query Parameters optional

Currency displayed as

US Dollar (USD \$)

Bot Filtering

☐ Exclude all hits from known bots and spiders

Site Search Settings

Site search Tracking optional

ON

Query parameter

Use commas to separate up to 5 parameters (case insensitive)

☒ Strip query parameters out of URL

Site search categories optional

OFF

Save

Cancel

Tracking Id
UA-134438313-1

Property Name

AlbyML.com

Default URL

http:// www.aibyml.com

Default View

All Web Site Data

Industry Category

Business and Industrial Markets

Advanced Settings

☐ Allow manual tagging (UTM values) to override auto-tagging (GCLID values) for Google Ads and Search Ads 360 integration

Property Hit Volume

Last day: No hits

Last 7 Days: No hits

Last 30 Days: No hits

Advertising Features

Enable Demographics and Interest Reports

Demographics and Interest Reports make Age, Gender, and Interest data available so you can better understand who your users are. To see this data, you need to enable Advertising Features first. [Learn more](#)

ON

In-Page Analytics

Use enhanced link attribution

Enhanced link attribution allows us to better track links on your page, but requires a small change to the tracking code. Follow these instructions to setup enhanced link attribution on your site: [How to setup enhanced link attribution on my site?](#)

OFF

Start In-Page Analytics in

☒ Embedded mode (recommended)

☐ Full view mode

Use of full view mode is recommended only if your site has trouble loading in embedded mode.

Search Console

Adjust Search Console

User Analysis

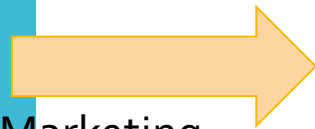
Enable Users Metric in Reporting

Adds the Users metric to standard reports and updates your [users metric calculation](#).

ON

Advanced Settings

Digital Marketing Tools



Property [+ Create Property](#)

AlbyML.com

Property Settings

User Management

< > Tracking Info

PRODUCT LINKING

- Google Ads Linking
- AdSense Linking
- Ad Exchange Linking
- All Products
- Postbacks
- Audience Definitions
- Custom Definitions
- Data Import

View [+ Create View](#)

All Web Site Data

View Settings

User Management

Goals

Content Grouping

Filters

Channel Settings

Ecommerce Settings

Calculated Metrics **BETA**

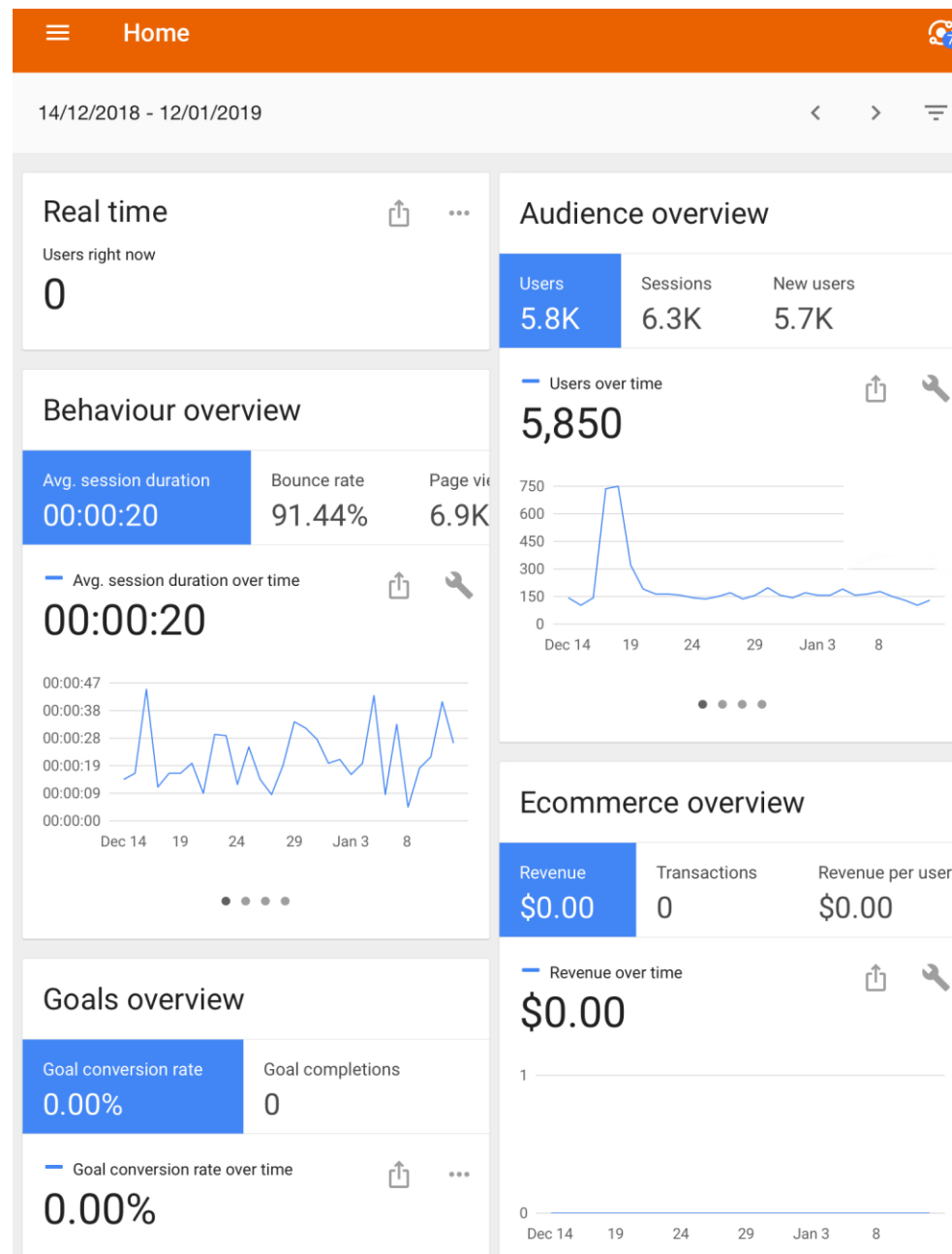
PERSONAL TOOLS & ASSETS

- Segments
- Annotations
- Attribution Models
- Custom Channel Grouping **BETA**
- Custom Alerts
- Scheduled Emails
- Saved Reports
- Share Assets

Review business process

Classifying users/visitors

Google Analytics Apps for your default reporting



Sources: <https://developers.google.com/analytics/>

How Google obtain information from website visitor metrics

Global Site Tag (gtag.js) code is for web site tracking. Need to copy and paste the code as the first item into the <HEAD> of every webpage you want to track.

