FALCON

D1.1: QUALITY, RISK AND ETHICS MANAGEMENT GUIDELINES

REVISED VERSION

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Contribution and Revision History

Revision	Date	Contributor	Organization	Description
1	23/10/2013	David Lewis	TCD	Initial Draft
2	24/10/2013	David Lewis	TCD	Update based on review at face to face meeting
3	31/10/2013	Dave Lewis	TCD	Edit to risk section and submission
4	14/11/2015	B. Benedek, I. Ioakividis, A. Srivastava, D.Lewis, A. Maldonando	TCD, INTERVERBUM, DCU, SKAWA	Reviewing comments on project management immediately after annual review in Luxembourg it was suggested that: i) Gerd Sjogren from Interverbum take more of a role in the management of the workplan ii) a simpler and more familiar project management tool be investigated

5	20/11/2015	Representatives from all partners	ALL	Consortium agreed in teleconference that G. Sjogren will take on driving in workplan management. SKAWA suggested Trello as a lightweight, easy to learn tool for tracking shared workplans
6	1/1/2015	Representatives from all partners	ALL	Agreed to resubmit D1.1 as requested by PO. Agreed on use of trello from tracking technical workplan, based on initial set up for deliverables by TCD and feedback on use for technical tasks from SKAWA. TCD and DCU agreed to revisit management of staff departure risk.
7	29/1/2015	D.Lewis	TCD	Documented above changes to management process and risk assessment agreed by consortium in response to reviewers comments in this revision of D1.1. Also, corrected table of deliverables and added guidelines on data privacy, licensing and intellectual property.
8	30/1/2015	John Judge, Gerd Sjogren	DCU, Interverbum	Proof reading and fixed typos from revision 7 above.

CONTENTS

1. Executive Summary

This deliverable provides:

- Project management guidelines for assuring the quality of deliverables.
- Guidelines on how the project will manage identified risks.
- Guidelines on ethical practice in trials and evaluation conducted by the project.

It has been revised in response to comment received in the Y1 periodic review that was conducted on 14th November 2014.

2. Deliverable Quality Guideline

The basic mechanism for ensuring deliverable quality is the allocation of a reviewing partner for each deliverable. The list of reviewers and identified reviewing partners are given in Table, which has also been revised to show changed delivery dates resulting from the Y1 review.

Del. no.	Deliverable name	WP no.	Nature	Responsible	Quality Review	Dissemi-nation level	Delivery date
D1.1	Quality, Risk and Ethics Management Guidelines	WP1	R	TCD	DCU	CO	1, revised for 16
D5.1	Dissemination Plan, Factsheet and Initiation of Dissemination Channels	WP5	R	TCD	EAB	RE	2
D2.1	L3Data Requirements Specification	WP2	R	Interverbum	SKAWA	PU	3, revised for 17
D2.2	Initial L3Data Schema and Architecture	WP2	R	TCD	XTM	PU	6
D3.1	System Test Suite	WP3	P	TCD	Interverbum	PU	7
D3.2	Initial L3Data Federation Platform Release	WP3	P	TCD	XTM	PU	8, revised for 18
D3.3	Initial SMT and NER components integrated into Platform	WP3	P	DCU	Interverbum	RE	10
D4.1	Initial System Performance Results	WP4	R	DCU	TCD	PU	12, revised to 19
D3.4	Initial Translation Tool Set Released	WP3	P	XTM	TCD	RE	12
D3.5	Initial Terminology Management Tool Set Released	WP3	P	Interverbum	SKAWA	RE	12
D5.2	Roadmap for Exploitation	WP4	R	XTM	EAB	CO	12

D3.6	Revised L3Data Federation Platform Release	WP3	P	TCD	SKAWA	PU	16, deferred to M18
D4.2	Linguistic Task Usability and Reuse Efficacy Results	WP4	R	Interverbum	TCD	PU	16, deferred to M17
D3.7	Revised SMT and NER components integrated into Platform	WP3	P	DCU	XTM	RE	17
D2.3	Final L3Data Schema and Architecture	WP2	R	TCD	Interverbum	PU	21
D3.8	Revised Translation Tool Set Released	WP3	P	XTM	DCU	RE	19
D3.9	Revised Terminology Management Tool Set Released	WP3	P (marked R in DoW in error)	Interverbum	DCU	RE	19
D4.3	Translation Project level Performance, Usability and Reuse Efficacy Results	WP4	R	SKAWA	TCD	PU	23, deferred to M24
D5.3	Release of Public L3Data	WP5	R	TCD	DCU	PU	23
D5.4	Final Exploitation and Dissemination Plan	WP5	R	XTM	EAB	CO	24

