

Analytics and Metrics of Digital Marketing

Colección de ejercicios y problemas

Título: Analytics and Metrics of Digital Marketing

Subtítulo: Colección de ejercicios y problemas

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Índice temático

UNIT 1: INTRODUCTION TO THE CONCEPT OF DIGITAL MARKETING ANALYTICS AND METRICS

Exercise 1. Analysis of the metrics of a scientific paper ----- 3

Exercise 2. Google Analytics ----- 5

UNIT 2: METRICS FOR DATA-BASED DECISION MAKING AND EVALUATION OF RESULTS

Exercise 3. Email marketing campaigns ----- 6

Exercise 4. Clients' value and abandonment ----- 6

Problem 1. Data-based recommendation report ----- 7

UNIT 3: THE DIGITAL DASHBOARD

Problem 2. The dashboard ----- 10

UNIT 1. INTRODUCTION TO THE CONCEPT OF DIGITAL MARKETING ANALYTICS AND METRICS

Topic 1. Introduction to Digital Marketing Metrics and Analytics

Topic 2. Neuroscientific basis of online consumer behavior

Topic 3. Analysis and measurement tools for digital marketing

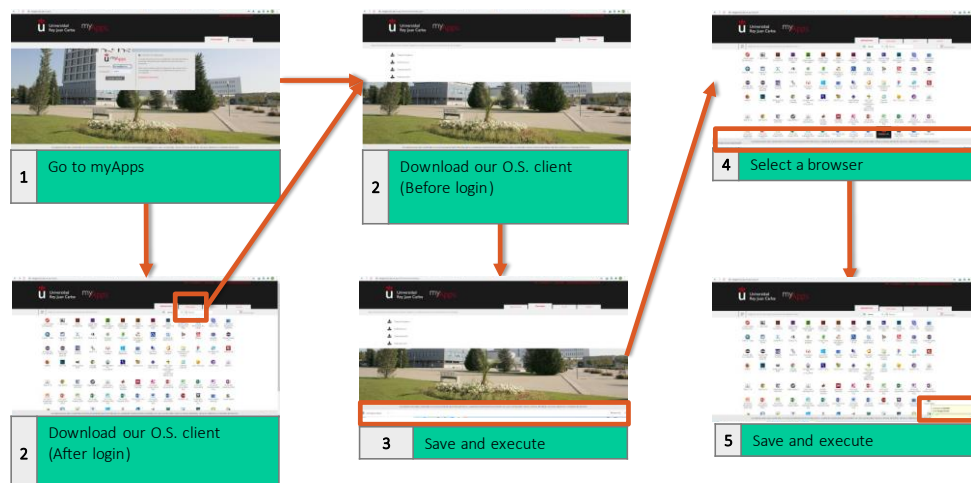
Exercise 1. Analysis of the metrics of a scientific paper

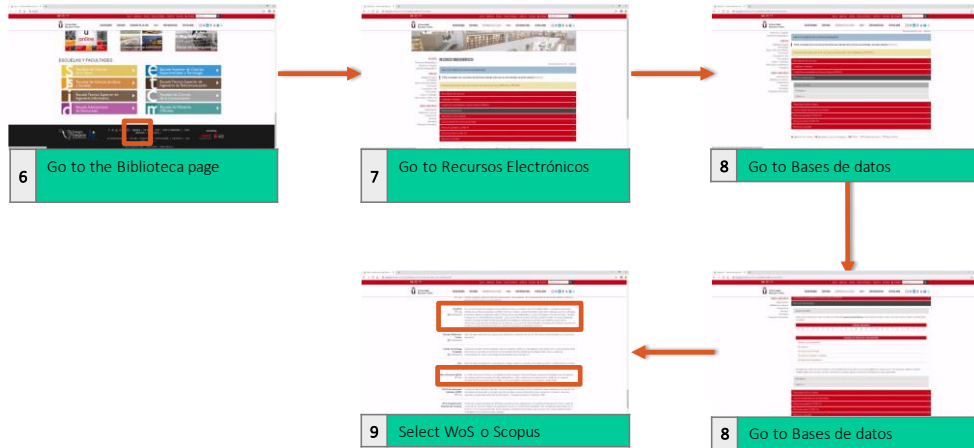
Statement and questions

- 1) Select a Wos/Scopus scientific paper
- 2) For the scientific paper selected, identify the following fields and metrics: Author's H index, Year of publication, Keywords, Number of paper citations, Journal Impact Index, Average response time of the magazine, Magazine acceptance/rejection percentage
- 3) How do scientific production metrics contribute to decision making (considering all stakeholders)?
- 4) Final assessment and personal conclusion