User/Visitor

Session (30min)

Event Tracking

App Tracking

Page Tracking

Traffic Sources

Goal Conversion

E-Commerce

Search Engine Ad Google

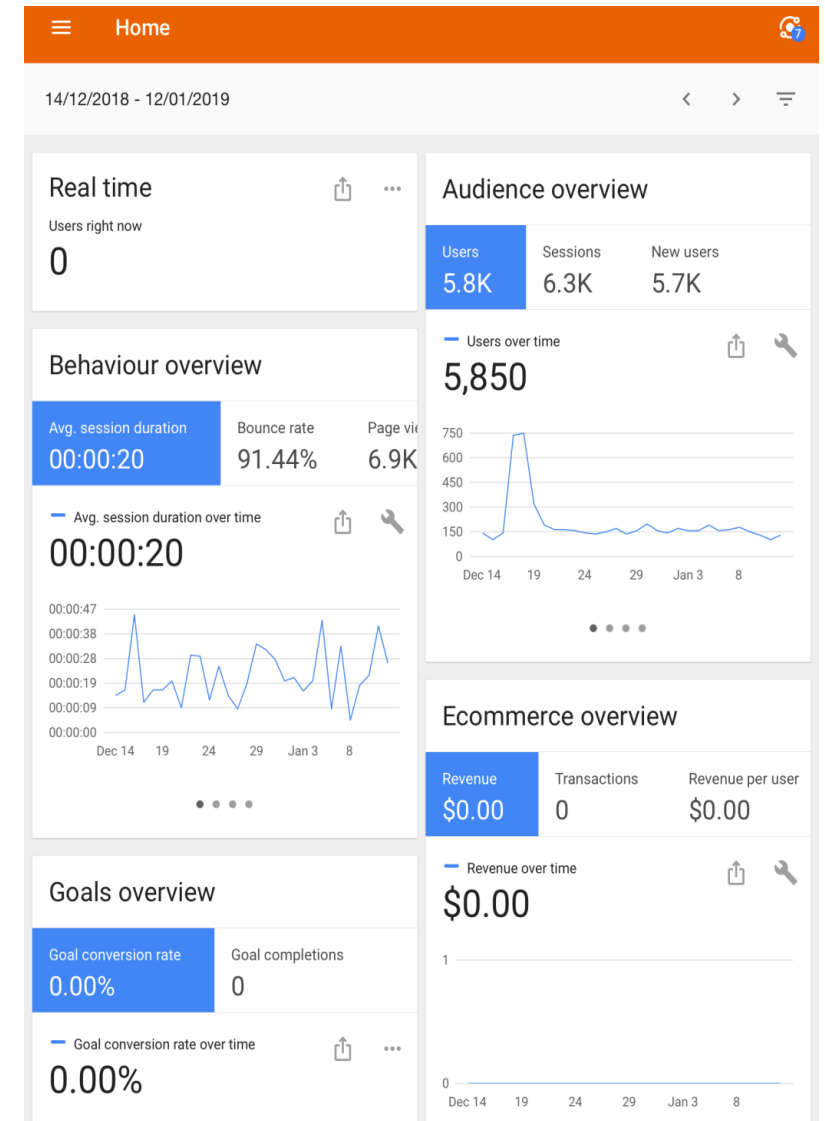
Non-Search Engine Advertisement

Internal Search

Social Interaction

Site Speed

Social Media



