

Role of Data Science in Media

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Abstract:

Data Science is playing a role of modulator for today's digitised media industry. As majority of functional domains are transforming themselves so that they can well stride with the advancement of data and analytic. Majority of media and entertainment industries are using sophisticated data science tools to create better and more personalised and customised content to drive audiences. The data is available in abundance but how these data can be analysed for drawing more audiences, engaging them and impacting them in an effective way is challenge. Here the role of data science can be said as modulator as the data science technology is making these data more usable and recommendable for media industry. This paper highlights how data science is creating a platform for media by collecting, processing, analysing, storing and providing recommendations which is a huge benefit for the media industry. The quantitative analysis of various papers on this role of data science in media has highlighted that data science plays role in bringing innovation to improve audience engagement as it is that scientific method which leverages processes, algorithms and systems to extract knowledge and insights from structured and unstructured data, which help companies to understand audience interests and preferences to create content that can appeal to masses. The result indicated by this study that data science by analysing data has helped media industry in orchestration of creative, business and technical decisions for doing well in this digital challenge. The conclusion derived from this paper is that the data science with its innovative technical tools help media industry to create opportunities to organise, analyse and model the abundance data in producing a cutting entertainment for their respective audience.

Keywords: Data science, data, media, innovation

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I. Introduction:

Digital media with its evolving pace is now facing a fierce challenge that how it can continue creating an impact on its audience in today's digitised entertainment. The appearance of worldwide network as universal platform for business, social life, entertainment and leisure is continuously growing. This virtue has created a requirement of well groomed data for the platforms using "media" as their major base to draw more audience digitally.

To create, to maintain, to control these data the best tool is the data science tools as these make data workable for bringing in more audience. Media content, designing its page, creating scheduling, viewership, customised subscription and entertainment to its personalised audience all are the spheres covered by using probable data science tools.

The data science tools are making the creators more innovative to feed their audience better aspects of entertainment. For any media industry audience is the main focal point as this audience database can create a huge difference in crafting the media's popularity. So understanding their psychology, societal involvement will help the media company to create more personalised viewership for audience and better entertainment.

By knowing your audience more customised shows can be delivered and this deliverance can be achieved by using data science for segmenting these audience on the basis of their interests, likelihood, societal influence, physiology.

Thus the major concern for media industry is the abundant data which need to work in innovative ways to leverage the data for great impact. The industry is changing at an accelerating pace as people consumption habits are evolving with the the new faces of technology to be competitive.

The media space is a great place for data science tools to create or support the institutions holding power to account and driving meaningful conversations and change

Data has many modalities like speech, acoustics, images, signals, point clouds, graphs and more which is inherently relatable to the vast audience due to their prevalence in our daily lives. The data science here plays the role of modulator by bringing innovation to improve customer engagement.

The data science tools can manage the hunger of media and entertainment channels”to be impressive” in a manner that customers are bonded greatly with their entertainment platforms.

OTT channels like Amazon Prime Video, Netflix, Hotstar are now making people feel feeling more relevant and desired ad these are providing customised entertainment to the viewers

The algorithms used to build a good recommendations engines are always evolving. A good starting point to read a about it is collaborative filtering and customer based filtering.

Data science is also helpful in creating customer segmentation and delivering insights into different segments of customers that exist is a crucial aspect of providing personalised marketing team to send different promo mails to different segments based on what people is watching in that segment.

Forecasting and viewership are subjective and in the media industry a number of exogenous factors affect viewership. By using data science technology these problems can be accommodate without causing a detained subscription.so it is the role of data science that makes media experiencing a better evident platform for facing technological challenges in digital worldwide network.

II. Research Methodology

Qualitative research is a method used for collecting data which are mostly the text analysis and different research papers that has helped in understanding the role of data science in media. Thus, to trace the implementation of data science in media, a profiling method is employed to analyze articles (published in English-speaking peer-reviewed journals between 2017 t0 2020) extracted from the Scopus database. The analysis presented in this paper is based on Netflix case study that has identified relevant data science research studies that have contributed both conceptually and empirically to the expansion and accrual of intellectual role of data science in media.

Netflix has released hundreds of Originals and plans to spend \$8 billion over the next year on content. Creators of these stories pour their hearts and souls into turning ideas into joy for our viewers. The sublime art of doing this well is hard to describe, but it necessitates a careful orchestration of creative, business and technical decisions. Here we will focus on the latter two—business & technical decisions like planning budgets, finding locations, building sets, and scheduling guest actors that enable the creative act of connecting with viewers.

As Netflix content production expands globally, geographic visuals are increasingly becoming an important part of analysing studio data. By overlaying multiple dimensions across geographies, it can surface key insights on resource availability and dependencies, unlocking efficiencies across our production catalog.

III. Result:

Each production is a mountain of operational and logistical challenges that consumes and produces tremendous amounts of data. At Netflix’s scale, this is further amplified to levels seldom encountered before in the history of entertainment. This has created opportunities to organise, analyse and model this data that are equally singular in history. This is where data science has aid the art of producing entertainment.

A multi-episode show can easily have hundreds of scenes, shot with hundreds of on- and off-screen individuals, over dozens of locations, spanning many months. Efficiently and effectively scheduling this symphony—the task of the first assistant director (1st AD)—is the central logistical challenge in film and TV production, and it is as much an art form as the performances one sees on-screen. When done manually, it is not uncommon for a 1st AD to spend hundreds of hours building a schedule.

At its core, a schedule is an ordering of scenes for each day of principal photography. A 1st AD’s job is to create such an ordering that respects various constraints and objectives: e.g. “We only have Actor X for one week.” Many of these considerations are fundamentally human judgments, but there is also room for automation to provide suggestions, or to assist with the more mechanical side of things. In particular, mathematical optimisation can help generate rough schedules to inform early-stage production planning.

IV. Conclusion

Data Science in the field of media and entertainment has become a prerequisite to drive decision-making if companies want to stay ahead of the competition. A data scientist’s ability to collect, store, process and analyse data, and make recommendations based on it is a huge benefit for the media and the entertainers.

The future of the media and entertainment industry is largely centred on the application of data science and analytics to conceive path-breaking concepts, case in example being the recent blockbuster by Netflix,

Bandersnatch. The one and a half hour show rendered the best of minds deeply bewildered with its ingenious concept of switching the show outcome according to the choices made by the viewers. This mid-stream personalisation of content was certainly an implausible concept, offering viewers the chance to affect the final ending according to their decisions. The entire spectrum of online media and entertainment space dove right into analysing and speculating the technology used behind it.

Use of data science and machine learning algorithms in media and entertainment have transformed the art of creating content into a scientific process. The creators are feeding on the user data and deriving minute insights that go into creating the most innovative of screenplays, scripts, ad campaigns, among other aspects of the media and entertainment industry. With the way creators and consumers are interacting with the content, it's highly exciting to anticipate what else data science has the power to revolutionise.

Bibliography

- [1]. Saumya Omer How Data Science is Changing the Media & Entertainment Industry on May 13, 2019

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