

## VuYou: from design to delivery

### A Business Start-up

Terry Flores, an online marketing expert, created the concept of VuYou, a web-based service to allow members to record and send, and receive video emails with the ability to link these messages to other social contact websites. Terry sought expertise from entrepreneur Robert Drew to develop a business case, based upon extensive research into internet use, recent growth and the potential audience figures for such an innovative and unique service that illustrated how the creation of such a service could deliver a return on investment for its investors.



In developing the concept, it was recognised early on that two key components would determine the success of the VuYou proposition; the intuitive nature of the design and the expertise of the technology partner to integrate the interface and highly advanced back-end infrastructure. To successfully deliver VuYou, with effective project management and, critically, an understanding of both of the key components, it became imperative that VuYou, therefore, should partner with one company to both design the interface and deliver the bespoke functional requirements.

VuYou was to be aimed at users of all levels, irrespective of computer literacy or geographic location. This defined the need for simplicity in the design. The interface needed to be “clean” and uncomplicated, vital in maximising registrations and repeated use, thereby ensuring the highest possible growth. From this requirement a ‘three-click’ methodology was introduced; use of the core functionality, the recording and sending of emails, should be achieved within three clicks.

VuYou understood that there may only be one opportunity to take its offering to market; should the software or interface be unreliable or otherwise ineffective, the reputation of the service would suffer, impacting the potential profitability (or even viability) of the business. It became essential that the solution delivered would have to be functional, usable and scalable, and, overall, reliable.

Speed to market was also considered important. The more time that passed prior to launch, the more revenue and marketing opportunities would be missed. Perhaps most importantly, while there were no direct competitors to the planned service, delays in development give the opportunity for indirect competitors such as YouTube or Facebook to develop services that more directly compete with VuYou before the VuYou brand is well established.

With its reputation for quality software development and its recent introduction of the design agency, Bluesulphur, Compsoft was approached to manage the complete delivery of the VuYou application. Compsoft has been at the cutting edge of web-based application development since Microsoft introduced an early version of its .NET framework, a toolset enabling rapid development of applications with enhanced security and interoperability, in 2003. With many solutions developed, Compsoft earned the status of Microsoft Gold Certified Partner – the highest level of achievement, recognising the quality of services in a number of skills and competencies.

Through its own design and development processes, Compsoft began exploring the detail of what was required. Working closely with Compsoft Project Management and the Bluesulphur design team, VuYou identified its vision for the application, its functional expectations, what it wanted to achieve through the look and feel of the interfaces. This shaped the specification; the blueprint that the designers and developers worked to.

### **Compsoft's Approach**

The first stage of the development process was for business and user requirements to be gathered and analysed in order to devise an appropriate project plan aimed at delivering agreed features in a logical order. A Compsoft Workshop was the first step towards achieving this. During this time VuYou, Compsoft developers and Bluesulphur designers explored the required functionality, identifying how latest technologies could benefit the application. The result of the Workshop was a detailed functional specification, project plan and delivery schedule that was subsequently agreed by VuYou prior to the commencement of development.

Compsoft Project Management took overall control of the application's development including the design phases. Bluesulphur delivered the interface designs continually liaising with VuYou to ensure that all the design needs were met and that VuYou received the application they wanted. This meant a fluid design process, constantly evolving throughout the project made more efficient because of the co-location of both the design and development teams at Compsoft's office in Hampshire.

### **Functional Requirements of VuYou.com**

Through the workshop process, it was identified how users would engage with the application:

Users should be able to register, creating an account and profile. It was important for use of the service that a recipient of a video message could view the message without having an account and be presented with the option to become a member to create a video message in reply.

Once a user had created a video message a notification email should be sent to the recipient. The video could then be seen by the recipient either by clicking a link in the email or by logging in to their VuYou account (if already a member). As an innovative feature, VuYou wanted the notification email to contain a film-clip-style set of video frames from the message, which the reader could view prior to being taken to the VuYou site.

VuYou also wanted users to have the ability to maintain a video blog (the VuMe page) from their profile with the option to either make the page open for public readership or only accessible to a closed readership. The user could then invite selected members from their VuYou contact list to join the readership of the blog, with the option to send an update email to members of the readership list if the blog is not public. A reader of a blog can post comments to videos and reply to other posted comments.

In addition to just using a webcam to directly record videos on the page, VuYou wanted members to have the ability to upload videos for use on VuMe pages from other sources, such as home movies. Each user would have a certain amount of video storage available, with the ability to add and delete videos as they need to.