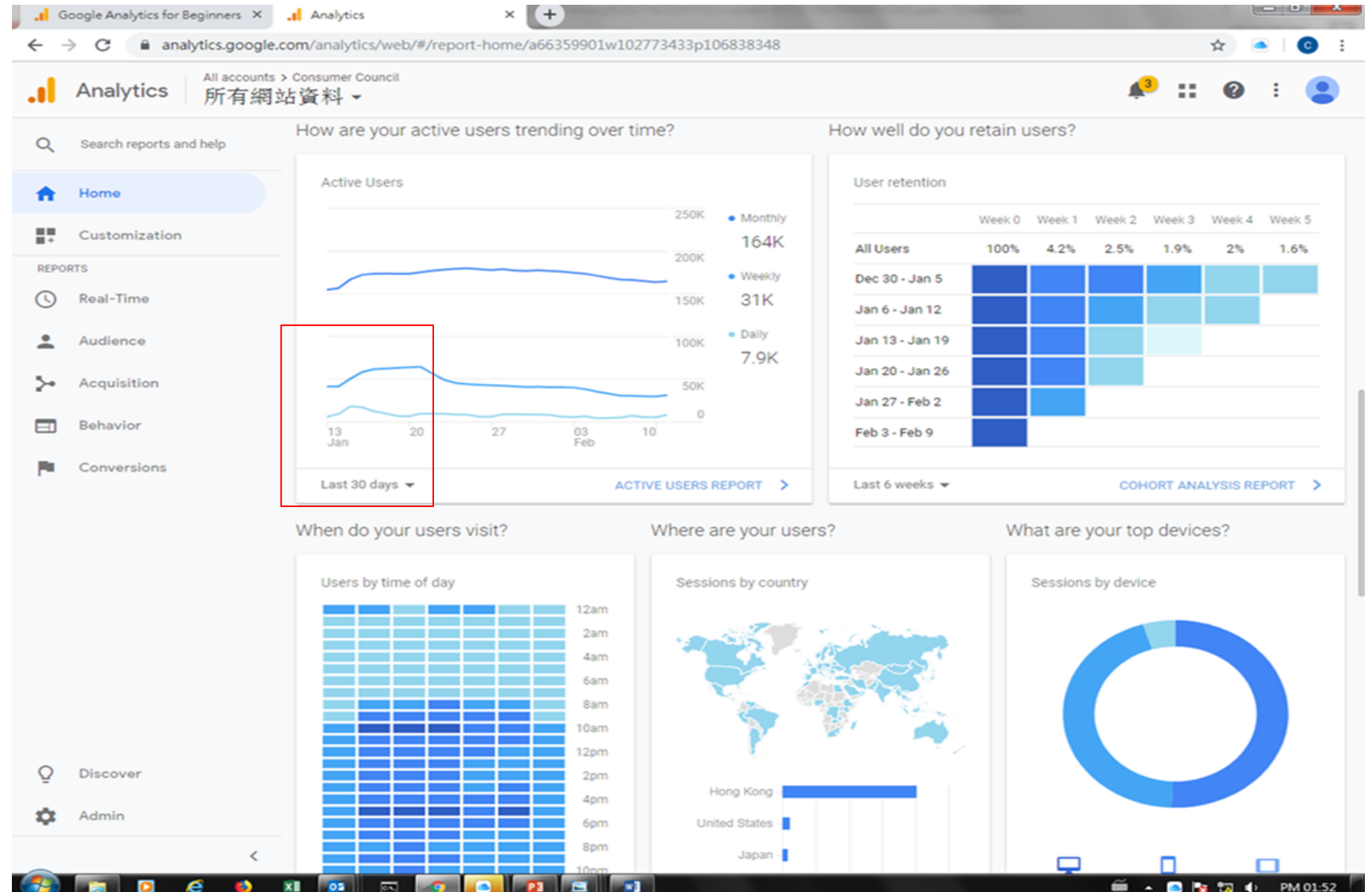
GA General Information

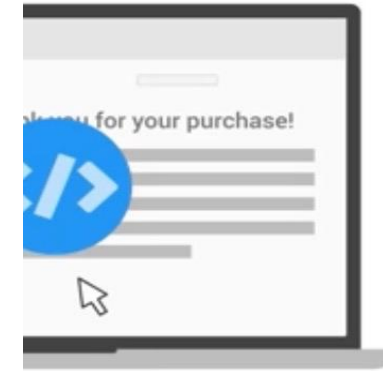
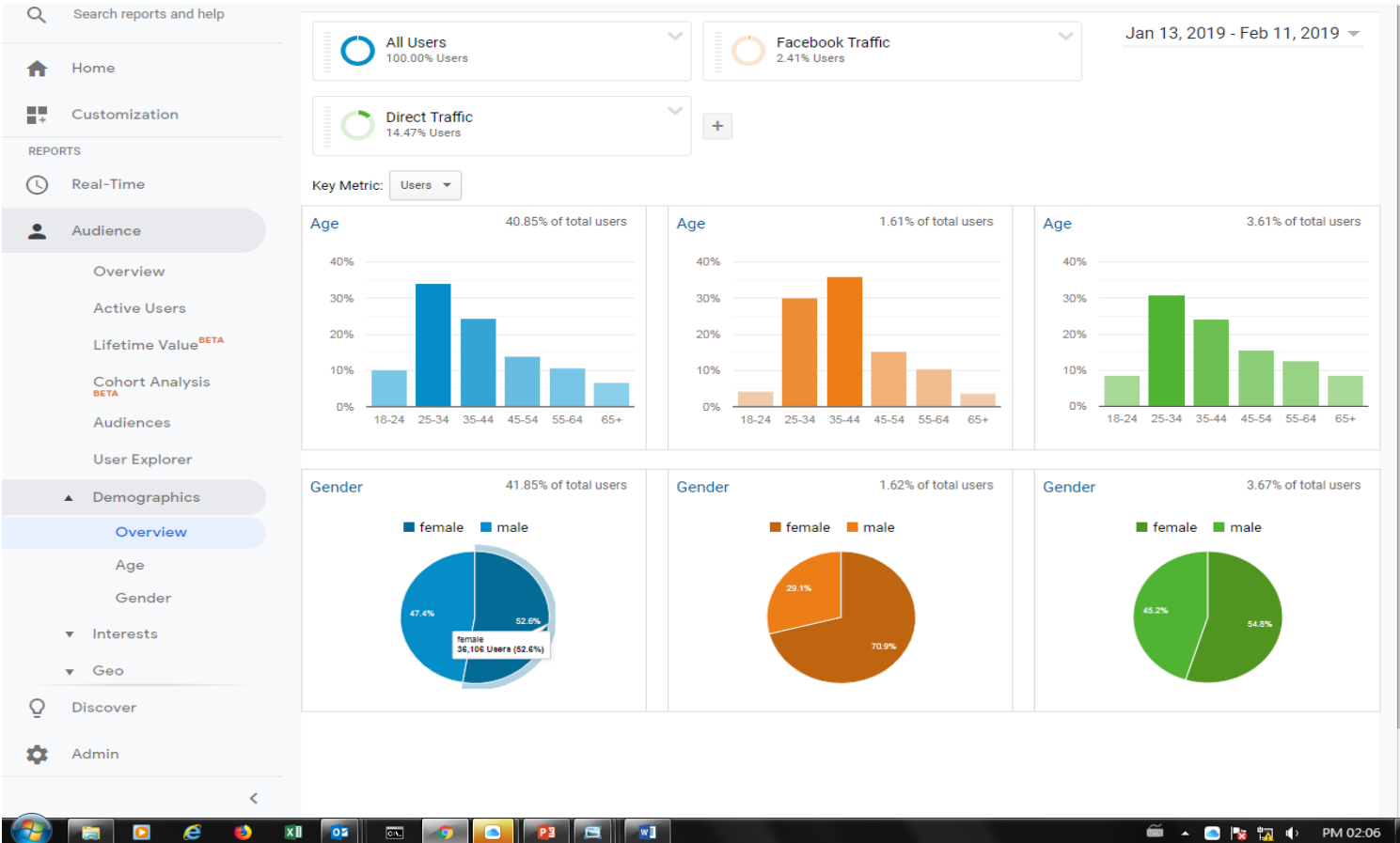
Audience – demographics of the visitors and customers for you to able to segment the market cross reference to the characteristics of the audience

