



Performance Comparison of applications with and without Web Frameworks

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ABSTRACT

This paper gives the comparative study on applications of those using web frameworks and those which don't use frameworks. People after experiencing the ease of frameworks, don't prefer traditional method to develop web applications. It is a heated-up debate happening these days that without using web frameworks, webpage can be a big hit and free from performance issues on one side while on the other side argues that websites are not appealing without frameworks and other framework traits. So Many people generalize that using web frameworks is best for giant applications and proceeding with traditional method is the best option for small web applications. So, there are equal distribution of pros and cons of developing applications with and without frameworks. This study helps to solve one part of the generalized statement that very large successful applications still are a market hit without using any frameworks from the scratch. The other part is solved by practically developing an application in two methods which provides the up's and down's in building the application in each method. So collaboratively. This paper helps in clearing the myths people developed about web development over time. This paper covers the Introduction, Research Methodology, Related work and Conclusion building step with necessary factors that helps to solve the argument.

Key words : Webframeworks, KPI's and metrics, Performance, Measure.

1.INTRODUCTION

Over the past years, there has been many changes in the way a web application is built and developed. With the introduction of various software life cycles web development is made easy by overcoming the vulnerabilities occurring in the development process. And by the time web frameworks entered the picture, the traditional approach to develop a web application faded gradually.

Web frameworks helps in

- faster development
- improvised security
- easily accessible libraries
- organized work

- Provide a clear code structure enabling reuse the patterns used.

Web frameworks come with a set of disadvantages as well

- framework restrictions
- performance issues
- custom built frameworks reduce customizability
- cost to build specific frameworks

Advantages of not Using Frameworks:

- Performance issues are solved
- Developer potential can be fully used in enhancing the webpage with no restrictions
- No code reuse once claimed by the developer leading to unique developed webpage
- Well-built customizable user interface.

Without frameworks, building a giant web application requires

- Complex coding
- Very time consuming.
- Bad design and inconsistency.
- Requires everyone's presence from developer, testers to project managers in implementing organization's web project.

It is kind of overrated opinion that things turn complicated with the use of frameworks and boring without using them.

So This myth is still an interesting topic on which many people argue even today and developers keep coming up with new frameworks to meet the user requirements and overcome the disadvantages that a framework carries while passionate developers create wonders with rudimentary libraries, elements of traditional method to overcome inconsistency and improve security.

2. RESEARCH METHODOLOGY

The methodology followed in solving the argument is comparing two web applications from same domains i.e. two applications serving the same purpose but one application using framework and the other application with basic development free from all frameworks, entities. The comparison factors used are "KEY PERFORMANCE

INDICATORS AND METRICS.” Any website’s performance is evaluated based on the KPI’s and metrics only. The widely used KPI’s in evaluating a website’s performance are:

- Bounce Rate
- Unique Website Visitors
- Pages Viewed Per Session
- Average Time on Page
- Top Landing Pages
- Top Exit Pages
- Onsite Search Queries

These are very generic measures and this concept are applied in deeper levels of specific points required to measure specific web applications depending on the domain and purpose the web application serves. Before we grow further in this study, it would be good to get familiar with the commonly agreed opinions about the web page building and development in two ways which are being compared i.e. generic building of webpage with and without frameworks.

2.1 Web Page Development in Traditional Method (Without Framework)

Traditional method of development is the act of not using any standard ways and templates in building and deploying web applications. Creating a website from scratch means reinventing all the classes used in implementing all the required domains. Web page development with absolutely no frameworks seems archaic for the current trend and for the beginners it feels like arcane.[3] It is very time consuming and hence not preferred when same job is done with little drawbacks by frameworks. Those drawbacks are concealed under time saving and easy development traits. But working on building web pages without frameworks will end up in making good developers who can do much better job than using web frameworks. In the librarian(traditional) approach, you are always in control of what's going on. You're choosing small, well-documented libraries for each individual task in your project. You tend to favor "knowing what's going on" over "things happening auto magically". If a library that you've chosen no longer fits your needs, you simply replace it with a new one or use both. Your choice, you're free. If you're not using a framework provided by an external party, you're always building one of your own in the codebase. It should also be made clear that using any tool is not framework! On the other hand, if all you do is abstract the needs of the application using interfaces and then implement that using libraries, then it's surely not a framework. That's just (good) design.[8]