Solutions

Steps to perform the task

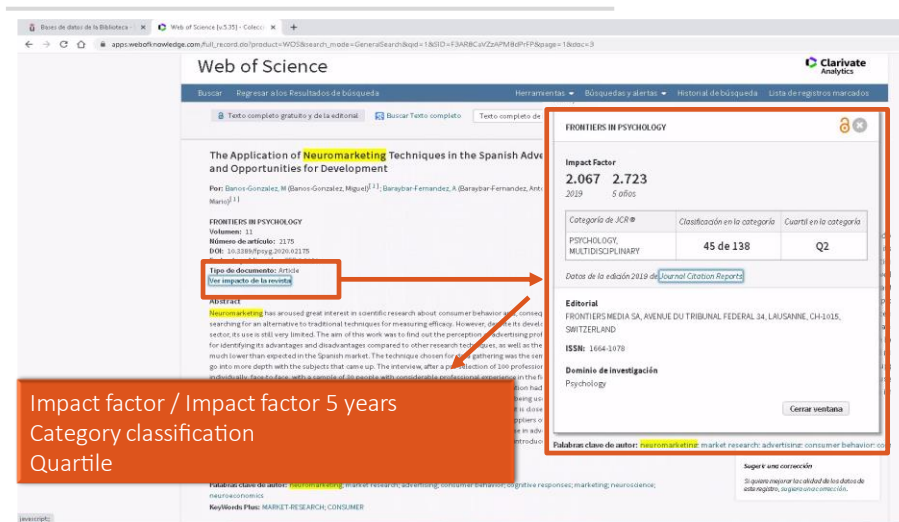




Clues to find the information

N.º search results
 Resultados: 516
 Búsqueda: **TEMA:** neuromarketing
 1. The Meta-Analysis of Neuro Marketing Studies: Past, Present, and Future
 2. Deep learning for EEG data analytics: A survey
 3. The Application of **Neuromarketing** Techniques in the Spanish Advertising Industry: Weaknesses and Opportunities for Development
 4. Which Visual Modality is Important When Judging the Maturational of the Agent (Statistical Versus Human Intelligence) Providing Recommendations in the Symbolic Consumption Context?

N.º references cited
 54 Referencias Citadas
DOI
 10.3389/fpsyg.2020.02275
Document type
 Fecha de publicación: SEP 3 2020
 Tipo de documento: Artículo



Impact factor / Impact factor 5 years
Category classification
Quartile

Exercise 2. Google Analytics

Statement and questions

Solve the exercises indicated

<https://analytics.google.com/analytics/academy/course/6/unit/3/lesson/1>

Solutions

https://analytics.google.com/analytics/web/?utm_source=demoaccount&utm_medium=demoaccount&utm_campaign=demoaccount#/report/visitors-overview/a54516992w87479473p92320289/_u.date00=20150801&_u.date01=20150831/

UNIT 2. METRICS FOR DATA-BASED DECISIONS MAKING AND EVALUATION OF RESULTS

Topic 4. Metrics used in SEO and SEM

Topic 5. Metrics used in email marketing and social media

Topic 6. Metrics used in mobile and apps

Topic 7. Metrics used in e-commerce

Exercise 3. Email marketing campaigns

Statement and questions

ACODICO's latest email marketing campaign has targeted 30,000 users. Of these, 26,827 were successfully delivered (opened). The number of bounces was 70, and the number of unsubscriptions was 54.

- 1) Which is the opening rate?
- 2) Which is the bounce rate?
- 3) Which is the unsubscribed rate?
- 4) Conclusions

Solutions

- 1) Opening rate

$$\text{Opening rate} = (\text{opened emails} / \text{sent emails}) * 100$$

$$\text{Opening rate} = (26.827 / 30.000) * 100 = 89,42\%$$

- 2) Bounce rate

$$\text{Bounce rate} = (\text{bounded emails} / \text{sent emails}) * 100$$

$$\text{Bounce rate} = (70 / 30.000) * 100 = 0,23\%$$

- 3) Unsubscribed rate

$$\text{Unsubscribed rate} = (\text{unsubscriptions} / \text{sent emails}) * 100$$

$$\text{Unsubscribed rate} = (54 / 30.000) * 100 = 0,18\%$$

- 4) Conclusions

From the data obtained, what would you recommend to ACODICO?