Acquisitions – the different channels of the visitors and the way how they were lead to the site

Behaviour – browsing patterns of the visitors and how they relate to the software and the hardware of the site.

Conversion – review and examine how business goals can be achieved

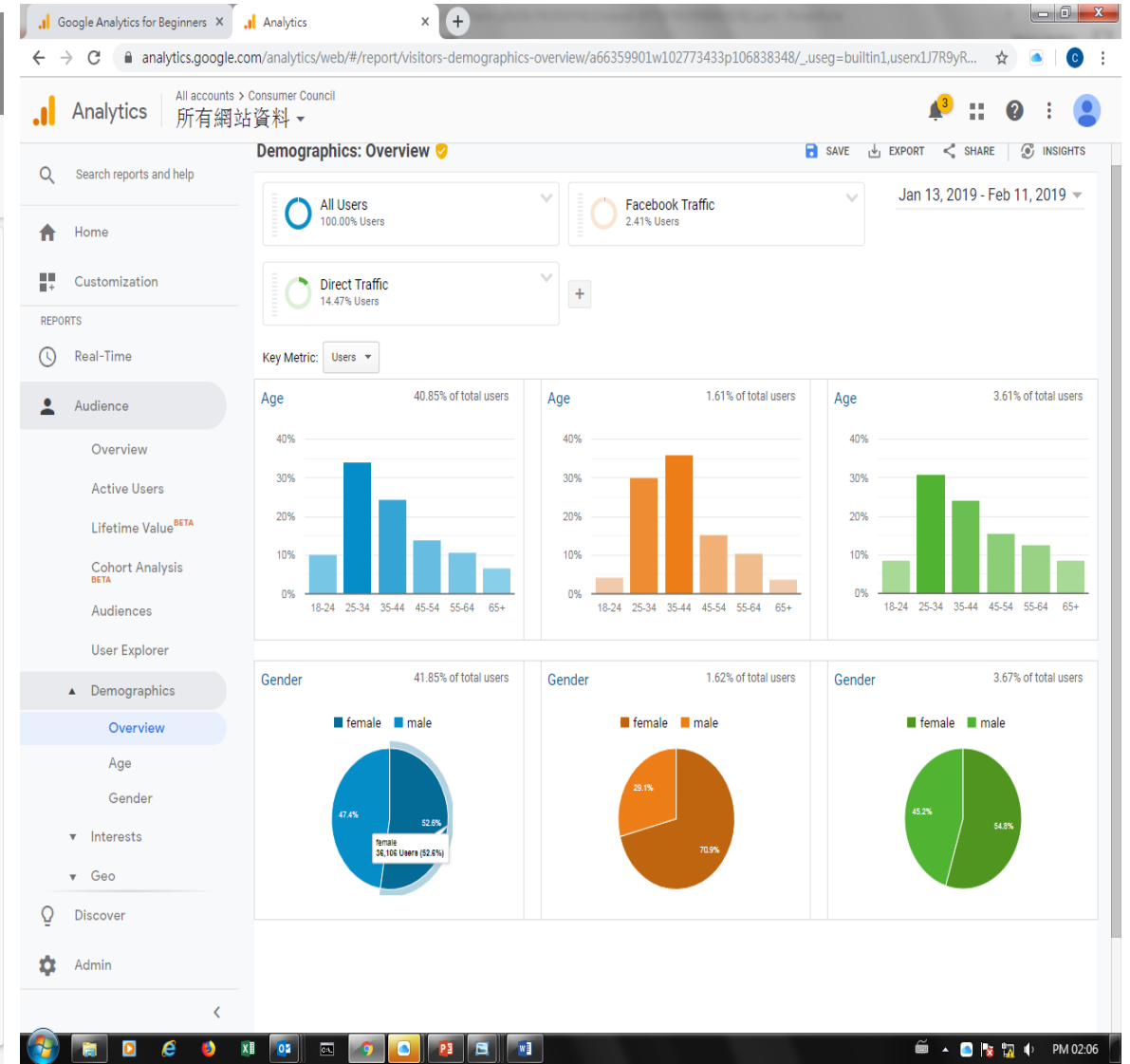
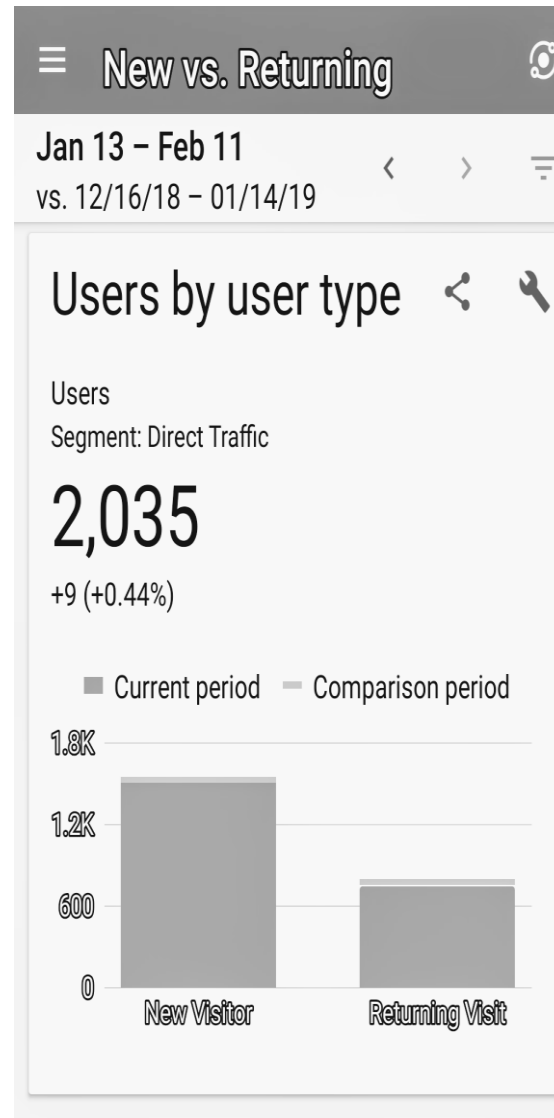