2.2 Web Page Development in Modern Method (WithFramework)

Contrary to the previous one, the frame-workers are not a bunch of kids who chase every single shiny thing out there on the field. Instead, they go for the framework so that they can focus on the real business instead of reinventing the wheel for the millionth time. [3]The people who works using frameworks state that “Fun or not, doable or not, most of us

are not hired to solve technical problems that were already solved a lot of times by a lot of people. We are hired to solve actual; business problems and we should put as much focus towards that as possible.” Choosing libraries, coding bits of ones’ own and trying to make it all work together is a waste of time if there's a framework doing all that out of the box. This argument goes even further. If one is skilled

enough, the time and money wasted to code it up can be marginal, but the maintenance and learning costs won't be, for sure! If a system is to be maintained for many years, by many different teams, the cost of learning how the non-framework setup work can be significant. And every single bug that arises in the own mix of technical solutions is an unnecessary cost that should not be underestimated. The degree to which someone building a framework of their own depends on how much they frame their further work. So, if someone design a set of primitives upon which the rest of the application is later built, then yes, he/she is creating a framework and it can be considered a waste.[8]

3.IMPLEMENTATION

To compare between the two methods, it can be done in two ways:

- a) From the developer end
- b) From the user end

So, for the comparison from the developer’s end, a web application with and without frameworks is developed to explain the developer end experience. For the user end conclusion, the existing two applications which serve the same service where one uses frameworks and the other doesn’t use the framework are compared. The application developed for developer comparison is not used for the user end comparison because the comparison is better for application users in large numbers i.e. web applications that has millions of users so that the comparison is not biased.[10]

Developers end

Build a simple interactive web application can be done in two ways:

With frameworks

For the first way, application is built using express Js frameworks running on node is to make a connection to the backend server and using the Mongo database as the backend.

3.1 Node JS

This gives a brief of what and why Node JS is used. It can be explained as event-driven server. It uses a single thread to manage all connections to the server. Using callbacks, Node.js processes all the requests without any causing delays in the flow. It means that whenever server receives a request, express.js without blocking the main stack processes the request into the callback. Here, for the application it is needed to retrieve the required profile information from the Mongo DB. This process is time consuming as it may involve disc read delays. So normally the server must block all other requests to deliver the required data. But in Node JS, the logic of data is registered after post processing in the callback. It

means that the data processing occurs in parallel and the server can accept other data at the same time. This is the reason why Node JS can efficiently process larger number of requests.[2]

3.2 Mongo DB

The main purpose of using Mongo DB here is that it is JavaScript oriented. The Mongo driver add-in used to fit the Express system is Mongoose. This driver helps in transferring all the data as the way it is without wasting time and resources.

on the data adjustments according to the programming environment. The requests in the Mongo DB are processed in the same way as they are in the callback. So that the server need not wait or blocks the stack to transfer certain data but can process other requests simultaneously. Mongo DB is mainly developed for scale-out data driven servers. This is very vital because the scale-out database can be situated on one or more physically remote servers and retrieving data from them is so much time consuming.

3.3 Steps in the development Mongo DB

The whole process works this way:

- 1.The requests are received by the server.
- 2.It register the event - data processing.
- 3.The event helps in sending the request to the remote Mongo Server.
4. After this step, For the data to return some time is required. Simultaneously, the other requests can be processed by the server.
5. When the requested data is arrived, to deliver the data, Mongo driver invokes the user request handler.
6. User request Handler send the data back to the client.