Exercise 4. Clients' value and abandonment

Statement and questions

ACODICO wants to know the average value of the order of its customers. During the last year, it has received 1.500 euros for 100 purchases from customer 1, who initiated 150 purchases; 2.000 euros for 75 purchases from customer 2, who initiated 90 purchases; and 1.000 euros for 150 purchases from customer 3, who initiated 260 purchases.

- 1) What is the average value of each order?
- 2) What is the percentage of cart abandonment?
- 3) Conclusions

Solutions

1) Average Order Value (AOV)

Average value of each order = Revenue / Number of orders

$$\text{AOV client 1} = 1.500 / 100 = 15$$

$$\text{AOV client 2} = 2.000 / 75 = 26,$$

$$\text{AOV client 3} = 1.000 / 150 = 6,7$$

2) Cart abandonment rate (CAR)

Cart abandonment rate = (abandoned carts/ purchases initiated) * 100

$$\text{CAR client 1} = ((150-100) / 150) * 100 = 33,3\%$$

$$\text{CAR client 2} = ((90-75) / 90) * 100 = 16,7\%$$

$$\text{CAR client 3} = ((260-150) / 260) * 100 = 42,3\%$$

$$\text{CAR total} = ((50+15+110) / (150+90+260)) * 100 = 35\%$$

3) Conclusions

From the data obtained, what would you recommend to ACODICO?

Problem 1. Data-Based Recommendation Report

Statement

The consulting you work for received the order to produce a report on the Christmas campaign of three brands that are regular customers (Table 1 provides general data).

Brand 1 belongs to the gardening sector. The campaign consists of the launch of an ebook entitled “The 10 tricks of gardening to have a garden on your terrace throughout the year”, whose goal of conversion is a minimum of 2.5%. On social networks, they launch a message in which they highlight the advantages of gardening as an element of relaxation and connection with nature and ask their followers to share their gardening tricks with the community. The email marketing campaign is launched with the subject “Don’t go black go green”, with which they hope to obtain an email opening rate of 15% or more. Some products on their website have a discount to accompany this campaign. The mobile application aims at urban gardening enthusiasts, with multiple recommendations by crop and season, and purchases integrated into the application. They hope to obtain a 10% ROI on social networks and 5% on email and application with this campaign.

Brand 2 is a platform for social change. Its campaign consists of a call in social networks for more responsible consumption the next Christmas. The publication is entitled “Look at this, did you

know?”. It contains information about the origins and modes of production of the most demanded products, their ecological footprint, and the social impact of their manufacture and distribution. Unlike previous campaigns, they have opted for a less aggressive style of communication with short messages. The brand also offers an ebook entitled “How it is produced what you have in the kitchen” whose expected conversion rate is 2.5% or higher. The brand carries out an email marketing campaign with the subject “This Christmas is going to be different”, with an expected opening rate of 30% or more. On its website, you can buy fair trade products. They launch an application to make people aware of their consumption habits. The user can introduce the products they are buying and obtain information about its or owner’s ecological footprint. They hope to get a 5% ROI in social networks, email, and app with this campaign.

Brand 3 is for clothing and footwear. They carry out an email marketing campaign with the subject “Put on your boots” whose expected email opening rate is 15% or more. Simultaneously, in social networks, they publish a post highlighting their footwear’s quality, with the title “In your skin”, which shows both bare feet and shoes. The brand also has an ebook with advice on choosing the right footwear and foot care, entitled “Leaving a mark: how to walk well without falling into the trap”. Its expected conversion rate is the same as the other two brands, equal to or higher than 2.5%. On its website, you can see that the brand applies a discount to winter leather shoes. The application aims to facilitate the purchases of customers, has integrated shopping, offers, and pre-sales. The ROI expected by the brand is 10% in social networks, app, and email marketing campaigns.

All three brands have a presence in social networks and have an e-commerce platform. Their websites receive visits from organic and referred traffic. They all have set a bounce rate objective minor than 20% and a cart abandonment rate minor than 60%. Besides, they expect the cost of customer acquisition to be below 10 for email and social networks, and the cost of installation to be below 3.