Language
Type of browser
Device
Operating system
Traffic source

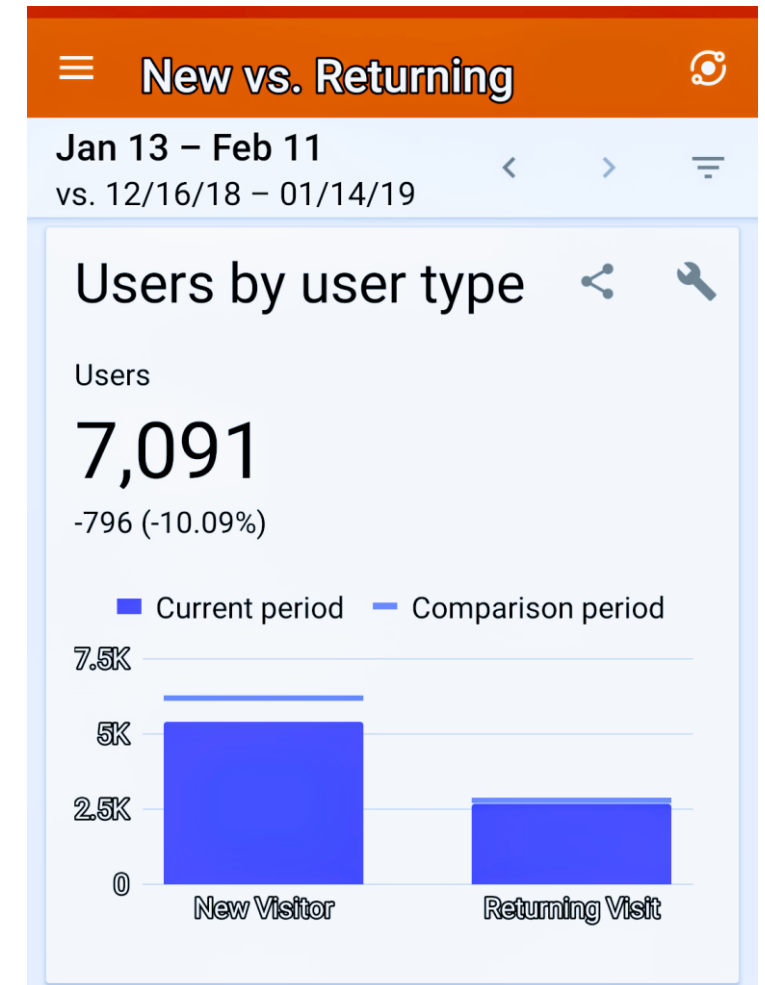
Audience Profiling

GA Provides insights



Campaign and CONVERSION

- Medium
 - Organic
 - CPC
 - Referrals
 - Email
 - None
- Sources, e.g. yahoo or Google Ads
- Campaign
- Content, like label these tags "v1-10dollars-off" and "v2-nopromo" to help differentiate which newsletter the data is associated with in Google Analytics
- Terms, very specify refer to key words used



Business Goals

Business goals are actions you want your user to take on your website.

Each time a user completes one of your business goals, it is called a “conversion.” This could be signing up for a newsletter, read press release then to purchase the article or lodge a complaint

Google Analytics Goals



4 elements to be noticed in business process in the web site

1. “Destination” is when a user reaches a specific page on your site such as a thank-you page;
2. “Duration,” is based on the length of a user’s session;
3. “Pages or Screens” is based on how many necessary pages a user views to complete the process;
4. “Events,” is for tracking specific actions on a site.

Sources: <https://developers.google.com/analytics/>

Business Goal settings

Goal setup Edit
Template: Buy merchandise

Goal description Edit
Name: Checkout Complete
Goal type: Destination

Goal details

Destination
Regular expression: /SubmitOrder ☐ Case sensitive
For example, use My Screen for an app and /thankyou.html instead of www.example.com/thankyou.html for a web page.

Value optional
☐ OFF Assign a monetary value to the conversion.

Funnel optional
☒ ON
Use an app screen name string or a web page URL, for each step. For example, use My Screen for an app and /thankyou.html instead of www.example.com/thankyou.html for a web page.

Step	Name	Screen/Page	Required?
1	Checkout Cart	/Checkout	<input checked="" type="checkbox"/>
2	Billing	/BillingAddress	<input type="checkbox"/>
3	Shipping	/UpdateBillingAddress	<input type="checkbox"/>
4	Payment	/UpdateShippingOptions	<input type="checkbox"/>
5	Review	/UpdatePaymentMethod	<input type="checkbox"/>

+ Add another Step

This Goal would have a 1.71% conversion rate based on your data from the past 7 days.
Re-verify

Save **Cancel**

Goal setup Edit
Template: Buy merchandise

Goal description Edit
Name: Checkout Complete
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Destination
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Step	Name	Screen/Page	Required?
1	Checkout Cart	/Checkout	<input checked="" type="checkbox"/>
2	Billing	/BillingAddress	<input type="checkbox"/>
3	Shipping	/UpdateBillingAddress	<input type="checkbox"/>
4	Payment	/UpdateShippingOptions	<input type="checkbox"/>
5	Review	/UpdatePaymentMethod	<input type="checkbox"/>

+ Add another Step

This Goal would have a 1.71% conversion rate based on your data from the past 7 days.
Re-verify

Save **Cancel**

Further Understanding the GA Application

Learn analytics with free online courses

Analytics Academy helps you learn about Google's measurement tools so that you can grow your business through intelligent data collection and analysis.