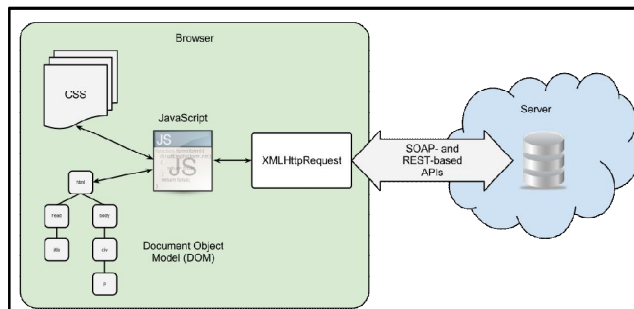


Figure 1: Development of Mongo DB[1]

Interactions

3.4 Express Rest API

As only java scripts are used in both Express.js and Mongo DB, it speeds up the development process. So, tobriefly explain the interactions of the elements, it goes this way:

- Clients
- API server
- Database

Clients are both web apps and mobile apps. Here it is emphasized on web apps only. Web platform services can be developed with any kind of methods like using React, Backbone.js, Express.js etc.

API servers are used to process all the requests from the users. For a system with large inputs and outputs flow, Express.js suits perfectly. Once the data is processed, it is saved in the database using Mongo Driver.

The data from the server is requested by the clients through the API.The server fetches the data from the database and send it back to the client using API. Clients finally display this data.

Without frameworks

For the second method, the application uses Html, AJAX, Php, Java Scripts which was earlier built using Express.js as the framework. The backend is MySQL database. The run time environment is XAMPP server.

XAMPP

It is a free, open source, cross-platform and lightweight distribution of Apache that helps in creating local web servers very easily. It is used for testing and deployment phases. Any HTML pages with CSS and Java scripts can be easily be tested, modified in any web browser without using any tools. All html files are stored in the html docs folder.[7]

Apache

Apache and MySQL modules are started as server application and database. Apache is an open source, free web server which allows owners to serve content on the web. Web server acts as a proper tool as middleman between clients and server communication. It receives user requests and fetches the related content to deliver it to web. The challenging about web servers is to serve many users at same time for different requests. Web servers process files like Java, PHP, Python and other programming languages and turn them to static HTML files and serve these files in the user's web browsers.[2]

jQuery

Using JavaScript on websites is made easy by jQuery. It is a set of Java Script methods and functions. It is lightweight where little writing makes more work. It helps in wrapping many JavaScript lines into methods which can be called by single line code. It simplifies many complex JavaScript, CSS manipulations, AJAX calls and HTML/DOM manipulations. jQuery has many plugins for all the complex tasks.[1]

AJAX

AJAX is the used for server data exchange and to update webpage modules without reloading the whole page. It loads data in the background to display it on the webpage. It doesn't require to reload the entire page again. Several methods for AJAX functionality are provided by jQuery. together with jQuery, AJAX is used in requesting text, HTML, XML from remote web

servers using HTTP Get or Post to load the external data directly into the web page HTML elements.[1]

3.5 Steps involved in the process

Since the web frameworks are out of frame, everything should be built from scratch and the server is called by the files remotely in XAMPP. The steps involved in creating a web page using XAMPP are:

1. Creating all the required documents with html,CSS, jQuery and ajax.
2. Use apache as the http server.
3. Put all the documents in the html docs which acts as www or public HTML to access files publicly.
4. Make a request i.e.Browse the index file using web browser.
5. The request if forwarded to the XAMPP server.
6. Apache on the XAMPP receives the request.
7. AJAX makes the request to the server from the web page and send/retrieve data.
8. MySQL is connected by using jQuery to fetch the requested data by the user.
9. The requested data is loaded in the web browser directly in web pages HTML elements.

