The Problem | The world of online interactive content generation and publishing is divided into two isolated parts. One that generates it and one that publishes it. Being isolated they enjoy the freedom of existing in different technological domains and platforms.

Many tools, some of being very sophisticated (and from very reputable brands) in their domain are available, but they fail to do one obvious thing, they cannot expand their capabilities to the other domain. And being from different technological domains and platforms, it is a distant future when they can co-exist on the same platform. The coupling of the tools is not a feature extension that concerned users are waiting for, but is now a "need".

The cosmic inflow of content from content developers is waiting in queue for their chance to be turned into digital "publishable" format. There are many standards available that are implemented on the online scenarios which provide the basis of the publication. They perform well when content is well formed and lies in only one technological domain. And to do so, more sophisticated technologies needs to be used, adding complexity to the workflow.

Once it is converted, it then suffers in the environment that either has a limited reachability or are poor (with respect to web 2.0 technologies). These environments are rigid and they lack capability to expand and extend to the new technological domain. And by the time it is published, they are either outdated or have lost its significance that was once the motivation.

This ultimately turns out to be ineffective when it the sole purpose of the content generation is making profit by publishing it. Even when the purpose is not to make profit, content that is published voluntarily for educational and awareness purposes, the waiting time that content passes in the pipeline, is the time wasted in utilizing the same.

This resistance is felt more where resources are scarce and the motivation to publish the content is highly affected by the complexity involved in content generation and publishing. These scenarios are dominant where technological reach is either limited or too complex that can be consumed by the content developers.

The third party firms that specializes in publishing are doing the "hard work" of coupling these two domains, that can be converted into "smart work" if such tool is available that can do exactly that. And in this case, these third party firms will be out of business, because content generators will be able to publish content themselves without the need of these third party firms which will significantly impact in terms of expenditure wasted in publishing it.

The Solution | The apparent solution is to provide the coupling facility, which in turn proposes the new challenges that are related to cross domain functionality, and are by nature hard to accomplish or at least not achievable without complex and sophisticated solutions.

This solution is not feasible when it comes to the time it takes to implement it and along with it the resources and money that goes into making this solution. And it is not yet the solution that we are expecting, because it might be resistive to the change due to the nature of the domains that it is trying to couple, that future technology might propagate.

The other solution is to provide the framework that does the publishing and generation for us. And this solution can be converted into the need if implemented properly. This solution is focused on creating online framework that provides the means of generating interactive content and mechanism to publish the content over the heterogeneous platforms ranging from formal desktop environments to mobile application. This means that the publishing party would provide the source content as input and views that are compatible with the multiple platforms and environments will be available as output.

This solution is made from the ground up with the latest technology available and hence it keeps the door for the expansion and extension open. And hence it is more preferable and economical solution when it comes to the long term investment into the final product.

The primary domain and framework's operation for internal project of the semester 8 is generating interactive content and to bridge the gap of technology that current education system is facing. But the framework if flexible enough and can be extended to support any kind of content generation and publication. This gives us opportunity for profit generation from infinite domains.

The technologies used are primarily web technologies (both server and client side), in conjunction with the specific cloud integration and synchronization technologies. ASP.net and PHP are considered as a strong contender for server side technologies. A best one that satisfies the need of the application would be selected. As far as client side is considered the standard web technologies (HTML, JavaScript, and CSS etc.) are considered.

Also the published content is compatible with the majority of the platforms ranging from desktop systems to the Sandboxed Mobile Application environment. Also the system is capable of publishing content that target device can cache offline. And hence eliminate the need of the continuous communication with our server.

The system is accessible from the web enabled device and would have group of users each with different access rights and set of primitive action and responsibility. And according to the criterion set by us, users will be able to access the content. This provision of the content access will be subject to the service agreement which can be decided, and are subject to change or replace.

The system can be extended to publish the content in multiple languages depending on the region of their deployment. This enables us in acquiring the variety of consumer from wide demographic regions.

A set of technologies that could be utilized in the project : Web technologies (Server and Client), Mobile Platforms, Cloud Service integration, Scheduled and Unscheduled Synchronization Mechanisms, Device specific Offline Caching Mechanisms, Multilingual Support, security mechanism for published content integrity (mainly encryption and decryption).

Business Model | Why business model is important | For an innovation to be productive and generate profit, a startup requires an efficient business model which is in compliance with the needs of an organization and is compatible with domain of organization's area of operation. Business models are important in a way because they enable the organization to help convert new technology, tools and the end products that are generated by it, into the profitable assets.

Sometimes business models are more important that the idea and product itself, as it converts those ideas and products into the revenue that help the organization run and last. The basic goal of the business model is to utilize the technological expertise of the organization and convert it into the economical product which can be sold. It is just enough to say that a mediocre innovation with a great business model behind it may be more profitable than a great innovation with a mediocre business model.

A business model is a bridge between the product of an organization and the value that is generated after putting those product actually into use. This not only affects the economic aspects of an organization, but also the cultural and social aspects. The business model is sometimes part of the business strategy or is the business itself.

In regular scenarios the business model represents the abstract and in many cases the in-depth description about the product and about an organization in formal terms. It also formally describes the intended and the proposed target of customer base and the range of offerings from the firm. It also provides the strategies that are used to attract the customers and also the marketing tactics that organization uses to attract new domain of users. In business model the infrastructure that will be used to generate content and profit is also well described.