Analytics Academy Courses



Google Analytics for Beginners

Learn the basic features of Google Analytics including how to create an account, implement tracking code, analyze basic reports, and set up goals and campaign tracking.



Advanced Google Analytics

Learn about advanced Google Analytics features including data collection, processing and configuration, and more complex analysis and marketing tools.



Google Analytics for Power Users

After you're familiar with the range of features Analytics offers, learn and practice actionable analyses to track business performance and identify areas for business improvement.



Getting Started With Google Analytics 360

Learn about powerful Google Analytics 360 features that are not available in the standard product, and gain insight into how you can benefit from integrations with BigQuery, Google Marketing Platform products, and Google Ad Manager.



User Experience Strategy

UX strategy is the process that should be started first, before the design or development of a digital product begins. It's the vision of a solution that **needs to be validated with real potential customers to prove that it's desired in the marketplace**. Although UX design encompasses numerous details such as visual design, content messaging, and how easy it is for a user to accomplish a task, **UX strategy is the "Big Picture."** It is the high-level plan to achieve one or more business goals under conditions of uncertainty.

Levy, Jaime. UX Strategy (p. 7). O'Reilly Media. Kindle Edition.

UX Strategy

- UX strategy begins by learning.
- UX strategy is based on four tenets: business strategy, value innovation, validated user research, and killer UX design.
- The output of the discovery phase should be based on empirical data, - performing A/B or MVT test such as getting direct input from target users before going straight from an idea to wireframes and development.
- How a team executes a discovery phase can be the deciding factor between how a product will ultimately deliver real value through a killer UX and create real value for the stakeholders (which is not covered in this course).

4 Misinterpretation User Experience Strategies

- Misinterpretation 1: UX strategy is about identifying a “North Star”, UX strategy does not give a North Star in digital product market full of uncertainty but a goal or point toward which to steer every time one pivot
- Misinterpretation 2: UX strategy is a “strategic way” to perform UX design. UX strategy and UX design are two different things. Lean UX movement is so popular as it advocates that UX designers take on a bigger leadership role (“getting a seat at the strategy table”) by becoming the glue that holds cross-functional teams together.
- Misinterpretation 3: UX strategy is just product strategy. UX strategy goes beyond one digital product or online experience. It spans dozen of different digital products, services, and platforms, it interconnects all members of a digital interface family.
- Misinterpretation 4: UX strategy is closely tied to brand strategy. Confusing branding efforts and goals with a UX strategy. A poor UX can actually decrease the “brand value” of a product, but not so much the other way round. Marketing can increase awareness for the product, but if the product sucks. That’s what the buzz will be.