Table 1. General data of each brand

Brand	Visits	SEO Visits	Social Media Visits	Email Visits	Bounce	Carts	Abandoned carts
Gardening	464.936	315.269	124.525	25.142	25.413	24.587	13.444
Social Change	682.857	12.452	547.863	122.542	5.226	2.542	1.123
Clothing & Footwear	81.604	54.646	5.412	21.546	2.154	512	398

In this campaign, each brand carries out integrated digital marketing actions. Each brand creates an ebook that users can download for free by filling out a form and launching a mobile application. The brands communicate this both through their social networks and through an email marketing campaign (Table 2 provides specific data).

Table 2. Specific data of the actions for each brand

Brand	APP Install.	Social media Fans	Social media Likes	Social media Shares	Ebook New	Email Send	Email Open
Gardening	5.689	47.589	4.587	588	5.236	15.488	2.654
Social Change	2.566	35.545	5.665	2.542	12.365	22.500	11.325
Clothing & Footwear	4.522	83.221	2.525	857	8.795	29.666	5.563

Although each campaign integrates various digital marketing tools, brands choose to make a differentiated investment per channel. The income obtained by each one also differs (Table 3 provides investment and revenue data).

Table 3. Costs and profits of each brand by channel

Brand	Channel	Costs	Earns
Gardening	Email	1.211	5.422
	Social media	2.500	123.654
	APP	25.000	235.698
Social change	Email	752	2.252
	Social media	3.500	185.662
	APP	25.945	89.664
Clothing & Footwear	Email	1.755	55.632
	RRSS	2.000	6.588
	APP	20.000	25.252

Questions

Each brand has requested a report to evaluate their campaign's effectiveness and the different actions they have carried out. To do this, the consulting ask you for the following:

- 1) Which is the source of traffic that provides more visits and the bounce rate (by brand)?
- 2) How effective is each action by brand (ebook, email, social networks, e-commerce, application)?
- 3) Calculate the customer acquisition costs (by brand and email and social media channels) and application installation cost.

Note: to correctly answer this question the CAC results must be adjusted by multiplying it by 100. These are fictitious data that need this adjustment.

- 4) What is the ROI of each action?

- 5) Based on the brands' data and the results, what recommendations would you give to each brand? General conclusions.

UNIT 3. THE DIGITAL DASHBOARD

Topic 8. Digital Dashboard

Problem 2. The dashboard

Statement

The consulting firm you work for has been commissioned to make a control panel on the sales of a musical instrument company called Quaver. Quaver operates in eight countries, serves ten segments, and markets ten types of products. It started its online sales in 2011. Recent world events have harmed the company's logistics, so managers want to know which countries, segments, and products work best. To do this, they have requested a dashboard that will allow them to see sales by country, sales by product, sales by segment, the evolution of sales over time, and the combination of these quickly.

The necessary data is provided in the Excel file.

Questions

The same Excel file provided should be handed in for the practice. You must create a new sheet and call it Dashboard, in which the requested information will appear. It may be necessary to create additional sheets for the calculations. You can use the formats and colors you want.