Table 1: List of Deliverables and Reviewers

To manage the planning and execution of deliverable production, TCD had initially established a Redmine[1] project management instance hosted by plan.io. However, this proved too heavyweight and unfamiliar for easy use by the project team and was deemed unsuccessful for this purpose. As an alternative the online collaborative board-based tracking application Trello was adopted, based on successful experience of using it in production at SKAWA.

In using this system the following guidelines are to be followed:

- All deliverables, milestones and success criteria identified in the DoW are captured as Cards in a single deliverable board with the corresponding deliverable dates and responsible persons.
- All actions and activities in the project that need to be tracked should be captured as a card that provides the deadline and persons involved as well as a description and links to relevant requirements, technical and test documentation. In Trello Cards can be grouped into lists, with lists collected on a Board. Each Board represents a different area of activity in the project, and different boards will be used to track the development of the major architectural components as well as activities of evaluation, exploitation planning and dissemination. Cards can be tagged as issues which can be tracked and if not resolved be escalated to a central clearing board that will be reviewed in the regular consortium technical meeting. Issues that are persistently unresolved and endanger the timely completion of deliverables will be escalated to the Steering Board for resolution by consensus, with reference to the DoW and consultation if appropriate with external advisors or otherwise by vote, with the coordinator having the casting vote in the event of a tie.

[1] www.redmine.org

- The production of each deliverable or milestone from the DoW should be tracked through a minimum of the three sub issue types with the deliverable as the target:
    - Deliverable draft preparation task, assigned to the person responsible for the deliverable and timed to complete 2 working weeks before the submission date of the deliverable.
    - Deliverable draft quality review, assigned to a person from the reviewing partner defined in table 1 and completed before the submission date of the deliverable with sufficient time to implement minor changes by the responsible partner.
    - If further substantive revisions are identified by the reviewer, a conference call will be convened to ensure rapid agreement and implementation of said revision before the submission date.
    - Deliverable revisio is assigned to the person responsible for the deliverable and timed to complete on the submission date of the deliverable. Submission is made by the Coordinator.

Due to changes in the way Google Docs and Google Drive function, Dropbox will henceforth be used as the repository of FALCON Archives. This includes documents in development, where version control is managed by date, name, version, letter, and initials, as well as formally submitted versions to the EC in PDF format. Public deliverables will also be published in the FALCON Web Site.

The revision history table at the beginning of each deliverable will be used to capture both overall contributions to the deliverable by different partners as well as the contributions to the authoring of the document itself. This is in response to comments from the project reviewers identifying inconsistencies between the deliverables.

Prototype deliverables should be accompanied by short written report for submission to the EC detailing:

- A functional description of the prototype.
- Pointers to test results and documentation.
- Optionally URL of a short video of the software function

In preparing and reviewing report deliverables the following should be considered:

- Correct spelling (en-us)[2] and grammar.
- Completeness of references.
- Relevance to the purpose of the deliverable as specified in the DoW.

In preparing and reviewing software prototypes deliverables the following should be considered:

- Correct functional testing against accompanying test suite.
- Sufficient documentation for the intended use of the deliverable.
- Check the test report is in place and all test have been passed.

3. Risk Management

Risk Management will be applied to manage project issues and conflicts. Risks will be assessed for their impact on the project and the probability of the risk materializing. Risk mitigation plans will be established to reduce the impact and likelihood of the risk occurring, as well as action plans to manage the risk should it arise. This integrated approach to risk management will enable the Coordinator to effectively control business, intellectual property, market, technology, people, management, environment and other implementation risks that may arise and to put contingency plans in place.

[2] US spelling is deliberately chosen to maximise compatibility of deliverable content with target dissemination channels

The following initial risk assessment was conducted by the Steering Board to identify risks associated with both the business and technical aspects of the research and forms the initial risk register that will be maintained over the duration of the project.