Why a UX Strategy is Crucial

Business Strategy

Value Innovation*

Validated User Research*

Killer UX*

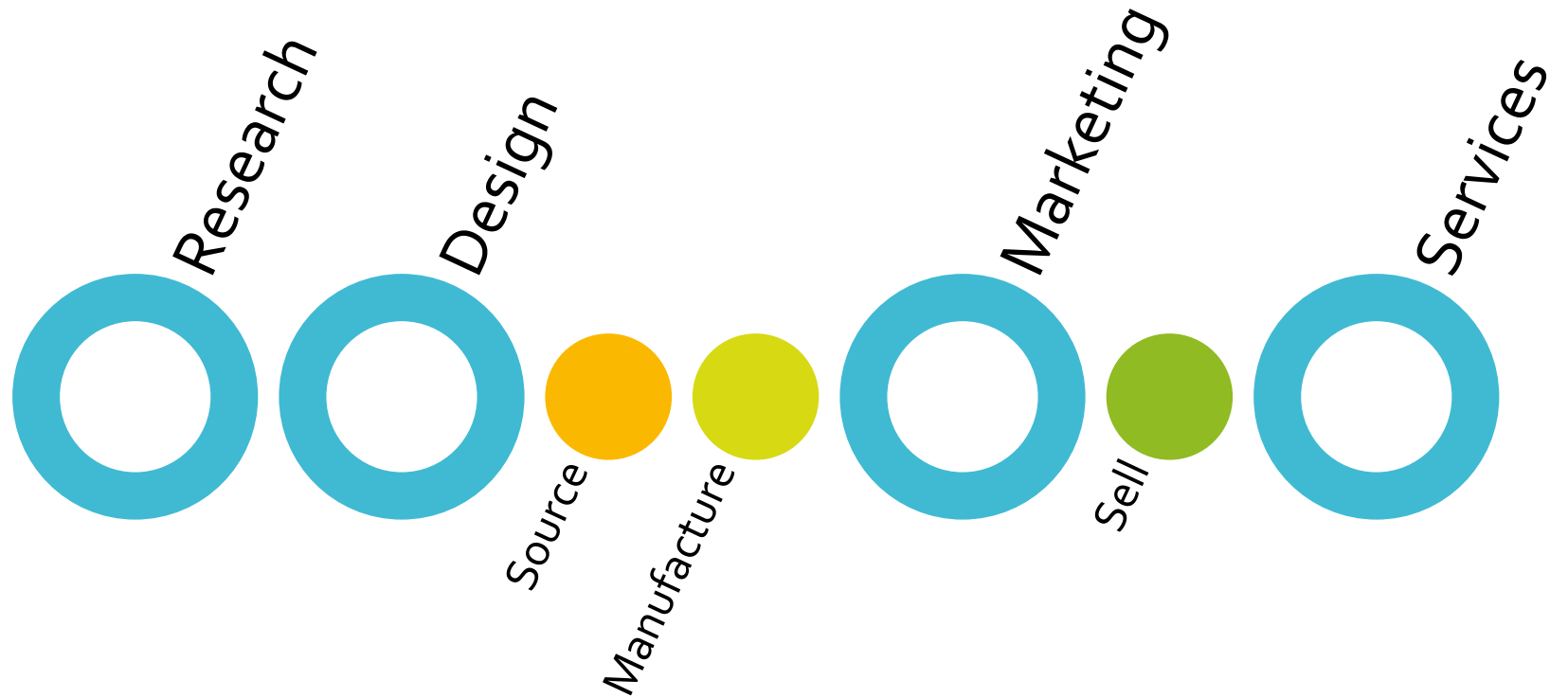
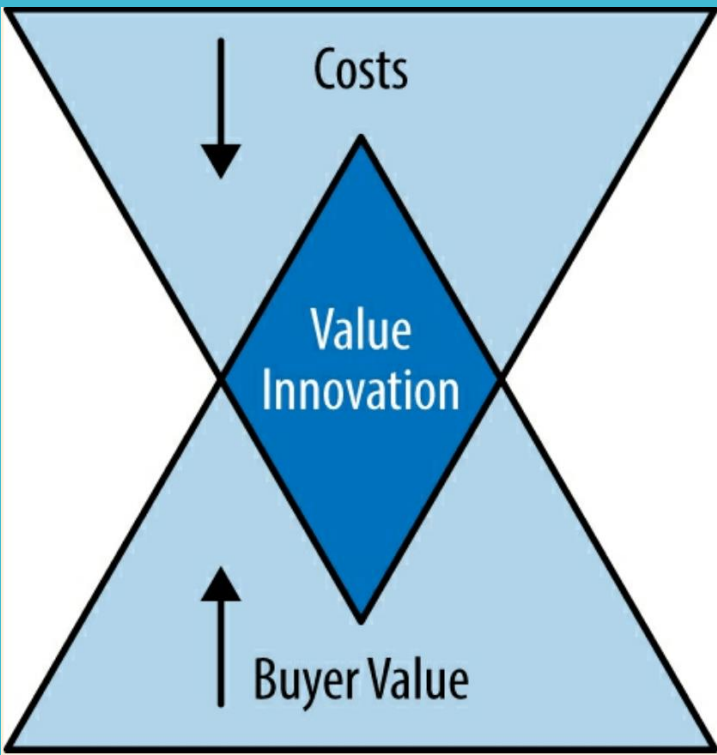
- Human perceive the world by a mental model, the conceptual model in a person's mind about how a thing works.
- Usually most of the start-up today is try to change the mental model of you and me. But it is hard to get people to change their behavior.
- It is fun and a challenge to life, make the world an easier place to live in that makes for game-changing products.
- Make magic happen and destroy outdated mental models.

A Business Strategy relate to a Business Model Processes , including

UX adds customer acquisitions and retention

- **Customer segments** Who are the customers? What are their behaviors? What are their needs and goals?
- **Value propositions** What value (either qualitative or quantitative) do we promise to deliver?
- **Channels** How will we reach our customer segment? Is it online or offline?
- **Customer relationships** How are we going to acquire and retain our customers?
- **Revenue streams** How does the business earn revenue from the value proposition? Are the customers going to pay for it? Or are there other options?
- **Key resources** What unique strategic assets must the business have to make the product work? Is it content, capital, or patents? Is this something we must develop?
- **Key activities** What uniquely strategic things does the business do to deliver its proposition? Are we optimizing an outdated business process? Are we creating a platform to bring customers together to transact?
- **Key partnerships** What partnerships and suppliers do we need in order to deliver our value proposition?
- **Cost structure** What are the major costs that will be incurred to make our business model work? Are we trying to cut costs by throwing out the thrills? Are there fixed costs that won't go away?

Value Innovation



Validated User Experience

- User research is how one verify that one is on the right track with one value proposition – ethnographic field studies, contextual inquires, focus groups, diaries and journals, card sorting, eye-tracking, personas, and more.
- Validation is the process of confirming that a specific customer segment find value in your product
- Minimum Viable Product (MVP) learning if potential customers want one's product by building just the core features of your value proposition
- Confronting target customers is non-negotiable