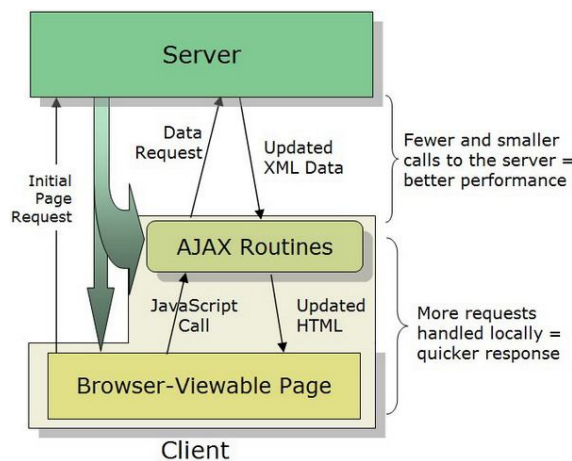


Figure 2: AJAX RoutinesProcess [1]

3.6 User's end

There is nothing much an end user be aware of how the application is built. All that matters to the users is what is the performance of a webpage. So, to measure the performance of the webpage, as stated above there are certain KPI's required which varies according to the application. Here the applications that will be compared are YouTube Vs Vimeo. When it comes to online video uploading, the two most popular video platforms in the market are YouTube and Vimeo. It is most widely questioned which one works better between the two of the platforms - YouTube vsVimeo. They both are very good platforms with their respective advantages and disadvantages. Further, comparison of YouTube Vs

Vimeo is done, and their pros and cons are shared as well as the KPI comparisons between them.[1]

But why only YouTube Vs Vimeo? The key point is YouTube is still doing a lot of audience with simple tools. YouTube really does keep it simple, while many other teams are moving on to more complex ecosystems. The primarily used programming is in Python and they use MySQL as their database. They have stuck with Apache, and even new features for such a massive site start as a very simple Python program.JavaScript and AJAX are introduced into different areas of Vimeo to improve back-end performance and load in many cases. MooTools has remained Vimeo's primary JavaScript framework because of its strong object- oriented class/inheritance model, modular design, and clean/readable code. So, having two widely used video platforms with YouTube on one side which uses no frameworks while Vimeo on the other side clearly kept updating its frameworks from time to time.

The specific Key Performance Indicators for measuring these two videos uploading platforms are:

- Total Watch Time
- Total Amount of Video Views
- Viewer Retention
- Video Engagement
- Number of Subscribers
- Daily Active Users (DAU)
- Traffic Source
- Subscribers' Demographics
- Top 5 Videos by Views

To get into the real time comparisons between the two platforms, it is better to explain about each KPI in brief to show how that indicator is going to measure the website's performance.[7]

Total watch Time

Developing the Watch Time – whether or not or not for individual videos or set of videos as a collection, it is one of the foremost vital KPIs, it ultimately reflects the satisfaction and the user primary requirements like the necessity to look forward for good video content. It is easy to quickly and reliably verify trends and outliers by observing thefull collection videos usual Watch Time. It also helps in analysis of individual videos which helps in understanding valuable new insights. All these findings as a collection will help in developing the best practices and helps in video promoting strategy on a property level.

Total Amount of Video Views

Together with the typical Watch TimeKPI, analyzing the certain pattern of views of a video is especially challenging. This helps in quickly determining theliked videos which means they are popular. Let's imagine a video which has gained tons of views, but the watch time is relatively low. It indicates that users aren't happy with

the content. The potential causes might be, as an example, a title that is misleading, thumbnails that are not relevant to the content, false description resulting in the false expectations of the users. The Views and the Watch Time metric together gives you a holistic perspective on the impression you create in this social media.

Audience Retention

Viewer Retention is another very important KPI metric. With the help of average watch time, it can be monitored in a very easy standardized manner. Additionally, it'd be to very sensible in looking closely at the individual videos detailed history. For example, it's noticeable that at least half of the users end the video before thirty seconds. This helps in answering few questions like if the process is normal when compared to other videos, or to determine if the introduction is too boring and to determine the video quality. Usually, an enormous number of individuals generally leave long before the video really ends and hence this KPI helps in understanding the reasons which made the viewers quit.