Other factors were considered of great importance to VuYou's success. The website would need to be scalable; while the initial marketing focus for VuYou was to be UK based, it was envisaged that the user base could grow rapidly (both within the UK and globally as users interact with friends and relations across the globe), so it was essential that the underlying platform could efficiently be enhanced with new functionality and could manage the scaling levels of customer usage. The system would require the ability for customers to register themselves online and for VuYou staff to delete, edit or block accounts as necessary.

As part of the user experience, it was recognised that for the success of the application, the customer registration process needed to be simple and easily navigable. To support the ongoing costs involved

in maintaining a free social website, advertising was to be used to generate funds. This was based upon information gained about users (gender, age, location, etc) to make opportunities as valuable for advertisers as possible. VuYou had integrated into the designs of the screens the positions of banner adverts ranging in sizes. It was necessary to enable members to simply generate an HTML link to any item of video content for use within the member's own website, or other online presence. This would benefit VuYou through the organic marketing this would generate, especially any potential integration with other, popular social websites.

VuYou considered Facebook as an essential means to scale the user-base. A Facebook application that would give users the VuYou experience from within their Facebook account was therefore required. This would serve two purposes; firstly, users would benefit from having a ready-made contact list for receipt of video emails, set within an environment where sending multimedia content is readily accepted by users, and secondly this would allow the application to be advertised to and used by friends of VuYou members.

### The Design



Bluesulphur's response started with a design workshop, an opportunity to review existing concepts and explore user requirements. It was discussed how the design of the VuYou site should reflect both its community focus and its ease of use. Fast organic growth would only be achievable if the interfaces were perceived as exciting and fun, compelling the user to experience a message and subsequently join the VuYou community. The site and its use were not to be limited to any particular market and, as such, were required to be

designed to attract various demographic groups irrespective of age, gender or geographic location. To capture its need for simplicity of use, a "three click" ethos (Record > Stop > Send) was devised to assist in shaping an uncluttered layout and design, ensuring that users could use the key functionality within three clicks after signing in to their account.

To maximise the user experience, display technologies were employed to give the site the usability and the speed of service that is expected of community websites. For example, AJAX has been used to display features in the foreground of existing pages thereby improving the responsiveness of the website. An example of this is the video capture facility where, typically, web pages would reload content even where images are consistent from page to page. Using Ajax technology in the VuYou application when a user requests to record a video, the background is disabled, but remains visible, while in the foreground the webcam is made live, thus reducing the content loaded on to the screen and enhancing the upload of new images and content.

### The Technical Delivery

The front end interface, designed by Bluesulphur, and business objects were developed in Microsoft ASP.Net framework 3.5. This framework provides a library of pre-coded functionality that speeds up the process of development; code to enable common tasks can be linked together with newly developed functions to create a unique application. This is coupled with Compsoft's own rapid application development framework and tools making the development process as efficient as possible. The .Net toolset was valuable to the execution of the VuYou service – there was a need to integrate with third party functions and, therefore, support the interoperability of differing technologies – a key benefit of .Net. Additionally, .Net 3.5 features LINQ technology (Language Integrated Query) that enhances the ability to interrogate any data source because it provides one method of querying rather than switching between programming languages dependent upon the need as was required in previous development environments.

The database layer was built with SQL Server 2005. It was essential that VuYou, in the long run, would be developed to be scalable, able to manage the growth in users. To affect this, Compsoft built

a database structure that could scale up with the addition of data servers to form a cluster. To provide system reliability, there is a mirrored back-up database ready to engage in the event of a failure.

Supporting the key functionality of the website required additional expertise in the form of video streaming. Compsoft worked with VuYou to identify a suitable partner; a provider of video technology that would enable the capture, management and streaming of video. It was necessary that the provider's solution was able to seamlessly interact with Compsoft's application. Stream UK, with a proven solution and a well-established user-base, offered VuYou the right solution and the ability to host the video components.

### The Product



In August 2008 the website, [www.vuyou.com](http://www.vuyou.com), was launched. In its short life the membership has grown significantly and the site continues to generate an income for the business from advertising. Of particular value to VuYou is the response from specific markets; deaf communities have seized the opportunity for video emails as a means to communicate using sign language. Recognising the better than expected success, VuYou is exploring new ways to enhance the service offering to expand its appeal to a broader audience and has continued to work closely with Compsoft and Bluesulphur, watching to see what new technologies emerge that could benefit the VuYou application. Of the solution Terry Flores, the

entrepreneur behind the website, said "We have thoroughly enjoyed the time spent with Bluesulphur working through webpage layouts, design and functionality. It was good to have a design team in Bluesulphur that took the time to listen to our requirements and needs. The development team has been very accommodating and has gone out of his way to ensure that our website is as good in aesthetics and functionality as possible."

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