- Risk: Loss of SME partner due to changes in trading conditions.
    - Contingency: Use of open standards maximizes the potential to replace the system from one SME with those from another – the EU is the global hub for localization tool vendors.
    - Impact: high
    - Likelihood: Low
- Risk: High complexity of system integration challenges.
    - Contingency: Techniques and experience from complex interoperability testing at the W3C will be leveraged to ensure clear specification of interfaces and efficient debugging of interactions.
    - Update: The likelihood has been raised from initial low to medium as the complexity of the integration has become better understood. This complexity is being addressed, as advised by the reviewers, by providing a full specification of component interactions as part of the revision to D2.1
    - Impact: High
    - Likelihood: Medium
- Risk: Poor performance of L3Data Store implementation.
    - Contingency: This performance will be reliant partly on the schema design but also the underlying performance of the triple stores used. Shortfall may be addressed by substituting better performing implementations (including commercial offerings) or to investigate sharing L3Data over more interlinked stores, each with less data.
    - Update: The initial implementation of L3Data did indeed indicate slow data query and large storage volumes. However, emerging standards from the W3C on CSV on the Web[3] allow a more compact, tabular for the data while retaining the benefits of RDF based search for meta-data.
    - Impact: Medium
    - Likelihood: Medium
- Risk: Difficulty in assembling and motivating volunteer translation for crowd-source translation project evaluation.
    - Contingency: Links to other crowd-source translation communities may be pursued, e.g. Rosetta Foundation, Translators Without Borders, Wikipedia translation groups and language students seeking experience with post-editing.
    - Update: Assessment of the evaluation approach indicates that sufficient post-editing and terminology capture effort usage data may be collected with the translators employed directly by Easyling. External volunteers will be sought for assessing the L3Data analytical tools integrated into the tool set. These must be a cohort familiar with localization project workflow management, however initial interest at industry events such as LocWorld indicate sufficient interest to try this out once the showcase system is made available on the web.
    - Impact: Low
    - Likelihood: Medium

[3] http://www.w3.org/2013/csvw/wiki/Main_Page

- Risk: Staff departure
    - Contingency: given the relatively small size of the consortium, the departure of key staff is a real danger. This will be reduced by ensuring the high quality documentation of models and code throughout the project, to minimize the cost of other people picking up specific development tasks.
    - Update: The impact and likelihood of this risk have been raised based on experience in the first year at the Dublin-based academic partners. These institutes are operating under a public sector pay agreement (referred to as the Haddington Road agreement) This imposed cuts to public sector pay and limitation to recruiting staff on higher pay scales. This was a requirement of the Irish bailout required by the European Commission, European Central Bank and the International Monetary Fund. The high level political nature of this means that Irish academic institutions are imposing a strict implementation of these limits. At the same time the ICT jobs market in Ireland and especially in Dublin is extremely vibrant, with 12% salary increases occurring in the Dublin area in 2014. In particular expertise in NLP technology and data analytics is in high demand, making the current university employment packages uncompetitive, with knock on effect for recruiting and retention. TCD and DCU are mitigating this risk by offering new recruits the opportunity to transition at the end of the project into similar posts in the large research center called ADAPT. This Centre started in January 2015 and is in receipt of €50 Million of Irish state and industry funding over 6 years, offering ample opportunity for new postdocs joining FALCON to seek longer term opportunities in the face of uncompetitive remuneration.
    - Impact: High
    - Likelihood: High

Risks will be reviewed on a regular basis at face to face project meetings, and on an ad hoc basis via teleconference as need, and mitigation actions recorded and executed as needed.

4. Ethical Guidelines

The project will be aware at all times of its ethical obligations, the management of gender issues and the legislation of Member States which are relevant to the work of the project. Of particular relevance is the privacy of users and the creation, maintenance and management of user accounts and personal data during trials. It is essential that personal information is protected, that information is collected only with the informed consent of the users and that the information is used only for the purposes for which it was first intended, in accordance with relevant national and EU legal frameworks.

Any studies conducted in the project involving data gathered from users should address the following issues before commencing. For the purpose of this document a “study” may be understood to involve a potentially staged series of different experiments to be conducted over a period of time. If substantive changes are made to a study following receipt of ethical approval, this will constitute a new study for which further ethical approval must be obtained.

