IT314 Software Engineering Team 7

Termination Analysis Report

09 April, 2013

Winter 2012-13
DA-IICT, Gandhinagar

Overview:

This is the Termination Analysis Report of the Entelechy Website Project. It is the final document produced for the project and contains closure information of the development process and the product developed.

Target Audience:

Software Development Team
Clients
Project Mentor/Evaluators

Document Revision History:

Version	Primary Author(s)	Description	Reviewed By	Date
1.0	Sandeep	Termination Analysis Report	Team 7	09 April, 2013

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1. Introduction

1.1 Purpose

Termination or closure is the final stage in the project life cycle and is triggered when the sponsor/client formally accepts the project. The objectives of this stage are – to provide information and analysis of the project development process and capture what the project team has learned while working on the project. It helps to evaluate how successful the project was and this document becomes a reference for other people, they can look to this document before starting a new project for information about how successful – systematic and efficient this project was and where one needs to look out for mistakes based on the experience of the project team.

1.2 Scope

The scope of this document is to describe the closure of the Entelechy website project. It includes the elements and purpose of the post-project review process.

This document might be used for stakeholders and future project teams to evaluate the project and conduct post-mortem analysis.

2. Termination Analysis

2.1 Brief Project Undertaking

The group project – Entelechy Website Project, was undertaken as a course project for the course of IT314 Software Engineering in Winter 2012-2013. The project aimed to rebuild, revamp and redesign DA-IICT's campus magazine Entelechy's website. The features we intended to incorporate on the website are well documented in the Project Plan and Software Requirement Specification documents, but the overall aim to re-state it, was to create a quality software in a systematic way, which enables the editors of the magazine to easily manage the website without technical glitches, unsustainable improvised arrangements, etc and create a rich user experience for the readers of the magazine.

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2.2 Reasons for Choosing this Project

There were several reasons for choosing this particular project; some important ones are as follows:

- First and foremost, there was a demand for this software and we were getting the opportunity to work with live clients – which seemed (and indeed turned out) to be a more fulfilling experience of software engineering
- Solving a real world problem, that too related to our own institute and student community was an exciting idea
- The project gave us the opportunity to work on 'WordPress' platform which is the biggest content management site on the internet and its developers community is growing fast. Since we had to build our software on the bare-bone structure which WordPress provides, we had to first understand the whole working of the platform to tweak, modify and build on it. So, not only did it come across as a better learning opportunity but also as something which will enable us to work in future 'maintenance' related projects – which was (is) something unique across all other course projects.
- The WordPress platform also ensured that the main focus of our project would not be 'coding' but 'requirements', 'design', 'proper documentation' and understanding an already functional technology to improve on – which required a greater systematic approach as compared to normal 'coding from scratch' projects. This idea is also in sync with the philosophy of IT314 Software Engineering – to focus on systematic software development principles rather than just writing voluminous codes.
- Our Team Leader (Sandeep Mertia) being a core member of the Press Club had great insight of the current system and what it should be like in the future, which was an advantageous factor for us in terms of requirements gathering and analysis, UI design, etc.

2.3 Goals Achieved

We have developed a completely new website on WordPress platform for our campus magazine – Entelechy. The site fulfils almost all the major requirements of our clients and users. The features we've successfully implemented are –

- **Information Architecture:** The most important aspect of our project was to relieve our clients of the messy and inefficient back-end system of their current website, and improve the way information was organized on the website i.e., to change the

information architecture of the website. Our developed website solves all such concerns and delivers –

- Much needed 'Edition' wise categorization of magazine
- Now the 'Author' names for an article will go in to the proper field of 'Author' and not as 'tags' – this particular addition also allows us to provide direct upload system for articles and bulletins.
- Proper, complete and robust archival system, spanning from the first edition of the magazine to the current one, integrated across two previous websites
- Detailed User Profiles which display user's details as well as his/her posted articles(if any)
- Table of Contents – which greatly systematizes navigation and information flow on the website
- Bulletin Board system – adds a new post type 'bulletins' for small posts and news snippets related to snippets
- Proper registration module which ensures only people with DA-IICT webmail IDs can register on the website

- **Interface Design:** Entelechy being the campus magazine of DA-IICT operates in certain contexts which should also reflect in the design of the website. We have tried to make the interface design a balanced mixture of the sober and the extravagance. The UI Design Document specifies details of all the design choices and front-end functionalities, but the major targets we achieved through our interface design are as follows –
  - The two menu bars which we've added ensure proper and systematic navigation system.
  - The post layout design captures a much better and appealing way of representing posts/articles
  - The specific designs for sections – 'Freeze Frame' and 'Point Counterpoint' deliver excellent improvements in displaying pictures and debate related posts/articles
  - The dynamic sidebar with its rotation effect (CSS effect) for Bulletin Board, Recent Comments and Popular Posts, adds zing to the look and feel of the website.
  - Entelechy logo on the registration/login page