Many times organizational structures are influenced by the business model that is associated with it. And that ultimately affects the end product, which in our case is content generation and publishing onto the online web front. Business model that we utilize ensures that we use the trading practices and the technologies that are part of online standardization and ensures the integrity and multi domain operability. This leads to the output that guarantees customer expectation. Business model is a great value to the organization and thus helps them form and reform the policies that suits them best and also enables them to generate the maximum profit out of the product.

Subscription based business model | The subscription based business model is the one where a customer must pay an upfront amount in the form of subscription fees in order to have an access to the product/service that organization provides, for the specified time, which is formally presented in the service contract. This model was and is highly utilized by the majority of content publishers, but is now increasingly more and more used by many businesses including web developers.

Rather than selling products one by one, a subscription model sells the product periodically (monthly, yearly or seasonal and even in some cases some custom periods) the customer use or access the product or service for the specified time. Thus one time sale of product can be converted into the recurring asset and it can be beneficial in term of building brand loyalty which is subject to the amount of time the customer is seeking the services from an organization.

In our case the content that we generate and publish onto the repository can be availed to the user after he/she pays the fees that were negotiated at the time of payment. After successful payment, the user is given access to the content and access is retained for the period mentioned in the contract. Renewal of a subscription may be periodic or it can activated automatically if client wishes to, or it could be settled that subscription is only available to the client for the period he/she wishes.

Another variant that can be adopted here on this platform is called freemium model. In this model the primitive content is provided for free, but which restricts access to premium features and content, and

forces it to be availed only to paying subscribers. In this case, the subscriber-only content is said to be protected behind a pay wall, or - in a scholarly context – it is under the closed access.

There are different categories of subscriptions:

- A subscription for a fixed set of content or services, such as one copy of each issue of content for a definite period of time. This is same as purchasing the product on one time basis and utilizing it as a sole proprietor.
- A subscription for use of a service or collection of services as whole, that is all the products that are available to the customers will be granted to the subscriber after collecting specified amount of money for specified period of time. No restriction on the access to the content are made but the restriction are forced only when the service contract expires. Usage may be personal and non-transferable, or it can be arranged for a family under certain circumstances, for group users having same interests.
- A 'pay as you go' subscription, where you subscribe to purchase a product at regular intervals. This is also known as the convenience model because it is a convenient for the customer to not to remember to go and find their product and buy it individually. In this case the new edition or the revision of the same content family is automatically provided to the users charging fixed amount of fees or the fees are collected in the initial payment phase.
- A subscription for basic access or primitive service depending on usage. In this case the access to the repository is at bare minimum and everything else is behind the pay wall. Making it more restricting and is more suitable for the content which is more exclusive and premium, and which is intended for the exclusive customers.

Effect on the vendor | Businesses tends to operate onto the revenue that is continuous and predictable and this model assures that customer who are subscribed would pay on regular intervals and hence it creates continuous inflow of revenue. This helps by reducing the risk associated with the uncertainty and the riskiness of the enterprise faced when their payment is struck in the pipeline.

In this scheme often payments are provided in advance, while at the same time it lets customers to become greatly attached to service they are using and that also for the longer period of time and, therefore, it is more likely to extend by signing an agreement for the next period close to when the current agreement expires. This helps implicitly by having more chance and time to build better communication and relationship with customer.

In integrated software solutions, like this one, the subscription pricing structure is designed in a way that the revenue inflow from the subscriptions is actually greater than the revenue which is generated from simple traditional one-time purchases of content and services. In some subscription schemes, it also increases sales, by giving subscribers the option to accept or reject any specific issue of content if he/she is not satisfied with its quality or the content is not of his/her interest.

And it also helps customers choose efficiently from the options, as this does not incur the high up front cost. This reduces customer acquisition costs, and allows more personalized marketing targeted for the specific customer segment. However, for this to happen, it is necessary that all the contact documentations and the specifications associated with it are specified accurately. It has also the added

benefit that the vendor knows the number members are currently active, since a subscription typically involves a contractual agreement they can also know how many of them are retaining.

Effect on the customer | Consumers prefer this option as they find it convenient that that they will buy a product on a regular intervals and that they might save money if they spend it this way, that is in small chunks called as subscription fees. For repeated delivery of the same product or service, the customer also saves time as the delivery is in short chunks which can be handled easily. This also provides us the opportunity to implement the ground level features at more granular levels that improves the customer experience.

Subscription pricing can make it easier for customer to pay for expensive items, since it can often be paid for over a period of time (i.e. in installments) and thus can make the product seem more affordable. An unlimited use subscription which allows users to access the whole repository, to a service for a fixed price is an advantage for consumers using those services frequently on the regular intervals.

In addition, subscription models increase the possibility of vendor lock-in which is the term used for the content which is published by our organization but customer later find it not so useful and decides to opt out of the plan, and in this case the content which we provide might not be available on the associates and competitor's websites, and hence it closes the doors for customer to go back.

Customer Base | The range of customers that our site can successfully attract depend on the type of content that we generate and publish. The same goes for the subscription options that can be provided to users. The more diverse the plan of subscription, the more chances of attracting diverse set of users.

Though for this internal project we are proposing the following customer segment:

1) **Educational Institutions:** Being part of the root of the current education system these educational institutions are great source of the largest source of customer acquisition.

2) **Non-Profit Institutions:** These institutions are the strongest helper hands of the current government body. And they serve with the sole expectancy of completing the goal and projects started by government. The major example being the Prime Minister Fellowship programs, under which various fellows are appointed under the Prime Minister for completing the government project in the affected Naxalite areas. These people are having hard time distributing the content that they rigorously prepared, and for such situations this tool can be very helpful.

3) **Awareness:** This tool can be used for the awareness purpose by the government and non-government bodies.