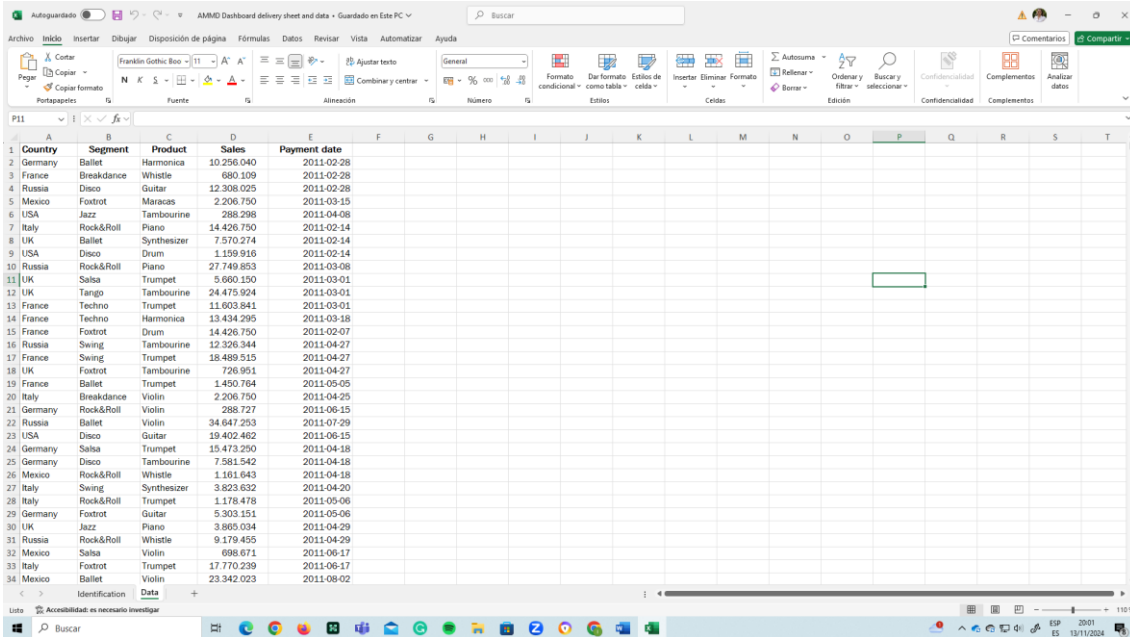
Note: You can use any of the dashboarding tools available on the Internet. In this case, you must indicate which tool has been used, what steps have been followed, and explain how the dashboard has been prepared.

The delivered Excel will have at least the following sheets:

- Raw data (those provided to develop the practice). It is recommended not to modify them so that they can be used again in case of errors. A copy of this sheet can be made if necessary.
- Dashboard: the results that are requested, visually and dynamically.
- Procedure: this sheet details the steps taken to build the dashboard so that you can follow the procedure.

- Additional sheets: additional sheets may be needed for calculations, graphics...
- Recommendations to the brand: this sheet includes the main conclusions.
- References: this sheet notes the websites or other sources consulted to develop the practice.

Excel file screenshot



Country	Segment	Product	Sales	Payment date
Germany	Ballet	Harmonica	10.256.040	2011-02-28
France	Breakdance	Whistle	680.109	2011-02-28
Russia	Disco	Guitar	12.308.025	2011-02-28
Mexico	Foxtrot	Marcas	2.206.750	2011-03-15
USA	Jazz	Tambourine	288.298	2011-04-08
Italy	Rock&Roll	Piano	14.426.750	2011-02-14
UK	Ballet	Synthesizer	7.570.274	2011-02-14
USA	Disco	Drum	1.159.916	2011-02-14
Russia	Rock&Roll	Piano	27.749.853	2011-03-08
UK	Salsa	Trumpet	5.660.150	2011-03-01
UK	Tango	Tambourine	24.475.924	2011-03-01
France	Techno	Trumpet	11.603.841	2011-03-01
France	Techno	Harmonica	13.434.295	2011-03-18
France	Foxtrot	Drum	14.426.750	2011-02-07
Russia	Swing	Tambourine	12.326.344	2011-04-27
France	Swing	Trumpet	18.489.515	2011-04-27
UK	Foxtrot	Tambourine	726.951	2011-04-27
France	Ballet	Trumpet	1.450.764	2011-05-05
Italy	Breakdance	Violin	2.206.750	2011-04-25
Germany	Rock&Roll	Violin	288.727	2011-06-15
Russia	Ballet	Violin	34.647.253	2011-07-29
USA	Disco	Guitar	19.402.462	2011-06-15
Germany	Salsa	Trumpet	15.472.250	2011-04-18
Germany	Disco	Tambourine	7.581.542	2011-04-18
Mexico	Rock&Roll	Whistle	1.161.643	2011-04-18
Italy	Swing	Synthesizer	3.823.632	2011-04-20
Italy	Rock&Roll	Trumpet	1.178.478	2011-05-06
Germany	Foxtrot	Guitar	5.303.151	2011-05-06
UK	Jazz	Piano	3.805.034	2011-04-29
Russia	Rock&Roll	Whistle	9.179.455	2011-04-29
Mexico	Salsa	Violin	698.671	2011-06-17
Italy	Foxtrot	Trumpet	17.770.239	2011-06-17
Mexico	Ballet	Violin	23.342.023	2011-06-02