- **Social Integration:**
  - Proper 'Like' functionality on all posts
  - Versatile Twitter integration – which fetches tweets of hash-tags, handles and key-words
  - Recommendation System – based on number of likes and comments

- Email notification system – which sends notifications to users if someone comments on their posts

2.2 Unachieved Targets

Although our project is a success at large in terms of feature provided and client satisfaction, but we did fail to implement certain ideas due to time and complexity constraints. They are as follows:

- Session wise Archive view – where a user gets the look and feel of the archived edition rather than the current edition when viewing archives
- Pre-Publishing conversation between Editors and Authors on the website itself, which becomes invisible/private when the article is published
- User-User(s) and User history based recommendation system. Our developed system give recommendation based on aggregate likes and comments only
- Our notification system will only send notifications to authors when someone comments on their post, but we initially planned to deliver notification for many other things like – 'like', notification to a commentator when someone replies to their comment, separate notifications to admin and editors when an author uploads an article, etc.
- We planned to deliver multiple design themes, but we managed to deliver only one child them with certain modularity of interface.
- We failed to deploy the website on the DA-IICT servers due to a misunderstanding between System Administrator and Press Club regarding server requirements of WordPress version 3.5. The required PHP upgrade, necessary for WordPress 3.5, will require a series of permissions from administration and faculty members associated with the websites currently running on the allotted server. So, we would be able to officially deploy the website only after the Press Club gets those necessary permissions and approvals. For the time being we have deployed the website on http://entelechy.3eeweb.com for displaying the working functionalities.

2.4 Future Scope

Since we've changed the information architecture of the website to make is user friendly both backend and front end wise, we've lots of possibilities of adding new features and functionalities in future, however it would depend on the requirements of the client – Press Club. Our team would be positively available to assist the Press Club in future maintenance and development of the website.

2.5 Lessons from the Project

2.2.1 Tangible Lessons

- Learned 'WordPress' development
- Learned programming languages – HTML/CSS, JavaScript and PHP
- Learned about various tools and technologies – CASE Tools, RUP, Microsoft Project, GitHub, etc
- Learned about working on XAMPP server
- Learned systematic technical documentation – structuring product information in efficient ways which add to the quality of the product and clarity among team members about various ideas, plans, features, etc.

2.5.2 Intangible Lessons

- Coordination among members with different ideas, areas of expertise and knowledge levels within them.
- Time Management with respect to balancing this project with other commitments, especially when exams and quizzes came at different time for different people, due to different electives chosen by the members.
- Resolving disputes and arriving to conclusions on things, despite differing point of views.
- The importance of each phase and phase wise development and how the phases are dependent. The mistakes and missing of deadlines for a phase will result in the delay of the next phase and also degrade the quality of the product.
- We realized that if the requirements were clearly understood then the project building activity would proceed in a smooth way
- Lastly, we've also realized to some extent the value of Software Engineering principles as life skills.

2.6 List of Work Products

1. Feasibility Study Report + Review Log
2. Project Proposal + Review Log
3. Project Plan + Review Log
4. Software Requirements Specification + Review Log
5. Software Life Cycle Development Model Document + Review Log
6. Requirements Traceability Matrix + Review Log
7. System Test Plan + Review Log
8. User Manual + Review Log
9. High Level Design Document + Review Log
10. Low Level Design Document + Review Log
11. Software Quality Assurance Plan + Review Log

12. Software Configuration Management Plan + Review Log
13. Risk Management, Monitoring and Mitigation Plan + Review Log
14. Gantt Chart + Review Log
15. Cost Estimation Document + Review Log
16. Test Cases Document + Review Log
17. Test Report + Review Log
18. User Interface Design Document + Review Log
19. Deployment Plan + Review Log
20. Tools and Libraries Document
21. Coding Conventions Document
22. Documentation Standard Document
23. Minutes of Meetings
24. Timesheet
25. Termination Analysis
26. Source Code

3. Conclusion

Overall, it was a great learning experience especially in terms of understanding and developing software for a real life problem related to our own context. Also, the project experience provided us with an insight into the systematic and structured approach of developing software, which does not compromise on quality and also enables the team to deliver the project in timely and cost effective manner. There was a considerable gain in experience especially in terms of understanding and developing solutions for problems, new technical knowledge, time and resource management, team work, etc.