Video Engagement

Just like every other social media platform, viewers engagement is one amongst the top focused area during analysis of the video. The KPI metrics to measure the engagement are Likes, Dislikes, Comments, and Shares. It helps in demonstrating if the viewers are satisfied with the content, and if the correct audience are targeted with the right videos. This in the end, helps to popular. Dislikes is a great feature that helps in analyzing how ways many folks didn't like the posted content. If the number of dislikes is high, things should be considered seriously to find out what went wrong and why the content gained such negative responses. The relationship with the audience can be determined by analyzing those reactions.

Number of Subscribers

The number of subscribers tells how many users regularly follow the updates and the content posted. If the platform permits you to list subscribers, the subscribers who marked them as public will be in the analysis report. To determine where the statistics is going over a certain period, this acts as an important measure which gives a summary of number of subscribers are lost or gained. By comparing these two KPI examples help in gaining an insight, which when combined and analysed with other indicators helps in drawing many valuable conclusions.

Daily Active Users (DAU)

At the beginning of channel building, it is very important to contemplate the target range of views to attain per day. It is vital to follow daily Active Users because they are the most trustworthy fans. So, the main target is to grow that number as much as possible because DAU helps in tracking the strategy of the platform and content. It is

important to track those weekdays as a result it helps to figure out the best time for the posted videos to reach its best results.[10]

Traffic Source

These are the ways in which the users realize uploaded content could be a nice place to begin to be told as the Traffic sources: Search, advised links, Direct Traffic, Video Channel Pages, External Sources, or Browsing Choices. Watch length on an average base can tell a lot about the video reception levels. Also, it helps to tackle deeper into the Traffic since it helps to find the exact search queries, social media platforms which brought the users to visit the channel. Some sources, like direct browsing option which have the higher click through rate than the home content.

Subscribers' Demographics

To be acquainted with the audience is of preponderating importance during the analysis of the channel's strategy. One of the very important indicators to think about is that the Devices' metrics, Age metrics and Gender. These metrics are additionally used in validating the original targeted audience. If the audience is totally differing from what it was thought might be, then is very important for the reason analysis.

All these key factors are not directly linked to the using of frameworks or avoiding of frameworks. But they do play a major role in giving a larger view of how these KPI's altogether influence the website performance and preference from the user end. The holistic measures can be put forward as the following:

- Number of Users
- Customizable player
- Analytics
- Advanced Privacy options
- Running Ad Campaigns
- Community
- Storage
- No Pre-Roll Ads
- Cost
- Support
- Mobile
- Search Optimization

The comparison of the two websites will be published in two stages:

- The Inner layer Comparison of KPI's
- The Outer layer Holistic view

4.RESULT COMPARISON

The comparison of applications using frameworks and those not using frameworks is based on the two factors of implementation i.e. both the results of developer and end

user conclusions is required to find out which method is often the best to design web applications. So, the results will be presented in the following two steps:

1. **Conclusion as a developer:** The views on the developing process is presented based on designing the same application with and without frameworks.
2. **Conclusion as a user:** From the user point of view, two widely used applications are compared and then the holistic views are presented.

5.CONCLUSION AS A DEVELOPER

To give a conclusion from the developer end, small and unique web application built called as STUDENT RESUME PORTAL is used. It helps in providing a database of resumes which can be used during campus placements and in workplaces to store the new employee resumes and CV'S.resume copies. The admin and concerned faculty updates all the resumes of the students in a web portal and the access is provided to the recruiting companies so that they can easily go through the enhanced views of students profile rather than stereotypic paper views and this reduces piling up of so many papers at end of each day a company visits.

5.1 With Framework

The application is built by using the Express.js framework. Node.js is very easily scalable which suits the best for the application. Additional nodes and resources can be added so easily and can be extended it to any level using horizontal and vertical directions respectively.

It helps in writing the front end and backend web applications using JavaScript without the help of any other server side programming language and it is the best part because almost all web browsers these days serves JavaScript and it acts as a full-stack JS for serving both the client and server applications.