Before seeking ethical approval researchers should:

- identify actual and potential ethical issues that might arise;
- reflect on how these will be addressed; and
- formulate procedures to deal with all such issues.

During the research project researchers should:

- implement the ethical procedures;
- obtain continuous feedback from participants about ethical issues;
- periodically review the ethical strategy in the light of feedback received; and
- if required, update their ethical procedures;
- retain copies of consent forms signed by the participants.

More specifically researchers should:

- Familiarize themselves with the Data Protection legislation; while the minimum required is those in the jurisdiction of where the data is being held, we will hold ourselves to the principles of the EU's draft General Regulations on Data Protection, which require the same data protection rules to be applied to any data on European Citizens, regardless of the location of the data. Specifically, any personal information collected will only be used for the purpose collected and will be destroyed once that purpose is completed. Any publicly available output of the project will only present anonymized information about users, and then only receipt of a priori informed consent.
- Tell participants that any recordings, e.g. audio/video/photographs, will not be identifiable unless prior written permission has been given and obtain permission for specific reuse (in papers, talks, etc.);
- Provide participants with an information sheet (or web-page for web-based experiments) that describes the main procedures;
- Obtain informed consent for participation;
- Should the research be observational, ask participants for their consent to be observed;
- Tell participants that their participation is voluntary;
- Tell participants that they may withdraw at any time and for any reason without penalty;
- Give participants the option of omitting questions they do not wish to answer if a questionnaire is used;
- Tell participants that their data will be treated with full confidentiality and that, if published, it will not be identified as theirs;
- On request, debrief participants at the end of their participation (i.e. give them a brief explanation of the study);
- Verify that participants are 18 years or older and competent to supply consent;
- If the study involves participants viewing video displays then verify that they understand that if they or anyone in their family has a history of epilepsy then the participant is proceeding at their own risk;
- Declare any potential conflict of interest to participants;
- Inform participants that in the extremely unlikely event that illicit activity is reported during the study they will be obliged to report it to appropriate authorities.
- Act in accordance with the information provided.

The project does not involve research on human embryo/foetus, children, patients, persons unable to give consent, human genetic/biological material, animals or research involving non-EU countries, nor does it have dual use.

While the above guidelines dictate the behavior of the participants during the project, certain issues related to licensing, data protection and privacy need to be considered in the design of the software and data produced by the project and potentially used by others outside of the project, e.g. as part of the exploitation and dissemination plan or under future RTD. While the specific design decisions needed to address these issues are addressed in the project requirements and specification deliverables, the general principles guiding this are presented here.

Licensing: The project proposes the reuse of public data. This must be performed only in compliance with the

license stated on that public data, including republishing and attribution.

Copyright and Intellectual Property: The copyright situation in the EU varies across national boundaries and therefore presents complications in the use of copyrighted material in training Language Technology (LT) components. A recent legal survey on Translation and Intellectual Property Rights[4] highlighted this in relation to translated content. It identified the general principle that ownership of the source is reflected in the ownership of the translation, though the default position in cases where the copyright of the source is not asserted varies between jurisdictions. In the context of commercial translation services, transfer of ownership can definitely be specified in the commercial contract governing the service, however the copyright of the translation will typically be retrained by the client, and therefore so does the ownership of the translation memory. This has implications therefore for the freedom of third parties to use any machine translation that results. Therefore the FALCON platform must enable the usage of iteratively trained LT components trained with the client's content to be placed under the control of the client. Further, the platform must place in the control of the client the option to publish collected language resources.

Privacy and Data Protection: In operation, the FALCON platform would not be used by members of the public but by localization professionals employed by either the client or providers in the localization value chain. The management of their personal data is therefore subject to their employment contract. Personal login credentials would be protected in such cases in line with conventional security policies and employer-employee obligations. Data collected on the actions of translators and terminologists are a key part of the operation of the Platform. This data should be treated confidentially, and individual identity would not be exposed in association with language resource curated during operation, though anonymized performance data may be. The potential to gather information such as translator keystrokes, which may act as a biometric identifier, will not be pursued in FALCON.

[4] http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=HC0114287