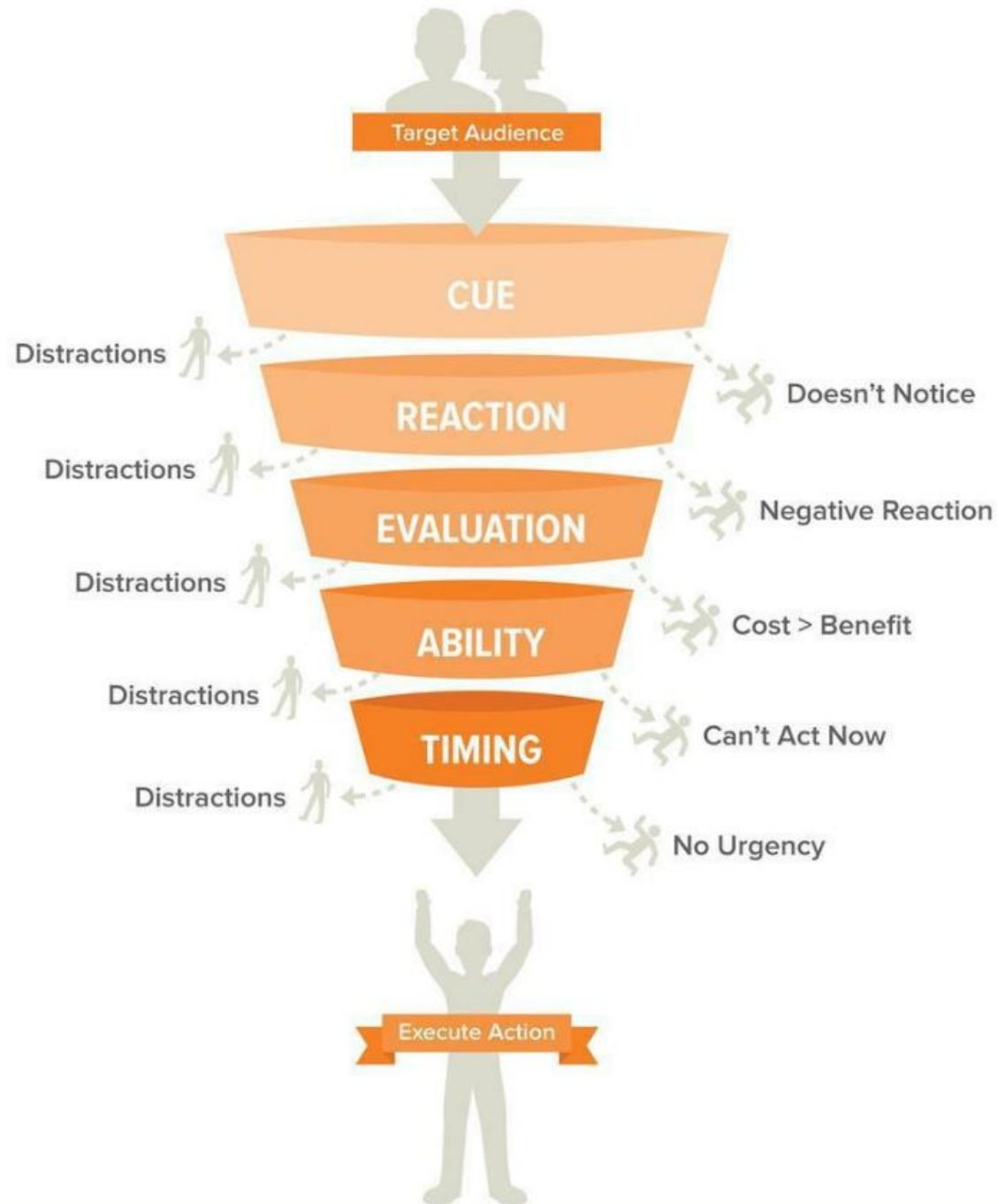
Killer UX Design or Killer Application

- The “user experience” (UX) is how a human feels when using the interface of a digital product while attempting to accomplish a task or goal, the term “user experience” refers to whether a person has a good or bad time trying to utilize a digital product.
- Work collaboratively with stakeholders and teammates at the idea’s inception. UX designer can be involved in designing structured experiments for validation.
- Focus on how successful the value proposition can be communicated to the customer from the moment the customer opens the landing page. Using measurable results, design decisions can be made based on real evidence rather than hunches.
- Determine the key moments and features that are absolutely critical to your product.
- Learn everything about the existing market space to identify UX opportunities that can be exploited.
- Talk directly to potential users
- Eave the US through all touch points enabling an experience that is frictionless.

How do you
find a UX
strategy?



Behavioral Decisions



3 Strategies for Behavioral Changes

- These behavioural strategies provide high-level direction for how product should be designed
 - Cheat If what you really care about is the action getting done, and it's possible to all but eliminate the work required of the user beyond giving consent, then do it.
 - Make or change habits If the user needs to take an action multiple times (like eating better or spending less), and you can identify a clear cue, routine, and reward, then use the “habits” strategy. Also use this strategy if the user is fighting an existing habit — to cleverly undercut it, rather than using brute force to stop it directly.
 - Support conscious action If neither of the other two is available, then you must help the user consciously undertake the target action. There are ways to make this process nicer and easier, but it's still the hardest path to follow.
- Wendel, Stephen. Designing for Behaviour Change: Applying Psychology and Behavioural Economics

Strategies to Cheat

- What it is. Help the user avoid the work of the action altogether by making the outcome occur by default when the user interacts with the software or when the user takes a different action, or fully automating a repeated behaviour after consent is given.
 - What is consciously chosen. Whether or not to give consent to the action occurring on the user's behalf.
 - Examples. 401(k) auto-enrolment; substituting healthier ingredients into the food people already eat.
 - Use this strategy. When you can replace a hard action with informed consent. This is not appropriate for overcoming ingrained habits, nor is it appropriate for cases in which the user needs to personalize the action to specific needs — that requires conscious, active involvement.
-
- Wendel, Stephen. Designing for Behaviour Change: Applying Psychology and Behavioural Economics .

Make (or Change) Habits

- What it is. Help the user avoid conscious effort and thought by making the desired action an automatic response to a trigger. Or when changing habits, cleverly attack the habit's structure to hinder it from occurring.
- What is consciously chosen. Whether or not to set up the conditions for a habit to form (or be broken).
- Examples. At the supermarket, go down the produce aisle before the canned foods aisle; walk once a day.
- Use this strategy. Whenever the user wants to undertake a behaviour that is done multiple times, in a consistent context. Also use this when trying to overcome existing habits, with the tricks described as part of the strategy, rather than using brute force to consciously override habits.
- Wendel, Stephen. Designing for Behaviour Change: Applying Psychology and Behavioural Economics .

Support the Conscious Action

- Support the conscious action What it is. Help the user think about the action, and take the necessary steps (consciously) to make it happen.
- What is consciously chosen. Whether or not to take the target action.
- Examples. Educating people to get a good mortgage; encouraging people to sign up for (and attend) a yoga class for the first time. Use this strategy.
- Whenever the first two strategies aren't feasible, especially when the action is complex, novel, and requires the user to make numerous small choices that can't be defaulted.
- Wendel, Stephen. Designing for Behaviour Change: Applying Psychology and Behavioural Economics .