As the run time environment supports the non-blocking I/O operations the speed of the code is also enhanced to implement code in an effective manner. So, the system can concurrently handle multiple requests quickly.[4]

Since there is a facility of single module caching, there is no need to re-execute the codes which allows the applications in loading the web pages faster and swiftly.

The packages and tools offered by node.js helps in extending support for identifying and in installation of the project dependencies. It is also very flexible and extensible as it helped in customizing the data exchange between clients and server with built-in API for developing TCP, HTTP and DNS and other servers.

When it comes to backend format for seamless communication, Node.js uses JavaScript only without the

need for converting between binary modules. This became very helpful as the database is MongoDB. If not this

seamless JSON support, allRESTful API's for NoSQL DB supports had to be built separately.

It came with set of flaws like the unstable API and the new version didn't let the usage of the same set of coding lines for a function which raised compatibility issues with the new updated version.

The common library for various tasks like handling operations of database and the trouble in image processing and handling various html pages to interlink them cannot be appreciated. The registry is not well structured to offer good quality tools which makes the search very difficult and improper documentation of tools add more complexities in choosing the best fit.

It required the dependence on nested calls as the code became clumsy when more modules are added to extend the scalability.

As it uses asynchronous programming language which is more difficult compared to the linear I/O blocking programming. Due to this nature, it heavily relies on callbacks. This really impacted the code quality.[9]

5.2 Without Framework:

The second method of building the application uses simple jQuery, Ajax, html scripts for creating the web pages using Apache, MySQL modules on the XAMPP.The common misconception is jQuery is a framework. But it is far better than a framework. It is just a tool that makes the implementation easy in the way we want whereas frameworks force a certain way of solution implementation.

The use of jQuery to build the same website allowed to create plugins which work on the top of the Java Script libraries unlike node.js. It enabled to make low level interaction abstractions.

It is one best feature in developing customizable add-ons apart from the millions of plugins provided for free in their plugins site. Many quick effects, animations, transitions can be created more easily with just few lines of code.

Another drawback about using selectors is jQuery always must cross all the elements every time which made the application so dull. jQuery is the best to create drop down menus, drag and drop elements, form validations, slide shows.[4]

The inclusive library documentation and tutorials of jQuery made easy to obtain better results. To run commands, it needs jQuery JavaScript folder whose size

is very small restricting the scalability. The other drawback is unlike JavaScript, jQuery can't be used in server-side programming because it is built on JavaScript but doesn't use them internally. Ajax acts as the partial server and implements the client requests without fully loading the webpage in sending /retrieving data which increases the response time and efficiency is increased.

For security reasons using XMLHttpRequest object can only be used for information access that serves initial pages from the web host. It's not possible to fetch another server information within the AJAX.

Finally, to conclude the comparison, Creating the application both ways had its own advantages and disadvantages as previously mentioned but according to the frameworks chosen and the libraries, techniques used to develop the same application without frameworks. The conclusion depends on the application requirements and the methodologies the application used. According this application requirements, it is better to work with frameworks. This can vary with other scripting languages or other frameworks. The advantages of using express.js overcame the disadvantages that came across the development.[9]

6. CONCLUSION AS A USER

As already given the KPI's for measuring the user side performance experience, simple combinational conclusion of holistic view using the inner layer KPI's is given as follows:

6.1 Total Watch Time

This KPI helps in watching the video performance evolution in a quantitative way. To identify the various internal benchmarks, it is important to compare the various videos watch time.

YouTube watch time report provides the detailed watch time report whereas Vimeo basics databox gives various tracking options of the videos uploaded. Both works so great in providing the service in their own style. But using

YouTube analytics felt better for many viewers on study because the access of the report is in few simple steps and very easy.

6.2 Total Amount of Video Views

To gain valuable new insights for the marketing strategies, it is important to make a critical look at the videos to analyze the videos in the given time frame with the highest and the least number of views.

YouTube measures the view count if the video has been watched for more than thirty seconds while Vimeo counts the video count when the play button is hit.

Vimeo is the best that even if the video play button is hit by mistake, it still counts and helps the uploader view counts.[6]

Audience Retention:

To keep the viewers interested in the content, a detailed viewer Retention analysis of the individual videos is required. This will give a chance to identify potential issues as well.

YouTube uses The Engagement tab to measure this metric while Vimeo uses stats dashboard.

YouTube works better on this base because Vimeo has poor dedicated audience retention measure.

Video Engagement

Collect all types of user reactions on the videos because this will help in determining the different type of reactions each individual video attracted and perform a detailed analysis of the metrics. Finally, adjust according to the audience needs.

This actually is based on calculating using audience retention metric only. Vimeo is the best in maintaining the video engagement as it provides the video clipping and editing options even after it is upload which is not possible in YouTube.[6]

6.2 Number of Subscriber

Set a target of the subscriber growth over a specific period and start tracking down the list of lost and gained subscribers. This helps in tailoring the content according to the audience needs.

YouTube has a dedicated subscription report which provides detailed subscriber count from different sources all over the internet. Vimeo also provides the subscribers location as well which tells the uploader ways to attract more audience. Both Vimeo and YouTube provide great measure of this KPI in their own style.[6]

6.3 Daily Active Users (DAU)

To identify how the channel is perceived on a daily level, it is important to look for the average views per day and the number of active users.

Your tube's dashboard provides the result as avg view count per day, active users per day and view history of the last 90 days. Vimeo calculates the daily active user count as an average of various types of views on monthly basis.

Traffic Source

To find the details of specific sources contributing in attracting the audience, performing an analysis of the source's is very important. It is very useful in analyzing

the add on indicators and to gain and grow popularity.

YouTube calculates the traffic source based on the number of views and average watch duration measured in seconds. Vimeo uses bounce rate and time on page to measure the same.

Both has different styles of calculating this and perform equally competing with the other.

Subscribers’ Demographics

To tailor the videos in a specific way to meet the audience views, identifying the audience demographics is very important.

Vimeo works best in this measure as it can tailor the videos even after uploading.

For the holistic comparison, a table will be given below the factor being measured with the output of YouTube or Video has more win.

Table 1: shows the comparison of Youtube and Vimeo

Number of Users	YouTube
Customizable player	Vimeo
Analytics	YouTube
Advanced privacy options	Vimeo
Running Ad Campaigns	YouTube
Community	Vimeo
Storage:	YouTube
No Pre-Roll Ads	Vimeo
Cost	YouTube
Support	Vimeo
Mobile	YouTube
Search Optimization	YouTube

To conclude from the application’s development perspective, YouTube without using any major frameworks still stand ahead in the list while Vimeo has many other advantages like privacy, good documentation help, security and integration features better than YouTube. But Vimeo comes with additional costs to hire reliable developers who are expertise with the framework used. It can be concluded that using frameworks to a minimal extent by keeping consistency and independence from the main functionality, any application would be a just big hit!!!

And finally, from the user’s perspective, choosing between YouTube and Vimeo depends largely on the requirements of the user in accomplishing their goals. If user wants a creative community, go with Vimeo or if business is the focus, YouTube is the best.[5]

7. CONCLUSION

Web applications these days are the best source in spreading the business in a swift. Web frameworks come with various technical and organizational advantages to

overcome the traditional development process. But the usage of web frameworks does come with a set of disadvantages as well.

Regardless of the advantages and disadvantages each method has within itself, Web application with frameworks or go framework less is completely individual decision and depends on the specifications, requirements of an application to be developed.

It can be concluded saying that usage of web frameworks in certain applications is better and for certain applications is not. So simply putting forward the statements like frameworks ease the work or frameworks makes applications complicated cannot be done in generic ways. It can be only be specific application or search based opinion of a specific individual.

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